

Planning Assessment Report

	In Association with
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Traffic Consultant	: OZZO Technology (HK) Limited
Environmental Consultant	: EnviroSolutions & Consulting Limited
Drainage & Sewerage Consultant	: Ho Tin & Associates Consulting Engineers Limited
Landscape Consultant	: LanDes Limited
Visual Consultant	: LCH Planning & Development Consultants Limited

September 2026
Report : Version 1.1



Executive Summary

(in case of discrepancy between English and Chinese versions, English version shall prevail)

This Application is submitted to seek the approval from the Town Planning Board (**"the Board"**) under section 12A of the Town Planning Ordinance (**"the Ordinance"**) for the rezoning of the Application Site from "Comprehensive Development Area" ("CDA") and "Green Belt" ("GB") zones to "Residential (Group A) 4" ("R(A)4") zone on the Approved Tong Yan San Tsuen Outline Zoning Plan No. S/YL-TYST/14 (**"the Proposed Amendment"**), for the proposed residential development and social welfare facility (Residential Care Home for the Elderly) (RCHE) (**"the Proposed Development"**) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories (**"the Application Site"**, **"the Site"**).

To capitalise on the rapidly ageing trend in population, as well as the societal and residential needs, the Proposed Development intends to provide new private housing supply with RCHE targeted for senior population in Yuen Long District. The Proposed Amendment is in line with the recommendation of the "CDA" review by the Rural and New Town Planning Committee (RNTPC), aiming to release the development potential for minor amendments in the future and to provide flexibility in subsequent modification of uses within the development.

With reference to the *"Incentive Scheme to Encourage Provision of Residential Care Home for the Elderly Premises in New Private Developments"* as well as *"Incentive Scheme to Encourage Provision of Residential Care Home for the Elderly Premises in New Private Developments – Time-limited Enhancements"*, the Applicant will seek Social Welfare Department's support on the proposed RCHE under the Incentive Scheme, which encourages private developers to self-finance to build quality RCHE premises on their own land, and design to comply with the statutory and licensing requirements of the participation in the Incentive Scheme.

The Proposed Amendment is fully justified on the following grounds: -

- i. In response to the changes of planning context since the designation of "CDA" and "GB" zones;
- ii. Maximum development potential of scarce land resources in a strategic location;
- iii. Planning merits and various design features/concepts to provide more residential care services in territorial and district levels to meet the genuine need and to shorten the waiting time for quality RCHE places;
- iv. Fulfilment of the recommended guiding principles to provide best practice developing a Liveable, Sustainable, and Quality RCHE;
- v. Not only not incompatible in terms of land use nature, development scale and intensity with the surrounding environment; and
- vi. Technical feasible with no adverse impact.



內容摘要

(如內文與其英文版本有差異，則以英文版本為準)

本規劃申請根據《城市規劃條例》第 12A 條，申請修訂《唐人新村分區計劃大綱核准圖編號 S/YL-TYST/14》(下稱「**擬議修訂**」)，將位於新界洪水橋大道村丈量約份第 121 約地段第 398 號餘段及 2188 號 (下稱「**申請地點**」)，由「綜合發展區」及「綠化地帶」地帶改劃為「住宅 (甲類) 4」地帶，以作擬議住宅發展及社會福利設施 (安老院舍) (下稱「**擬議發展**」)，向城市規劃委員會 (下稱「**城規會**」) 提出申請。

為應對人口老化趨勢及社會和居住需求，擬議發展旨在於元朗區為優先主要樂齡人仕提供私人住房供應，並為長者提供優質的住宿照顧服務。擬作修訂的方案符合鄉郊及新市鎮規劃小組委員會之建議的「綜合發展區」用地檢討方案，旨在釋放地段的發展潛力，並為後續用途發展提供彈性。

有關地政總署發出的「鼓勵在新私人發展物業內提供安老院舍院址計劃」以及其於 2023 年公佈的優化計劃，申請人將向社會福利署爭取政策支持，在私人土地建設以自負盈虧方式發展高質素的安老院舍，其所有設計將符合獎勵計劃的法例及牌照要求。

擬議修訂有以下充份理據獲得支持：-

- i. 為因應「綜合發展區」及「綠化地帶」地帶劃定以來的周邊環境變化；
- ii. 釋放位於策略性位置之空置土地的發展潛力；
- iii. 提供規劃增益及各項設計特點/概念，為地區以至全港提供更多院舍照顧服務，以滿足社會需求並縮短優質安老院舍住位的輪候時間；
- iv. 落實良好作業指導原則，以發展一個宜居、可持續發展和優質的安老院舍，並應對社區當前及未來的社會、環境和經濟需求與期望；
- v. 在土地用途性質、發展規模和密度上沒有不相容；以及
- vi. 技術上可行亦不會有不利影響。

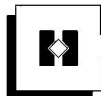
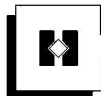


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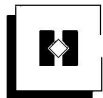


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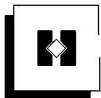
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1 INTRODUCTION

1.1 The Application

- 1.1.1 The Site was previously used for open storage and have been vacant since 2020. Upon review of the planning history and context, the Applicant would like to optimise the development potential of the Application Site by developing into residential development with a Residential Care Home for the Elderly (RCHE) to serve the Yuen Long District.
- 1.1.2 We are commissioned by the Applicant to prepare this planning assessment report on its behalf for proposing amendment (hereinafter referred to as the “**Proposed Amendment**”) to the Approved Tong Yan San Tsuen Outline Zoning Plan No. S/YL-TYST/14 (“**Approved Tong Yan San Tsuen OZP**”) under Section 12A of the Town Planning Ordinance (“**the Ordinance**”) at Lot Nos. 398 RP and 2188 in Demarcation District No. (D.D.) 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories (**Figure 1**) (hereinafter referred to as the “**Application Site**”) in order to implement the development project.
- 1.1.3 The Application Site falls within an area mainly zoned as “Comprehensive Development Area” (“CDA”) (about 1,798 square meter (“**sq.m.**”), equivalent to about 84%) and partly “Green Belt” (“GB”) (about 340 sq.m., equivalent to about 16%) on the Approved Tong Yan San Tsuen OZP (**Figure 2**). The Proposed Amendment involves rezoning the Application Site to a new “Residential (Group A) 4” (“**R(A)4**”) zone and to amend the Notes of the Outline Zoning Plan (OZP) applicable to the Application Site for residential development and a social welfare facility (RCHE) (hereinafter referred to as the “**Proposed Development**”).



2 THE APPLICATION SITE AND SURROUNDINGS

2.1 Current Condition of the Site

- 2.1.1 The Application Site covers a total of about 2,138 square metres (“sq. m.”). It is currently vacant and fenced off.
- 2.1.2 The Application Site abuts Fui Sha Wai South Road. Current vehicular access to the Application Site is Castle Peak Road – Ping Shan and Hung Shui Kiu sections via Fui Sha Wai South Road and a local access road (**Figure 1**).

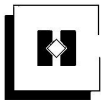


Diagram 1 Existing Condition of Application Site

- 2.1.3 **Figure 3** illustrates the location of the Application Site and its immediate vicinity.

2.2 Land Status

- 2.2.1 The Application Site falls within Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories (“**the Lots**”) (refers to **Figure 4**). The development restrictions of the Lots are stipulated under the Block Government Lease is solely held by the Applicant.
- 2.2.2 To fulfil the requirements of the designated zoning schedule for the Application Site proposed and permitted by the Town Planning Board (“**the Board**”), the Applicant will apply for land exchange upon approval of this rezoning application. Details will be further elaborated in the later section.



2.3 Surrounding Context

2.3.1 At present, the surrounding area is intermixed with residential developments, village houses, temporary structures, schools, carparks, and open storage uses (refers to **Figure 3**): -

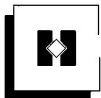
- to the immediate west of the “CDA” zone, is a high-density residential development, known as “Uptown”;
- to the north across Hung Tin Road is a Tai Tao Tsuen Substation within the “Government, Institution or Community” (“G/IC”) zone; and to the further northeast of the “Village Type Development” (“V”) zone with a low-rise residential development namely Le Regent and some open storage use;
- to the southeast across a local access road and nullah is Tai Tao Tsuen where village houses and some temporary structures are found. To the further east is Yuen Long Highway continuously connecting Yuen Long and Tuen Mun of New Territories; and
- to the further west, and south are some high-density residential developments (i.e., the Woodsville and the Woodside) in “Residential (Group B) 1” (“R(B)1”) and “R(B)2” respectively, while some temporary structures, schools and carparks are also found in “G/IC” zone nearby.

2.3.2 Planned / committed developments in the vicinity are also illustrated in **Figure 4**.

2.4 Site Accessibility

2.4.1 Currently, the Application Site is accessible to Fui Sha Wai South Road which further connects to Castle Peak Road – Ping Shan via a local access to the other parts of the territory.

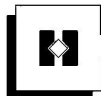
2.4.2 The Application Site is well served by public transportation, including franchised buses services, green minibuses (GMB) services and Light Rail Transit (LRT) services. Bus stops on Castle Peak Road – Hung Shui Kiu is located within about 160m from the Application Site, and LRT Hung Shui Kiu Station is located within about 500m from the Application Site.



3 PLANNING CONTEXT

3.1 Statutory Planning Context

- 3.1.1 The Application Site falls within an area zoned as “CDA” (equivalent to about 84%) and partly zoned as “GB” (equivalent to about 16%) on the Approved Tong Yan San Tsuen Outline Zoning Plan No. S/YL-TYST/14 (refers to **Figure 2**) (also known as “**Approved Tong Yan San Tsuen OZP**”).
- 3.1.2 The planning intention of the “CDA” zone is *“intended for comprehensive development/redevelopment of the area for residential use with the provision of open space, commercial and other supporting facilities, if any. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints”*.
- 3.1.3 For the “CDA” site in the west of Hung Tin Road, the Note of the Approved Tong Yan San Tsuen OZP states that no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum gross floor area (GFA) of 69,000 sq.m. and a maximum building height of 17 storeys. The Explanatory Statement (ES) of the Approved Tong Yan San Tsuen OZP stated that *“as the areas along Castle Peak Road – Hung Shui Kiu Section, Hung Tin Road and Yuen Long Highway would be subject to traffic noise, noise mitigation measures such as the use of screening structures and the adoption of self-protective building layout would need to be implemented”*.
- 3.1.4 Noted that the approved GFA for “Uptown” (of 50,290 sq.m.) within the “CDA”, “GB” and “R(B)1” zones, the remaining GFA restriction is 18,710 sq.m.. Of which, the GFA for the Proposed Development within “CDA” zone of the Approved Tong Yan San Tsuen OZP on pro-rata basis is about 8,821 sq.m., in line with the total maximum GFA of the whole subject “CDA” zone (refers to **Figure 2**).
- 3.1.5 The Notes of the Approved Tong Yan San Tsuen OZP also stipulated that the planning intention of “GB” zone is *“primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone”*. Within the area zoned as “GB”, any filling of pond or excavation of land is required for permission from the Board under Section 16 of the Town Planning Ordinance. Specifically, the ES of the Approved Tong Yan San Tsuen OZP stated that *“the “GB” zone along the north-western side of Yuen Long Highway serves as a buffer to the residential areas to its north-west”*.
- 3.1.6 It is noted that both ‘Flat’ and ‘Social Welfare Facility’ uses fall within Column 2 uses of the “CDA” and “GB” zones on the Approved Tong Yan San Tsuen OZP. In view that all development on land designated as “CDA” zone requires planning application for the approval of the Board, to



facilitate the Proposed Development and to release the development potential for minor amendments in the future, as well as to provide flexibility in subsequent modification of uses within the development without the need for submission of a revised Master Layout Plan (MLP), a rezoning application seeking the Board’s agreement on the Proposed Amendment is required (refers to **Diagrams 2 and 3**).

<u>COMPREHENSIVE DEVELOPMENT AREA</u>	
Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
	Eating Place Educational Institution Flat Government Refuse Collection Point Government Use (not elsewhere specified) House (other than rebuilding of New Territories Exempted House or replacement of existing domestic building by New Territories Exempted House permitted under the covering Notes) Institutional Use (not elsewhere specified) Library Off-course Betting Centre Office Place of Entertainment Place of Recreation, Sports or Culture Private Club Public Clinic Public Convenience Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Recyclable Collection Centre Religious Institution Residential Institution School Shop and Services Social Welfare Facility Utility Installation for Private Project
<u>Planning Intention</u>	
This zone is intended for comprehensive development/redevelopment of the area for residential use with the provision of open space, commercial and other supporting facilities, if any. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints.	



COMPREHENSIVE DEVELOPMENT AREA (cont'd)

Remarks

- (a) Pursuant to section 4A(2) of the Town Planning Ordinance, and except as otherwise expressly provided that it is not required by the Town Planning Board, an applicant for permission for development on land designated “Comprehensive Development Area” shall prepare a Master Layout Plan for the approval of the Town Planning Board and include therein the following information:
- (i) the area of the proposed land uses, the nature, position, dimensions, and heights of all buildings to be erected in the area;
 - (ii) the proposed total site area and gross floor areas for various uses, total number of flats and flat size, where applicable;
 - (iii) the details and extent of Government, institution or community (GIC) and recreational facilities, public transport and parking facilities, and open space to be provided within the area;
 - (iv) the alignment, widths and levels of any roads proposed to be constructed within the area;
 - (v) the landscaping and urban design proposals within the area;
 - (vi) programmes of development in detail;
 - (vii) an environmental assessment report to examine any possible environmental problems that may be caused to or by the proposed development during and after construction and the proposed mitigation measures to tackle them;
 - (viii) a drainage and sewerage impact assessment report to examine any possible drainage and sewerage problems that may be caused by the proposed development and the proposed mitigation measures to tackle them;
 - (ix) a traffic and transport impact assessment report to examine any possible traffic problems and impact on public transport service and facilities provisions that may be caused by the proposed development and the proposed mitigation measures to tackle them; and
 - (x) such other information as may be required by the Town Planning Board.
- (b) The Master Layout Plan should be supported by an explanatory statement which contains an adequate explanation of the development proposal, including such information as land tenure, relevant lease conditions, existing conditions of the site, the character of the site in relation to the surrounding areas, principles of layout design, major development parameters, design population, types of GIC facilities, and recreational and open space facilities.



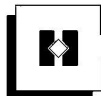
COMPREHENSIVE DEVELOPMENT AREA (cont'd)

Remarks (cont'd)

- (c) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum gross floor area and a maximum building height specified below:

<u>Location of CDAs</u>	<u>Maximum Gross Floor Area</u>	<u>Maximum Building Height</u>
“CDA” west of Hung Tin Road	69,000m ²	17 storeys
“CDA” in Tan Kwai Tsuen	9,925m ²	4 storeys over single-storey car park

- (d) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the gross floor area and building height restrictions stated in paragraph (c) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.
- (e) In determining the maximum gross floor area for the purposes of paragraph (c) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker’s office, or caretaker’s quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.



<u>GREEN BELT</u>	
Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Agricultural Use Barbecue Spot Government Use (Police Reporting Centre only) Nature Reserve Nature Trail On-Farm Domestic Structure Picnic Area Public Convenience Tent Camping Ground Wild Animals Protection Area	Animal Boarding Establishment Broadcasting, Television and/or Film Studio Burial Ground Columbarium (within a Religious Institution or extension of existing Columbarium only) Crematorium (within a Religious Institution or extension of existing Crematorium only) Field Study/Education/Visitor Centre Firing Range Flat Government Refuse Collection Point Government Use (not elsewhere specified) Helicopter Landing Pad Holiday Camp House (other than rebuilding of New Territories Exempted House or replacement of existing domestic building by New Territories Exempted House permitted under the covering Notes) Petrol Filling Station Place of Recreation, Sports or Culture Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Radar, Telecommunications Electronic Microwave Repeater, Television and/or Radio Transmitter Installation Religious Institution Residential Institution School Service Reservoir Social Welfare Facility Utility Installation for Private Project



GREEN BELT (cont'd)

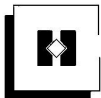
Planning Intention

The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone.

Remarks

- (a) Any filling of pond or excavation of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.
- (b) Any filling of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft Tong Yan San Tsuen Outline Zoning Plan No. S/YL-TYST/8 without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

Diagram 2 Extract of the Notes of the
Approved Tong Yan San Tsuen OZP No. S/YL-TYST/14
(Source: Town Planning Board, HKSAR Government)



10.1 Comprehensive Development Area (“CDA”) : Total Area : 3.32 ha

10.1.1 This zone is intended for comprehensive development/redevelopment of the area for residential use with the provision of open space, commercial and other supporting facilities, if any. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints. Although existing uses are tolerated, any development/redevelopment proposal on sites under this zoning should be submitted to the Board in the form of a Master Layout Plan (MLP) for consideration, except as otherwise expressly provided that it is not required by the Board. Pursuant to section 4A(3) of the Ordinance, a copy of the approved MLP shall be made available for public inspection in the Land Registry. The two “CDA” sites designated on the OZP are as follows:

10.1.2 “CDA” zone to the west of Hung Tin Road

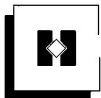
A site of about 2.30 ha at the intersection of Castle Peak Road and Hung Tin Road is zoned “CDA”. Development in the site is restricted to a total gross floor area (GFA) not exceeding 69,000m² (equivalent to a plot ratio of 3) and a maximum building height of 17 storeys. Major part of the site has been developed for residential use, known as Uptown.

10.1.3 “CDA” zone in Tan Kwai Tsuen

A site of about 1 ha to the south of Tan Kwai Tsuen was the subject of a residential development approved by the Board. Development in the site is restricted to a total GFA not exceeding 9,925m² (equivalent to a plot ratio of 1) and a maximum building height of 4 storeys over single-storey car park.

10.1.4 To provide flexibility for innovative design adopted to the characteristics of particular sites, minor relaxation of the above restrictions for the two “CDA” zones may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.

10.1.5 As the areas along Castle Peak Road - Hung Shui Kiu Section, Hung Tin Road and Yuen Long Highway would be subject to traffic noise impact, noise mitigation measures such as the use of screening structures and the adoption of self-protective building layout would need to be implemented.



10.13 Green Belt (“GB”) : Total Area : 120.81 ha

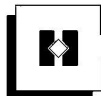
- 10.13.1 The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. Area zoned “GB” may include foothills, lower hill slopes, spurs, isolated knolls, woodland, traditional burial ground or vegetated land which are found at the urban fringe. There is a general presumption against development within this zone. However, limited developments may be permitted with or without conditions on application to the Board, and each application will be considered on its individual merits taking into account the relevant Town Planning Board Guidelines.
- 10.13.2 The “GB” zone covers the foothills and slope of the mountain range at the south-western portion of the Area including the ex-quarry sites and areas with natural vegetation, woodlands, hill slopes and graves. It also covers the foothills and fallow agricultural land in the central part of the Area and two knolls near Ma Fung Ling Road to the south of Castle Peak Road - Ping Shan Section. The “GB” zone along the north-western side of Yuen Long Highway serves as a buffer to the residential areas to its north-west.
- 10.13.3 As filling of land/pond and excavation of land may cause adverse drainage impacts on the adjacent areas and adverse impacts on the natural environment, permission from the Board is required for such activities.

Diagram 3 Extract of the Explanatory Statement of the
Approved Tong Yan San Tsuen OZP No. S/YL-TYST/14
(Source: Town Planning Board, HKSAR Government)

Building Height and Plot Ratio Restrictions on Surrounding Residential Developments

- 3.1.1 The Application Site is located at the north-western side of the Approved Tong Yan San Tsuen OZP nearby the planned Hung Shui Kiu/ Ha Tsuen New Development Area (HSK/ HT NDA), it is surrounded by an existing high-density private residential development (i.e., “Uptown”) with a maximum building height restriction (BHR) of 17 storeys to its immediate west¹. To its west, south and northwest across Hung Tin Road are some low-rise residential developments/village houses including the Woodside, the Woodville, Tai Tao Tsuen and Le Regent with the maximum BHR ranging between 8.23m to 21m. To the further northwest across the Castle Peak Road – Hung Shui Kiu would be a planned high-rise development

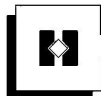
¹ According to the approved planning application No. A/YL-TYST/322 for proposed Residential cum Government, Institution or Community Development with Minor Relaxation of Maximum Building Height Restriction (Amendment to Approved Scheme), which is now known as “Uptown”, the proposed maximum no. of storey is 19 with the ground floor void and the proposed BH of 81mPD.



within “Residential (Group A) 4” (“R(A)4”) zone on the Approved Hung Shui Kiu and Ha Tsuen OZP No. S/HSK/2.

- 3.1.2 The Application Site is located within an area comprising low- to high-density public and private residential developments, with most of the developments with a maximum plot ratio (PR) of above 1. While there is PR restriction for “Uptown” in the “CDA” zone, the implied RP restriction under the Approved MLP is about 3.
- 3.1.3 Overviews of the BH and PR restrictions of surrounding context of the Application Site are shown in **Diagrams 4** and **5** respectively, which also summarized in **Table 1** below. In view of these BH and PR restrictions, the development restrictions of the Proposed Development shall be compatible with the surrounding context.

Existing Development	OZP Zoning	Site Area (in ha) (about)	Plot Ratio Restriction under OZP	Building Height Restriction under OZP		
				(in mPD)	(in meters)	(in storeys)
Under the Approved Tong Yan San Tsuen OZP No. S/YL-TYST/14						
Uptown	“CDA”, “GB”, “R(B)1”	2.33	3.09	-	-	17
Symphony Garden	“R(A)”	0.18	5	-	36	12
Treasure Court		0.23				
Lai Hung Garden		0.10				
The Woodsville	“R(B)1”	1.64	1	-	15	4
Meadowlands		3.28				
Casa Regalia		1.11				
Osman Thus Gardens		1.03				
Tan Kwai Garden		0.41				
Arnold Gardens		0.37				
Tan Kwai Villa		0.34				
Ming Wai Court		0.11				
The Woodside	“R(B)2”	0.81	1.26	-	21	6
The Verdancy	“R(B)3”	3.33	1		36	12
Le Regent (estate-type NTEH development)	“V”	0.85	-	-	8.23	3
Under the Approved Hung Shui Kiu and Ha Tsuen OZP No. S/HSK/2						
Proposed Housing Site at Area 10	“R(A)2”	0.77	6	140	-	-
Eminence		0.28				



Existing Development	OZP Zoning	Site Area (in ha) (about)	Plot Ratio Restriction under OZP	Building Height Restriction under OZP		
				(in mPD)	(in meters)	(in storeys)
Terrace I						
Proposed Commercial and Residential Development Site at Area 12	“R(A)4”	3.19	5	140	-	-
Park Nara		0.25				12
High Park		0.96				
Aster Court		0.30				
Beauty Court		0.20				
Coronet Court		0.13				
Hung Fuk Estate	“R(A)5”	6.42	3.8	90	-	-
Parkview Garden	“R(B)3”	1.99	1.26	-	-	6
Casa De Oro		1.55				
Maisonette		1.07				
Sheffield Villas		0.32				
Tin Sum Villa		0.17				
Under the Approved Lam Tei and Yick Yuen OZP No. S/TM-LTY/13						
Bauhinia Garden	“R(B)2”	1.24	1.26	-	21	6

Table 1 Building Height and Plot Ratio Restrictions on Surrounding Residential Developments

(Source: Town Planning Board, HKSAR Government)

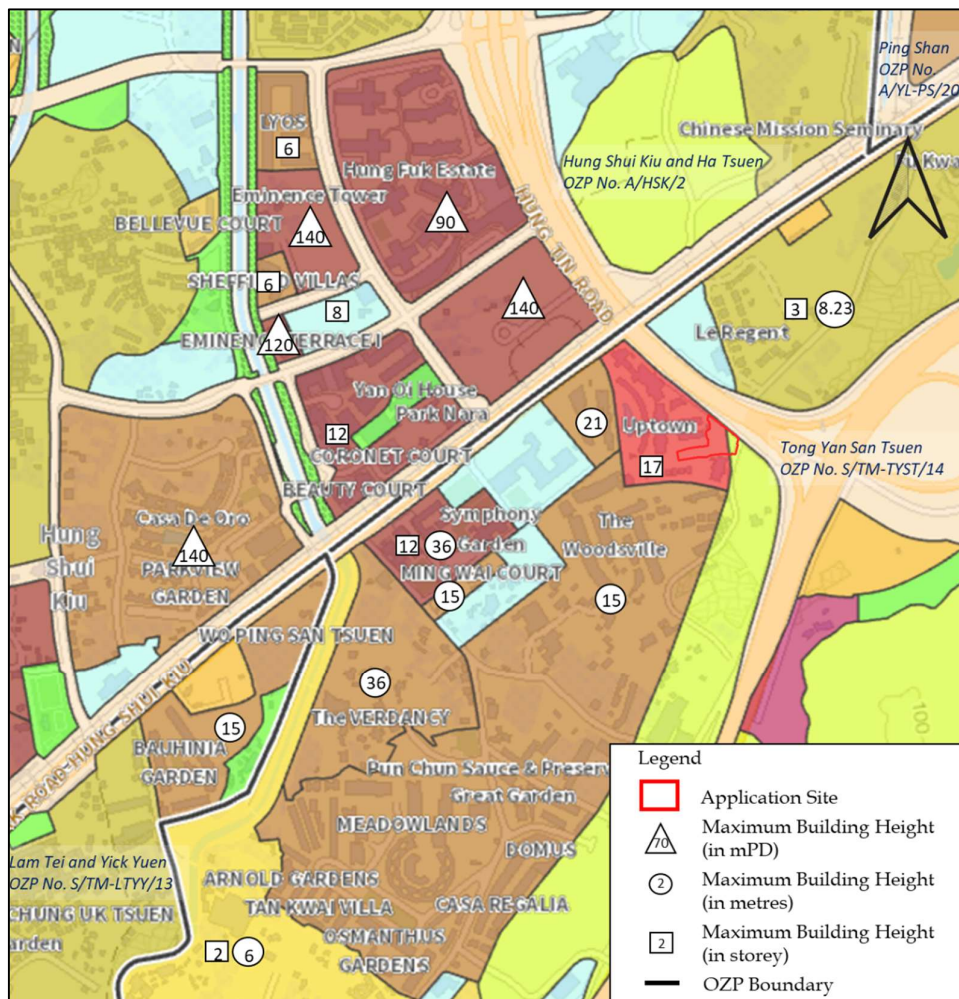
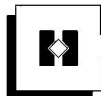


Diagram 4 Building Height Restriction on Surrounding Residential Developments
(Source: Town Planning Board, HKSAR Government)

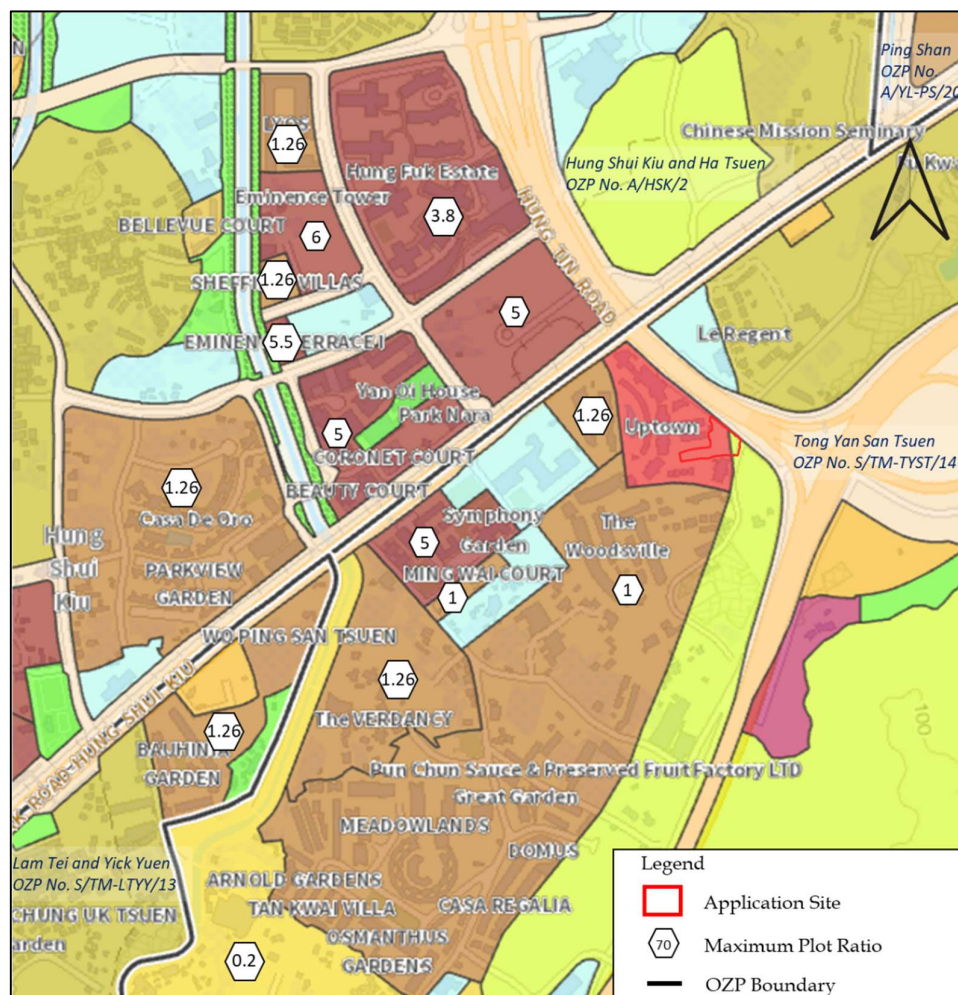
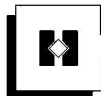
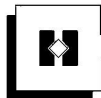


Diagram 5 Plot Ratio Restriction on Surrounding Residential Developments
(Source: Town Planning Board, HKSAR Government)

3.1.4 The Proposed Development situates in Yuen Long District and in closer to the planned HSK/ HT NDA, which is applicable to the Residential Density Zones in New Town. According to the Hong Kong Planning Standards and Guidelines (HKPSG), New Towns are divided into four Residential Density Zones: Residential Zone 1 (R1), Residential Zone 2 (R2), Residential Zone 3 (R3) and Residential Zone 4 (R4).

- “R1 covers the highest density of residential development and applies to districts well served by high capacity public transport systems such as rail station or other major transport interchange hub. The buildings often incorporate a significant component of commercial floorspace.
- R2 covers development at a medium density and applies in locations less well served by high capacity public transport systems. There is usually no commercial floorspace component.
- R3 covers the lowest density of residential development and applies to districts with very limited public transport capacity, subject to special



constraints for urban design, traffic or environmental reasons and/ or with special local character.

- R4 may be designated where justified by severe geotechnical/ infrastructure constraints or compatibility with the adjacent rural low density developments.”*

3.1.5 In view of the Proposed Development is in close proximity to the high-capacity transport system (i.e., about 160m from the nearby bus stops, and about 500m from LRT Hung Shui Kiu Station) and no commercial floorspace component has been reserved within Proposed Development, it is considered the development density of R2 zone would be applicable to the Proposed Development to be well served by high capacity transport systems (i.e., franchised buses, GMB and LRT services).

3.2 Planning History

3.2.1 The concerned site was designated as “Unspecified Use” area on the Tong Yan San Tsuen Development Permission Area Plan (DPA) No. DPA/YL-TYST/1 which was exhibited in June 1993.

3.2.2 To prepare the first Tong Yan San Tsuen OZP², a Tong Yan San Tsuen Planning Report was conducted and suggested the followings which are relevant to the Application Site: -

- For the concerned “CDA” area: *“a site of about 2.3 ha. along Castle Peak Road west of Tin Shui Wai West Access in Hung Shui Kiu was approved by the Board in October 1995 for residential development with ancillary facilities including a kindergarten and a social centre for the elderly. To put the development under better control, the site [was proposed to zone as “CDA” zone].”; and*
- For the concerned “GB” area: *“Another “GB” zone [refers to the concerned “GB” zone] situated to the north of Yuen Long Highway serve as a buffer to the residential zones to the north.”.*

3.2.3 Since then, the Application Site has been covered with mainly “CDA” and partly “GB” zones in the first Approved Tong Yan San Tsuen OZP No. S/YL-TYST/1 and the relevant zonings remain applicable on the current Approved Tong Yan San Tsuen OZP No. S/YL-TYST/14.

3.2.4 Nonetheless, the designation of “CDA” and “GB” zones do not consider the practicability thoughtfully. The nearby “Uptown” at Lot No. 2064 in D.D. 121 is currently partly fell within “CDA”, “GB” and “R(B)1” zones under the Approved Tong Yan San Tsuen OZP (refers to **Diagram 6**).

² TPB Paper No. 3674, Town Planning Board.

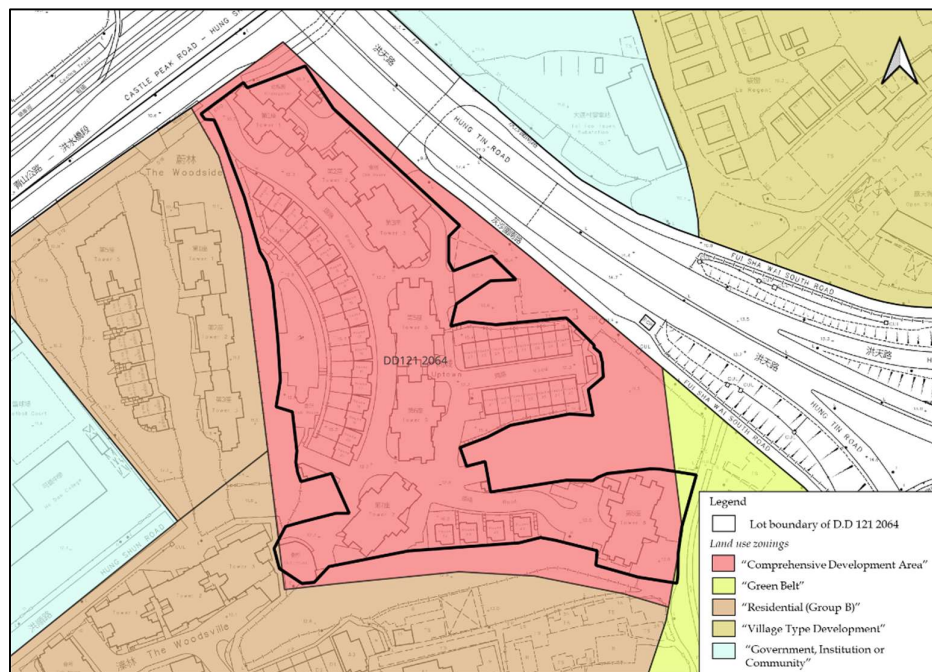
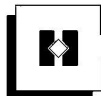


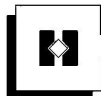
Diagram 6 Lot No. 2064 in D.D. 121 under the Approved Tong Yan San Tsuen OZP

(Source: HKMS2.0, HKSAR Government)

- 3.2.5 Subsequent to the completion of “Uptown” (a private residential development, under the approved planning application No. A/YL-TYST/322, which occupies mostly the “CDA” and partially the “GB” zones), part of the “GB” zone to the immediate south has been fenced off and become part of the residential development. The remaining parts of the “CDA” zone have been left vacant and fenced off, as well as being occupied by various temporary structures due to fragmented land ownership.
- 3.2.6 Since 2013, the biennial review on “CDA” sites by the Rural and New Town Planning Committee (RNTPC) has agreed for rezoning the whole concerned “CDA” site.

3.3 Previous Applications

- 3.3.1 Majority of the Application Site was covered by two previous s.16 planning applications (Nos. A/YL-TYST/342 and 870) (refers to **Diagram 7**). The former application involved proposed minor relaxation of maximum BHRs from 17 to 20 storeys for a comprehensive residential development scheme which was rejected/ not agreed by the RNTPC on 13 April 2007 on the grounds that the Applicant failed to demonstrate how the development scheme could integrate with the adjacent approved development in terms of design and layout; insufficient information in the submission to demonstrate no adverse environmental, visual and landscape impacts on the surrounding areas; and no strong justification to merit a relaxation of the BHR stipulated on the OZP. While, the latter



application for proposed social welfare facility (RCHE) was approved with conditions by the RNTPC on 4 May 2018 on the grounds that submission and implementation of a revised MLP taking into account of the results of technical assessments and further implementation of mitigation measure(s) (if any).

- 3.3.2 Since the approval was granted, the Applicant has been actively complying with the approval conditions and the relevant land exchange was executed in 2022. As a pre-requisite to proceed with the land exchange process, the Lot No. 398 in D.D. 121 which straddled onto “GB” and “CDA” zones has further sub-divided into Lot Nos. 398 s.A and 398 RP in D.D. 121 falling under the “GB” zone was left idle.

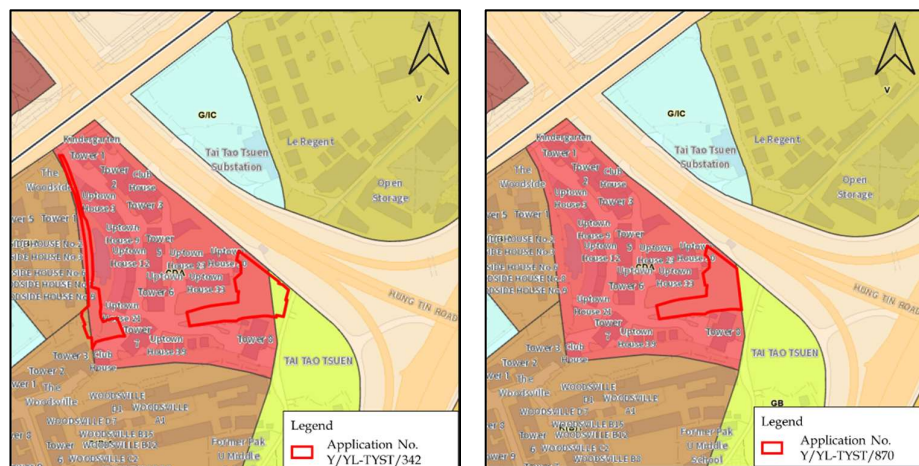
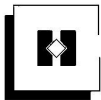


Diagram 7 Previous Applications (Nos. A/YL-TYST/342 and 870)

(Source: Town Planning Board, HKSAR Government)

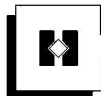
- 3.3.3 Regarding the approved planning applications No. A/YL-TYST/322 of “Uptown”, public comments from the Village Representative of Tai Tao Tsuen have received, pointing out that there was a lack of proper planning on footpath and vehicular access. Additionally, the Board members also raised their concerns on the possible right of way arrangement during the 333rd RNTPC meeting on 1 September 2006.
- 3.3.4 During deliberation, some members suggested that the proposed right of way connecting the aforementioned site connecting via a new extended road connecting Hung Shun Road to be an approval condition that could be implemented through the Deed of Mutual Covenant (DMC) of development. The then officer of the Building Department (BD) noted that the aforementioned site was abutted and able to access from Castle Peak Road – Hung Shui Kiu of not less than 4.5m wide, and further suggested that such access should be permanent and completed prior to further Occupation Permit (OP) application. Of which, the Board also agreed the recommendation, and further suggested the applicant should liaise with the lot owner(s) of remaining portions of the subject “CDA” zone with an acceptable scheme on the overall design and layout including the permanent access arrangement(s).



3.4 Town Planning Board Planning Guidelines

- 3.4.1 In preparation of this Application, Town Planning Board Planning Guidelines for Designation of “Comprehensive Development Area” (“CDA”) Zones and Monitoring the Progress of “CDA” Developments (TPB PG-No. 17A) is carefully observed to ensure the Proposed Amendment respects the intention of the subject “CDA” zone.
- 3.4.2 As stated in the Guidelines, reviews of “CDA” zones (“**CDA review**”) are undertaken on a biennial basis by the Planning Department (PlanD) to achieve a close monitoring of the progress of development. Its considerations for rezoning the whole concerned sites are shown in **Diagrams 8a – 8g**³ below.
- 3.4.3 Moreover, it is acknowledged that flexibility can be provided through re-designation of “CDA” sites and the consideration would include the followings: -
- *“the planning intention of maintaining comprehensive control on the overall development of the area should not be undermined. For instance, if a “CDA” site is subject to environmental constraints and the layout of the development has to allow for the provision of a buffer against the environmental nuisances, the removal of the buffer will not be desirable;*
 - *in the case of mixed developments especially for a variety of uses sharing a common podium, a re-designation of different parts of the “CDA” site to various discrete land-use zonings may only be possible provided that the planning intention of each zone could be clearly reflected; and*
 - *if part of the site is excluded from the development zone and rezoned to, say “Open Space” or “Government, Institution or Community”, it should be ensured that the resultant development intensities of the site will not be higher than those permitted under the Notes of the OZP or in the Building (Planning) Regulations.”*

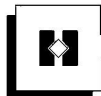
³ RNTPC Paper Nos. 4/13, 8/15, 4/17, 3/19, 5/21, 4/23 and 3/25, Town Planning Board.



Extract from RNTPC Paper No. 4/13

Site Ref. No.	Location (Site Area)	No. of Years Designated “CDA”	Justifications for Rezoning
NTW 22 (Plan 58)	Various lots in DD 121 and DD 127, Hung Shui Kiu, Yuen Long, New Territories (2.33 ha) (multiple ownership)	16	• The site is located within the study area of the HSK NDA Planning and Engineering Study which has already commenced in August 2011 and is scheduled for completion in 2014. • The main part of the site is the subject of a planning application (No. A/YL-TYST/322) which was approved by the RNTPC on 1.9.2006. • The residential development under the approved scheme was subsequently completed with the Occupation Permit issued on 31.5.2011 and the Certificate of Compliance issued on 28.9.2011. • On 13.4.2007, a separate application (No. A/YL-TYST/342) proposed for comprehensive residential development covering some of the remaining portions of the “CDA” zone was rejected by the RNTPC. Since then, no new planning application or development proposal has been submitted. These lots are currently vacant land or being occupied for open storage use. • Since the residential development covering the major portion of the “CDA” site was completed, it would be appropriate to rezone this portion of the site to reflect the as-built conditions. However, there are some residual private lots along the western, southern and eastern edges of the “CDA” zone which are not covered by approved scheme under Application No. A/YL-TYST/322. • Although the “CDA” zone is proposed for rezoning, the zoning(s) for the residual portion of the “CDA” site, which are fragmented, small in size and elongated in shape, would need to be reviewed and worked out, taking into account the site constraints and various technical concerns.

Diagram 8a Previous Considerations on Rezoning of the Whole Concerned “CDA” under “CDA” Review
(Source: RNTPC Paper No. 4/13, Town Planning Board)



Extract from RNTPC Paper No. 8/15

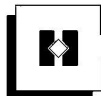
Site Ref. No.	Location (Site Area)	No. of Years Designated “CDA”	Justifications for Rezoning
NTW 22 (Plan 62)	Various lots in DD 121 & 127, Castle Peak Road, Hung Shui Kiu, Yuen Long, New Territories (0.64 ha) (multiple ownership)	18	• The main part of the site is the subject of a planning application (No. A/YL-TYST/322) which was approved by the Committee on 1.9.2006. • The residential development under the approved scheme (known as “Uptown”) has been completed and all the planning conditions have been discharged. The Occupation Permit and the Certificate of Compliance were issued on 31.5.2011 and 28.9.2011 respectively. • The abovementioned planning permission covers the majority of the “CDA” site. There are, however, some residual private lots on the western, southern and eastern edges of the “CDA” site that are not covered by the planning permission. These lots are currently being occupied by various temporary uses. • The land use zonings for the residual portion of the “CDA” site would be reviewed pending completion of the HSK NDA Study which may affect the planning circumstance in the vicinity. PlanD will then review the entire “CDA” zone.

Diagram 8b Previous Considerations on Rezoning of the Whole Concerned “CDA” under “CDA” Review
(Source: RNTPC Paper No. 8/15, Town Planning Board)

Extract from RNTPC Paper No. 4/17

Site Ref. No.	Location (Site Area)	No. of Years Designated “CDA”	Justifications for Rezoning
NTW 22 (Plan 58)	Various lots in DD 121 & 127, Castle Peak Road, Hung Shui Kiu, Yuen Long, New Territories (0.64 ha) (multiple ownership)	20	• The residential development at the majority of the “CDA” site (known as “Uptown”) has been completed and all the planning conditions have been discharged. The Occupation Permit and the Certificate of Compliance were issued on 31.5.2011 and 28.9.2011 respectively. • The abovementioned planning permission covers the majority of the “CDA” site. There are, however, some residual private lots on the western, southern and eastern edges of the “CDA” site that are not covered by the planning permission. These lots are currently being occupied by various temporary uses. • The land use zonings for the residual portion of the “CDA” site would be reviewed and proposed amendments to the OZP for the entire “CDA” zone will be submitted to the Committee for consideration in due course.

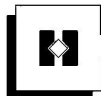
Diagram 8c Previous Considerations on Rezoning of the Whole Concerned “CDA” under “CDA” Review
(Source: RNTPC Paper No. 4/17, Town Planning Board)



Extract from RNTPC Paper No. 3/19

Site Ref. No.	Location (Site Area)	No. of Years Designated “CDA” (as at 31.3.2019)	Progress for Rezoning
NTW 22 (Plan 54)	Various lots in DD 121 & 127, Castle Peak Road, Hung Shui Kiu, Yuen Long, New Territories (Uptown) (0.64 ha) (multiple ownership)	22	• The residential development at the majority of the “CDA” site has been completed and all planning conditions have been discharged. The OP and CC were issued on 31.5.2011 and 28.9.2011 respectively. • On 15.3.2013, the Committee agreed to rezone the “CDA” site to a residential zone to reflect the as-built condition and approved uses. • Part of the “CDA” site on the eastern edge was subject to a planning permission No. A/YL-TYST/870 which was approved by the Committee with conditions on 4.5.2018, for proposed social welfare facility (residential care home for the elderly (RCHE)). The proposed RCHE is yet to be commenced. • There are, however, some residual private lots on the western and southern edges of the “CDA” site that are not covered by the planning permission. These lots are currently being occupied by various temporary uses. • The land use zonings for the residual portion of the “CDA” site would be reviewed and proposed amendments to the OZP for the entire “CDA” zone will be submitted to the Committee for consideration in due course.

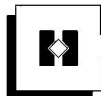
Diagram 8d Previous Considerations on Rezoning of the Whole Concerned “CDA” under “CDA” Review
(Source: RNTPC Paper No. 3/19, Town Planning Board)



Extract from RNTPC Paper No. 5/21

Site Ref. No.	Location (Site Area)	No. of Years Designated “CDA” (as at 31.3.2021)	Progress for Rezoning
NTW 22 (Plan 49)	Various lots in DD 121 & 127, Castle Peak Road, Hung Shui Kiu, Yuen Long, New Territories (Uptown) (zoned “CDA” on Tong Yan San Tsuen OZP) (2.33 ha) (multiple ownership)	24	- The residential development at the majority of the “CDA” site has been completed and all planning conditions have been discharged. The OP and CC were issued on 31.5.2011 and 28.9.2011 respectively. - On 15.3.2013, the Committee agreed to rezone the “CDA” site to a residential zone to reflect the as-built condition and approved uses. - Part of the “CDA” site on the eastern edge is subject to an application (No. A/YL-TYST/870) for proposed social welfare facility (residential care home for the elderly (RCHE)), which was approved with conditions by the Committee on 4.5.2018 with validity until 4.5.2022. The proposed RCHE is yet to be commenced. - There are, however, some residual private lots on the eastern, western and southern edges of the “CDA” site that are not covered by the aforesaid planning permission. These lots are currently being occupied by various temporary uses. - The land use zonings for the residual portion of the “CDA” site would be reviewed and proposed amendments to the OZP for the entire “CDA” zone will be submitted to the Committee for consideration in due course.

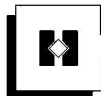
Diagram 8e Previous Considerations on Rezoning of the Whole Concerned “CDA” under “CDA” Review
(Source: RNTPC Paper No. 5/21, Town Planning Board)



Extract from RNTPC Paper No. 4/23

Site Ref. No.	Location (Zoning on OZP/ Site Area/Land Ownership)	No. of Years Designated “CDA” (as at 31.3.2023)	Progress for Rezoning
NTW 22 (Plan 47)	Various lots in DD 121 & 127, Castle Peak Road – Hung Shui Kiu, Yuen Long, New Territories (zoned “CDA” on Tong Yan San Tsuen OZP) (2.33 ha) (multiple ownership)	26	• The residential development at the majority of the “CDA” site, known as Uptown, was completed in 2011. • On 15.3.2013, the Committee agreed to rezone the site to reflect the completed development. • The remaining part of the “CDA” site on the eastern portion is subject to a planning application (No. A/YL-TYST/870) for proposed social welfare facility (residential care home for the elderly (RCHE)) approved with conditions by the Committee in 2018. The land exchange of the proposed RCHE was executed on 13.4.2022. • There are, however, some residual private lots on the eastern, western and southern portions of the “CDA” site that are not covered by the aforesaid planning permission. These lots are currently being occupied by various temporary uses. • The land use zonings for the residual portion of the “CDA” site will be reviewed holistically and proposed amendments to the OZP for the entire “CDA” zone will be submitted to the Committee for consideration when opportunity arises.

Diagram 8f Previous Considerations on Rezoning of the Whole Concerned
“CDA” under “CDA” Review
(Source: RNTPC Paper No. 4/23, Town Planning Board)



Extract from RNTPC Paper No. 3/25

Site No./ Location/ OZP/ Zoning/ Site Area/ Land Ownership/ No. of Years Designated “CDA” (as at 31.3.2025)	Progress for Rezoning
1. NTW 22 (Plan 37) • Various lots in DD 121 & 127, Castle Peak Road-Hung Shui Kiu, Yuen Long, New Territories • Tong Yan San Tsuen OZP • zoned “CDA” • 2.33 ha • multiple ownership • 28 years	• In 2011, the residential development at the majority of the “CDA” site (known as Uptown) was completed. • In 2013, the Committee agreed to rezone the site to reflect the completed development. • The remaining part of the “CDA” site on the eastern portion is the subject of a s.16 application (A/YL-TYST/870) for proposed social welfare facility (RCHE) approved with conditions by the Committee in 2018. The land exchange of the proposed RCHE was executed in 2022. The construction of the RCHE development is yet to commence as the development proposal is currently being reviewed by the project proponent. • There are, however, some residual private lots on the eastern, western and southern portions of the “CDA” site that are not covered by the aforesaid planning permission. These lots are currently being occupied by various temporary uses. • The land use zonings for the residual portion of the “CDA” site will be reviewed holistically and proposed amendments to the OZP for the entire “CDA” zone will be submitted to the Committee for consideration when opportunity arises.

Diagram 8g Previous Considerations on Rezoning of the Whole Concerned “CDA” under “CDA” Review

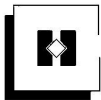
(Source: RNTPC Paper No. 3/25, Town Planning Board)

3.5 Review of Sites Designated “Comprehensive Development Area”

3.5.1 Since 2013, the biennial “CDA” review by the RNTPC agreed for rezoning the whole concerned “CDA” zone upon reviewing the residual portion of the “CDA” site⁴, provided that the proposed rezoning aligns with the planning intention of maintaining comprehensive planning control for the overall development. Such rezoning shall only allow if it clearly reflects the planning intention for mixed-use developments from originally designated as the “CDA” site into various discrete land use zonings specifically, or ensures that the resulting development intensities do not exceed those permitted under the Notes of the OZP or in the Building (Planning) Regulations (B(P)R) (Cap. 123F).

3.5.2 The maximum GFA restriction of the whole concerned “CDA” zone is 69,000 sq.m.. As illustrated in **Diagrams 9 and 10**, the remaining GFA after deducting the existing residential development at the “Uptown” within the “CDA” zone is 18,710 sq.m.. This remaining GFA is expected to be

⁴ The residual portion of the “CDA” site refers to the residual private lots to the eastern, southern and western edges of the “CDA” zone.



distributed proportionally across various land parcels between the remaining “CDA” area. Nevertheless, it is noted that there are various development constraints of these peripheral sites, including sites are small in scale and irregular shape, fragmented land ownership and proximity to nearby Government land, in which impose additional regulatory and practical challenges to certain development.

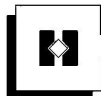
- 3.5.3 In a scenario which the development potential (i.e., remaining GFA) from these low-potential peripheral sites is optimised for the Proposed Development, a maximum PR of 4.91 is proposed as shown in **Table 2** to provide a quality RCHE with residential development which shall comply with the Buildings Ordinance (BO) (Cap. 123) (refers to **Table 7** of the Key Development Parameters of the Indicative Scheme). The Proposed Development, which is domestic in nature, has been assumed as Residential Zone 2 (R2) as summarized in above **Section 3.1.5**, while the maximum PR of 4.91 is tallied with the maximum domestic PR required for R2. Thus, it results a GFA of about 7,172 sq.m. for the Proposed development within the “CDA” zone on pro-rata basis, leaving a residual GFA of about 11,538 sq.m. for the remaining “CDA” area.



Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Development / Zoning on the OZP / Lot Nos.		Whole “CDA” zone	Uptown (Lot No. 2064RP in D.D. 121)	Lot No. 2188 in D.D. 121	Lot No. 403 in D.D. 121 (owned under a Tso/ Tong)	Residual Area (Lots Nos. 287S.B, 287S.C, 302RP, 308RP(Part), 388RP, 392RP, 408, 415(Part), 420(Part), 422RP(Part), 423(Part), 424(Part), 2064S.A and 2064S.B in D.D. 121)	Residual Government Land
Site Description		-	Triangular in shape	Trapezium in shape	Rectangular in shape	Irregular shape and scattered around	Elongated in shape, with portion being part of the road
Current Scheme	Site Area (Gross) (about) (sq.m.)	23,282 (100%)	16,292 (70%)	1,798 (7.7%)	503 (2.1%)	3,390 (14.6%)	1,299 (5.6%)
	Maximum Achievable Gross Floor Area (about) (sq.m.)	69,000 (100%)	50,290 (72.9%)	5,329 ² (7.7%)	1,490 ² (2.1%)	10,047 ² (14.6%)	1,844 ³ (2.7%)
	Implied Plot Ratio (about)	3	3.09	2.96	2.96	2.96	1.42
Proposed Scheme	Maximum Gross Floor Area ¹ (about) (sq.m.)	69,000	50,290	7,172	1,490 ⁴	10,047 ⁴	Not consider for development due to site constraints ⁵
	Maximum Plot Ratio ¹ (about)	3	3.09	4.91	2.96 ⁴	2.96 ⁴	
Remarks: ¹ Under the Building (Planning) Regulations (Cap. 123F). ² Calculate on a pro-rata basis subject to the PR restriction under the subject “CDA” zone. ³ Calculate by deduction the maximum GFA of the “CDA” zone with the maximum achievable GFA of Uptown and the development potential in other private lots. ⁴ To retain the maximum achievable GFA on the lots within the subject “CDA” zone, however, they are mostly landlocked with diversified ownerships and not abut to a specified street, they are mostly fall within unclassified sites under Building (Planning) Regulations (Cap. 123F). Hence, the possibility for achieving a maximum PR of 3.0 is highly doubted. ⁵ Land parcels of residual Government land are elongated in shape with portion being part of the existing/ future road, it is considered as not feasible for any future development.							

Table 2 Details of Residual Land Parcels within the Subject “CDA” zone



3.5.4 This allocation ensures that the development intensities of the Application Site remain well within the maximum allowable GFA of 69,000 sq.m., as prescribed by the Notes of the OZP, thus it will not deprive the development potential of the resultant private land lots, thereby maintaining compliance with the TPB PG-No. 17A as mentioned in above **Section 3.4** and supporting the planning intention of balanced and controlled development within the “CDA” zone.

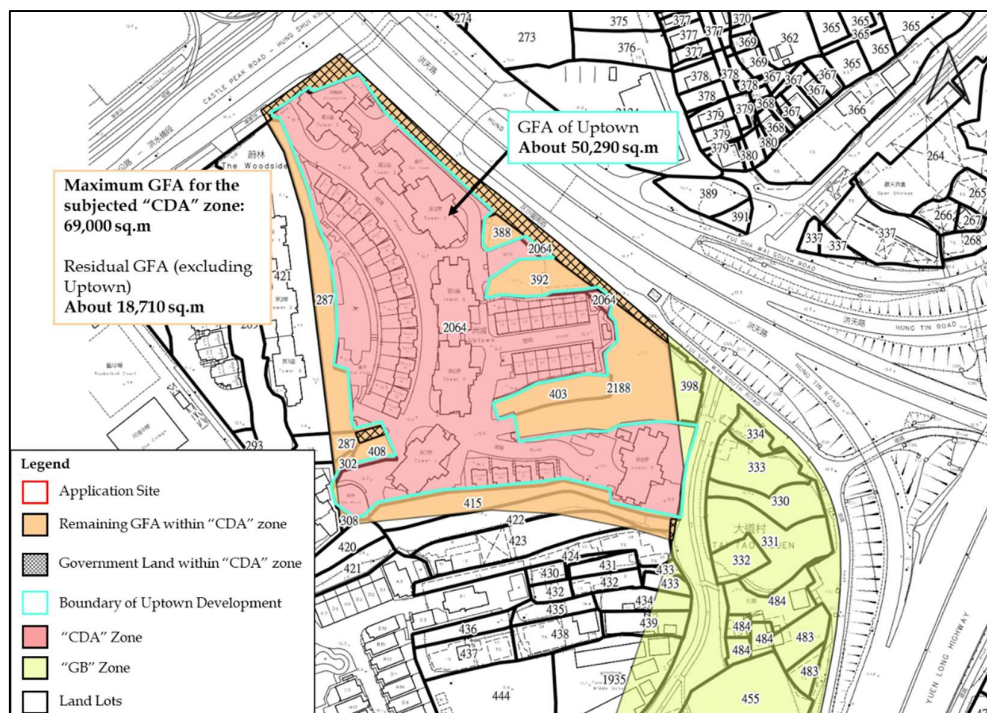


Diagram 9 Current Residual GFA Without the Proposed Development
(Source: HKMS2.0, HKSAR Government)

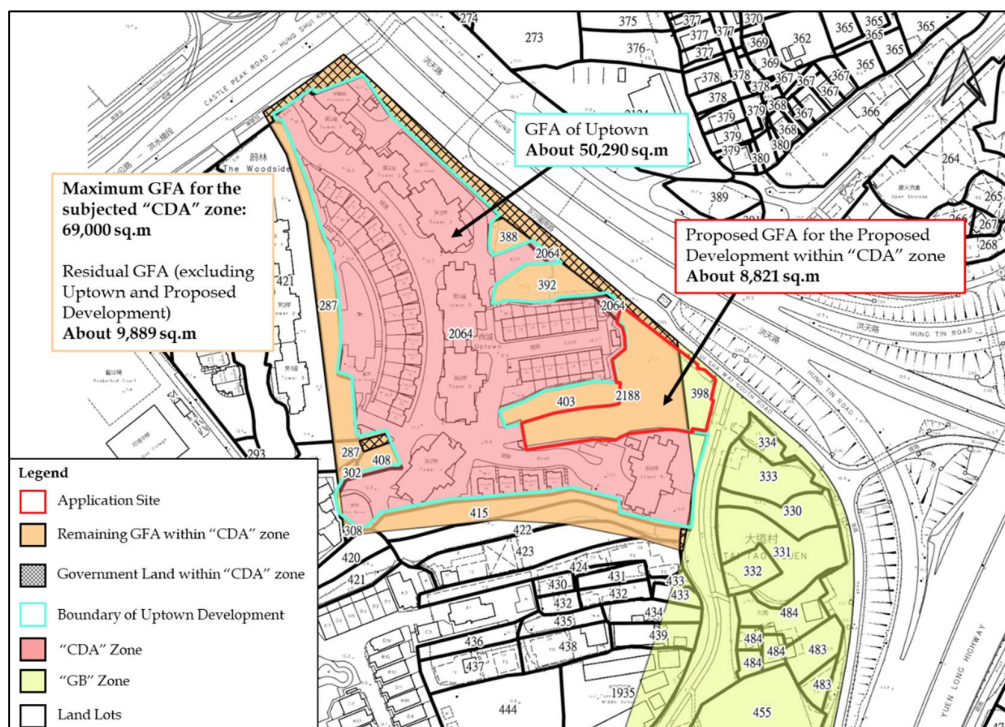
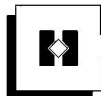
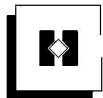


Diagram 10 Residual GFA With the Proposed Development
(Source: HKMS2.0, HKSAR Government)



Non-Statutory Planning Context

3.6 Aging Population at the District Level

- 3.6.1 Based on the ‘2021 Population Census’ published by the Census and Statistics Department (C&SD), there are about 158,000 population aged 60 or above, representing about 24% of the total population in the Yuen Long District.

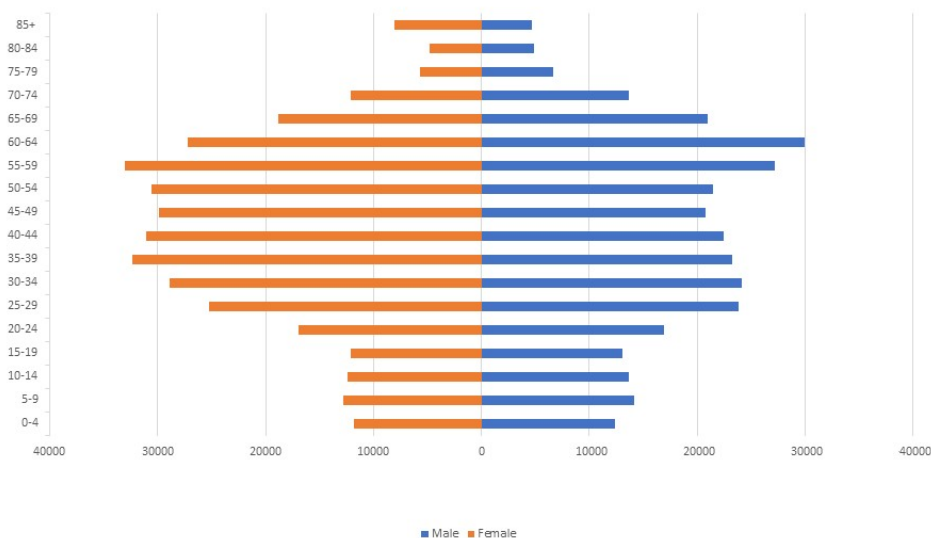


Diagram 11 Yuen Long District Population in 2021
(Source: 2021 Population Census, Census and Statistics Department)

- 3.6.2 According to the ‘Projections of Population Distribution 2023-2031’ published by the PlanD, there will be a significant increase of population in the Yuen Long District, in particular the elderly population (i.e., aged 60 or above) increase from about 197,100 in 2025 to about 241,200 in 2031, reflecting a growth of about 22% over the future 6 years.

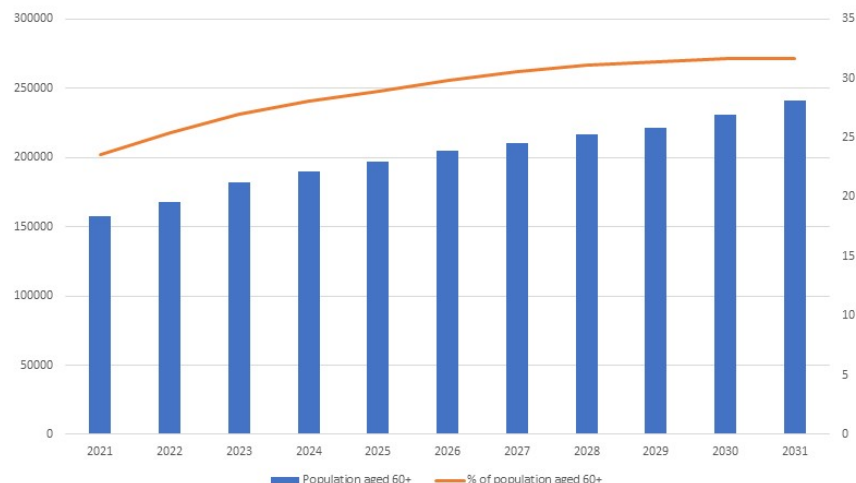
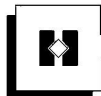


Diagram 12 Population Projection of Aged 60+ in Yuen Long District
(Source: *Projections of Population Distribution 2023-2031*, Planning Department)

3.6.3 It is anticipated that the percentage of the elderly in the total population of Yuen Long District is expected to gradually increase, demonstrating that more elderly living in the area. The demographic shift highlights an ageing population in the area, which has significant several implications on the provision of elderly care services, particularly the residential cares for the elderly.

3.7 Housing Supply Perspective

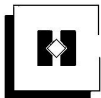
Long Term Housing Strategy

3.7.1 The Long Term Housing Strategy (LTHS) was first introduced on 16 December 2014 to set out strategic directions to gradually avert the supply-demand imbalance of housing. The Government updates the long-term housing demand projection annually and presents a rolling 10-year housing supply target to capture social, economic and market changes over time, and makes timely adjustments where necessary. According to the 2023, 2024 and 2025 Annual Progress Reports, the latest private housing supply target for the next 10-year period will be 126,000 units, including Government land sale, railway property developments and development projects undertaken by the Urban Renewal Authority (URA). The supply in the primary private residential property market for the coming three to four years is about 101,000 units. ^{5, 6, 7}

⁵ Long Term Housing Strategy Annual Progress Report 2023 (for the 10-year period from 2024-25 to 2033-34), Housing Bureau.

⁶ Long Term Housing Strategy Annual Progress Report 2024 (for the 10-year period from 2025-26 to 2034-35), Housing Bureau.

⁷ Long Term Housing Strategy Annual Progress Report 2025 (for the 10-year period from 2026-27 to 2035-36), Housing Bureau.



- 3.7.2 Thus, a strong demand in private housing is envisaged in the upcoming years, with about 40% of the private housing provision will be relying on the delivery of private sector. The Proposed Amendment will provide over 450 units to contribute to the housing supply and offer wider housing choices for different age groups.

2026-27 Budget

- 3.7.3 The latest 2026-27 Budget highlights that the provision of private housing supply, with the average of the completed private residential units of about 17,000 units annually over a five-year period from year 2026.

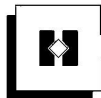
Policy Address

- 3.7.4 The Policy Address (PA) addresses the concern on housing supply which includes stabilizing supply for private housing. Relevant sections related to the Proposed Development are summarized as follows: -

- PA 2022 – “*deliver sufficient land for private housing development in the next five years to meet the projected demand in the LTHS and stabilise supply for private housing*”;
- PA 2023 - “*Make land available for the production of around 80,000 private housing units for disposal in the market through land sale or railway property developments in the next five years (2024-25 to 2028-29)*”;
- PA 2024 - “*According to the LTHS, the supply target for private housing in the coming decade is projected to be 132,000 units. The Government will make available land over the next five years to provide about 80,000 private housing units.*”; and
- PA 2025 – “*According to the LTHS, the supply target for private housing in the coming decade is projected to be 126,000 units. The Government will have sufficient land to meet the demand in the next ten years, and will roll out such land to the market in an orderly and pragmatic manner. Besides Government land sale, other sources of private housing land supply include railway property development and URA projects, as well as private development projects.*”.

Housing for the Elderly

- 3.7.5 The Government was first cooperated with the Hong Kong Housing Society (HKHS), and further launched the Senior Citizen Residences Scheme (SEN Scheme) in 2003 to cater for the housing need of the middle-income elderly incorporating with the concept of “housing with care” for the elderly.
- 3.7.6 Currently, the Hong Kong Housing Authority (HKHA) and the HKHS would offer different types of public housing subsidies to the elderly to address their housing needs, such as Flat-for-Flat Scheme for Elderly



Owners, Priority Public Rental Housing Schemes, Special Housing for the Elderly, Building Maintenance Grant Scheme for Elderly Owners, etc..

- 3.7.7 According to the latest statistics on the elderly households in public rental housing (PRH)⁸, the actual average waiting time for PRH of elderly one-person applicants were about 2.6 years, and hence only a small number of successful cases were recorded.
- 3.7.8 On the other hand, there is no designated land use category for residential development specify for senior housing in Hong Kong, pushing some seniors toward alternatives in the Greater Bay Area (GBA). Given the ageing population in the district level as summarized in above **Section 3.6**, as well as the increasing trend of out-migration with various seniors being left behind⁹, there shall be a high local demand for elderly housing needs and social supports.
- 3.7.9 The imbalance between the demand and supply of senior housing in Hong Kong underscores the urgent need for expanded private sector involvement. Thus, the private developers shall be driven by the rationale of tapping into a lucrative market of wealthier elderly seeking modern, autonomous living options to offer high-quality and tailored accommodations that prioritize integrated healthcare and community for the elderly.
- 3.7.10 Referring to the World Health Organization’s Age-friendly Cities Framework, “housing” and “community support and health services” were rated the lowest among the eight domains in Hong Kong. Meanwhile, various public policy researches have pointed out that the remaining seniors in Hong Kong prefer ageing in place rather than moving into RCHE facilities, even health care assistance is needed. In addition, the Government has established the principle of “ageing in place as the core, with institutional care as back-up” care policy for the elderly to be cared by the family with community services as supported. Hence, private sectors are expected to play a crucial role in addressing the need for senior housing in Hong Kong, so as to reduce emergency service needs and enhance better mental health for the elderly.

3.8 Short Supply of RCHE in the Territory

- 3.8.1 RCHEs can generally be classified into the following categories: subvented homes; contract homes; self-financing homes; and private homes. Hence, there is an acute demand for residential care services for the elderly within the territory. As of February 2026, there are currently about 3,100 subsidized places and 5,300 non-subsidized places from the existing RCHEs in the Yuen Long District¹⁰, whilst there also 1,700 nos. of committed places in the Areas 2, 5, 7, 24 and 25¹¹.

⁸ Legislative Council. (2022). Statistical Highlights ISSH16/2022. <https://www.legco.gov.hk/research-publications/english/2022issh16-elderly-households-in-public-rental-housing-20220413-e.pdf>

⁹ Census and Statistics Department. (2017). *Developments in demographic trends of Hong Kong and their implications for public policies*.

¹⁰ <https://www.swd.gov.hk/en/pubsvc/lr/rche/>

¹¹ LC Paper No. CB(1)368/2025(05). <https://www.legco.gov.hk/yr2025/english/panels/ws/papers/ws20250317cb1-368-5-e.pdf>

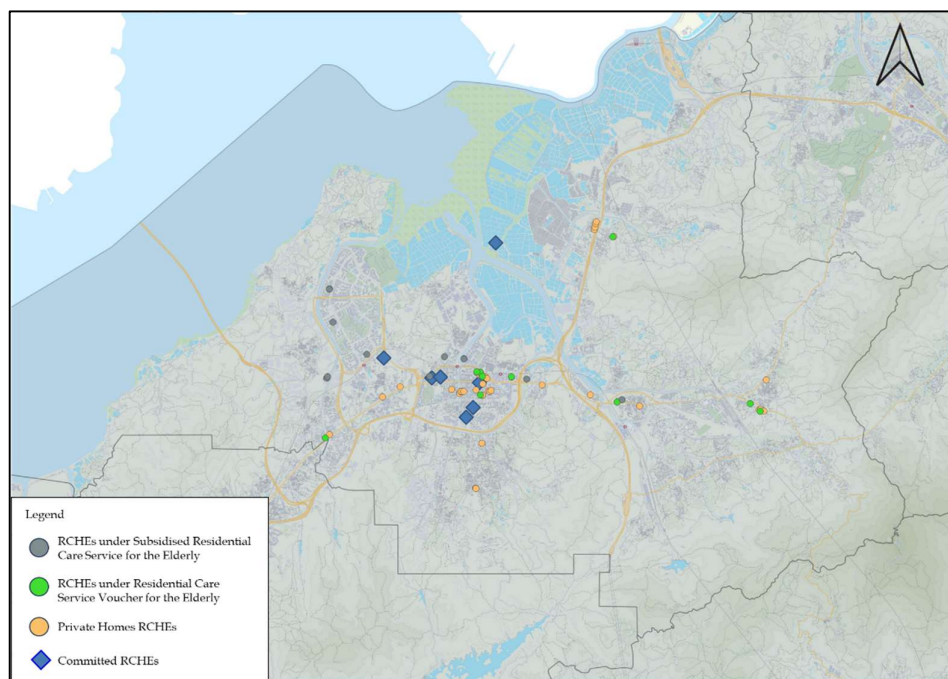


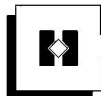
Diagram 13 Geographical Distribution of the RCHE in Yuen Long District
(Source: Elderly Information, Social Welfare Department)

- 3.8.2 According to the statistics on the residential care services as published by the Social Welfare Department (SWD), there are about 17,664 nos. of applicants waiting for subsidized care and attention places, of which the average waiting time is 8 months by the end of December 2025¹². Thus, the shortage of bedspace provision results in long waiting times for different types RCHE.
- 3.8.3 Based on the Government’s statistics published in 2022, the enrolment rates of RCHEs remain at a high level, especially the subvented/contract homes (Refers to **Table 3**). **Table 4** shows the number of applicants and average waiting time of various types of subsidised residential care services for the elderly in the Central Waiting List for subsidised long term care services.

Type of Homes for RCHEs	Enrolment Rate
Subvented and contract homes	91 %
Private homes	71 %
Self-financing homes	68 %

Table 3 Enrolment Rate of Residential Care Homes in Hong Kong
(Source: Elderly Information, Social Welfare Department)

¹² [https://www.swd.gov.hk/storage/asset/section/1022/en/CWL/LTC%20statistics_HP-EN\(202512\).pdf](https://www.swd.gov.hk/storage/asset/section/1022/en/CWL/LTC%20statistics_HP-EN(202512).pdf)



Service Types	Average Waiting Time (in months) (Average of the previous 3 months)	No. of People Waitlisted
Subsidised care and attention (C&A) places	21	15,724
Nursing home (NH) places	26	1,940

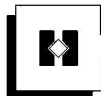
Table 4 Number of Applicants and Respective Waiting Time for
Subsidised Residential Care Service for the Elderly
(Source: Elderly Information, Social Welfare Department)

- 3.8.4 According to the ‘Elderly Services Programme Plan’ published by the Elderly Commission in 2024, the projected demand for residential care services (RCS) shall increase significantly in the coming years. Hence, development of the quality private RCHEs shall be considered to meet the community’s diverse needs for RCS.

Year	2025	2026	2027	2028	2029	2030	2031	2032
Demand of RCS	47,000	46,000	46,000	46,000	45,000	45,000	46,000	47,000
	Percentage increase						2.22%	2.17%

Table 5 Demand Project for Residential Care Places
(Source: Elderly Services Programme Plan, Elderly Commission)

- 3.8.5 Based on the data shown in **Table 4**, it is observed that there are currently a significant number of people waitlisted for the subsidised care and attention (C&A) places and nursing home (NH) places in the homes of RCHE. The aging population in Hong Kong, particularly in Yuen Long District, exacerbates this situation (refers to **Diagrams 11 and 12**), resulting in a greater need for RCHE services within the district. It is anticipated that the RCHE provision is critical to address both current and future shortage, to fulfil the community’s needs for elderly welfare services, to alleviate pressure on waitlists, as well as to enhance the overall quality of life for elderly residents.
- 3.8.6 With reference to the TPB Paper No. 11045 For Consideration by the Board on 13.02.2026, a shortfall of 1,784 bed spaces in the provision of subsidized RCHE bed spaces were observed in Yuen Long District. Noted that the growth of aging population in Yuen Long District as presented in **Diagram 11**, there is a necessary need for both subsidized and private bed spaces to cater for the needs of elderly welfare services in the future.



<u>Type of Facilities</u>	<u>HKPSG requirement</u>	<u>Requirement based on OZP planned population</u>	<u>Existing Provision</u>	<u>Planned Provision (including existing provision)</u>	<u>Surplus/ Shortfall against planned provision</u>
Residential Care Home for the Elderly (RCHE)	21.3 subsidised beds per 1,000 elderly persons aged 65 or above	8,699 beds	2,093 beds	6,915 beds	-1,784 beds

Table 6 Table of GIC Facilities Provision in Yuen Long District
(Source: TPB Paper No. 11045, Planning Department)

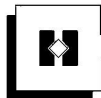
3.8.7 Noted the majority of the Application Site (i.e., area currently zoned as “CDA”) is subject to an approved application No. A/YL-TYST/870 for a 300-place RCHE which was approved with conditions by the RNTPC on 4 May 2018. The construction of the abovementioned approved application is yet to commence, whilst the majority of Application Site is encroached to such application. Hence, there shall be an additional need of subsidized RCHE bed spaces provision in Yuen Long District.

3.8.8 Furthermore, there are a number of planned/ committed developments found in the vicinity of the Application Site, as shown in **Figure 5**. It is anticipated that the more RCHE places shall be required to cater to the planned/committed population.

3.9 Incentive Scheme to Encourage Provision of Residential Care Home for the Elderly Premises in New Private Developments

3.9.1 The Government has published the “*Incentive Scheme to Encourage Provision of Residential Care Home for the Elderly Premises in New Private Developments*” (LAO Practice Note No. 4/2003) as well as “*Incentive Scheme to Encourage Provision of Residential Care Home for the Elderly Premises in New Private Developments – Time-limited Enhancements*” (LAO Practice Note No. 5/2003) to encourage the provision of residential care homes for the elderly in the new private development. Eligible RCHE premises will be exempted from payment of premium under land transactions, with the incorporation of certain lease conditions to ensure timely delivery of the premises. In return, the development shall be responsible for the construction cost of the RCHE. Subsequently, the Incentive Scheme has been made permanent as announced by the Government on 26 May 2026.

3.9.2 Based on the “*Incentive Scheme to Encourage Provision of Residential Care Home for the Elderly Premises in New Private Developments*”, the RCHE premises are allocated to provide the maximum total GFA of not exceeding 12,000 sq.m. or 10% of the total GFA permissible under lease, whichever is greater. Thus, the Proposed RCHE, with the total GFA of about 6,961 sq.m, is well complied with the requirements of the Incentive Scheme.



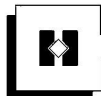
3.10 In Line with the Government’s Policy on RCHE Provision

- 3.10.1 Under the Chief Executive’s 2023, 2024 and 2025 Policy Address (PA), the Government has formulated cross-sectoral policies and initiatives to cater for the needs of the elderly. Over the past year, the Government has strengthened support for ageing in place and lifted the quality and quantity of RCHEs, in order to provide more residential care places for the elderly, importing care workers from outside Hong Kong, commencing the Review of Manpower for Healthcare Services in Residential Care Homes, etc..
- 3.10.2 Specifically, the Government has announced their targets to provide about 700 new subsidised residential care service places to strengthen residential care service in the whole territory, according to the latest 2025 PA.
- 3.10.3 In addition, the Finance Committee of the Legislative Council has approved the allocation of \$20 billion for the Government to purchase premises for the provision of welfare facilities in 2020. The Government Property Agency has been assisting the SWD to identify suitable non-domestic premises through different channels in the 18 districts.
- 3.10.4 In accordance with the latest 2026-27 Budget, the Government targets to enhance the overall elderly service by expanding the elderly care services market, while promoting the parallel development of both publicly-funded and market-based services.

3.11 Similar Application for Rezoning from “CDA” Zone to Residential Zoning

- 3.11.1 There is a precedent approved application (No. Y/YL-PS/6) that involve rezoning from “V” and “CDA” zones to residential zoning, which was approved/ agreed by the RNTPC on 9 June 2023 (refers to **Diagram 14**)¹³.
- 3.11.2 For the aforementioned approved application (No. Y/YL-PS/6), the intention of the “CDA” zone is to phase out the existing industrial uses by other compatible land uses, its proposed development would not be incompatible with the surrounding land uses in the long run. Overall, the proposed residential development cum RCHE and retail facilities is generally compatible with the surroundings which are predominantly residential in nature.
- 3.11.3 Although the planning context of the abovementioned approved application is different from the current application, this planning approval demonstrates the successful precedent for rezoning from “CDA” zone to residential zoning to facilitate a proposed residential development and RCHE with retail shop. Consideration of this proposed s.12a application from “CDA” zone to “R(A)4” zone for residential

¹³ The approved planning application (No. Y/YL-PS/6) involves rezoning from “V” and “CDA” zones to “R(B)2” zone for proposed residential development and RCHE with retail shop.



development and social welfare facility (RCHE) is relevant.

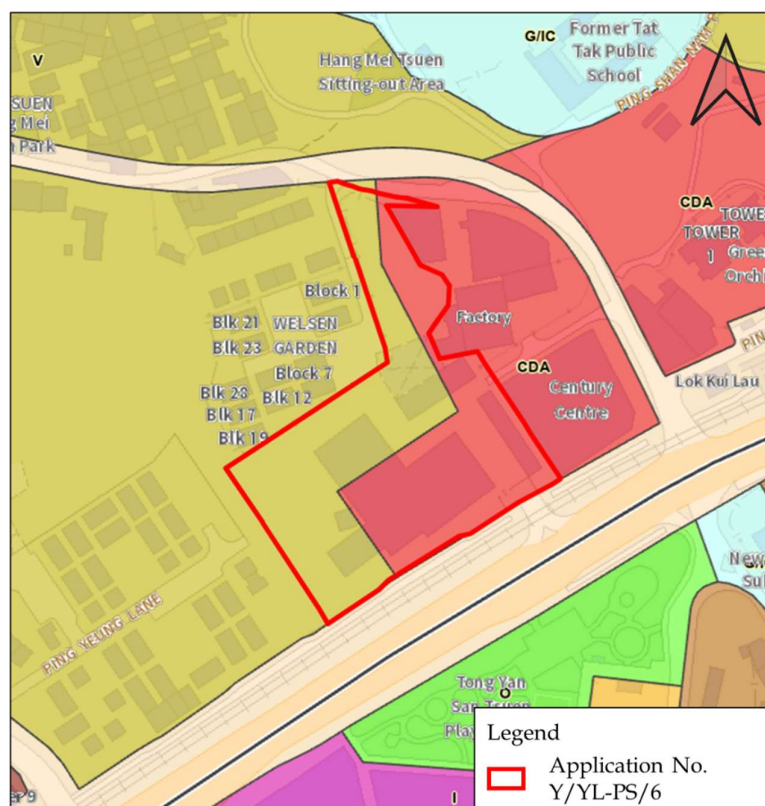


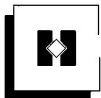
Diagram 14 Similar Application for Rezoning from “CDA” zone to Residential Zoning (No. Y/YL-PS/6)
(Source: Town Planning Board, HKSAR Government)

3.12 Similar Application for Rezoning from “GB” Zone to Residential Zoning

3.12.1 Apart from the similar approved application within “CDA” zone, there is a similar approved rezoning application No. Y/TW/19 that involve rezoning from “GB” zone to a residential zoning to facilitate a private residential cum RCHE development which was partially approved/ partially agreed by the Metro Planning Committee (MPC) on 24 January 2025 (refers to **Diagram 15**)¹⁴.

3.12.2 This application locates at the urban fringe and southern fringe of the “GB” zone which was covered by a “GB” zone that is intended to be the buffer between the Tsuen Wan New Town and Tai Mo Shan Country Park. In consideration of no adverse government departmental comments on the planning intention, land use compatibility, development scale, and technical aspects, the application was partially approved/ partially agreed by the MPC.

¹⁴ The approved planning application (No. Y/TW/19) involves rezoning from “GB” and “V” zones to “R(B)9” zone for a private residential cum RCHE development.



3.12.3 In term of land use compatibility, both the Application Site and the approved application No. Y/TW/19 are located at the fringe of their respective “GB” and “V” zones which are close to the surrounded high-rise residential developments and near public transport services (i.e., Mass Transit Railway (MTR) stations or LRT services). With the similar planning context for both cases, hence, the proposed development is considered not incompatible with the surrounding land uses.

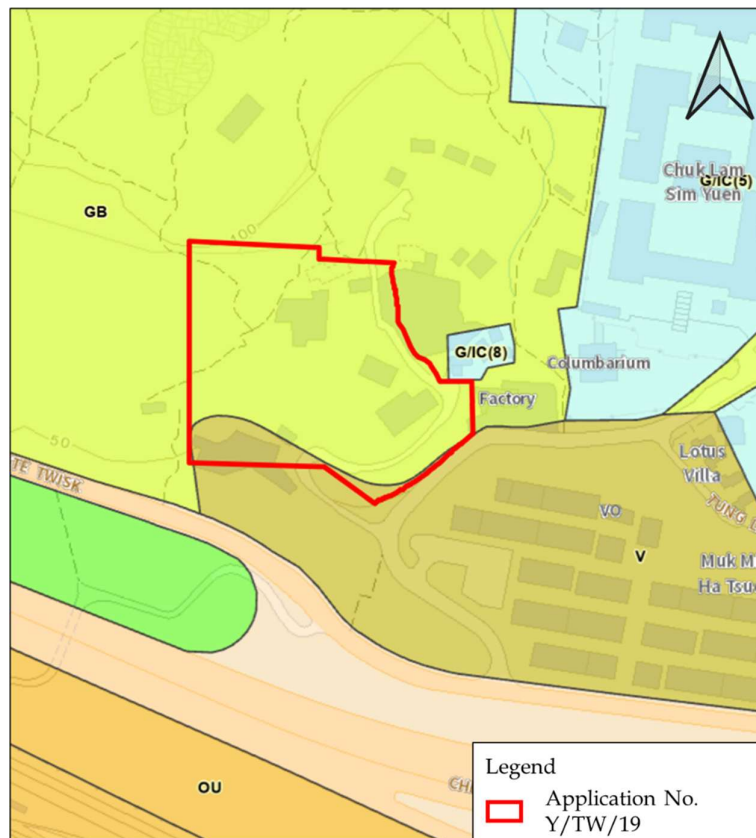


Diagram 15 Similar Application for Rezoning from “GB” zone to Residential Zoning (No. Y/TW/19)

(Source: Town Planning Board, HKSAR Government)



4 PROPOSED AMENDMENTS TO THE OUTLINE ZONING PLAN

4.1 The Proposed Amendments

- 4.1.1 To provide a tailor-made development restrictions to the Application Site, a new sub-zone of “Residential (Group A) 4” (“R(A)4”) is proposed. In view of ‘Flat’ and ‘Social Welfare Facility’ uses fall within Column 1 uses under the proposed “R(A)4” zone, further planning permission from the Board would not be required to effectuate the proposal. Relevant Proposed Amendments on the Tong Yan San Tsuen OZP are shown in **Diagrams 16 – 17, Figure 6 and Appendices 9 – 11.**
- 4.1.2 The development restriction of maximum building height would be 60 metres above Principal Datum (“mPD”) is compatible with the private residential development, while “Uptown” with the existing building height of +77mPD is located in the immediate west and the building height profile in the vicinity.



S/YL-TYST/A

RESIDENTIAL (GROUP A) (cont'd)

Planning Intention

This zone is intended primarily for high-density residential developments. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.

Remarks

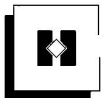
- (a) On land designated “Residential (Group A)” (“R(A)”), no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 5, a maximum site coverage of 42% and a maximum building height of 12 storeys (36m), or the plot ratio, site coverage and height of the building which was in existence on the date of the first publication in the Gazette of the notice of the draft development permission area plan, whichever is the greater. The lowest three floors could have a maximum site coverage of 100%.
- (b) On land designated “R(A)1” and “R(A)2”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio and maximum building height specified below, or the plot ratio and height of the existing building, whichever is the greater:

<u>Sub-area</u>	<u>Maximum Plot Ratio</u>	<u>Maximum Building Height</u>
R(A)1	6.5	155mPD
R(A)2	6.5	205mPD

- (c) On land designated “R(A)3”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 7 and a maximum building height of 160mPD, or the plot ratio and height of the existing building, whichever is the greater.

(d) On land designated “R(A)4, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 4.91 and a maximum building height of 60mPD, or the plot ratio and height of the existing building, whichever is the greater.

(Please see next page)



S/YL-TYST/11

- (e) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio, site coverage and building height restrictions stated in paragraphs (a) to (d) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.
- (f) In determining the maximum plot ratio and site coverage for the purposes of paragraphs (a) to (d) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.
- (g) In determining the maximum plot ratio for the purposes of paragraph (c) above, any floor space that is constructed or intended for use solely as Government, institution or community (GIC) facilities and public vehicle park, as required by the Government, may be disregarded.
- (h) In determining the maximum plot ratio for the purposes of paragraphs (b) and (c) above, the area of any part of the site that is occupied or intended to be occupied by free-standing purpose-designed buildings (including both developed on ground and on podium level) solely for accommodating GIC facilities including school(s) as may be required by the Government shall be deducted in calculating the relevant site area.

Diagram 16 Proposed Revision for the Notes of the Tong Yan San Tsuen
OZP

(Source: Town Planning Board, HKSAR Government)



S/PL-TYST/1

10. LAND-USE ZONINGS

10.1 Comprehensive Development Area (“CDA”) : Total Area : **3.14 ha**

10.1.1. This zone is intended for comprehensive development/redevelopment of the area for residential use with the provision of open space, commercial and other supporting facilities, if any. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints. Although existing uses are tolerated, any development/redevelopment proposal on sites under this zoning should be submitted to the Board in the form of a Master Layout Plan (MLP) for consideration, except as otherwise expressly provided that it is not required by the Board. Pursuant to section 4A(3) of the Ordinance, a copy of the approved MLP shall be made available for public inspection in the Land Registry. The two “CDA” sites designated on the OZP are as follows:

10.1.2. “CDA” zone to the west of Hung Tin Road

A site of about **2.15 ha** at the intersection of Castle Peak Road and Hung Tin Road is zoned “CDA”. Development in the site is restricted to a total gross floor area (GFA) not exceeding **64,500m²** (equivalent to a plot ratio of 3) and a maximum building height of 17 storeys. Major part of the site has been developed for residential use, known as Uptown.

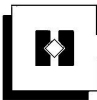
10.1.3. “CDA” zone in Tan Kwai Tsuen

A site of about 1 ha to the south of Tan Kwai Tsuen was the subject of a residential development approved by the Board. Development in the site is restricted to a total GFA not exceeding 9,925m² (equivalent to a plot ratio of 1) and a maximum building height of 4 storeys over single-storey car park.

10.1.4. To provide flexibility for innovative design adopted to the characteristics of particular sites, minor relaxation of the above restrictions for the two “CDA” zones may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.

10.1.5. As the areas along Castle Peak Road - Hung Shui Kiu Section, Hung Tin Road and Yuen Long Highway would be subject to traffic noise impact, noise mitigation measures such as the use of screening structures and the adoption of self-protective building layout would need to be implemented.

10.2 Residential (Group A) (“R(A)”) : Total Area : **36.23 ha**



S/L-TYST/A

- 10.2.1. This zone is intended primarily for high-density residential developments. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.
- 10.2.2. A site along Castle Peak Road - Hung Shui Kiu Section is designated as “R(A)” for high density residential development. Development within this zone is restricted to a maximum plot ratio of 5, a maximum site coverage of 42% and a maximum building height of 12 storeys (36m), or the plot ratio, site coverage and height of the building which was in existence on the date of the first publication in the Gazette of the notice of the draft DPA plan, whichever is the greater. The lowest three floors could have a maximum site coverage of 100%.
- 10.2.3. As the areas along Castle Peak Road - Hung Shui Kiu Section would be subject to traffic noise impact, noise mitigation measures such as the use of screening structures and the adoption of self-protective building layout would need to be implemented.
- 10.2.4. There are also three sub-areas which are subject to the following development restrictions:

“Residential (Group A)1” (“R(A)1”) and “Residential (Group A)2” (“R(A)2”): Total Area : 10.16 ha and 10.63 ha respectively

- (a) The “R(A)1” site located to the west of Long Tin Road and to the north of the Tong Yan San Tsuen Interchange, and the “R(A)2” site located to the south of Tan Kwai Tsuen South Fresh Water Service Reservoir are intended for public housing developments. Developments within these sites are subject to a maximum plot ratio of 6.5 and a maximum building height of 155mPD and 205mPD for the “R(A)1” and “R(A)2” sites respectively, or the plot ratio and height of the existing building, whichever is the greater.
- (b) Various Government, institution or community (GIC) facilities including kindergartens, primary schools and social welfare facilities, retail facilities, as well as public transport termini would be provided within the developments of the “R(A)1” and “R(A)2” sites.
- (c) Two Air Ventilation Assessments-Expert Evaluation (AVAs-EE) have been carried out for the “R(A)1” and “R(A)2” sites. It is found that design measures, including non-building area, building separations and setbacks, would alleviate the potential air ventilation impacts on the surrounding wind environment. Quantitative AVAs should be carried out at the detailed design stage. Requirements of the design measures and quantitative AVAs



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will be incorporated in the planning briefs for implementation as appropriate.

“Residential (Group A)3” (“R(A)3”): Total Area: 13.33 ha

- (d) Five sites to the west of Kung Um Road and south of Yuen Long Highway are intended for public housing developments. Developments within these sites are subject to a maximum plot ratio of 7 and a maximum building height of 160mPD, or the plot ratio and height of the existing building, whichever is the greater.
- (e) For the site abutting Kung Um Road, an area with a width of 20m should be reserved for provision of public open space, such that a green spine connecting the open space along this main thoroughfare could be formed for visual connectivity and air ventilation purposes as proposed under the YLS Study.
- (f) Various GIC facilities including kindergartens, social welfare facilities, open spaces, and retail facilities may be provided within the developments of the “R(A)3” sites. A wet market may be provided at one of the “R(A)3” sites subject to further study.
- (g) To facilitate provision of GIC facilities and public vehicle parks, in determining the maximum plot ratio of the development and/or redevelopments, any floor space that is constructed or intended for use solely as GIC facilities and public vehicle parks, as required by the Government, may be disregarded. ‘Public vehicle park (excluding container vehicle)’ use is always permitted within the “R(A)3” sub-area.
- (h) Planning briefs setting out the planning parameters, building heights, provision of GIC facilities and the design requirements of individual public housing sites will be prepared to guide the future development of the sites. In terms of design requirements, these may include the incorporation of lower-rise building areas abutting adjacent village settings and variations in building height to formulate an urban form with a building height profile gradually descending from north to south across the YLS area to ensure visual harmony with the surroundings.

“Residential (Group A)4” (“R(A)4”): Total Area: 0.21 ha

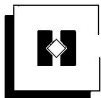
- (i) *The “R(A)4” site located to the west of Fu Sha Wai South Road and Hung Tin Road and to the south west of the Tin Shui Wai West Interchange, are intended for residential development and*

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residential care homes for the elderly. Development within this site is subject to a maximum plot ratio of 4.91 and a maximum building height of 60mPD for the “R(A)4”, or the plot ratio and height of the existing building, whichever is the greater

- 10.2.5. To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the above restrictions may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.

Diagram 17 Proposed Revision for the Explanatory Statement of the Tong Yan San Tsuen OZP
(Source: Town Planning Board, HKSAR Government)



4.1.3 The following paragraph is proposed to be included in the Remarks of the Statutory Notes of the "R(A)" zone: -

"(d) On land designated "R(A)4, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 4.91 and a maximum building height of 60mPD, or the plot ratio and height of the existing building, whichever is the greater.

(e) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio, site coverage and building height restrictions stated in paragraphs (a) to (d) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

(f) In determining the maximum plot ratio and site coverage for the purposes of paragraphs (a) to (d) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.

(g) In determining the maximum plot ratio for the purposes of paragraph (c) above, any floor space that is constructed or intended for use solely as Government, institution or community (GIC) facilities and public vehicle park, as required by the Government, may be disregarded.

(h) In determining the maximum plot ratio for the purposes of paragraphs (b) and (c) above, the area of any part of the site that is occupied or intended to be occupied by free-standing purpose-designed buildings (including both developed on ground and on podium level) solely for accommodating GIC facilities including school(s) as may be required by the Government shall be deducted in calculating the relevant site area"

4.1.4 The following paragraph is proposed to be included in the Explanatory Statement of the Tong Yan San Tsuen OZP: -

"10.1 Comprehensive Development Area ("CDA"): Total area 3.14 ha

[...]

10.1.2 "CDA" zone to the west of Hung Tin Road

A site of about 2.15 ha at the intersection of Castle Peak Road and Hung Tin Road is zoned "CDA". Development in the site is restricted to a total gross floor area (GFA) not exceeding 64,500m² (equivalent to a plot ratio of 3) and a maximum building height of 17 storeys. Major part of the site has been developed for residential use, known as Uptown. + notes

[...]

10.2 Residential (Group A) ("R(A)") : Total Area : 36.23 ha



[...]

10.2.4 There are also four sub-areas which are subject to the following development restrictions:

[...]

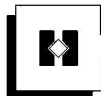
“Residential (Group A)4” (“R(A)4”): Total Area: 0.21 ha

(i) The “R(A)4” site located to the west of Fu Sha Wai South Road and Hung Tin Road and to the south west of the Tin Shui Wai West Interchange, are intended for residential development and residential care homes for the elderly. Development within this site is subject to a maximum plot ratio of 4.91 and a maximum building height of 60mPD for the “R(A)4”, or the plot ratio and height of the existing building, whichever is the greater.”

[...]

10.13 Green Belt (“GB”): Total Area: 120.78 ha

- 4.1.5 With the reduction of site area under the “CDA” zone to the west of Hung Tin Road, the maximum GFA is thus reduced to not exceeding 64,500 sq.m., which is equivalent to a PR of 3.0 as similar to the current. Slight amendment is also made to Section 10.13 of the Explanatory Statement of the Tong Yan San Tsuen OZP to reflect the reduction in the total area of adjacent “GB” zone.



5 DEVELOPMENT PROPOSAL

5.1 Indicative Development Scheme

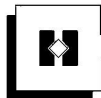
- 5.1.1 The Application Site covers an area of about 2,138 sq.m. and involves two 6-storey building blocks atop a 7-storey RCHE in the lowest G/F to 6/F.
- 5.1.2 Details of the development proposal are provided in **Table 7** and indicative architectural drawings of the Proposed Development is shown in **Appendix 1**.

Development Parameters	Proposed Scheme
Site Area (about)	2,138 sq.m.
Gross Floor Area (about)	10,489 sq.m.
- Domestic	- 3,528 sq.m.
- Non-domestic	- 6,961 sq.m.
Plot Ratio (about)	4.91
- Domestic	- 1.65
- Non-domestic	- 3.26
Site Coverage (about)	
- Domestic	- 26.6%
- Non-domestic	- 55.2%
Maximum Building Height (BH)	Not exceeding 60mPD
No. of Block	2
No. of Storeys	13
No. of Rooms for RCHE	70
No. of Beds for RCHE	450
No. of Flats under Residential Development	72
Average Flat Size (about) for Residential Development	49 sq.m.
Estimated Population	645
- Residential Development*	- 195
- RCHE	- 450
No. of Parking Spaces	
- Private Car	- 14 (7 for Residential Development (including 1 Accessible); 5 for RCHE (including 1 Accessible); 2 for Visitors)
- Light Bus	- 2 for RCHE
- Motorcycle	- 2 (1 for Residential Development; 1 for RCHE)
No. of Loading/Unloading Bay (L/UL)	
- Private Car	- 1 (for RCHE)
- LGV	- 2 (for RCHE (1 shared use with MGV/HGV))
- MGV/HGV	- 1 (for Residential Development)
Open Space Provision	Not less than 645 sq.m.
Tentative Completion Year	2031

Remarks:

* Assuming person per flat of 2.7.

Table 7 Key Development Parameters of the Indicative Scheme

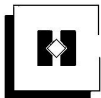


5.1.3 Details of the schedule of use by floors is provided in **Table 8**.

No. of Floor(s)	Indicative Uses
8 -12/F	Flats
7/F	Flats and Landscape Deck
1/F-6/F	Dormitory Floors of RCHE with Supporting Facilities
G/F	Entrance Lobby, Supporting Facilities, Electrical and Mechanical (E&M) and Parking Spaces

Table 8 Schedule of Use by Floors

- 5.1.4 Subject to future operator, it is intended that the proposed flats would target to serve people who are aged 60 or above only to enjoy their retirement life with additional supportive resources, including rehabilitation services and social activities.
- 5.1.5 The development proposal involves a 450-places RCHE with residential development atop the RCHE podium. The proposed maximum BH would not exceed 60mPD and the proposed maximum PR shall comply with the Buildings Ordinance (BO) (Cap. 123).
- 5.1.6 Tentatively, the Proposed Development would have 70 nos. of RCHE rooms and 72 no. of residential units, which targets to accommodate about 645 residents in total. Additionally, not less than 645 sq.m. of open space will be provided within the Proposed Development to serve the future residents, in which would be available on the G/F and the podium at 7/F to cater for the recreational needs of the users and residents of the future development.
- 5.1.7 Indicative architectural drawings of the Proposed Development are attached in **Appendix 1**. The floor plans incorporating with elderly-friendly building design will be prepared in accordance with the “*Best Practices in Design and Operation of Residential Care Homes for the Elderly*” as established by the SWD in 2023 and the “*Task Force on Promoting Elderly-friendly Building Design*” by the Government in 2024 accordingly. Besides, the proposed facilities are provided based on the Schedules of Accommodation for a RCHE of 250-place on a pro-rata basis. The proposed Schedules of Accommodation of the RCHE is attached in **Appendix 2**.
- 5.1.8 Under the current proposal, each RCHE resident will occupy about 10.9 sq.m. floor area (i.e., 4,907.1 sq.m. / 450 persons = about 10.9 sq.m.) (refers to **Appendix 2** of the proposed Schedules of Accommodation for the RCHE), complying with the statutory minimum floor space occupied per resident under the Residential Care Homes (Elderly Persons) Regulation (Cap. 459A), the Code of Practice for Residential Care Homes (Elderly Persons), and the Residential Care Homes Legislation (Miscellaneous Amendments) Ordinance 2023 (Ordinance No. 12 of 2023), or any further



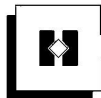
amendment.

5.2 Operation Arrangement

- 5.2.1 Upon completion, the proposed residential development atop is intended to sell or/and lease units to seniors at the highest priority.
- 5.2.2 The Proposed Development would be self-financed and self-funded from construction to operation. The Applicant shall bear the construction and operation cost of the Proposed Development, such that there shall be no financial implications, both capital and recurrent, to the Government.
- 5.2.3 For the proposed residential development, a full range of security services, including the provision of 24-hour guarding protection and monitoring, security system design, installation and maintenance would be considered. For instance, Care-On-Call services would be accommodated within each flat to be connected to 24-hour EasyHome® Service with the service of home caring. According to the Building Management Ordinance (BMO) (Cap. 344), the formation of Owners’ Corporation (OC) and Management Committee (MC) shall also be considered in the later stage to facilitate the property management and discharge owners’ responsibilities.
- 5.2.4 For the proposed RCHE premise, the Residential Care Homes (Elderly Persons) Ordinance (Cap. 459) and the Residential Care Homes (Elderly Persons) Regulation (Cap. 459A), as well as the Code of Practice for Residential Care Homes (Elderly Persons) will be complied with.
- 5.2.5 In accordance with the Code of Practice for Residential Care Homes (Elderly Persons), regular visits by a registered medical practitioner to the residents for health checking, medical consultation or follow-up treatment, once to twice per week.
- 5.2.6 There is currently a few of RCHE providing services specifically for cognitive impaired seniors. Subject to the future operator, the proposed RCHE premise may target for elderly with cognitive impairment.
- 5.2.7 Subject to the further decision of the Applicant in the future, it is tentatively to appoint experienced property management service provider and RCHE operator to be responsible for the daily operation of the proposed residential development and RCHE respectively.

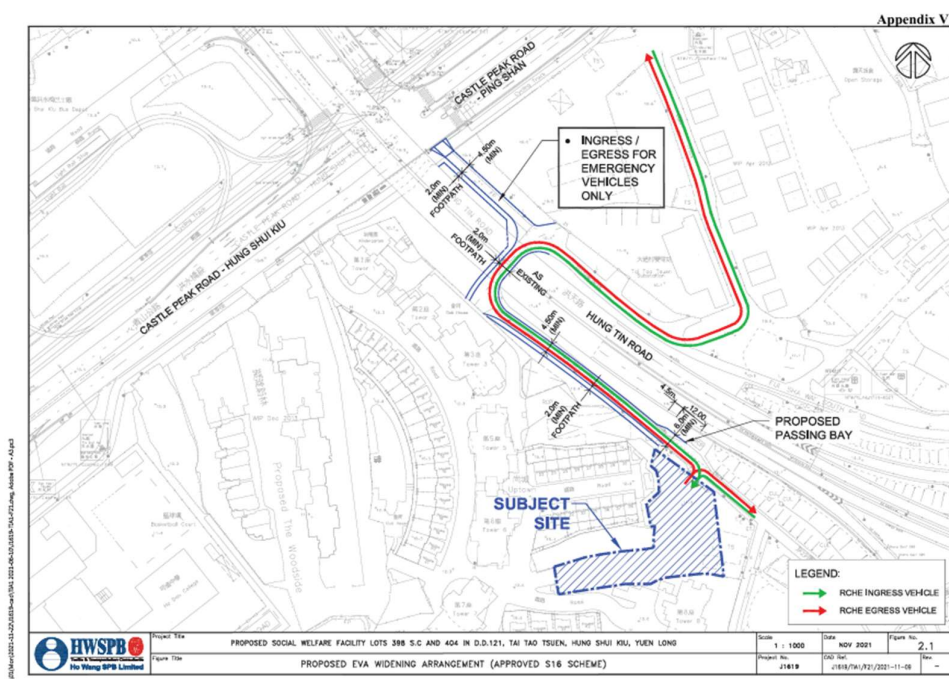
5.3 Proposed Access Arrangement

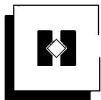
- 5.3.1 Referring to the planning history in **Section 3.2**, it is noted that two proposed access arrangements have been suggested by the then Board for the decision of previous planning applications No. A/YL-TYST/342, including (i) a new extended road connecting Hung Shun Road; and (ii) extension of Castle Peak Road – Hung Shui Kiu.
- 5.3.2 Noted that the proposed vehicular access is located at the northern side of the Project Site, connecting to the Fui Sha Wai South Road. To minimize the potential traffic implication on Fui Sha Wai South Road (which is



currently a single carriageway), alternative vehicular access located at southern side of the Project Site has been investigated (also known as the recommendation (i) a new extended road connecting Hung Shun Road). Constraints including closer location to the existing residential developments with possible traffic noise impacts generated, possible downstream blocking and/or illegal parking along kerbside, and etc.. Specifically, development traffic would traverse the affected private lots that are not solely held by the Applicant. Liaison with the affected lot owner(s) are required. Thus, implementation of such access arrangement is considered not feasible.

- 5.3.3 However, to facilitate the construction of the proposed development, the existing emergency vehicular access (EVA) connecting Castle Peak Road - Hung Shui Kiu and Fui Sha Wai South Road would be used as an access road for passing of construction vehicles during construction stage. The widening of the existing EVA connecting Castle Peak Road - Hung Shui Kiu and Fui Sha Wai South Road was approved under previous approved application No. A/YL-TYST/870, and relevant plans for the said widening works were previously approved by the relevant departments. In the District Lands Conference of February 2022 for the proposed land exchange for the Lot No. 2188 in D.D. 121, the Applicant was confirmed by the Transport Department (TD) that this widen section would only be used for the passing of construction vehicles during the construction stage.





- 5.3.4 Assessment on Fui Sha Wai South Road was conducted, with results indicate that the carriageway will operate within capacity even with the development in place. To enhance the traffic condition at Fui Sha Wai South Road, local widening works on the existing Fui Sha Wai South Road (which is currently a single-lane access road serving 2-way traffic) is proposed. With the proposed local widening work in place, the Traffic Impact Assessment (**Appendix 3**) also confirmed that the proposed access arrangement is appropriate in traffic point of view.

Proposed Vehicular cum Pedestrian Access to the Application Site

- 5.3.5 The proposed vehicular cum pedestrian access for the Proposed Development will be located at Fu Sha Wai South Road. Physical segregation between the residential and RCHE portions will be provided via internal separate pedestrian access.
- 5.3.6 In view of a Tso/Tong land (i.e., Lot 403 in D.D. 121) is sandwiched between the existing residential development, “Uptown”, in nearby Lot 2046RP in D.D. 121 and the Application Site (refer to **Figure 4**), sufficient space for emergency vehicular assess is reserved to the concerned Tso/Tong land. This is similar to the previous approved applications as well as the approved MLP under the “CDA” zone.
- 5.3.7 Hence, 2 pedestrian entrances and 1 RCHE entrance are proposed within the Application Site, while pedestrians shall enter and leave the Site via Fui Sha Wai South Road via the vehicular access.

Proposed Widening at Fui Sha Wai South Road (Diagram 19)

- 5.3.8 To enhance the traffic condition at Fui Sha Wai South Road, local widening works on the existing Fui Sha Wai South Road (which is currently a single-lane access road serving 2-way traffic) is proposed to allow better road circulation of the public road section connecting to the Application Site. The proposed widening section is anticipated to be a standard single-two carriageway for Fui Sha Wai South Road section between our proposed development access and the existing EVA connecting to Castle Peak Road – Hung Shui Kiu. The Applicant will be responsible for the implementation of proposed widening works, while it will be handed over to Highway Department (HyD) for future maintenance and management after satisfactory acceptance by HyD. Details of the proposed local widening works is demonstrated in Traffic Impact Assessment (**Appendix 3**).

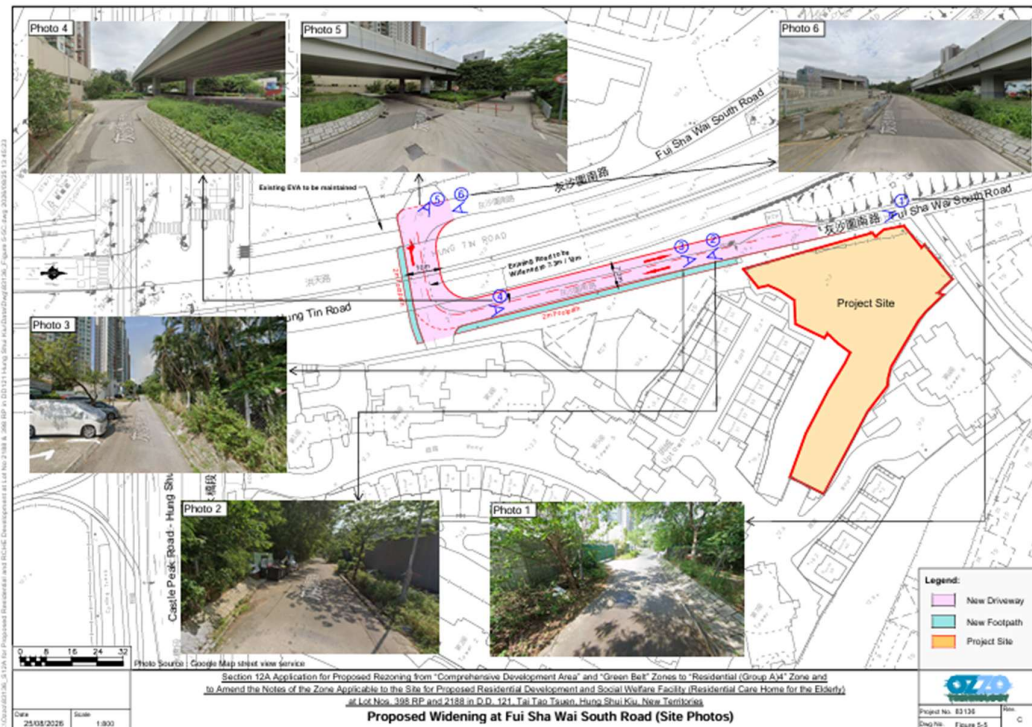
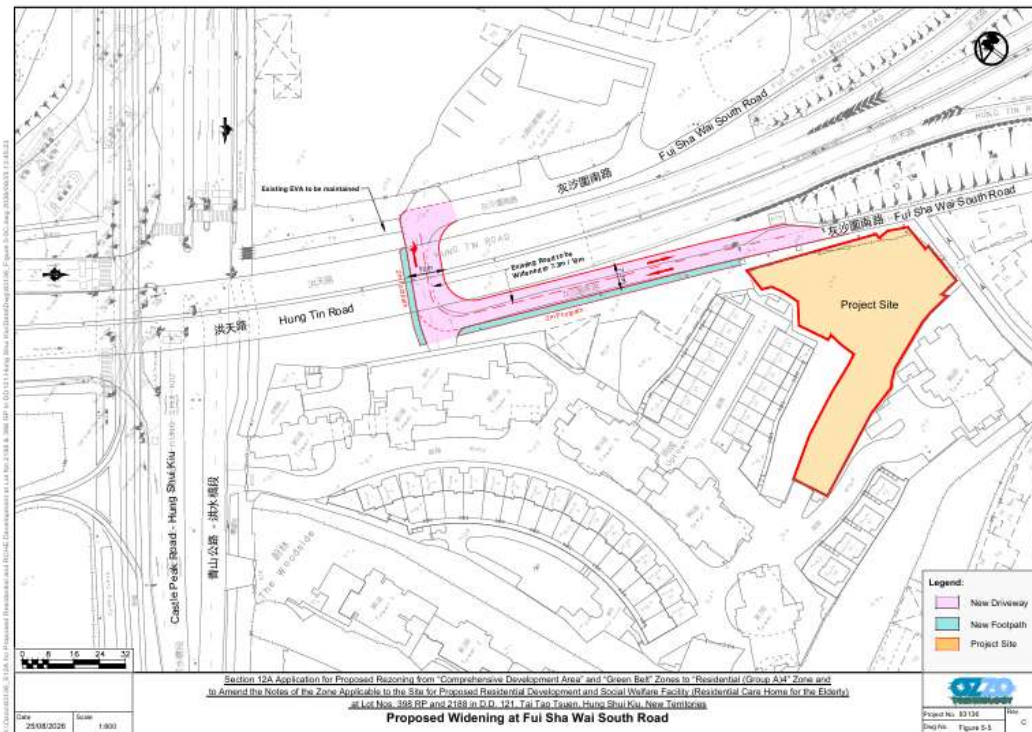
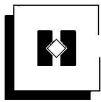
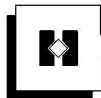


Diagram 19 Proposed Vehicular Access Leading to the Application Site During Operation Stage
(Source: Appendix 3 of Traffic Impact Assessment)



5.4 Tentative Development Timeline

- 5.4.1 It is expected to obtain agreement for this Proposed Development in year 2026 and complete the land exchange in years 2027/28. It is estimated to take about 3 years to construct. The Proposed Development is expected to be completed in year 2031 tentatively.

5.5 Emergency Arrangement

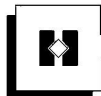
- 5.5.1 The nearest public hospital is the Tin Shui Wai Hospital at Tin Shui Wai New Town. In case of accidents and emergency services required, the Proposed Development is just around a 10-minute drive from the Tin Shui Wai Hospital. Also, the Application Site is located in a close distance to Pok Oi Hospital within a 15-minute driving distance.
- 5.5.2 The Tin Shui Wai Fire Station and Yuen Long Fire Station are just within 10- and 15-minute driving distance from the Application Site respectively, in which to ensure adequate response times and rescue services from the Fire Services Department (FSD).

5.6 Proposed Land Exchange and Application of Incentive Scheme

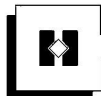
- 5.6.1 Upon the approval of this planning application, the Applicant will apply for a land exchange to modify the lot boundary as well as the lease covenants. Details of the land exchange application shall be submitted to the Lands Department (LandsD) upon approval of this planning application.
- 5.6.2 The Applicant intends to apply for the *“Incentive Scheme to Encourage Provision of Residential Care Home for the Elderly Premises in New Private Developments – Time Limited Enhancement”* (LAO Practice Note No. 5/2023).

5.7 Comparison of Major Development Parameters of the Captioned Application and the Previously Approved Planning Application (No. A/YL-TYST/870)

- 5.7.1 Compared with the approved scheme under the previous s.16 planning application for sole RCHE (No. A/YL-TYST/870), the proposed amendment of plan mainly involves amendment on site boundary and increase in site area, GFA, PR, BH and site coverage (SC). To achieve a higher development intensity, the GFA and BH of the building have been increased correspondingly to provide additional beds and units (with + 150 beds and + 72 units) for the Proposed Development under this s.12a planning application. Also, a larger floor space per RCHE residents is proposed (i.e., 6,961 sq.m.) as compared to the average floor space of 10.9 sq.m. per RCHE residents under the abovementioned approved application.
- 5.7.2 Comparison of major development parameters of the current application and the previously approved planning application (No. A/YL-TYST/870) are summarized at **Table 9**.



Development / Development Parameters	Previous Approved Application (No. A/YL- TYST/870) (a)	Captioned Application (b)	Difference (%) (b) - (a)
Zoning on the OZP	“CDA”	Proposed rezoning from “CDA” and “GB” to “R(A)4”	-
Proposed Uses	Proposed Social Welfare Facility (RCHE)	Residential Development and Proposed Social Welfare Facility (RCHE)	+ Residential Use
Site Area (Gross) (about) (sq.m.)	1,795	2,138	+343 (+19.43%)
Proposed GFA (about) (sq.m.) - RCHE portion	5,313	6,961	+1,648 (+31.02%)
- Residential portion	-	3,528	+3,528 (+100%)
Proposed PR (about) - RCHE portion	2.96	3.26	+0.3 (+10.14%)
- Residential portion	-	1.65	+1.65 (+100%)
Proposed Total Site Coverage (about) (%)	52%	55.2%	+3.2% (+6.15%)
No. of Block	1	2	+1
Building Height	7 storeys (34.8mPD)	13 storeys (Not exceeding 60mPD)	+ 6 storeys (+85.71%) +25.2mPD (+72.42%)
No. of Beds/Units - RCHE portion	300 beds	450 beds	+150 beds (+50%)
- Residential portion	-	72 units	+72 units (+100%)
No. of Parking Spaces - Private Car	3	14	+11 (+367%)
- Light Bus	1	2	+1 (+100%)
- Motorcycle	0	2	+2 (+200%)
- L/UL Bay	1	4	+3 (+300%)
- Taxi/Private Car Pick-up/Drop-off Spaces	1	0	-1 (-100%)



Development / Development Parameters	Previous Approved Application (No. A/YL- TYST/870) (a)	Captioned Application (b)	Difference (%) (b) - (a)
Open Space Provision (sq.m.)	About 300	Not less than 645	+345 (+115%)
Greenery Provision (about) (sq.m.)	-	About 486.25	+486.25 (+100%)

Table 9 Comparison of the Captioned Application and the Previous
Approved Application (No. A/YL-TYST/870)
(Source: Town Planning Board, HKSAR Government)

- 5.7.3 After reviewing the development context, the captioned Application shall optimize land with the integration of diverse facilities into mixed compact development, with higher development intensity incorporating with the GFA and BH of the building. Hence, additional beds and units (with + 150 beds and + 72 units) are provided for the Proposed Development under this s.12a planning application.

5.8 Design Concepts and Merits (Figure 7)

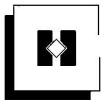
Provision of 5m-Building Setbacks

- 5.8.1 To enhance air quality in the neighbourhood, a building setback of 5m is provided from Fui Sha Wai South Road to the nearby residential developments (i.e., “Uptown”), which helps to provide more natural light and ventilation to the existing buildings, as well to minimize air and traffic noise impacts from the surroundings. Design of building setback would be considered in compliance with the requirements under the B(P)R (Cap. 123F) and the Sustainable Building Design Guidelines (SBD Guidelines) (PNAP APP-152) to ensure the adequate air and visual permeability.

Street-level Landscaping

- 5.8.2 With the intention of enhancing the connectivity as well as improving the street scape environment at pedestrian level, the street-level landscaping is proposed to create a landscape and visual buffer along the site boundary. It helps to facilitate a seamless transition between the Proposed Development and the adjacent natural and built environment. To maintain a visual relief and bring improvement to the pedestrian environment, proper landscaping with solid fence wall will be provided with planting beds with evergreen trees and shrubs, details of landscaping features are summarized in the Landscape Proposal in **Appendix 7**, in order. Provision of street-level landscaping will be managed and maintained by the future owners of the Proposed Development.

Building Disposition with Separations



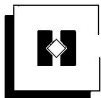
- 5.8.3 About 14.5m building separation between two residential blocks is proposed to reduce the building bulkiness of its podium for a better natural ventilation and visual permeability of the Proposed Development. The provision of building void not only can effectively improve visual openness of podium, but also to enhance air circulation at the pedestrian level and allow fresh air flow into the central courtyard. Besides, about 13.59m building separation between the proposed building block to the nearby residential developments (i.e., “Uptown”) is also provided.
- 5.8.4 In addition, the provision of building separation prioritizes urban design feature of visual openness, to ensure that the Proposed Development could be integrated harmoniously with the surrounding townscape while minimizing any sense of enclosure. Design of building separation would be considered in complying with the requirements under the B(P)R (Cap. 123F) and SBD Guidelines (PNAP APP-152).

Ensuring Compatibility to the Surrounding

- 5.8.5 Noting that the Application Site is surrounded by various land uses, intermixed with residential developments, village houses, temporary structures, schools, carparks and open storage uses as described in **Section 2.3**. The scale and design of the Proposed Developments, including but not limited to the PR and BH, are compatible to the surrounding existing and planned developments. Street-level landscaping will be provided along the Application Site to ensure compatibility to the surrounding environment, as well as to create a tranquil and pleasant environment for the future users and visitors. Appropriate landscape design and ample planting will be incorporated with the local open space provision of not less than 645 sq.m. on the landscaping area at ground floor and 7/F of the Proposed Developments to enhance the visual amenity of the area, as well as to serve both future occupants of the RCHE and residential units.
- 5.8.6 Noted that the local open space provision of about 300 sq.m. was proposed under previous approved application (No. A/YL-TYST/870). Compare to the indicative architectural drawings of the Proposed Development (**Appendix 1**) and the captioned approved application, a significant improvement scheme is identified with more open space provision shall be provided within the Site.

Creation of Age-friendly Environment

- 5.8.7 To create age-friendly environment within the Proposed Development, design elements and amenities such as elderly-friendly equipment/facilities (i.e., sitting garden, fitness equipment for the elderly) on the ground floor and landscape deck at 7/F. Thus, a more pleasing environment could be created to encourage the users and visitors of the RCHE and residential units to promote cohesion and interaction amongst, as well as live healthily and comfortably within the community.
- 5.8.8 The design of the hard landscape elements has been developed in



accordance with the Elderly-Friendly Design Guidelines of “*Design Manual Barrier Free Access 2008 (2025 Edition)*” published by the BD. This ensures that materials, finishes, and layouts are optimized for accessibility, safety, and ease of use for elderly users.

Maximise Greenery Provision throughout the entire Proposed Development

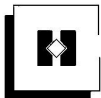
- 5.8.9 A total of 17 nos. of new trees are proposed throughout the Application Site to enhance the local biodiversity of existing environment. Compare to the existing condition, new ornamental tree and shrub plantings are proposed along the Application Site to soften the built form and maximize the greenery.
- 5.8.10 The Proposed Development seeks to provide abundance of greenery with a total of about 486.25 sq.m. and a greenery ratio of about 22.74%, in which will be over 20% greenery requirement (equivalent to about 427.6 sq.m.) set out in the SBD Guideline (PNAP APP-152). All proposed greenery would be easily accessible and visible by the users and visitors. In addition, the proposed plantings at the amenity would create a tranquil and pleasant environment for enjoyment of future residents.

Incorporation of Elderly-friendly Building Design

- 5.8.11 The design prioritises will be based upon the use of passive techniques such as natural ventilation, daylighting, and thermal mass to minimise the building's environmental impact while creating a comfortable and inviting interior. To ensure safe mobility and accessibility of the built environment, a wider canopy from barrier-free building entrance incorporating with landscaping plantations will be provided to create an age-friendly environment.
- 5.8.12 Age-friendly features such as non-slip surfaces, appropriate bench heights, and clear, unobstructed pathways have been incorporated to create an inclusive environment that promotes comfort and convenience for all users, particularly the elderly of the RCHE and residential units.
- 5.8.13 Other elderly-friendly building design will be prepared in accordance with the “*Best Practices in Design and Operation of Residential Care Homes for the Elderly*” as established by the SWD in 2023 and the “*Task Force on Promoting Elderly-friendly Building Design*” by the Government in 2024 and the ‘Elderly-Friendly Building Certificate’ under the BEAM Plus framework announced in 2025 accordingly.

Provision of Active and Passive Activities

- 5.8.14 According to the Indicative Development Scheme and Landscape Proposal shown in **Appendices 1 and 7**, not less than 645 sq.m. communal open space would be provided in serving about 645 future occupants at the Proposed Development. Landscape Areas are proposed on the ground floor and landscape deck at 7/F to provide enjoyment of the users and visitors for both future RCHE and residential units respectively. In addition, the communal open spaces are equipped with outdoor furniture,



such as seating and fitness equipment, to enhance comfort and encourage social interactions among occupants. As suggested in the “*Study on Active Design for Healthier Lifestyle – Feasibility Study*” and the “*Study on Reimagining Public Spaces in Hong Kong – Feasibility Study*” commissioned by the PlanD that were completed in 2023, the creation of active shared spaces for elderly could ensure both needs and foster a sense of community among different users.

- 5.8.15 To ensure the safety of elderly residents, both mandatory and non-mandatory design requirements, including but not limited to the barrier-free design requirements under the B(P)R (Cap. 123F), Elderly-friendly Design Guidelines published by the Architectural Services Department (ArchSD) will be followed.

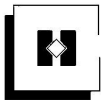
Promotion of Integrated and Interactive Neighbourhood

- 5.8.16 The Proposed Development features a design element that facilitates integrations and interactions among the future users and visitors of the RCHE and residential units through the landscape areas on the ground floor. The inclusion of shared open spaces incorporated with landscaping are provided, including a sitting garden and a gathering courtyard on the ground floor. While other recreation facilities, such as yoga area, terrace garden, fitness equipment zones, with a viewing platform are proposed at 7/F. It offers a variety of recreational and relaxation options, so as to encourage social interaction and alleviate feelings of isolation among occupants. Such improvement would not affect to the character of the nearby residential development (i.e., “*Uptown*”) within the “CDA” zone, indeed, would enhance the overall neighbourhood to be integrated and interactive among with the Proposed Development.

- 5.8.17 The landscape deck at 7/F provides a viewing platform space for the future residents to enjoy the view of Kung Um Shan (of about 297m) to the southeast in order to promote the elderly’s well-being. The open-sided void areas also allow cross view corridor to mountain backdrop to enhance visual permeability and the visual linkage of the building and surrounding environment. To maximize the greening opportunities within the Application Site, a diverse selection of plants would be incorporated with the outdoor furniture and recreational facilities to create attractive green spaces.

Maximise Provision of Open Space

- 5.8.18 To promote a high-quality living environment, the Proposed Development shall maximise of open space provision to enhance well-being and social interaction among the future users and visitors. A variety of landscape open spaces are proposed at the ground floor and landscape deck at 7/F, such as a sitting garden, a gathering courtyard, fitness equipment zones and a viewing platform, to cater to the mobility and recreational needs of elderly. Green features are incorporated to enhance the overall aesthetic and ecological quality of the surrounding urban fabric. The open spaces are universally accessible, with barrier-free

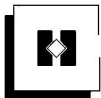


pathways and rest areas tailored to support seniors’ safety and comfort.

- 5.8.19 Design requirements, including the barrier-free design requirements under the B(P)R (Cap. 123F), Elderly-friendly Design Guidelines published by the ArchSD.

Compliance with Licensing Requirements

- 5.8.20 The proposed RCHE will meet all the statutory requirements under the Residential Care Homes (Elderly Persons) Ordinance (Cap. 459), the Residential Care Homes (Elderly Persons) Regulation (Cap. 459A) and its regulations, the Code of Practice for Residential Care Homes (Elderly Persons) as well as other related statutory requirements.
- 5.8.21 It is noted that the proposed RCHE for residents’ dormitory will be situated at a height of not more than 24m above the ground floor, measuring vertically from the ground of the building to the floor of the premises in which the RCHE is to be situated, as pursuant to the requirements as set out in Para 5.3.1 of Code of Practice for Residential Care Homes (Elderly Persons).
- 5.8.22 Under the current proposal, each resident will occupy about 10.9 sq.m. floor area (i.e., 4,907.1 sq.m. / 450 persons = about 10.9 sq.m.) (Refers to **Appendix 2** of the Proposed Schedules of Accommodation for the RCHE), complying with the statutory minimum floor space occupied per resident under the Residential Care Homes (Elderly Persons) Regulation (Cap. 459A), the Code of Practice for Residential Care Homes (Elderly Persons), and the Residential Care Homes Legislation (Miscellaneous Amendments) Ordinance 2023 (the Amendment Ordinance), or any further amendment.
- 5.8.23 Proposed facilities and services are provided with respect to the “Best Practices in Design and Operation of Residential Care Home for the Elderly” developed by the SWD. Hence, design details of the proposed RCHE are still subject to refinement at the General Building Plan (GBP) stage. Upon the granting of approval from the Board, the Applicant would submit an application to the Licensing Office of Residential Care Homes for the Elderly (LORCHE) of SWD for the proposed RCHE.



6 TECHNICAL FEASIBILITY

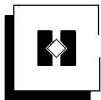
6.1 Traffic Considerations

Traffic Arrangement

- 6.1.1 The current vehicular cum pedestrian access for the Application Site is located at Fui Sha Wai South Road. To enhance the pedestrian connectivity and allow separation of pedestrian for the RCHE portion, two pedestrian entrances and one RCHE entrance are proposed within the Application Site.
- 6.1.2 To enhance the traffic condition at Fui Sha Wai South Road, local widening works on the existing Fui Sha Wai South Road (which is currently a single-lane access road serving 2-way traffic) is proposed. Further details of proposed local widening of Fui Sha Wai South Road under this Proposed Development are shown in the Traffic Impact Assessment (**Appendix 3**).
- 6.1.3 It is proposed to have 14 nos. of carparking spaces (including 2 accessible parking); 2 nos. of motorcycle parking spaces; 2 nos. of light bus parking spaces; 1 no. of lay-by for taxi and private cars; 1 no. of loading and unloading space for private car; and 3 no. of loading and unloading spaces (1 no. for Light Goods Vehicle (LGV); 1 no. for Medium/Heavy Goods Vehicles (M/HGV); and 1 no. for “shared-use” for coaches/buses and M/HGV). The internal transport facilities will be provided at G/F of the Proposed Development.
- 6.1.4 In addition to the vehicular access, future residents and visitors may also take advantage of the availability of public transport system namely franchised bus, GMB and LRT services, which are in close proximity to the Application Site, to/from the Proposed Development and to travel across the territory.
- 6.1.5 Swept path analysis has been conducted and indicates no unsatisfactory result.

Vehicular Flow Generation

- 6.1.6 Junction and link capacity assessments have been conducted to take into account of the traffic impacts 3 years after completion of the Proposed Development (i.e., year 2034). All concerned road links and key junctions will be operated within capacity, and performed satisfactorily during AM and PM peak hours on a normal weekday, to accommodate the expected traffic growth and additional traffic generated by the Proposed Development. Also, some planned traffic improvement works by the Civil Engineering and Development Department (CEDD) and the Highways Department (HyD) are identified within the assessment area in accordance with the future Yuen Long South Development and Yuen Long Highway Widening Works respectively. With the adequate junction and link capacity, no adverse traffic impact on the existing road network is



anticipated.

Pedestrian Flow Generation

- 6.1.7 The Level of Services (LOS) assessment of the existing public footpaths connecting the Application Site and in the vicinity of the Application Site has been conducted. The results show that the existing footpaths have sufficient capacity to accommodate the expected pedestrian growth and additional pedestrians generated by the Proposed Development.

Public Transport Capacity

- 6.1.8 Assessment on public transport demand has been conducted and indicated that there would be of sufficient public transport spare capacities of about 11,063 and 9,128 passengers for weekday AM and PM peaks respectively, to cope with the additional public transport demand from the Application Site. Average growth rate of the existing bus services and the public transport demand of about +2.03% per annum from 2025 to 2031 to +0.5% per annum from 2031 to 2034 are identified. Hence, the capacity of the existing bus services and the public transport would be capable to cope with the additional road-based demand associated to the Proposed Development.

6.2 Environmental Considerations

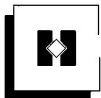
- 6.2.1 An Environmental Assessment has been conducted (**Appendix 4**). Upon review, it is anticipated no adverse air quality impact, noise impact, water quality impact, waste management impact and land contamination impact will be caused by the Proposed Development.

Air Quality Impact Consideration

- 6.2.2 Noting that the Application Site abuts Fui Sha Wai South Road, and closer to Castle Peak Road – Hung Shui Kiu via Fui Sha Wai South Road and a local access as described in **Section 2.1**. Adequate buffer distance between the air pollution sources and the Site boundary shall be required, and hence no air sensitive uses (i.e., openable windows, fresh air intakes of mechanical ventilation and recreational uses in the open area) shall be located within the buffer zone. No adverse vehicular emission impact associated with air quality shall be required.
- 6.2.3 With the implementation of the good practice and control measures as suggested in the Environmental Assessment, adverse construction dust impacts on the air sensitive receivers (ASRs) and construction plant emission are not anticipated. Construction dust impacts are therefore not insurmountable.

Noise Impact Consideration

- 6.2.4 With the implementation of mitigation measures including architectural fins, acoustic windows (baffle type) and fixed/lockable/maintenance windows design, full compliance of the HKPSG recommended criterion of 70db(A) for L_{10} (1-hour) for domestic premises would be achieved at all



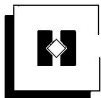
noise sensitive receivers (NSRs). Therefore, the Proposed Development will not be subjected to adverse traffic noise impact.

- 6.2.5 Railway noise due to Light Rail tracks to the Application Site has been assessed, noise impact is expected to be insignificant in view of the separation distance. Additionally, noise generated from the future and the future Smart and Green Mass Transit System (SGMTS) (previously known as Green Transit System (GTS))¹⁵ is expected to be minimal due to sufficient separation distance incorporating with the proposed noise mitigation measures into the SGMTS design. All predicted rail noise levels at the representative NSRs for the Proposed Development would comply with the relevant noise criteria stipulated in the HKPSG and hence no migration measure is required. Therefore, it is anticipated that the Proposed Development will not be subjected to adverse railway noise impact.
- 6.2.6 On-site assessment for the existing fixed noise sources from the Tai Tao Tsuen Substation has been conducted, and hence no significant noise emitted. No adverse fixed noise impacts arising from the operation of Tai Tao Tsuen Substation is anticipated.
- 6.2.7 With reference to the Environmental Protection Department (EPD)’s recommended pollution control clauses for construction contracts and the implementation of mitigation measures and good site practices as suggested in the ProPECC PN 1/24 “*Minimizing Noise from Construction Activities*”, the construction noise impact of the Proposed Development is anticipated to be minimized.
- 6.2.8 During the operation phase, the Mechanical and Electrical (M&E) equipment would be installed in plant rooms and be enclosed with louvres installed at the openings. Also, quiet air conditioning system will be selected as far as practicable, and outdoor air conditioning units will be located away from the nearest NSRs to minimise noise impact on the NSRs closest to the Proposed Development. No adverse noise impact from the planned fixed noise sources is anticipated.

Water Quality Impact Consideration

- 6.2.9 During the construction phase, sewage generated by filling activities, construction vehicles, equipment and construction workers would be the major potential source of water quality impacts. With the implementation of mitigation measures and good site practices, adverse water quality impacts from in construction phase are not anticipated.
- 6.2.10 During the operation phase, sewage and grey water generated from toilets, showers, sinks and kitchens will be collected and discharged into the public sewerage system. With the provision and maintenance of silt/sand traps in the drainage systems, no adverse water quality due to runoff is expected, thus no adverse water quality impact from operation of the

¹⁵ <https://www.hskhtgts.hk/en/greentrans-hsk/index.htm>



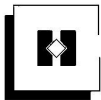
Proposed Development is anticipated.

Waste Management Impact Consideration

- 6.2.11 During the construction phase, inert and non-inert construction and demolition (C&D) materials would be generated prior to site clearance, excavation, re-profile works and superstructure. Inert C&D materials should be re-used on-site as far as practicable and delivered to public fill reception facilities (i.e., Fill Bank at Tuen Mun Area 38 and Fill Bank at Tseung Kwan O Area 137), whilst non-inert C&D materials and all general refuse should be recycled as far as practical and landfill disposal to the nearest disposal facility (i.e., West New Territories (WENT) Landfill) should only be adopted as the last resort. Further details on the waste disposal to public landfill would be agreed with relevant authorities.
- 6.2.12 Development of a waste management plan (WMP) and implementation of good site practices would be provided to reduce the waste generation as far as practicable. No adverse impacts related to the management, handling and transportation of waste during construction phase is anticipated.
- 6.2.13 During the operation phase, municipal solid waste will be the main concern with regard to waste generation. Possible chemical waste should be segregated from other wastes, and would be labelled and stored safely in a compliant container within a designated area before transferring to a disposal site. While possible clinical waste should be also segregated from other wastes, and would be labelled and stored in a sharp box before transferring to a disposal site. Licensed collectors would collect and transport the chemical and clinical wastes to the designated waste treatment facility (i.e., Chemical Waste Treatment Centre (CWTC) in Tsing Yi) for proposer disposal on a monthly basis. Domestic waste will be collected on a daily basis in by registered waste collectors and will be disposed of at public landfill managed by the EPD. Besides, food waste will be collected separately for proper disposal (i.e., off-site treatment at Organic Resources Recovery Centre (O Park)) for or on-site treatment with food waste composting machines, etc.. No adverse waste impacts from handling, transportation or disposal are anticipated.
- 6.2.14 With the implementation of the recommended mitigation measures and waste management plan, adverse waste impacts generated during the construction and operation phases of the of the Proposed Development are not anticipated.

Land Contamination Impact Consideration

- 6.2.15 Site appraisals including desktop research of historical records and the site walkover have been conducted, in which no past and existing potential sources of land contamination were identified. Hence, no adverse impact from the land contamination impact is anticipated and site investigation is considered not necessary.



6.3 Sewerage Considerations

- 6.3.1 A Sewage Impact Assessment (**Appendix 5**) has been carried out to examine the existing sewerage conditions of the subject Site. With the implementation of the proposed sewerage works, an internal sewerage system will convey into a new terminal sewerage manhole connecting to the existing 400mm diameter branch sewer drain, no adverse sewerage impact is anticipated from the Application Site. The existing sewer system will still have spare capacity to receive the sewerage flow generated from other developments in the area when necessary. Detailed design of the proposed sewerage connecting works and the internal sewerage system will be submitted to the Building Authority (BA), for approval prior to commencement of the construction works.

6.4 Drainage Considerations

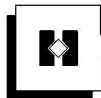
- 6.4.1 A Drainage Submission has been conducted (**Appendix 6**). A new stormwater drainage has been proposed to collect the surface channels and building drains of the Proposed Development, connecting to a new terminal manhole and further discharge via a newly constructed 450mm diameter drain (of which the existing 300 millimeter (mm) diameter discharge pipe would be abandoned) to the existing 2000mm x 2000mm channel. The proposed drainage work would neither alter the existing drainage patterns nor obstruct the flow paths of the area. With the implementation of proposed drainage works, no adverse drainage impact arising from the Proposed Development is anticipated. Detailed design of the proposed drainage connecting works will be submitted to the BA for approval at the later stage.

6.5 Landscape Design Considerations

- 6.5.1 The Landscape Proposal has been conducted (**Appendix 7**) to identify the existing condition and compensatory planting proposal. Also, a Landscape Master Plan indicates that all available areas within the Site have been utilized for greenery and tree planting, in respond to site conditions, building form and function.

Compensatory Planting Proposal

- 6.5.2 Based on the Landscape Proposal, the planting proposal has clearly identified the proposed location, with 17 nos. of standard trees with average Diameter at Breast Height (DBH) with approximately 75mm are proposed to be planted to compensate the loss of 2 nos. of existing trees recorded within the Application Site. All new trees within the Application Site boundary will all be managed and maintained by the Applicant.
- 6.5.3 The proposed planting regime will provide approximately 1 : 8.5 compensation ratio in terms of quantity of the loss of 2 existing trees in accordance with *Processing of Tree Preservation and Removal Proposals for Building Development in Private Projects - Compliance with Tree Preservation Clause under Lease* (Guidance Notes of LAO PN No. 6/2023).



- 6.5.4 The proposed trees are mostly native species that are available in local nurseries at heavy standard size. The selection of plant combination enriches the colour complexity and visual gradation of the Proposed Development. Tree planting is proposed in the planting strips along the Site boundary, to create a landscape and visual buffer to the new building, as well as to provide segregation between the Application Site and the surrounding environment. Additionally, soft landscape works, including shrubs planting and groundcover, will also be planted at G/F and landscape deck at the 7/F for enjoyment of the residents.

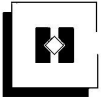
Landscape Proposal

- 6.5.5 The Landscape Master Plan indicates that all available areas within the Site have been utilized for tree planting, in respond to site conditions, building form and function.
- 6.5.6 Not less than 645 sq.m. open space is provided within the Proposed Development. The Proposed Development will also provide about 486.25 sq.m. greenery area and a greenery ratio of about 22.74%, in accordance with the requirement of PNAP APP-152 for provision of a minimum 20% greenery area. All proposed greenery would be easily accessible and visible by the users and visitors.
- 6.5.7 Recreational facilities are proposed at the ground floor and 7/F podium garden to cater to the recreational needs of the occupants of the RCHE and residential units respectively. The communal open spaces are equipped with outdoor furniture, such as seating and fitness equipment, to enhance comfort and promote social interaction among users. In addition, the viewing deck at 7/F will help to foster interaction among future residents while offering a scenic vantage point.
- 6.5.8 To create an inclusive environment for elderly users, elderly-friendly design consideration has been developed in accordance with the Elderly-Friendly Design Guidelines of “*Design Manual Barrier Free Access 2008 (2025 Edition)*” published by the BD.

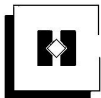
6.6 Visual Consideration

Visual Appraisal

- 6.6.1 As demonstrated in the Visual Appraisal in **Appendix 8**, the Proposed Development is designed to be compatible with the surrounding low-to-high-rise residential developments in the neighbourhood. To ensure compatibility and enhance the visual quality of the area, the indicative architectural drawing as shown in **Appendix 1** will incorporate thoughtful design features, including strategically planned building layouts to maximize visual permeability, optimised building disposition and massing, as well as the integrated landscape design that enhances visual quality of Yuen Long District. These elements aim to create a cohesive and visually pleasing environment that complements the existing urban fabric.
- 6.6.2 Hence, the Visual Appraisal has confirmed that the Proposed



Development will create minimal to negligible visual impact to the surroundings and is considered not incompatible with the surrounding residential neighbourhood.



7 PLANNING ASSESSMENTS AND MERITS

7.1 Change in Planning Context Since the Designation of “CDA” and “GB” Zones

- 7.1.1 This rezoning application on the Proposed Development aims to release the development potential for minor amendments in the future, and to provide flexibility in subsequent modification of uses within the development without the need for submission of a revised MLP.

“CDA” zone

- 7.1.2 Since the Approved Tong Yan San Tsuen DPA Plan No. S/YL-TYST/1 which was gazetted on 18 June 1996, the “CDA” zone has covered the Application Site and is still remaining on the Approved Tong Yan San Tsuen OZP No. S/YL-TYST/14. The planning intention of the “CDA” zone is intended for comprehensive development/redevelopment of the area for residential use with the provision of open space, commercial and other supporting facilities. There is no planning brief prepared for the concerned “CDA” area.

- 7.1.3 Subsequent to the completion of “Uptown” (a private residential development, under the approved planning application No. A/YL-TYST/322) on 1 September 2006, of which occupies majority of the “CDA” zone, the remaining parts of the “CDA” zone have been left vacant and fenced off, as well as being occupied by various temporary structures due to fragmented land ownership. Since 2013, the biennial review on “CDA” sites by the RNTPC has agreed for rezoning the whole concerned “CDA” site¹⁶.

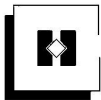
- 7.1.4 Hence, the Proposed Amendments aim to foster a comprehensive development for proposed residential development and RCHE dedicated for senior housing is in line with the recommendation of the “CDA” review by the RNTPC.

“GB” zone

- 7.1.5 For the “GB” area in the Application Site, the planning intention of “GB” zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone. According to the ES of the Approved Tong Yan San Tsuen OZP, the whole concerned “GB” zone along the north-western side of Yuen Long Highway covers a land area of about 137,439 sq.m. is intended to serve as a buffer between the Yuen Long Highway and the residential areas to its north-west.

- 7.1.6 It should be noted that the subject “GB” site is located at the northwest fringe of the whole “GB” zone and is separated by a local access road and nullah from the whole concerned “GB” zone (**Diagram 20**). The “GB” zone

¹⁶ RNTPC Paper Nos. 4/13, 8/15, 4/17, 3/19, 5/21, 4/23 and 3/25, Town Planning Board.



in the immediate south is fenced off and is constituted as part of the existing residential development, known as “*Uptown*”, under the approved planning application No. A/YL-TYST/322 (**Diagram 21**). The Proposed Development intends to rationalize the site boundary to include the remaining “GB” stripe for providing a comprehensive development to serve the elderly population. To maintain the intention of “GB” zone, tree planting is proposed on the periphery of the Application Site to create a landscape and visual buffer between the Proposed Development and the surrounding environment.



Diagram 20 Existing Condition of the Current “GB” zone under the Approved Tong Yan San Tsuen OZP
No. S/YL-TYST/14

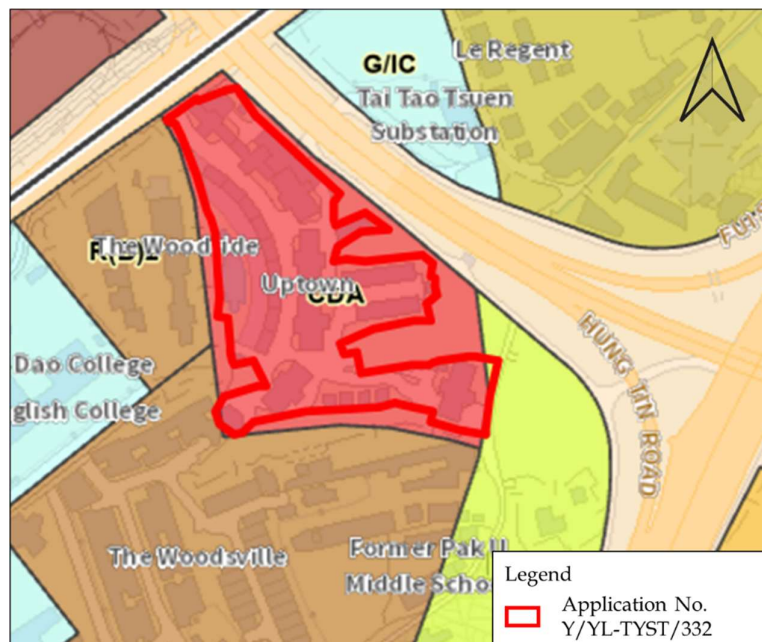


Diagram 21 Approved Planning Application No. Y/YL-TYST/322
 (“Uptown”)

(Source: Town Planning Board, HKSAR Government)

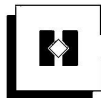
7.1.7 Moreover, the proposed rezoning of the “GB” zone is considered small in scale, only accounted for approximately 0.25% of the whole concerned “GB” zone, hence, the planning intention of the “GB” zone is not expected to be undermined.

7.2 Optimise Existing Land Resource to Meet Societal and Residential Demand

7.2.1 Majority of the Application Site (i.e., area currently zoned as “CDA”) is subject to an approved application (No. A/YL-TYST/870) for the proposed RCHE use. Considering that the Application Site is situated in a strategic location and sandwiched between the HSK/HT NDA and YLS Development, that is well served by existing public transportation facilities (i.e., franchised buses, GMB and LRT services) and the future Smart and Green Mass Transit System (SGMTS) (previously known as Green Transit System (GTS)) is expected to pass by the Application Site connecting the planned HSK/HT NDA to the planned YLS Development, this parcel of land is accessible to community and retail facilities which is considered an appropriate location for a retirement community¹⁷.

7.2.2 The previously approved application No. A/YL-TYST/870 for sole RCHE only include portion of “CDA” area has left the immediate “GB” site idle is considered not maximizing the existing land resources. In order to maximize the development potential of land, site boundary of the

¹⁷ <https://www.hskhtgts.hk/en/greentrans-hsk/index.htm>



Proposed Development follows the road alignment which includes partial of land zoned as “GB”. Considering the “GB” zone in the immediate south is part of the residential development of “Uptown”, it is considered appropriate to include the concerned “GB” zone as Proposed Development for tree planting in the periphery of the Application Site for strengthening the buffer between the Yuen Long Highway and the proposed residential development and RCHE.

- 7.2.3 With consideration of the rapid growth in the elderly population, the proposed RCHE will increase 150 nos. of bed spaces and an additional of 6-storey residential development with 72 units specifically targeted for seniors within the Application Site to meet urgent needs of the aging population growth in the short term while fostering the “aging in place” concept by providing an age-friendly community to help seniors live safely, enjoy good health and stay socially involved.

7.3 Echo with the Policy Address for Stabilising the Supply for Private Housing

- 7.3.1 The Government has adopted multi-pronged approach to increase housing supply, which include stabilising the supply for private housing. As stated in the 2023, 2024 and 2025 LTHS Annual Progress Reports, it is expected the latest private housing supply target will be contributed from Government land sale, railway property developments and private-led development projects and development projects undertaken by the URA (with the total of about 126,000 units). It is noted in the period of 2023 and 2024, there are not less than six tenders relevant to private residential developments from land sale programme, URA projects and MTR Corporation (MTRC) projects were rejected/not awarded, which suggests at least 3,520 flats will not be delivered on schedule as suggested in the 2023 and 2024 Annual Progress Reports of the LTHS. Referring to the latest 2025 Annual Progress Report of the LTHS, the supply in the primary private residential property market for the coming three to four years is about 101,000 units.

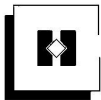
- 7.3.2 The Proposed Development, which could provide about 72 units in the near future, can release the existing responds to the Policy Address as an initiative from a private developer to stabilize the supply for private housing.

7.4 Providing Alternative Housing Options to the Elderly

- 7.4.1 As the ageing trend in population is continued to growth coupled with the longer life expectancy, with an average age of 85.8, seniors are expected to live about another 20 to 25 years after they reach the age of retirement¹⁸. During this retirement living period, seniors are more prone to certain health problems, which require various levels of health care and rehabilitation support to live safely and comfortably¹⁹. This demographic

¹⁸<https://www.worlddeconomics.com/Processors/Demographics-Countries-LifeExpectancy.aspx?Country=Hong%20Kong>

¹⁹<https://www.statistics.gov.hk/pub/B11302402009XXXXB0100.pdf>



shift strains the existing health care and social services system in Hong Kong.

7.4.2 Currently, the traditional housing in Hong Kong is lacking of caregiving support and elderly-friendly community may not be ideal for supporting the health and wellness needs of the elderly population.

7.4.3 Acknowledging that the elderly population in Hong Kong is diverse, with varying health care needs and financial capabilities that not all elderly individuals require intensive care and full-time medical assistance. The market for senior housing development is therefore emerging to address the need for senior housing in Hong Kong as presented in above **Section 3.7**.

7.4.4 In response to aforementioned circumstances, the Applicant is proposed to deliver a composite development with the combination of residential development and RCHE, specifically targeted for senior housing, to cater for the diverse needs and preference of the elderly population that suit their needs and budgets, and at the same time creating an elderly-friendly environment with ample of passive and active recreational facilities and social activities to ensure the elderly remain physically and socially active.

7.5 Delivering An Elderly-Friendly Community for Retirement

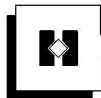
7.5.1 In view of the close proximity between the proposed residential development and RCHE targeted for senior population, synergy will be created between the residents of the senior housing and users of RCHE. Taking the advantages of this composite development, creation of elderly-friendly community would therefore be formulated to enhance comfort and encourage social interactions among future occupants of the residential units and RCHE.

7.5.2 The proposed RCHE targets to serve people who are aged 60 or above with health care-related and rehabilitation facilities and occasional community activities to the residents. Future residents of the proposed RCHE can enjoy the shared facilities of the Proposed Development (i.e., open spaces provision at the G/F and landscape deck at 7/F respectively) to promote cohesion and interaction amongst, as well as live healthily and comfortably within the community.

7.5.3 While the residential development atop will set priority to serve people who are aged 60 or above to enjoy their retirement life with additional supportive resources. With the rehabilitation services provided on the G/F of the proposed RCHE, future residents of the proposed residential development can benefit from having immediate access to health care services within their door step.

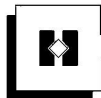
7.6 Echoes with Policy Address to Lift the Quantity and Quality of RCHE

7.6.1 RCHE in Hong Kong have been criticized for their substandard living standards compared to major cities internationally, particularly in terms of living space. There has been ongoing public discussion about increasing



the minimum area per resident in RCHEs. The Residential Care Homes Legislation (Miscellaneous Amendments) Ordinance 2023 (the Amendment Ordinance) was gazetted on 16 June 2023, which raised the minimum area of floor space per resident from 6.5 sq.m. to 9.5 sq.m..

- 7.6.2 In response to the growing demand for additional floor space to provide quality RCHE services and to meet the eligibility criteria outlined in “*Incentive Scheme to Encourage Provision of Residential Care Home for the Elderly Premises in New Private Developments – Time-limited Enhancements*” (LAO Practice Note No. 5/2003) regarding the GFA calculation for RCHE premises, the Applicant has been exploring various development and/or redevelopment proposals concerning building footprint and design.
- 7.6.3 It is noted that the proposed RCHE for residents’ dormitory will be situated at a height of not more than 24m above the ground floor, measuring vertically from the ground of the building to the floor of the premises in which the RCHE is to be situated, as pursuant to the requirements as set out in Para 5.3.1 of Code of Practice for Residential Care Homes (Elderly Persons), to support a quantity and quality RCHE in promoting community well-being.
- 7.6.4 Referring to above **Sections 3.6 to 3.8**, there is a pressing need to prioritise the provision of RCHE given the change in sociodemographic characteristics and the growing elderly population in Hong Kong, particularly at the Yuen Long District. The incentive scheme serves as a concrete basis for planning for elderly care services, the approval of this Application could help to facilitate the RCHE provision to address the imminent demand.
- 7.6.5 The Applicant is committed to providing a quality living environment for the elderly and promote community well-being at the subject Site. The Proposed Development with provision of about 450 nos. of RCHE bed spaces is aligned with the Government’s Incentive Scheme to increase the provision of the much-needed residential care facilities.
- 7.6.6 There is currently a few of RCHE providing services specifically for cognitive impaired seniors. Subject to the future operator, the proposed RCHE premise may target for elderly with cognitive impairment.
- 7.6.7 A minimum floor space of about 10.9 sq.m. per resident is proposed, in which the statutory minimum floor space per resident of 8 or 9.5 sq.m. shall also be complied with. The Proposed Development will comply with the prevailing and forthcoming revision to the spatial requirement for RCHE, upon approval of this Application, the Applicant will revise the development plan in accordance with market demand and incorporate the views of relevant Government Bureaux/Departments.
- 7.7 Address the Pressing Needs of RCHE Bed Places in Yuen Long District**
- 7.7.1 Regarding the foreseeable trend of an aging population and the growing pressure on public healthcare services for the elderly, together with planned/committed population in Yuen Long District, the average



waiting time for RCHE is expected to remain high in the coming years²⁰. The Proposed Development aims to increase the number of bed spaces in Yuen Long District and enhance local availability, allowing seniors to age in a familiar environment with their existing social networks. Besides, due to the more stringent spatial requirement on the bed spaces, a reduction in the number of RCHE beds is anticipated. Thus, the Proposed Development with additional beds would help to relieve such pressure.

- 7.7.2 According to above **Section 3.8**, there is a deficit of 1,784 bed spaces in Yuen Long District²¹. The Proposed Development which providing 450 nos. of bed spaces (equivalent to about 25.22% of the deficit), while not in the form of subsidized beds, will help to meet the growing demand for elderly care services in the area. Provision of RCHE bed places would enhance community well-being by enabling seniors to age in a supportive environment close to their existing families and social networks. It would also help prevent the need for elderly individuals to move to adjacent deficit areas due to the insufficient provision of RCHE bed spaces in Yuen Long District. Therefore, the Proposed Development would be beneficial to the aging population in Yuen Long.

7.8 In line with the TPB Planning Guidelines for “CDA” Sites

- 7.8.1 Consideration have been taken into account on the criteria for re-designation of “CDA” sites to maintain comprehensive control on the overall development of the area so as to realising the planning intention. For instance, the designation of “CDA” zone acting as a buffer against environmental nuisance, development intensities of the proposed development will not be higher than those permitted under the Notes of the OZP or in the B(P)R (Cap. 123F).
- 7.8.2 As mentioned in the ES of the Approved Tong Yan San Tsuen OZP, the concerned “CDA” site is subject to substantial traffic noise issue. Such issue has been carefully reviewed and relevant noise mitigation measures such including architectural fins, acoustic windows (baffle type) and fixed/lockable/maintenance window design should be adopted, to fully comply with the HKPSG recommended criterion of 70db(A) for L₁₀ (1-hour) for domestic premises would be achieved at all NSRs. All noise-sensitive rooms will include windows designed for natural ventilation, compliant with the B(P)R (Cap. 123F).
- 7.8.3 The Proposed Development does not fall within the any identified air paths, while there is no significant air ventilation adverse impact on the pedestrian wind environment is anticipated. Thus, no Air Ventilation Assessment (AVA) is required.
- 7.8.4 It is noteworthy that upon rezoning, the development potential of the resultant private land lots will not be deprived, which each parcel of lots could theoretically achieve a maximum plot ratio of 2.96 as shown in

²⁰https://www.districtcouncils.gov.hk/tm/doc/2024_2027/en/committee_meetings_minutes/SWHC/swhc_5th_minutes_20241024_en.pdf

²¹ TPB Paper No. 10728 For Consideration by the Town Planning Board on 31.3.2021, Town Planning Board.

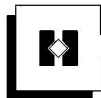


Table 2, as similar to the current restrictions under the “CDA” zone. Having said that, there are various development constraints of these peripheral sites, including sites are small in scale and irregular shape, fragmented land ownership and proximity to nearby Government land, in which impose additional regulatory and practical challenges to certain development.

7.9 Supported by Previous Planning Approvals and Agreement of Similar Applications

7.9.1 The Application Site is a subject of a s.16 Application for Proposed RCHE which was approved with conditions by the RNTPC on 4 May 2018. It is established that the Application Site was considered appropriate to deliver residential care services to the elderly.

7.9.2 There are similar approved rezoning applications (Nos. Y/YL-PS/6 and Y/TW/19) from “CDA” and/or “GB” zones to residential zoning approved by the RNTPC in 9 June 2023 and 24 January 2025 respectively. While the planning application No. Y/YL-PS/6 involves rezoning from “V” and “CDA” zones to “R(B)2” zone for a residential development and RCHE with retail shop, another approved planning application No. Y/TW/19 which proposed rezoning from “GB” and “V” zones to “R(B)9” zone for a private residential cum RCHE development. Hence, with the support of these precedent successful similar applications, there is no adverse planning implications is likely to be anticipated.

7.10 No Interfacing Issue with the Proposed Smart and Green Mass Transit System²²

7.10.1 Based on the preliminary findings and recommendations of the “*Feasibility Study on Green Transit System in Hung Shui Kiu/Ha Tsuen New Development Area and Adjacent Areas*” by the CEDD, it is expected that the proposed tentative alignment of SGMTS will run along Hung Tin Road, an elevated district distributor, and hence no interfacing issue between the proposed SGMTS and the Application Site is anticipated.

²² The “Smart and Green Mass Transit System” (“SGMTS”) is previously known as “Green Transit System” (“GTS”).

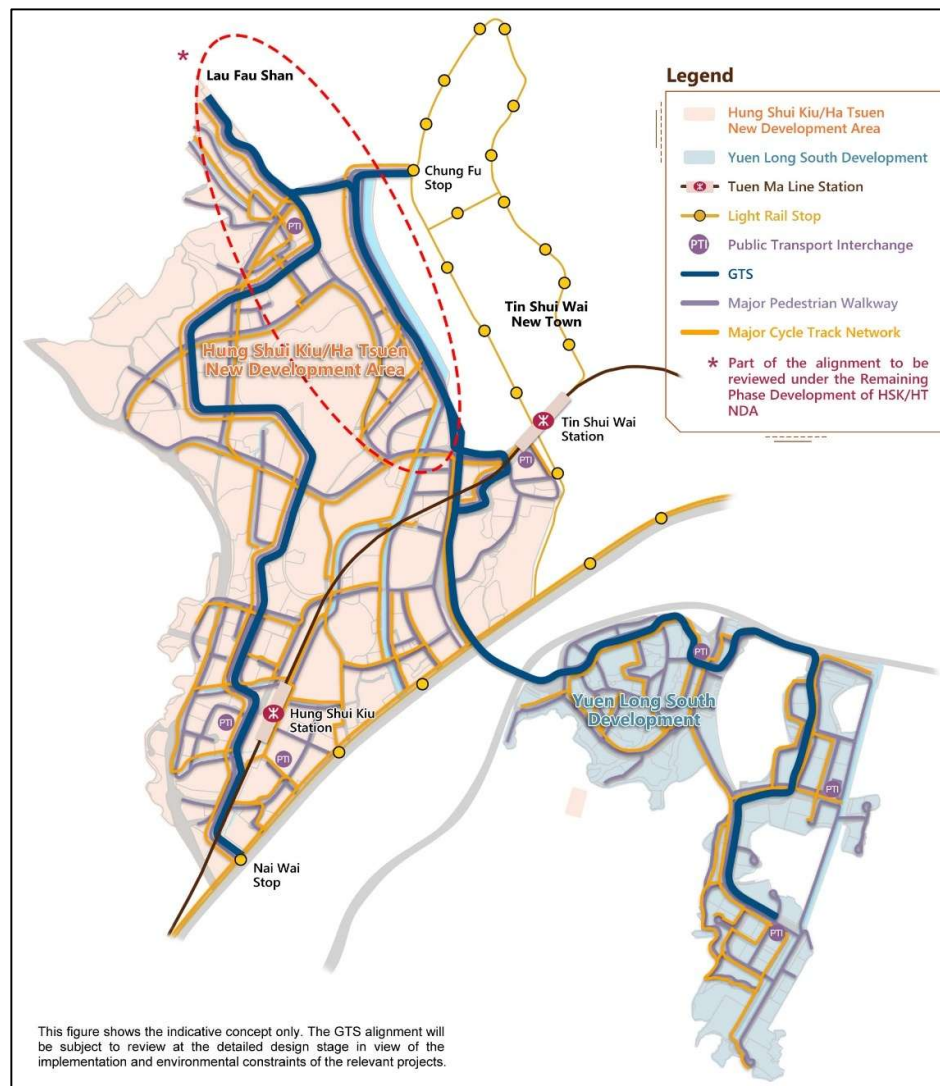
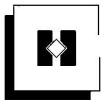


Diagram 22 Proposed Green Transit System Alignment
(Source: Feasibility Study on Green Transit System in Hung Shui Kiu/Ha Tsuen New Development Area and Adjacent Areas)

7.11 Development Not Incompatible with Surrounding Environment

- 7.11.1 While it is proposed to rezone the Application Site to “R(A)4” zone for proposed residential development and RCHE, it complies with the original planning intention of the “CDA” zone for comprehensive development of the area for residential use with the provision of supporting facility (i.e., RCHE).
- 7.11.2 In terms of BH, the Proposed Development is surrounded by a high-rise residential development namely “Uptown” with the BHR up 17 storeys to its immediate west; some low-rise residential developments/village houses including the Woodside, the Woodville, Tai Tao Tsuen and Le Regent, etc. with BHR ranging from ranging between 8.23m to 21m (Diagram 4). To the further northwest across the Castle Peak Road – Hung



Shui Kiu is a planned high-rise development within “R(A)2” and “R(A)4” zones on the Approved Hung Shui Kiu and Ha Tsuen OZP No. S/HSK/2 and the BHR is expected to be 140mPD. The proposed BH of not exceeding 60mPD is compatible with the surrounding context.

7.11.3 In terms of PR, although the PR restriction of the nearby low-rise residential developments/village houses including the Woodside, the Woodsville, and Le Regent, etc. are ranging from 1 to 1.26, it is noted that these development falls within area zoned as “R(B)” or “V”, hence lower development density is expected. In a wider context, to the further northwest across the Castle Peak Road – Hung Shui Kiu is a planned high-rise development within “R(A)4” zone on the Approved Hung Shui Kiu and Ha Tsuen OZP, the PR restriction is expected to be 5. Hence, the proposed PR of 4.91 is considered not incompatible with the surrounding residential developments. It is also considered not incompatible with the maximum plot ratio as set for Residential Zone 2 under the Hong Kong Planning Standards and Guidelines.

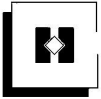
7.11.4 In view of the above, the Proposed Development has proven to be compatible with the surrounding land use and development density.

7.12 Technical Feasibility Demonstrated and No Insurmountable Impacts are Anticipated

7.12.1 Technical assessments on traffic, environment, sewerage, drainage and landscape, visual aspects are prepared or undergoing. The preliminary results show that the construction and operation of the Proposed Development is technically feasibility, and will not have adverse impacts.

7.12.2 Apart from that, the Proposed Development also included the following merits from design perspective which intends to enhance the facilities and living environment of the area: -

- Provision of 5m-building setbacks from Fui Sha Wai South Road to the nearby residential developments (i.e., “Uptown”) is provided to provide more natural light and ventilation to the existing buildings, as well to minimize air and traffic noise impacts from the surroundings;
- Street-level landscaping is proposed to create a landscape and visual buffer along the site boundary;
- About 14.5m building separation between two towers is proposed to reduce the building bulkiness of its podium for a better natural ventilation and visual permeability of the Proposed Development;
- About 13.59m building separation between the proposed building block to the nearby residential developments (i.e., “Uptown”) is also provided to prioritize urban design feature of visual openness;



- Greenery provision has been maximized to provide an additional of 17 nos. of trees are proposed along the Site to enhance the local biodiversity of existing environment and to soften the built form, as well as to ensure compatibility to the surrounding environment;
- Creation of age-friendly environment with design elements and amenities such as elderly-friendly equipment/ facilities (i.e., sitting garden, fitness equipment for the elderly) on the ground floor and landscape deck at 7/F. Elderly-friendly building design will be incorporated with the relevant statutory and non-statutory requirements; and
- Not less than 645 sq.m. communal open space would be provided in serving about 645 future occupants at the Proposed Development with both active and passive activities provision within the proposed open space to promote integrated and interactive neighbourhood.

7.12.3 In term of visual impact, the photomontages presented in the Visual Appraisal in **Appendix 8** has demonstrated that with and without the Proposed Development, the visually sensitive receivers (VSRs) at most vantage points (VPs) will experience minimal visual change. This is primarily due to the transient nature of road users and pedestrians, coupled with the significant screening of the Application Site by planned and existing infrastructure, roadside vegetation, and surrounding residential developments. As a result, the visual impact of the Proposed Development is predominantly considered minimal to negligible across the assessed VPs.

7.12.4 Only one VP is identified as experiencing a slightly adverse visual change to the existing built environment due to the Proposed Development, though this impact remains limited in scope and does not significantly alter the overall visual character of the area.

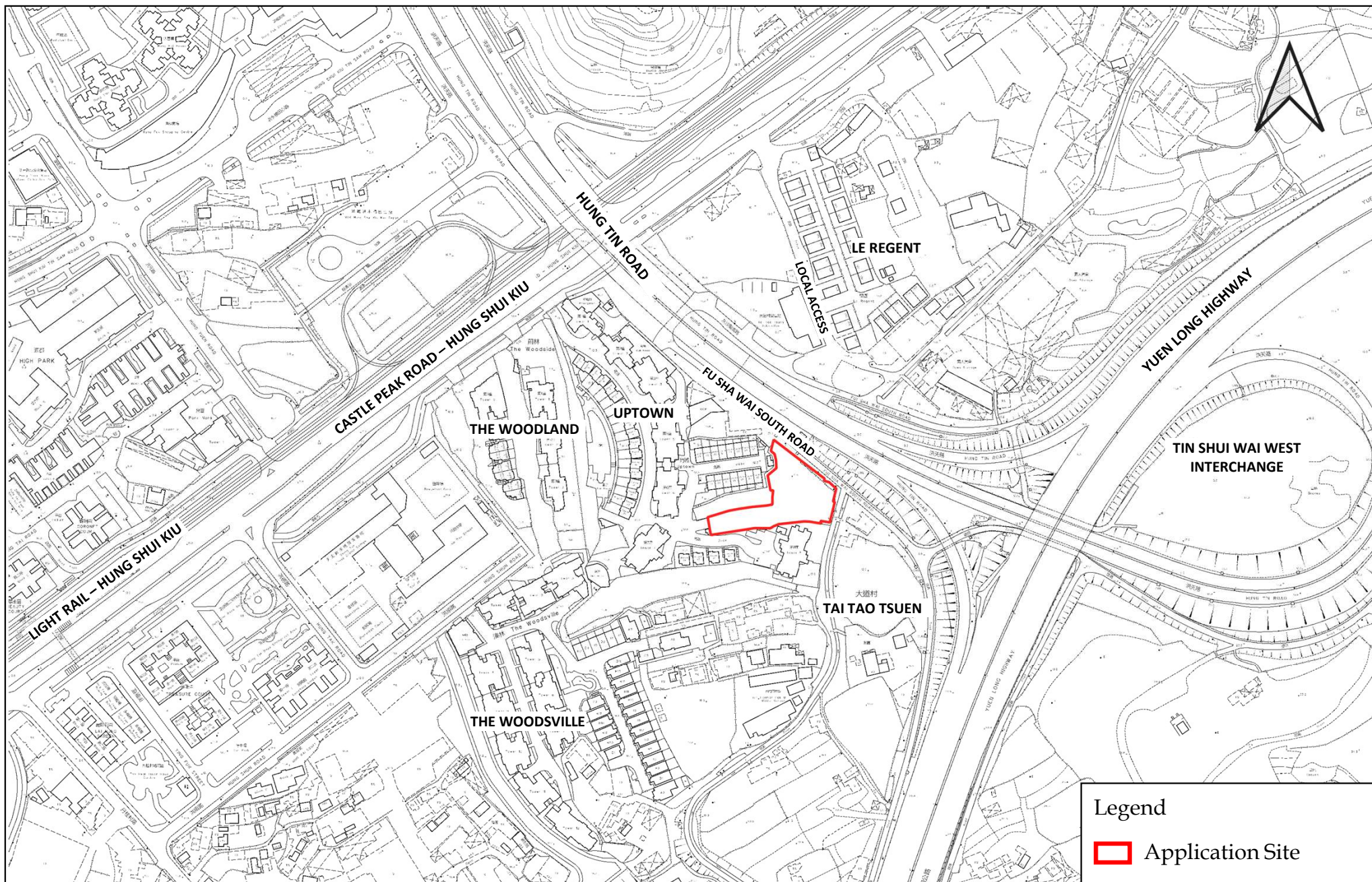


8 CONCLUSION

- 8.1.1 In view of the above, we respectfully request the Board Members to give favourable consideration on this rezoning application.



FIGURES



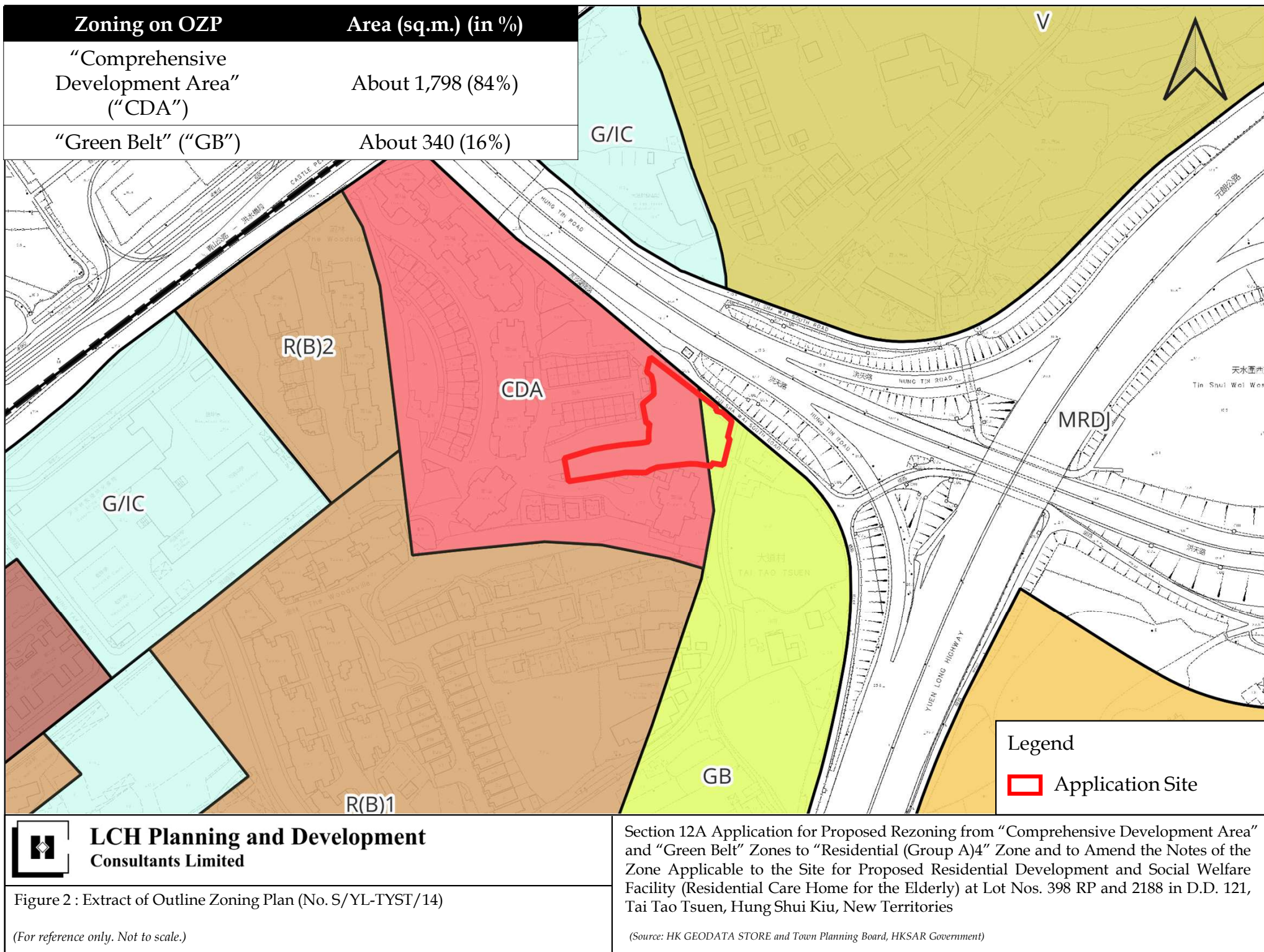
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Consultants Limited**

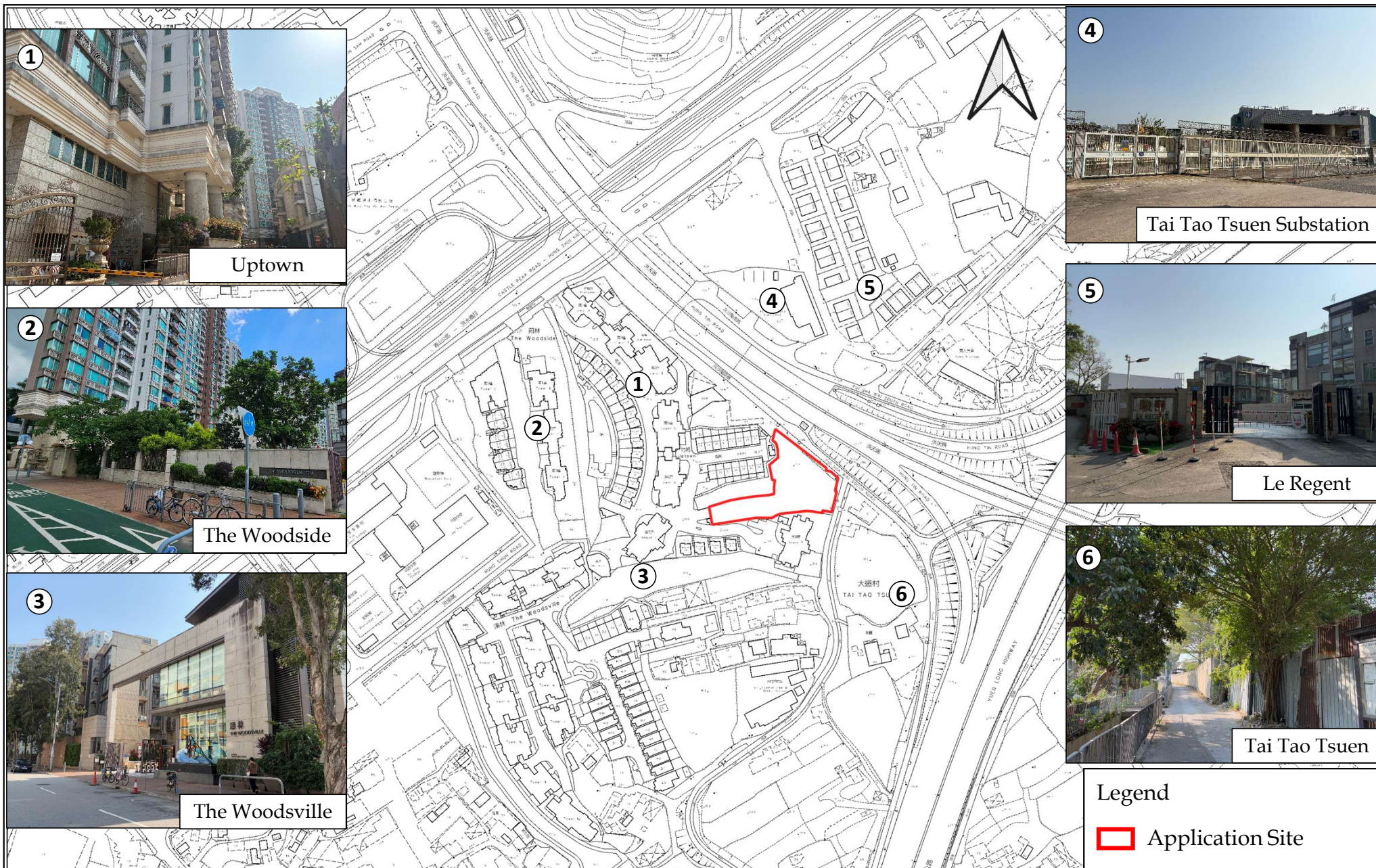
Figure 1 : Location Plan

(For reference only. Not to scale.)

Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

(Source: HK GEODATA STORE, HKSAR Government)





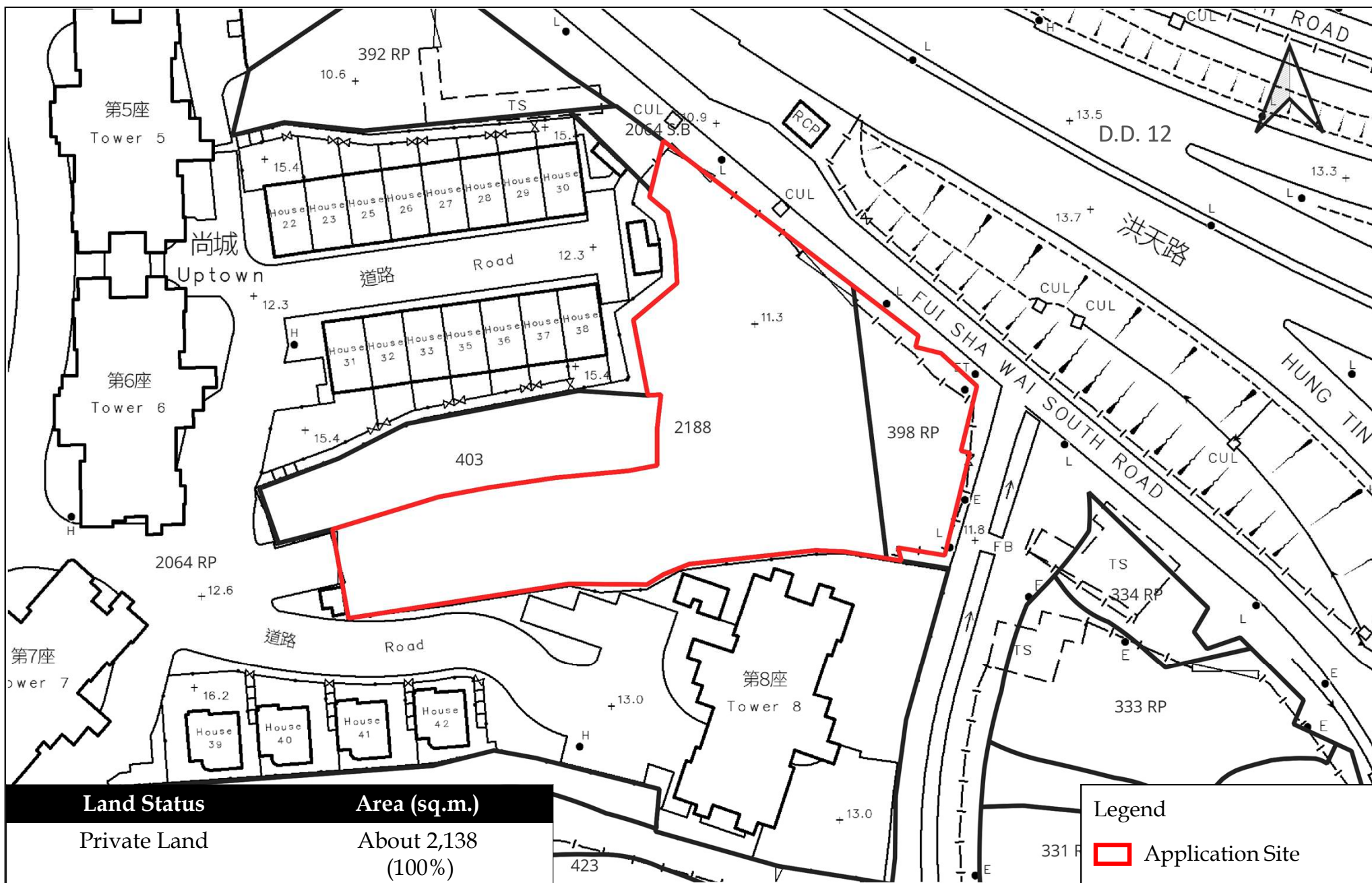
**LCH Planning and Development
Consultants Limited**

Figure 3 : Surrounding Area

(For reference only. Not to scale.)

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

(Source: HK GEODATA STORE, HKSAR Government; and On-site Survey)



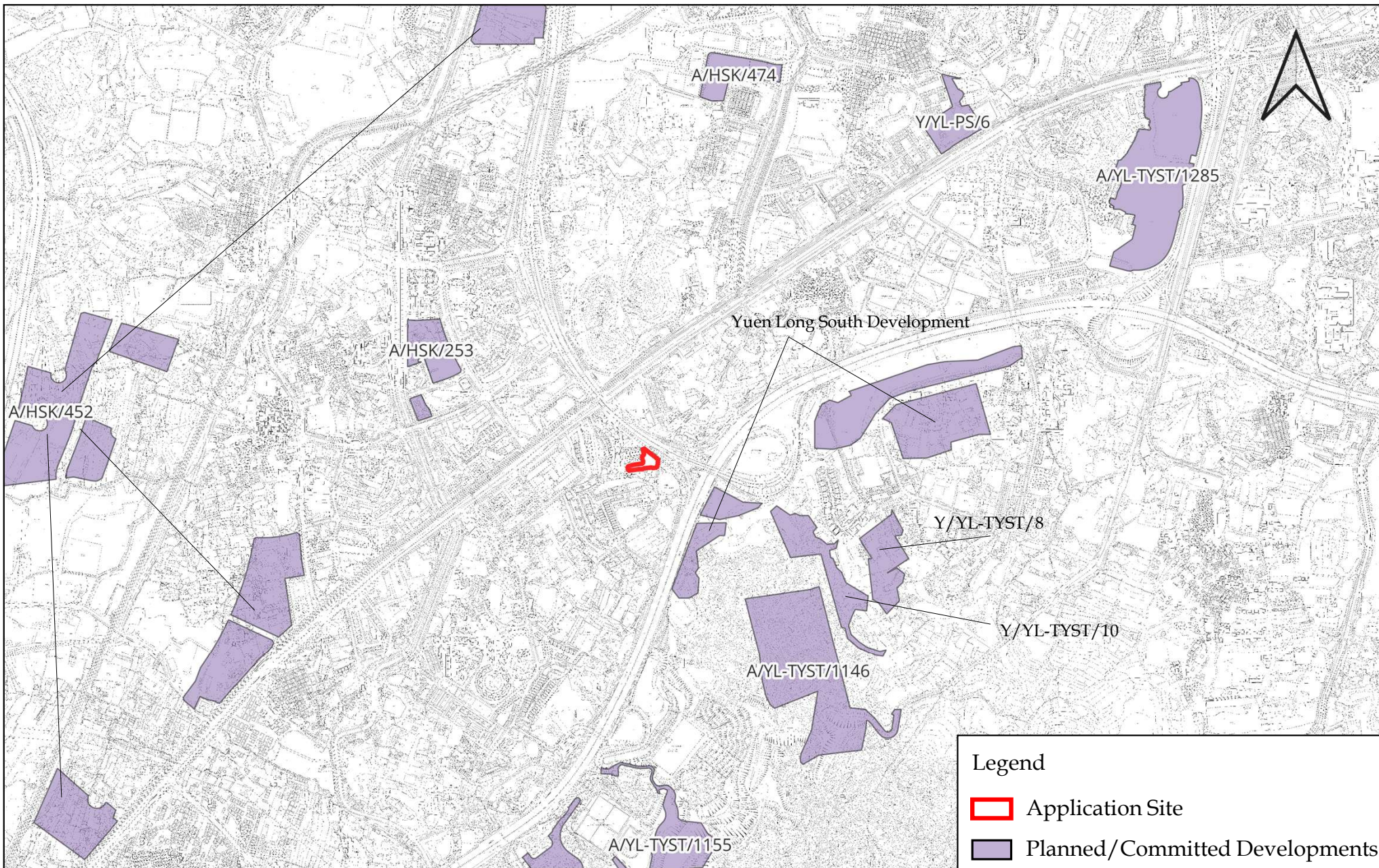
**LCH Planning and Development
Consultants Limited**

Figure 4 : Land Status Plan

(For reference only. Not to scale.)

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

(Source: HK GEODATA STORE, HKSAR Government)



Legend

Application Site

Planned/Committed Developments



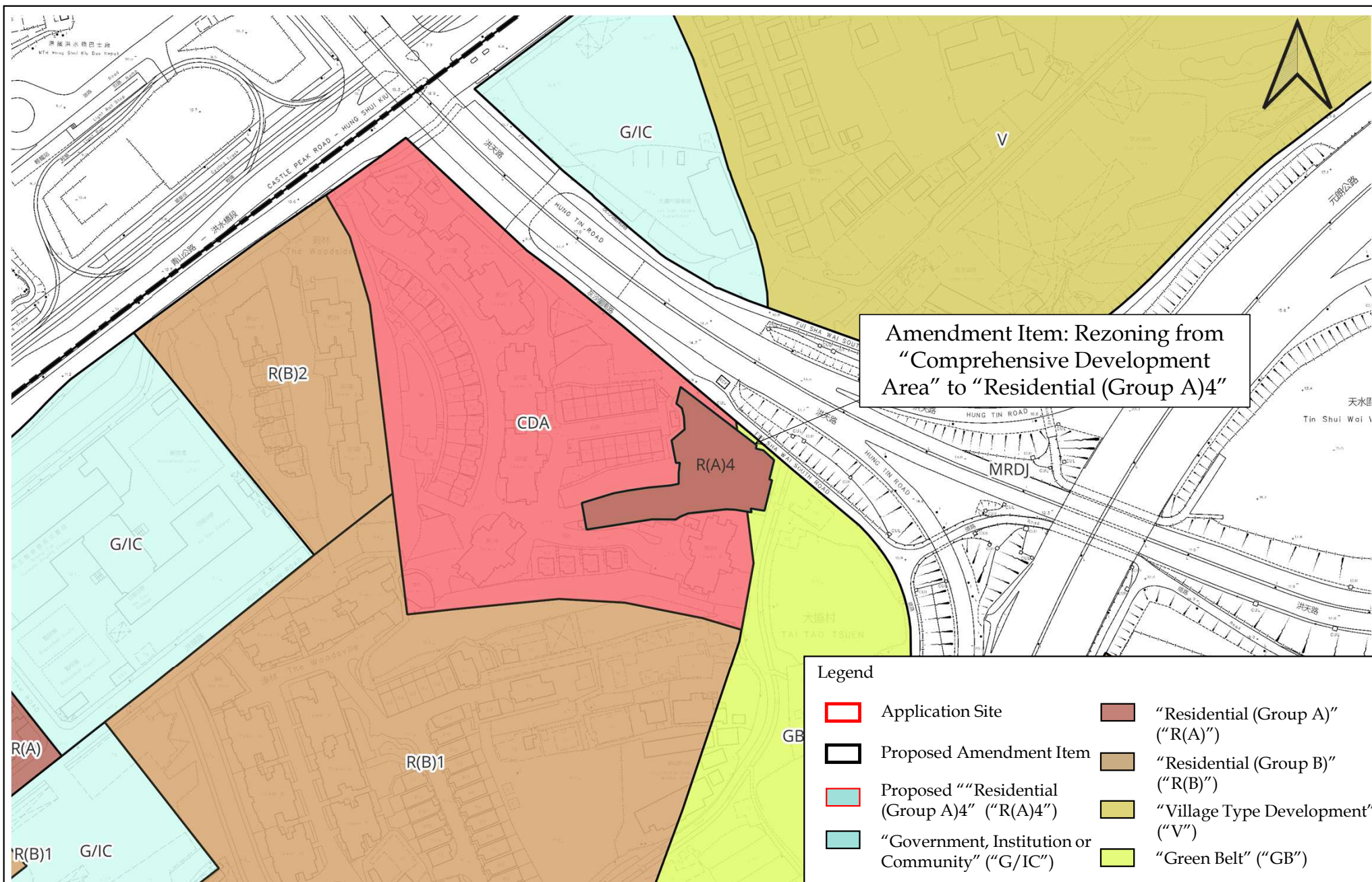
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Consultants Limited

Figure 5 : Planned/Committed Developments Found in the Vicinity

(For reference only. Not to scale.)

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

(Source: HK GEODATA STORE, HKSAR Government)



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Figure 6 : Proposed Amendment of the Tong Yan San Tsuen OZP

(For reference only. Not to scale.)

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

(Source: HK GEODATA STORE and Town Planning Board, HKSAR Government)

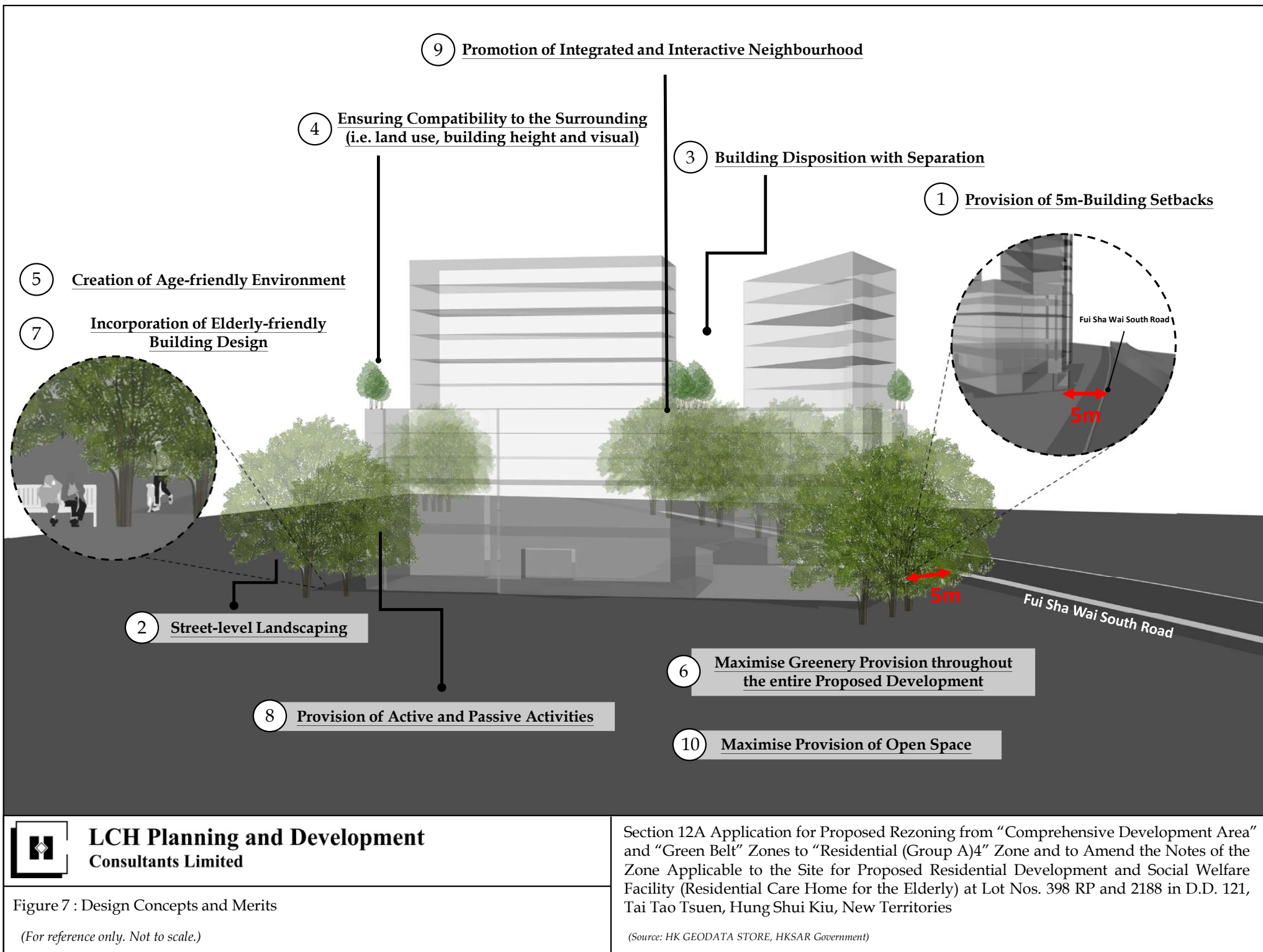


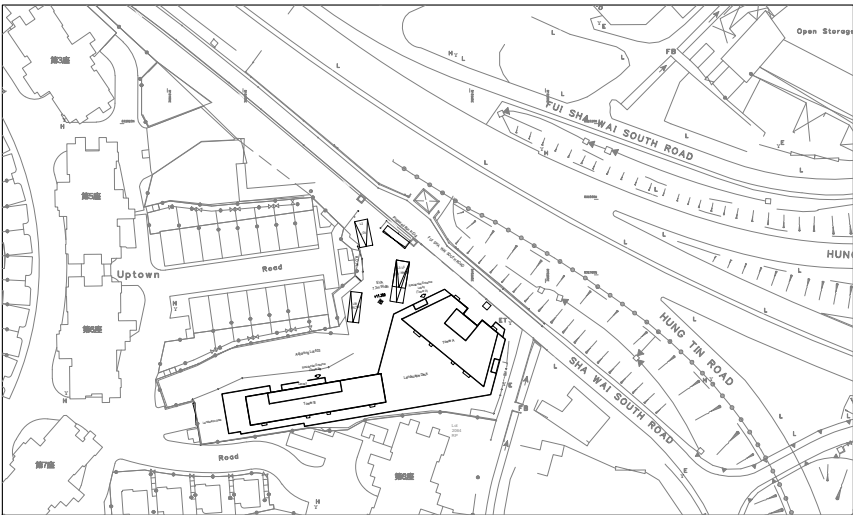
Figure 7 : Design Concepts and Merits

(For reference only. Not to scale.)

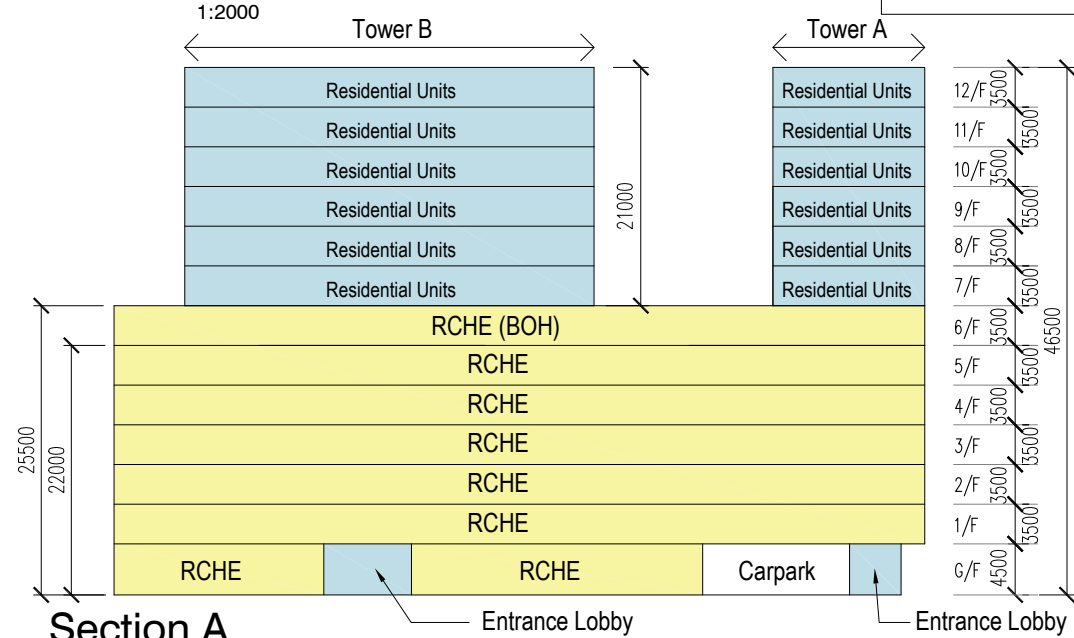


APPENDIX 1

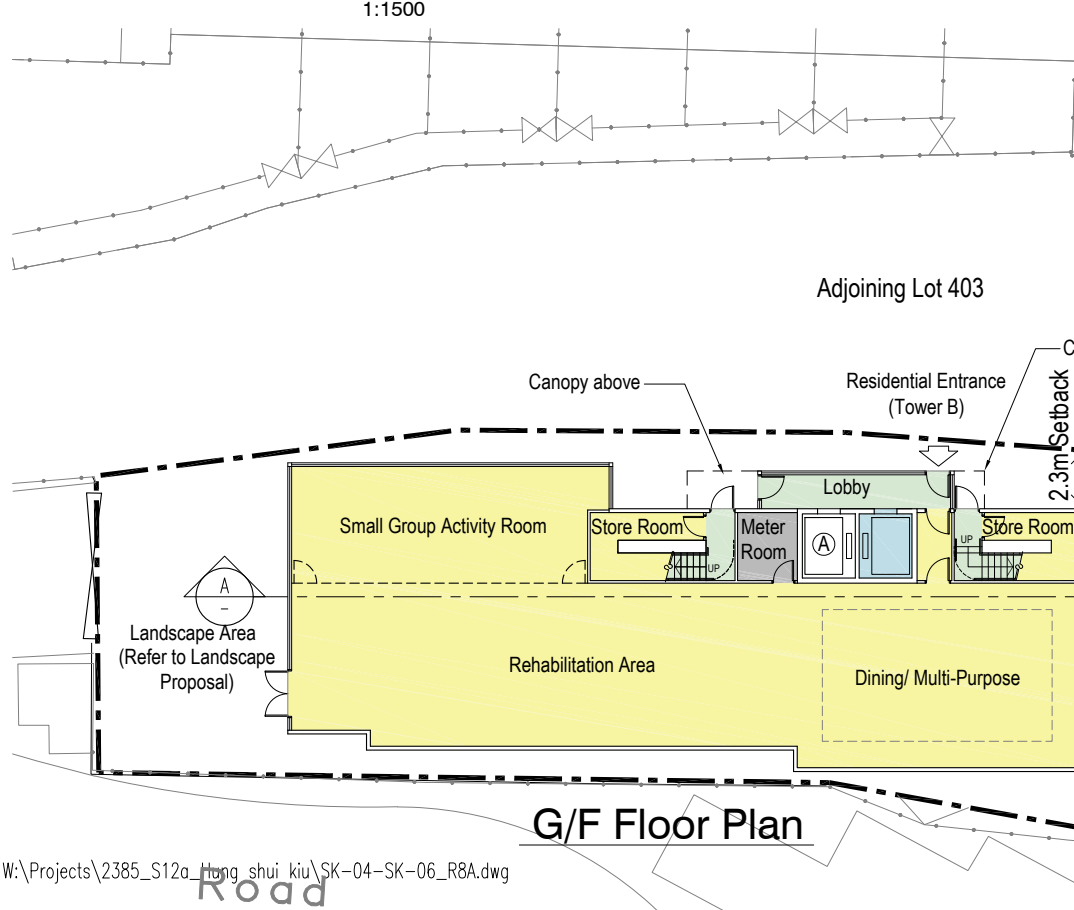
INDICATIVE ARCHITECTURAL DRAWINGS



Site Plan



Section A



G/F Floor Plan

	RCHE(P)	Residential Towers				Carparking Space		
		Tower A (Units)		Tower B (Units)		Parking	Private Cars (5x2.5m)	14
G/F	-	-		-			Light Bus (8x3m)	2
1/F-5/F	90 x 5	-		-			Motocycles (2.4x1m)	2
6/F	-	-		-		Loading/ Unloading Bay	Private Car (5x2.5m)	1
7-12/F	-	Living Unit B1-B6 =6	x 6	Living Unit A1-A6 =6	x 6		LGV (7x3.5m)	2
Total Capacity	450	36		36			MHGV (11x3.5m)	1
		72				Total		22
Total Nos. of Rooms for RCHE		14 x 5 = 70						
Total Blocks for Residence		2						

PLOT RATIO & SITE COVERAGE CALCULATIONS (AREA UNDER BD)

Site Area	= 2138 S.M.
Class of Site	= A
Mean Street Level	=11.30mPD
Height of Building Above Mean Street Level	= 46.5m
Building Height in mPD	=(11.30 + 46.5) =57.80mPD
Permitted Domestic Site Coverage (Over 43m)	= 37%
Permitted Non-Domestic Site Coverage (Over 24m)	= 89%
Permitted Domestic Plot Ratio (Over 43m)	= 5.9
Permitted Non-Domestic Plot Ratio (Over 24m)	= 8
Proposed Domestic Site Coverage Calculation	= 569 S.M. / 2138 x 100% = 26.6% < 37%
Proposed Non-Domestic Site Coverage Calculation	= 1219 S.M. / 2138 x 100% = 57% < 89%
Proposed Total Non-Domestic GFA	= 7406 / 2138 = 3.464
Non-Domestic Plot Ratio	= 3.464 < 8
Permitted Domestic Plot Ratio (Residue Method)	= (8 - 3.464) / 8 x 5.9 = 3.345
Proposed Total Domestic GFA	= 3519 / 2138 = 1.646
Domestic Plot Ratio	= 1.646 < 3.345

GFA CALCULATION

Ground Floor (Tower A)	= 114 S.M. (Exclude Carpark & Tx / Switch Room)
Ground Floor (Tower B)	= 576 S.M.
First to Sixth Floor	= 1159 x 5 + 1035 = 6830 S.M.
Seventh Floor (Tower A & B)	= 277 + 283 = 560 S.M. (Exclude Balconies)
Eighth to Twelfth Floor (Tower A & B)	= (282 + 287) x 5 = 2845 S.M. (Exclude Balconies)
Proposed Total Non-Domestic GFA	= 576 + 6830 = 7406 S.M.
Proposed Total Domestic GFA	= 114 + 560 + 2845 = 3519 S.M.

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7	29-04-2026	Revision 7
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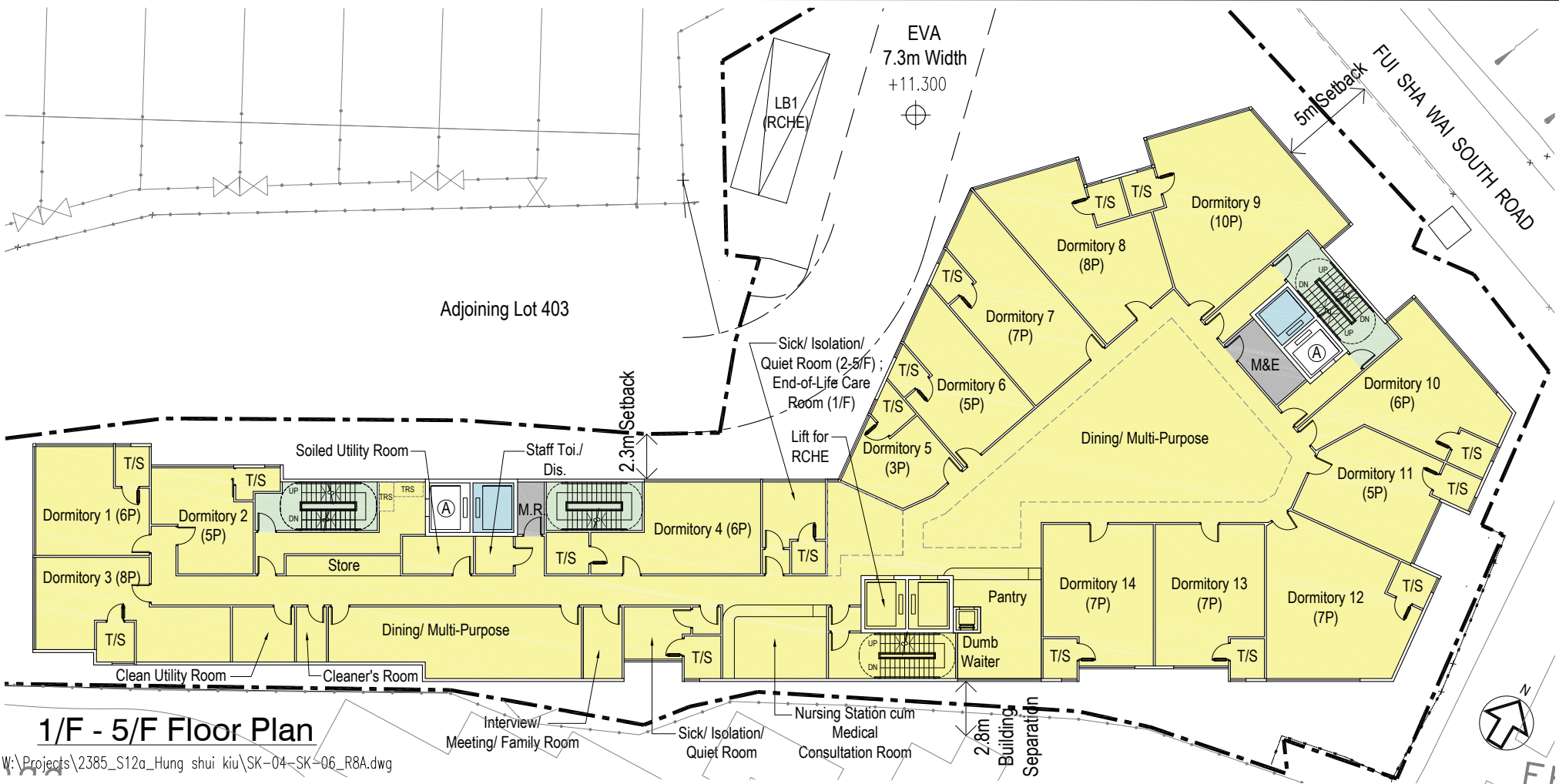
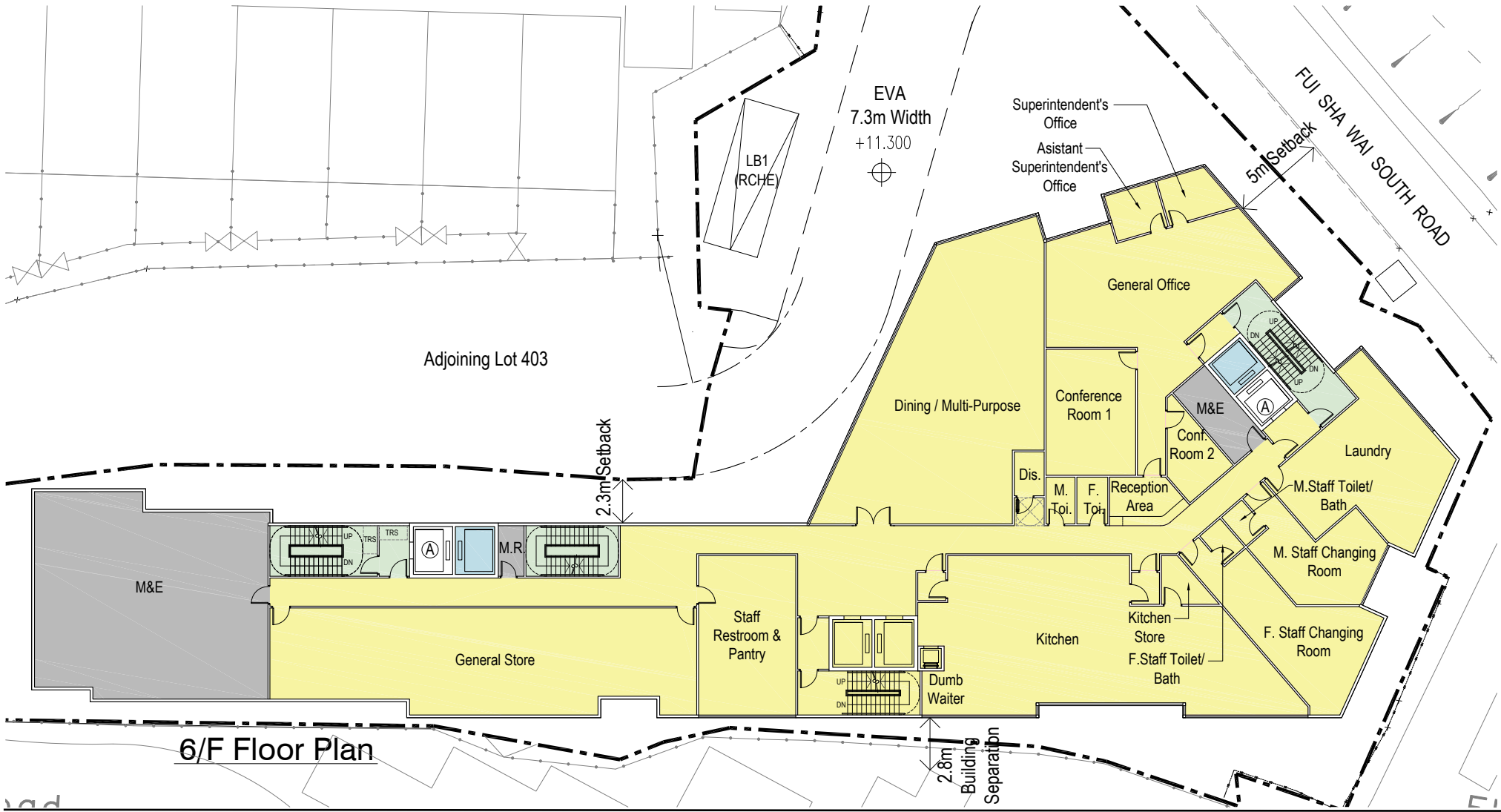
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Ground Floor Plan

drawing no.
SK-04_rev.8

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LEGEND

- RCHE
- Residential
- RCHE & Residential
- E&M Services/ Supporting Facilities
- T/S Toilet & Shower
- Dis. Accessible Toilet
- (A) Firemen Lift to all Floors



SCHEDULE OF ACCOMMODATION FOR RESIDENTIAL CARE HOME FOR THE ELDERLY
(FOR 450 RESIDENTIAL CARE PLACES)

ITEM NO.	DESCRIPTION	NOFA (M²)	USABLE FLOOR AREA (M²)
		(PROPOSED 450 PERSONS)	
1	DORMITORY	2631	2631
2	ATTACHED BATHROOM/ SHOWER ROOM TO DORMITORY ROOM	AS APPROPRIATE	252.5
3	DINING/ MULTI-PURPOSE	989.2	989.2
4	PANTRY	AS APPROPRIATE	117.5
5	SMALL GROUP ACTIVITY ROOM	55.8	55.8
6	NURSING STATION CUM MEDICAL CONSULTATION ROOM	101.5	101.5
7	SICK/ ISOLATION/ QUIET ROOM	84.3	84.3
8	ACCESSIBLE TOILET CUM SHOWER ROOM ATTACHED TO EACH SICK/ ISOLATION/ QUIET ROOM	AS APPROPRIATE	32.1
9	REHABILITATION AREA	200	200
10	STORE FOR REHABILITATION AREA	10	10
11	END-OF-LIFE CARE ROOM	10.1	10.1
12	SOILED UTILITY ROOM	36	36
13	CLEANER'S ROOM	AS APPROPRIATE	22
14	LAUNDRY	55.4	55.4
15	KITCHEN & KITCHEN STORE	138.6	138.6
16	DUMB WAITER	AS APPROPRIATE	7.2
17	GENREAL STORE	159.5	159.5
18	CLEAN UTILITY ROOM	45	45
19	INTERVIEW/ MEETING/ FAMILY ROOM	37	37
20	REFUSE ROOM	AS APPROPRIATE	14
21	SUPERINTENDENT'S OFFICE	8	8
22	ASSISTANT SUPERINTENDENT'S OFFICE	7	7
23	GENERAL OFFICE	82.4	82.4
24	RECEPTION AREA	9.5	9.5
25	CONFERENCE ROOM	43.3	43.3
26	FEMALE/ MALE STAFF CHANGING ROOM AND REST ROOM CUM PANTRY	112	112
27	STAFF TOILET/ BATH ROOM	AS APPROPRIATE	24.7
28	TOILET FOR COMMUNAL USE A) FEMALE TOILET B) MALE TOILET C) ACCESSIBLE TOILET	AS APPROPRIATE	11.8
TOTAL		4815.6	5297.4
MAXIMUM OCCUPANTS PER FLOOR AREA (M²) = 4815.6/ 9.5 = 507 > 450 (PROPOSED TOTAL OCCUPANTS)			

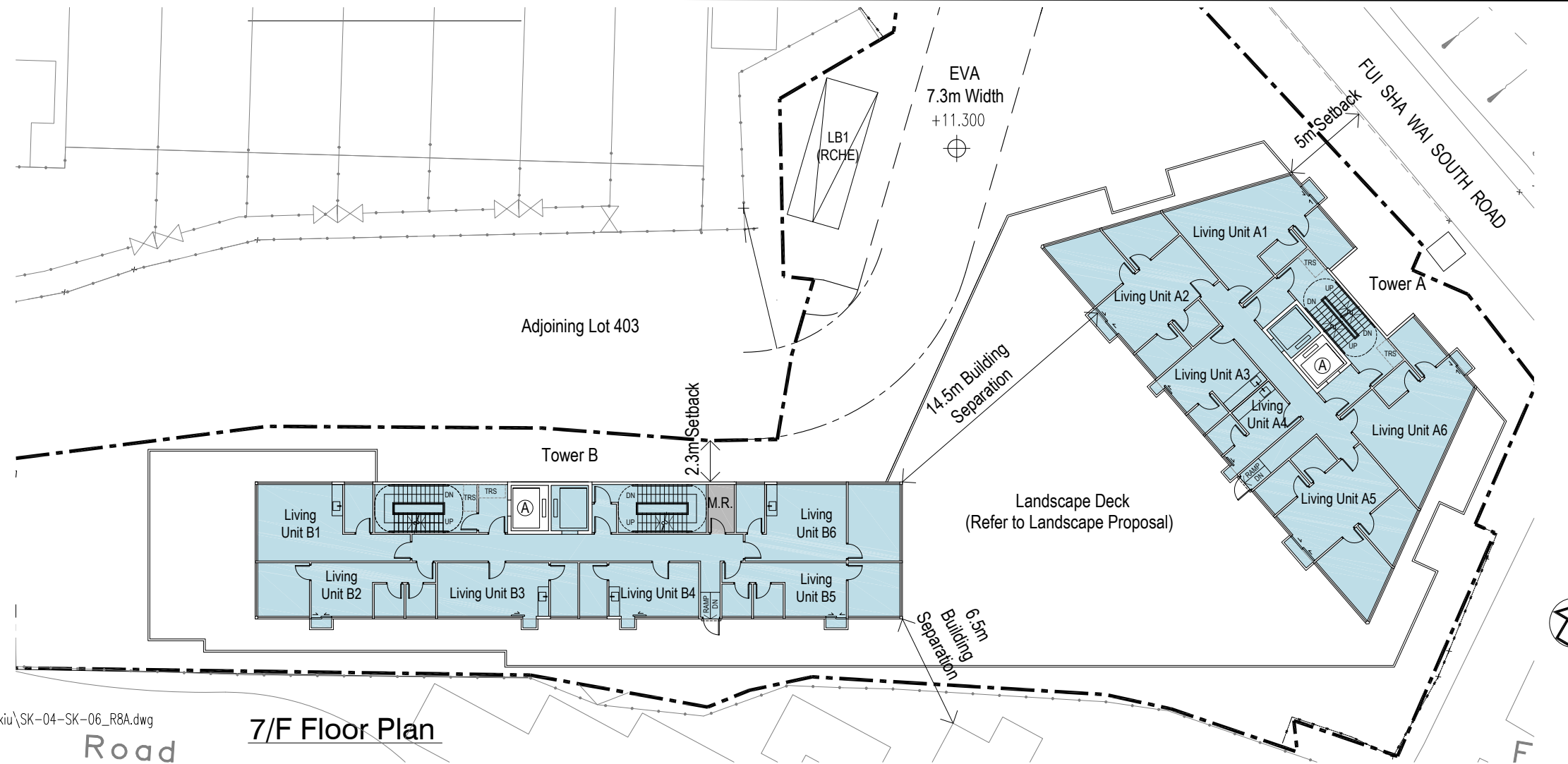
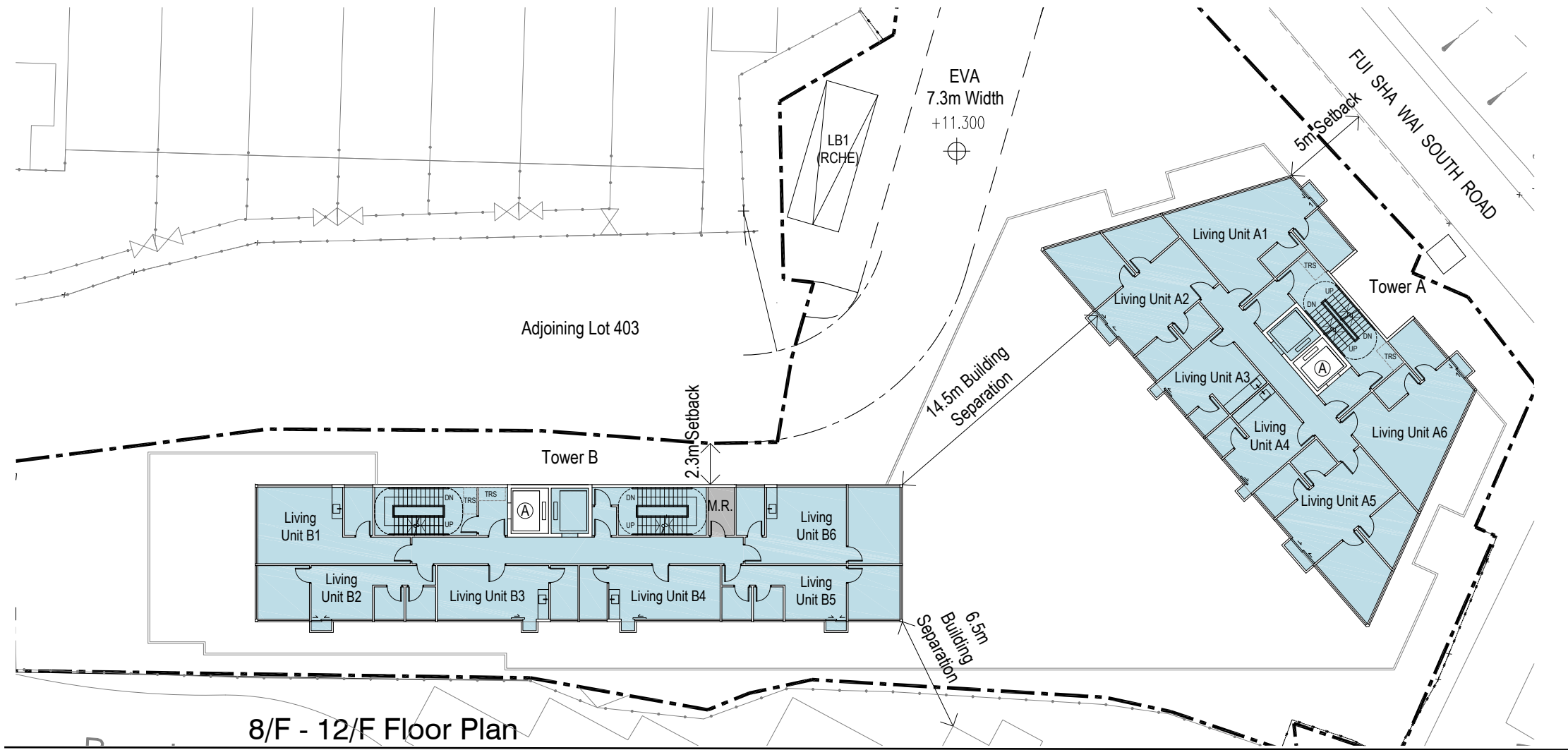
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project title
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drawing title
1/F - 6/F Floor Plans

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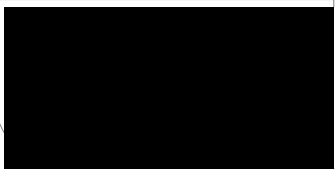
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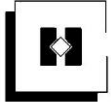
project title
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drawing title
7/F - 12/F Floor Plans

drawing no.
SK-06_rev.8

scale
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APPENDIX 2

PROPOSED SCHEDULES OF ACCOMMODATION FOR THE RESIDENTIAL CARE HOME FOR THE ELDERLY (FOR 450 RESIDENTIAL CARE PLACES)

SCHEDULE OF ACCOMMODATION FOR RESIDENTIAL CARE HOME FOR THE ELDERLY
(FOR 450 RESIDENTIAL CARE PLACES)

ITEM NO.	DESCRIPTION	NOFA (M²)	USABLE FLOOR AREA (M²)
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project title

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drawing title

drawing no.

scale





APPENDIX 3

TRAFFIC IMPACT ASSESSMENT

**Section 12A Application for Proposed Rezoning from
“Comprehensive Development Area” and “Green
Belt” Zones to “Residential (Group A)4” Zone and to
Amend the Notes of the Zone Applicable to the Site
for Proposed Residential Development and Social
Welfare Facility (Residential Care Home for the
Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai
Tao Tsuen, Hung Shui Kiu, New Territories**

**TIA Report
September 2026**

Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

**TIA Report
September 2026**

Contents Amendment Record

This report has been issued and amended as follows:

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0b	Final Report	08/09/2025 AH,SYC,NL	09/09/2025 DP	09/09/2025 OC
0c	Final Report	13/10/2025 AH,SYC,NL	13/10/2025 DP	13/10/2025 OC
1	Final Report	13/10/2025 AH,SYC,NL	02/03/2026 DP	03/03/2026 OC
2	Final Report	11/05/2025 AH,SYC,NL	13/05/2026 DP	13/05/2026 OC
3	Final Report	06/07/2026 AH,SYC,NL	10/07/2026 DP	13/05/2026 OC
4	Final Report	18/08/2026 AH,SYC,NL	03/09/2026 DP	03/09/2026 OC

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- Appendix A Parking Provision of Other RCHE / Residential Development
- Appendix B Swept Path Analysis
- Appendix C 2025 Junction Calculation Sheets
- Appendix D 2034 Junction Calculation Sheets
- Appendix E Proposed Traffic Improvement Works

1 INTRODUCTION

1.1 General

- 1.1.1 The Project Site is situated at Lot Nos. 2188 and 398 RP in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, which falls within the “Comprehensive Development Area” (CDA) and “Green Belt” (GB) on the Approved Tong Yan San Tsuen Outline Zoning Plan (OZP) No. S/YL-TYST/14.
- 1.1.2 To facilitate the development of the proposed residential development and social welfare facility (Residential Care Home for the Elderly), amendment is required to the OZP by rezoning the areas from CDA / GB to “Residential (Group A)4” (“R(A)4”).
- 1.1.3 In support of the planning application, Ozzo Technology (HK) Limited is commissioned to undertake a Traffic Impact Assessment (TIA) Study to assess the traffic impact to be induced by the Project Site on the road network in the vicinity of the Project Site.

1.2 Study Objectives

- 1.2.1 The main objectives of this TIA Study are as follows:
- To review the existing traffic situation of the surrounding road network;
 - To estimate the potential traffic generations/attractions to be induced by the Project Site;
 - To assess the future traffic situation of the surrounding road network;
 - To appraise the potential traffic impact of the Project Site on the surrounding road network and to recommend improvement proposals, if required; and
 - To advise on the internal transport arrangements.

1.3 Report Structure

1.3.1 Following this introductory chapter, this report is arranged as follow:

- Chapter 2 describes the Project Site;
- Chapter 3 summarizes the existing traffic conditions in the vicinity of the Project Site;
- Chapter 4 describes the methodology for estimating the amount of visitor flows and vehicular traffic to be induced by the Project Site;
- Chapter 5 details the traffic forecast and the results of traffic impact assessment;
- Chapter 6 presents the pedestrian impact assessment and public transport assessment;
- A summary of the findings and conclusion of this TIA study are given in Chapter 7.

2 DESCRIPTIONS OF THE PROPOSED DEVELOPMENT

2.1 Site Location and Study Area

- 2.1.1 **Figure 2-1** shows the location of the Project Site, situated adjacent to Tai Tao Tsuen, bounded by Fui Sha Wai South Road in the east and Castle Peak Road - Hung Shui Kiu in the north.

2.2 Development Parameters

- 2.2.1 The Project Site is a 13 storey composite development for RCHE and residential development. **Table 2-1** summarizes the development parameters of the Project Site.

Table 2-1 Summary of Project Site Parameters

Parameters	Residential	RCHE
Total GFA	10,489m ²	
No. of Units	72	-
No. of Beds	-	450 beds

2.3 Parking and Loading/Unloading Facilities

- 2.3.1 The Project Site is an RCHE cum residential development, with no specific parking and loading / unloading requirements in accordance with Hong Kong Planning Standard and Guidelines (HKPSG). Thus, for RCHE, provision of parking and loading / unloading facilities will be designed based on users' requirements to meet operational needs. For residential portion, provision of parking and loading / unloading facilities is stipulated with HKPSG requirement. **Table 2-2** summarizes the internal transport facilities to be provided in the Project Site.

Table 2-2 Provision of Parking and L/UL Facilities

Parking and L/UL Facilities		Requirements		Proposed Provision	Size	Headroom
		Criteria	Required			
Residential Development (72 units) based on HKPSG requirements:						
Parking	Private Car	60 units with average unit size $\leq 40\text{m}^2$ Requirement = GPS x R1 x R2 x R3 GPS = 1 space per 4-7 flats R1=0.5 ⁽¹⁾ ; R2 = 0.75 ⁽²⁾ ; R3 =1.1 ⁽³⁾	4-7	7 (including 1 Accessible)	5m x 2.5m (5m x 3.5m)	>2.4m
		12 units with $40\text{m}^2 \leq$ average unit size $< 70\text{m}^2$ Requirement = GPS x R1 x R2 x R3 GPS = 1 space per 4-7 flats R1=1.2 ⁽¹⁾ ; R2 = 0.75 ⁽²⁾ ; R3 =1.1 ⁽³⁾	2-3			
	Visitor Car Parking	5 spaces per block should be provided for private residential developments with more than 75 units per block.	0	0	5m x 2.5m	>2.4m
	Motorcycle	1 motorcycle parking space per 100-150 flats	1	1	2.4m x 1m	>2.4m
L/UL Bay	M/HGV	Minimum of 1 loading / unloading bay for goods vehicles within the site for every 800 flats	1	1	11m x 3.5m	>4.7m
RCHE (450 Beds) based on users' requirements:						
Parking	Private Car	Users' requirement	5	5 (including 1 Accessible)	5m x 2.5m (5m x 3.5m)	>2.4m
	Light Bus		2	2	8m x 3.0m	>3.3m
	Motorcycle		1	1	2.4m x 1m	>2.4m
L/UL Bay	Private Car		1	1	5m x 2.5m	>2.4m
	LGV		2	2 (1 shared use with M/HGV)	7m x 3.5m	>3.6m
Overall						
Parking	Visitor Private Car	For Visitor Parking	2	2	5m x 2.5m	>2.4m
Total						
Parking	Private Car	Residential Development: according to HKPSG	6-10	7 (including 1 Accessible)	5m x 2.5m (5m x 3.5m)	>2.4m
		RCHE: according to Users' requirement	5	5 (including 1 Accessible)		
	Visitor Private Car	For Visitor Parking	2	2	5m x 2.5m	>2.4m
	Light Bus	RCHE: according to Users' requirement	2	2	8m x 3.0m	>3.3m
	Motorcycle	Residential Development: according to HKPSG	1	1	2.4m x 1m	>2.4m
		RCHE: according to Users' requirement	1	1		
L/UL	Private Car	RCHE: according to Users' requirement	1	1	5m x 2.5m	>2.4m

Bay	LGV	RCHE: according to Users' requirement	2	2 (1 shared use with M/HGV)	7m x 3.5m	>3.6m
	M/HGV	Residential Development: according to HKPSG	1	1	11m x 3.5m	>4.7m

Note: (1) Demand Adjustment Ratio ($R1$) = 0.5 for $40m^2 \leq \text{Flat size}$, 1.2 for $40m^2 < \text{Flat size} \leq 70m^2$

(2) Accessibility Adjustment Ratio ($R2$) = 0.75 within a 500m-radius rail station

(3) Development Intensity Adjustment Ratio ($R3$) = 1.1 for $1.00 < \text{Domestic Plot Ratio} \leq 2.00$

- 2.3.2 The residential development units are intended for residents of ages 60 or above, while some of the flats aims to serve 1 person only. Thus, the parking demand for the Project Site would be smaller than the general private housing development. In actual operation, the willingness and the travel needs for the elderly is relatively low, thus fewer trips would be generated. Whilst users are encouraged to use public transport or by rehab bus to enter / leave the site, as such, the parking provision is deemed reasonable.
- 2.3.3 The site is small with irregular geometry, and the carpark layout has already been optimized to achieve the maximum practicable utilization.
- 2.3.4 To evaluate the parking demand for Proposed Development, references have been made for various RCHE / residential development in terms of parking provision, with a summary of parking provision presented in **Appendix A**. Assessment results indicate that the parking provision for the Project Site is generally in order, comparing with other RCHE / residential developments, thus is considered sufficient to cater for the parking demand of the Project Site.
- 2.3.5 The parking spaces and loading / unloading bays for goods vehicles and light bus will be located on the Ground Floor as shown in **Figure 2-2**. The associated swept path analysis are presented in **Appendix B**.

2.4 Vehicular and Pedestrian Access Arrangements

- 2.4.1 The vehicular cum pedestrian access for the Project Site is located at Fui Sha Wai South Road. The major vehicular ingress and egress routes for the Project Site are illustrated in **Figure 2-4**. On the other hand, to enhance the pedestrian connectivity while to allow separation of pedestrians for the RCHE portion, 2 pedestrian entrances and 1 RCHE entrance are proposed within the Project Site, while pedestrians shall enter and leave the site via Fui Sha Wai South Road via the vehicular access. **Figure 2-3** shows the locations of the proposed accesses for the Project Site.

3 EXISTING TRAFFIC AND TRANSPORT CONDITIONS

3.1 Existing Road Network

- 3.1.1 As shown in **Figure 2-1**, the Project Site is bounded by Fui Sha Wai South Road in the east and Castle Peak Road - Hung Shui Kiu in the north.
- 3.1.2 Castle Peak Road – Hung Shui Kiu has a dual-2 lane configuration, classified as a Rural Trunk Road which connects Castle Peak Road – Ping Shan in the east and Castle Peak Road – Lam Tei in the west. This Rural Trunk Road section forms part of the Castle Peak Road network connecting Yuen Long and Tuen Mun area.
- 3.1.3 Hung Tin Road is a dual-2 lane District Distributor, acting as a north-south district distributor serving the western side of Tin Shui Wai, connecting Tin Ying Road in the north and Yuen Long Highway and New Territories Circular Road in the south.
- 3.1.4 Fui Sha Wai South Road is a single track access road with 1-lane-2-way operation serving local traffic and connects to Tai To Tsuen Road in the south. Current observation indicates that the access road is serving minimal traffic.

3.2 Existing Public Transport Services

- 3.2.1 The Project Site is well served by public transport services including franchised bus services, GMB services and LRT services. **Figure 3-1** shows the existing public transport provisions in the vicinity of the Project Site with details of the existing public transport services described in **Table 3-1**.

Table 3-1 Bus Services in the Vicinity of Project Site

Route	Routing			Frequency (minutes)
Franchised Bus Services				
KMB 63X	Hung Shui Kiu (Hung Fuk Estate)	-	Jordan (West Kowloon Station)	Daily services every 12-30 mins
KMB 64X	Hung Shui Kiu (Hung Yuen Road)	-	Hong Kong Science Park	Mon to Fri (except PH) departures at 07:15
KMB 68A	Long Ping Estate	-	Tsing Yi Station	Daily services every 10-30 mins
KMB 68X	Mong Kok (Park Avenue)	-	Hung Shui Kiu (Hung Fuk Estate)	Daily services every 9-25 mins
KMB 258A	Hung Shui Kiu (Hung Fuk Estate)	-	Lam Tin Station	Mon to Fri (except PH) departures at 07:10, 07:25
KMB 258P	Hung Shui Kiu (Hung Fuk Estate)	-	Lam Tin Station	Mon to Fri (except PH) services from 06:50 to 10:00 and 15:50 to 20:00 every 12-30 mins; Sat (except PH) services from 07:00 to 09:40 and 16:00 to 20:00 every 20-30 mins;
KMB 261P	Tuen Mun (Siu Hong Court)	-	Sheung Shui (Tin Ping)	Mon to Fri (except PH) departures at 06:40, 07:00, 07:20,16:40; Sat (except PH) departures at 07:20;
KMB 268B*	Special Departure from Hung Fuk Estate Hung Yuen Road	-	Hung Hom (Hung Luen Road)	Mon to Fri (except PH) departures at 07:25
KMB 268X	Jordan (West Kowloon Station)	-	Hung Shui Kiu (Hung Fuk Estate)	Daily services every 6-35 mins

Route	Routing		Frequency (minutes)
KMB 269D	Tin Fu	- Lek Yuen	Daily services every 6-25 mins
KMB 276P	Sheung Shui	- Tin Shui Wai Station	Daily services every 5-25 mins
KMB 960A	Central	- Hung Shui Kiu (Hung Fuk Estate)	Mon to Fri (except PH) departures at 18:30
KMB 960P	Hung Shui Kiu (Hung Yuen Road)	- Causeway Bay (Victoria Park)	Mon to Fri services from 06:45-10:00 every 10-35 mins and departures at 17:15 17:30 17:45 18:00 18:20; Sat services from 07:15-10:00 every 20-35 mins; Holidays service from 10:00-13:00 every 30 mins;
KMB 960X	Hung Shui Kiu (Hung Yuen Road)	- Quarry Bay (King's Road)	Mon to Fri (except PH) departures at 06:45, 06:54, 07:02, 07:09, 07:17, 07:25, 07:33, 07:42, 07:50, 17:30, 17:45, 18:05, 18:15, 18:27, 18:39, 18:51, 19:03, 19:15, 19:30;
LWB A34	Hung Shui Kiu (Hung Yuen Road)	- Airport (Ground Transportation Centre)	Daily services every 15-45 mins
NLB B2	Yuen Long Station	- Shenzhen Bay Port	Daily services every 20-30 mins
MTR Bus K75A	Tin Shui Wai Station	- Hung Shui Kiu (Circular)	Daily services every 30 mins
MTR Bus K75P	Tin Shui	- Hung Shui Kiu (Circular)	Daily services every 10-15 mins
MTR Bus K75S	Tin Shui Wai Station	- Hung Fuk Estate (Circular)	Mon to Fri (except PH) services from 07:00-09:00 and 17:30-20:00 every 12-15 mins;
GMB Services			
GMB 32	Yuen Long Station (North) Public Transport Interchange	- Tan Kwai Tsuen	Daily services every 10-15 mins
GMB 621	Hung Shui Kiu (Hung Yuen Road)	- Tin Shui Wai North (Wetland Park Road) (via Tin Shui Wai Hospital) (Circular)	Daily services every 20-30 mins
LRT Services			
LRT 610	Tuen Mun Ferry Pier	- Yuen Long	Daily services every 7-17 mins
LRT 614	Tuen Mun Ferry Pier	- Yuen Long	Daily services every 13-23 mins
LRT 615	Tuen Mun Ferry Pier	- Yuen Long	Daily services every 13-25 mins
LRT 751	Tin Yat	- Yau Oi	Daily services every 7-17 mins

Note: * Special services

Information updated based on “hkemobility” from Transport Department as of date 03 September 2025.

3.3 Traffic Surveys

- 3.3.1 Traffic surveys including vehicular count survey and pedestrian count survey were conducted on 18 February 2025 (Tuesday) between 07:00 to 10:00 and 16:00 to 19:00, together with trip generation survey for a reference RCHE site conducted on 20 February 2025 (Thursday) between 07:00 and 19:00. A summary of the types of surveys being undertaken and the survey locations are shown in **Figure 3-2** and **Figure 3-3**. The details are summarized in **Table 3-2**.

Table 3-2 Summary of Comprehensive Surveys

Survey Type	Location	Figure	Survey Date	Data Collected
Vehicular Count Surveys	J1 to J5	Figure 3-2	2025-02-18 (Tuesday)	Manual Classified count in 15 min intervals
	L1 to L6	Figure 3-2	2025-02-18 (Tuesday)	Manual Classified count in 15 min intervals
Pedestrian Count Surveys	P1 to P7	Figure 3-3	2025-02-18 (Tuesday)	Pedestrian flows in 5-min intervals
Public Transport Utilization Surveys	Bus/GMB Stop A to C	Figure 3-3	2025-02-18 (Tuesday)	-Nos. of buses -Passenger boarding and alighting
Trip Generations Survey	Hong Shui Garden of Aged Company Limited, Tuen Mun	-	2025-02-20 (Thursday)	-Visitor flows -Nos. of In and Out vehicles

3.4 Existing Vehicle Traffic Conditions

- 3.4.1 All vehicle flows recorded during the traffic surveys have been converted to passenger car unit (PCU) based on the PCU factors as indicated in Table 2.3.1.1 of Volume 2 of Transport Planning and Design Manual (TPDM) and shown in **Table 3-3**.

Table 3-3 Passenger Car Unit Conversion Factors

Vehicle Type	PCU Conversion Factor ⁽¹⁾	
	Traffic Signal	Priority junction/ Roundabout
Car / Taxi	1.00	1.00
Public Light Bus / Minibus	1.50	1.50
Light Goods Vehicle	1.50	1.50
Medium/ Heavy Goods Vehicle	1.75	2.80
Bus / Coach	2.00	2.80

Notes: (1) Table 2.3.1.1, Chapter 2.3, Volume 2, TPDM-2024

- 3.4.2 By applying the above PCU factors, vehicular traffic flows in PCUs are calculated and the AM and PM peak hour is identified to occur at 07:30-08:30 and 16:45-17:45 for AM peak and PM peak respectively. **Figure 3-4** presents the 2025 observed Weekday AM and PM peak hour traffic flows on the road network in the vicinity of the Project Site.
- 3.4.3 Based on the existing traffic flows, the peak hour performance of the key junctions in the vicinity of the Project Site is assessed. The assessment results are indicated in **Table 3-4** and detailed junction calculation sheets are given in **Appendix C**.

Table 3-4 2025 Peak Hour Junction Capacity Assessment

Jn. ID.	Location ⁽¹⁾	Type	Capacity Index ⁽²⁾	2025 Weekday	
				AM Peak	PM Peak
J1	Hung Tin Road / Hung Chi Road	Signalized	RC	74.6%	89.7%
J2	Hung Tin Road / Hung Shui Kiu Tin Sam Road	Priority	DFC	0.48	0.39
J3	Castle Peak Road (Hung Shui Kiu) / Hung Tin Road	Signalized	RC	66.7%	100%+
J4	Castle Peak Road (Ping Shan) / Access Road	Priority	DFC	0.09	0.05
J5	Fui Sha Wai South Road / Tai To Tsuen Road / Unnamed Road	Priority	DFC	0.01	0.01

Notes: (1) Refer to Figure 3-2 for junction locations

(2) RC = Reserve Capacity for signal-controlled junction; DFC = Design Flow to Capacity for priority junction

- 3.4.4 The results reveal that all the key junctions within the Study Area operate satisfactorily during the peak hours.

- 3.4.5 Based on the existing traffic flows, the peak hour performances of the key road links in the vicinity of the Project Site are also assessed and the results are indicated in **Table 3-5**.

Table 3-5 2025 Peak Hour Road Link Capacity Assessment

No.	Location ⁽¹⁾	Direction	Design ⁽²⁾ Capacity (veh/hr)	Weekday AM Peak		Weekday PM Peak	
				Flows (veh/hr)	P/Df ⁽³⁾	Flows (veh/hr)	P/Df ⁽³⁾
L1	Hung Tin Road (At grade)	NB	1700	589	0.35	491	0.29
		SB	1700	495	0.29	396	0.23
L2	Castle Peak Road (Hung Shui Kiu)	EB	2600	760	0.29	611	0.24
		WB	3000	846	0.28	618	0.21
L3	Castle Peak Road (Ping Shan)	EB	3000	522	0.17	473	0.16
		WB	2600	667	0.26	580	0.22
L4	Fui Sha Wai South Road	Two-way	100	24	0.24	16	0.16
L5	Hung Tin Road (Slip road of Yuen Long Highway)	NB	1500	1480	0.99	805	0.54
L6	Hung Tin Road (Slip road of Yuen Long Highway)	SB	1500	835	0.56	1079	0.72

Notes: (1) Refer to Figure 3-2 for road link locations
(2) TPDM Vol 2 Table 2.4.1.1
(3) P/Df = Peak Hourly Flows/Design Flow Ratios (P/Df) for road links

- 3.4.6 Assessment results indicate that all the key road links in the vicinity of the Project Site operate satisfactorily during the peak hours, except for Hung Ting Road Northbound (Slip Road of Yuen Long Highway) (L5) which is currently operating approaching capacity.

3.5 Existing Pedestrian Flows

- 3.5.1 **Figure 3-5** shows the observed peak hour pedestrian flows along the main pedestrian routes on a normal weekday (07:10-08:10 and 17:20-18:20 for the AM and PM peak hour respectively).
- 3.5.2 The level of services of the above key pedestrian links are assessed based on the peak 15-min pedestrian flows being observed at the respective locations during the whole survey period and the results are presented in **Table 3-6** and **Table 3-7**.

Table 3-6 Existing Level of Services (LOS) of Pedestrian Footways

Location ⁽¹⁾	Effective Footway Width ⁽²⁾	2025 Weekday		
		Peak 15-Min Flow	Peak Min Flows/Metre	Level of Service ⁽³⁾
P1	3.5	51	1.0	A
P2	3.5	39	0.7	A
P3	2.6	67	1.8	A
P4	1.7	37	1.4	A

Notes: (1) Refer to Figure 3-3 for pedestrian link locations

(2) Effective width = Actual width minus 0.5m shy zone

(3) LOS of footpath refers to Highway Capacity Manual 2000 Exhibit 18-3.

Table 3-7 Capacity Assessment on Signalized Crossing

Location ⁽¹⁾	W Crossing Width	PG (sec)	CT (sec)	GTP	PC ⁽²⁾ (ped/hr)	Demand (ped/hr)	Demand / Capacity Ratio
P5 (2025 AM)	4.0	31	130	0.238	1812	216	0.12
P5 (2025 PM)	4.0	31	130	0.238	1812	147	0.08
P6 (2025 AM)	4.0	27	130	0.208	1578	248	0.16
P6 (2025 PM)	4.0	29	130	0.223	1695	165	0.10
P7 (2025 AM)	4.0	78	130	0.600	4560	123	0.03
P7 (2025 PM)	4.0	78	130	0.600	4560	116	0.03

Notes: (1) Refer to Figure 3-3 for pedestrian link locations

(2) Capacity of pedestrian crossing in accordance with Chapter 3.2.5, Volume 4, TPDM

Where PG = Pedestrian Green + Flashing Green

CT = Cycle Time

GTP = Green time proportion (i.e. PG/CT)

PC = Pedestrian crossing capacity = $K (1900) \times GTP \times W$

3.5.3 The results show that LOS A are achieved at all the key pedestrian links in the vicinity of the Project Site, while the assessed pedestrian crossings are operating within capacity.

3.6 Public Transport Surveys

3.6.1 It is noted that visitors access the site are mainly by bus services at the three nearby bus stops along Castle Peak Road – Hung Shui Kiu. Hence, bus and GMB surveys were undertaken to record the number of bus and GMB trips and occupancy rate at the three nearby bus/GMB stops (with locations shown in **Figure 3-3**). The peak hour bus trips and patronage results are shown in **Table 3-8**.

Table 3-8 2025 Weekday Peak Hour Public Transport Trips and Occupancies

Location ⁽¹⁾		Bus / GMB	Nos. of Trips	Passenger per hour					
				Total Carrying Capacity	Total Arrivals ⁽²⁾	Alighting at stop	Boarding at stop	Total Departures ⁽³⁾	Spare Capacity
Weekday AM Peak Hour (07:00 – 08:00)									
A	Castle Peak Road, Uptown (Westbound)	Bus	35	4,916	301	29	55	327	4,589
		GMB	5	83	56	0	0	56	27
B	Castle Peak Road, Tai Tao Tsuen (Westbound)	Bus	18	2,528	263	12	0	251	2,277
		GMB	0	0	0	0	0	0	0
C	Castle Peak Road, Tai Tao Tsuen (Eastbound)	Bus	26	3,536	627	0	104	731	2,805
		GMB	0	0	0	0	0	0	0
Overall Bus			79	10,980	1191	41	159	1,309	9,671
Overall GMB			5	83	56	0	0	56	27
Overall					1,247	41	159	1,365	9,698
Weekday PM Peak Hour (16:30 – 17:30)									
A	Castle Peak Road, Uptown (Westbound)	Bus	20	2,772	530	68	7	469	2,303
		GMB	5	86	77	1	0	76	10
B	Castle Peak Road, Tai Tao Tsuen (Westbound)	Bus	24	3,346	670	14	1	657	2,689
		GMB	0	0	0	0	0	0	0
C	Castle Peak Road, Tai Tao Tsuen (Eastbound)	Bus	21	2,908	450	4	27	473	2,435
		GMB	1	16	11	2	1	10	6
Overall Bus			65	9,026	1650	86	35	1,599	7,427
Overall GMB			6	102	88	3	1	86	16
Overall					1,738	89	36	1,685	7,443

*Notes: (1) Refer to Figure 3-3 for Bus/GMB locations
(2) Total passengers of arriving and departing buses/GMB*

3.6.2 Surveys results indicate a spare public transport capacity of 9,698 passengers and 7,443 passengers for AM and PM peaks respectively.

4 ESTIMATION OF DEVELOPMENT FLOWS

4.1 Peak Hour Visitor Flows

- 4.1.1 The residential development units are intended for residents with ages 60 or above, with some of the flats will serve 1 person only. For conservative assessment purpose, the average domestic household size of 2.7 people (reference made to C&SD website) is adopted for this TIA, thus the anticipated residents for the Project Site would be 195 residents. For conservative, it is assumed that 50% residents (i.e. 97 people) will enter / leave the Project Site during peak hours.
- 4.1.2 On the other hand, to evaluate the future pedestrian flows for the RCHE development, a trip generation survey on a reference RCHE site was conducted as mentioned in Section 3. **Table 4-1** summarized the peakiest hour visitor flows for the reference RCHE site.

Table 4-1 Observed Peakiest Hourly Visitor Flows for RCHE Site

Site	Observed Peak Hour Visitor Trips (visitors/hr)			
	Weekday AM		Weekday PM	
	In	Out	In	Out
Hong Shui Garden of Aged Company Limited, Tuen Mun RCHE (117 beds)	19	14	31	30
	Observed Peak Hour Visitor Trip Rates (visitors / hr / Beds) ⁽¹⁾			
	Weekday AM		Weekday PM	
	In	Out	In	Out
	0.162	0.120	0.265	0.256

Notes: (1) Total 117 beds at Hong Shui Garden of Aged Company Limited, Tuen Mun

- 4.1.3 Based on the assumption stated in Section 4.1.1 and the observed trip rates presented in **Table 4-1**, the peak hour visitor flows for different types of facilities for the Project Site are calculated and summarized in **Table 4-2**.

Table 4-2 Estimated Peak Hour Visitor Flows for the Project Site

Development Type	Parameter for Project Site	Weekday AM Peak Hour Trip (Visitors)		Weekday PM Peak Hour Trip (Visitors)	
		In	Out	In	Out
Residential	72 Flats	98	98	98	98
RCHE	450 Beds	73	54	119	115
Total		171	152	217	213

4.2 Peak Hour Vehicular Flows

- 4.2.1 As mentioned in Section 3, a vehicular trip generation survey for the RCHE development was also undertaken. **Table 4-3** summarized the peakiest hour vehicular flows for the reference RCHE site.

Table 4-3 Observed Peakiest Hourly Vehicle Flows for RCHE Site

Site	Observed Peak Hour Vehicular Trips (pcu/hr)			
	Weekday AM		Weekday PM	
	In	Out	In	Out
	2	1	4	5
Hong Shui Garden of Aged Company Limited, Tuen Mun RCHE (117 beds)	Observed Peak Hour Vehicular Trip Rates			
	Weekday AM		Weekday PM	
	In	Out	In	Out
	0.017	0.009	0.034	0.043

- 4.2.2 For conservative assessment purpose, trip rate for private housing development is also adopted to evaluate the vehicular trips for residential development flats. With reference to the survey findings of the RCHE site, as well as trip rate for private housing development as stated in TPDM Volume 1 Chapter 3, the estimated peak hour vehicular flows for the Project Site are summarized in **Table 4-4**. It is worth noted that in actual operation, the willingness and the travel needs for the elderly is relatively low, thus fewer trips would be generated in actual operation.

Table 4-4 Estimated Peak Hour Vehicle Flows for the Project Site

Development Type	Vehicular Trips for Project Site			
	AM Peak Hour Trip (pcu's)		PM Peak Hour Trip (pcu's)	
	In	Out	In	Out
Residential ⁽¹⁾	3	5	3	2
RCHE	8	4	15	19
Sub-Total	11	9	18	21
2-way Total	20		39	

Notes: (1) Peak Hour trip rates for Private Housing, TPDM Volume 1, Chapter 3, Appendix 1, Annex C, Table 1.

- 4.2.3 It is estimated that the Project Site would generate 20 pcu's (11 in and 9 out) and 39 pcu's (18 in and 21 out) in the weekday AM and PM peak hour respectively.

5 TRAFFIC IMPACT ASSESSMENT

5.1 Design Year

- 5.1.1 Based on the latest programme, the anticipated completion year for the Project Site is 2031. Thus, the ultimate “Design Year” for this TIA study is set as 2034, i.e. 3 years after the completion of the whole Project Site.

5.2 Methodology

- 5.2.1 In forecasting the future traffic flows on the road network in the Study Area, due considerations are given to the following information and factors:

- The forecast population and employment from the 2021-based Territorial Population and Employment Data Matrix (TPEDM) planning data published by Planning Department;
- Committed and planned developments in the Study Area.

- 5.2.2 The following steps are undertaken to derive the 2034 Peak Hour Reference Flows (i.e. without the Project Site) and Design Flows (i.e. with the Project Site).

2034 Background Flows = 2025 Flows x annual growth factors

2034 Reference Flows = 2034 Background Flows + additional traffic by
planned and committed developments

2034 Design Flows = 2034 Reference Flows + development traffic

- 5.2.3 The traffic impact to be induced by the Project Site is assessed by comparing the Peak Hour Reference Traffic Flows against the Design Traffic Flows for both Design Years.

5.3 Future Year Reference Traffic Flows

5.3.1 Reference is made to the 2021-based Territorial Population and Employment Data Matrix (TPEDM) planning data published by Planning Department. **Table 5-1** presents the population and employment data in Yuen Long District for 2021, 2026 and 2031.

Table 5-1 2021-Based TPEDM for Yuen Long District

Category	2021	2025 ⁽¹⁾	2026	2031	% Growth p.a.
					2025 - 2031
Population	668,100	681,620	685,000	760,600	1.84%
Employment	152,850	221,370	238,500	258,200	2.60%
Total	820,950	902,990	923,500	1,018,800	2.03%

Source: 2021-based TPEDM published by Planning Department.

Note (1): 2025 population and employment places are calculated by interpolation between 2021 – 2026

5.3.2 It is anticipated that the population and employment places in Yuen Long District would be increased by 1.84% and 2.60% p.a. respectively, with an overall annual growth rate of 2.03% between 2025 and 2031.

5.3.3 For the traffic growth of year between Year 2031 to 2034, reference is made to the estimation from “Hong Kong Population Projection 2022-2046” published by Census and Statistics Department (C&SC). **Table 5-2** presents the projected population data in 2031 and 2034.

Table 5-2 Hong Kong Population Projection in 2031 and 2034

Category	2031	2034	% Growth p.a.
			2031 - 2034
Projected Population	7,820,200	7,945,100	+0.5%

Source: “Hong Kong Population Projection 2022-2046”

5.3.4 As shown in the above table, the predicted growth of population from 2031 to 2034 is approximately +0.5% per annum. Taking into account the above factors, it is proposed to adopt an average growth rate of 2.03% per annum from 2025 to 2031, and +0.5% per annum from 2031 to 2034 to forecast the 2034 background traffic flows.

Planned and Committed Developments

5.3.5 Based on the published information from Town Planning Board, planned/committed developments in the site vicinity are summarized in **Table 5-3**. The locations of the developments are shown in **Figure 5-1**.

Table 5-3 Planned / Committed Developments in the Site Vicinity

Ref No.	Location	Land Use	Trip Generations (pcu/hr)			
			AM Peak		PM Peak	
			In	Out	In	Out
1	Government Land adjacent to Tan Kwai Tsuen South Fresh Water Service Reservoir [A/YL-TYST/1201] ⁽¹⁾	Phase 1 SSF (1,970 flats with average flat size 50m ²) ⁽²⁾	84	123	79	59
		Phase 2 and 3 PRH (5,280 flats with average flat size 40m ²) ⁽²⁾	172	228	159	125
		Retail (5,912 m ² GFA) ⁽¹⁾	15	14	22	19
		Welfare (15,856 m ² GFA) ⁽¹⁾	39	27	19	25
		Kindergarten (15 classroom) ⁽¹⁾	25	25	14	14
		Primary School (30 classroom) ⁽¹⁾	42	41	19	19
		Office (1,098 m ² GFA) ⁽¹⁾	3	2	2	2
2	Government Land adjacent to Tan Kwai Tsuen South Fresh Water Service Reservoir [A/YL-TYST/1155] ⁽³⁾	Proposed Service Reservoirs and Public Utility Installation with Associated Excavation and Filling of Land	3	3	3	3
3	Various Lots in D.D. 124 and 125 and Adjoining Government Land in Yuen Long, and Various Lots in D.D. 130 and Adjoining Government Land in Tuen Mun, New Territories [A/HSK/452] Site 8, 9 ⁽⁴⁾	Site 8 Public Housing (2,188 flats with average flat size 50m ²)	61	106	77	53
		Site 9 Public Housing (2,633 flats with average flat size 50m ²)	73	127	92	64
4	Lots 361 S.A (Part), 362 (Part) and 422 (Part) in D.D. 127 and Adjoining Government Land, Kiu Tau Wai, Yuen Long, New Territories [A/HSK/474] ⁽⁵⁾	Residential (1,850 flats with average flat size < 60m ²)	79	133	69	53
		Retail (21,166.75 m ² GFA)	52	49	76	66
5	Lot 2273 & Ext. in D.D. 125, Ha Tsuen, Yuen Long, New Territories [Y/HSK/1] ⁽⁶⁾	Elderly centre additional new places (49 places) and other facilities (359 places)	25	21	12	13
6	Hung Shui Kiu and Ha Tsuen Planning Areas 8 (Part) and 10 (Various Lots in D.D. 124 and Adjoining Government Land, Hung Shui Kiu) [A/HSK/253] ⁽⁷⁾	Site 1 SSF (300 flats with average flat size 51m ²)	13	19	12	9
		Site 2 SSF (1400 flats with average flat size 51m ²)	61	91	57	42
		Site 2 PRH (900 flats with average flat size 51m ²)	32	45	30	23
7	Yuen Long South Development ⁽⁸⁾	First Phase Industrial Development (218,400 m ² GFA)	303	202	229	295
		Second Phase Industrial Development (278,500 m ² GFA)	386	258	292	376

Ref No.	Location	Land Use	Trip Generations (pcu/hr)			
			AM Peak		PM Peak	
			In	Out	In	Out
8	Various Lots in D.D. 121 and Adjoining Government Land, Tong Yan San Tsuen, Yuen Long [Y/YL-TYST/10] ⁽⁹⁾	Residential (2,634 flats with average flat size 50m ²)	112	189	97	75
		Retail (5,585 m ² GFA)	14	13	20	17
		Kindergarten (9 classroom)	28	22	7	24
		Covered Transport Lay-by	40	40	40	40
9	Various Lots in D.D. 121 and Adjoining Government Land, Tong Yan San Tsuen, Yuen Long, New Territories [Y/YL-TYST/8] ⁽¹⁰⁾	Residential (1,381 flats with average flat size 50m ²)	59	100	52	40
10	Lots 1829 S.A ss.2 (part), 1829 S.A ss.3 (part) and 1829 S.A RP (part) in D.D. 121 and Adjoining Government Land, Yuen Long [A/YL-TYST/1146] ⁽¹¹⁾	Proposed Service Reservoirs with Associated Excavation and Filling of Land	0	0	0	0
11	Lot 1768 in D.D. 122 and Adjoining Government Land, Long Bin, Yuen Long [A/YL-TYST/1285] ⁽¹²⁾	Phase 1 SSF (3,080 flats, with average unit size 50m ²)	131	192	124	91
		Phase 2 PRH (8,860 flats with average unit size 30m ²)	200	214	178	157
		Phase 2 Primary School	30	7	5	5
		Phase 1 and Phase 2 commercial	22	21	32	28
		Social Welfare Facilities	21	21	21	21
12	Lots 1341 S.B ss.9, 1341 S.B RP, 1341 S.B ss.1 S.J RP, 1341 S.B ss.1 S.D in D.D. 121, 525 S.B RP in D.D. 122 and Adjoining Government Land, Ping Shan, Yuen Long, New Territories [Y/YL-PS/6] ⁽¹³⁾	Residential (1,536 flats with average flat size 42.6m ²)	66	111	57	44
		Retail (1,535 m ² GFA)	4	4	6	5
		RCHE (222 beds)	9	9	6	4

Note (1): Source: TIA Report of the Approved TPB Application No. of A/YL-TYST/1201

(2) Peak Hour trip rates for Subsidized Housing, TPDM Volume 1, Chapter 3, Appendix 1, Annex C, Table 1.

(3) Source: TIA Report of the Approved TPB Application No. of A/YL-TYST/1155

(4) Source: TIA Report of the Approved TPB Application No. of A/HSK/452

(5) Source: TIA Report of the Approved TPB Application No. of A/HSK/474

(6) Source: TIA Report of the Approved TPB Application No. of Y/HSK/1

(7) Source: TIA Report of the Approved TPB Application No. of A/HSK/253

(8) Source: Peak Hour trip rates for Industrial, TPDM Volume 1, Chapter 3, Appendix 1, Annex C, Table 2.

(9) Source: TIA Report of the TPB Application No. of Y/YL-TYST/10 updated by 21st February, 2024

(10) Source: TIA Report of the TPB Application No. of Y/YL-TYST/8 updated by 9th September, 2024

(11) Source: TIA Report of the Approved TPB Application No. of A/YL-TYST/1146

(12) Source: TIA Report of the Approved TPB Application No. of A/YL-TYST/1285

(13) Source: TIA Report of the Approved TPB Application No. of Y/YL-PS/6

Information updated as of date 3 September 2025.

5.3.6 The additional development traffic in **Table 5-3** is then assigned onto the nearby road network with reference to the existing traffic distribution pattern in the Study Area. The resulting peak hour Reference Peak Hour Flows (i.e. without Project Site) are shown in **Figure 5-2**.

5.4 Future Year Design Peak Hour Traffic Flows

5.4.1 By adding the development flows in **Figure 5-3** to the 2034 Reference Peak Hour Flows (i.e. without Project Site) in **Figure 5-2**, the 2034 Design Peak Hour Flows (i.e. with Project Site) are derived and shown in **Figure 5-4**.

5.5 Future Year Junction Capacity Assessments

5.5.1 Based on the Reference Flows (i.e. without Project Site) and Design Flows (i.e. with Project Site) for the Design Year, junction capacity assessment is undertaken and the results shown in **Table 5-4** with detailed calculation sheets provided in **Appendix D**.

Table 5-4 2034 Peak Hour Junction Capacity Assessment

Jn. ID.	Location ⁽¹⁾	Type	Capacity Index ⁽²⁾	2034 Reference Scenario		2034 Design Scenario	
				AM Peak	PM Peak	AM Peak	PM Peak
J1	Hung Tin Road / Hung Chi Road	Signalized	RC	18.9%	42.6%	18.7%	42.3%
J2	Hung Tin Road / Hung Shui Kiu Tin Sam Road	Priority	DFC	0.63	0.48	0.63	0.49
J3	Castle Peak Road (Hung Shui Kiu) / Hung Tin Road	Signalized	RC	24.6%	55.6%	23.8%	53.1%
J4	Castle Peak Road (Ping Shan) / Access Road	Priority	DFC	0.14	0.07	0.16	0.09
J5 ⁽³⁾	Fui Sha Wai South Road / Tai To Tsuen Road / Unnamed Road	Junction removed as a part of Yuen Long South Development Road Improvement Works					

Notes: (1) Refer to Figure 3-2 for junction locations

(2) RC = Reserve Capacity for signal-controlled junction; DFC = Design Flow to Capacity for priority junction

(3) With the improvement works carried out by CEDD under Project PWP Item No. 7827CL (Part): Road Works under Yuen Long South Development – Second Phase Development in place, sections of the unnamed road of J5 will be permanently closed and demolished, and J5 will be no longer existed in the future. Detailed drawings can refer to Appendix E.

- 5.5.2 It is indicated in **Table 5-4** that all the key junctions in the vicinity of the Project Site would be operating within capacity during the peak hours for both the Reference (without Project Site) and Design (with Project Site) scenarios.

5.6 Future Year Link Capacity Assessments

- 5.6.1 Based on the Reference Flows (i.e. without Project Site) and Design Flows (i.e. with Project Site), link capacity assessments for Design Years 2034 are carried out and the results are presented in **Table 5-5**.
- 5.6.2 The results in the table indicate that all the key road links in the Study Area operate satisfactorily during the peak hours in the Reference scenario (i.e. without Project Site) and Design scenario (i.e. with Project Site).

Table 5-5 2034 Peak Hour Road Link Capacity Assessment

No.	Location ⁽¹⁾	Dir.	Design ⁽²⁾ Capacity (veh/hr)	2034 Reference Scenario (AM Peak)		2034 Reference Scenario (PM Peak)		2034 Design Scenario (AM Peak)		2034 Design Scenario (PM Peak)	
				Flows (veh/hr)	P/Df ⁽³⁾	Flows (veh/hr)	P/Df ⁽³⁾	Flows (veh/hr)	P/Df ⁽³⁾	Flows (veh/hr)	P/Df ⁽³⁾
L1	Hung Tin Road (At grade)	NB	1700	784	0.46	661	0.39	787	0.46	667	0.39
		SB	1700	707	0.42	540	0.32	710	0.42	545	0.32
L2	Castle Peak Road (Hung Shui Kiu)	EB	2600	1260	0.48	1029	0.40	1260	0.48	1029	0.40
		WB	3000	1374	0.46	1051	0.35	1376	0.46	1054	0.35
L3	Castle Peak Road (Ping Shan)	EB	3000	988	0.33	852	0.28	991	0.33	859	0.29
		WB	2600	1139	0.44	1003	0.39	1142	0.44	1009	0.39
L4	Fui Sha Wai South Road	Two -way	100	27	0.27	19	0.19	35	0.35	36	0.36
L5	Hung Tin Road (Slip road of Yuen Long Highway)	NB	1500	999	0.67	1063	0.71	999	0.67	1063	0.71
L6	Hung Tin Road (Slip road of Yuen Long Highway)	SB	1500	970	0.65	1214	0.81	970	0.65	1214	0.81

Notes: (1) Refer to Figure 3-2 for road link locations
(2) TPDM Vol 2 Table 2.4.1.1
(3) P/Df = Peak Hourly Flows/Design Flow Ratios (P/Df) for road links

5.7 Proposed Improvement Scheme

Planned Improvement Scheme by Others

- 5.7.1 Planned traffic improvement works covering key junctions and road links within the Study Area were identified under the project of Yuen Long South Development and Yuen Long Highway widening works. Details of the improvement works are listed in **Table 5-6**, while drawings of improvement works are presented in **Appendix E**.

Table 5-6 Traffic Improvement Woks by Other Projects

Location	Project	The Responsible Party	Anticipated Completion Year
Fui Sha Wai South Road / Tai To Tsuen Road / Unnamed Road (J5)	PWP Item No. 7827CL (Part): Road Works under Yuen Long South Development – Second Phase Development	CEDD	2031
Hung Tin Road (Slip road of Yuen Long Highway SB) (L6)	PWP Item No. 7827CL (Part): Road Works under Yuen Long South Development – Second Phase Development	CEDD	2031
Hung Tin Road (Slip road of Yuen Long Highway NB) (L5)	PWP Item No. 888TH - Widening of Yuen Long Highway (section between Lam Tei and Tong Yan San Tsuen)	Highways Department	2033

- 5.7.2 With the improvement works carried out by CEDD under Project PWP Item No. 7827CL (Part): Road Works under Yuen Long South Development – Second Phase Development in place, sections of the unnamed road of J5 will be permanently closed and demolished, and J5 will be no longer existed in the future. In the meanwhile, the L6 will be re-aligned with the number of lanes unchanged.
- 5.7.3 Under the works carried out by Highways Department under Project PWP Item No. 888TH - Widening of Yuen Long Highway (section between Lam Tei and Tong Yan San Tsuen), L5 will be further widened into two carriageways, the link capacity will be further enhanced.

Proposed Improvement Scheme by Applicant

- 5.7.4 To enhance the traffic condition at Fui Sha Wai South Road, local widening works on the existing Fui Sha Wai South Road (which is currently a single-lane access road serving 2-way traffic) is proposed to allow better road circulation of the public road section connecting to the site. The proposed widening section is anticipated to be a standard single-2 carriageway for Fui Sha Wai South Road section between our proposed development access and the existing EVA connecting to Castle Peak Road – Hung Shui Kiu. Details of the proposed local widening works is presented in **Figure 5-5**.

5.7.5 With the planned improvements and the proposed local widening at Fui Sha Wai Wai South Road in place, performances for the affected junctions and road links are assessed. The assessment results are shown in **Table 5-7** and **Table 5-8**.

Table 5-7 2034 Peak Hour Junction Capacity Assessment (with Improvement Works)

Jn. ID.	Location ⁽¹⁾	Type	Capacity Index ⁽²⁾	2034 Reference Scenario		2034 Design Scenario	
				AM Peak	PM Peak	AM Peak	PM Peak
J1	Hung Tin Road / Hung Chi Road	Signalized	RC	18.9%	42.6%	18.7%	42.3%
J2	Hung Tin Road / Hung Shui Kiu Tin Sam Road	Priority	DFC	0.63	0.48	0.63	0.49
J3	Castle Peak Road (Hung Shui Kiu) / Hung Tin Road	Signalized	RC	24.6%	55.6%	23.8%	53.1%
J4	Castle Peak Road (Ping Shan) / Access Road	Priority	DFC	0.14	0.07	0.16	0.09
J5 ⁽³⁾	Fui Sha Wai South Road / Tai To Tsuen Road / Unnamed Road	Junction removed as a part of Yuen Long South Development Road Improvement Works					

Notes: (1) Refer to Figure 3-2 for junction locations

(2) RC = Reserve Capacity for signal-controlled junction; DFC = Design Flow to Capacity for priority junction

(3) With the improvement works carried out by CEDD under Project PWP Item No. 7827CL (Part): Road Works under Yuen Long South Development – Second Phase Development in place, sections of the unnamed road of J5 will be permanently closed and demolished, and J5 will be no longer existed in the future. Detailed drawings can refer to Appendix E.

Table 5-8 2034 Peak Hour Road Link Capacity Assessment (with Improvement Works)

No.	Location ⁽¹⁾	Dir.	Design ⁽²⁾ Capacity (veh/hr)	2034 Reference Scenario (AM Peak)		2034 Reference Scenario (PM Peak)		2034 Design Scenario (AM Peak)		2034 Design Scenario (PM Peak)	
				Flows (veh/hr)	P/Df ⁽³⁾	Flows (veh/hr)	P/Df ⁽³⁾	Flows (veh/hr)	P/Df ⁽³⁾	Flows (veh/hr)	P/Df ⁽³⁾
L1	Hung Tin Road (At grade)	NB	1700	784	0.46	661	0.39	787	0.46	667	0.39
		SB	1700	707	0.42	540	0.32	710	0.42	545	0.32
L2	Castle Peak Road (Hung Shui Kiu)	EB	2600	1260	0.48	1029	0.40	1260	0.48	1029	0.40
		WB	3000	1374	0.46	1051	0.35	1376	0.46	1054	0.35
L3	Castle Peak Road (Ping Shan)	EB	3000	988	0.33	852	0.28	991	0.33	859	0.29

No.	Location ⁽¹⁾	Dir.	Design ⁽²⁾ Capacity (veh/hr)	2034 Reference Scenario (AM Peak)		2034 Reference Scenario (PM Peak)		2034 Design Scenario (AM Peak)		2034 Design Scenario (PM Peak)	
				Flows (veh/hr)	P/Df ⁽³⁾	Flows (veh/hr)	P/Df ⁽³⁾	Flows (veh/hr)	P/Df ⁽³⁾	Flows (veh/hr)	P/Df ⁽³⁾
		WB	2600	1139	0.44	1003	0.39	1142	0.44	1009	0.39
L4	Fui Sha Wai South Road	EB	400	19	0.05	14	0.04	24	0.06	25	0.06
L4	Fui Sha Wai South Road	WB	400	8	0.02	5	0.01	11	0.03	11	0.03
L5 ⁽⁴⁾	Hung Tin Road (Slip road of Yuen Long Highway)	NB	3000	999	0.33	1063	0.35	999	0.33	1063	0.35
L6 ⁽⁵⁾	Hung Tin Road (Slip road of Yuen Long Highway)	SB	1500	970	0.65	1214	0.81	970	0.65	1214	0.81

Notes: (1) Refer to Figure 3-2 for road link locations

(2) TPDM Vol 2 Table 2.4.1.1

(3) P/Df = Peak Hourly Flows/Design Flow Ratios (P/Df) for road links

(4) Improvement works will be carried out by CEDD under Project PWP Item No. 7827CL (Part): Road Works under Yuen Long South Development – Second Phase Development

(5) Improvement works will be carried out by HyD under PWP Item No. 888TH - Widening of Yuen Long Highway (section between Lam Tei and Tong Yan San Tsuen)

5.7.6 With the planned traffic improvement works and the local widening of Fui Sha Wai South Road in place, junction and road link performances will all operate within capacity, even with the Project Site in place.

6 PEDESTRIAN ASSESSMENT

6.1 Estimated Pedestrian Flows by the Project Site

- 6.1.1 According to **Table 4-2**, the pedestrian flow generated to/from the Project Site will be 323 ped/hr and 430 ped/hr for AM and PM peaks respectively.

6.2 Forecast 2034 Peak Hour Pedestrian Flows

- 6.2.1 Similar to the vehicular traffic impact assessment, year 2034 is adopted as the design year for pedestrian assessment. To derive the background pedestrian flows for design year 2034, an annual growth factor of 2.03% for year between 2025 to 2031, and 0.5% for year between 2031 to 2034 was applied to the existing pedestrian flows to derive the 2034 peak hour background pedestrian flows.
- 6.2.2 The additional pedestrian flows by the Project Site are then assigned onto the main pedestrian routes and the resulting 2034 Peak Hour Pedestrian Flows with the Project Site are shown in **Figure 6-1**.
- 6.2.3 The level of service assessments for the key pedestrian links and crossings are undertaken and the results are presented in **Table 6-1** and **Table 6-2**.

Table 6-1 2034 Level of Services (LOS) of Pedestrian Footways

Location ⁽¹⁾	Effective Footway Width ⁽²⁾	2034 Reference Scenario			2034 Design Scenario		
		Peak 15-Min Flow	Peak Min Flows/Metre	Level of Service	Peak 15-Min Flow	Peak Min Flows/Metre	Level of Service
P1	3.5	58	1.1	A	149	2.9	A
P2	1.5	45	2.0	A	132	5.9	A
P3	2.6	77	2.0	A	86	2.2	A
P4	1.7	42	1.6	A	47	1.8	A

Notes: (1) Refer to Figure 3-3 for pedestrian link locations

(2) Effective width = Actual width minus 0.5m shy zone

Table 6-2 Capacity Assessment on Signalized Crossing

Location ⁽¹⁾	W Crossing Width	PG (sec)	CT (sec)	GTP	PC ⁽²⁾ (ped/hr)	Demand (ped/hr)	Demand / Capacity Ratio
P5 (2034 AM)	4.0	31	130	0.238	1812	466	0.257
P5 (2034 PM)	4.0	31	130	0.238	1812	460	0.254
P6 (2034 AM)	4.0	27	130	0.208	1578	503	0.319
P6 (2034 PM)	4.0	27	130	0.208	1695	481	0.284
P7 (2034 AM)	4.0	78	130	0.600	4560	360	0.079
P7 (2034 PM)	4.0	78	130	0.600	4560	425	0.093

Notes: (1) Refer to Figure 3-3 for pedestrian link locations

(2) Capacity of pedestrian crossing in accordance with Chapter 3.2.5, Volume 4, TPDM

Where PG = Pedestrian Green + Flashing Green

CT = Cycle Time

GTP = Green time proportion (i.e. PG/CT)

PC = Pedestrian crossing capacity = $K (1900) \times GTP \times W$

- 6.2.4 The results show that LOS A can be achieved at all the key pedestrian links in the vicinity of the Project Site while the crossings are operating within capacity even with the Project Site in place.

6.3 Public Transport Capacity

- 6.3.1 With reference to Census 2021 (Table C204), percentage split of visitors in Yuen Long District using road based public transport services (i.e. bus and minibus) is 32.7%. For conservative, assume 35% of visitors for the Project Site will travel via road based public transport services.
- 6.3.2 The anticipated additional demand for the bus services at the nearby bus stops along Castle Peak Road – Hung Shui Kiu for the Project Site are summarized in **Table 6-3**.

Table 6-3 Additional Bus Demand by the Project Site

Bus Demand	Weekday AM		Weekday PM	
	In	Out	In	Out
Project Site ⁽¹⁾	60	54	76	75

Notes: (1) Trips derived by 35% x the estimated visitor number (refer to Table 4-2)

- 6.3.3 It is estimated that the Project Site would induce around 114 additional bus passengers (60 in and 54 out) and 151 additional bus passengers (76 in and 75 out) in the weekday AM and PM peak hour respectively.
- 6.3.4 To assess the adequacy of public transport services in the vicinity of the site, comparison between the spare capacity of existing bus services and the public transport demand of the Project Site are presented in **Table 6-4**. Similar to vehicular and pedestrian traffic, the 2034 bus occupancies are derived by applying the following factors to the 2025 observed peak hour bus patronage as indicated in **Table 3-8**.
- An average growth rate of +2.03% per annum from 2025 to 2031.
 - An average growth rate of +0.5% per annum from 2031 to 2034.

Table 6-4 Peak Hour Bus Demand and Spare Capacities at Nearby Bus-stops

	No. of Bus Trips	Total Capacity (Pax/hr)	Direction	2034 Occupancy (Pax/hr)	Spare Capacity (Pax/hr) ⁽⁵⁾	Demand for Public ⁽²⁾ (Pax/hr)	Demand for Project Site ⁽³⁾ (Pax/hr)
Weekday AM Peak	84	11,063	Arrivals	1,489 ⁽¹⁾	9,574	Alight 47	Alight 60
			Departures	1,382 ⁽⁴⁾	9,681	Boarding 183	Boarding 54
Weekday PM Peak	71	9,128	Arrivals	2,067 ⁽¹⁾	7,061	Alight 102	Alight 76
			Departures	1,889 ⁽⁴⁾	7,239	Boarding 42	Boarding 75

Notes: (1) 2034 Occupancy on arrival = 2025 Occupancy (table 3-8) x (1+2.03%)⁶ x (1+0.5%)³ + the Project Site IN

(2) 2034 Public Demand = 2025 total Alighting / Boarding (Table 3-8) x (1+2.03%)⁶ x (1+0.5%)³

(3) Refer to Table 6-4

(4) 2034 Occupancy on departure = 2034 Occupancy on arrival – 2034 Public alighting – Project Site IN

(5) Spare Capacity = Total Capacity - Occupancy

- 6.3.5 As presented in **Table 6.4**, bus demand for the Project Site is not significant, while there would be sufficient spare capacities by franchised bus services to cope with the additional demand for bus services by the Project Site.

7 Summary and Conclusion

7.1 Summary

- 7.1.1 The Project Site is situated at Lot Nos. 2188 and 398 RP in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, which falls within the “Comprehensive Development Area” (CDA) and “Green Belt” (GB) on the Approved Tong Yan San Tsuen Outline Zoning Plan (OZP) No. S/YL-TYST/14. To facilitate the development of the proposed residential development and social welfare facility (Residential Care Home for the Elderly), amendment is required to the OZP by rezoning the areas from CDA / GB to “Residential (Group A)4” (“R(A)4”).
- 7.1.2 Ozzo Technology (HK) Limited is commissioned to undertake this Traffic Impact Assessment (TIA) Study to assess the traffic impact to be induced by the Project Site on the nearby road and pedestrian networks.
- 7.1.3 The Project Site is a 13 storey RCHE cum residential development with total GFA of 10,489 m², which included 450 beds for RCHE and 72 units for residential development. The vehicular cum pedestrian access for the Project Site is located at Fui Sha Wai South Road. Vehicles would access the site via Fui Sha Wai South Road which connects to Castle Peak Road – Hung Shui Kiu, while pedestrians shall enter and leave the site via Fui Sha Wai South Road via the vehicular access.
- 7.1.4 The Project Site is an RCHE cum residential development, with no specific parking and loading / unloading requirements in accordance with Hong Kong Planning Standard and Guidelines (HKPSG). Thus, for RCHE, provision of parking and loading / unloading facilities will be designed based on users’ requirements to meet operational needs. For residential portion, provision of parking and loading / unloading facilities is stipulated with HKPSG requirement.
- 7.1.5 Capacity assessments are undertaken to reveal the 2025 AM and PM peak hour traffic conditions in the vicinity of the Project Site. The assessment results indicate that all the key junctions and road links perform satisfactorily during the AM and PM peak hours on a normal weekday.
- 7.1.6 The anticipated completion year of the Project Site is 2031. The assessment year for the TIA study is therefore set as 2034 (3 years after the anticipated completion).

- 7.1.7 Planned traffic improvement works were identified for L5 and L6 in accordance with the future Yuen Long South Development and Yuen Long Highway Widening Works. In addition, to enhance the traffic condition at Fui Sha Wai South Road, local widening works on the existing Fui Sha Wai South Road (which is a single-lane access road serving 2-way traffic) is proposed to allow better road circulation of the public road section connecting to the site. The proposed widening section is anticipated to be a standard single-2 carriageway for Fui Sha Wai South Road section between our proposed development access and the existing EVA connecting to Castle Peak Road – Hung Shui Kiu. The applicant will be responsible for the implementation of proposed widening works, while it will be handed over to HyD for future maintenance and management after satisfactory acceptance by HyD.
- 7.1.8 Assessment results indicate that all the key junctions and road links would perform satisfactorily during the peak hours in the Design Year for both the Reference (i.e. without Redevelopment) and Design (i.e. with Project Site) scenarios.
- 7.1.9 Pedestrian impact assessments are also undertaken to assess the performance of the public footpaths along the major pedestrian desire lines in the vicinity of the Project Site. Assessment results indicate that all major pedestrian routes would perform satisfactorily with sufficient spare capacity during the peak hours, even with the Project Site in place.
- 7.1.10 Assessment results on public transport demand also indicate that there would be of sufficient public transport spare capacities to cope with the additional public transport demand from the Project Site.

7.2 Conclusion

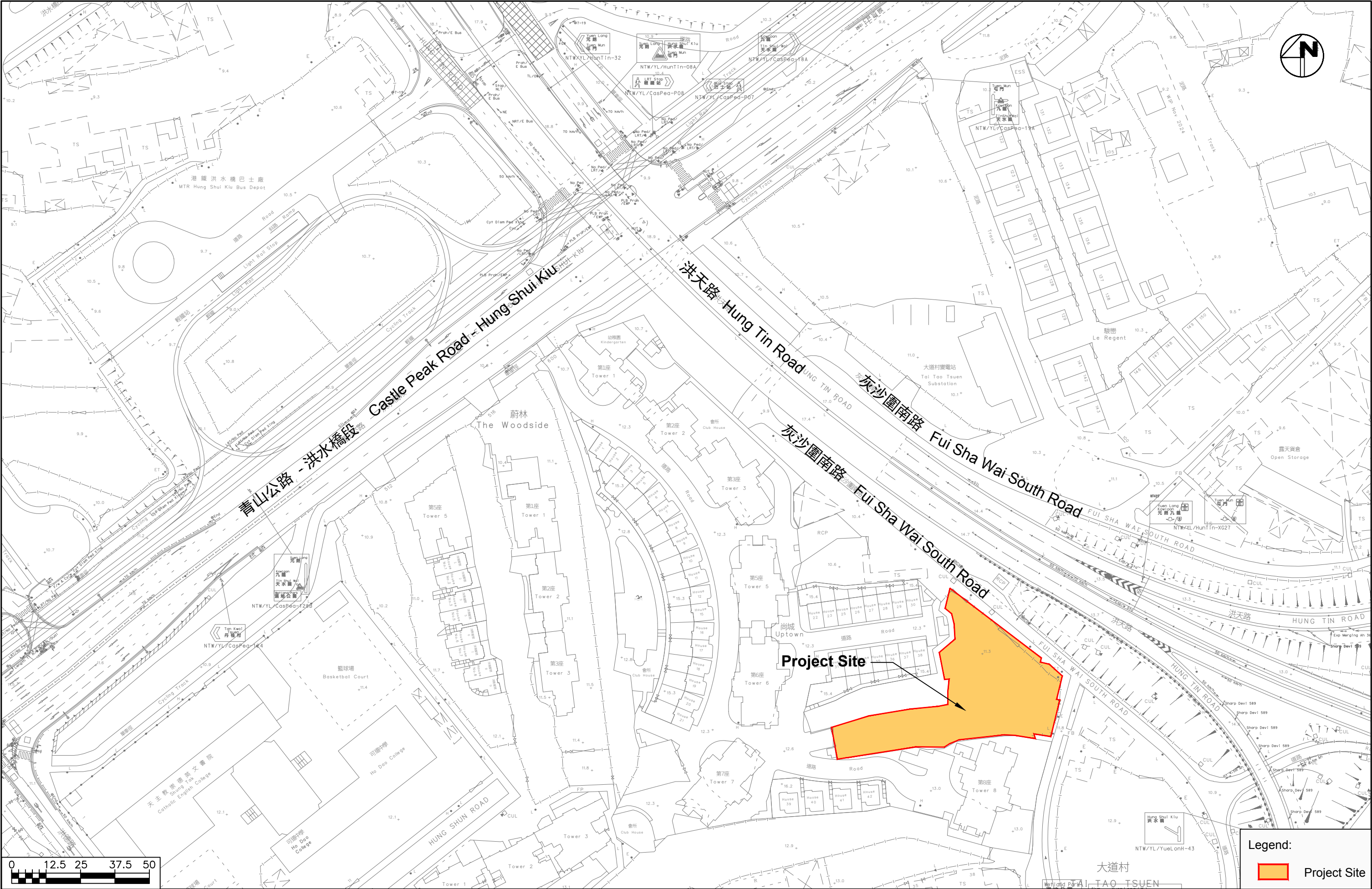
- 7.2.1 The impact assessment results indicate that the Project Site would not create adverse impact on the surrounding road and pedestrian network as well as public transport services.

Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories Traffic Impact Assessment Report



Figures

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Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Site Location

Date	Scale
11/10/2025	1:1250

Legend:

Project Site

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Project No. 83136	Rev. B
Dwg No. Figure 2-1	

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Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Parking and Loading/Unloading Facilities at Ground Floor

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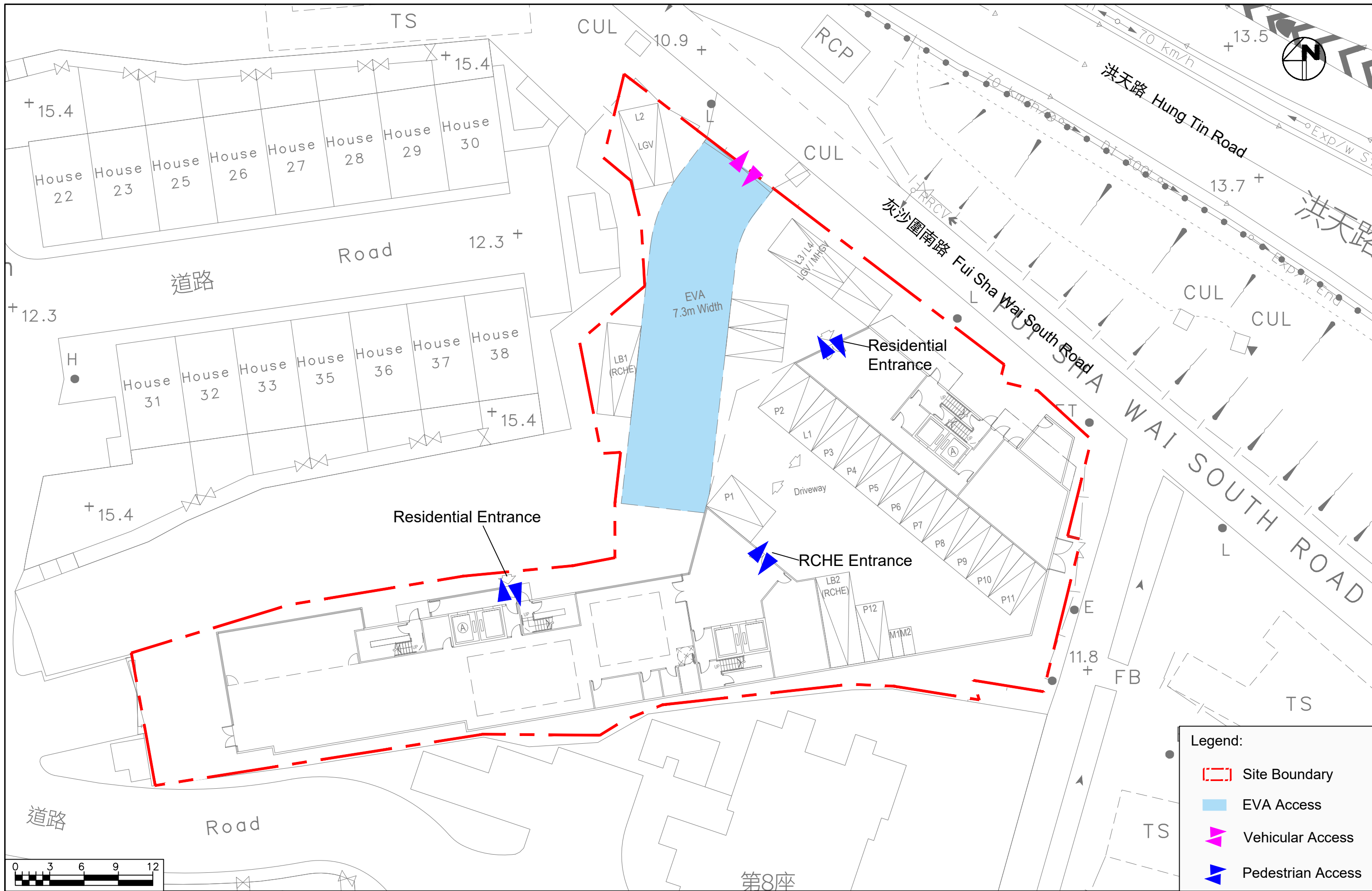
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Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

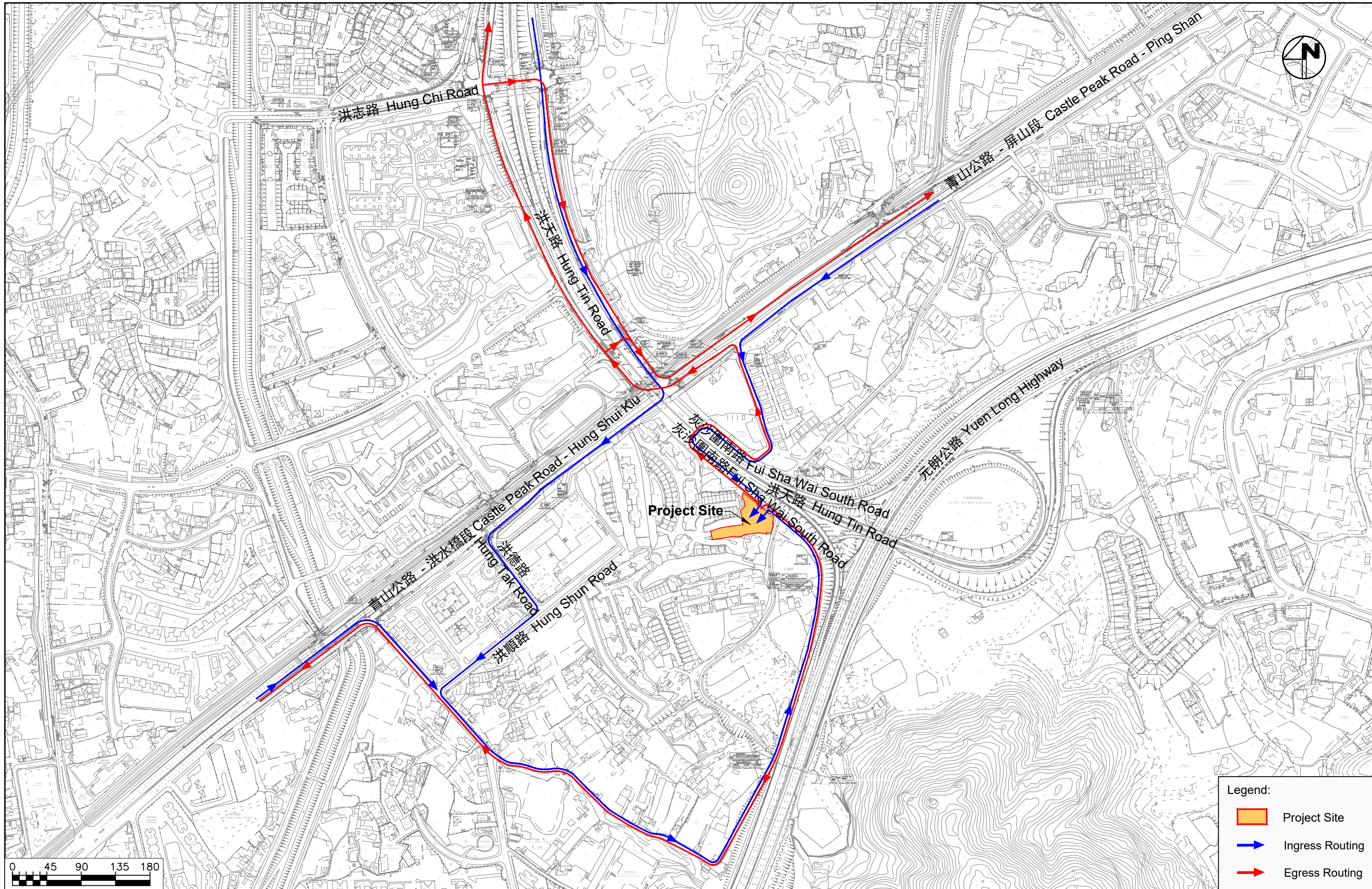
Proposed Vehicular and Pedestrian Access at Ground Floor

Legend:		
	Site Boundary	
	EVA Access	
	Vehicular Access	
	Pedestrian Access	



Project No. 83136	Rev. D
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Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Major Vehicular Ingress and Egress Routes

Legend:

-  Project Site
-  Ingress Routing
-  Egress Routing



Project No. 83136

Rev.

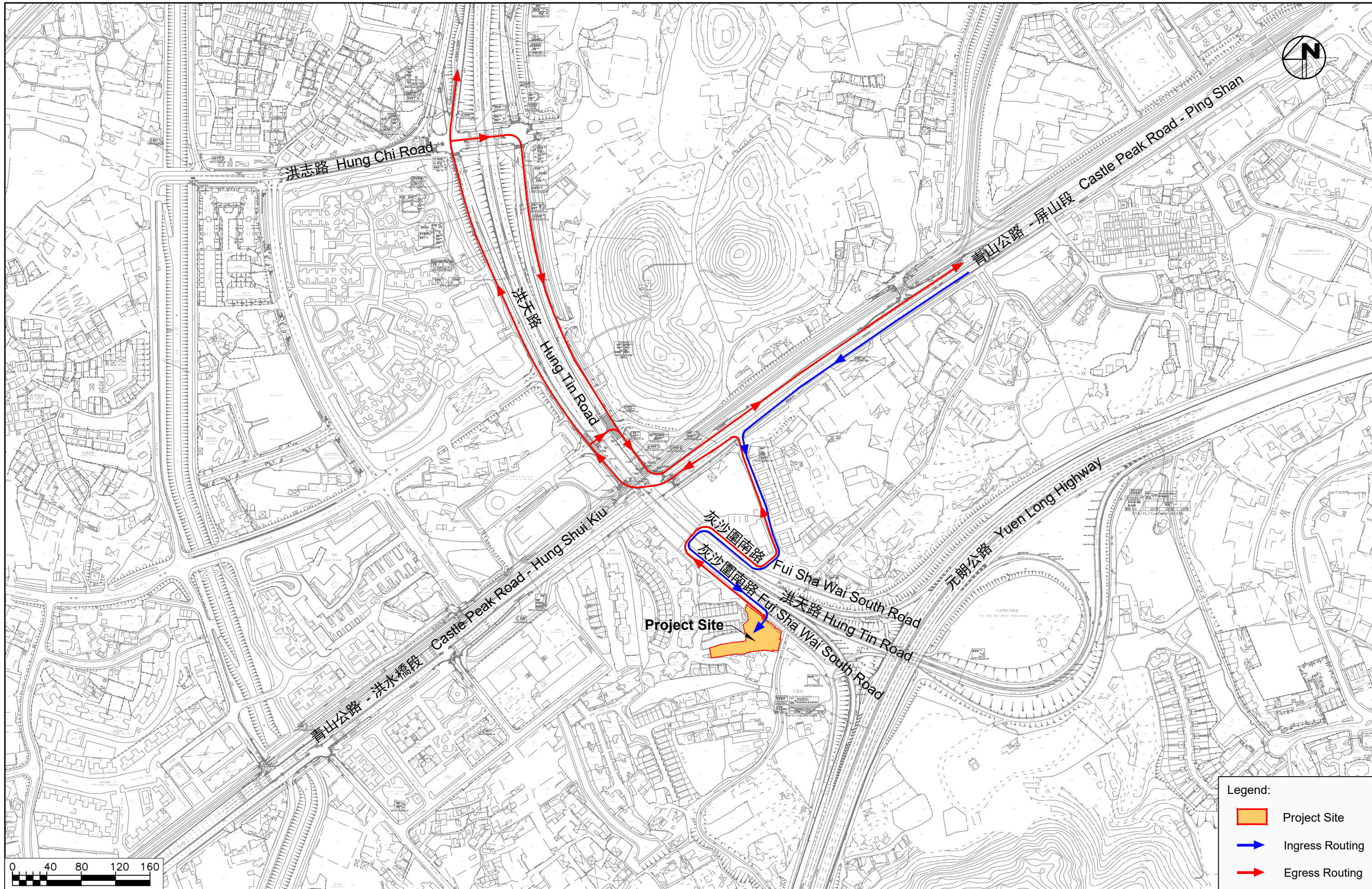
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Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Major Vehicular Ingress and Egress Routes (Sheet 1 of 2)

Legend:

-  Project Site
-  Ingress Routing
-  Egress Routing

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Project No. 83136

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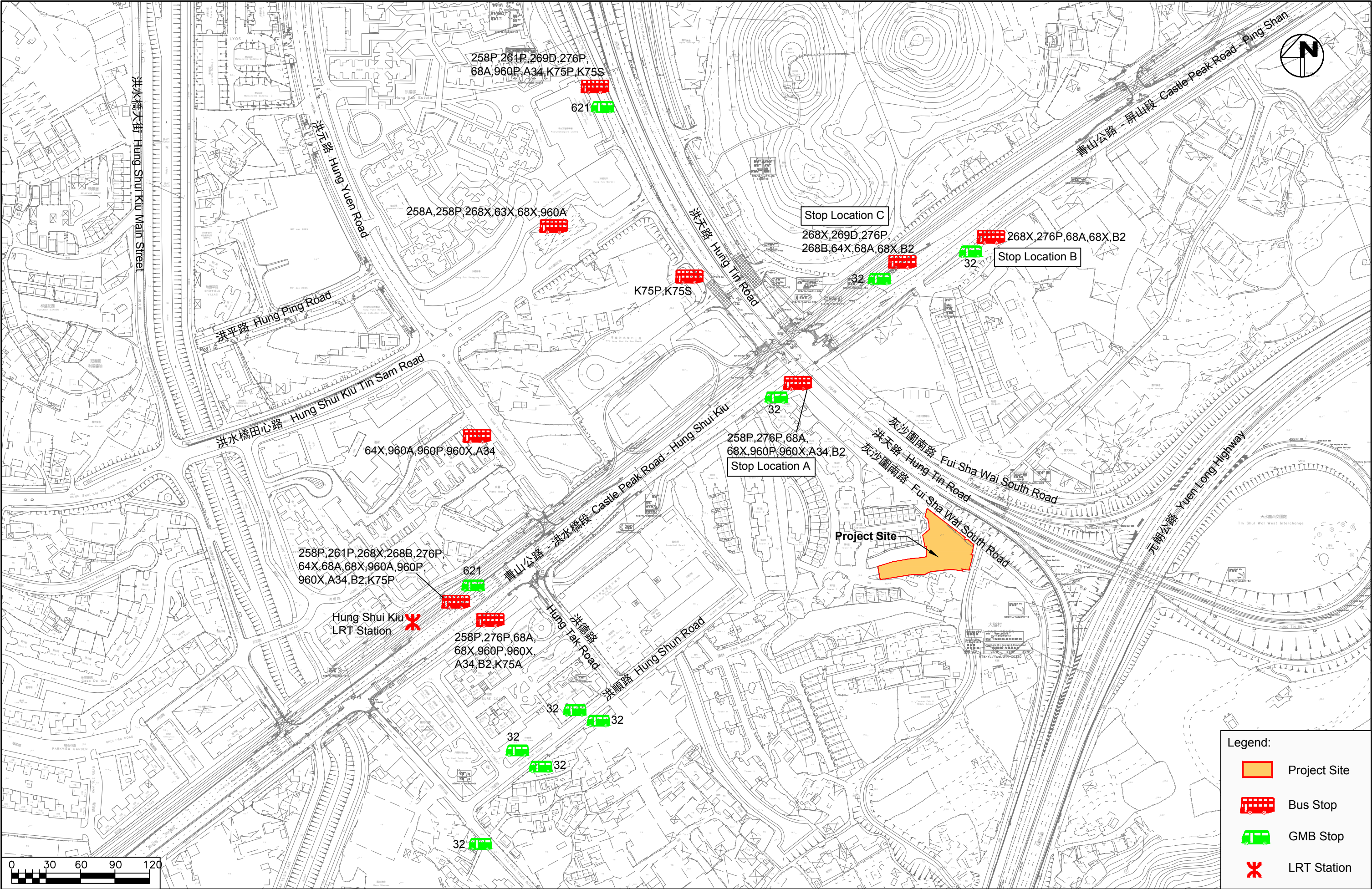
Major Vehicular Ingress and Egress Routes (Sheet 2 of 2)



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Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and
to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly)
at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Existing Public Transport Services

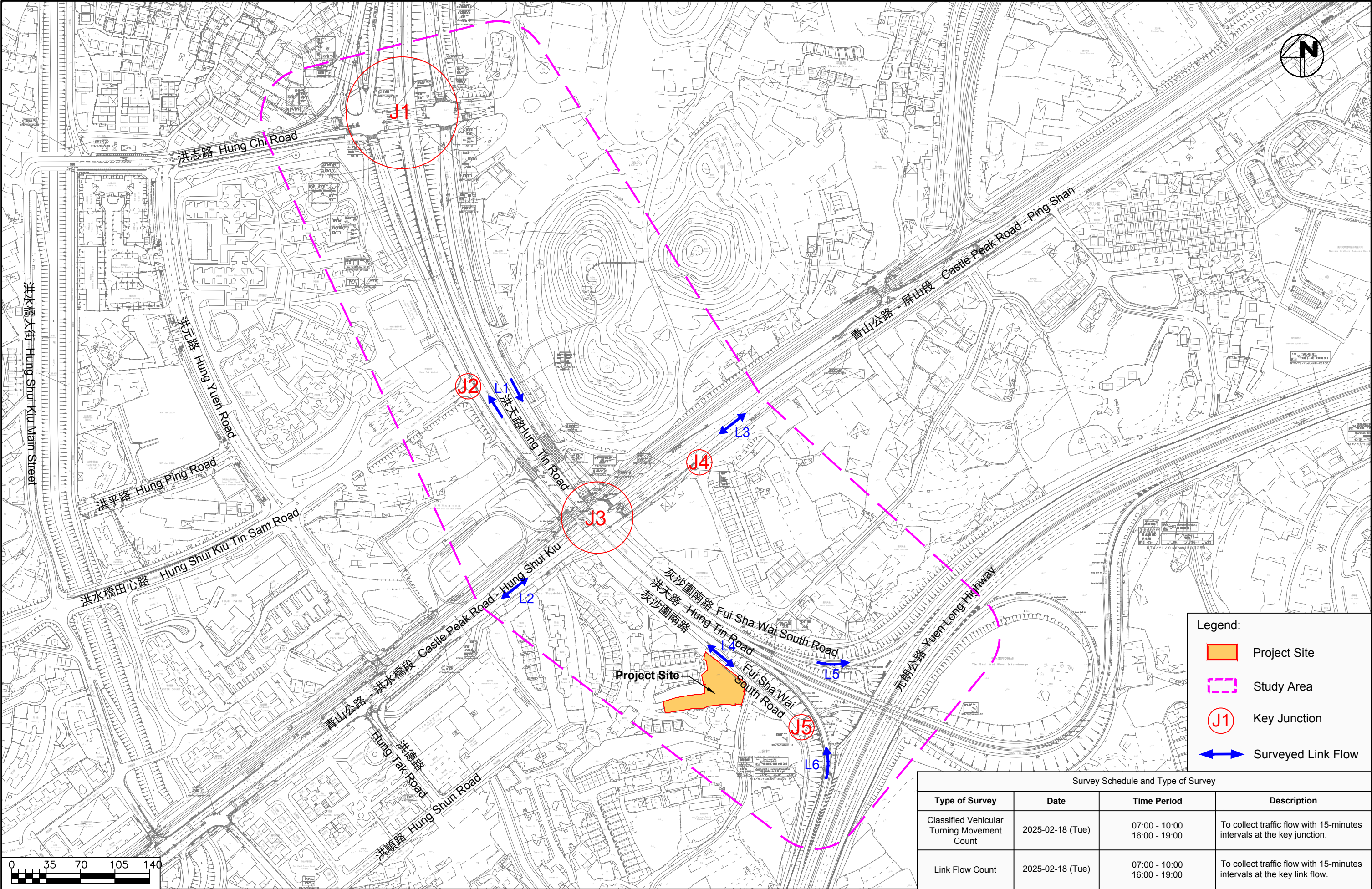
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Legend:

- Project Site
- Bus Stop
- GMB Stop
- LRT Station

Project No. 83136	Rev. B
Dwg No. Figure 3-1	

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Legend:

-  Project Site
-  Study Area
-  Key Junction
-  Surveyed Link Flow

Survey Schedule and Type of Survey			
Type of Survey	Date	Time Period	Description
Classified Vehicular Turning Movement Count	2025-02-18 (Tue)	07:00 - 10:00 16:00 - 19:00	To collect traffic flow with 15-minutes intervals at the key junction.
Link Flow Count	2025-02-18 (Tue)	07:00 - 10:00 16:00 - 19:00	To collect traffic flow with 15-minutes intervals at the key link flow.

Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Locations of Types Traffic Surveys (Sheet 1 of 2)

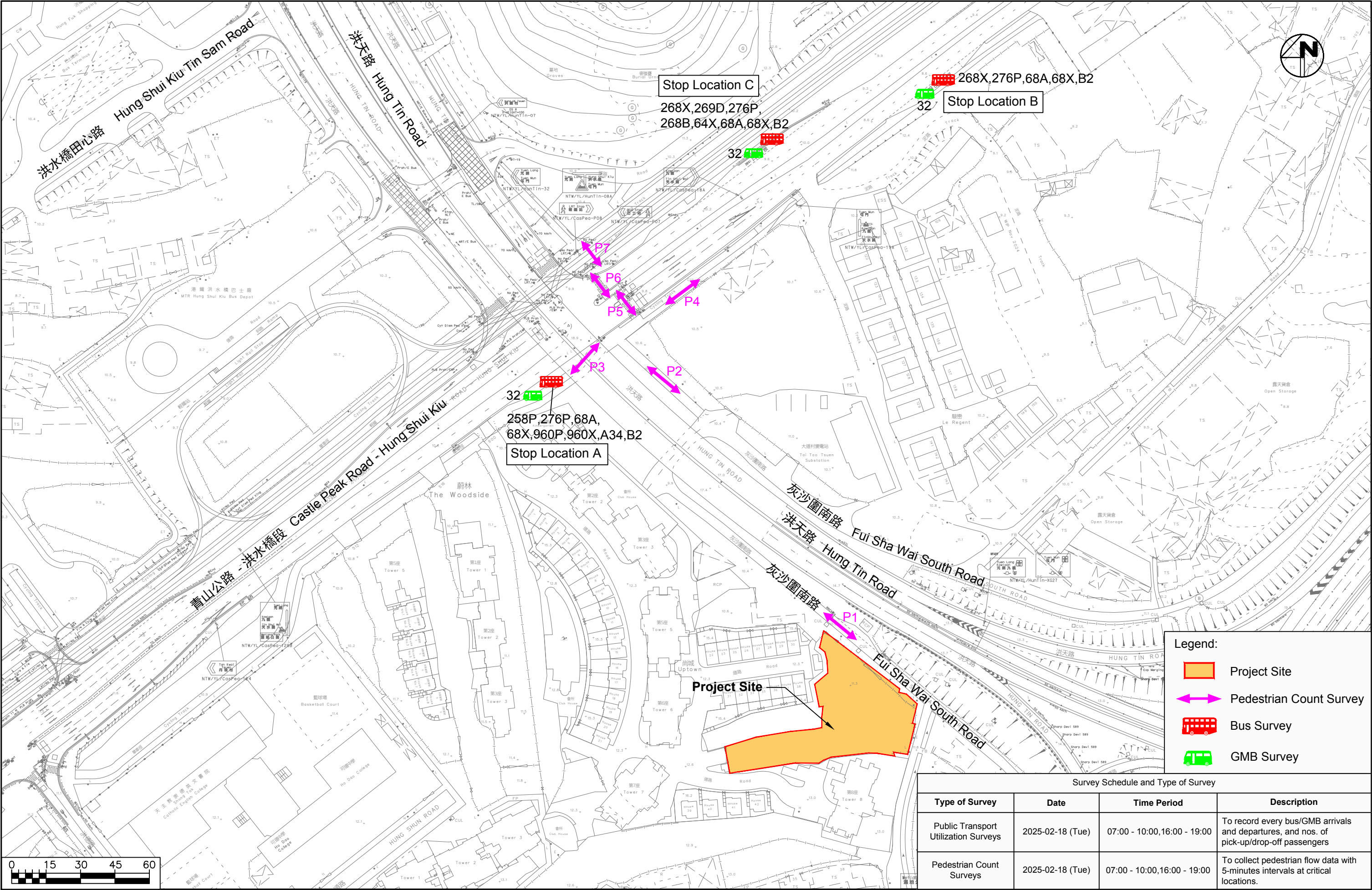
Date	Scale
11/10/2025	1:3500



Project No. 83136
Dwg No. Figure 3-2

Rev.
B

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- Legend:
- Project Site
 - Pedestrian Count Survey
 - Bus Survey
 - GMB Survey

Survey Schedule and Type of Survey			
Type of Survey	Date	Time Period	Description
Public Transport Utilization Surveys	2025-02-18 (Tue)	07:00 - 10:00, 16:00 - 19:00	To record every bus/GMB arrivals and departures, and nos. of pick-up/drop-off passengers
Pedestrian Count Surveys	2025-02-18 (Tue)	07:00 - 10:00, 16:00 - 19:00	To collect pedestrian flow data with 5-minutes intervals at critical locations.

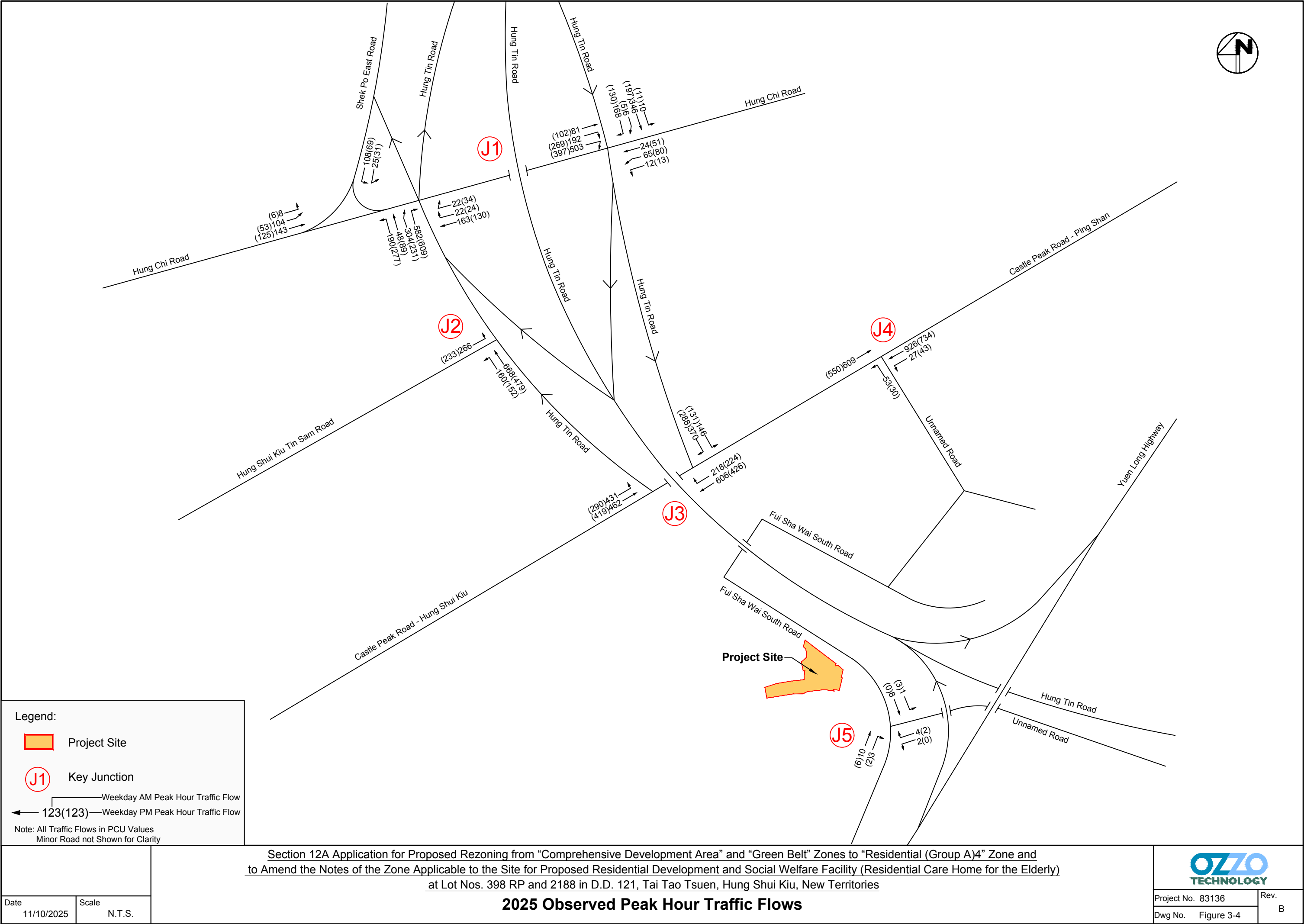
Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Locations of Types Traffic Surveys (Sheet 2 of 2)

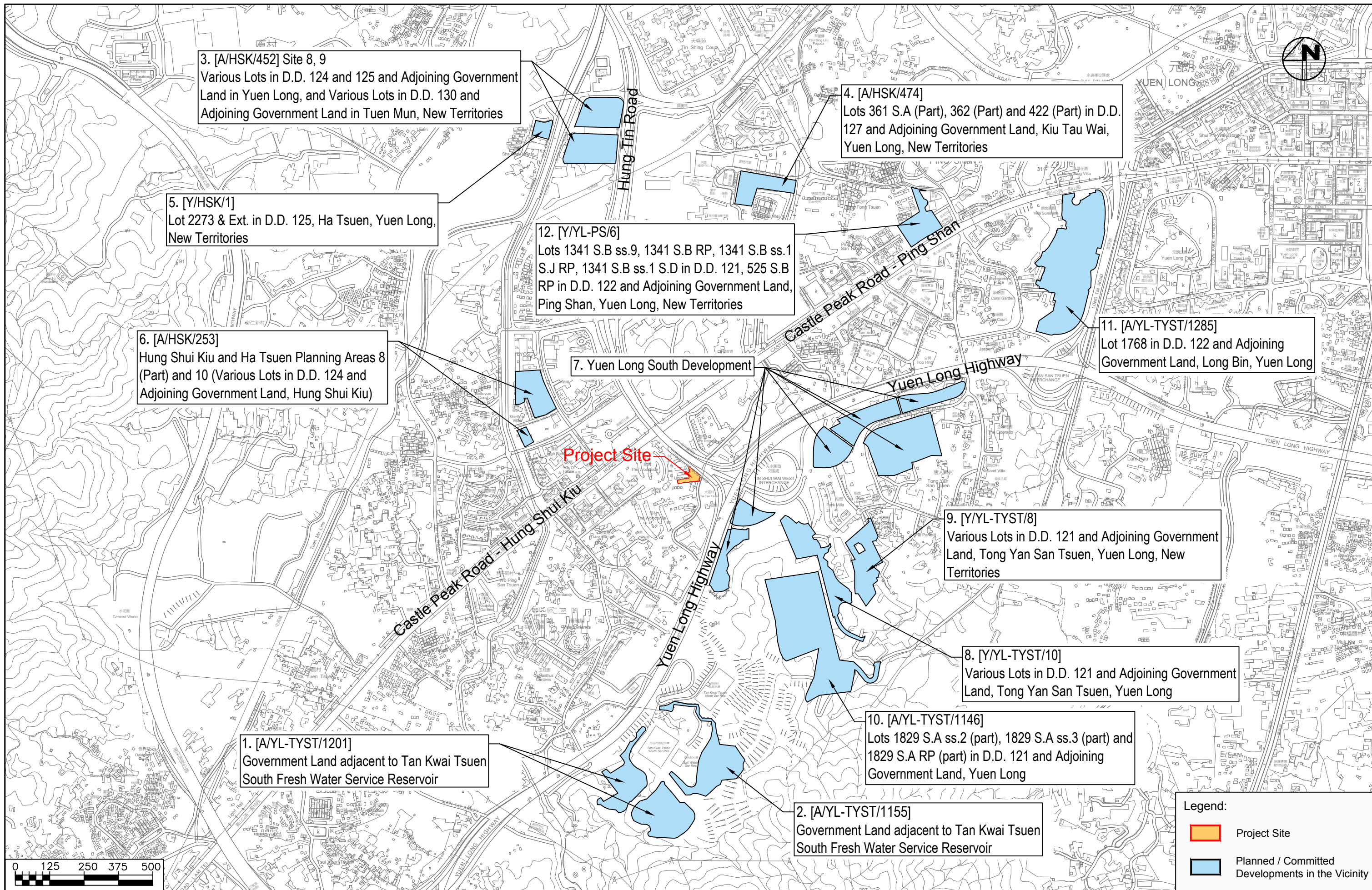
Date	Scale
11/10/2025	1:1500

OZZO TECHNOLOGY	
Project No. 83136	Rev. B
Dwg No. Figure 3-3	

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X:\Ozzo\83136_S12A for Proposed Residential and RCHE Development at Lot No 2188 & 398 RP in DD121 Hung Shui Kiu\KiuData\dwg\83136_Figure 5-1B.dwg 2025/10/11 09:52:51



Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Locations of List of Planned / Committed Developments

Date
11/10/2025

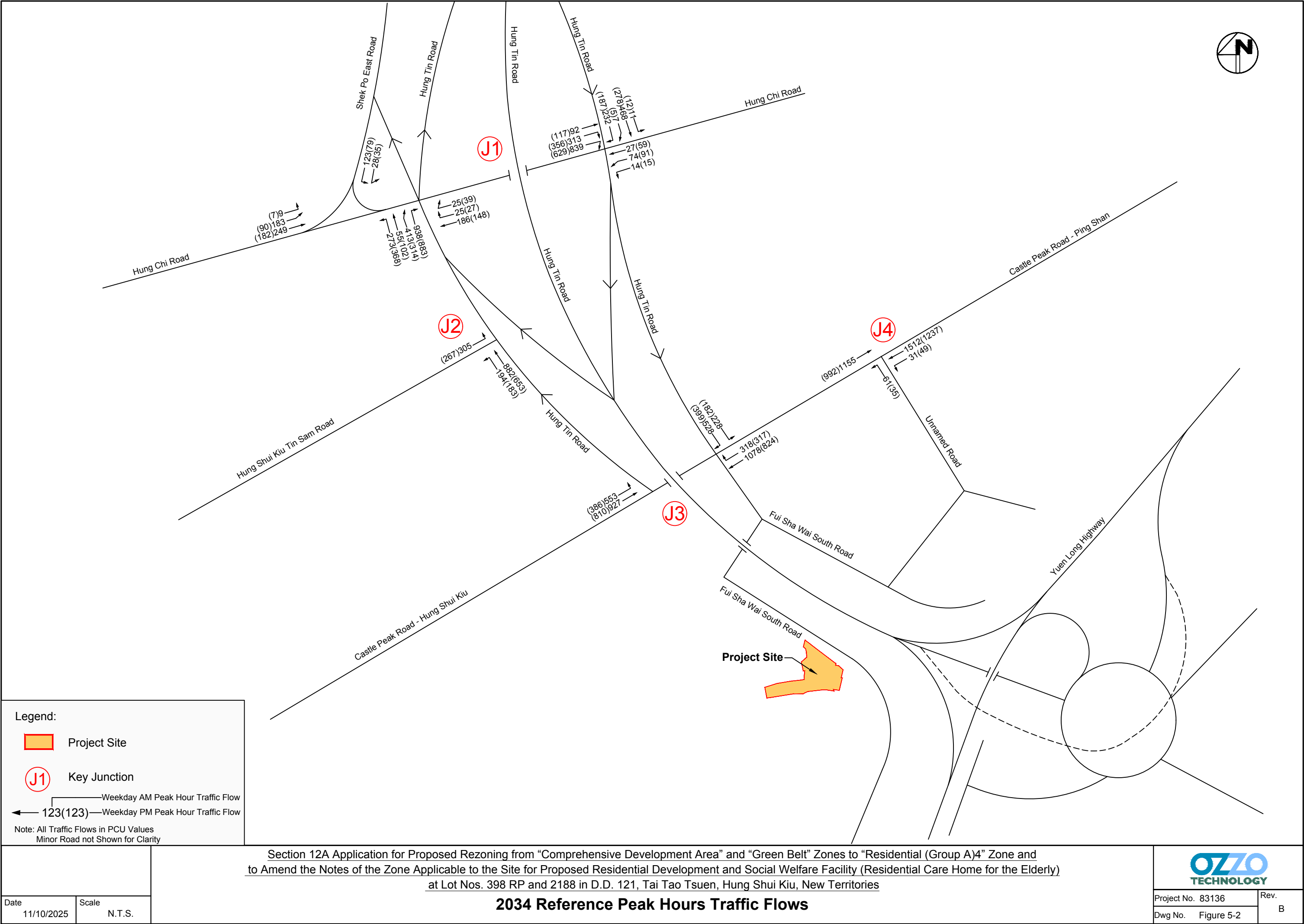
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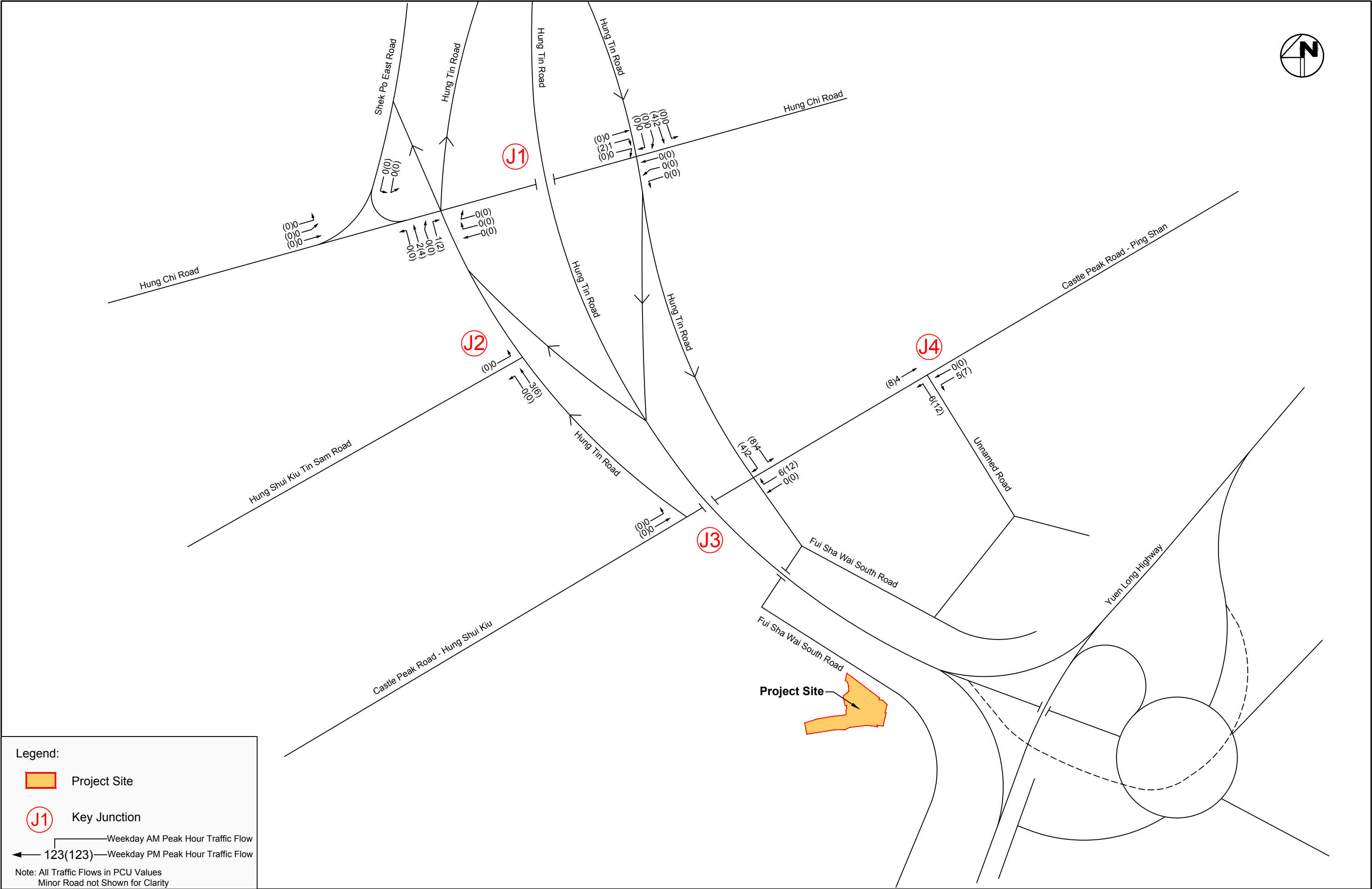
Project No. 83136
Dwg No. Figure 5-1

Rev.
B

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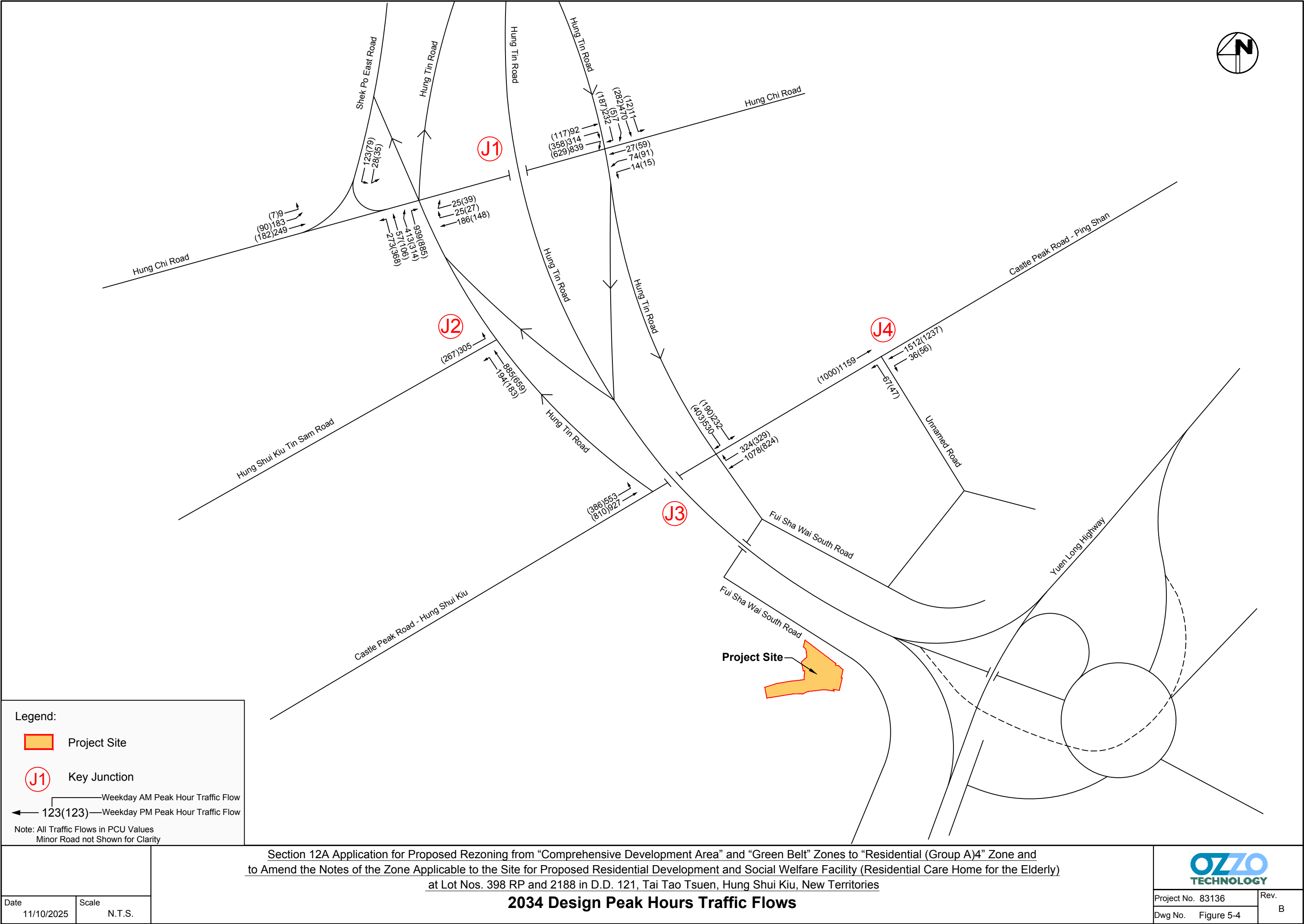
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Date	Scale
11/10/2025	N.T.S.

Development Peak Hours Traffic Flows

Project No. 83136	Rev. B
Dwg No. Figure 5-3	

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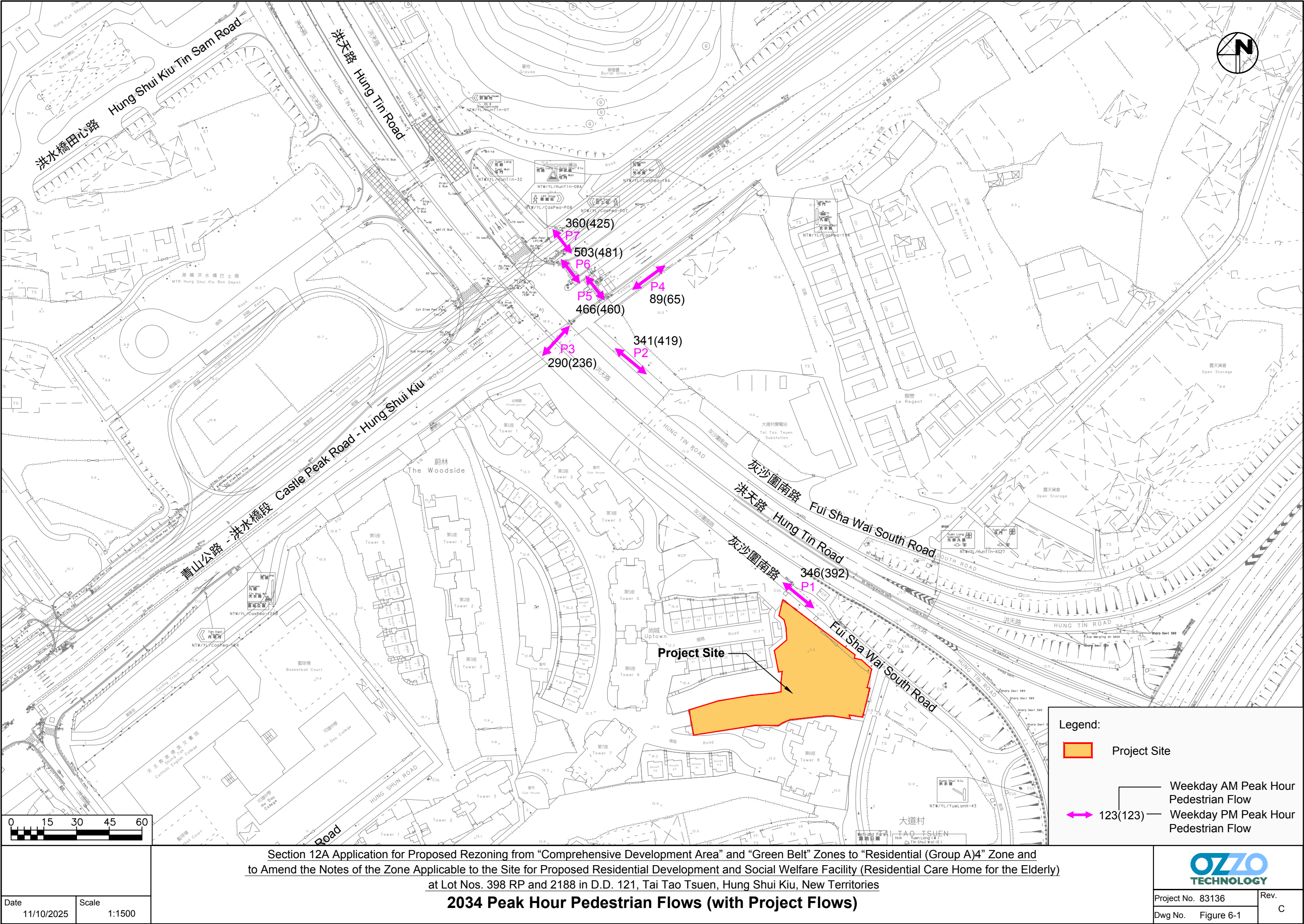


Project No. 83136		Rev. B
Dwg No. Figure 5-4		

Proposed Widening at Fui Sha Wai South Road

Legend: New Driveway New Footpath Project Site		
		
Project No. 83136	Rev.	
Dwg No. Figure 5-5	D	

X:\Ozzo\83136_S12A for Proposed Residential and RCHE Development at Lot No 2188 & 398 RP in DD121 Hung Shui Kiu\Data\DWG\83136_Figure 6-1C.dwg 2025/10/11 09:57:56



Appendix A

Parking Provision of Other RCHE / Residential Development

Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Appendix A

Parking Provision of Other RCHE / Residential Development

Reference Site	Location	Use	Parking and L/UL Provision		Total Provision	Ratio (Total Provision / Flat + Beds)
"Blissful Place 豐頤居 ⁽¹⁾	8 Lee Kung Street, Hung Hom, Kowloon	Elderly Housing (312 flats)	Residential /Visitor Parking Spaces	7	7	0.022
Cheerful Court 彩頤居 ⁽²⁾	55 Choi Ha Road, Ngau Tau Kok, Kowloon	• Elderly Housing (333 flats) • Residential Care Home for the Elderly (55 beds)	Private car Parking Spaces	48	48	0.124
Jollu Place 樂頤居 ⁽³⁾	2 Pui Shing Lane, Tseung Kwan O, New Territories	• Elderly Housing (243 flats) • Residential Care Home for the Elderly (38 beds)	Private car Parking Spaces	14	19	0.068
			Motocycle Parking Spaces	5		
The Tanner Hill 雋悅 ⁽⁴⁾	8 Tanner Road, North Point, Hong Kong	• Elderly Housing (588 flats) • Residential Care Home for the Elderly (117 beds)	Residential Parking Spaces	6	15	0.021
			Visitor Parking Spaces	9		
Ventria Residence 曦雲居 ⁽⁵⁾	17A and 17B Ventris Road, Happy Valley, Hong Kong	• Senior Hostel (68 flats) • Residential Care Home for the Elderly (100 flats) • Church Facilities (2,385 m ²)	Private car Parking Spaces	57	63	0.375
			Coach Lay-Bys	2		
			Taxi/PV Lay-Bys	3		
			L/UL Bay	1		
Proposed Development	Lot Nos 2188 and 398 RP in D.D. 121, Tai Tao Tsuen Hung Shui Kiu	• Senior Housing (72 flats) • Residential Care Home for the Elderly (450 beds)	Private car Parking Spaces	14	22	0.042
			Light Bus Parking Spaces	2		
			Motocycle Parking Spaces	2		

Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Reference Site	Location	Use	Parking and L/UL Provision		Total Provision	Ratio (Total Provision / Flat + Beds)
			Private car Parking L/UL	1		
			LGV L/UL	2		
			MHGV L/UL	1		

Note: Source: (1) Information is extracted from Blissful Place: <https://blissfulplace.hkhs.com/>

(2) Information is extracted from Cheerful Court: <https://sen.hkhs.com/tc/projects/cheerful-court?id=about-project>

(3) Information is extracted from Jolly Place: <https://sen.hkhs.com/tc/projects/jolly-place?id=about-project>

(4) Information is extracted from The Tanner Hill: https://www.thetannerhill.hkhs.com/en/info/tanner_hill/factsheet/index.html

(5) Information is extracted from gist of approved planning application A/H7/165

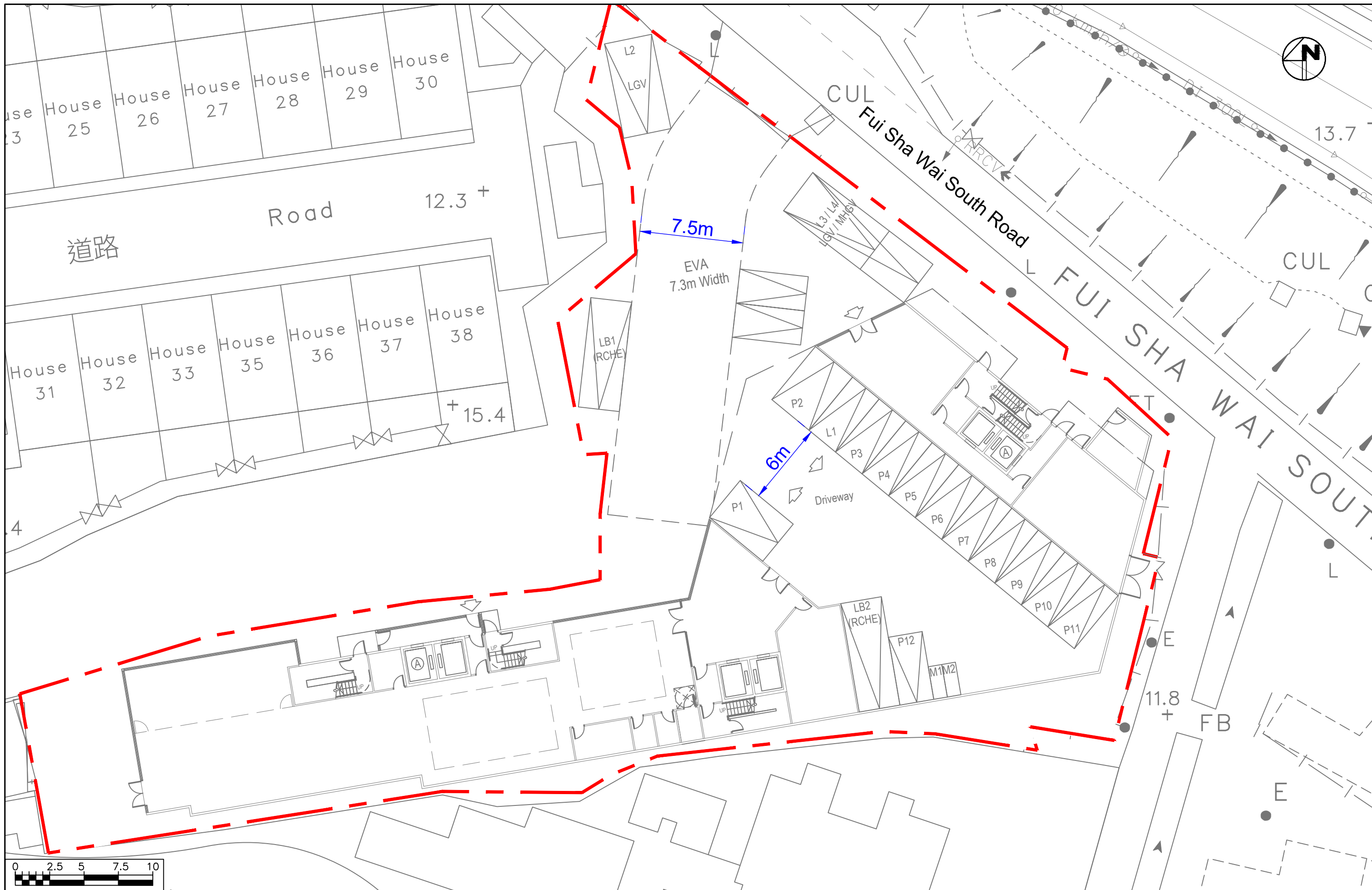
Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories Traffic Impact Assessment Report



Appendix B

Swept Path Analysis

X:\Ozzo\83136_S12A for Proposed Residential and RCHE Development at Lot No 2188 & 398 RP in DD121 Hung Shui Kiu\Drawg\83136_0817-SP.dwg 2026/08/24 19:32:07



Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

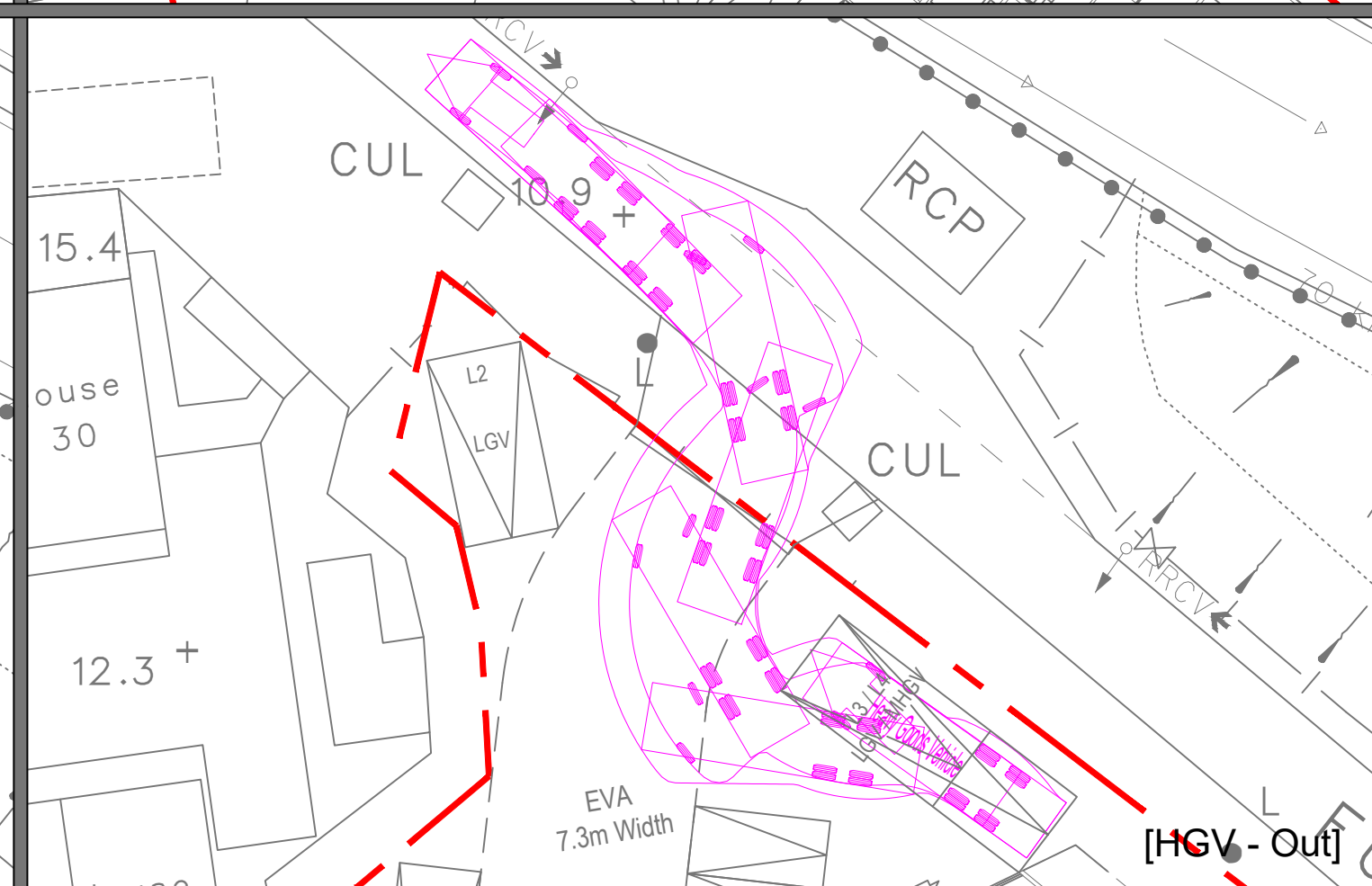
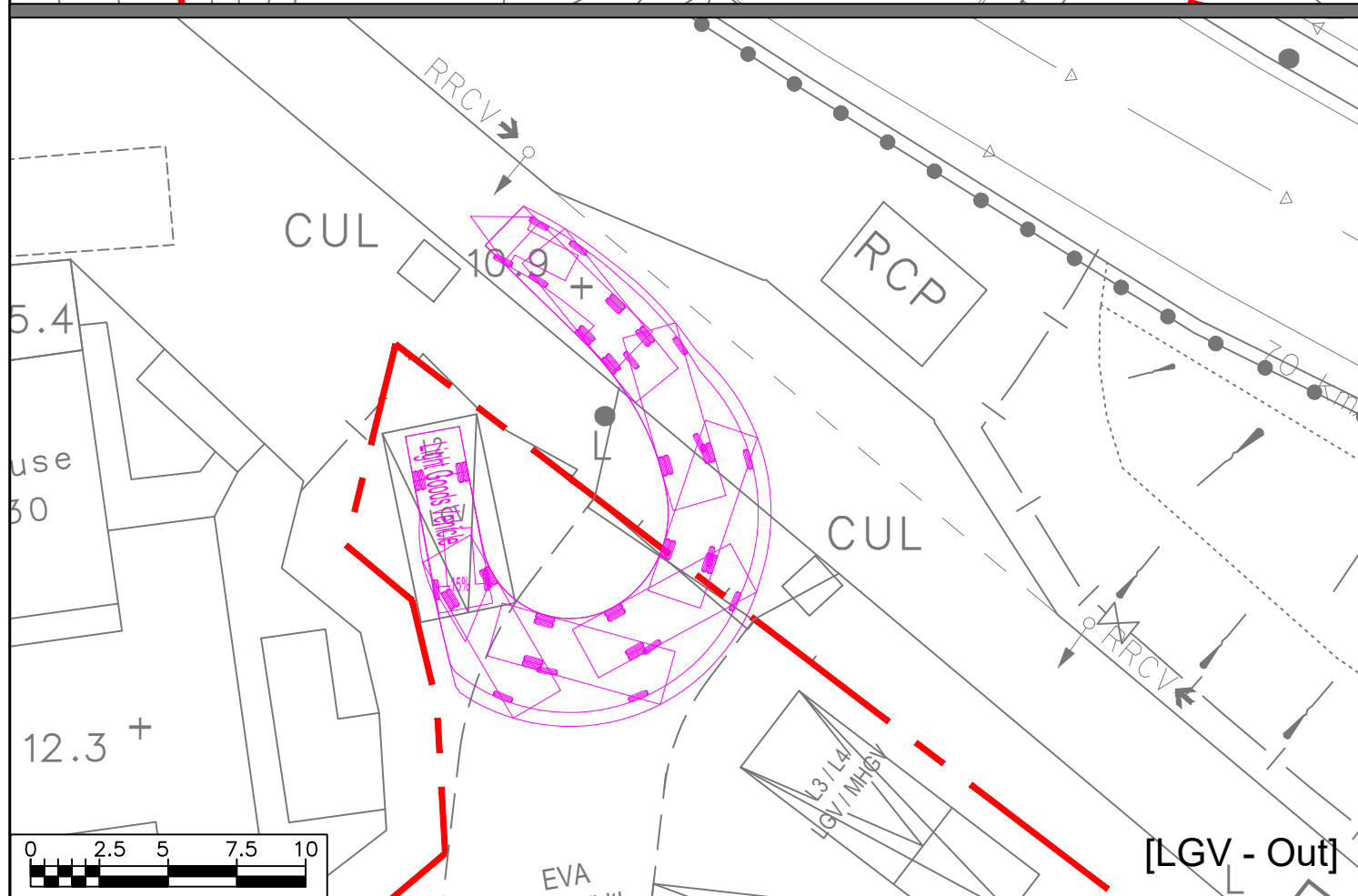
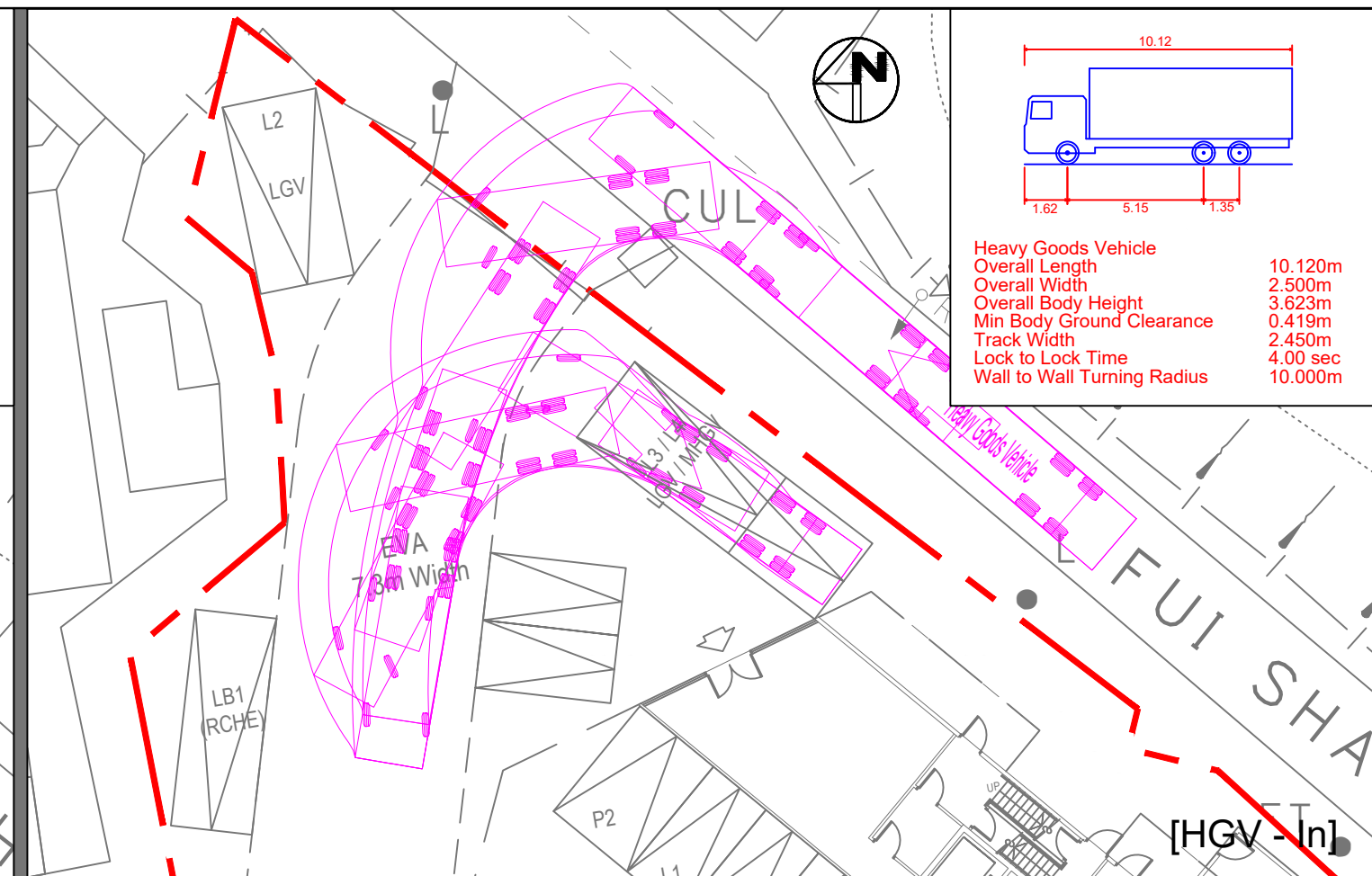
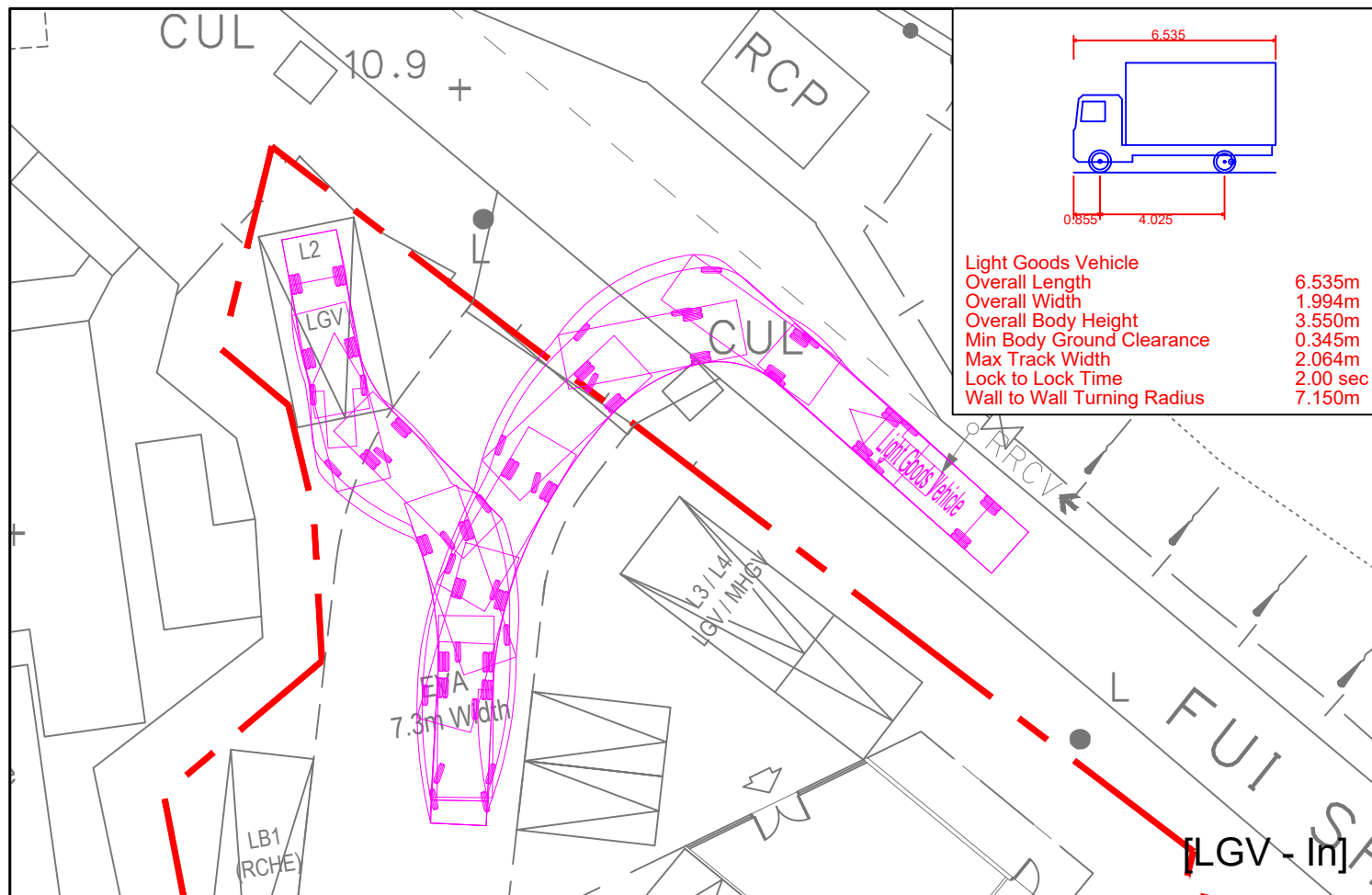
Ground Floor Layout

Date	Scale
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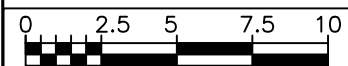
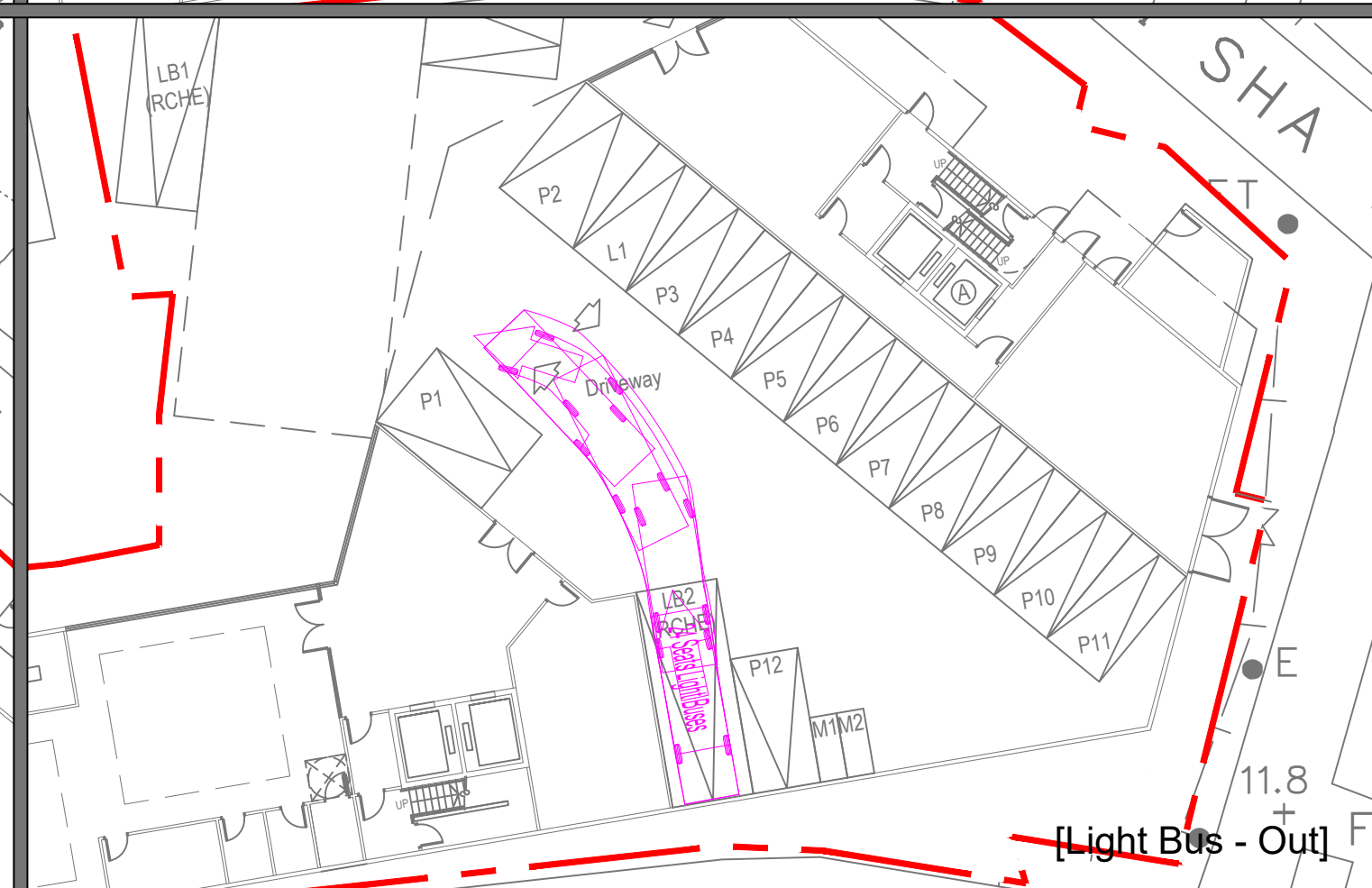
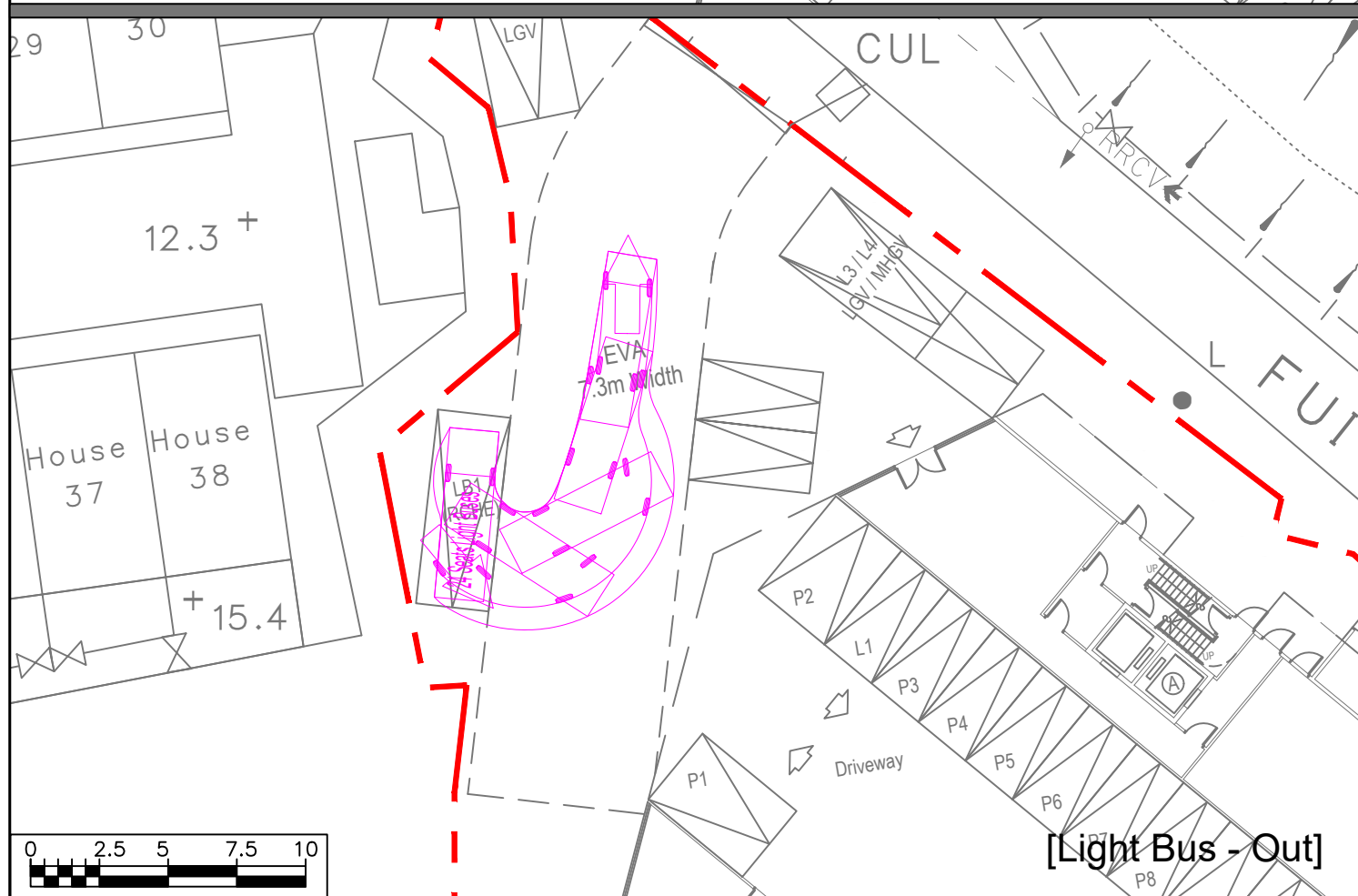
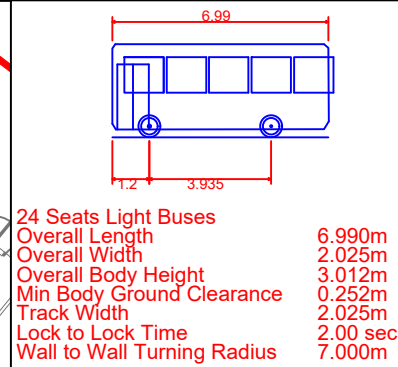
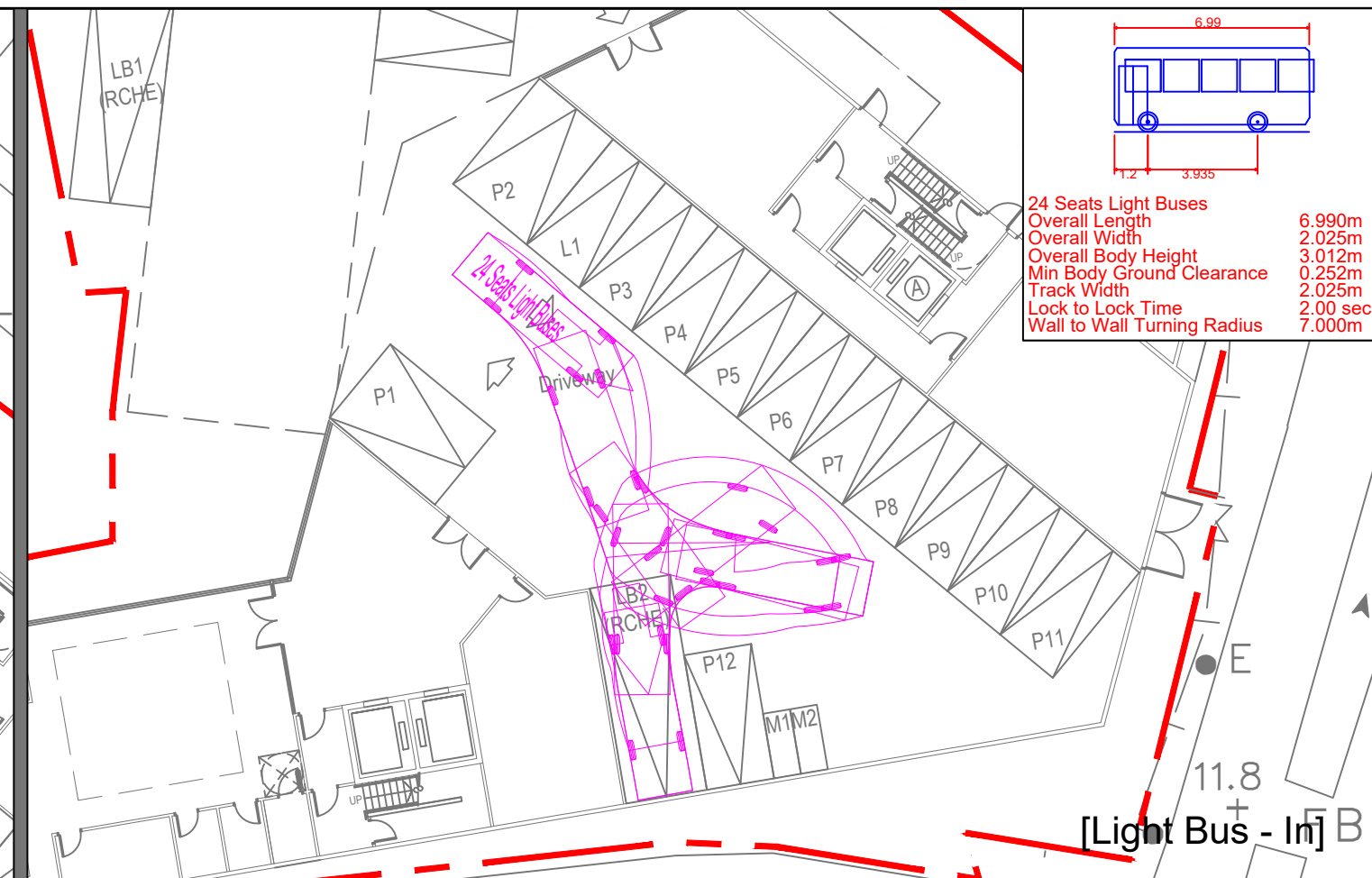


Project No. 83136	Rev.
Dwg No. GF-0817-Layout	-

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Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

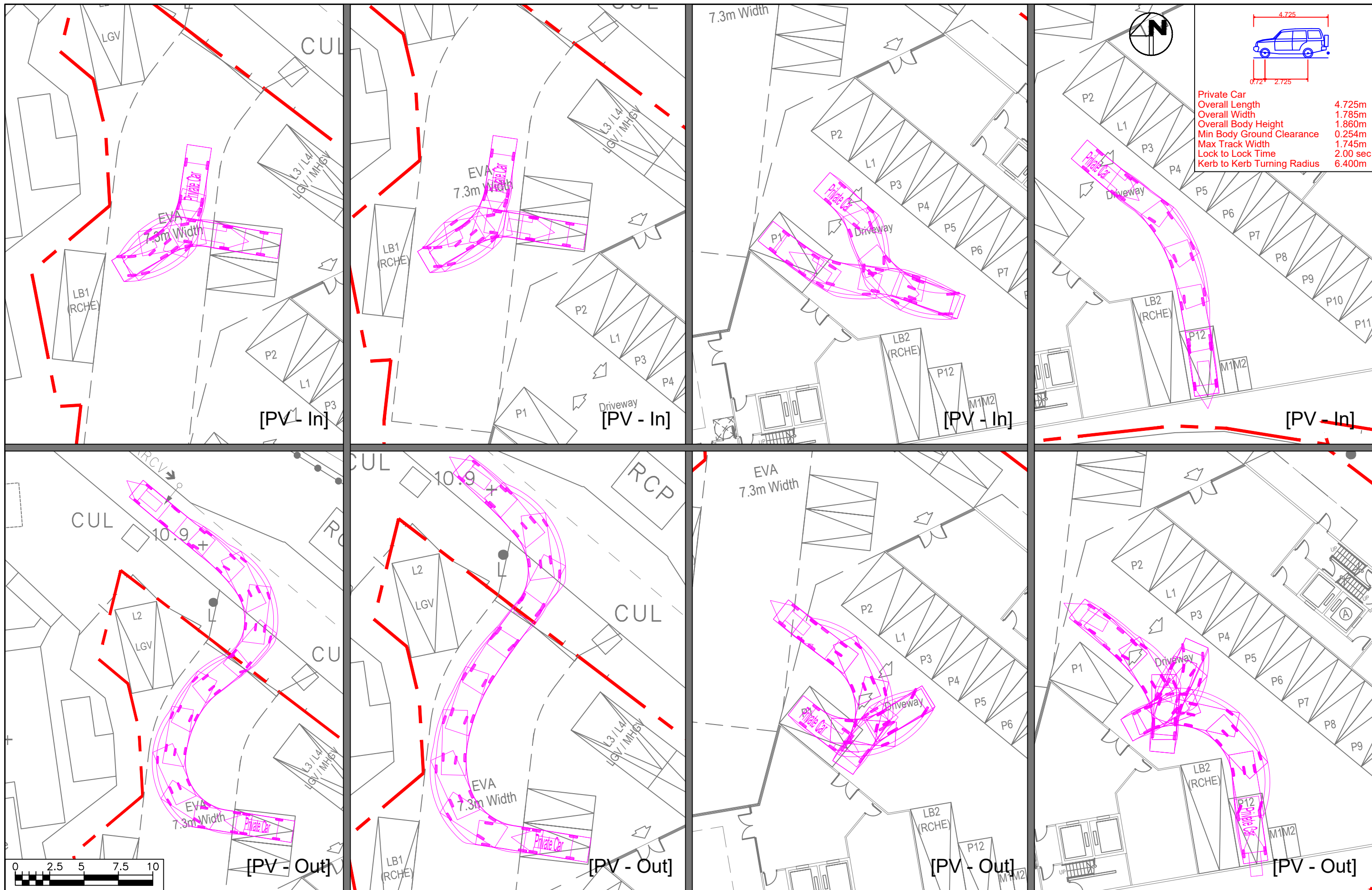
Swept Path Assessment on Ground Floor

Date	Scale
24/08/2026	1:250



Project No. 83136	Rev.
Dwg No. GF-0817-SP2	-

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Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

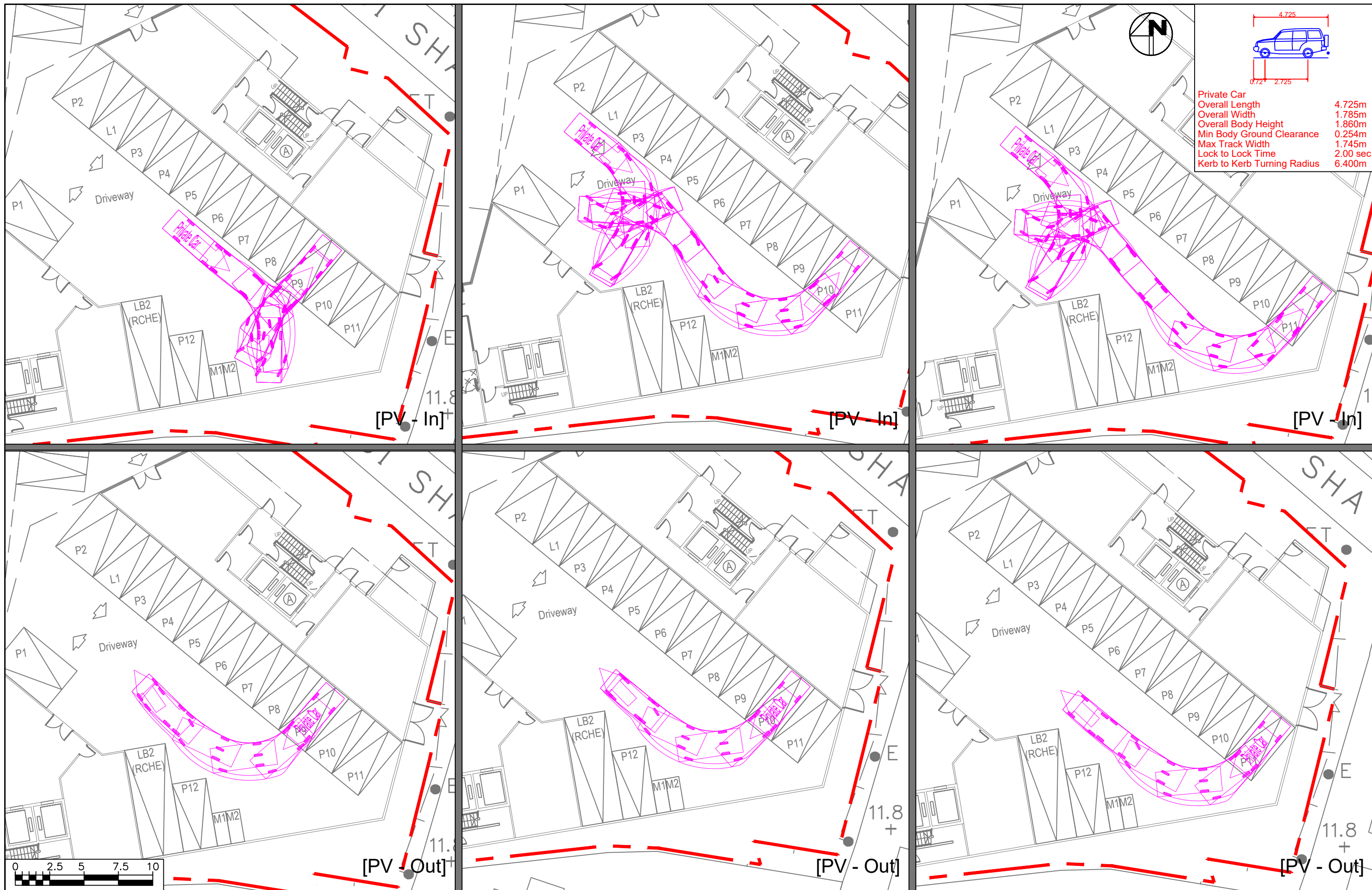
Swept Path Assessment on Ground Floor

Date 24/08/2026
Scale 1:250



Project No. 83136
Dwg No. GF-0817-SP3
Rev. -

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Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Swept Path Assessment on Ground Floor

Date
24/08/2026

Scale
1:250

OZZO
TECHNOLOGY

Project No. 83136
Dwg No. GF-0817-SP4

Rev.
-

Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories Traffic Impact Assessment Report



Appendix C

2025 Junction Calculations

OZZO TECHNOLOGY (HK) LIMITED

TRAFFIC SIGNAL CALCULATION

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone

J1: Hung Tin Road / Hung Chi Road

2025 Observed AM Peak Hour Traffic Flows

2025 AM

PROJECT NO.

83136

Prepared By:

INITIALS

DATE

LL

九月-25

FILENAME :

J1_Hung Tin Road_Hung Chi Road_S.xls

Checked By:

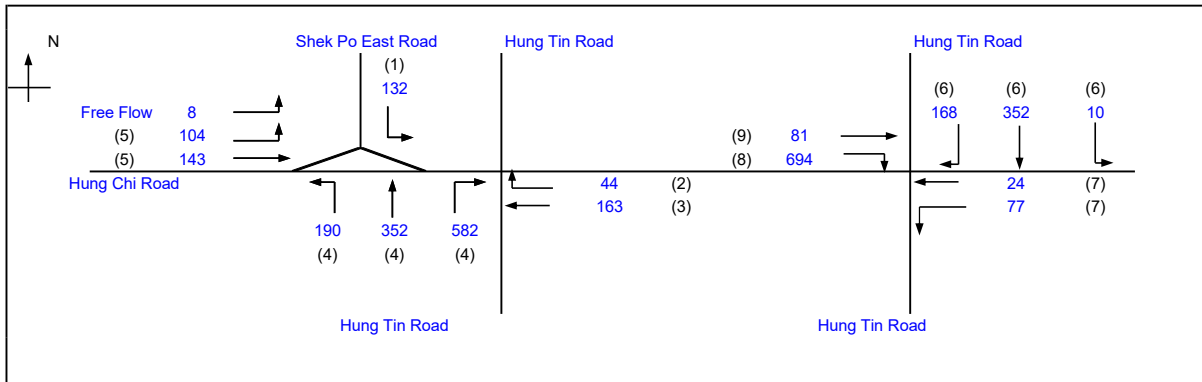
DP

九月-25

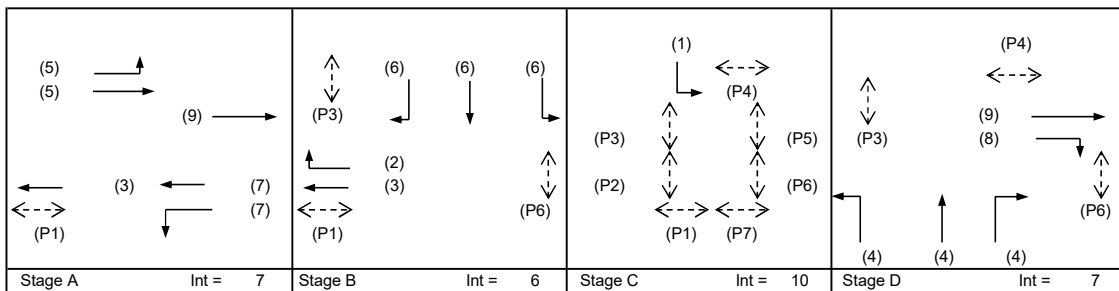
Reviewed By:

SC

九月-25



		Existing Cycle Time	
No. of stages per cycle	N =	4	
Cycle time	C =	120 sec	
Sum(y)	Y =	0.404	
Loss time	L =	26 sec	
Total Flow		=	3113 pcu
Co	= (1.5*L+5)/(1-Y)	=	73.8 sec
Cm	= L/(1-Y)	=	43.6 sec
Yult	=	=	0.705
R.C.ult	= (Yult-Y)/Y*100%	=	74.6 %
Cp	= 0.9*L/(0.9-Y)	=	47.2 sec
Ymax	= 1-L/C	=	0.783
R.C.(P)	= (0.9/Xmax-1)*100%	=	15.6 %
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	=	74.6 %



Pedestrian Phase	Stage	Length (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	A,B,C	10.8	5	9		62	10
P2	A	6.3	5	5		21	6
P3	A,B,D	10	5	8		96	9
P4	A,B	10.8	5	9		65	10
P5	A	7.2	5	6		21	6
P6	A,B,D	7.5	5	6		99	6
P7	A	11.3	5	9		14	13

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			Total FLOW pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT,SA	A	3.4	5	1	15		N	1955	104	0		104	1.00	1777			1777	0.058	0.058	26	14	9	0.169	24	92
SA	A	3.3	5	2				4170		143		143	0.00	4170			4170	0.034			8	9	0.099	12	52
SA	A,B	3.4	3	1				2095		163		163	0.00	2095			2095	0.078			18	40	0.050	0	49
SA	A	3.4	7	1			N	1955		24		24	0.00	1955			1955	0.012			3	9	0.035	12	63
LT	A	4.0	7	1	16		N	2015	77			77	1.00	1842			1842	0.042			10	9	0.121	12	63
RT	B	3.4	2	2	20			4190			44	44	1.00	3898			3898	0.011			3	25	0.012	12	63
LT,SA	B	3.3	6	1	15		N	1945	10	163		173	0.05	1934			1934	0.089	0.089		21	25	0.093	3	34
SA	B	3.5	6	1				2105		188		188	0.00	2105			2105	0.089			21	25	0.093	24	40
RT	B	3.4	6	1	20			2095			168	168	1.00	1949			1949	0.086			20	25	0.089	24	40
LT	C	4.8	1	1	40		N	2095	132			132	1.00	2019			2019	0.065	0.065		15	18	0.094	18	46
LT,SA	D	3.4	4	1	15			2095	190	190		380	0.50	1995			1995	0.190	0.191		44	42	0.118	48	31
SA,RT	D	3.5	4	1	15			2105		162	217	379	0.57	1991			1991	0.191			44	42	0.118	42	31
RT	D	3.5	4	1	15			2105			365	365	1.00	1914			1914	0.191			44	42	0.118	6	16
SA	A,D	3.2	9	1				2075		81		81	0.00	2075			2075	0.039			9	57	0.018	48	31
RT	D	3.5	8	2	19			4210			694	694	1.00	3902			3902	0.178			41	42	0.110	42	31

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRIAN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED

TRAFFIC SIGNAL CALCULATION

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone

PROJECT NO.

83136

Prepared By:

LL

九月-25

J1: Hung Tin Road / Hung Chi Road

2025 PM

FILENAME :

J1_Hung Tin Road_Hung Chi Road_S.xls

Checked By:

DP

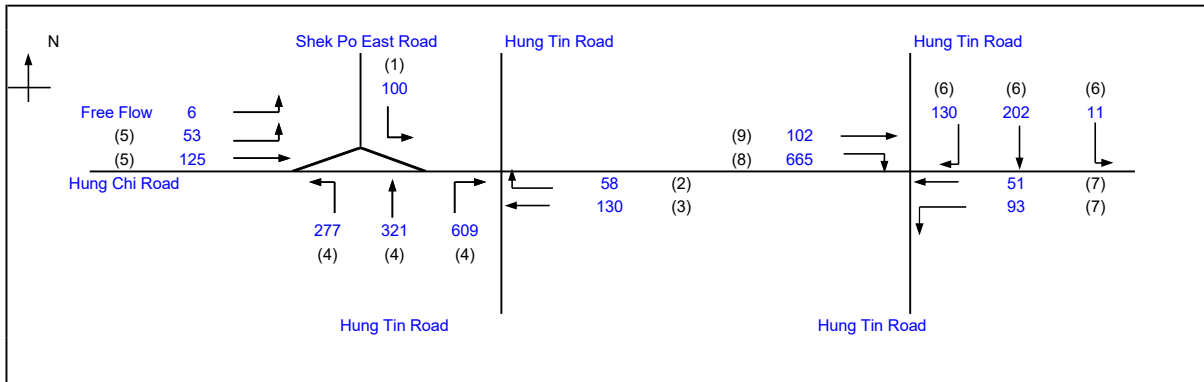
九月-25

2025 Observed PM Peak Hour Traffic Flows

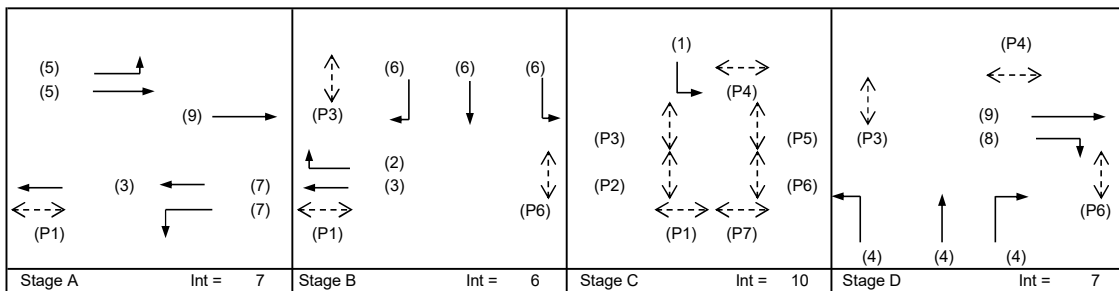
Reviewed By:

SC

九月-25



		Existing Cycle Time	
No. of stages per cycle	N =	4	
Cycle time	C =	120 sec	
Sum(y)	Y =	0.372	
Loss time	L =	26 sec	
Total Flow		= 2924 pcu	
Co	= (1.5*L+5)/(1-Y)	= 70.0 sec	
Cm	= L/(1-Y)	= 41.4 sec	
Yult	=	0.705	
R.C.ult	= (Yult-Y)/Y*100%	= 89.7 %	
Cp	= 0.9*L/(0.9-Y)	= 44.3 sec	
Ymax	= 1-L/C	= 0.783	
R.C.(P)	= (0.9/Xmax-1)*100%	= 34.4 %	
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	= 89.7 %	



Pedestrian Phase	Stage	Length (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	A,B,C	10.8	5	9		62	10
P2	A	6.3	5	5		21	6
P3	A,B,D	10	5	8		96	9
P4	A,B	10.8	5	9		65	10
P5	A	7.2	5	6		21	6
P6	A,B,D	7.5	5	6		99	6
P7	A	11.3	5	9		14	13

Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT,SA	A	3.4	5	1	15		N	1955	53	0		53	0.99	1778			1778	0.030		26	8	9	0.086	6	56
SA	A	3.3	5	2				4170		125		125	0.00	4170			4170	0.030			8	9	0.086	9	51
SA	A,B	3.4	3	1				2095		130		130	0.00	2095			2095	0.062			16	40	0.040	6	53
SA	A	3.4	7	1			N	1955		51		51	0.00	1955			1955	0.026			7	9	0.076	18	72
LT	A	4.0	7	1	16		N	2015	93			93	1.00	1842			1842	0.050	0.050		13	9	0.145	18	72
RT	B	3.4	2	2	20			4190			58	58	1.00	3898			3898	0.015			4	25	0.015	18	72
LT,SA	B	3.3	6	1	15		N	1945	11	91		102	0.11	1925			1925	0.053			13	25	0.055	3	35
SA	B	3.5	6	1				2105		111		111	0.00	2105			2105	0.053			13	25	0.055	12	37
RT	B	3.4	6	1	20			2095			130	130	1.00	1949			1949	0.067	0.067		17	25	0.069	12	37
LT	C	4.8	1	1	40		N	2095	100			100	1.00	2019			2019	0.049	0.049		12	18	0.071	12	44
LT,SA	D	3.4	4	1	15			2095	277	126		402	0.69	1960			1960	0.205	0.206		52	42	0.127	48	32
SA,RT	D	3.5	4	1	15			2105		195	216	411	0.53	2000			2000	0.205			52	42	0.127	48	32
RT	D	3.5	4	1	15			2105			393	393	1.00	1914			1914	0.206			52	42	0.127	6	16
SA	A,D	3.2	9	1				2075		102		102	0.00	2075			2075	0.049			12	57	0.022	48	32
RT	D	3.5	8	2	19			4210			665	665	1.00	3902			3902	0.170			43	42	0.106	48	32

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRIAN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone

PROJECT NO. 83136

Prepared By:

LL

九月-25

J3:Castle Peak Road - Hung Shui Kiu / Castle Peak Road-Ping Shan / Hung Tin Road

2025 AM

FILENAME :

Checked By:

DP

九月-25

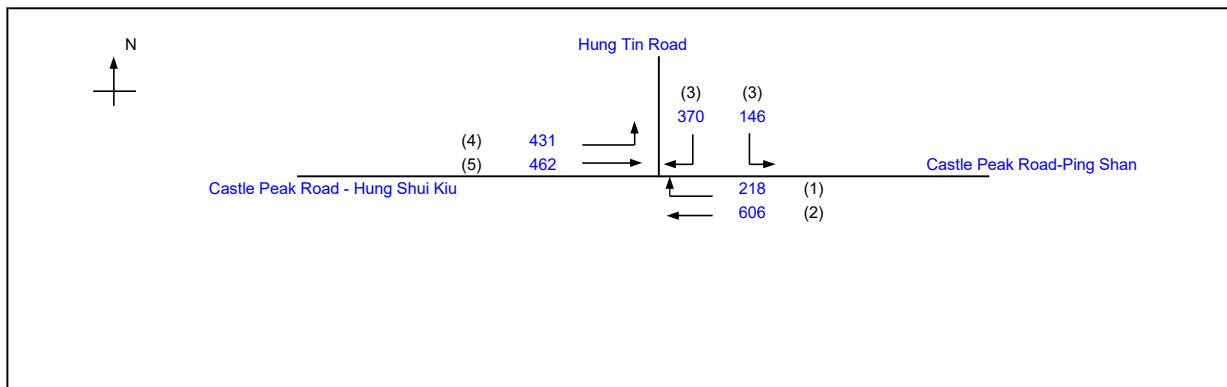
2025 Observed AM Peak Hour Traffic Flows

Kiu_Castle Peak Road-Ping Shan_Hung Tin Road_S.xls

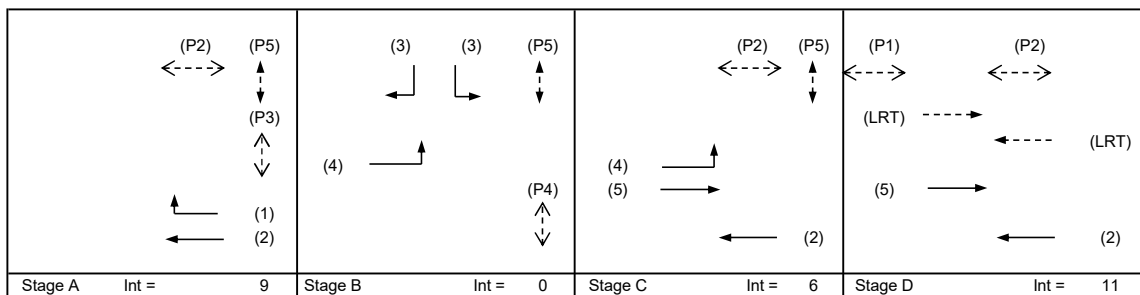
Reviewed By:

SC

九月-25



		Existing Cycle Time	
No. of stages per cycle	N =	4	
Cycle time	C =	130 sec	
Sum(y)	Y =	0.336	
Loss time	L =	49 sec	
Total Flow	=	2234 pcu	
Co	= $(1.5 \cdot L + 5) / (1 - Y)$	118.3 sec	
Cm	= $L / (1 - Y)$	73.8 sec	
Yult	=	0.533	
R.C.ult	= $(Yult - Y) / Y \cdot 100\%$	58.3 %	
Cp	= $0.9 \cdot L / (0.9 - Y)$	78.2 sec	
Ymax	= $1 - L / C$	0.623	
R.C.(P)	= $(0.9 / Xmax - 1) \cdot 100\%$	43.3 %	
R.C.(C)	= $(0.9 \cdot Ymax - Y) / Y \cdot 100\%$	66.7 %	



Pedestrian Phase	Stage	Length (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	D	7.5	7	6	3	19	14
P2	A,C,D	10.4	5	9	1	86	9
P3	A	9.6	5	8	3	18	9
P4	B	12.3	8	10	1	26	7
P5	A,B,C	10.0	5	8	9	77	8

Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)					
									Left pcu/h	Straight pcu/h	Right pcu/h																			
SA RT	A,C,D A	3.65	2	2	75		N	4100		606	218	606	0.00	4100			4100	0.148	0.106	24	36	88	0.082	21	7					
		3.40	1	1				2095				218	1.00	2054			2054	0.106								26	22	0.237	36	53
LT LT,RT RT	B B B	3.30	3	1	17		N	1945	146 0		185	146	1.00	1787			1787	0.082				20	29	0.138	24	41				
		3.50	3	1	2105			185				1.00	1965	1965			0.094	23									29	0.159	30	42
		3.50	3	1	2105			185				1.00	1965	1965			0.094	23									29	0.159	30	42
LT SA	B,C C,D	3.85	4	1	22		N	2000	431			431	1.00	1872			1872	0.230	0.230			55	59	0.191	48	25				
		3.70	5	2	4250			462				0.00	4250	4250			0.109	26									56	0.095	27	22
LRT	D																		25											

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRIAN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone

PROJECT NO. 83136

Prepared By:

LL

九月-25

J3:Castle Peak Road - Hung Shui Kiu / Castle Peak Road-Ping Shan / Hung Tin Road

2025 PM

FILENAME :

Checked By:

DP

九月-25

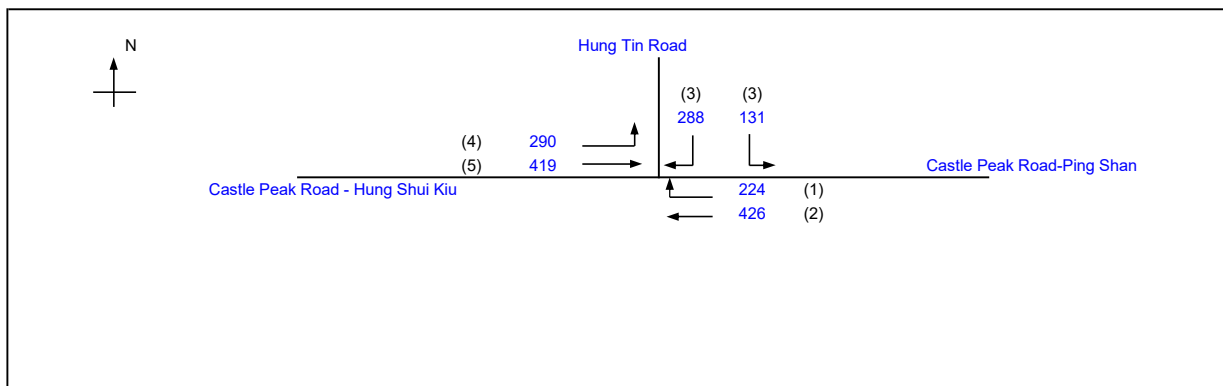
2025 Observed PM Peak Hour Traffic Flows

Kiu_Castle Peak Road-Ping Shan_Hung Tin Road_S.xls

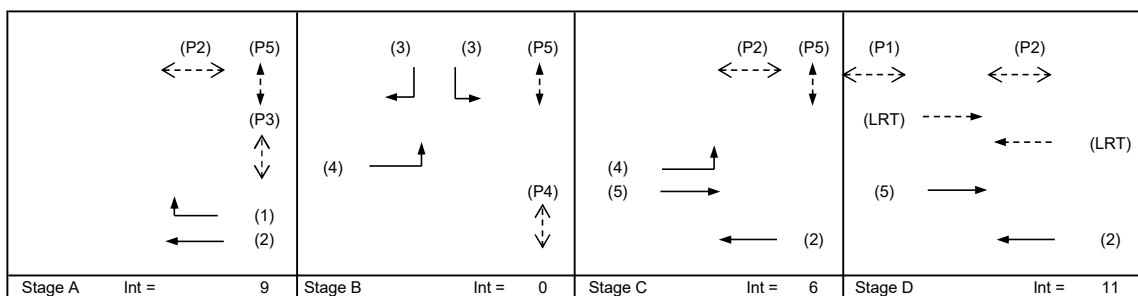
Reviewed By:

SC

九月-25



		Existing Cycle Time	
No. of stages per cycle	N =	4	
Cycle time	C =	130 sec	
Sum(y)	Y =	0.264	
Loss time	L =	49 sec	
Total Flow	=	1777 pcu	
Co	= $(1.5 \cdot L + 5) / (1 - Y)$	= 106.6 sec	
Cm	= $L / (1 - Y)$	= 66.5 sec	
Yult	=	0.533	
R.C.ult	= $(Yult - Y) / Y \cdot 100\%$	= 101.9 %	
Cp	= $0.9 \cdot L / (0.9 - Y)$	= 69.3 sec	
Ymax	= $1 - L / C$	= 0.623	
R.C.(P)	= $(0.9 / Xmax - 1) \cdot 100\%$	= 52.7 %	
R.C.(C)	= $(0.9 \cdot Ymax - Y) / Y \cdot 100\%$	= 112.7 %	



Pedestrian Phase	Stage	Length (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	D	7.5	7	6	3	19	14
P2	A,C,D	10.4	5	9	1	88	9
P3	A	9.6	5	8	3	20	9
P4	B	12.3	8	10	1	24	7
P5	A,B,C	10.0	5	8	9	77	8

Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total FLo pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
									Left pcu/h	Straight pcu/h	Right pcu/h														
SA RT	A,C,D A	3.65	2	2	75		N	4100		426	224	426	0.00	4100			4100	0.104	0.109	24	32	90	0.057	12	6
		3.40	1	1				2095				224	2054	2054			0.109	33			24	0.222	36	50	
LT LT,RT RT	B B B	3.30	3	1	17		N	1945	131 0		144 144	131	1.00	1787			1787	0.073			23	27	0.133	18	42
		3.50	3	1	2105			144				1965	1965	0.073			23	27			0.133	24	42		
		3.50	3	1	2105			144				1965	1965	0.073			23	27			0.133	24	42		
LT SA	B,C C,D	3.85	4	1	22		N	2000	290	419	290	1.00	1872			1872	0.155	0.155		48 30	57	0.133	30	23	
		3.70	5	2	4250			419			4250	4250	0.098			56	24				0.086	24	21		
LRT	D																		25						

NOTE : O - OPPOSING TRAFFIC

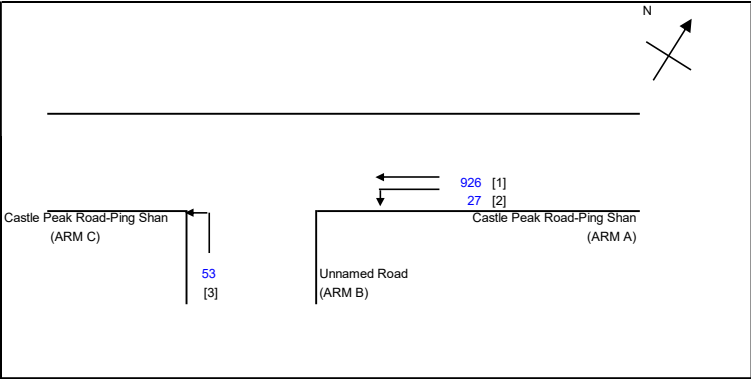
N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRIAN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE	
Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the		2025 AM	PROJECT NO.:	83136	PREPARED BY:	LL	Sep-25
J4: Castle Peak Road (Ping Shan) / Access Road			FILENAME :		CHECKED BY:	DP	Sep-25
2025 Observed Weekday AM Peak Hour Traffic Flows			J4_Castle Peak Road(Ping Shan)_Access Road_P.xls		REVIEWED BY:	SC	Sep-25
			NOTES : (GEOMETRIC INPUT DATA) W = MAJOR ROAD WIDTH W cr = CENTRAL RESERVE WIDTH W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b Vl b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b D = STREAM-SPECIFIC B-A E = STREAM-SPECIFIC B-C F = STREAM-SPECIFIC C-B Y = (1-0.0345W)				
GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.52 (metres) W cr = 0 (metres) q a-b = 27 (pcu/hr) q a-c = 926 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 0 (metres) Vr c-b = 0 (metres) q c-a = 0 (pcu/hr) q c-b = 0 (pcu/hr) MINOR ROAD (ARM B) W b-a = 0 (metres) W b-c = 6.5 (metres) Vl b-a = 0 (metres) Vr b-a = 68 (metres) Vr b-c = 68 (metres) q b-a = 0 (pcu/hr) q b-c = 53 (pcu/hr) GEOMETRIC FACTORS : D = 0.5698 E = 1.2091 F = 0.58595 Y = 0.70606 F for (Qb-ac) = 1 THE CAPACITY OF MOVEMENT : Q b-a = 220 Q b-c = 610 Q c-b = 293 TOTAL FLOW = 1006 (PCU/HR) COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0000 DFC b-c = 0.0872 DFC c-b = 0.0000 CRITICAL DFC = 0.09							

OZZO TECHNOLOGY (HK) LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE																																																																																																																																																								
Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the		2025 PM	PROJECT NO.: 83136		PREPARED BY:	LL Sep-25																																																																																																																																																								
J5: Fui Sha Wai South Road / Tai To Tsuen Road / Unnamed Road			FILENAME :		CHECKED BY:	DP Sep-25																																																																																																																																																								
2025 Observed Weekday PM Peak Hour Traffic Flows			J5_Fui Sha Wai South Road_Tai To Tsuen Road_Unnamed Road_P.xls		REVIEWED BY:	SC Sep-25																																																																																																																																																								
NOTES : (GEOMETRIC INPUT DATA) W = MAJOR ROAD WIDTH W cr = CENTRAL RESERVE WIDTH W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b Vi b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b D = STREAM-SPECIFIC B-A E = STREAM-SPECIFIC B-C F = STREAM-SPECIFIC C-B Y = (1-0.0345W) <table><tr><td colspan="2">GEOMETRIC DETAILS:</td><td colspan="2">GEOMETRIC FACTORS :</td><td colspan="2">THE CAPACITY OF MOVEMENT :</td><td colspan="2">COMPARISON OF DESIGN FLOW TO CAPACITY:</td></tr><tr><td colspan="2">MAJOR ROAD (ARM A)</td><td colspan="2"></td><td colspan="2">Q b-a = 571</td><td colspan="2">DFC b-a = 0.0035</td></tr><tr><td colspan="2">W = 3.93 (metres)</td><td colspan="2">D = 0.91313</td><td colspan="2">Q b-c = 720</td><td colspan="2">DFC b-c = 0.0081</td></tr><tr><td colspan="2">W cr = 0 (metres)</td><td colspan="2">E = 0.9671</td><td colspan="2">Q b-c (O) = 719.4</td><td colspan="2">DFC c-b = 0.0000</td></tr><tr><td colspan="2">q a-b = 0 (pcu/hr)</td><td colspan="2">F = 0.75849</td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2">q a-c = 2 (pcu/hr)</td><td colspan="2">Y = 0.86459</td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2">MAJOR ROAD (ARM C)</td><td colspan="2">F for (Qb-ac) = 0.74359</td><td colspan="2">TOTAL FLOW = 13 (PCU/HR)</td><td colspan="2"></td></tr><tr><td colspan="2">W c-b = 1.87 (metres)</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2">Vr c-b = 21 (metres)</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2">q c-a = 2.8 (pcu/hr)</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2">q c-b = 0 (pcu/hr)</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2">MINOR ROAD (ARM B)</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2">W b-a = 3.8 (metres)</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2">W b-c = 3.8 (metres)</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2">Vi b-a = 57 (metres)</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2">Vr b-a = 64 (metres)</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2">Vr b-c = 64 (metres)</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2">q b-a = 2 (pcu/hr)</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2">q b-c = 6 (pcu/hr)</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr></table> CRITICAL DFC = 0.01							GEOMETRIC DETAILS:		GEOMETRIC FACTORS :		THE CAPACITY OF MOVEMENT :		COMPARISON OF DESIGN FLOW TO CAPACITY:		MAJOR ROAD (ARM A)				Q b-a = 571		DFC b-a = 0.0035		W = 3.93 (metres)		D = 0.91313		Q b-c = 720		DFC b-c = 0.0081		W cr = 0 (metres)		E = 0.9671		Q b-c (O) = 719.4		DFC c-b = 0.0000		q a-b = 0 (pcu/hr)		F = 0.75849						q a-c = 2 (pcu/hr)		Y = 0.86459						MAJOR ROAD (ARM C)		F for (Qb-ac) = 0.74359		TOTAL FLOW = 13 (PCU/HR)				W c-b = 1.87 (metres)								Vr c-b = 21 (metres)								q c-a = 2.8 (pcu/hr)								q c-b = 0 (pcu/hr)								MINOR ROAD (ARM B)								W b-a = 3.8 (metres)								W b-c = 3.8 (metres)								Vi b-a = 57 (metres)								Vr b-a = 64 (metres)								Vr b-c = 64 (metres)								q b-a = 2 (pcu/hr)								q b-c = 6 (pcu/hr)							
GEOMETRIC DETAILS:		GEOMETRIC FACTORS :		THE CAPACITY OF MOVEMENT :		COMPARISON OF DESIGN FLOW TO CAPACITY:																																																																																																																																																								
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q a-c = 2 (pcu/hr)		Y = 0.86459																																																																																																																																																												
MAJOR ROAD (ARM C)		F for (Qb-ac) = 0.74359		TOTAL FLOW = 13 (PCU/HR)																																																																																																																																																										
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Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories Traffic Impact Assessment Report



Appendix D

2034 Junction Calculations

OZZO TECHNOLOGY (HK) LIMITED

TRAFFIC SIGNAL CALCULATION

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone

PROJECT NO.

83136

Prepared By:

LL

九月-25

J1: Hung Tin Road / Hung Chi Road

2034 Ref AM

FILENAME :

J1_Hung Tin Road_Hung Chi Road_S.xls

Checked By:

DP

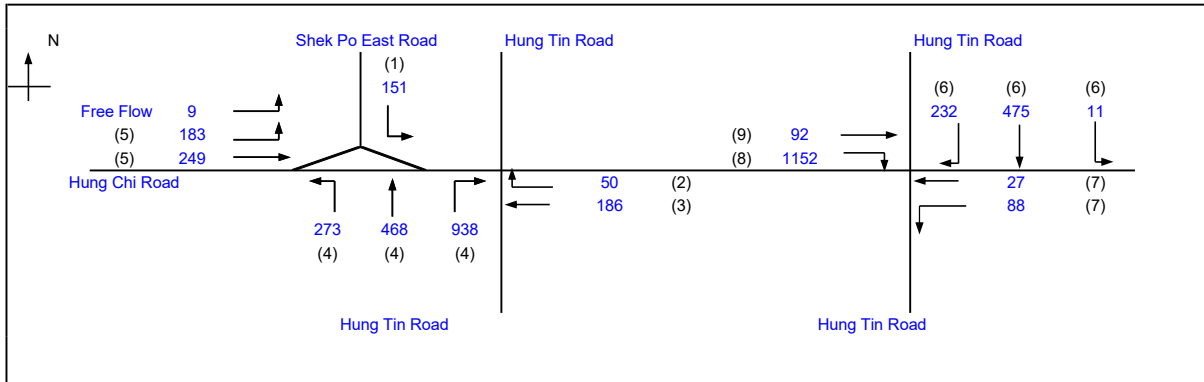
九月-25

2034 Reference AM Peak Hour Traffic Flows

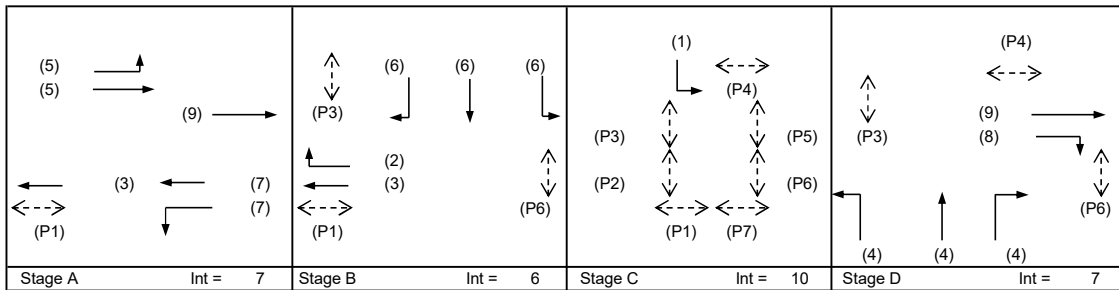
Reviewed By:

SC

九月-25



		Existing Cycle Time	
No. of stages per cycle	N =	4	
Cycle time	C =	120 sec	
Sum(y)	Y =	0.593	
Loss time	L =	26 sec	
Total Flow	=	4575 pcu	
Co	= $(1.5 \cdot L + 5) / (1 - Y)$	=	108.1 sec
Cm	= $L / (1 - Y)$	=	63.9 sec
Yult	=	0.705	
R.C.ult	= $(Yult - Y) / Y \cdot 100\%$	=	18.9 %
Cp	= $0.9 \cdot L / (0.9 - Y)$	=	76.2 sec
Ymax	= $1 - L / C$	=	0.783
R.C.(C)	= $(0.9 \cdot Ymax - Y) / Y \cdot 100\%$	=	18.9 %



Pedestrian Phase	Stage	Length (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	A,B,C	10.8	5	9		57	10
P2	A	6.3	5	5		15	6
P3	A,B,D	10	5	8		89	9
P4	A,B	10.8	5	9		64	10
P5	A	7.2	5	6		15	6
P6	A,B,D	7.5	5	6		92	6
P7	A	11.3	5	9		8	13

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			Total FLOW pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT,SA	A	3.4	5	1	15		N	1955	183	0		183	1.00	1777			1777	0.103	0.103	26	16	16	0.164	30	66
SA	A	3.3	5	2				4170		249		249	0.00	4170			4170	0.060			9	16	0.095	21	45
SA	A,B	3.4	3	1				2095		186		186	0.00	2095			2095	0.089			14	41	0.056	0	42
SA	A	3.4	7	1			N	1955		27		27	0.00	1955			1955	0.014			2	16	0.022	12	46
LT	A	4.0	7	1	16		N	2015	88			88	1.00	1842			1842	0.048			8	16	0.076	12	46
RT	B	3.4	2	2	20			4190			50	50	1.00	3898			3898	0.013			2	19	0.018	12	46
LT,SA	B	3.4	6	1	15		N	1955	11	222		233	0.05	1946			1946	0.120	0.120		19	19	0.164	3	39
SA	B	3.5	6	1				2105		253		253	0.00	2105			2105	0.120			19	19	0.164	42	60
RT	B	3.4	6	1	20			2095			232	232	1.00	1949			1949	0.119			19	19	0.163	42	59
LT	C	4.8	1	1	40		N	2095	151			151	1.00	2019			2019	0.075	0.075		12	12	0.164	30	73
LT,SA	D	3.4	4	1	15			2095	273	298		571	0.48	1999			1999	0.285			45	47	0.159	66	34
SA,RT	D	3.5	4	1	15			2105		170	391	561	0.70	1968			1968	0.285			45	47	0.158	66	34
RT	D	3.5	4	1	15			2105			547	547	1.00	1914			1914	0.286			45	47	0.159	6	10
SA	A,D	3.2	9	1				2075		92		92	0.00	2075			2075	0.044			7	69	0.017	66	34
RT	D	3.5	8	2	19			4210			1152	1152	1.00	3902			3902	0.295	0.295		47	47	0.164	66	34

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRIAN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED

TRAFFIC SIGNAL CALCULATION

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone

PROJECT NO.

83136

Prepared By:

LL

九月-25

J1: Hung Tin Road / Hung Chi Road

2034 Ref PM

FILENAME :

J1_Hung Tin Road_Hung Chi Road_S.xls

Checked By:

DP

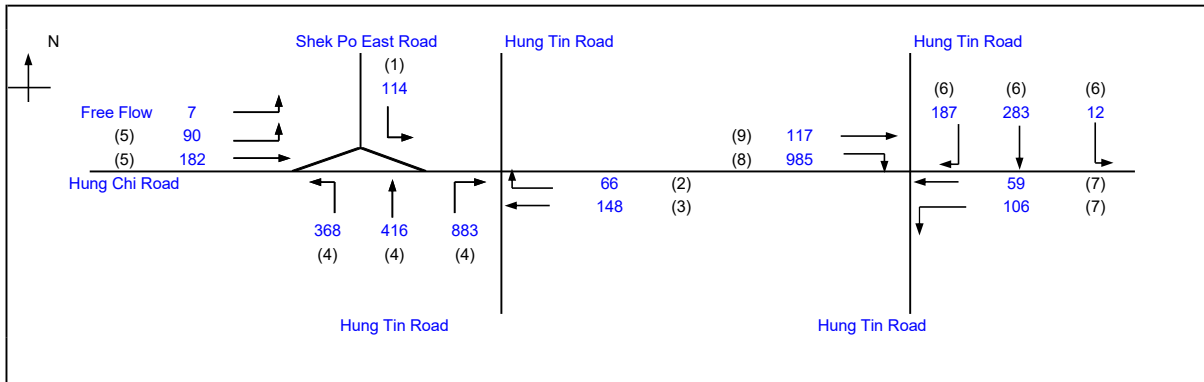
九月-25

2034 Reference PM Peak Hour Traffic Flows

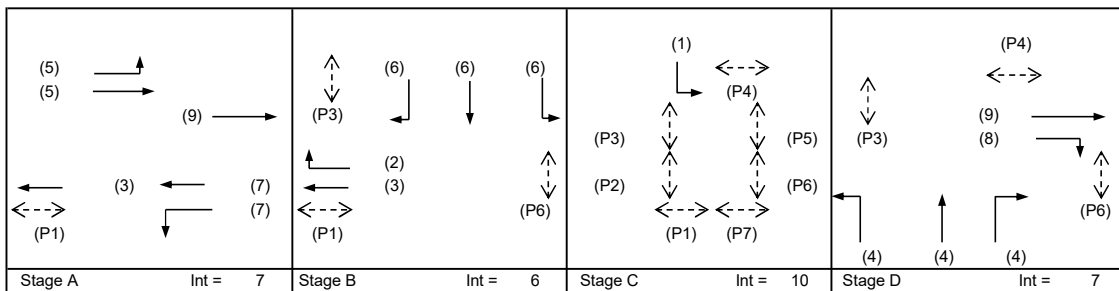
Reviewed By:

SC

九月-25



		Existing Cycle Time	
No. of stages per cycle	N =	4	
Cycle time	C =	120 sec	
Sum(y)	Y =	0.494	
Loss time	L =	26 sec	
Total Flow		4016 pcu	
Co = (1.5*L+5)/(1-Y)		87.0 sec	
Cm = L/(1-Y)		51.4 sec	
Yult =		0.705	
R.C.ult = (Yult-Y)/Y*100%		42.6 %	
Cp = 0.9*L/(0.9-Y)		57.7 sec	
Ymax = 1-L/C		0.783	
R.C.(C) = (0.9*Ymax-Y)/Y*100%		42.6 %	



Pedestrian Phase	Stage	Length (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	A,B,C	10.8	5	9		50	10
P2	A	6.3	5	5		14	6
P3	A,B,D	10	5	8		94	9
P4	A,B	10.8	5	9		70	10
P5	A	7.2	5	6		14	6
P6	A,B,D	7.5	5	6		97	6
P7	A	11.3	5	9		7	13

Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total FLoW pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT,SA	A	3.4	5	1	15		N	1955	90	0		90	1.00	1777			1777	0.051		26	10	11	0.120	12	59
SA	A	3.3	5	2				4170		182		182	0.00	4170			4170	0.044			8	11	0.104	15	51
SA	A,B	3.4	3	1				2095		148		148	0.00	2095			2095	0.071			13	35	0.052	6	50
SA	A	3.4	7	1			N	1955		59		59	0.00	1955			1955	0.030			6	11	0.072	18	64
LT	A	4.0	7	1	16		N	2015	106			106	1.00	1842			1842	0.058	0.058		11	11	0.137	18	64
RT	B	3.4	2	2	20			4190			66	66	1.00	3898			3898	0.017			3	18	0.024	18	64
LT,SA	B	3.3	6	1	15		N	1945	12	129		141	0.09	1929			1929	0.073			14	18	0.104	3	40
SA	B	3.5	6	1				2105		154		154	0.00	2105			2105	0.073			14	18	0.104	18	47
RT	B	3.4	6	1	20			2095			187	187	1.00	1949			1949	0.096	0.096		18	18	0.137	24	47
LT	C	4.8	1	1	40		N	2095	114			114	1.00	2019			2019	0.056	0.056		11	11	0.137	18	63
LT,SA	D	3.4	4	1	15			2095	368	190		558	0.66	1965			1965	0.284			54	54	0.137	60	26
SA,RT	D	3.5	4	1	15			2105		226	339	564	0.60	1986			1986	0.284	0.284		54	54	0.137	54	26
RT	D	3.5	4	1	15			2105			544	544	1.00	1914			1914	0.284			54	54	0.137	6	10
SA	A,D	3.2	9	1				2075		117		117	0.00	2075			2075	0.056			11	71	0.021	60	26
RT	D	3.5	8	2	19			4210			985	985	1.00	3902			3902	0.252			48	54	0.121	54	26

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRIAN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED

TRAFFIC SIGNAL CALCULATION

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone

PROJECT NO. 83136

Prepared By: LL

INITIALS

DATE

J1: Hung Tin Road / Hung Chi Road

2034 Des AM

FILENAME :

J1_Hung Tin Road_Hung Chi Road_S.xls

Checked By: DP

DP

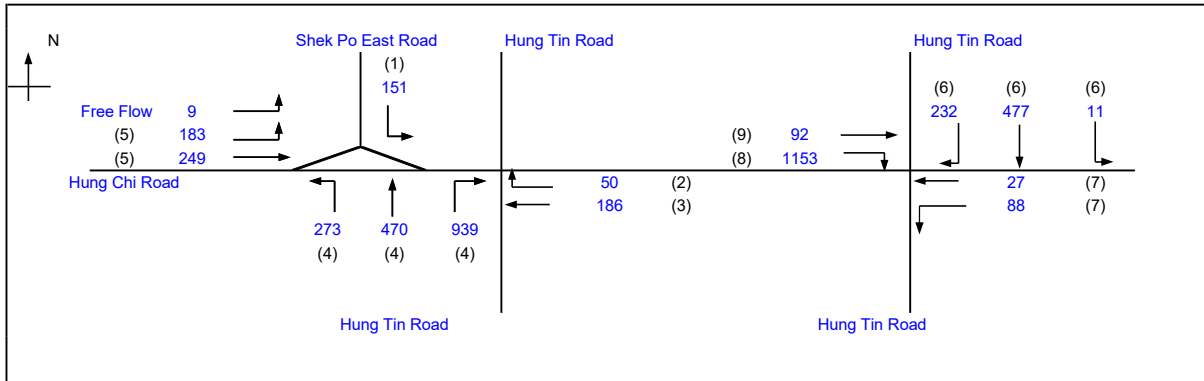
九月-25

2034 Design AM Peak Hour Traffic Flows

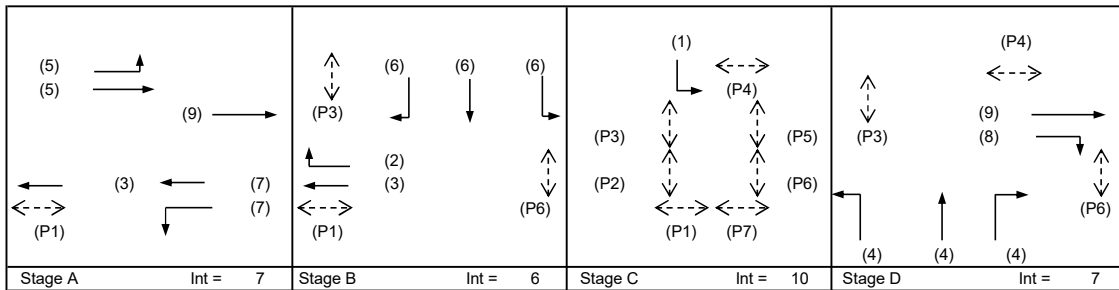
Reviewed By: SC

SC

九月-25



		Existing Cycle Time	
No. of stages per cycle	N =	4	
Cycle time	C =	120 sec	
Sum(y)	Y =	0.594	
Loss time	L =	26 sec	
Total Flow		4581 pcu	
Co = (1.5*L+5)/(1-Y)		108.4 sec	
Cm = L/(1-Y)		64.0 sec	
Yult =		0.705	
R.C.ult = (Yult-Y)/Y*100%		18.7 %	
Cp = 0.9*L/(0.9-Y)		76.5 sec	
Ymax = 1-L/C		0.783	
R.C.(C) = (0.9*Ymax-Y)/Y*100%		18.7 %	



Pedestrian Phase	Stage	Length (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	A,B,C	10.8	5	9		57	10
P2	A	6.3	5	5		15	6
P3	A,B,D	10	5	8		89	9
P4	A,B	10.8	5	9		64	10
P5	A	7.2	5	6		15	6
P6	A,B,D	7.5	5	6		92	6
P7	A	11.3	5	9		8	13

Move-ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			Total FLOW pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT,SA	A	3.4	5	1	15		N	1955	183	0		183	1.00	1777			1777	0.103	0.103	26	16	16	0.164	30	66
SA	A	3.3	5	2				4170		249		249	0.00	4170			4170	0.060			9	16	0.095	21	45
SA	A,B	3.4	3	1				2095		186		186	0.00	2095			2095	0.089			14	41	0.056	0	42
SA	A	3.4	7	1			N	1955		27		27	0.00	1955			1955	0.014			2	16	0.022	12	46
LT	A	4.0	7	1	16		N	2015	88			88	1.00	1842			1842	0.048			8	16	0.076	12	46
RT	B	3.4	2	2	20			4190			50	50	1.00	3898			3898	0.013			2	19	0.017	12	46
LT,SA	B	3.3	6	1	15		N	1945	11	223		234	0.05	1936			1936	0.121	0.121		19	19	0.164	3	39
SA	B	3.5	6	1				2105		254		254	0.00	2105			2105	0.121			19	19	0.164	42	60
RT	B	3.4	6	1	20			2095			232	232	1.00	1949			1949	0.119			19	19	0.162	42	59
LT	C	4.8	1	1	40		N	2095	151			151	1.00	2019			2019	0.075	0.075		12	12	0.164	30	73
LT,SA	D	3.4	4	1	15			2095	273	299		572	0.48	1999			1999	0.286			45	47	0.159	66	34
SA,RT	D	3.5	4	1	15			2105		171	391	562	0.70	1968			1968	0.286			45	47	0.159	66	34
RT	D	3.5	4	1	15			2105			548	548	1.00	1914			1914	0.286			45	47	0.159	6	10
SA	A,D	3.2	9	1				2075		92		92	0.00	2075			2075	0.044			7	69	0.017	66	34
RT	D	3.5	8	2	19			4210			1153	1153	1.00	3902			3902	0.295	0.295		47	47	0.164	66	34

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRIAN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED

TRAFFIC SIGNAL CALCULATION

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone

PROJECT NO. 83136

Prepared By: LL

INITIALS

DATE

J1: Hung Tin Road / Hung Chi Road

2034 Des PM

FILENAME :

J1_Hung Tin Road_Hung Chi Road_S.xls

Checked By: DP

DP

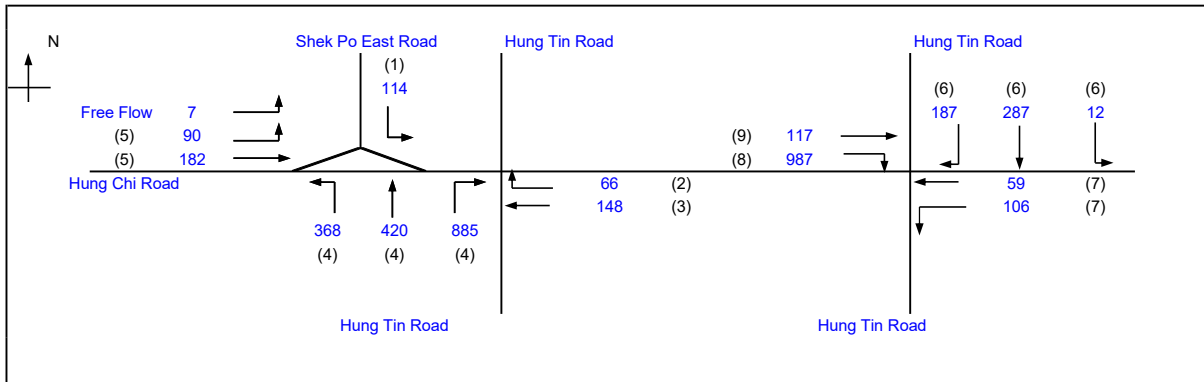
九月-25

2034 Design PM Peak Hour Traffic Flows

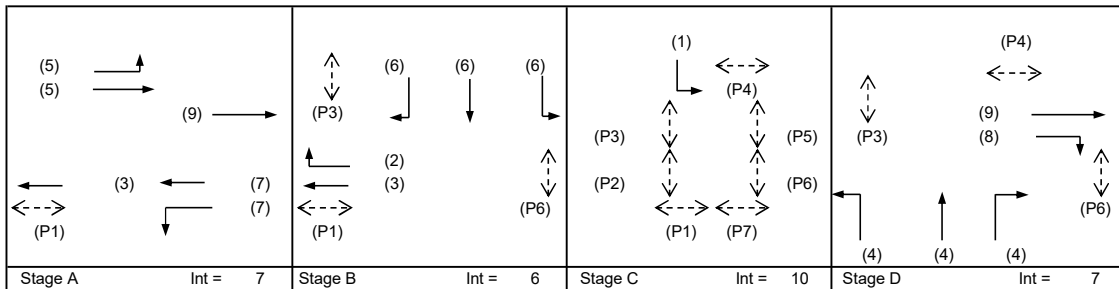
Reviewed By: SC

SC

九月-25



		Existing Cycle Time	
No. of stages per cycle	N =	4	
Cycle time	C =	120 sec	
Sum(y)	Y =	0.495	
Loss time	L =	26 sec	
Total Flow		4028 pcu	
Co = (1.5*L+5)/(1-Y)		87.2 sec	
Cm = L/(1-Y)		51.5 sec	
Yult =		0.705	
R.C.ult = (Yult-Y)/Y*100%		42.3 %	
Cp = 0.9*L/(0.9-Y)		57.8 sec	
Ymax = 1-L/C		0.783	
R.C.(C) = (0.9*Ymax-Y)/Y*100%		42.3 %	



Pedestrian Phase	Stage	Length (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	A,B,C	10.8	5	9		50	10
P2	A	6.3	5	5		14	6
P3	A,B,D	10	5	8		94	9
P4	A,B	10.8	5	9		70	10
P5	A	7.2	5	6		14	6
P6	A,B,D	7.5	5	6		97	6
P7	A	11.3	5	9		7	13

Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT,SA	A	3.4	5	1	15		N	1955	90	0		90	1.00	1777			1777	0.051		26	10	11	0.121	12	60
SA	A	3.3	5	2				4170		182		182	0.00	4170			4170	0.044			8	11	0.104	15	51
SA	A,B	3.4	3	1				2095		148		148	0.00	2095			2095	0.071			13	35	0.052	6	51
SA	A	3.4	7	1			N	1955		59		59	0.00	1955			1955	0.030			6	11	0.072	18	64
LT	A	4.0	7	1	16		N	2015	106			106	1.00	1842			1842	0.058	0.058		11	11	0.137	18	64
RT	B	3.4	2	2	20			4190			66	66	1.00	3898			3898	0.017			3	18	0.024	18	64
LT,SA	B	3.3	6	1	15		N	1945	12	131		143	0.08	1929			1929	0.074			14	18	0.106	3	40
SA	B	3.5	6	1				2105		156		156	0.00	2105			2105	0.074			14	18	0.106	24	47
RT	B	3.4	6	1	20			2095			187	187	1.00	1949			1949	0.096	0.096		18	18	0.137	24	47
LT	C	4.8	1	1	40		N	2095	114			114	1.00	2019			2019	0.056	0.056		11	11	0.137	18	63
LT,SA	D	3.4	4	1	15			2095	368	192		560	0.66	1966			1966	0.285			54	54	0.137	60	26
SA,RT	D	3.5	4	1	15			2105		228	339	567	0.60	1986			1986	0.285	0.285		54	54	0.137	54	26
RT	D	3.5	4	1	15			2105			546	546	1.00	1914			1914	0.285			54	54	0.137	6	10
SA	A,D	3.2	9	1				2075		117		117	0.00	2075			2075	0.056			11	71	0.021	60	26
RT	D	3.5	8	2	19			4210			987	987	1.00	3902			3902	0.253			48	54	0.122	54	26

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

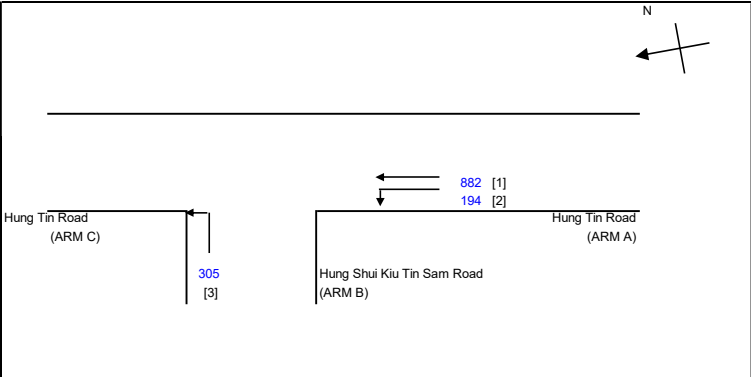
SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRIAN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE	
Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the		2034 Ref AM	PROJECT NO.:	83136	PREPARED BY:	LL	Sep-25
J2: Hung Tin Road / Hung Shui Kiu Tin Sam Road			FILENAME :		CHECKED BY:	DP	Sep-25
2034 Reference Weekday AM Peak Hour Traffic Flows			J2_Hung Tin Road_Hung Shui Kiu Tin Sam Road_P.xls		REVIEWED BY:	SC	Sep-25



NOTES : (GEOMETRIC INPUT DATA)

W = MAJOR ROAD WIDTH

W cr = CENTRAL RESERVE WIDTH

W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a

W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c

W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b

VI b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a

Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a

Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c

Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b

D = STREAM-SPECIFIC B-A

E = STREAM-SPECIFIC B-C

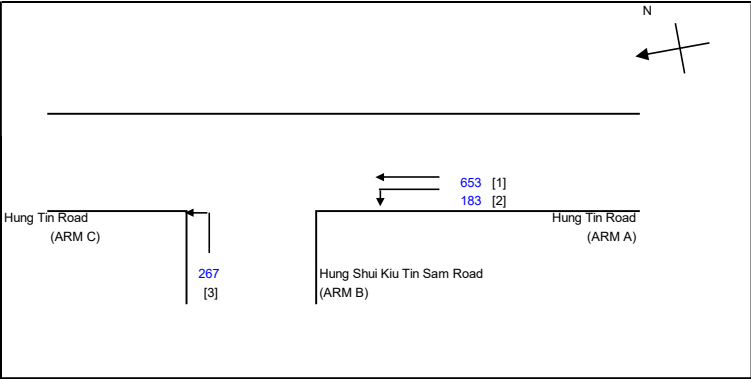
F = STREAM-SPECIFIC C-B

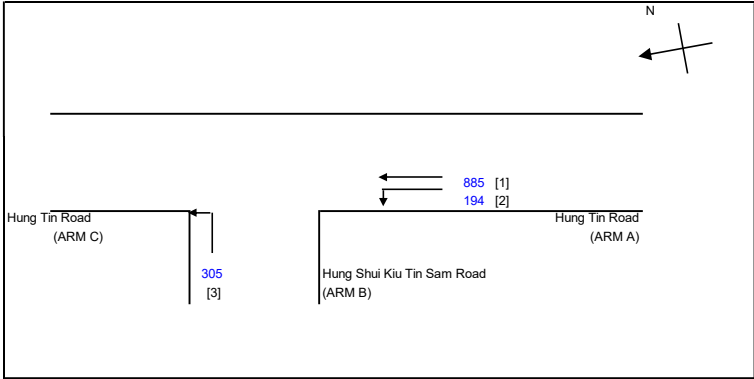
Y = (1-0.0345W)

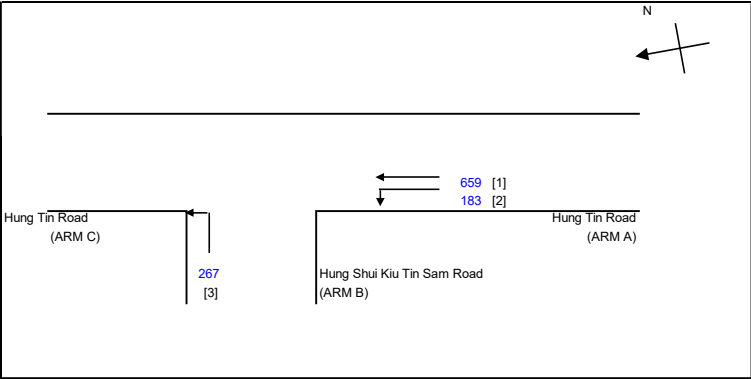
GEOMETRIC DETAILS:		GEOMETRIC FACTORS :		THE CAPACITY OF MOVEMENT :		COMPARISON OF DESIGN FLOW TO CAPACITY:	
MAJOR ROAD (ARM A)		D = 0.58164		Q b-a = 213		DFC b-a = 0.0000	
W = 7.30 (metres)		E = 1.00657		Q b-c = 487 Q b-c (O) = 487		DFC b-c = 0.6263	
W cr = 0 (metres)		F = 0.58595		Q c-b = 265		DFC c-b = 0.0000	
q a-b = 194 (pcu/hr)		Y = 0.74832					
q a-c = 882 (pcu/hr)							
MAJOR ROAD (ARM C)		F for (Qb-ac) = 1		TOTAL FLOW = 1381 (PCU/HR)			
W c-b = 0 (metres)							
Vr c-b = 0 (metres)							
q c-a = 0 (pcu/hr)							
q c-b = 0 (pcu/hr)							
MINOR ROAD (ARM B)							
W b-a = 0 (metres)							
W b-c = 4.0 (metres)							
VI b-a = (metres)							
Vr b-a = 90 (metres)							
Vr b-c = 90 (metres)							
q b-a = 0 (pcu/hr)							
q b-c = 305 (pcu/hr)							

CRITICAL DFC

= 0.63

OZZO TECHNOLOGY (HK) LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the		2034 Ref PM	PROJECT NO.:	83136	PREPARED BY:	LL Sep-25
J2: Hung Tin Road / Hung Shui Kiu Tin Sam Road			FILENAME :		CHECKED BY:	DP Sep-25
2034 Reference Weekday PM Peak Hour Traffic Flows			J2_Hung Tin Road_Hung Shui Kiu Tin Sam Road_P.xls		REVIEWED BY:	SC Sep-25
			NOTES : (GEOMETRIC INPUT DATA) W = MAJOR ROAD WIDTH W cr = CENTRAL RESERVE WIDTH W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b Vl b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b D = STREAM-SPECIFIC B-A E = STREAM-SPECIFIC B-C F = STREAM-SPECIFIC C-B Y = (1-0.0345W)			
GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 7.30 (metres) W cr = 0 (metres) q a-b = 183 (pcu/hr) q a-c = 653 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 0 (metres) Vr c-b = 0 (metres) q c-a = 0 (pcu/hr) q c-b = 0 (pcu/hr) MINOR ROAD (ARM B) W b-a = 0 (metres) W b-c = 4.0 (metres) Vl b-a = (metres) Vr b-a = 90 (metres) Vr b-c = 90 (metres) q b-a = 0 (pcu/hr) q b-c = 267 (pcu/hr) GEOMETRIC FACTORS : D = 0.58164 E = 1.00657 F = 0.58595 Y = 0.74832 F for (Qb-ac) = 1 THE CAPACITY OF MOVEMENT : Q b-a = 250 Q b-c = 551 Q c-b = 303 TOTAL FLOW = 1103 (PCU/HR) COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0000 DFC b-c = 0.4846 DFC c-b = 0.0000 CRITICAL DFC = 0.48						

OZZO TECHNOLOGY (HK) LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE																																
Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the		2034 Des AM	PROJECT NO.: 83136		PREPARED BY:	LL Sep-25																																
J2: Hung Tin Road / Hung Shui Kiu Tin Sam Road			FILENAME :		CHECKED BY:	DP Sep-25																																
2034 Design Weekday AM Peak Hour Traffic Flows			J2_Hung Tin Road_Hung Shui Kiu Tin Sam Road_P.xls		REVIEWED BY:	SC Sep-25																																
			NOTES : (GEOMETRIC INPUT DATA) W = MAJOR ROAD WIDTH W cr = CENTRAL RESERVE WIDTH W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b Vl b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b D = STREAM-SPECIFIC B-A E = STREAM-SPECIFIC B-C F = STREAM-SPECIFIC C-B Y = (1-0.0345W)																																			
<table><tr><td colspan="2">GEOMETRIC DETAILS:</td><td colspan="2">GEOMETRIC FACTORS :</td><td colspan="2">THE CAPACITY OF MOVEMENT :</td><td colspan="2">COMPARISON OF DESIGN FLOW TO CAPACITY:</td></tr><tr><td colspan="2">MAJOR ROAD (ARM A) W = 7.30 (metres) W cr = 0 (metres) q a-b = 194 (pcu/hr) q a-c = 885 (pcu/hr)</td><td colspan="2">D = 0.58164 E = 1.00657 F = 0.58595 Y = 0.74832</td><td colspan="2">Q b-a = 212 Q b-c = 486 Q c-b = 264</td><td colspan="2">DFC b-a = 0.0000 DFC b-c = 0.6276 DFC c-b = 0.0000</td></tr><tr><td colspan="2">MAJOR ROAD (ARM C) W c-b = 0 (metres) Vr c-b = 0 (metres) q c-a = 0 (pcu/hr) q c-b = 0 (pcu/hr)</td><td colspan="2">F for (Qb-ac) = 1</td><td colspan="2">TOTAL FLOW = 1384 (PCU/HR)</td><td colspan="2"></td></tr><tr><td colspan="2">MINOR ROAD (ARM B) W b-a = 0 (metres) W b-c = 4.0 (metres) Vl b-a = (metres) Vr b-a = 90 (metres) Vr b-c = 90 (metres) q b-a = 0 (pcu/hr) q b-c = 305 (pcu/hr)</td><td colspan="2"></td><td colspan="2"></td><td colspan="2">CRITICAL DFC = 0.63</td></tr></table>							GEOMETRIC DETAILS:		GEOMETRIC FACTORS :		THE CAPACITY OF MOVEMENT :		COMPARISON OF DESIGN FLOW TO CAPACITY:		MAJOR ROAD (ARM A) W = 7.30 (metres) W cr = 0 (metres) q a-b = 194 (pcu/hr) q a-c = 885 (pcu/hr)		D = 0.58164 E = 1.00657 F = 0.58595 Y = 0.74832		Q b-a = 212 Q b-c = 486 Q c-b = 264		DFC b-a = 0.0000 DFC b-c = 0.6276 DFC c-b = 0.0000		MAJOR ROAD (ARM C) W c-b = 0 (metres) Vr c-b = 0 (metres) q c-a = 0 (pcu/hr) q c-b = 0 (pcu/hr)		F for (Qb-ac) = 1		TOTAL FLOW = 1384 (PCU/HR)				MINOR ROAD (ARM B) W b-a = 0 (metres) W b-c = 4.0 (metres) Vl b-a = (metres) Vr b-a = 90 (metres) Vr b-c = 90 (metres) q b-a = 0 (pcu/hr) q b-c = 305 (pcu/hr)						CRITICAL DFC = 0.63	
GEOMETRIC DETAILS:		GEOMETRIC FACTORS :		THE CAPACITY OF MOVEMENT :		COMPARISON OF DESIGN FLOW TO CAPACITY:																																
MAJOR ROAD (ARM A) W = 7.30 (metres) W cr = 0 (metres) q a-b = 194 (pcu/hr) q a-c = 885 (pcu/hr)		D = 0.58164 E = 1.00657 F = 0.58595 Y = 0.74832		Q b-a = 212 Q b-c = 486 Q c-b = 264		DFC b-a = 0.0000 DFC b-c = 0.6276 DFC c-b = 0.0000																																
MAJOR ROAD (ARM C) W c-b = 0 (metres) Vr c-b = 0 (metres) q c-a = 0 (pcu/hr) q c-b = 0 (pcu/hr)		F for (Qb-ac) = 1		TOTAL FLOW = 1384 (PCU/HR)																																		
MINOR ROAD (ARM B) W b-a = 0 (metres) W b-c = 4.0 (metres) Vl b-a = (metres) Vr b-a = 90 (metres) Vr b-c = 90 (metres) q b-a = 0 (pcu/hr) q b-c = 305 (pcu/hr)						CRITICAL DFC = 0.63																																

OZZO TECHNOLOGY (HK) LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the		2034 Des PM	PROJECT NO.:	83136	PREPARED BY:	LL Sep-25
J2: Hung Tin Road / Hung Shui Kiu Tin Sam Road			FILENAME :		CHECKED BY:	DP Sep-25
2034 Design Weekday PM Peak Hour Traffic Flows			J2_Hung Tin Road_Hung Shui Kiu Tin Sam Road_P.xls	REVIEWED BY:	SC Sep-25	
			NOTES : (GEOMETRIC INPUT DATA) W = MAJOR ROAD WIDTH W cr = CENTRAL RESERVE WIDTH W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b Vl b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b D = STREAM-SPECIFIC B-A E = STREAM-SPECIFIC B-C F = STREAM-SPECIFIC C-B Y = (1-0.0345W)			
GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 7.30 (metres) W cr = 0 (metres) q a-b = 183 (pcu/hr) q a-c = 659 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 0 (metres) Vr c-b = 0 (metres) q c-a = 0 (pcu/hr) q c-b = 0 (pcu/hr) MINOR ROAD (ARM B) W b-a = 0 (metres) W b-c = 4.0 (metres) Vl b-a = (metres) Vr b-a = 90 (metres) Vr b-c = 90 (metres) q b-a = 0 (pcu/hr) q b-c = 267 (pcu/hr) GEOMETRIC FACTORS : D = 0.58164 E = 1.00657 F = 0.58595 Y = 0.74832 F for (Qb-ac) = 1 THE CAPACITY OF MOVEMENT : Q b-a = 249 Q b-c = 549 Q c-b = 302 TOTAL FLOW = 1109 (PCU/HR) COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0000 DFC b-c = 0.4863 DFC c-b = 0.0000 CRITICAL DFC = 0.49						

OZZO TECHNOLOGY (HK) LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone

PROJECT NO. 83136

Prepared By:

LL

九月-25

J3:Castle Peak Road - Hung Shui Kiu / Castle Peak Road-Ping Shan / Hung Tin Road

2034 Ref AM

FILENAME :

Checked By:

DP

九月-25

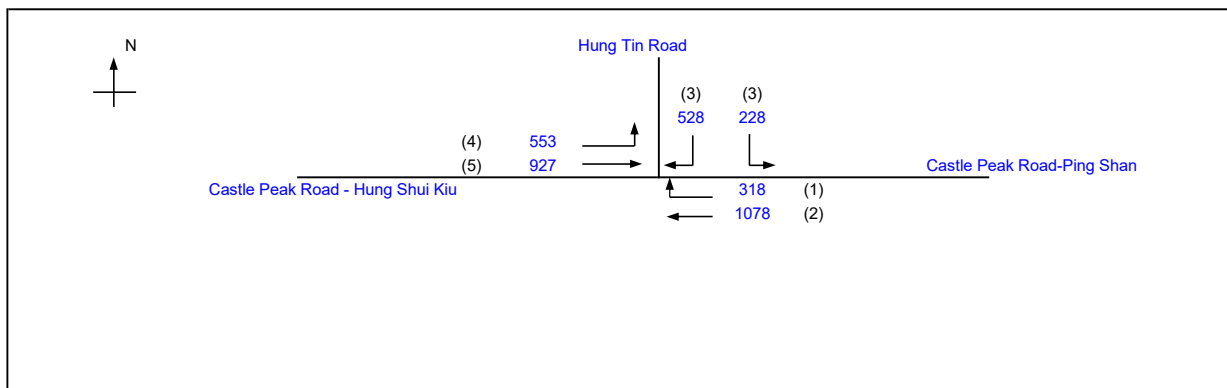
2034 Reference AM Peak Hour Traffic Flows

Kiu_Castle Peak Road-Ping Shan_Hung Tin Road_S.xls

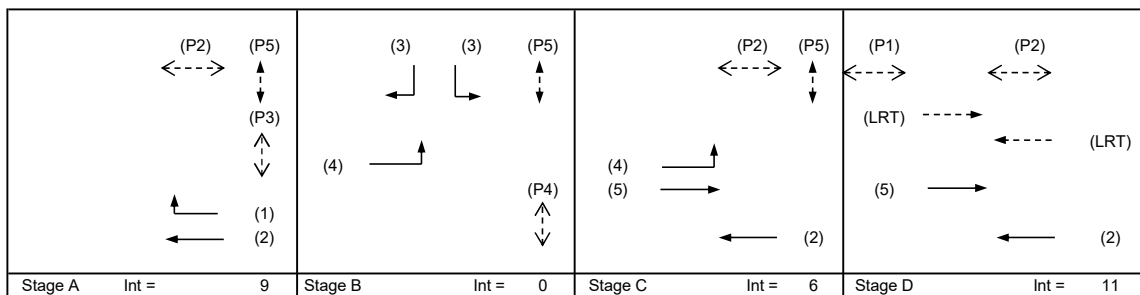
Reviewed By:

SC

九月-25



		Existing Cycle Time	
No. of stages per cycle	N =	4	
Cycle time	C =	130 sec	
Sum(y)	Y =	0.450	
Loss time	L =	49 sec	
Total Flow	=	3632 pcu	
Co	= $(1.5 \cdot L + 5) / (1 - Y)$	142.8 sec	
Cm	= $L / (1 - Y)$	89.1 sec	
Yult	=	0.533	
R.C.ult	= $(Yult - Y) / Y \cdot 100\%$	18.3 %	
Cp	= $0.9 \cdot L / (0.9 - Y)$	98.0 sec	
Ymax	= $1 - L / C$	0.623	
R.C.(C)	= $(0.9 \cdot Ymax - Y) / Y \cdot 100\%$	24.6 %	



Pedestrian Phase	Stage	Length (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	D	7.5	7	6	3	19	14
P2	A,C,D	10.4	5	9	1	91	9
P3	A	9.6	5	8	3	24	9
P4	B	12.3	8	10	1	21	7
P5	A,B,C	10.0	5	8	9	77	8

Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
									Left pcu/h	Straight pcu/h	Right pcu/h														
SA RT	A,C,D A	3.65	2	2	75		N	4100		1078	318	1078	0.00	4100			4100	0.263	0.155	24	47	93	0.139	33	7
		3.40	1	1				2095										2054			0.155	2054	0.155	28	28
LT LT,RT RT	B B B	3.30	3	1	17		N	1945	228 0		264 264 264	228	1.00	1787			1787	0.128			23	24	0.259	36	55
		3.50	3	1	21			2105				264	1.00				1965	0.134			24	24	0.272	48	56
		3.50	3	1	21			2105				264	1.00				1965	0.134			24	24	0.272	48	56
LT SA	B,C C,D	3.85	4	1	22		N	2000	553			553	1.00	1872			1872	0.295	0.295		53	53	0.272	66	35
		3.70	5	2	4250			927				927	0.00				4250	0.218			39	55	0.194	57	26
LRT	D																		25						

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRIAN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone

PROJECT NO. 83136

Prepared By:

LL

九月-25

J3:Castle Peak Road - Hung Shui Kiu / Castle Peak Road-Ping Shan / Hung Tin Road

2034 Ref PM

FILENAME :

Checked By:

DP

九月-25

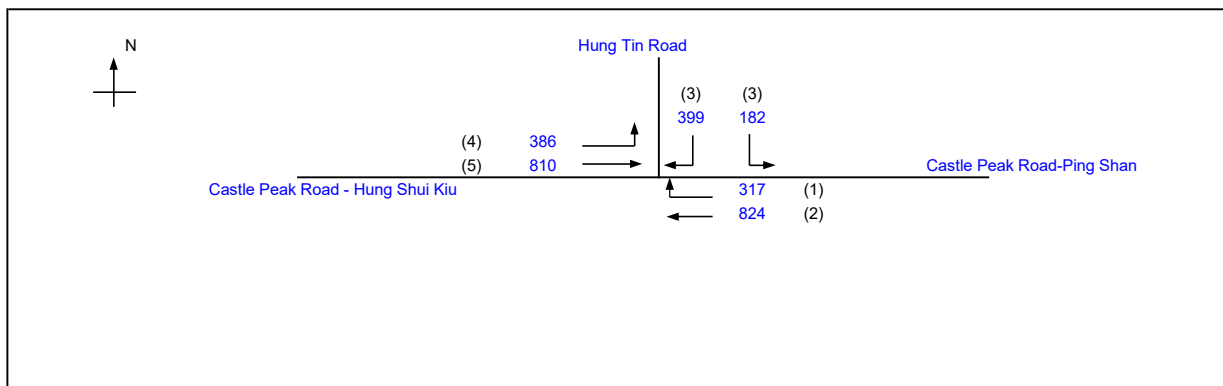
2034 Reference PM Peak Hour Traffic Flows

Kiu_Castle Peak Road-Ping Shan_Hung Tin Road_S.xls

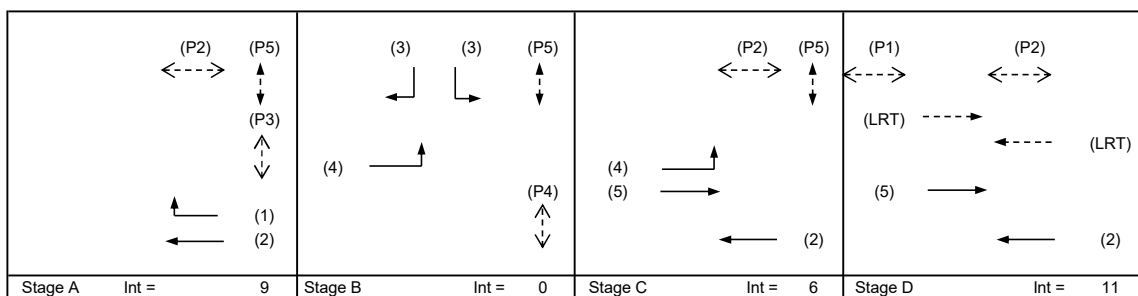
Reviewed By:

SC

九月-25



		Existing Cycle Time	
No. of stages per cycle	N =	4	
Cycle time	C =	130 sec	
Sum(y)	Y =	0.360	
Loss time	L =	49 sec	
Total Flow	=	2918 pcu	
Co	= $(1.5 \cdot L + 5) / (1 - Y)$	122.8 sec	
Cm	= $L / (1 - Y)$	76.6 sec	
Yult	=	0.533	
R.C.ult	= $(Yult - Y) / Y \cdot 100\%$	47.7 %	
Cp	= $0.9 \cdot L / (0.9 - Y)$	81.7 sec	
Ymax	= $1 - L / C$	0.623	
R.C.(C)	= $(0.9 \cdot Ymax - Y) / Y \cdot 100\%$	55.6 %	



Pedestrian Phase	Stage	Length (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	D	7.5	7	6	3	19	14
P2	A,C,D	10.4	5	9	1	92	9
P3	A	9.6	5	8	3	31	9
P4	B	12.3	8	10	1	20	7
P5	A,B,C	10.0	5	8	9	77	8

Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)					
									Left pcu/h	Straight pcu/h	Right pcu/h																			
SA RT	A,C,D A	3.65	2	2	75		N	4100		824	317	824	0.00	4100			4100	0.201	0.154	24	45	94	0.105	24	6					
		3.40	1	1				2095				317	1.00					2054								0.154	35	35	0.218	48
LT LT,RT RT	B B B	3.30	3	1	17		N	1945	182		199	182	1.00	1787			1787	0.102			23	23	0.218	30	51					
		3.50	3	1	2105			200				1.00	1965					0.102								23	23	0.218	30	51
		3.50	3	1	2105			200				1.00	1965					0.102								23	23	0.218	30	51
LT SA	B,C C,D	3.85	4	1	22		N	2000	386	810	386	1.00	1872			1872	0.206	0.206		46	46	0.218	48	34						
		3.70	5	2	4250			810			0.00	4250					0.191								43	49	0.189	54	29	
LRT	D																		25											

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRIAN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone

PROJECT NO. 83136

Prepared By:

LL

九月-25

J3:Castle Peak Road - Hung Shui Kiu / Castle Peak Road-Ping Shan / Hung Tin Road

2034 Des AM

FILENAME :

Checked By:

DP

九月-25

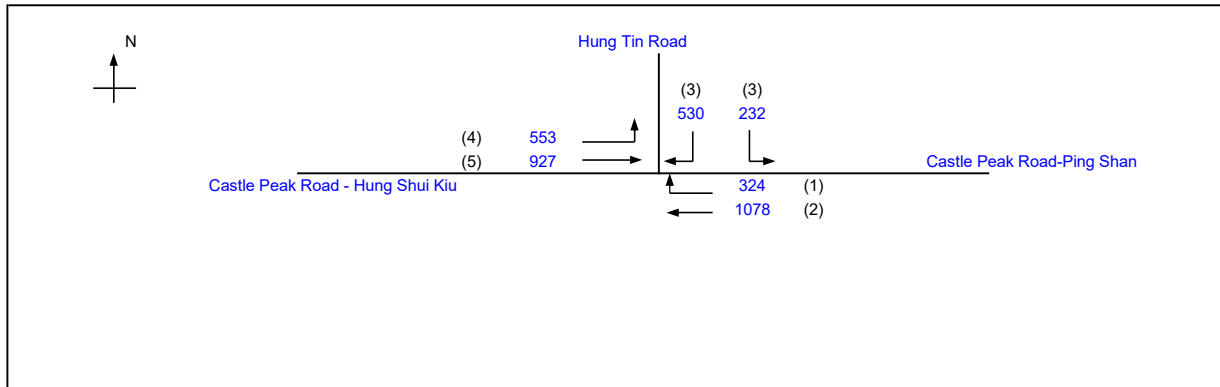
2034 Design AM Peak Hour Traffic Flows

Kiu_Castle Peak Road-Ping Shan_Hung Tin Road_S.xls

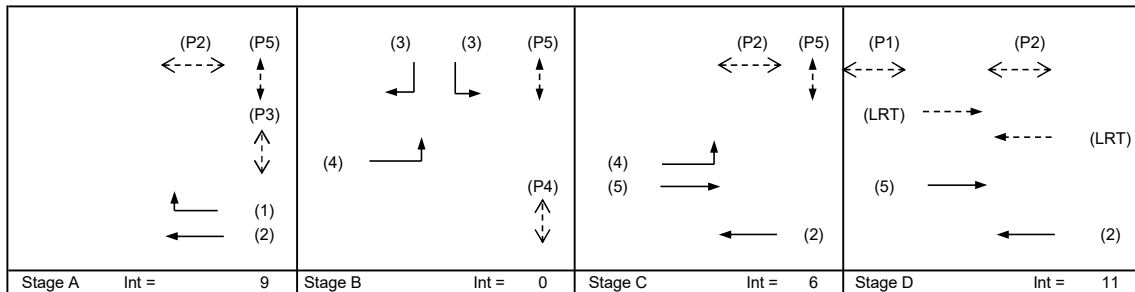
Reviewed By:

SC

九月-25



		Existing Cycle Time	
No. of stages per cycle	N =	4	
Cycle time	C =	130 sec	
Sum(y)	Y =	0.453	
Loss time	L =	49 sec	
Total Flow	=	3644 pcu	
Co	= (1.5*L+5)/(1-Y)	143.5 sec	
Cm	= L/(1-Y)	89.6 sec	
Yult	=	0.533	
R.C.ult	= (Yult-Y)/Y*100%	17.5 %	
Cp	= 0.9*L/(0.9-Y)	98.7 sec	
Ymax	= 1-L/C	0.623	
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	23.8 %	



Pedestrian Phase	Stage	Length (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	D	7.5	7	6	3	19	14
P2	A,C,D	10.4	5	9	1	90	9
P3	A	9.6	5	8	3	24	9
P4	B	12.3	8	10	1	22	7
P5	A,B,C	10.0	5	8	9	77	8

Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
									Left pcu/h	Straight pcu/h	Right pcu/h														
SA RT	A,C,D A	3.65	2	2	75		N	4100		1078	324	1078	0.00	4100			4100	0.263	0.158	24	47	92	0.140	33	7
		3.40	1	1				2095				324	1.00	2054			2054	0.158			28	28	0.274	54	52
LT LT,RT RT	B B B	3.30	3	1	17		N	1945	232 0		265 265 265	232	1.00	1787			1787	0.130			23	25	0.253	36	53
		3.50	3	1	21			2105				1.00	1965	1965			0.135	24			25	0.263	42	54	
		3.50	3	1	21			2105				1.00	1965	1965			0.135	24			25	0.263	42	54	
LT SA	B,C C,D	3.85	4	1	22		N	2000	553			553	1.00	1872			1872	0.295	0.295		53	53	0.274	66	35
		3.70	5	2	4250			927				0.00	4250	4250			0.218	39			54	0.199	57	27	
LRT	D																		25						

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRIAN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED

TRAFFIC SIGNAL CALCULATION

INITIALS

DATE

Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone

PROJECT NO. 83136

Prepared By:

LL

九月-25

J3:Castle Peak Road - Hung Shui Kiu / Castle Peak Road-Ping Shan / Hung Tin Road

2034 Des PM

FILENAME :

Checked By:

DP

九月-25

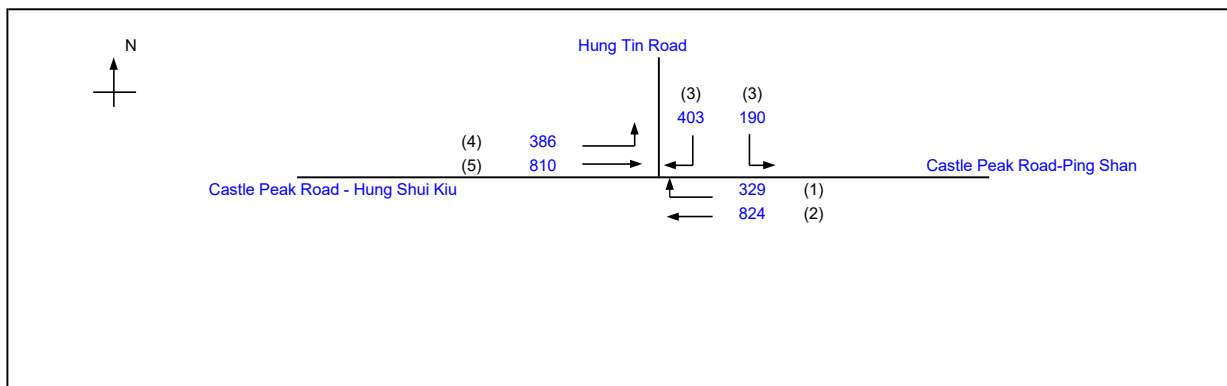
2034 Design PM Peak Hour Traffic Flows

Kiu_Castle Peak Road-Ping Shan_Hung Tin Road_S.xls

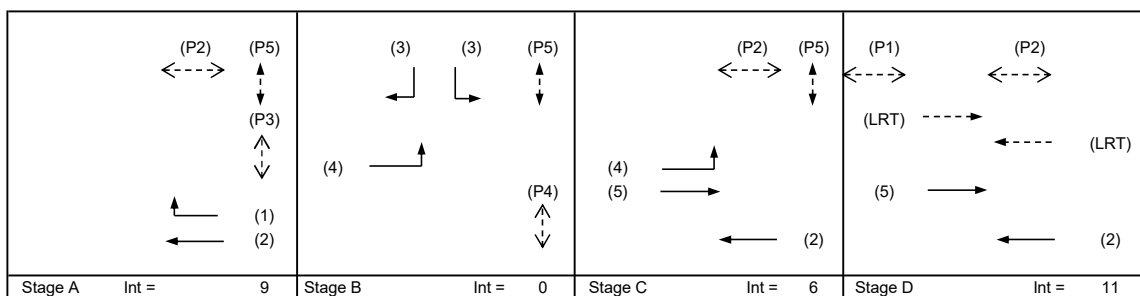
Reviewed By:

SC

九月-25



		Existing Cycle Time	
No. of stages per cycle	N =	4	
Cycle time	C =	130 sec	
Sum(y)	Y =	0.366	
Loss time	L =	49 sec	
Total Flow	=	2942 pcu	
Co	= (1.5*L+5)/(1-Y)	123.9 sec	
Cm	= L/(1-Y)	77.3 sec	
Yult	=	0.533	
R.C.ult	= (Yult-Y)/Y*100%	45.4 %	
Cp	= 0.9*L/(0.9-Y)	82.6 sec	
Ymax	= 1-L/C	0.623	
R.C.(C)	= (0.9*Ymax-Y)/Y*100%	53.1 %	



Pedestrian Phase	Stage	Length (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	D	7.5	7	6	3	19	14
P2	A,C,D	10.4	5	9	1	92	9
P3	A	9.6	5	8	3	31	9
P4	B	12.3	8	10	1	20	7
P5	A,B,C	10.0	5	8	9	77	8

Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
									Left pcu/h	Straight pcu/h	Right pcu/h														
SA RT	A,C,D A	3.65	2	2	75		N	4100		824	329	824	0.00	4100			4100	0.201	0.160	24	44	94	0.105	24	6
		3.40	1	1				2095					2054	0.160			2054	0.222			48	41			
LT LT,RT RT	B B B	3.30	3	1	17		N	1945	185	199	185	1.00	1787			1787	0.104			23	23	0.222	30	52	
		3.50	3	1	2105			5	204		1.00	1965	0.104			23	23			0.222	36	51			
		3.50	3	1	2105				204		1.00	1965	0.104			23	23			0.222	36	51			
LT SA	B,C C,D	3.85	4	1	22		N	2000	386	810	386	1.00	1872			1872	0.206	0.206			46	46	0.222	54	35
		3.70	5	2	4250						4250	0.191	4250			0.192	54				29				
LRT	D																		25						

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

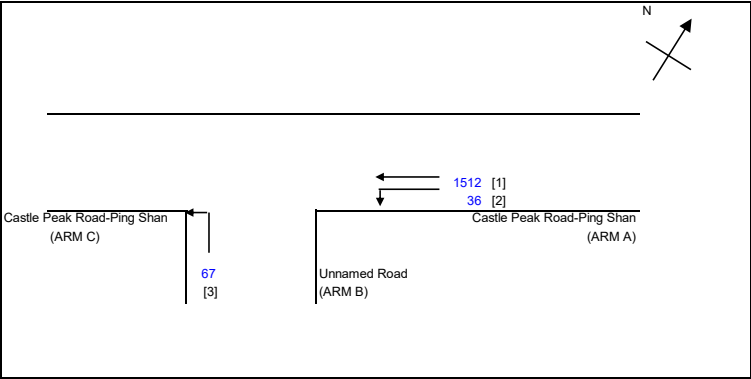
FG - FLASHING GREEN

PEDESTRIAN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE	
Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the		2034 Ref AM	PROJECT NO.:	83136	PREPARED BY:	LL	Sep-25
J4: Castle Peak Road (Ping Shan) / Access Road			FILENAME :		CHECKED BY:	DP	Sep-25
2034 Reference Weekday AM Peak Hour Traffic Flows			J4_Castle Peak Road(Ping Shan)_Access Road_P.xls		REVIEWED BY:	SC	Sep-25
		NOTES : (GEOMETRIC INPUT DATA) W = MAJOR ROAD WIDTH W cr = CENTRAL RESERVE WIDTH W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b Vi b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b D = STREAM-SPECIFIC B-A E = STREAM-SPECIFIC B-C F = STREAM-SPECIFIC C-B Y = (1-0.0345W)					
GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.52 (metres) W cr = 0 (metres) q a-b = 31 (pcu/hr) q a-c = 1512 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 0 (metres) Vr c-b = 0 (metres) q c-a = 0 (pcu/hr) q c-b = 0 (pcu/hr) MINOR ROAD (ARM B) W b-a = 0 (metres) W b-c = 6.5 (metres) Vi b-a = 0 (metres) Vr b-a = 68 (metres) Vr b-c = 68 (metres) q b-a = 0 (pcu/hr) q b-c = 61 (pcu/hr) GEOMETRIC FACTORS : D = 0.5698 E = 1.2091 F = 0.58595 Y = 0.70606 F for (Qb-ac) = 1 THE CAPACITY OF MOVEMENT : Q b-a = 134 Q b-c = 427 Q c-b = 204 Q b-c (O) = 427 TOTAL FLOW = 1604 (PCU/HR) COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0000 DFC b-c = 0.1429 DFC c-b = 0.0000 CRITICAL DFC = 0.14							

OZZO TECHNOLOGY (HK) LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE	
Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the		2034 Ref PM	PROJECT NO.:	83136	PREPARED BY:	LL	Sep-25
J4: Castle Peak Road (Ping Shan) / Access Road			FILENAME :		CHECKED BY:	DP	Sep-25
2034 Reference Weekday PM Peak Hour Traffic Flows			J4_Castle Peak Road(Ping Shan)_Access Road_P.xls		REVIEWED BY:	SC	Sep-25
		NOTES : (GEOMETRIC INPUT DATA) W = MAJOR ROAD WIDTH W cr = CENTRAL RESERVE WIDTH W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b Vl b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b D = STREAM-SPECIFIC B-A E = STREAM-SPECIFIC B-C F = STREAM-SPECIFIC C-B Y = (1-0.0345W)					
GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.52 (metres) W cr = 0 (metres) q a-b = 49 (pcu/hr) q a-c = 1237 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 0 (metres) Vr c-b = 0 (metres) q c-a = 0 (pcu/hr) q c-b = 0 (pcu/hr) MINOR ROAD (ARM B) W b-a = 0 (metres) W b-c = 6.5 (metres) Vl b-a = 0 (metres) Vr b-a = 68 (metres) Vr b-c = 68 (metres) q b-a = 0 (pcu/hr) q b-c = 35 (pcu/hr) GEOMETRIC FACTORS : D = 0.5698 E = 1.2091 F = 0.58595 Y = 0.70606 F for (Qb-ac) = 1 THE CAPACITY OF MOVEMENT : Q b-a = 173 Q b-c = 510 Q c-b = 243 TOTAL FLOW = 1321 (PCU/HR) COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0000 DFC b-c = 0.0686 DFC c-b = 0.0000 CRITICAL DFC = 0.07							

OZZO TECHNOLOGY (HK) LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE																																
Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the		2034 Des AM	PROJECT NO.: 83136		PREPARED BY:	LL Sep-25																																
J4: Castle Peak Road (Ping Shan) / Access Road			FILENAME :		CHECKED BY:	DP Sep-25																																
2034 Design Weekday AM Peak Hour Traffic Flows			J4_Castle Peak Road(Ping Shan)_Access Road_P.xls		REVIEWED BY:	SC Sep-25																																
			NOTES : (GEOMETRIC INPUT DATA) W = MAJOR ROAD WIDTH W cr = CENTRAL RESERVE WIDTH W b-a = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a W b-c = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c W c-b = LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b Vl b-a = VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a Vr b-a = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a Vr b-c = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c Vr c-b = VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b D = STREAM-SPECIFIC B-A E = STREAM-SPECIFIC B-C F = STREAM-SPECIFIC C-B Y = (1-0.0345W)																																			
<table><tr><td colspan="2">GEOMETRIC DETAILS:</td><td colspan="2">GEOMETRIC FACTORS :</td><td colspan="2">THE CAPACITY OF MOVEMENT :</td><td colspan="2">COMPARISON OF DESIGN FLOW TO CAPACITY:</td></tr><tr><td colspan="2">MAJOR ROAD (ARM A) W = 8.52 (metres) W cr = 0 (metres) q a-b = 36 (pcu/hr) q a-c = 1512 (pcu/hr)</td><td colspan="2">D = 0.5698 E = 1.2091 F = 0.58595 Y = 0.70606</td><td colspan="2">Q b-a = 134 Q b-c = 427 Q c-b = 203</td><td colspan="2">DFC b-a = 0.0000 DFC b-c = 0.1569 DFC c-b = 0.0000</td></tr><tr><td colspan="2">MAJOR ROAD (ARM C) W c-b = 0 (metres) Vr c-b = 0 (metres) q c-a = 0 (pcu/hr) q c-b = 0 (pcu/hr)</td><td colspan="2">F for (Qb-ac) = 1</td><td colspan="2">TOTAL FLOW = 1615 (PCU/HR)</td><td colspan="2"></td></tr><tr><td colspan="2">MINOR ROAD (ARM B) W b-a = 0 (metres) W b-c = 6.5 (metres) Vl b-a = 0 (metres) Vr b-a = 68 (metres) Vr b-c = 68 (metres) q b-a = 0 (pcu/hr) q b-c = 67 (pcu/hr)</td><td colspan="2"></td><td colspan="2"></td><td colspan="2">CRITICAL DFC = 0.16</td></tr></table>							GEOMETRIC DETAILS:		GEOMETRIC FACTORS :		THE CAPACITY OF MOVEMENT :		COMPARISON OF DESIGN FLOW TO CAPACITY:		MAJOR ROAD (ARM A) W = 8.52 (metres) W cr = 0 (metres) q a-b = 36 (pcu/hr) q a-c = 1512 (pcu/hr)		D = 0.5698 E = 1.2091 F = 0.58595 Y = 0.70606		Q b-a = 134 Q b-c = 427 Q c-b = 203		DFC b-a = 0.0000 DFC b-c = 0.1569 DFC c-b = 0.0000		MAJOR ROAD (ARM C) W c-b = 0 (metres) Vr c-b = 0 (metres) q c-a = 0 (pcu/hr) q c-b = 0 (pcu/hr)		F for (Qb-ac) = 1		TOTAL FLOW = 1615 (PCU/HR)				MINOR ROAD (ARM B) W b-a = 0 (metres) W b-c = 6.5 (metres) Vl b-a = 0 (metres) Vr b-a = 68 (metres) Vr b-c = 68 (metres) q b-a = 0 (pcu/hr) q b-c = 67 (pcu/hr)						CRITICAL DFC = 0.16	
GEOMETRIC DETAILS:		GEOMETRIC FACTORS :		THE CAPACITY OF MOVEMENT :		COMPARISON OF DESIGN FLOW TO CAPACITY:																																
MAJOR ROAD (ARM A) W = 8.52 (metres) W cr = 0 (metres) q a-b = 36 (pcu/hr) q a-c = 1512 (pcu/hr)		D = 0.5698 E = 1.2091 F = 0.58595 Y = 0.70606		Q b-a = 134 Q b-c = 427 Q c-b = 203		DFC b-a = 0.0000 DFC b-c = 0.1569 DFC c-b = 0.0000																																
MAJOR ROAD (ARM C) W c-b = 0 (metres) Vr c-b = 0 (metres) q c-a = 0 (pcu/hr) q c-b = 0 (pcu/hr)		F for (Qb-ac) = 1		TOTAL FLOW = 1615 (PCU/HR)																																		
MINOR ROAD (ARM B) W b-a = 0 (metres) W b-c = 6.5 (metres) Vl b-a = 0 (metres) Vr b-a = 68 (metres) Vr b-c = 68 (metres) q b-a = 0 (pcu/hr) q b-c = 67 (pcu/hr)						CRITICAL DFC = 0.16																																

OZZO TECHNOLOGY (HK) LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE	
Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to Amend the		2034 Des PM	PROJECT NO.:	83136	PREPARED BY:	LL	Sep-25
J4: Castle Peak Road (Ping Shan) / Access Road			FILENAME :		CHECKED BY:	DP	Sep-25
2034 Design Weekday PM Peak Hour Traffic Flows			J4_Castle Peak Road(Ping Shan)_Access Road_P.xls		REVIEWED BY:	SC	Sep-25
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GEOMETRIC DETAILS: MAJOR ROAD (ARM A) W = 8.52 (metres) W cr = 0 (metres) q a-b = 56 (pcu/hr) q a-c = 1237 (pcu/hr) MAJOR ROAD (ARM C) W c-b = 0 (metres) Vr c-b = 0 (metres) q c-a = 0 (pcu/hr) q c-b = 0 (pcu/hr) MINOR ROAD (ARM B) W b-a = 0 (metres) W b-c = 6.5 (metres) Vl b-a = 0 (metres) Vr b-a = 68 (metres) Vr b-c = 68 (metres) q b-a = 0 (pcu/hr) q b-c = 47 (pcu/hr) GEOMETRIC FACTORS : D = 0.5698 E = 1.2091 F = 0.58595 Y = 0.70606 F for (Qb-ac) = 1 THE CAPACITY OF MOVEMENT : Q b-a = 173 Q b-c = 510 Q c-b = 242 TOTAL FLOW = 1340 (PCU/HR) COMPARISON OF DESIGN FLOW TO CAPACITY: DFC b-a = 0.0000 DFC b-c = 0.0922 DFC c-b = 0.0000 CRITICAL DFC = 0.09							

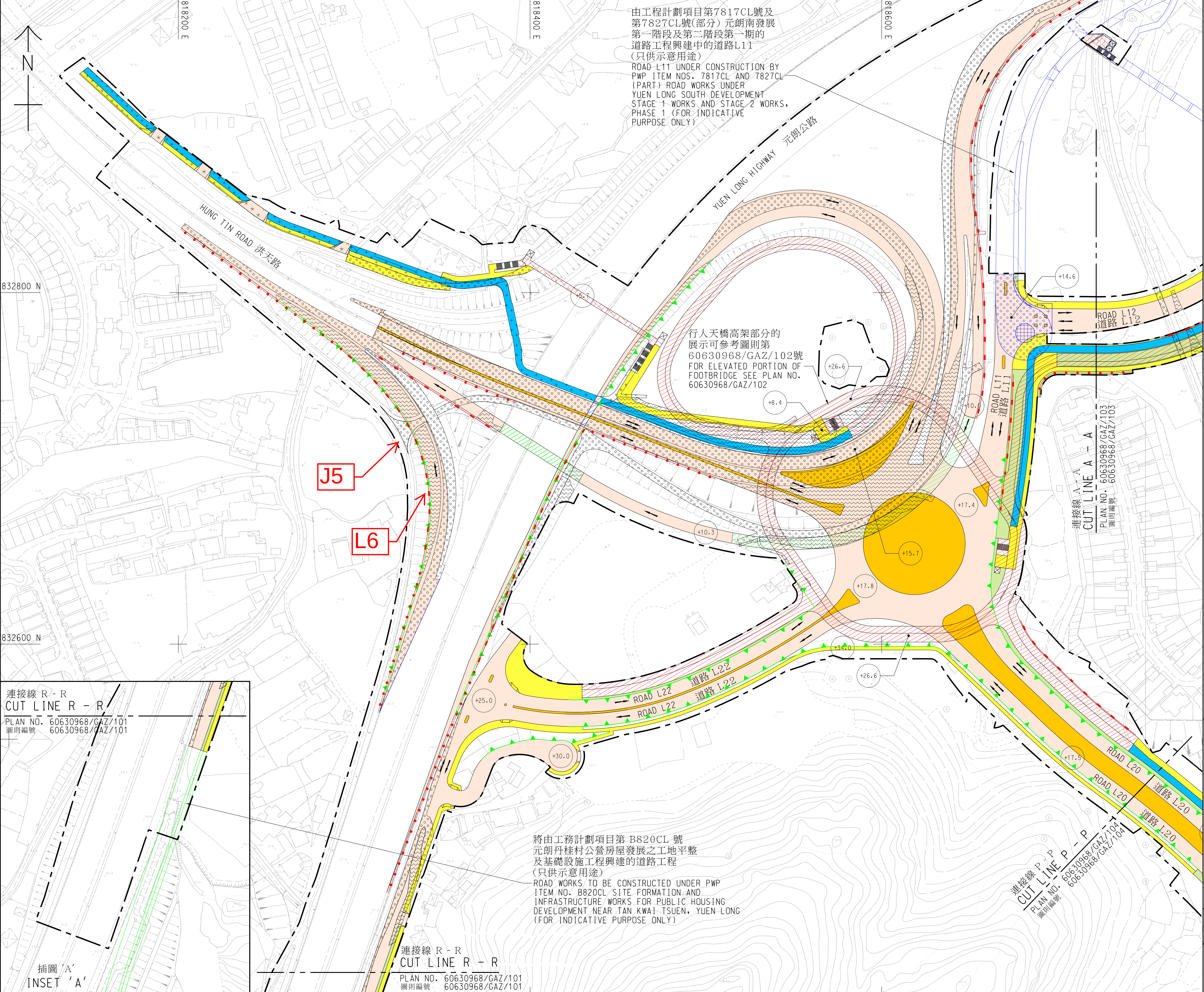
Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories Traffic Impact Assessment Report



Appendix E

Proposed Traffic Improvement Works

Junction Improvement Scheme under PWP Item No. 7827CL (Part): Road Works under Yuen Long South Development - Second Phase Development



由工程計劃項目第7817CL號及第7827CL號(部分) 元朗南發展第一階段及第二階段第一期的道路工程興建中的道路L11 (只供示意用途)
ROAD L11 UNDER CONSTRUCTION BY PWP ITEM NOS. 7817CL AND 7827CL (PART)- ROAD WORKS UNDER YUEN LONG SOUTH DEVELOPMENT STAGE 1 WORKS AND STAGE 2 WORKS, PHASE 1 (FOR INDICATIVE PURPOSE ONLY)

行人天橋高架部分的展示可參考圖則第60630968/GAZ/102號 FOR ELEVATED PORTION OF FOOTBRIDGE SEE PLAN NO. 60630968/GAZ/102

將由工務計劃項目第 B820CL 號 元朗丹桂村公營房屋發展之工地平整及基礎設施工程興建的道路工程 (只供示意用途)
ROAD WORKS TO BE CONSTRUCTED UNDER PWP ITEM NO. B820CL SITE FORMATION AND INFRASTRUCTURE WORKS FOR PUBLIC HOUSING DEVELOPMENT NEAR TAN KWAI TSUEN, YUEN LONG (FOR INDICATIVE PURPOSE ONLY)

連接線 R - R
CUT LINE R - R
PLAN NO. 60630968/GAZ/101
圖則編號 60630968/GAZ/101

插圖 'A'
INSET 'A'

連接線 R - R
CUT LINE R - R
PLAN NO. 60630968/GAZ/101
圖則編號 60630968/GAZ/101

連接線 P - P
CUT LINE P - P
PLAN NO. 60630968/GAZ/104
圖則編號 60630968/GAZ/104

連接線 A - A
CUT LINE A - A
PLAN NO. 60630968/GAZ/103
圖則編號 60630968/GAZ/103

註釋:
NOTES:
1. 除另有指明外, 所有量度以米為單位。
ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED.
2. 所有水平均為約數, 以米為單位, 並在香港主水平基準以上。
ALL LEVELS ARE APPROXIMATE VALUES AND IN METRES ABOVE HONG KONG PRINCIPAL DATUM.
3. 如有需要, 施工區界限內的部分現有地面/高架行車道、行人路、單車徑、中央分隔帶/安全島/交通島和美化市容地帶/路旁帶或會分階段暫時封閉。
SECTIONS OF THE EXISTING AT-GRADE/ELEVATED CARRIAGEWAYS, FOOTPATHS, CYCLE TRACKS, CENTRAL MEDIANS/REFUGE ISLANDS/TRAFFIC ISLANDS AND AMENITY AREAS/VERGES WITHIN THE LIMIT OF WORKS AREA MAY BE TEMPORARILY CLOSED IN PHASES AS AND WHEN REQUIRED.
4. 如有需要, 斜坡穩固工程或會在施工區界限之內進行。
SLOPE STABILIZATION WORKS MAY BE CARRIED OUT WITHIN THE LIMIT OF WORKS AREA AS AND WHEN REQUIRED.
5. 圖例載於圖則第60630968/GAZ/LEGEND號。
DETAILS OF LEGEND ARE SHOWN ON PLAN NO. 60630968/GAZ/LEGEND.

工程名稱 PROJECT TITLE
工務計劃項目第 7827CL 號 (部分)
元朗南第二期發展的的道路工程
PWP ITEM NO. 7827CL (PART)
ROAD WORKS UNDER YUEN LONG SOUTH DEVELOPMENT - SECOND PHASE DEVELOPMENT

圖則名稱 PLAN TITLE
根據<<道路(工程、使用及補償)條例>> (第370章)而在憲報公布之圖則
PLAN FOR GAZETTING UNDER ROADS (WORKS, USE AND COMPENSATION) ORDINANCE (CHAPTER 370)

圖則編號 PLAN NO.
60630968/GAZ/101

辦事處 OFFICE
西拓展處
WEST DEVELOPMENT OFFICE

比例 SCALE
A1 1 : 1000

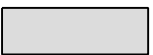
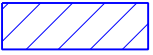
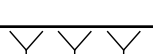
十五張之第一張
SHEET 1 OF 15

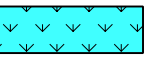
CEDD 土木工程拓展署
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

Junction Improvement Scheme under PWP Item No. 888TH - Widening of Yuen Long Highway (section between Lam Tei and Tong Yan San Tsuen)

圖例:

LEGEND:

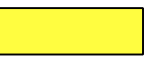
	施工區界限 LIMIT OF WORKS AREA
	擬建地面行車道 PROPOSED AT-GRADE CARRIAGEWAY
	擬建高架行車道 PROPOSED ELEVATED CARRIAGEWAY
	擬建行人路 PROPOSED FOOTPATH
	擬建行人隧道 PROPOSED PEDESTRIAN SUBWAY
	擬建行人隧道上的地面行車道 PROPOSED AT-GRADE CARRIAGEWAY ABOVE PEDESTRIAN SUBWAY
	擬建通道 PROPOSED ACCESS ROAD
	擬建美化市容地帶 PROPOSED AMENITY AREA
	擬建直立式隔音屏障 PROPOSED VERTICAL NOISE BARRIER
	擬建懸臂式隔音屏障 PROPOSED CANTILEVER NOISE BARRIER
	擬建擋土牆 PROPOSED RETAINING WALL
	擬建斜坡 PROPOSED SLOPE
	現有地面/高架行車道將永久封閉並改建為中央分隔帶/安全島 EXISTING AT-GRADE/ELEVATED CARRIAGEWAY TO BE PERMANENTLY CLOSED AND CONVERTED INTO CENTRAL MEDIAN/REFUGE ISLAND
	現有地面行車道將永久封閉並改建為路旁帶 EXISTING AT-GRADE CARRIAGEWAY TO BE PERMANENTLY CLOSED AND CONVERTED INTO VERGE
	現有通道將永久封閉並改建為地面行車道 EXISTING ACCESS ROAD TO BE PERMANENTLY CLOSED AND CONVERTED INTO AT-GRADE CARRIAGEWAY
	現有美化市容地帶將永久封閉並改建為地面行車道 EXISTING AMENITY AREA TO BE PERMANENTLY CLOSED AND CONVERTED INTO AT-GRADE CARRIAGEWAY
	現有中央分隔帶/安全島將永久封閉並改建為地面行車道 EXISTING CENTRAL MEDIAN/REFUGE ISLAND TO BE PERMANENTLY CLOSED AND CONVERTED INTO AT-GRADE CARRIAGEWAY
	現有地面行車道將暫時封閉並重建 EXISTING AT-GRADE CARRIAGEWAY TO BE TEMPORARILY CLOSED AND RECONSTRUCTED
	現有高架行車道將暫時封閉並重建 EXISTING ELEVATED CARRIAGEWAY TO BE TEMPORARILY CLOSED AND RECONSTRUCTED
	現有中央分隔帶/安全島將暫時封閉並重建 EXISTING CENTRAL MEDIAN/REFUGE ISLAND TO BE TEMPORARILY CLOSED AND RECONSTRUCTED



將由工務計劃項目第7817CL號及第7827CL號(部分)元朗南發展第一階段工程及第二階段工程第一期的道路工程(下稱 "元朗南第一期發展項目")建造的行人路將永久封閉並改建為地面行車道
FUTURE FOOTPATH UNDER PWP ITEM NOS. 7817CL AND 7827CL (PART) ROAD WORKS UNDER YUEN LONG SOUTH DEVELOPMENT STAGE 1 WORKS AND STAGE 2 WORKS, PHASE 1 (HEREAFTER CALLED "YLS FIRST PHASE DEVELOPMENT") TO BE PERMANENTLY CLOSED AND CONVERTED INTO AT-GRADE CARRIAGEWAY



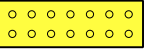
將由元朗南第一期發展項目建造的行人路將永久封閉並改建為美化市容地帶
FUTURE FOOTPATH UNDER YLS FIRST PHASE DEVELOPMENT TO BE PERMANENTLY CLOSED AND CONVERTED INTO AMENITY AREA



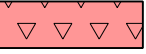
將由元朗南第一期發展項目建造的美化市容地帶將永久封閉並改建為行人路
FUTURE AMENITY AREA UNDER YLS FIRST PHASE DEVELOPMENT TO BE PERMANENTLY CLOSED AND CONVERTED INTO FOOTPATH



將由元朗南第一期發展項目建造的地面/高架行車道將暫時封閉並重建
FUTURE AT-GRADE/ELEVATED CARRIAGEWAY UNDER YLS FIRST PHASE DEVELOPMENT TO BE TEMPORARILY CLOSED AND RECONSTRUCTED



將由元朗南第一期發展項目建造的行人路將暫時封閉並重建
FUTURE FOOTPATH UNDER YLS FIRST PHASE DEVELOPMENT TO BE TEMPORARILY CLOSED AND RECONSTRUCTED



將由工務計劃項目第7827CL號(部分)元朗南第二期發展的道路工程(下稱 "元朗南第二期發展項目")建造的地面/高架行車道將暫時封閉並重建
FUTURE AT-GRADE/ELEVATED CARRIAGEWAY UNDER PWP ITEM NO. 7827 (PART) ROAD WORKS UNDER YUEN LONG SOUTH DEVELOPMENT - SECOND PHASE DEVELOPMENT (HEREAFTER CALLED "YLS SECOND PHASE DEVELOPMENT") TO BE TEMPORARILY CLOSED AND RECONSTRUCTED



將由元朗南第一期發展項目建造的直立式隔音屏障將改移
FUTURE VERTICAL NOISE BARRIER UNDER YLS FIRST PHASE DEVELOPMENT TO BE REALIGNED



將由元朗南第二期發展項目建造的懸臂式隔音屏障將改移
FUTURE CANTILEVER NOISE BARRIER UNDER YLS SECOND PHASE DEVELOPMENT TO BE REALIGNED



將由元朗南第二期發展項目建造的直立式隔音屏障將改移
FUTURE VERTICAL NOISE BARRIER UNDER YLS SECOND PHASE DEVELOPMENT TO BE REALIGNED

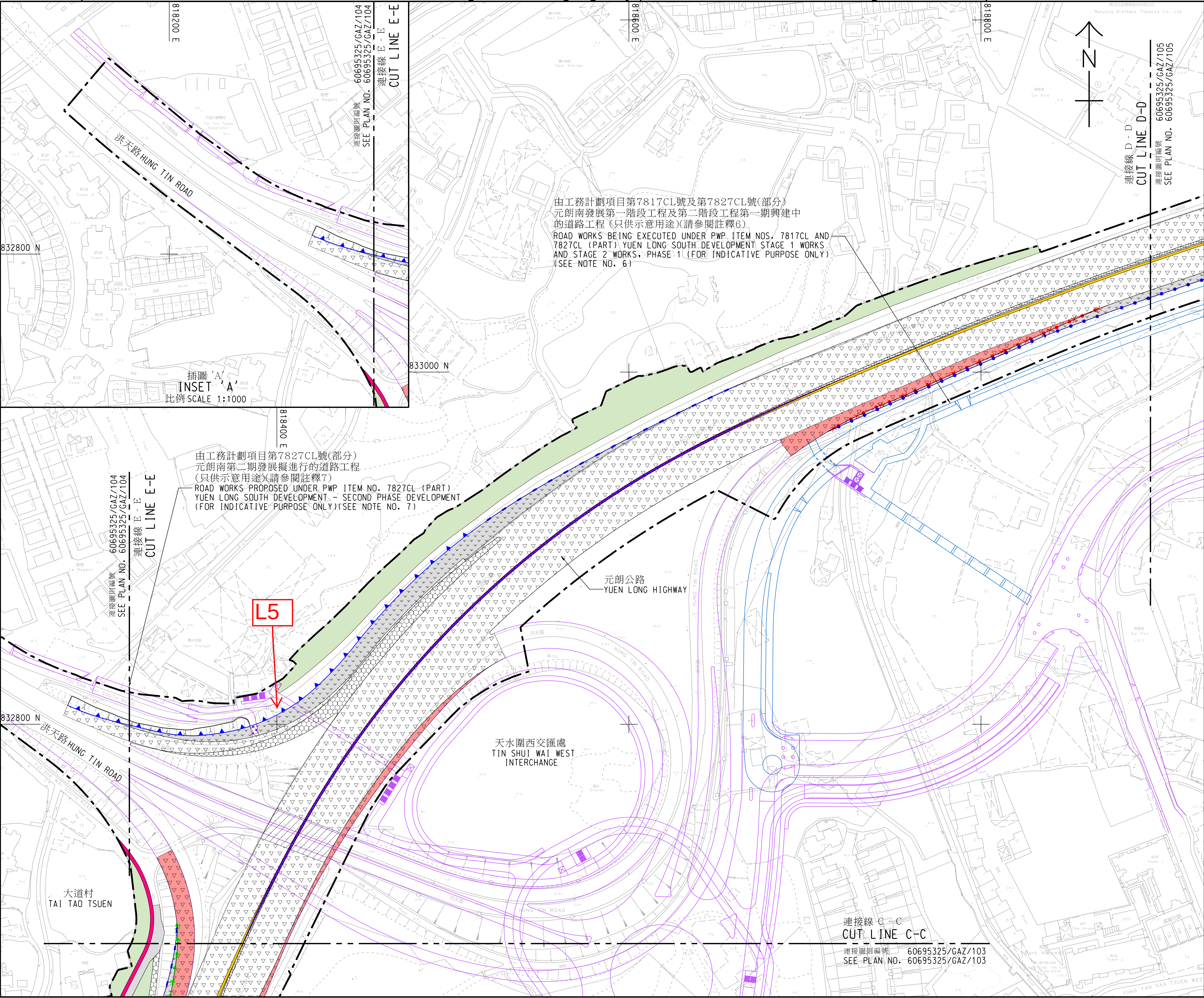
註釋:

NOTES:

- 除另有指明外，所有量度以米為單位。
ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED.
- 所有水平均為約數，以米為單位，並在香港主水平基準以上。
ALL LEVELS ARE APPROXIMATE VALUES AND IN METRES ABOVE HONG KONG PRINCIPAL DATUM.
- 如有需要，施工區界限內的部分現有地面行車道、高架行車道、行人路和中央分隔帶/安全島或會分階段暫時封閉。
SECTIONS OF THE EXISTING AT-GRADE CARRIAGEWAYS, ELEVATED CARRIAGEWAYS, FOOTPATHS AND CENTRAL MEDIANS/REFUGE ISLANDS WITHIN THE LIMIT OF WORKS AREA MAY BE TEMPORARILY CLOSED IN PHASES AS AND WHEN REQUIRED.
- 如有需要，斜坡穩固工程或會在施工區界限之內進行。
SLOPE STABILIZATION WORKS MAY BE CARRIED OUT WITHIN THE LIMIT OF WORKS AREA AS AND WHEN REQUIRED.
- 工務計劃項目第7817CL號及第7827CL號(部分)元朗南發展第一階段工程及第二階段工程第一期的道路工程見圖則第60566218/GAZ/100號至60566218/GAZ/112號所示及其附連的計劃內說明，該圖則及計劃於2021年3月26日及2021年4月1日的憲報公告編號1637提述。相關道路工程已根據道路(工程、使用及補償)條例(第370章)於2022年2月8日獲授權進行。
THE ROAD WORKS PROPOSED UNDER PWP ITEM NOS. 7817CL AND 7827CL (PART) YUEN LONG SOUTH DEVELOPMENT STAGE 1 WORKS AND STAGE 2 WORKS, PHASE 1 ARE SHOWN ON PLANS NOS. 60566218/GAZ/100 TO 60566218/GAZ/112 AND DESCRIBED IN THE SCHEME ANNEXED THERETO, WHICH PLANS AND SCHEME ARE REFERRED TO IN GAZETTE NOTICE NO. 1637 PUBLISHED ON 26 MARCH 2021 AND 1 APRIL 2021. SUCH ROAD WORKS HAVE BEEN AUTHORIZED UNDER THE ROADS (WORKS, USE AND COMPENSATION) ORDINANCE (CAP. 370) ON 8 FEBRUARY 2022.
- 工務計劃項目第7827CL號(部分)元朗南第二期發展的道路工程見圖則第60630968/GAZ/100號至60630968/GAZ/115號所示及其附連的計劃內說明，該圖則及計劃於2023年6月2日及2023年6月9日的憲報公告編號3284提述。
THE ROAD WORKS PROPOSED UNDER PWP ITEM NO. 7827CL (PART) YUEN LONG SOUTH DEVELOPMENT - SECOND PHASE DEVELOPMENT ARE SHOWN ON PLANS NOS. 60630968/GAZ/100 TO 60630968/GAZ/115 AND DESCRIBED IN THE SCHEME ANNEXED THERETO, WHICH PLANS AND SCHEME ARE REFERRED TO IN GAZETTE NOTICE NO. 3284 PUBLISHED ON 2 JUNE 2023 AND 9 JUNE 2023.

工程名稱 PROJECT TITLE 工務計劃項目第 888TH 號 元朗公路 (藍地至唐人新村段) 擴闊工程 PWP ITEM NO. 888TH WIDENING OF YUEN LONG HIGHWAY (SECTION BETWEEN LAM TEI AND TONG YAN SAN TSUEN)	
圖則名稱 PLAN TITLE 根據<<道路(工程、使用及補償)條例>> (第370章)而在憲報公布之圖則 PLAN FOR GAZETTING UNDER ROADS (WORKS, USE AND COMPENSATION) ORDINANCE (CHAPTER 370)	
圖則編號 PLAN NO. 60695325/GAZ/LEGEND	圖例 LEGEND 比例 SCALE A1 1 : 1000
辦事處 OFFICE 主要工程管理處 MAJOR WORKS PROJET MANAGEMENT OFFICE	
 路政署 HIGHWAYS DEPARTMENT	

Junction Improvement Scheme under PWP Item No. 888TH - Widening of Yuen Long Highway (section between Lam Tei and Tong Yan San Tsuen)



註釋:
NOTES:

- 除另有指明外，所有量度以米為單位。
ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED.
- 所有水平均為約數，以米為單位，並在香港主水平基準以上
ALL LEVELS ARE APPROXIMATE VALUES AND IN METRES ABOVE HONG KONG PRINCIPAL DATUM.
- 如有需要，施工區界限內的部分現有地面行道、高架行道、行人路和中央分隔帶/安全島或會分階段暫時封閉。
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SLOPE STABILIZATION WORKS MAY BE CARRIED OUT WITHIN THE LIMIT OF WORKS AREA AS AND WHEN REQUIRED.
- 圖例載於圖則編號60695325/GAZ/LEGEND。
DETAILS OF LEGEND ARE SHOWN ON PLAN NO. 60695325/GAZ/LEGEND.
- 工務計劃項目第7817CL號及第7827CL號(部分)元朗南發展第一階段工程及第二階段工程第一期的道路工程見圖則第60566218/GAZ/100號至60566218/GAZ/112號所示及其附連的計劃內說明，該圖則及計劃於2021年3月26日及2021年4月1日的憲報公告編號1637提述。相關道路工程已根據道路(工程、使用及補償)條例(第370章)於2022年2月8日獲授權進行。
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THE ROAD WORKS PROPOSED UNDER PWP ITEM NO. 7827CL (PART) YUEN LONG SOUTH DEVELOPMENT - SECOND PHASE DEVELOPMENT ARE SHOWN ON PLANS NOS. 60630968/GAZ/100 TO 60630968/GAZ/115 AND DESCRIBED IN THE SCHEME ANNEXED THERETO, WHICH PLANS AND SCHEME ARE REFERRED TO IN GAZETTE NOTICE NO. 3284 PUBLISHED ON 2 JUNE 2023 AND 9 JUNE 2023.

工程名稱 PROJECT TITLE
工務計劃項目第 888TH 號
元朗公路 (藍地至唐人新村段)
擴闊工程
PWP ITEM NO. 888TH
WIDENING OF YUEN LONG HIGHWAY
(SECTION BETWEEN LAM TEI AND
TONG YAN SAN TSUEN)

圖則名稱 PLAN TITLE
根據<<道路(工程、使用及補償)條例>>
(第370章)而在憲報公布之圖則
PLAN FOR GAZETTING UNDER ROADS
(WORKS, USE AND COMPENSATION)
ORDINANCE (CHAPTER 370)

五張之第四張
SHEET 4 OF 5

圖則編號 PLAN NO.	比例 SCALE
60695325/GAZ/104	A1 1 : 1000

辦事處 OFFICE
主要工程管理處
MAJOR WORKS PROJECT
MANAGEMENT OFFICE

路政署
HIGHWAYS
DEPARTMENT



APPENDIX 4

ENVIRONMENTAL ASSESSMENT



**Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories
Environmental Assessment Report**

Prepared for:
Right Fortune Investment Limited

12 August 2026

Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Environmental Assessment Report

Prepared for
Right Fortune Investment Limited

For and on behalf of
EnviroSolutions & Consulting

Ben RIDLEY
Managing Director, Hong Kong & GBA

ESC Project No. J24.00706.HK.01
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1.1	Draft Report	ALW	DL	AW	23/03/2026
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2.2	Draft Report	ALW	DL	AW	17/07/2026
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1 INTRODUCTION

1.1 Project Background

1.1.1 EnviroSolutions & Consulting Ltd (“ESC”) has been engaged to prepare this Environmental Assessment (“EA”) report to support a rezoning application under Section 12A (“S12A”) of the *Town Planning Ordinance* (“TPO”) to amend the zoning of the Site at Lot Nos. 2188 & 398RP in D.D. 121, Hung Shui Kiu, New Territories (“the Site”) under the Approved Tong Yan San Tsuen Outline Zoning Plan (“OZP”) No. S/YL-TYST/14.

1.1.2 The Site occupies an area of approx. 2,138m² and is currently zoned “Comprehensive Development Area” (“CDA”) and “Green Belt” (“GB”) on the Approved OZP gazetted on 20 August 2021. The Applicant proposed to rezone the Site to “Residential (Group A)4” (“R(A)4”) to facilitate a Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) (“the Proposed Development”).

1.2 Site Description

1.2.1 The Site location and its environs are shown in **Figure 1-1**. The uses surrounding the site include:

- To the North: Fui Sha Wai South Road and Hung Tin Road
- To the East: Temporary structures and Tai Tao Tsuen
- To the South and West: Low-rise residential developments (i.e. Uptown, the Woodsville and the Woodside), and temporary structures

1.3 Project Description

1.3.1 The site area will be approximately 2,138m². The layout plans of the Proposed Development is shown in **Appendix A**, or can be referred to Appendix 1 of Planning Statement, including:

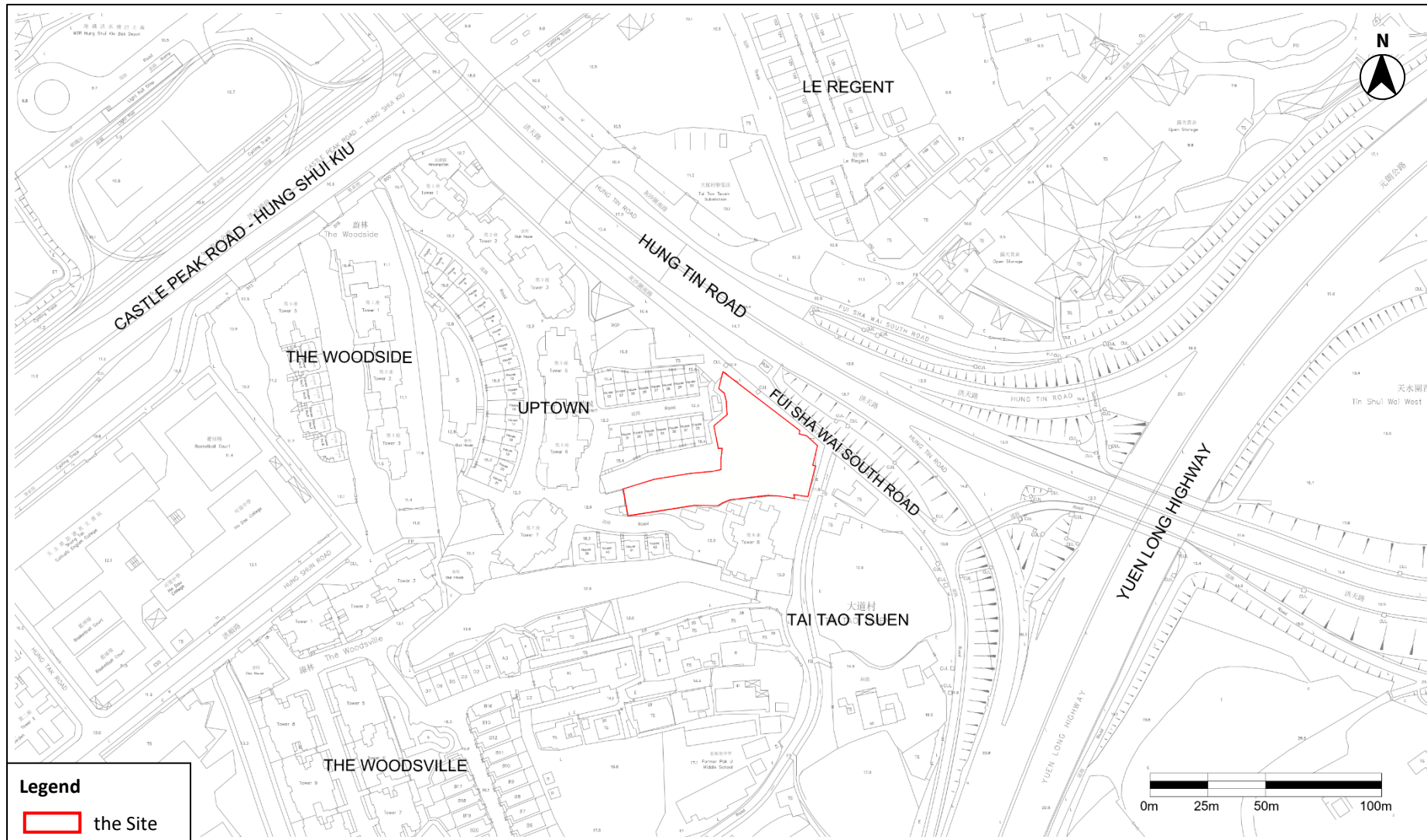
- A 7-storey RCHE
- Two 6-storey residential buildings atop the RCHE
- Provision of private open spaces
- Car parking spaces

1.4 Objectives of the Report

1.4.1 The objectives of this EA Report are to:

- Assess the potential environmental impacts arising from the operation of the Proposed Development, in terms of air quality, noise, water quality, waste management and land contamination, with respect to the guidance for environmental considerations provided in Chapter 9 Environmental of the Hong Kong Planning Standards & Guidelines (HKPSG).
- Recommend appropriate measures to mitigate any impacts if necessary.

Figure 1-1 Site Location and Its Environs



2 AIR QUALITY

2.1 Environmental Legislation and Standards

Air Quality Objectives

- 2.1.1 The *Air Pollution Control Ordinance* (“APCO”) stipulates the Air Quality Objectives (“AQOs”) shown in **Table 2-1**.

Table 2-1 Hong Kong Air Quality Objectives

POLLUTANT	AVERAGING TIME	CONCENTRATION LIMIT ^[Note 1] ($\mu\text{g}/\text{m}^3$)	NUMBER OF EXCEEDANCES ALLOWED
Sulphur Dioxide (“SO ₂ ”)	10-minute	500	3
	24-hour	40	3
Respirable Suspended Particulates (“RSP” or “PM ₁₀ ”) ^[Note 2]	24-hour	75	9
	Annual	30	Not applicable
Fine Suspended Particulates (“FSP” or “PM _{2.5} ”) ^[Note 3]	24-hour	37.5	18
	Annual	15	Not applicable
Nitrogen Dioxide (“NO ₂ ”)	1-hour	200	18
	24-hour	120	9
	Annual	40	Not applicable
Ozone (“O ₃ ”)	8-hour	160	9
	Peak season	100	Not applicable
Carbon Monoxide (“CO”)	1-hour	30,000	0
	8-hour	10,000	0
	24-hour	4,000	0
Lead (“Pb”)	Annual	0.5	Not applicable

Notes:

- All measurements of the concentration of gaseous air pollutants, i.e. SO₂, NO₂, O₃ and CO, are to be adjusted to a reference temperature of 293 Kelvin and a reference pressure of 101.325 kilopascal.
- Respirable suspended particulates mean suspended particles in air with a nominal aerodynamic diameter of 10 μm or less.
- Fine suspended particulates mean suspended particles in air with a nominal aerodynamic diameter of 2.5 μm or less.

Air Pollution Control (Construction Dust) Regulation

- 2.1.2 The *Air Pollution Control (Construction Dust) Regulation* enacted under Section 43 of the APCO, provides definition of notifiable and regulatory works to make sure that appropriate dust control requirements have been properly put in place so that dust emissions for various construction activities will be controlled.

- 2.1.3 The Regulation requires that the contractor shall give advance notice to the Environmental Protection Department (“EPD”) for any notifiable work^[Ref.# 1] and shall conform to the Schedule of the Regulation when conducting notifiable and regulatory works, and further implement dust control and suppression measures.

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

- 2.1.4 This Regulation comes into force on June 2015 and mandates that all Non-road Mobile Machinery (“NRMM”), unless they are exempted, shall meet the prescribed emission standards. All regulated machines sold or leased for use in Hong Kong that are approved or exempted must bear a proper label in a prescribed format issued by EPD.

Hong Kong Planning Standards and Guidelines (“HKPSG”)

- 2.1.5 Chapter 9 Environment in HKPSG recommends buffer distances for roads as summarised in **Table 2-2**.

Table 2-2 HKPSG Recommended Buffer Distances for Roads

POLLUTION SOURCE	TYPE OF ROAD	BUFFER DISTANCE	PERMITTED USES
Road and Highways	Trunk Road and Primary Distributor	>20m	Active and passive recreational use
		3 – 20m	Passive recreational use
		<3m	Amenity areas
	District Distributor	>10m	Active and passive recreational use
		<10m	Passive recreational uses
	Local Distributor	>5m	Active and passive recreational use
		<5m	Passive recreational use
	Under Flyovers	-	Passive recreational use

Source: Table 3.1 of Chapter 9 Environment of HKPSG

- 2.1.6 Chapter 9 of the HKPSG also recommends buffer distances for Industrial areas / chimneys as summarised in **Table 2-3**.

Table 2-3 HKPSG Recommended Buffer Distances for Industrial areas / chimneys

POLLUTION SOURCE	DIFFERENCE IN HEIGHT BETWEEN INDUSTRIAL CHIMNEY EXIT AND THE SITE	BUFFER DISTANCE	PERMITTED USES
Industrial Area	<20m	>200m	Active and passive recreational use
		5 – 200m	Passive recreational use
	20 – 30m	>100m	Active and passive recreational use
		5-100m	Passive recreational use

¹ As stipulated by the regulation, notifiable works include site formation, reclamation, demolition of a building, work carried out in any part of a tunnel that is within 100m of any exit to the open air, construction of the foundation or a building, construction of the superstructure of a building and road construction work.

POLLUTION SOURCE	DIFFERENCE IN HEIGHT BETWEEN INDUSTRIAL CHIMNEY EXIT AND THE SITE	BUFFER DISTANCE	PERMITTED USES
	30 – 40m	>50m	Active and passive recreational use
		5 – 50m	Passive recreational use
	>40m	>10m	Active and passive recreational use

Source: Table 3.1 of Chapter 9 Environment of HKPSG

2.2 Identification of Air Sensitive Receiver (“ASRs”)

- 2.2.1 The first layer ASRs within 500m assessment area closest from the Site have been identified. The assessment area of 500m from the site boundary and location of the representative ASRs are shown in **Figure 2-1** and summarised in **Table 2-4**.

Table 2-4 Identified Representative ASRs

ASR ID	DESCRIPTION	LAND USE	DISTANCE TO SITE BOUNDARY, m	ASSESSMENT HEIGHT, mPD
A01	Uptown House 38	Residential	2	~15.4
A02	The Woodside Tower 3	Residential	132	~15.4
A03	The Woodsville A1	Residential	67	~19.1
A04	Village House No.13	Residential	63	~12.9
A05	Village House No.143	Residential	75	~10.8
A06	Shung Tak Catholic English College	Educational	124	~12.1
A07	Proposed Development (i.e. this Project)	Residential	N/A	

2.3 Air Quality Impact during Construction Phase

- 2.3.1 Dust generated from various construction activities and exhaust emissions from construction machinery and vehicles are the major sources of air quality impacts during the construction phase. Construction activities such as excavation, stockpiling, earth moving, and the transfer or handling of dusty materials may give rise to fugitive dust emissions. However, as the Proposed Development does not involve basement construction and deep excavation is not required, the extent of excavation works will be limited.
- 2.3.2 Based on the best available information at this stage, it is assumed that the site area (approximately 2,138m²) would be the active workfront area and used for estimating the quantities of excavated materials in a conservative approach. Thus, approx. 12,915 tonnes of inert C&D materials (comprising 8,620 tonnes from the Site Formation & Foundation Stage and 4,295 tonnes from the Superstructure Stage) are estimated to be generated over the 4-year construction period as outlined in **Section 2.3.5**. Without a detailed construction program in current stage, it is assumed that the Site Formation Stage & Foundation Stage would last for 12 months (6 working days per week), resulting in an average generation of approximately 30 tonnes of excavated materials per day (i.e. 8,620 / (6 x 4 x 12) days). For the Superstructure Stage, assuming a duration of 36 months (6 workdays per week),

approximately 5 tonnes of excavated materials will be generated per day on average (i.e. 4,295 / (6 x 4 x 36)) days. Assuming an average dump truck capacity of 15 tonnes, it is estimated that about 2 truck trips per day and 1 truck trip per day will be required for material removal during the Site Formation & Foundation Stage and Superstructure Stage respectively. Given the relatively low frequency of daily truck trips, the associated emissions from the operation of dump trucks are expected to be limited.

- 2.3.3 Based on the best available information, a tentative plant inventory of Powered Mechanical Equipment (PME) for the Proposed Development is summarized in **Table 2-5**. Under the worst-case scenario, it is assumed that one to two units of each PME type may operate concurrently on-site to support different construction activities.

Table 2-5 *Tentative Plant Inventory for Key Construction Activities*

KEY CONSTRUCTION ACTIVITIES	POSSIBLE PME REQUIRED		ASSUMED QUANTITY
Site Clearance / Formation	- Dump Truck - Lorry with crane/grab - Generator - Air Compressor - Submersible Water Pump	- Excavator - Breaker - Road Roller - Soil Compactor	A maximum of 2 units of each PME are assumed operating concurrently at this stage on-site
Foundation / Piling Works	- Dump Truck - Lorry with crane/grab - Generator - Air Compressor - Submersible Water Pump - Welding Machine - Excavator	- Piling Machine - Bored Piling Machine - Rotator/ Oscillator - Reverse Circulation Drill (RCD) - Concrete Lorry Mixer - Concrete Pump - Breaker	A maximum of 2 units of each PME are assumed operating concurrently at this stage on-site
Construction of Superstructure	- Dump Truck - Lorry with crane/grab - Generator - Air Compressor - Submersible Water Pump	- Tower Crane - Mobile Crane - Welding Machine - Bar bender and cutter (electric) - Concrete Lorry Mixer - Concrete Pump - Vibratory Poker - Breaker, hand-held - Drill/grinder, hand-held (electric) - Saw, circular, wood	A maximum of 2 units of each PME are assumed operating concurrently at this stage on-site

- 2.3.4 Emissions from Powered Mechanical Equipment (PME) and construction vehicles would mainly comprise nitrogen oxides (NO_x), respirable suspended particulates (RSP) and other combustion-related pollutants. The *Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation* regulates emissions from non-road mobile machinery (NRMM) used in

construction activities. To minimize exhaust emissions during the construction phase, only approved NRMM should be used and exempted NRMM should be avoided. In addition, construction plant and equipment should be connected to the mains electricity supply where practicable, and the use of diesel generators and diesel-powered equipment should be avoided as far as practicable. The engines of construction plant and equipment should also be switched off when not in use to avoid unnecessary idling emissions.

- 2.3.5 Considering the small number of PME anticipated to operate concurrently on-site, the limited daily quantity of excavated material requiring handling and transportation, the low frequency of dump truck movements, and the implementation of the recommended mitigation measures as detailed in **paragraph 2.4**, adverse air quality impacts during the construction phase are not anticipated.
- 2.3.6 The operation of the Proposed Development is estimated to commence in 2031, with a tentative construction period from 2028 to 2031. Based on the best available information from the Town Planning Board, a concurrent project involving a Proposed Residential Development at Tong Yan San Tsuen (Application No. Y/YL-TYST/9), located approximately 280m from the Project Site, has been identified. As the detailed construction programme is yet to be confirmed, the potential for overlapping construction works will be reviewed at a later stage when more information is available. With the implementation of the dust control measures in accordance with the Air Pollution Control (Construction Dust) Regulation, the adverse cumulative air quality impact during the construction phase is not anticipated. The location of the concurrent project is shown in **Figure 2-1**.
- 2.3.7 Furthermore, the Widening of Yuen Long Highway (Section between Lam Tei and Tong Yan San Tsuen) is situated in closest approximately 20m to the Project Site. The scheme is currently under study with a target commissioning date in 2033. As the detailed construction programme is yet to be confirmed, the potential for overlapping construction works will be reviewed at a later stage when more information is available. Similarly, for another Proposed Residential Development (Application No. Y/YL-TYST/10) located approximately 325m from the Project Site, will also be evaluated for the overlapping period of the construction phase in later stage when more information is available. In general, potential cumulative air quality impacts from these projects can be managed through the implementation of dust control measures in accordance with the Air Pollution Control (Construction Dust) Regulation. Also, the contractor of this Project should maintain a close liaison with the contractors of concurrent projects to avoid overlapping of heavy or dusty construction works where practicable. Therefore, the adverse cumulative air quality impact during the construction phase is not anticipated.

2.4 Mitigation Measures

Construction Phase

- 2.4.1 The *Air Pollution Control (Construction Dust) Regulation* stipulated a number of air quality control measures. With these good practices, air quality impact arising from construction activities can be controlled, and therefore adverse impact on air quality is not expected.
- 2.4.2 The following good practices and air quality control measures shall be implemented during the construction phase to control the air quality impact on the air sensitive uses:

- Hard paving surface on open area, regular spraying water on exposed site surfaces and unpaved roads to reduce dust emissions, particularly during dry weather.
- Before, during and immediately after any excavation or earth moving operation, the working site shall be sprayed with water to keep the surface wet.
- Spraying water frequently for extra dusty areas and areas close to ASRs.
- Any stockpile of dusty materials shall be either covered entirely by impervious sheeting, placed in an area sheltered on the top and three sides, or sprayed with water so as to maintain the entire surface wet.
- Before loading, unloading or transfer any dusty materials, wet the dusty materials as far as practicable.
- Before, during and immediately after uprooting of trees, shrubs, or vegetation or for the removal of boulders, poles, pillars or temporary or permanent structures, the working area shall be watered so as to maintain the entire surface wet.
- All demolished items (including trees, shrubs, vegetation, boulders, poles, pillars, structures, debris, rubbish and other items arising from the site clearance) that may generate dust particles shall be covered entirely by impervious sheeting or placed in an area sheltered on the top and three sides within a day of demolition.
- Tarpaulin covering of all dusty vehicles loads transported to, from and between site locations.
- Vehicle washing facilities including a high-pressure water jet shall be provided at every discernible or designated vehicle exit point. The area for vehicle washing and the section of the road between the washing facilities and the exit point shall be paved with concrete, bituminous materials or hardcore.
- At least 3.5m high hoarding from ground level shall be provided along site boundary where adjoins a road, streets or accessible to other public premises except for a site entrance or exit. For the portion of the site boundary in the vicinity of ASR1 to ASR6, site hoarding higher than 3.5m above ground should be erected as far as practicable to minimise any potential air quality impact on these ASRs.
- Where possible, wet the surface of façade grinding work.
- Equip vacuum cleaner on grinder for façade grinding work to collect dusty particles where possible.
- Main haul road shall be kept wet by spraying water. Imposition of speed controls for vehicles on site haul roads and confine haulage and delivery vehicles to designated roadways inside the site.
- A portion of any road leading only to a construction site that is within 30m of a discernible or designated vehicle entrance or exit shall be kept clear of dusty materials.
- Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from the ASRs.
- Every stock of more than 20 bags of cement or dry Pulverised Fuel Ash ("PFA") should be covered entirely by impervious sheeting or placed in an area sheltered on the top and three sides.

- For the construction site cleanliness and tidiness, the Works Branch Development Bureau Technical Circular (Works) No. 8/2010 Enhanced Specification for Site Cleanliness and Tidiness should be followed as far as possible.
- Using exempted NRMMS should be avoided and only NRMMS approved by the EPD shall be used during the construction phase.
- Electrified NRMMS shall be used as far as practicable to minimize local emissions.
- Electricity power supply shall be prioritized for construction equipment to minimize the reliance on diesel-powered machinery as far as possible.

2.5 Air Quality Impact during Operation Phase

Chimney Emission

- 2.5.1 A site visit was conducted on 9 January 2025 to identify air pollution sources in the vicinity of the Site. No chimney was found within 200m from the Site during the site visit. The buffer distance between industrial chimneys and air sensitive uses of the Proposed Development recommended in Table 3.1 of Chapter 9 in HKPSG is fulfilled in this case. As no active/heavy industrial operation during the site visit, adverse I/R interface problem is not anticipated. Although through desktop review, two chimneys were observed at around 360m and 400m away from the Project Site within the 500m assessment area, buffer distance requirements recommended in Table 3.1 of Chapter 9 in HKPSG can be fulfilled for these two chimneys, no adverse air quality impact is anticipated. Therefore, no adverse air quality impact from chimney emission is expected.

Vehicular Emission from Open Road

- 2.5.2 Hung Tin Road, Fui Sha Wai South Road and an unnamed access road are the major roads in the vicinity of the Site as shown in **Figure 2-2**. With reference to the *Annual Traffic Census (“ATC”) 2024* published by the Transport Department (“TD”), Hung Tin Road is classified as District Distributors (“DD”). Table 3.1, Chapter 9 of HKPSG recommends a minimum buffer distance of 10m between DD and air sensitive uses, which has been adopted for Hung Tin Road.
- 2.5.3 Fui Sha Wai South Road and the unnamed access road are not listed in the *ATC 2024*. Thus, TD was contacted for advice on the road types of these two roads. According to the TD’s reply dated 28 August 2025, TD has no comments for Fui Sha Wai South as a Local Distributor (“LD”) and the unnamed access road as a Feeder Road. Given that the Feeder Road only serves localized traffic with low volume and minimal heavy vehicle percentage, its emission impact is expected to be limited. Accordingly, a 5m buffer distance is adopted, which is considered to be sufficient for these road types in accordance with HKPSG chapter 9 Table 3.1. The enquiry letter and reply from TD are attached in **Appendix B**.
- 2.5.4 It should be noted that the internal road within the Proposed Development will serve as Emergency Vehicular Access (EVA) only, therefore, buffer distance requirement is not applicable to this road section. As illustrated in **Figure 2-2**, most of the site area could satisfy the buffer distances of Hung Tin Road, Fui Sha Wai South Road and the unnamed access road. As shown in **Figure 2-2**, for Hung Tin Road, there shall be no air-sensitive use including openable window, fresh air intake or recreational use in open space located within the buffer zone. And for the Fui Sha Wai South Road and Unnamed Access Road, although some portion

of the building block encroaches into their buffer zones, confirmation has been sought from client that no air-sensitive use including openable window, fresh air intake or recreational use in open space shall be located within the buffer zones. As such, adverse air quality impact from vehicular emission on the Site is not anticipated.

Other Potential Vehicular Emission Sources

- 2.5.5 Through desktop review, a bus terminus located near Hung Fuk Shopping Centre, which to the northwest of the Project Site is observed. The distance between the bus terminus to the nearest project site boundary is around 385m as shown in **Figure 2-3**. With sufficient distance to the Project Site, potential adverse air quality impact arising from the emission of the bus terminus is not anticipated.
- 2.5.6 A total of nine existing carparks, comprising both open and multi-storey facilities, were identified within the 500m Assessment Area as shown in **Figure 2-3**. The closest carpark is situated approximately 300m northwest of the Project Site. Due to the considerable buffer distance, adverse air quality impact from these existing carparks on the proposed sensitive uses is not anticipated.
- 2.5.7 Furthermore, a planned carpark area is proposed on the ground floor within the Project Site. The indicative location of the exhaust air outlets is shown in **Figure 2-2**. It should be located as far as possible from nearby air-sensitive use to prevent any potential air nuisance in the future design. In addition, the design and operation of the carpark shall follow EPD’s ProPECC PN 2/96 (Control of Air Pollution in Car Parks). Thus, the emissions will be properly controlled in accordance with the guidelines and adverse air quality impact is not anticipated.

Odour Impact

- 2.5.8 Based on the site visit conducted on 9 January 2025, no odour smell was detected around the Project Site, although the Pun Chun Sauce & Preserved Fruit Factory was identified as a potential odour source. Given that the factory is situated at a substantial distance of over 400m to the Project Site, odour emissions are expected to be significantly diluted and dispersed before reaching the Site. Considering the separation distance between the Project Site and the Pun Chun factory fulfilling the buffer distance requirements recommended in Section 3.3.9 of Chapter 9 in HKPSG, and the lack of offensive odour recorded during site visit, the adverse odour impact from the Pun Chun factory on the Project Site is not anticipated.
- 2.5.9 Furthermore, a planned Refuse Collection Point (i.e. RCP) is proposed on the ground floor within the Project Site. The design and operation of the RCP is for the exclusive use of the Proposed Development, and is designed as a fully enclosed structure in accordance with the CAP. 123H Building (Refuse Storage and Material Recovery Chambers and Refuse Chutes) Regulations and PNAP APP-35. Thus, the odour emissions will be properly controlled in accordance with the guidelines and adverse odour impact is not anticipated.

2.6 Conclusion

- 2.6.1 With the implementation of the recommended mitigation measures and good site practices, adverse impacts associated with air quality during the construction phase is not anticipated.

- 2.6.2 During operation phase, no adverse air quality impact on the Site from chimney, vehicular and odour emissions are anticipated with the sufficient buffer distance provided between air pollution sources and the Site boundary.
- 2.6.3 Overall, no adverse air quality impacts are anticipated during the construction and operation phases of the Proposed Development.

Figure 2-1 500m Assessment Area and Location of Representative ASRs

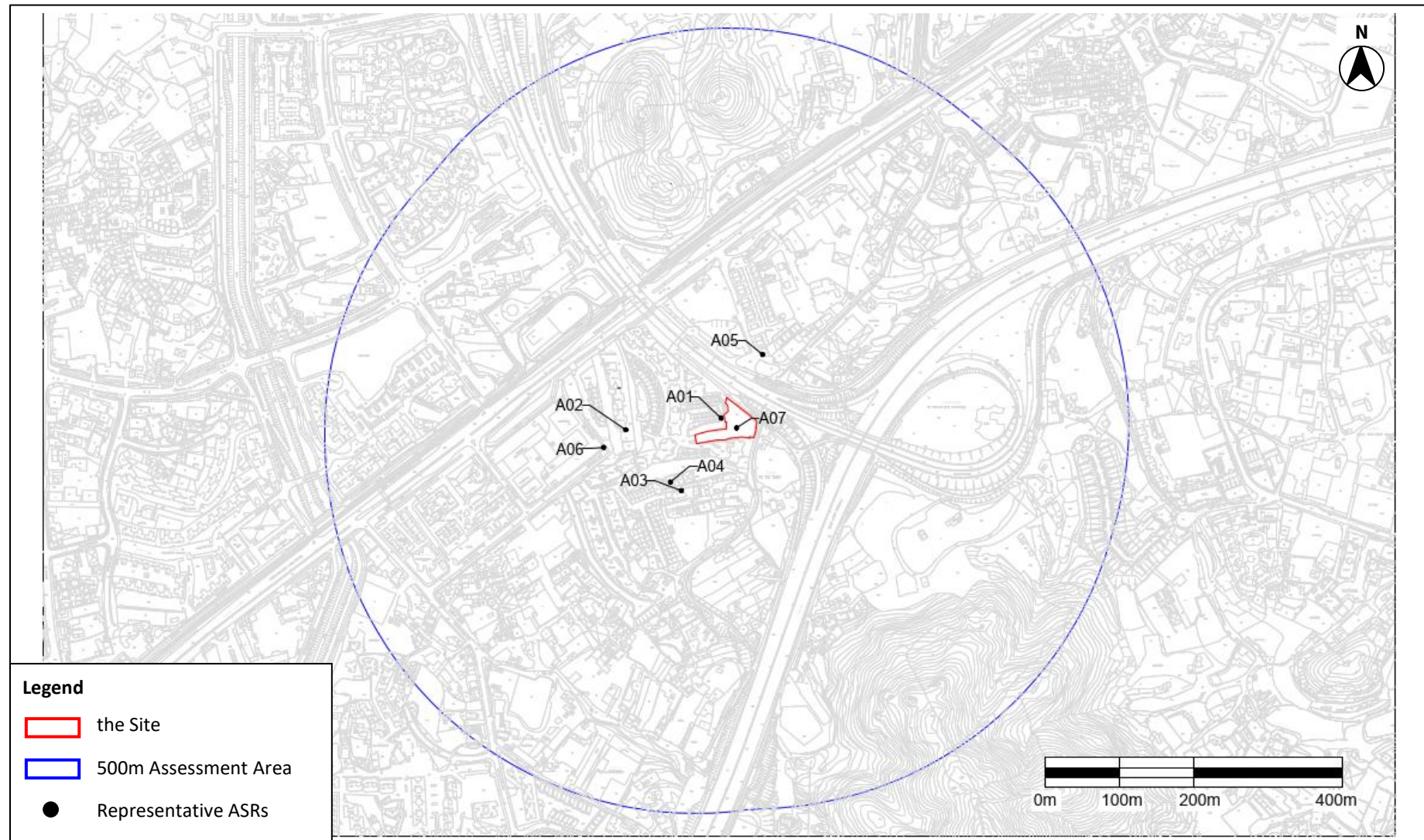


Figure 2-2 Buffer Distance Requirement from the Surrounding Roads and Indicative Location of Carpark Exhaust Outlet

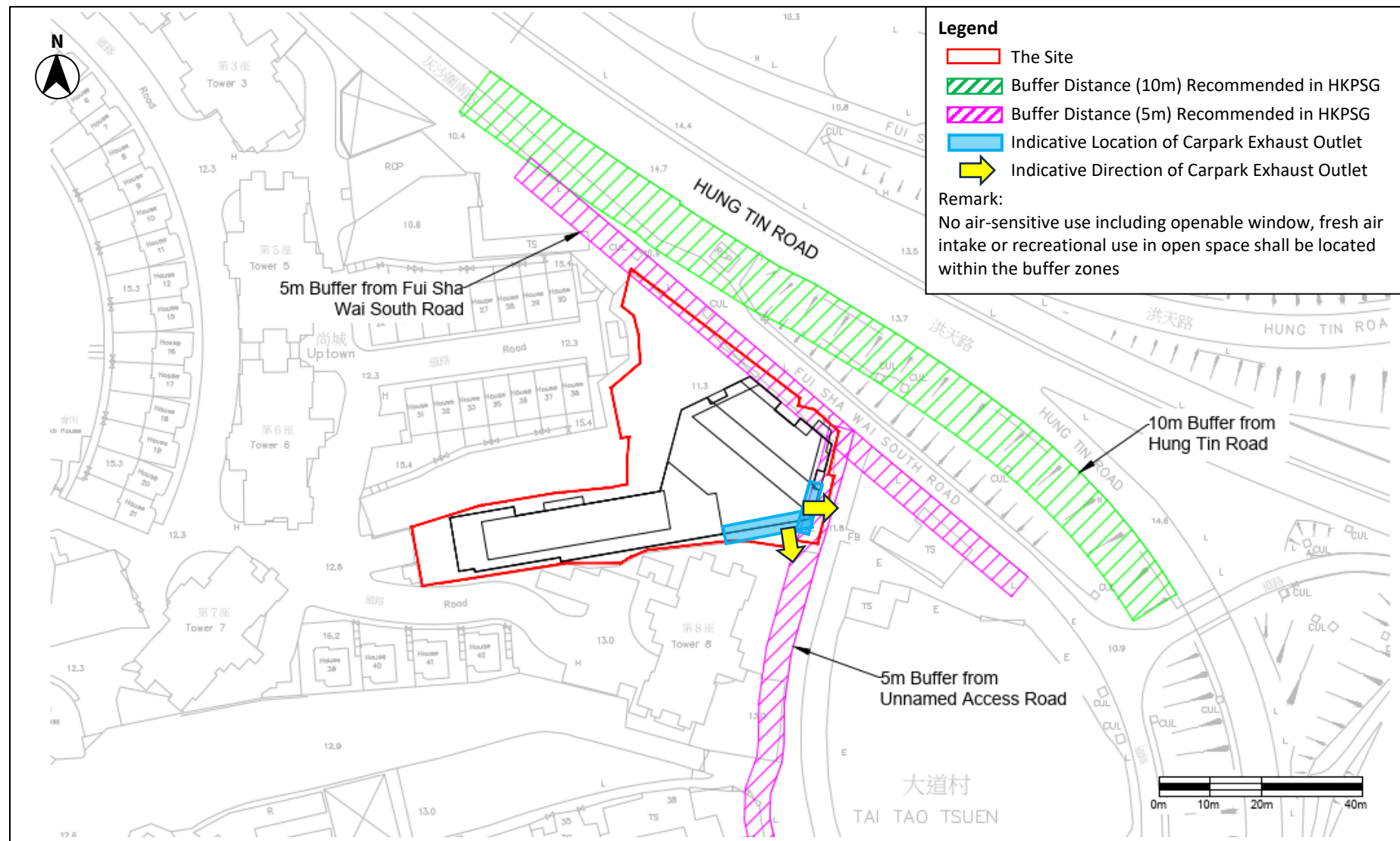
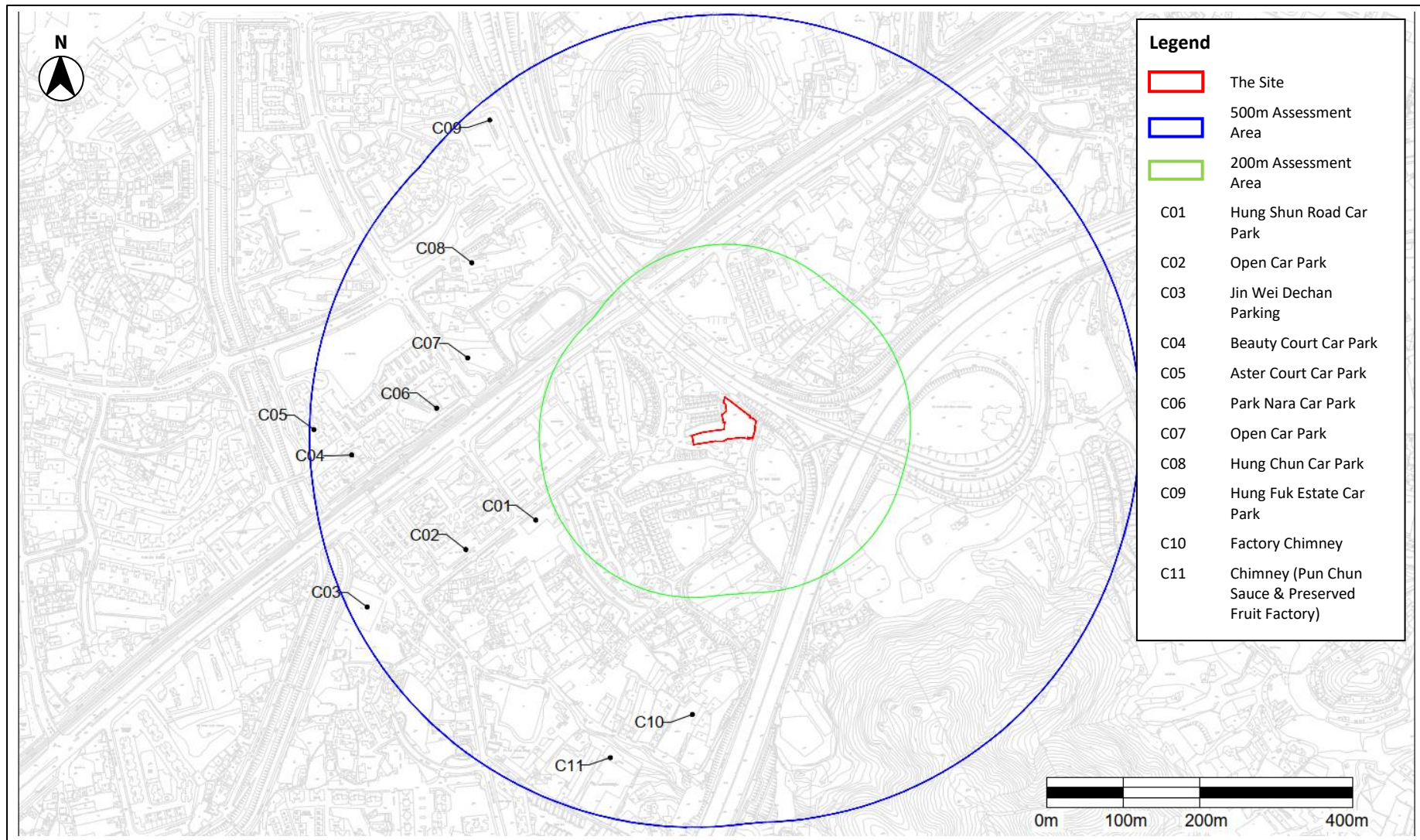


Figure 2-3 Location of Other Potential Vehicular Emission Sources and Chimneys within 500m Assessment Area



3 NOISE

3.1 Environmental Legislation and Standards

3.1.1 The principal legislation controlling environmental noise impact is the *Noise Control Ordinance* (“NCO”). In addition, some other key environmental legislation and standards applicable to noise control in Hong Kong are as follows:

- Hong Kong Planning Standards and Guidelines (“HKPSG”)
- Professional Persons Environmental Consultative Committee Practice Notes (“ProPECCPNs”) including
 - Application of Sound Insulation in Residential Buildings to Reduce Noise Transmission Between Units (“ProPECC PN 3/23”)
 - Planning of Residential Developments Against Road Traffic Noise (“ProPECC PN 4/23”)
 - Application of Innovative Noise Mitigation Designs in Planning Private Residential Developments against Road Traffic Noise Impact (“ProPECC PN 5/23”)
 - Minimizing Noise from Construction Activities (“ProPECC PN1/24”)

NCO (Cap. 400)

3.1.2 The *Noise Control Ordinance* (“NCO”) is the main piece of legislation controlling environmental noise impact. Subsidiary regulations and Technical Memoranda (“TMs”) enacted under NCO, provide detailed control criteria, measurement procedures and other technical matters. The TMs of NCO include:

- TM on Noise from Percussive Piling (“PP-TM”)
- TM on Noise from Construction Work other than Percussive Piling (“GW-TM”)
- TM on Noise from Construction Work in Designated Area (“DA-TM”)
- TM for the Assessment of Noise from Places Other Than Domestic Premises, Public Places or Construction Sites (“IND-TM”)

3.1.3 According to Plan No. EPD/AN/NT-01 for Yuen Long, Tin Shui Wai, Mai Po, Shek Kong and Kwu Tung on EPD Website, the Site entirely situates into Designated Area (“DA”) and so the DA-TM is applicable to this Project.

3.1.4 Besides, construction activities are limited by the following requirement stipulated in the NCO:

- Hand-held breakers having a mass of above 10kg and any air compressor capable of supplying compressed air at 500kPa or above must be fitted with Noise Emission Label (“NEL”) issued under the Noise Control (Hand-held Percussive Breakers) Regulation and Noise Control (Air Compressors) Regulation.
- Construction Noise Permit (“CNP”) shall be applied by the Contractor from EPD for any percussive piling at any time or any other construction activities conducted within restricted hours (for all days 7pm to 7am the next day and at all times on General Holidays including Sundays) as defined in NCO.

- 3.1.5 For fixed plant noise during operation phase, the requirements of IND-TM shall be complied with. Table 2 of IND-TM (recreated in **Table 3-1**) stipulates the day, evening and night time Acceptable Noise Levels (“ANLs”) for Noise Sensitive Receivers (“NSRs”) which considered the Influencing Factors (“IFs”) to determine the corresponding Area Sensitive Rating (“ASR”) in accordance with the IND-TM.

Table 3-1 Acceptable Noise Levels for Fixed Noise Source

TIME PERIOD	ANL, dB(A)		
	ASR “A”	ASR “B”	ASR “C”
Day (0700 to 1900 hours)	60	65	70
Evening (1900 to 2300 hours)			
Night (2300 to 0700 hours)	50	55	60

HKPSG

- 3.1.6 The noise criteria for planned fixed source shall follow the requirements of Table 4.1 of Chapter 9 of HKPSG:
- 5 dB(A) below the appropriate ANLs shown in Table 2 of IND-TM, and
 - The prevailing background noise levels
- 3.1.7 Road traffic noise standards for the following uses relying on opened windows for ventilation are recommended in Table 4.1 of Chapter 9 in HKPSG, recreated in **Table 3-2**.

Table 3-2 Summary of Road Traffic Noise Standards

USES	NOISE CRITERIA $L_{10}(1-HR)$ (dB(A))
All domestic premises including temporary housing accommodation	70
Hotels and hostels	70
Offices	70
Educational institutions including kindergartens, child care centres and all others where unaided voice communication is required	65
Places of public worship and courts of law	65
Diagnostic rooms and wards of hospitals, clinics, convalescences and residential care homes for the elderly	55

ProPECC PN 1/24 – Minimising Noise from Construction Activities

- 3.1.8 The noise arising from construction activities (other than percussive piling) during non-restricted hours (7am to 7pm from Monday to Saturday, not including Sunday and general holidays) should be minimized and not exceed the noise criteria as shown in **Table 3-3**. Besides the noise criteria, ProPECC PN 1/24 also recommends control measures for construction noise impact during non-restricted hours.

Table 3-3 Construction Noise Criteria for Non-Restricted Hours

NOISE SENSITIVE USE	L_{eq} (30min) NOISE CRITERIA BETWEEN 0700 AND 1900 ON ANY DAY NOT BEING A SUNDAY OR GENERAL HOLIDAY
All domestic premises Temporary housing accommodation Hostels Convalescences homes Homes for the aged	75 dB(A)
Places of public worship Courts of law Hospitals and medical clinics	70 dB(A)
Educational institutions (including kindergartens and nurseries)	70 dB(A) (65 dB(A) during examinations)

ProPECC PN 4/23 – Planning of Residential Developments Against Road Traffic Noise

- 3.1.9 The project proponent shall conduct a Road Traffic Noise Impact Assessment to ensure road traffic noise standards are met. According to the HKPSG, the road traffic noise standard for domestic premises is 70 dB(A) L_{10} (1hr). ProPECC PN 4/23 also recommends mitigation measures to be incorporated, if necessary, to meet the HKPSG’s standards.

ProPECC PN 5/23 – Application of Innovative Noise Mitigation Design in Planning Private Residential Developments against Road Traffic Noise Impact

- 3.1.10 ProPECC PN 5/23 provides some Innovative Mitigation Designs, such as Acoustic Window and Enhanced Acoustic Balcony, to help reduce traffic noise impact on private residential developments, as well as guidelines on calculation of noise reduction performance of these Innovative Mitigation Designs.

3.2 Noise Impact of Construction Phase

- 3.2.1 Various construction activities such as excavation, piling, etc. will be the key noise sources generated during the construction phase. In particular, the use of Powered Mechanical Equipment (“PME”) and the vehicle movement within the Site are the major noise sources.
- 3.2.2 Construction should be carried out during non-restricted hours as far as practicable. The mitigation measures recommended in ProPECC PN 1/24 should be implemented where applicable. In addition, the following measures and on-site practices are recommended in order to minimise the potential construction noise impacts as far as practicable:
- The Contractor shall devise, arrange methods of working and carry out the Works in such a manner so as to minimise noise impacts on the surrounding environment, and shall provide experienced personnel with suitable training to ensure that these methods are implemented.
 - Quality Powered Mechanical Equipment (QPME) and quieter construction methods should be adopted as far as practicable.
 - Use of Non-percussive pile driving methods such as hydraulic press-in method, vibration or jacking method for installing or extracting sheet piles as far as practicable.

- Use of Non-percussive equipment such as hydraulic crusher, sawing, coring machines etc. for demolition and concrete breaking work.
 - Close all hoods, cover panels and inspection hatches of powered mechanical plant such as generators, air compressors etc. during operation.
 - Provide noise dampening materials inside and outside refuse chutes during building construction.
 - Fit mufflers or silencers, and dampening layer with steel collars to hand-held pneumatic breakers.
 - Use of non-explosive chemical expansion agents instead of explosive chemicals or expansive compounds.
 - Use of prefabricated structure / sections to replace in-situ construction to reduce the amount of mechanical equipment used on site.
 - Use of self-compacting concrete (without the aid of a vibrator e.g. poker for compaction) for in-situ concreting.
 - Noisy equipment and noisy activities should be located as far away from the NSRs as far as practicable.
 - Provide an acoustic screen or enclosure shield the public or NSR from the noisy activities.
- 3.2.3 If PME is required for any construction work during restricted hours, a CNP shall be applied for as specified in the NCO. The GW-TM can be referred to for the noise criteria and assessment procedures for obtaining a CNP.
- 3.2.4 In addition, the EPD's Recommended Pollution Control Clauses (“RPCC”) for Construction Contracts should be incorporated in the relevant works contract. The RPCC are generally good engineering practices to minimize inconvenience and environmental nuisance to nearby residents and other sensitive receivers. The general requirements as summarised as follows:
- The Contractor shall observe and comply with the NCO and its subsidiary regulation.
 - The Contractor shall ensure that all plant and equipment to be used on the Site are properly maintained in good operating condition and noisy construction activities shall be effectively sound-reduced by means of silencers, mufflers, acoustic linings and shields, acoustic sheds or screen or other means, to avoid disturbance to nearby noise sensitive receivers.
 - For carrying out any construction work other than percussive piling during the time period from 0700 to 1900 hours on any day not being a general holiday (including Sundays), the Contractor shall comply with the following requirements.
 - The noise level measured at 1m from most affected external façade of the nearby noise sensitive receivers from the construction works alone during any 30-minute period shall not exceed an equivalent sound level (“ L_{eq} ”) of 75dB(A).
 - The noise level measured at 1m from most affected external façade of the nearby schools from the construction works alone during any 30-minute period shall not exceed L_{eq} of 70dB(A) [65dB(A) during school examination period]. The Contractor shall liaise with the schools and/or the Examination Authority to ascertain the exact dates and times of all examination periods during the course of the contract.

- Should the limits stated in the above be exceeded, the construction shall stop and shall not recommence until appropriate measures acceptable to the Engineer that are necessary for compliance have been implemented.
 - The Contractor shall adopt, where necessary and practicable, the use of quieter construction equipment and/or methods when carrying out the construction works, including demolition works, foundation works, site formation works, road opening works during restricted hours.
 - Before commencement of any work, the Engineer may require the methods of working, plant equipment and sound-reducing measures to be used on the Site to be made available for trial demonstration inspection and approval to ensure that they are suitable for the project.
 - The Contractor shall devise, arrange methods of working and carry out the Works in such a manner so as to minimise noise impacts on the surrounding environment, and shall provide experienced personnel with suitable training to ensure that these methods are implemented.
 - Notwithstanding the requirements and limitations set out in the bullet above and subject to compliance with the second and fifth bullet above, the Engineer may upon application in writing by the Contractor, allow the use of equipment and the carrying out of any construction activities for any duration provided that the Engineer is satisfied with the application which, in Engineer’s opinion, is considered to be of absolute necessity and adequate noise insulation has been provided to the schools to be affected, or of emergency nature, and not in contravention with the NCO in any respect.
 - The Contractor shall, when necessary, apply for a construction noise permit in accordance with the Noise Control (General) Regulations prior to the commencement of the relevant part(s) of the works, display the permit as required and provide a copy to the Engineer.
 - Measures that are to be taken to protect adjacent schools and adjacent noise sensitive receivers, if necessary, shall include, but not be limited to, adequate noise barriers. The barriers shall be of substantial construction and designed to reduce transmission of noise. The location and details of the barriers shall be submitted to the Engineer for approval before works commence adjacent to schools and other NSRs.
- 3.2.5 With the implementation of the aforementioned mitigation measures, adverse construction noise impact is not anticipated.

3.3 Noise Impact of Operation Phase

Existing Railway Noise Source

- 3.3.1 Based on the site visit carried out on 9 January 2025 and the desktop study in the vicinity of the Site, a section of Light Rail was observed as a potential source of railway noise. The assessment area of 300m from the site boundary is shown in **Figure 3-1**. The Light Rail is situated in a distance of approximately 187 meters northwest of the Project Site as shown in **Figure 3-2**.
- 3.3.2 In view of the separation distance between the Light Rail tracks and the Project Site, noise impact arising from the Light Rail operations is expected to be insignificant. Therefore, adverse railway noise impact from the Light Rail to the Project Site is not anticipated. It is also noted that railway noise from the Light Rail was not noticeable in the vicinity of the Site.

Planned Transit Noise Source

- 3.3.3 Based on the desktop study, the Project Site is a part of the future development of “The smart and green mass transit system (SGMTS) project in Hung Shui Kiu/Ha Tsuen and Yuen Long South New Development Areas”. With the best available information, including the Hung Shui Kiu New Development Area EIA report, the proposed alignment for the SGMTS is situated approximately 200 meters from the Project Site. The indicative alignment from the Feasibility Study on GTS is shown in **Figure 3-3**.
- 3.3.4 Considering the separation distance mentioned above, noise generated from the future SGMTS is expected to be minimal. With incorporate noise mitigation measures into the SGMTS design, adverse noise impact from the planned SGMTS of the Project Site is not anticipated.

Existing Fixed Noise Sources

- 3.3.5 Site visit was carried out on 9 January 2025 to identify any potential fixed plant noise in the vicinity of the Site. Based on the site visit and the desktop study, the premises within 300m assessment area include residential buildings, schools, open storage areas and the Tai Tao Tsuen Substation. During the site visit, the background noise was observed to be dominated by road traffic noise. In contrast, the fixed noise from the Tai Tao Tsuen Substation was not noticeable at the Site.

Tai Tao Tsuen Substation

- 3.3.6 The Tai Tao Tsuen Substation is situated approximately 58 meters north of the Project Site as shown in **Figure 3-4**. Site survey revealed that there was no significant noise emitted from Tai Tao Tsuen Substation, and operation noise from this Substation was not noticeable at the Project Site. Hence, adverse fixed noise impacts arising from the operation of Tai Tao Tsuen Substation to the Proposed Development is not anticipated.
- 3.3.7 Besides, given that barriers were provided between the outdoor equipment (e.g. Transformer) and the background noise was dominated by road traffic noise, adverse fixed noise impact from the Substation to the Project Site is not anticipated.

Planned On-Site Fixed Noise Sources

- 3.3.8 Most of the M&E equipment installed in the Proposed Development including water pumps, Fire Services (“FS”) pumps, emergency generators and lift machines will be installed in plant rooms and will be enclosed with louvres installed at the openings. Outdoor split-type air conditioners will likely be the only outdoor fixed plants. The SWL of outdoor split-type air conditioners is generally minimal. Therefore, no adverse noise impact arising from enclosed M&E equipment and the outdoor split-type air conditioners is anticipated.
- 3.3.9 Quiet air conditioning system will be selected as far as practicable. Outdoor air conditioning units will be located away from the nearest NSRs to minimise noise impact on the NSRs closest to the Proposed Development. Noise control measures recommended in the *Good Practice on Ventilation System Noise Control* should, where applicable, be implemented at ventilation facilities in order to minimise noise generation. Some good practices include:

- If practicable, equipment should be installed in a plant room with thick walls, behind a large enough obstruction or as far as practicable from the receivers.
- Equipment maintenance should be scheduled regularly to ensure that equipment is properly operated in order to maintain a controlled level of noise and vibration and prevent noise emissions from equipment from increasing over time.
- Erect a barrier or partial enclosure between the plant and nearby residential buildings to block direct line of sight between noise source and NSRs.
- Complete enclosure with silencers at condenser fan outlets and at air inlets of the enclosure should be provided so as to contain and absorb the noise from the chiller when there are noise sensitive receivers nearby.
- If the floor underneath is an NSR, floating floor can be installed to reduce noise transmission through the floor slab.
- Fan speed should be slowed down during non-rush hours, duct openings should be directed away from NSRs.
- Air discharge point of fans should be equipped with silencers so as to absorb noise generated from the fan.
- If practicable, fabricate a complete enclosure to contain and absorb noise energy radiated by the source.

3.3.10 With the provision of the above measures, no adverse noise impact from the operation of the Proposed Development is anticipated.

3.4 Road Traffic Noise Impact During Operation

3.4.1 The Site is surrounded by several major roads, including Hung Tin Road, Yuen Long Highway and Castle Peak Road. Road traffic activities could cause potential adverse noise impact on the NSRs of the Proposed Development. **Figure 3-1** shows the nearby road networks within the 300m assessment area.

Noise Prediction Methodology

3.4.2 Road traffic noise levels during peak hour have been predicted using computer noise modelling software “NoiseMap Enterprise”, which follows the prediction procedures of the *Calculation of Road Traffic Noise* (“CRTN”) published by the UK Department of Transport, as recommended in Chapter 9 of HKPSG.

Traffic Forecast

3.4.3 Operation of the Proposed Development will tentatively commence in 2031. The assessment year was determined to be year 2046 (i.e. the operation year 2031 + maximum traffic projection within 15 years upon the population intake of the development). Traffic forecast data adopted in the TNIA was based on the projected peak hourly traffic flow in 2046. All road sections within 300m of the Site have been considered. The traffic forecast data is shown in **Appendix C**.

Noise Sensitive Receivers for Traffic Noise Impact Assessment

- 3.4.4 The Proposed Development consists of planned NSRs at the RCHE and residential blocks above. All noise sensitive rooms will be provided with prescribed windows for natural ventilation in accordance with the *Building (Planning) Regulations, Cap 123* (“B(P)R”). The noise standards stipulated in the HKPSG are applicable to noise sensitive uses which rely on open windows for ventilation. Thus, the Noise Assessment Points (“NAPs”) for noise sensitive uses are assigned to these prescribed windows.
- 3.4.5 For residential use, noise sensitive uses such as dining rooms, living rooms and bedrooms of the residential units will be NSRs of the TNIA. NAPs are located 1m from the façade of opened windows and 1.2m above the floor of NAPs as shown on **Figure 3-5** to **Figure 3-7**.

Assessment Result - Base case (Unmitigated noise scenario)

- 3.4.6 The traffic noise level at the NAPs of the Proposed Development shall comply with the criterion of 70dB(A) recommended in Chapter 9 of HKPSG. The predicted road traffic noise levels are detailed in **Appendix D** and summarised in **Table 3-4**.

Table 3-4 Summary of Road Traffic Noise Impact Assessment Results for RCHE and Residential Towers

BLOCK	ROOM ¹	NAP	NOISE CRITERIA L ₁₀ (1 HR) dB(A)	PREDICTED MAXIMUM NOISE LEVEL L ₁₀ (1 HR) dB(A)	COMPLIANCE
RCHE (G/F)	Multi-Purpose Room / Rehabilitation Area	RCHE_GF_01; RCHE_GF_05	70	65	Y
	Small Group Activity Room	RCHE_GF_02 to RCHE_GF_04		61	Y
RCHE (1/F – 5/F)	Dormitory	RCHE_TYP_01 to RCHE_TYP_08; RCHE_TYP_10 to RCHE_TYP_16; RCHE_TYP_19 to RCHE_TYP_25;	70	76	N
	Sick / Isolation / Quiet Room ²	RCHE_TYP_09	70	58	Y
	Sick / Isolation / Quiet Room Cum End-of-Life Care Room ²	RCHE_TYP_17	70	72	N
Tower A	Living Unit A1 to Living Unit A6	TYP_A_01 to TYP_A_14	70	78	N
Tower B	Living Unit B1 to Living Unit B6	TYP_B_01 to TYP_B_13	70	74	N

Note:

1. This table only includes the NSRs rely on openable window for ventilation.
2. It is confirmed with client these room is only served for infection control purpose which does not include diagnostic purpose.

- 3.4.7 It is noted that noise exceedance is not expected at the G/F of RCHE with the noise criterion of L₁₀(1 hr) 70 dB(A). For the NAPs “RCHE_TYP_18” on 1/F to 5/F and rooms on the 6/F of

the RCHE, it is confirmed that those rooms does not rely on openable window for ventilation, RCHE_TYP_18 is exempted for the assessment, and no NAPs were assigned for RCHE 6/F.

Assessment Result - Mitigation Case

3.4.8 In order to mitigate the noise exceedance regarding to the traffic noise impact, acoustic window and fixed/lockable/maintenance window have been adopted in this assessment.

Acoustic Window (Baffle Type)

3.4.9 To mitigate the noise exceedance for the NAPs, the adopted acoustic window design references to the *ProPECC PN 5/23 on Possible design of “Acoustic Window (Baffle Type)” for 8m² and 18m² habitable rooms* in **Appendix E**. The type and specification of the acoustic window (baffle type) applied in the rooms with noise exceedances are summarized in **Table 3-5** below.

3.4.10 Since the acoustic windows for NAPs RCHE_TYP_22 and RCHE_TYP_25 are at an approximate 60° horizontal incident angle to the dominant line source (Hung Tin Road), a noise reduction ranging from 8 dB(A) to 9.5 dB(A) could be provided based on the room dimension and provision of Sound Absorption Materials (SAM). Acoustic windows applied to other NAPs would be treated as parallel to the dominant line source, which can provide a noise reduction ranging from 6 dB(A) to 8.5 dB(A) based on the room dimension and provision of SAM.

3.4.11 The noise reduction values will be adjusted according to the actual room sizes of the affected NSRs to determine the Relative Noise Reduction. The detailed Noise Reduction Performance of the Proposed Acoustic Window (Baffle Type) is shown in **Appendix F**.

Table 3-5 Locations of the Proposed Acoustic Windows (Baffle Type)

BLOCK	ACOUSTIC WINDOW LOCATION	NAP	REF. TYPE OF ACOUSTIC WINDOW	WITH/ WITHOUT SAM	ADJUSTED RELATIVE NOISE REDUCTION dB(A)
RCHE	Dormitory 4 (5/F)	RCHE_TYP_16	PN 5/23, 18 m ²	Without	4.2
	Sick/ Isolation/ Quiet Room cum End-of-Life Care Rm (4/F to 5/F)	RCHE_TYP_17	PN 5/23, 8 m ²	Without	5.0
	Dormitory5 (4/F to 5/F)	RCHE_TYP_19	PN 5/23, 18 m ²	Without	7.0
	Dormitory 6 (3/F to 5/F)	RCHE_TYP_20	PN 5/23, 18 m ²	Without	4.7
	Dormitory7 (2/F to 5/F)	RCHE_TYP_21	PN 5/23, 18 m ²	Without	3.5
	Dormitory 8 (2/F to 5/F)	RCHE_TYP_22	PN 5/23, 18 m ²	Without	4.0
	Dormitory 9 (2/F to 5/F)	RCHE_TYP_25	PN 5/23, 18 m ²	With	4.1
	Dormitory 9			Without	2.6

BLOCK	ACOUSTIC WINDOW LOCATION	NAP	REF. TYPE OF ACOUSTIC WINDOW	WITH/ WITHOUT SAM	ADJUSTED RELATIVE NOISE REDUCTION dB(A)
	(1/F)				
	Dormitory 10 (2/F to 5/F)	RCHE_TYP_03	PN 5/23, 18 m ²	Without	3.3
	Dormitory 11 (3/F to 5/F)	RCHE_TYP_05	PN 5/23, 18 m ²	Without	4.2
	Dormitory 12 (3/F to 5/F)	RCHE_TYP_06	PN 5/23, 18 m ²	Without	2.4
Tower A	Living Unit A1 (11/F to 12/F)	TYP_A_14	PN 5/23, 18 m ²	With	6.4
	Living Unit A1 (7/F to 10/F)			Without	4.9
	Living Unit A2 – B.R. 1 (12/F)	TYP_A_11	PN 5/23, 8 m ²	Without	4.6
	Living Unit A2 – B.R. 2 (7/F to 12/F)	TYP_A_13	PN 5/23, 8 m ²	Without	6.0
	Living Unit A5 – B.R. 2 (7/F to 12/F)	TYP_A_04	PN 5/23, 8 m ²	Without	6.0
	Living Unit A5 – B.R. 1 (11/F to 12/F)	TYP_A_06	PN 5/23, 8 m ²	Without	4.6
	Living Unit A6 (10/F to 12/F)	TYP_A_03	PN 5/23, 18 m ²	With	6.4
	Living Unit A6 (7/F to 9/F)			Without	4.9
Tower B	Living Unit B6 (8/F to 12/F)	TYP_B_01	PN 5/23, 8 m ²	Without	4.1
	Living Unit B6 (7/F to 12/F)	TYP_B_12	PN 5/23, 18 m ²	Without	6.3

Fixed/Lockable/Maintenance Window

- 3.4.12 For the rooms where acoustic window are installed, the side windows shall be locked/fixed to ensure the validity of the estimated noise attenuation. Note that fixed/lockable/maintenance windows should normally be closed and are only opened by a specific key for maintenance such as cleaning purposes only. Furthermore, fixed/lockable/maintenance window can also be applied to NAPs with side windows as a mitigation measure to the noise exceedances. The locations of fixed/lockable/maintenance windows are summarised in **Table 3-6** below.

Table 3-6 Locations of the Proposed Fixed/Lockable/Maintenance Windows

BLOCK	FIXED/LOCKABLE/MAIN TENANCE WINDOW LOCATION	NAP	IMPLEMENTED FLOOR
RCHE	Dormitory 8	RCHE_TYP_23	2/F to 5/F
	Dormitory 9	RCHE_TYP_24	1/F to 5/F
		RCHE_TYP_01	
		RCHE_TYP_02	
	Dormitory 10	RCHE_TYP_04	1/F to 5/F
Tower A	Living Unit A1	TYP_A_01	7/F to 12/F
	Living Unit A2	TYP_A_12	7/F to 12/F
	Living Unit A5	TYP_A_05	7/F to 12/F
	Living Unit A6	TYP_A_02	7/F to 12/F
Tower B	Living Unit B1	TYP_B_11	7/F to 12/F
	Living Unit B6	TYP_B_13	7/F to 12/F
	Living Unit B5	TYP_B_02	9/F to 12/F

3.4.13 With the implementation of the acoustic windows (baffle type) and fixed/lockable/maintenance windows as mitigation measures, the predicted traffic noise levels at all NSRs at the RCHE and residential blocks are found to comply with the noise criterion of L_{10} (1 hr) 70 dB(A). The predicted maximum road traffic noise levels are summarised in **Table 3-7** and detailed in **Appendix G**. The location of the mitigation measures implemented are detailed in **Appendix H**.

Table 3-7 Summary of Predicted Traffic Noise Levels at NAPs in Mitigated case

BLOCK	ROOM	NAP	NOISE CRITERIA L_{10} (1 HR) dB(A)	PREDICTED MAXIMUM NOISE LEVEL L_{10} (1 HR) dB(A)	EXCEEDANCE
RCHE (1/F – 5/F)	Dormitory	RCHE_TYP_01 to RCHE_TYP_08; RCHE_TYP_10 to RCHE_TYP_16; RCHE_TYP_19 to RCHE_TYP_25;	70	70	N
	Sick / Isolation / Quiet Room Cum End-of-Life Care Room	RCHE_TYP_17	70	70	N
Tower A	Living Unit A1 to Living Unit A6	TYP_A_01 to TYP_A_14	70	70	N
Tower B	Living Unit B1 to Living Unit B6	TYP_B_01 to TYP_B_13	70	70	N

3.5 Conclusion

- 3.5.1 No adverse noise impact due to construction of the Proposed Development is anticipated given that the noise mitigation measures recommended in **paragraph 3.2.4** are implemented.
- 3.5.2 For operation phase, desktop review and site visit were carried out to identify any potential railway noise and fixed noise sources in the vicinity of the Site. A potential existing railway noise source (Light Rail) was observed approximately 187m northwest of the Project Site, and a part of the future planned potential railway noise source (SGMTS) was noted approximately 200m from the Project Site. Given that the Light Rail noise was not noticeable in the vicinity of the Site and the separation distance of the existing Light Rail and Planned SGMTS, no adverse railway noise impact is expected. The Tai Tao Tsuen Substation was identified as a potential fixed noise source. Given that other NSRs are closer to the Substation compared to the Project Site, no adverse fixed noise impact is expected.
- 3.5.3 Since most of the M&E equipment will be installed in plant rooms and will be enclosed with louvres installed at the openings, no adverse noise impact is anticipated from this equipment. For the outdoor split-type air conditioners, their noise is considered minimal and will not cause adverse noise impacts. With the implementation of the noise mitigation measures recommended in **paragraph 3.3.5**, no adverse noise impact from M&E equipment is anticipated.
- 3.5.4 Road traffic noise impact assessment has been conducted for the noise sensitive uses requiring openable window for ventilation. Based on the results for the Base Case, the predicted noise levels at RCHE (1/F – 5/F) and residential units at Tower A and B would exceed the noise criterion of L_{10} (1 hr) 70 dB(A) stipulated in Chapter 9 of HKPSG. With the implementation of the acoustic windows (baffle type) and fixed/lockable/maintenance windows, the road traffic noise levels at all NAPs are predicted to comply with the noise criterion. Thus, no adverse road traffic noise impact is anticipated.
- 3.5.5 Therefore, no adverse noise impacts are anticipated during the construction and operation phases of the Indicative Development scheme.
- 3.5.6 To ensure full compliance with the relevant noise criteria, the Applicant shall undertake a detailed Noise Impact Assessment (NIA) based on the finalized building layout during the detailed design stage. The detailed NIA shall be submitted to the Authority for approval prior to commencement of construction works.

Figure 3-1 300m Assessment Area

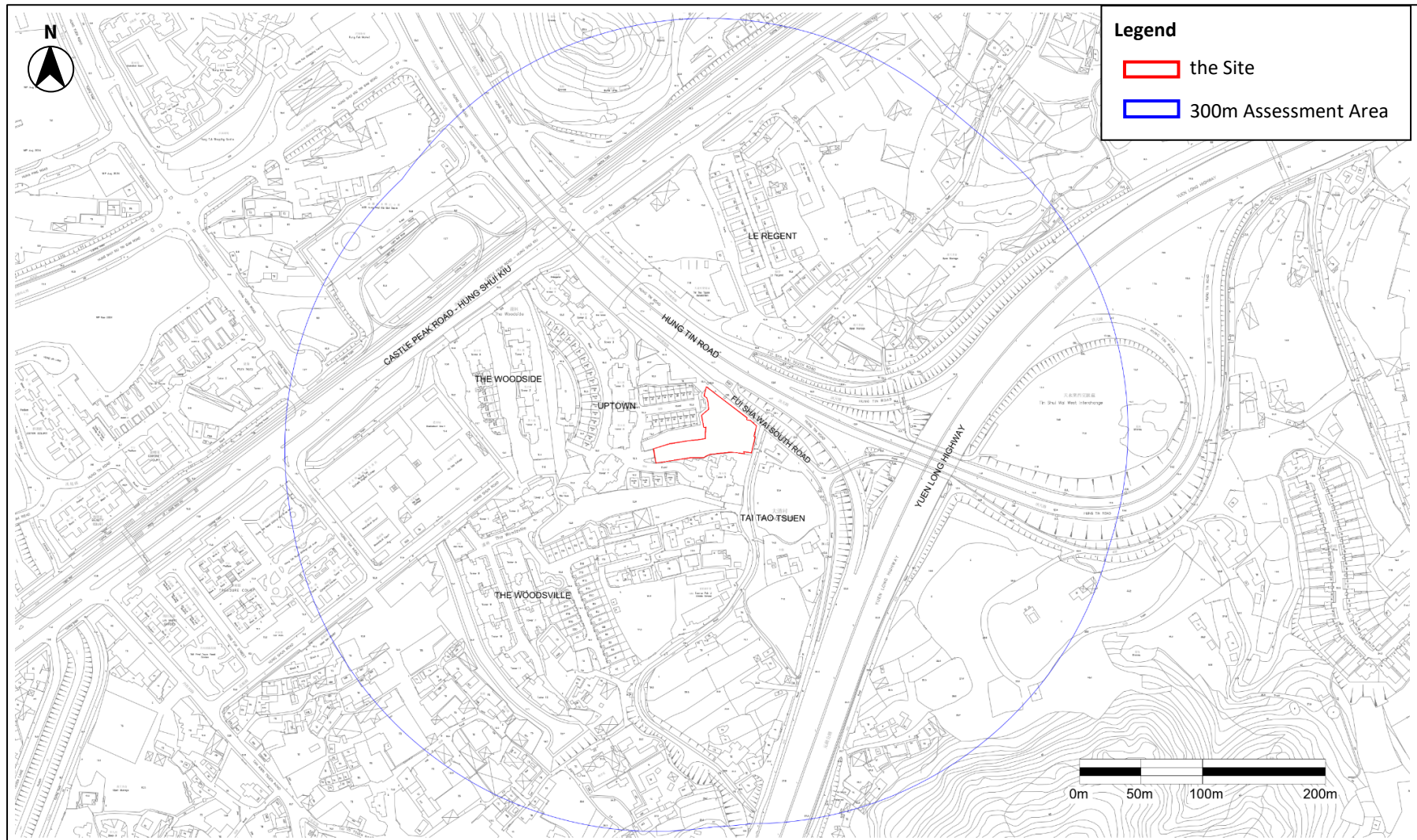


Figure 3-2 Shortest distance between the Project Site Boundary to the Light Rail

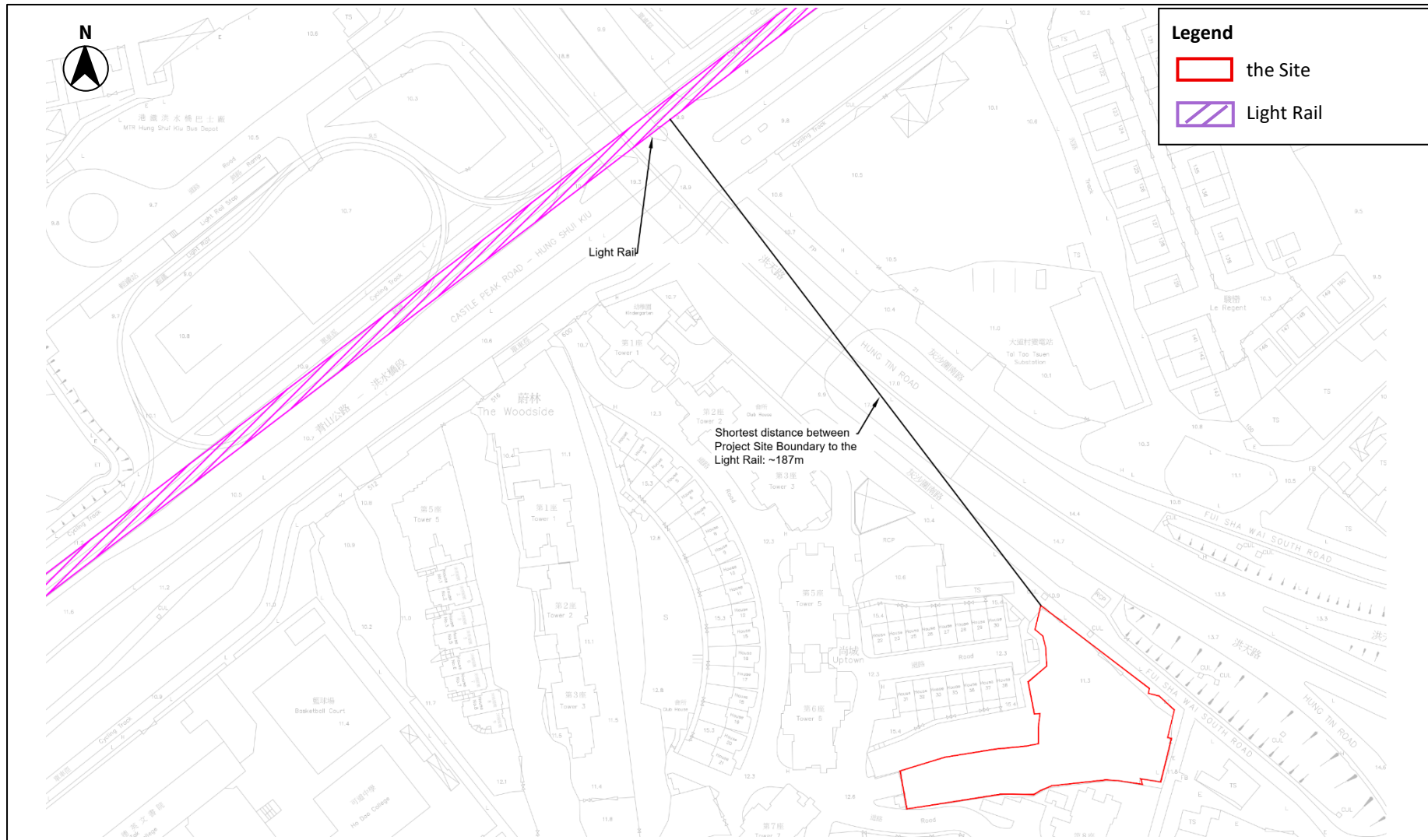
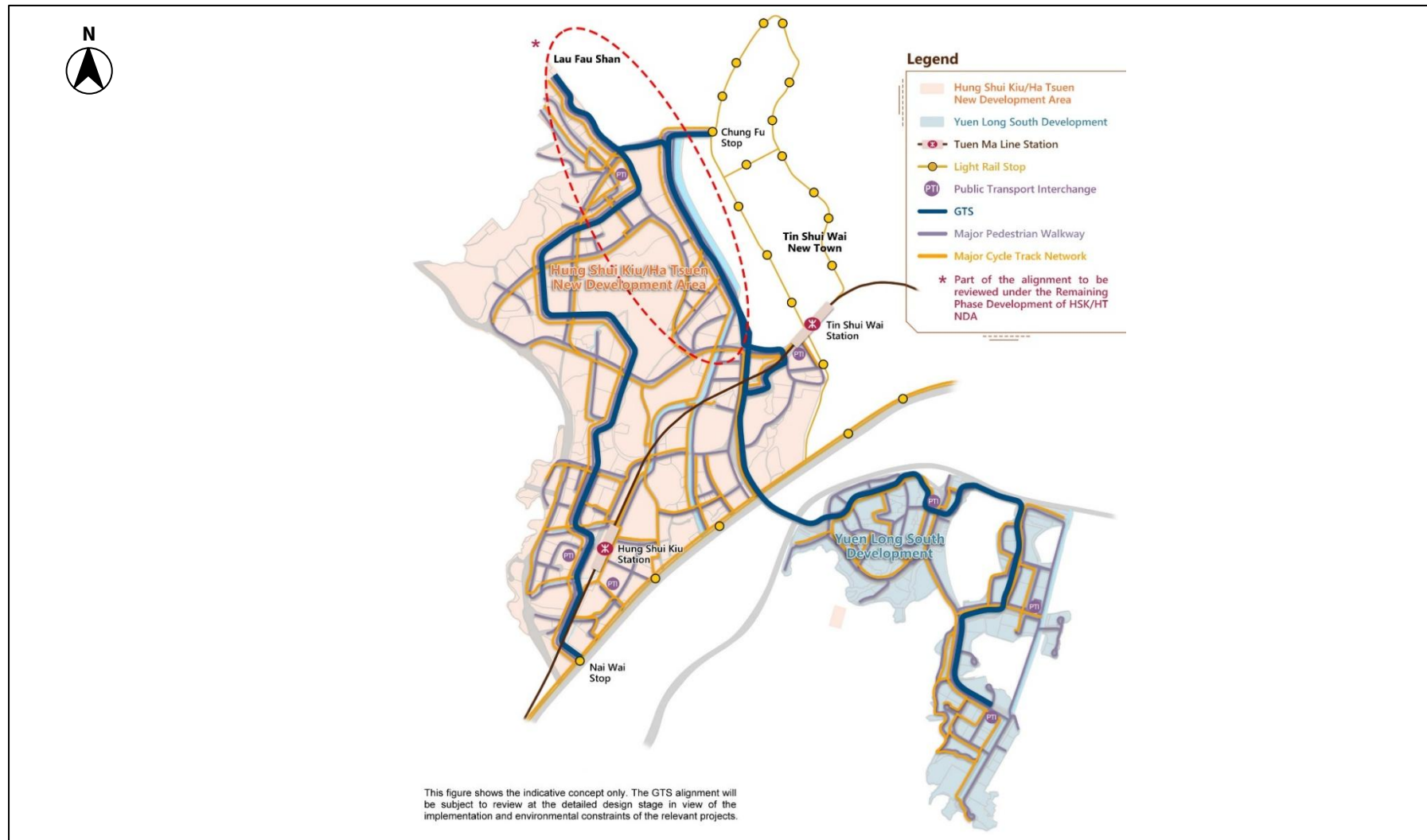


Figure 3-3 Indicative alignment from the Feasibility Study on GTS



Note: Figure 3.3 (Indicative alignment from the Feasibility Study on GTS) was refer to <https://www.hskhtgts.hk/en/>

Figure 3-4 Shortest distance between the Project Site Boundary to the Tai Tao Substation

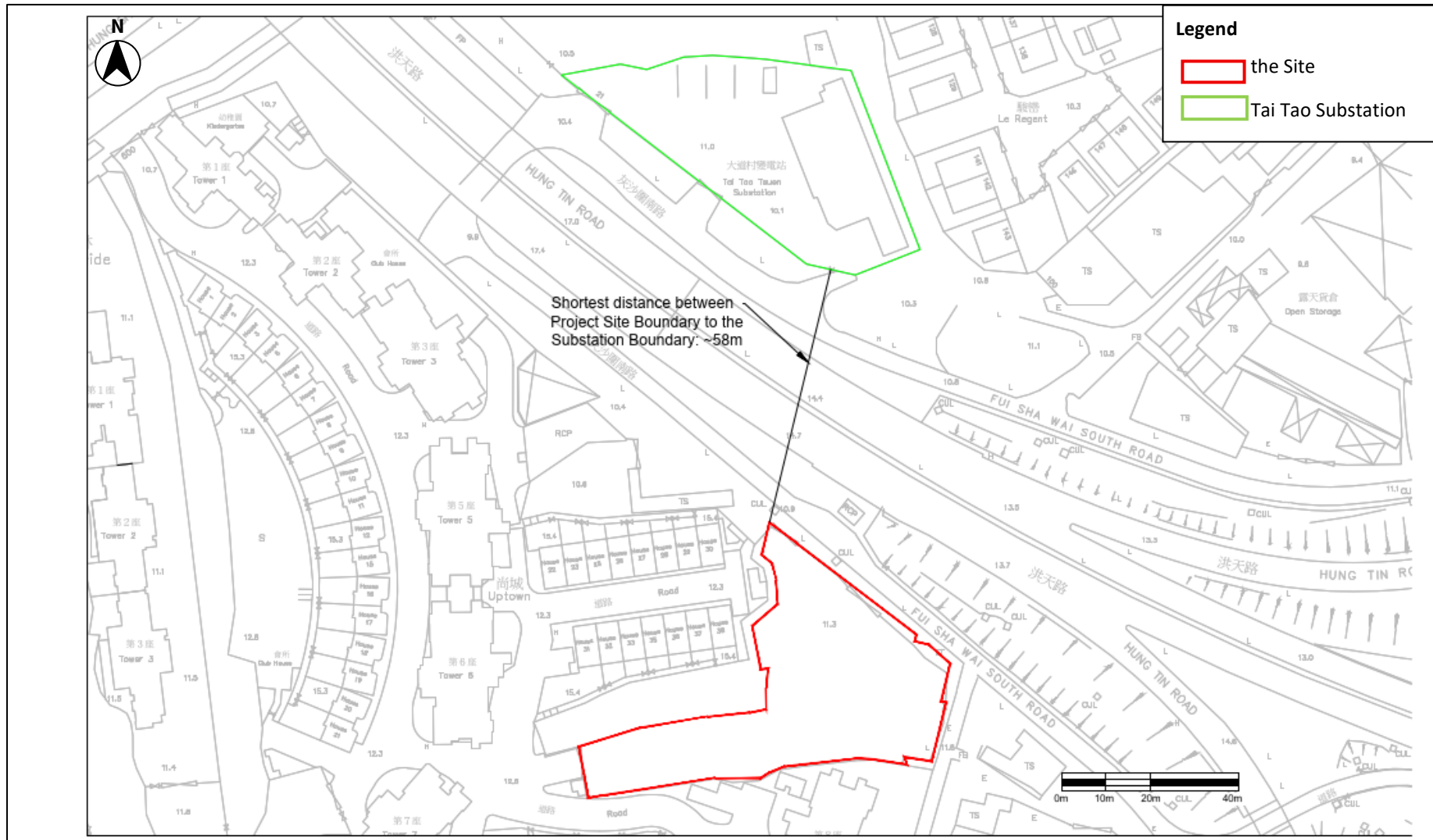


Figure 3-5 Location of Noise Assessment Points for Road Traffic Noise Impact on RCHE G/F

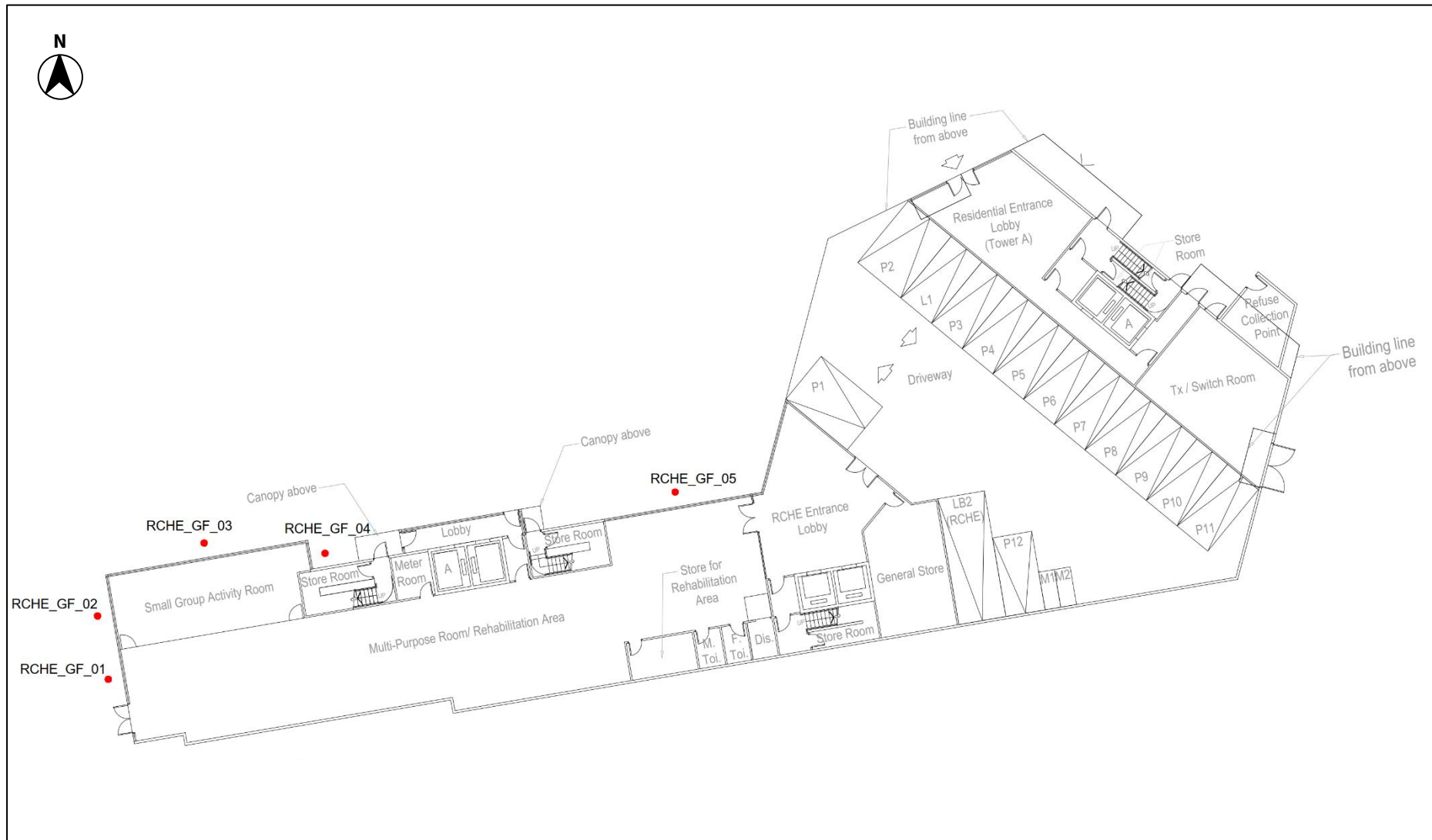


Figure 3-6 Location of Noise Assessment Points for Road Traffic Noise Impact on RCHE 1/F to 5/F

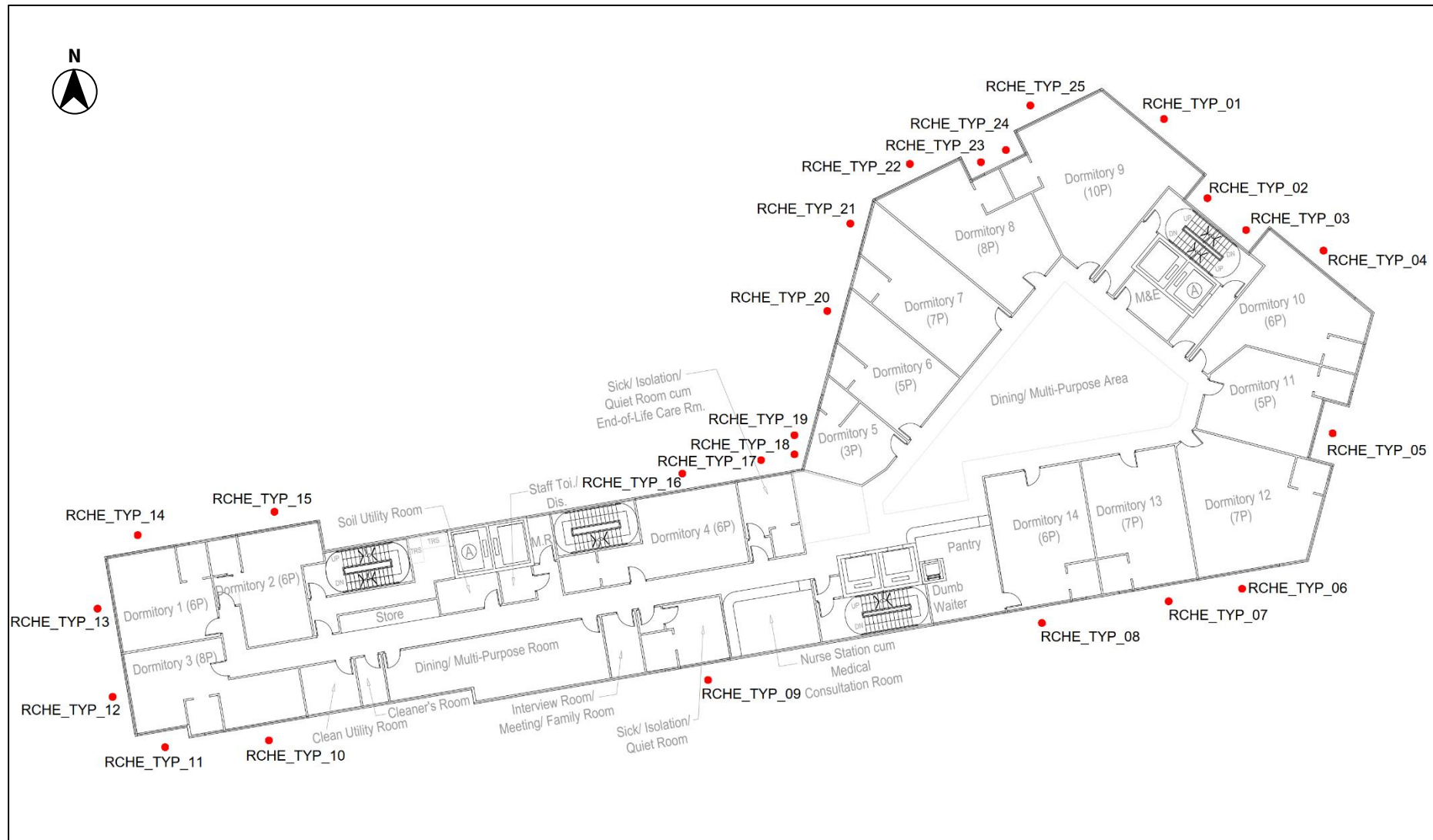
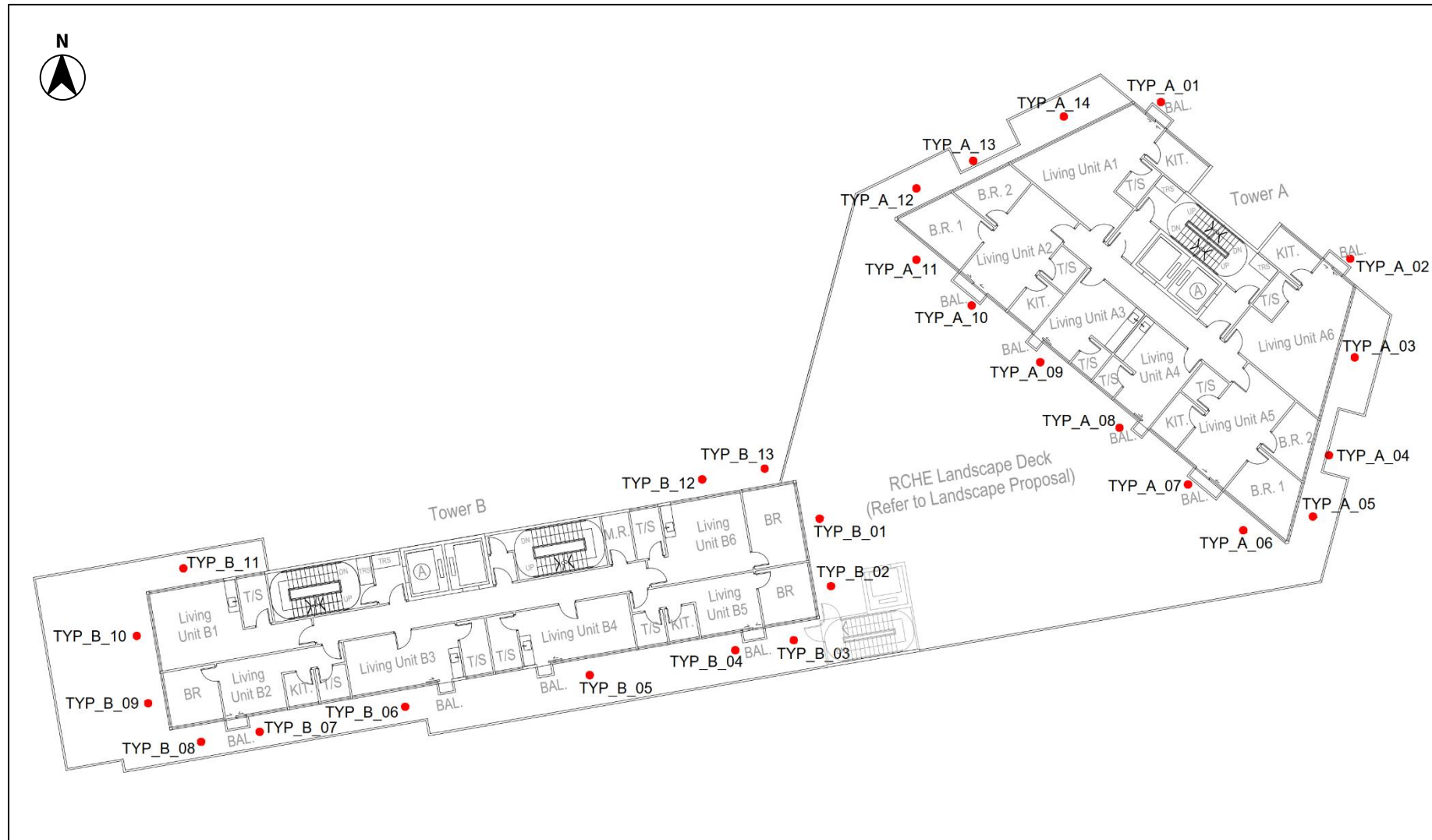


Figure 3-7 Location of Noise Assessment Points for Road Traffic Noise Impact on Residential Towers A & B



4 WATER QUALITY

4.1 Environmental Legislation and Standards

Water Quality Control Ordinance (Cap. 358)

- 4.1.1 The *Technical Memorandum – Standards for Effluent Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters* (“WPCO-TM”) is issued under Section 21 of the *Water Pollution Control Ordinance* (“WPCO”). All discharges into government sewerage systems, marine and inland waters are required to comply with the standards stipulated in the WPCO-TM.

Construction Site Drainage, ProPECC PN2/24

- 4.1.2 With reference to *Professional Persons Environmental Consultative Committee* (“ProPECC”) *Practice Note Construction Site Drainage* (“ProPECC PN2/24”), various guidelines for the handling and disposal of construction site discharges are included. The guidelines include the use of sediment traps, wheel washing facilities for vehicles leaving the Site, adequate maintenance of drainage systems to prevent flooding, overflow, sewage collection and treatment, and comprehensive waste management (collection, handling, transportation, and disposal) procedures.

Drainage Plan subject to Comment by the Environmental Protection Department, ProPECC PN1/23

- 4.1.3 With reference to *ProPECC Practice Note Drainage Plan subject to Comment by the Environmental Protection Department – Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations* (“ProPECC PN1/23”), various guidelines for the pollution control for discharge to storm drains and foul sewers, such as the use of grease trap for wastewater from the restaurant kitchen, the use of silt removal facilities for open surface channel led to stormwater drains, etc., are included. The guidelines also include the requirements for submission of drainage plans.

Protection of Natural Streams/Rivers from Adverse Impacts Arising from Construction Works, ETWB TCW No. 5/2005

- 4.1.4 Various procedures, guidelines and precautionary mitigation measures were circulated in *Protection of Natural Streams/Rivers from Adverse Impacts Arising from Construction Works* (“ETWB TCW No. 5/2005”) to reinforce existing measures for protection of natural streams/rivers from construction works.

Hong Kong Planning Standards and Guidelines (“HKPSG”)

- 4.1.5 HKPSG provides various water quality management guidelines for potentially polluting uses such as effluent-producing industries, sewage collection and disposal, as well as some guidelines to minimise water quality impacts on sensitive uses

4.2 Identification of Water Control Zone (“WCZ”) and Water Sensitive Receiver (“WSR”)

- 4.2.1 The Site is situated in Deep Bay WCZ. With reference to Annex 14 of the *Technical Memorandum on Environmental Impact Assessment Process* (“EIAO-TM”), several inland water courses within the 500m assessment area were identified as potential WSRs through desktop study using topographic map of GeoInfo Map. The identified WSRs are listed in **Table 4-1** and shown in **Figure 4-1**. Potential water quality impacts during construction and operation phase are discussed below.

Table 4-1 Identified Water Sensitive Receivers

WSR ID	DESCRIPTION	TYPE	DISTANCE TO SITE BOUNDARY, m
W01	Watercourse to the northeast and southeast of the Site	Nullah	4
W02	Pond to the northeast of the Site	Freshwater fish pond	245
W03	Pond to the northeast of the Site	Freshwater fish pond	370
W04	Watercourse to the northeast of the Site	Nullah	472

4.3 Review of Water Quality Impact

Construction Phase

- 4.3.1 Muddy runoff from the Site may be generated during the construction phase, including filling activities, especially during the rainy season.
- 4.3.2 Wash water from vehicles and equipment; silt from any on-site stockpiles of soil, cement and grouting materials; and spillage of fuels, oil and lubricants from construction vehicles and plant, and sewage generated by construction workers are all potential sources of water quality impacts. Without proper mitigation measures in force, these sources could lead to increased amounts of suspended solids, grease and oil, pH, Biochemical Oxygen Demand (“BOD”), etc. in the drainage system.
- 4.3.3 Except for W01, most of the WSRs identified within the 500m assessment area are located at more than 200m away from the Site. Moreover, no construction works will be carried out on the nullah near the Site. Therefore, the identified WSRs would not be affected by the Project. With implementation of the recommended mitigation measures and good practices listed in **Section 4.4**, adverse water quality impacts from the Proposed Development on the WSRs are not anticipated.

Operation Phase

- 4.3.4 Majority of the sewage/wastewater generated during operation phase would be sewage and grey water from toilets, showers, sinks and kitchens from the residents and staff of the Proposed Development. The total Average Dry Weather Flow (ADWF) arising from the Proposed Development is estimated to be 202.55 m³/day. Sewage and wastewater generated from the Proposed Development will be discharged into public sewer under Castle Peak Road - Hung Shui Kiu and conveyed to Ha Tsuen Sewage Pumping Station. A separate Sewerage Impact Assessment (“SIA”) prepared by the Project Sewerage Consultant

concludes that there will be no adverse sewerage impact on the municipal sewerage system arising from the Proposed Development. Hence, no adverse water quality impact resulting from the operation of the Proposed Development is anticipated.

- 4.3.5 Runoff during rainstorms could wash sources of non-point/diffuse source pollution, including dust, tyre, scraps oil etc. into nearby watercourses. In order to minimise this pollution loading, silt/sand traps should be provided for the drainage systems and should be regularly cleaned and maintained.
- 4.3.6 As mentioned in **paragraph 4.3.3**, most of the identified WSRs are located at more than 200m from the Site. With implementation of the recommended mitigation measures and good site practices as listed in **Section 4.4**, adverse water quality impacts on the WSRs from the operation of the Proposed Development are not anticipated.

4.4 Mitigation Measures

Construction Phase

- 4.4.1 During construction phase, adequate capacity and number of portable toilets with adequate frequency for offsite disposal to be supplied, maintained and emptied by a licensed collector should be provided for construction workers.
- 4.4.2 The construction contractor shall follow good site practices and ensure proper implementation of the mitigation measures as specified in ProPECC PN 2/24 for construction site drainage. The key requirements are as follows:
- Surface run-off from construction sites should be directed into storm drains via suitable sand/silt removal facilities such as sand traps, silt traps and sediment basins. Temporary construction drainage or earth bunds or sand bag barriers should be provided on site to guide storm water to these silt removal facilities. Where needed, perimeter channels at site boundaries should be provided to stop storm run-off from outside the Site from washing across the Site. Catchpits and perimeter channels should be constructed before commencement of site formation works and earthworks.
 - Silt removal facilities, channels and manholes should be adequately maintained and cleared of deposited silt and grit regularly, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.
 - Construction works should be scheduled so as to minimise soil excavation works during rainy reasons (generally from April to September). If soil excavation works could not be avoided in these months or at any time of year when rainstorms are likely, temporarily exposed slope surfaces should be covered by waterproof material (e.g. by tarpaulin), and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds, to prevent soil erosion. Intercepting channels should be provided along the edge of the excavation area to prevent storm runoff from washing across exposed soil surfaces. Arrangements should always be in place to ensure that adequate surface protection measures can be safely carried out well before the onset of a rainstorm.
 - Upon completion of earthworks, the resulting final surfaces should be well compacted, and the subsequent permanent works or surface protection works should be carried out immediately after the final surfaces are formed to minimise erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided when necessary.

- Measures should be taken to prevent rainwater from getting into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. If pumping of rainwater out from trenches is required, the effluent should be discharged into storm drains via silt removal facilities.
 - Open stockpiles of construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.
 - Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.
 - All vehicles and plants should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. A wheel washing bay should be provided at every site exit if practicable to wash off any mud or dirt and wash-water should have sand and silt settled out or removed before being discharged into storm water drains. The section of construction road between the wheel washing bay and the public road should be paved to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.
 - Discharge of surface run-off into foul sewers shall be avoided to prevent overloading of the foul sewerage system.
 - Any chemical waste such as waste oil should be collected and stored at properly designed chemical waste storage area with reference to the requirements stipulated in the Waste Disposal Ordinance.
 - Water used in ground boring and drilling during site investigation or rock/soil anchoring should be treated by passing it through a sedimentation tank and re-used on site as far as practicable. Wastewater shall be discharged in storm drains via silt removal facility as a last resort.
 - Construction plants should be sited as far as practicable from watercourses to avoid adverse impact on the surface water.
 - Temporary storage area for equipment, chemicals, fuel and other materials should be located away from watercourses as far as practicable.
 - Proper shoring shall be implemented in order to avoid soil or mud to flow into nearby watercourses.
 - Any service shop and maintenance facilities should be located on hard standings within a bounded area with sumps and oil interceptors. Any vehicle maintenance work or equipment with the potential for leakage and spillage should only be done within areas equipped to control any discharges from leakage and spillage.
- 4.4.3 All site discharges should be treated as necessary in accordance with the terms and conditions of the Discharge License.
- 4.4.4 With the implementation of the good site practices, no adverse water quality impact during construction phase is anticipated.

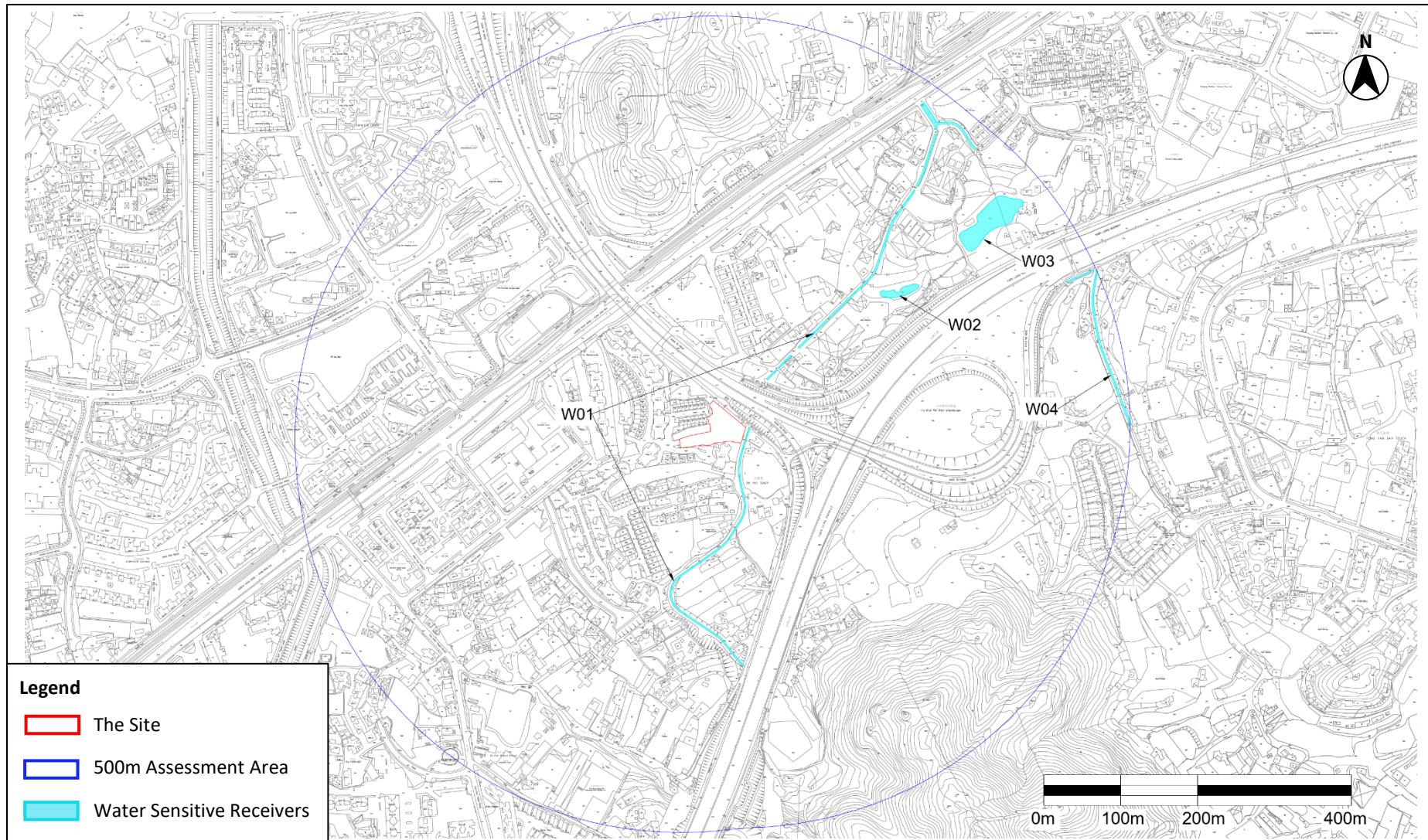
Operation Phase

- 4.4.5 Site drainage and disposal of site effluents generated from the Proposed Development should follow the ProPECC PN1/23 which provides some guidelines and practices for handling, treatment and disposal of various effluents.
- 4.4.6 During operation of the Proposed Development, sewage generated will be discharged into municipal sewerage system. In order to reduce pollution due to runoff, silt/sand traps should be provided for the drainage systems of open areas and should be regularly cleaned and maintained in accordance with ProPECC PN1/23. In addition, runoff should be controlled by best management practice. Thus, no adverse water quality impact from operation of the Proposed Development is anticipated.

4.5 Conclusion

- 4.5.1 During construction phase, portable toilets will be supplied for construction workers. With the implementation of the mitigation measures and good site practices mentioned in **paragraph 4.4.2**, adverse water quality impacts from in construction phase are not anticipated.
- 4.5.2 The Contractor shall apply for a Discharge Licence under the WPCO. All site discharges shall be treated in accordance with the terms and conditions of the Discharge Licence. Also, when handling the discharge from the Site, guidelines in ProPECC PN 2/24 should be also followed to minimize the water quality impact arising from the construction activities.
- 4.5.3 During operation phase, sewage and wastewater generated from toilets, showers and kitchens will be collected and discharged into the public sewerage system. The separate SIA Report prepared by the Project Sewerage Consultant has concluded that there will be no adverse sewerage impact on the municipal sewerage system arising from the Site.
- 4.5.4 Moreover, with the provision and maintenance of silt/sand traps in the drainage system, no adverse water quality due to runoff is expected.
- 4.5.5 Therefore, no adverse water quality impact is anticipated during construction and operation phases of the Proposed Development.

Figure 4-1 Water Sensitive Receivers within 500m from the Site Boundary



5 WASTE MANAGEMENT

5.1 Environmental Legislation and Standards

5.1.1 The key environmental legislation standards are as follows:

- The Waste Disposal Ordinance (Cap. 354) (“WDO”)
- Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C).
- Waste Disposal (Charges for Disposal of Chemical Waste) Regulation (Cap. 354J).
- Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N).
- Land (Miscellaneous Provisions) Ordinance (Cap. 28).
- Public Health and Municipal Services Ordinance (Cap.132BK) – Public Cleansing and Prevention of Nuisances Regulation
- Environmental, Transport and Works Bureau (“ETWB”) Technical Circular (Works) No. 19/2005, Environmental Management on Construction Sites.
- ETWB Technical Circular (Works) No. 22/2003A, Additional Measures to improve Site Cleanliness and Control Mosquito Breeding on Construction Sites.
- Development Bureau (“DevB”) Technical Circular (Works) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials.
- Civil Engineering and Development Department (“CEDD”) Technical Circulars (CEDD TC No. 11/2019), Management of Construction and Demolition Materials.
- Building Department Practice Notes for Authorised Persons, Registered Structural Engineers and Registered Geotechnical Engineers Waste Minimisation – Construction and Demolition Waste (ADV-19).
- Buildings Department Practice Notes for Authorised Persons, Registered Structural Engineers and Registered Geotechnical Engineers Waste Minimisation – Provision of Fitments and Fittings in New Buildings (APP-114).
- Buildings Department Practice Notes for Registered Contractors (PNRC 17), Control of Environmental Nuisance from Construction.
- CEDD Project Administration Handbook for Civil Engineering Works (“PAH”).

5.1.2 The handling, storage, transportation and disposal of chemical and clinical waste shall comply with the requirements stipulated in the following legislation and code of practice:

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

5.2 Potential Impacts

Construction Phase

5.2.1 The key potential waste sources during the construction phase are:

- Inert Construction and Demolition (“C&D”) materials (e.g. waste concrete, surplus soil, waste asphalt etc.)
- Non-inert C&D Waste (e.g. wood and plastics)
- Chemical wastes such as waste battery and waste lubricating oil from vehicles/plant maintenance
- General refuse generated by site workers

Inert C&D Materials

5.2.2 Inert C&D materials are those which do not decay or decompose, such as debris, rubble, earth and concrete, which makes them suitable for land reclamation and site formation.

5.2.3 The Site is currently vacant without any existing structures. No building demolition works is required for the Project. Therefore, no significant amount of inert C&D materials is anticipated during site preparation stage. The major source of inert C&D materials during construction phase will be site formation works and superstructure works for the Proposed Development.

Inert C&D Materials from Site Formation

5.2.4 Inert C&D materials may be generated during site formation stage, including site clearance, excavation or re-profile works. The Site area is approximately 2,138m² and about 90% of the site is paved, i.e. 1,923m². Assuming the paving density is 2,400 kg/m³ and the thickness of paving is 0.2m, approx. 923 tonnes (i.e. 1,923m² x 0.2m x 2.4 tonnes/m³) waste paving will be generated from the removal of paving.

5.2.5 The current elevation of the Site is around 11.3mPD. According to the Section Plans of the Proposed Development, the site formation level will remain unchanged. Moreover, no basement floor will be formed for the Proposed Development. Therefore, a large amount of inert C&D materials from deep excavation is not anticipated.

5.2.6 For the foundation works, it is assumed that the Site will be excavated to a depth of 2m. 4,276m³ (i.e. 2,138m² x 2m) of additional excavated materials is expected to be generated foundation construction and piling for new structures. With the density of 1,800kg/m³, approx. 7,697 tonnes of C&D materials will be generated.

Inert C&D Materials from Superstructure

5.2.7 Construction waste will also be generated during construction of the Proposed Development. This will comprise inert C&D materials, such as concrete waste, waste from blockwork and brickwork; and non-inert C&D materials (or C&D waste) from packaging waste and other non-inert wastes.

5.2.8 In accordance with Section 3.2 of A Guide for Managing and Minimizing Building and Demolition Waste published by the Hong Kong Polytechnic University in May 2001 (“the Guide”), it provides a “waste index” for building waste generation in Hong Kong based on the Gross Floor Area (“GFA”) of three different building types as follows:

- Private Housing Projects 0.250m³/m² GFA
- Government Housing Projects 0.174m³/m² GFA
- Commercial Office Projects 0.200m³/m² GFA

5.2.9 To provide a conservative estimate of building waste from the Proposed Development, the “waste index” for private housing project are adopted. However, as noted above, in addition to inert C&D materials, this “waste index” also include non-inert C&D materials (or C&D wastes), such as packaging waste and other wastes, and the Guide does not identify what proportion of building waste is inert C&D materials and what proportion is non-inert C&D materials (or C&D waste).

5.2.10 With reference to Plate 2.12 of EPD’s *Monitoring of Solid Waste in Hong Kong – Waste Statistics for 2023*, 91% of construction wastes was either reused on-site or sent to the public fill reception facilities, implying that such construction wastes should be inert C&D materials. The proportion of inert C&D materials in the “waste index” can therefore be estimated by applying the Hong Kong-wide proportion of inert C&D materials in construction waste, i.e. 91%, to the “waste index” as follows:

$$\begin{aligned}\text{Waste Index}_{\text{Inert C\&D materials (Private Housing Projects)}} &= 0.91 \times 0.250\text{m}^3/\text{m}^2 \text{ GFA} \\ &= 0.2275\text{m}^3/\text{m}^2 \text{ GFA}\end{aligned}$$

5.2.11 The proportion of inert C&D materials of building waste from the Proposed Development with a GFA of about 10,489m², can therefore be estimated as follows:

$$\begin{aligned}\text{Building Waste} &= \text{Waste Index}_{\text{Inert C\&D materials (Private Housing Projects)}} \times \text{GFA} \\ &= 0.2275 \times 10,489 \\ &= 2,386\text{m}^3\end{aligned}$$

5.2.12 Assuming the density of inert C&D materials is 1.8 tonnes/m³, approx. 4,295 tonnes of building wastes would be generated by the Proposed Development.

5.2.13 **Table 5-1** summarises the total estimated inert C&D materials generated during construction stage.

Table 5-1 Total Estimated Inert C&D Materials Generated During Construction

INERT C&D MATERIAL TYPE	ESTIMATED INERT C&D MATERIAL GENERATION (TONNES)
STAGE: SITE FORMATION & FOUNDATION	
Removal of Paving	923
Excavated Materials	7,697
STAGE: CONSTRUCTION OF SUPERSTRUCTURE	
Building Waste	4,295
Total	12,915

5.2.14 In total, approx. 12,915 tonnes of inert C&D materials may be generated throughout the construction period. Assuming the construction period to be four years with six working days

a week and four weeks a month, the daily inert C&D material generation rate will be approx. 11.2 tonnes/day (i.e. 12,915 tonnes/ (6 x 4 x 48) days).

- 5.2.15 Inert C&D materials should be reused on-site as far as practicable. Good site practices and mitigation measures recommended in **Section 5.3** should be provided and implemented. Surplus inert C&D materials, if any, should be reused or recycled off-site as far as practicable. If there will still be any remaining materials, they should be delivered to public fill reception facilities, Fill Bank at Tuen Mun Area 38 and Fill Bank at Tseung Kwan O Area 137.
- 5.2.16 Most of the inert C&D materials generated from construction will be excavated materials and building waste. Since backfilling of excavated materials is not needed for construction, not much of the inert C&D materials will be re-used on site. Therefore, the 11.2 tonnes/day inert C&D material will be delivered to public reception facilities. The reuse of inert C&D materials in public fill reception facilities would be agreed with relevant authorities before delivery. Nonetheless, the reuse of inert C&D materials will be further explored in the later project stage.
- 5.2.17 With the provision and implementation of the recommended mitigation measures, no adverse waste impact from the handling or transportation of the inert C&D materials during construction of the Proposed Development is anticipated.

Non-Inert C&D Materials (or C&D Waste)

- 5.2.18 Non-inert C&D materials (or C&D waste) are those which can decompose such as bamboo, vegetation, packaging waste and other organic material which makes them unsuitable for land reclamation.
- 5.2.19 The major source of non-inert C&D material during construction will be removal of topsoil and vegetation during site formation and the non-inert C&D material component of building such as packaging waste.
- 5.2.20 Topsoil is the uppermost layer of soil capable of growing and supporting vegetation. The Site area is approximately 2,138m² and about 10% of the site is unpaved, i.e. 214m². Assuming the average depth of the topsoil is 0.25m and the density of topsoil is 1,600kg/m³, approx. 85.6 tonnes (i.e. 214m² x 0.25m x 1.6 tonnes/m³) topsoil will be generated during site formation works.
- 5.2.21 The building waste in the “waste index” provided in the Guide also includes inert C&D materials. Since Plate 2.12 of Waste Statistics for 2023 shows that in 2023, 9% of C&D waste was disposed of at landfills. The proportion of non-inert C&D materials (or C&D waste) in the “waste index” can be estimated by applying the Hong Kong-wide proportion of non-inert C&D materials (or C&D waste) in construction waste, i.e. 9%, to the “waste index” as follows:

$$\begin{aligned}\text{Waste Index}_{\text{Non-Inert C\&D materials (Private Housing Projects)}} &= 0.09 \times 0.250\text{m}^3/\text{m}^2 \text{ GFA} \\ &= 0.0225\text{m}^3/\text{m}^2 \text{ GFA}\end{aligned}$$

- 5.2.22 Given the total GFA of the Proposed Development is approx. 10,489m², Hence, the non-inert C&D materials (or C&D waste) components in building waste can therefore be estimated as follows:

$$\text{Building Waste} = \text{Waste Index}_{\text{Non-Inert C\&D materials (Private Housing Projects)}} \times \text{GFA}$$

$$= 0.0225 \times 10,489$$

$$= 236\text{m}^3$$

- 5.2.23 Assuming the density of non-inert C&D materials is 1.0 tonnes/m³, approx. 236 tonnes of building waste would be generated by the Proposed Development.

Table 5-2 Total Estimated Non-Inert C&D Materials Generated During Construction

NON-INERT C&D MATERIAL TYPE	ESTIMATED NON-INERT C&D MATERIAL GENERATION (TONNES)
STAGE: SITE FORMATION	
Topsoil	86
STAGE: CONSTRUCTION OF SUPERSTRUCTURE	
Building Waste	236
Total	322

- 5.2.24 In total, approx. 322 tonnes of non-inert C&D materials may be generated throughout the construction period. Assuming the construction period to be four years with six working days a week and four weeks a month, the daily non-inert C&D material generation rate will be approx. 0.3 tonnes/day (i.e. 322 tonnes/ (6 x 4 x 48) days).
- 5.2.25 Non-inert C&D materials generated during construction should be sorted on-site. Recyclable materials, such as metal, paper product, and plastics, should be collected by local recyclers for recycling. All non-inert C&D materials should be recycled as far as possible and landfill disposal should only be adopted as the last resort. The nearest disposal facility is West New Territories (“WENT”) Landfill. Disposal of C&D wastes of landfills would be agreed with relevant authorities.
- 5.2.26 It is expected that no more than 10% of the generated non-inert building waste can be recycled or reused. This means that the expected amount of non-inert C&D waste to be reused or recycled on-site is 32 tonnes at most.
- 5.2.27 If 10% C&D waste can be reused/recycled on-site, the surplus C&D waste mainly comprising building waste will be approx. 289 tonnes in total. Assuming the construction period to be 4 years with six working days a week and four weeks a month, the total daily C&D waste for disposal of at WENT Landfill would be approx. 0.3 tonnes/day (i.e. 289 tonnes/ (6 x 4 x 48) days).
- 5.2.28 Considering the above estimation, and with the implementation of waste handling measures mentioned above and control measures listed in **Section 5.3**, no adverse waste impact from the handling, transportation or disposal of non-inert C&D materials (or C&D waste) during construction of the Proposed Development is anticipated.

General Refuse

- 5.2.29 General refuse such as food scraps, waste paper, empty containers, etc. would be generated from workers during the construction phase.

5.2.30 The number of workers will depend on the contractor and the construction methods employed. According to the Applicant’s experience, the number of construction workers for the Proposed Development should be no more than 50 per day.

5.2.31 According to Plate 2.7 of Waste Statistics for 2023, the per capita domestic waste disposal rate in 2023 was 0.89kg/person/day. As stipulated in Appendix 2 of the same report, the waste generation defined as the sum of waste disposal and resource recovery (i.e., $\text{Generation} = \text{Waste Disposal} + \text{Resource Recovery}$). For a conservative approach to estimate the actual generation rate, a recovery rate of 21% for domestic waste in 2023 (as shown in Plate 2.3) has been adopted. The per capita generation rate of general refuse is derived as follow:

$$\begin{aligned}\text{Per Capita Generation Rate} &= \text{Disposal Rate}/(1 - \text{Recovery Rate}) \\ &= (0.89\text{kg/worker/day})/(1 - 0.21) \\ &= 1.13\text{kg/worker/day}\end{aligned}$$

Since every worker is expected to generate general refuse, the total general refuse generated by construction workers is estimated as follows:

$$\begin{aligned}\text{General Refuse/Day} &= \text{No. of workers/day} \times \text{per capita generation rate} \\ &= 50 \text{ workers} \times 1.13\text{kg/workers/day} \\ &= 56.5\text{kg/day}\end{aligned}$$

$$\begin{aligned}\text{Total General Refuse} &= \text{General Refuse/Day} \times \text{Construction Duration} \\ &= 56.5\text{kg/day} \times 6 \text{ days/week} \times 4 \text{ weeks/month} \times 48 \text{ months} \\ &= 65,088\text{kg or } 65\text{tonnes}\end{aligned}$$

5.2.32 General refuse generated during construction should be sorted on-site. Recyclable materials, such as metal, paper product and plastics should be collected by local recyclers for recycling. All general refuse should be recycled as far as possible and landfill disposal should only be adopted as the last resort.

5.2.33 According to Plate 3.2 of Waste Statistics for 2023, the recovery rate of domestic waste is approx. 21%. It is estimated that 21% of general refuse, i.e., approx. 13,668.5kg of general refuse, would be reused and recycled by the recyclers. The surplus general refuse of 51,419.5 kg would be sent to landfills, which is consistent with the per capita domestic waste disposal rate of 0.89 kg/person/day.

5.2.34 Given the above, with the implementation of mitigation measures mentioned above and listed in **Section 5.3**, no adverse waste impact from the handling, transportation or disposal of general refuse from workforce during construction of the Proposed Development is anticipated.

Chemical Waste

Construction Phase

- 5.2.35 The maintenance and servicing of the construction plants and vehicles may generate a small amount of chemical waste, such as cleaning fluids, solvents, lubrication oil and fuels.
- 5.2.36 Chemical waste arising during the construction phase may pose environmental, health and safety hazards if not stored and disposed of appropriately as outlined in the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C) and the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. The potential hazards include:
- Toxic effects on the construction workforce;
 - Adverse impact on air quality and water quality due to spills; and
 - Fire hazards.
- 5.2.37 Chemical waste may be generated any time throughout the construction phase of the Project. The amount of chemical waste that will arise from the construction activities will be highly dependent on the Contractor’s on-site maintenance activities and the quantity of plant and equipment utilised. With respect to the scale of the construction activities, it is anticipated that the quantity of chemical waste to be generated will be small. The chemical waste will be properly stored on site and will be collected by licensed chemical waste collectors regularly for disposal at the licensed chemical waste treatment facilities (i.e. Chemical Waste Treatment Centre (CWTC) in Tsing Yi). Reuse and recycle shall be prioritized, where disposal shall be the last resort for waste handling.
- 5.2.38 The Project Proponent or the contractor should register as a Chemical Waste Producer (CWP) with EPD. Storage, handling, transport and disposal of chemical waste should be arranged in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Waste published by the EPD. A trip-ticket system should be operated in accordance with the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C) to monitor all movements of chemical wastes which would be collected by licensed chemical waste collectors to a licensed facility for final treatment and disposal.
- 5.2.39 Provided that the chemical waste is properly stored, handled, transported and disposed of, no adverse environmental impact would result from a minimal quantity of chemical waste arising from the Project.

Summary of Waste Generated during Construction Phase

- 5.2.40 The type of waste and their estimated quantities generated during the construction phase are summarised in **Table 5-3**.

Table 5-3 Estimation of Wastes to be Generated During Construction Phase

WASTE TYPE	ESTIMATED QUANTITY (TONNES)	SOURCES OF WASTE	TREATMENT
INERT C&D MATERIAL			
Paving	923	Removal of paving	On-site reuse/recycle
Excavated material	7,697	Excavation	Off-site reuse/recycle
Building Waste	4,295	Superstructure Construction	Sent to public fill reception facilities
NON-INERT C&D MATERIAL			
Topsoil	86	Site clearance and	On-site sorting for

WASTE TYPE	ESTIMATED QUANTITY (TONNES)	SOURCES OF WASTE	TREATMENT
		formation	reuse/recycle
Building Waste	236	Superstructure Construction	Disposal of at landfill
OTHERS			
General Refuse	65	Construction staff	On-site sorting for reuse/recycle Disposal of at landfill
Chemical Waste	< 0.001	Maintenance of equipment	Disposal under regulatory control

Operation Phase

Domestic Waste

- 5.2.41 During operation phase, domestic waste from residents of the proposed residential development will be the major type of waste being generated. According to Waste Statistics for 2023, the most recent domestic waste disposal rate is 0.89 kg/person/day.
- 5.2.42 According to the Applicant, the number of residential units in the Proposed Development is 72. With reference to the Census and Statistics Department (CSD) statistics, the average household size for private permanent housing in Q1 2025 is 2.7 persons per flat (ppf). Thus, the estimated population of the proposed residential development is 195 (72 units*2.7 ppf), with the population of RCHE (450 persons), the total population of the Proposed Development will be 645 (i.e. 195 + 450). As a result, the total domestic waste to be generated every year is estimated to be approx. 266,030 kg or 266.03 tonnes (i.e. 645 persons x 1.13 kg/person/day x 365 days/year).
- 5.2.43 With reference to Plate 3.2 of Waste Statistics for 2023, the recovery rate of domestic waste and commercial waste is 21%. Therefore, it is estimated that 21% of domestic waste (i.e. 55,866kg in total, or 55.87 tonnes/year) could be reused and recycled.
- 5.2.44 The remaining domestic solid waste of 210.16 tonnes/year would be disposed of at a landfill managed by EPD.

Chemical Waste

- 5.2.45 Small amount of chemical waste (e.g. lubricant generated from maintenance of equipment) may be generated during operation when the need arises. The RCHE operator shall register as waste producer under the regulation of Cap. 354C before disposing any chemical waste.
- 5.2.46 All chemical waste should be segregated, labelled and stored in a compliant container within a designated area. The RCHE operator shall engage the service of licensed collectors to collect and transport chemical waste to designated waste treatment centre (i.e., Chemical Waste Treatment Centre “CWTC”) for proper disposal.
- 5.2.47 Provided that relevant legislation and code of practice are strictly followed during the handling, storage, transportation and disposal of chemical waste, no adverse environmental impact is anticipated.

Clinical Waste

- 5.2.48 Small amount of clinical waste (e.g. cartridges, ampoules, surgical dressings, swabs) may be generated during operation when the need arises.
- 5.2.49 Clinical waste should be managed under Cap. 354O and EPD’s Clinical Waste Control Scheme, and to segregate from general and chemical wastes. Used needles and sharps are classified as Group 1 clinical waste and should be stored safely in sharps box, before transferring to a disposal site. Colour of the sharps box should be either in yellow or a combination of yellow and white and sealed with proprietary closure. The RCHE operator shall engage the service of licensed collectors to collect and transport clinical waste to designated waste treatment centre (i.e., Chemical Waste Treatment Centre “CWTC”) for proper treatment and disposal.
- 5.2.50 Provided that relevant legislation and code of practice of management of clinical waste are strictly followed during the handling, storage, transportation and disposal of clinical waste, no adverse environmental impact is anticipated.
- 5.2.51 Since the remaining domestic waste will be collected on a daily basis, while both chemical and clinical waste will be collected on monthly basis by registered waste collectors and disposed of at landfill or designated waste treatment centre (i.e., CWTC), no adverse waste impacts from handling, transportation or disposal are anticipated. Nevertheless, domestic waste generation should be minimised by implementing the mitigation measures proposed in **Section 5.3**.
- 5.2.52 Overall, there should be no adverse waste impact from the handling, transportation or disposal of domestic waste during the operation of the Proposed Development.

5.3 Mitigation Measures

Construction Phase

- 5.3.1 Both contractual requirements and statutory requirements shall be followed for controlling waste management.
- 5.3.2 A Waste Management Plan (“WMP”) should be developed by the contractor and submitted to the Project Engineer/Architect for approval in accordance with ADV-19 before the commencement of any construction works. The WMP will aim to identify potential environmental impacts from the generation of waste at the Site; to recommend appropriate measures to handle, collect, sort, dispose of and recycle waste in accordance with requirements of the current regulations; and to categorise and permit segregation of C&D materials where practicable, such as sorting between inert and non-inert material, for disposal considerations i.e. public fill reception facilities/landfill.
- 5.3.3 The contractor should segregate waste with reference to the WMP prior to disposal. Waste should be properly collected and stored to prevent materials from being blown by wind, flushed or leached into nearby waters, or creating odour nuisance or pest and vermin problems. Good housekeeping practices should be adopted to ensure waste storage areas are well maintained and cleaned properly.
- 5.3.4 A trip-ticket system should be established in accordance with DevB TC(W) No. 6/2010 and the *Waste Disposal (Charges for Disposal of Construction Waste) Regulation* to monitor the

disposal of public fill and solid wastes at public fill reception facilities and landfills, which will prevent fly-tipping. A trip-ticket system should be included as one of the contractual requirements that the contractor shall implement.

- 5.3.5 Any excess recyclable construction materials such as bricks, plastics and metals should be reused and recycled as far as practicable to minimise the amount of waste being disposed of. Additional inert materials which are not recyclable such as concrete and asphalt should be treated as public fill, while non-inert materials which are not recyclable should be disposed of at the designated landfills.
- 5.3.6 General refuse should be stored in enclosed bins or compaction units separate from C&D material. A reputable waste collector should be employed by the construction contractor to remove general refuse from the Site, separately from C&D materials. Preferably an enclosed and covered area should be provided to prevent materials from being blown by wind.
- 5.3.7 For chemical waste, the Contractor should follow the trip-ticket system of which the arrangement of production, collection and disposal in accordance with the *Waste Disposal (Chemical Waste) (General) Regulation*.
- 5.3.8 In addition, the EPD’s RPCC for Construction Contract should be followed and incorporated in the relevant works contract. The RPCC are generally good engineering practices to minimise inconvenience and environmental nuisance to nearby residents and other sensitive receivers. The general requirements are as follows:
- The Contractor shall follow and comply with the WDO and its subsidiary legislation.
 - The Contractor shall seek the Engineer’s approval for a waste management plan with suitable mitigation measures including allocation of an area for waste segregation. The Contractor shall follow the waste management plan and ensure that the day-to-day site operations comply with the approved waste management plan.
 - The Contractor shall minimise the generation of waste from his work as far as practicable. Careful planning and good site management should be implemented to minimise generation of waste, and design and practices should be changed as necessary to avoid generation of waste as much as possible.
 - The Contractor shall sort and store different types of waste in different containers, skips or stockpiles to facilitate reuse / recycling of waste and, as the last resort, disposal at different outlets as appropriate.
 - Recyclable waste such as paper, cardboard, plastic and metal should be reused and recycled as far as practicable.
 - The Contractor shall ensure that C&D materials generated during the construction phase of the RCHE and the residential part are sorted into public fill (inert portion) and C&D waste (non-inert portion). The public fill which comprises soil, rock, concrete, brick, cement plaster/mortar, inert building debris, aggregates and asphalt from the site formation and excavation works, etc shall be reused for earth filling, reclamation, site formation works, etc. within the Project Site as far as practicable, and sent to a Fill Bank as the last resort. The C&D waste which comprises metal, paper, glass, etc. shall be reused and recycled as far as practicable, and, as the last resort, disposal of at landfills.

- The Contractor shall record the amount of waste generated, recycled and disposed of (including the disposal sites). The records shall be properly kept and easily retrieved for inspection.
- The Contractor shall use a trip ticket system to monitor and ensure the disposal of C&D materials to any designated public fill reception facility and/or landfill.
- Workers will receive training about the concepts of site cleanliness and proper waste management procedure, including waste reduction, reuse and recycling.
- The Contractor shall not permit the discharge or disposal of sewage and untreated effluent containing sand, cement, silt or any other suspended or dissolved material, or any solid waste including refuse which is not part of the final product from waste processing plants respectively, from anywhere within the Site on to any adjoining land. Removal of such matter from the Site shall be arranged in a proper manner to the satisfaction of the Engineer in consultation with the EPD.
- If chemical waste is produced, the Contractor shall appoint register as a chemical waste producer under the Waste Disposal (Chemical Waste) (General) Regulation, and properly store, label, package and collect chemical waste in accordance with the Regulation.

Operation Phase

- 5.3.9 The majority of waste generated during the operation of the Proposed Development will mainly comprise of domestic waste such as food waste, food packaging, paper, can, plastic bottles, etc., which shall be collected and stored in appropriate waste receptacles with a secure lid to minimise the potential adverse impact due to wind blowing away any waste and to improve hygiene. Recyclable and non-recyclable waste shall be regularly collected by licensed waste collectors and taken off-site for recycling or disposal, respectively. Besides, food waste will be collected separately for proper disposal, e.g., off-site treatment at Organic Resources Recovery Centre (“O Park”) or on-site treatment with food waste composting machines, etc. Furthermore, any chemical and clinical wastes generated shall be segregated from other waste streams and handled by licensed collectors in accordance with the relevant statutory requirements and control schemes.

5.4 Conclusion

- 5.4.1 With the development of WMP and the implementation of good site practices recommended therein, the waste generation (including inert and non-inert C&D materials, chemical waste, and general refuse) during construction phase can be greatly reduced. Provided that good engineering practices as recommended in **Section 5.3** will be followed, there should be no adverse impacts related to the management, handling and transportation of waste during the construction phase.
- 5.4.2 During the operation phase, the major type of waste generated will be domestic waste generated by the Proposed Development with minor chemical wastes and clinical wastes. Domestic waste will be collected on a daily basis, while both chemical and clinical waste will be collected on monthly basis by registered waste collectors and will be disposed at a landfill managed by EPD. Therefore, no adverse waste impacts from handling, transportation, or disposal are anticipated during operation.
- 5.4.3 With the implementation of the recommended mitigation measures, adverse waste impacts generated during the construction and operational phases of the Proposed Development are not anticipated.

6 LAND CONTAMINATION

6.1 Environmental Legislation and Standards

6.1.1 The following legislation, standards and guidelines were taken reference to for conducting the land contamination assessment:

- EPD Guidance Note for Contaminated Land Assessment and Remediation (Revised in April 2023)
- EPD Practice Guide for Investigation and Remediation of Contaminated Land (Revised in April 2023)
- Guidance Manual for Use of Risk-Based Remediation Goals for Contaminated Land Management (Revised in April 2023)

6.2 Assessment Methodology

6.2.1 Land contamination assessment was done according to EPD’s guidelines. A typical land contamination assessment is done according to the following steps:

1. Carry out site assessment, including background information collection, to determine whether there is any potential for land contamination in the Site

6.2.2 In the case that potential land contamination issues are identified, a complete land contamination assessment with the following steps should be undertaken:

1. Design a site investigation (“SI”) strategy and prepare a Contamination Assessment Plan (“CAP”) for EPD’s approval
2. Upon EPD’s approval of the CAP, conduct SI according to the approved CAP
3. Upon completion of SI, interpret the results and prepare a Contamination Assessment Report (“CAR”) for EPD’s approval
4. Plan and design remediation strategy and prepare a Remediation Assessment Plan (“RAP”) for EPD’s approval
5. Carry out remediation works according to the approved RAP
6. Prepare a Remediation Report (“RR”) for EPD’s endorsement

6.3 Site Appraisal

6.3.1 Historical land uses review and site walkover have been conducted to identify any potential issues on land contamination from past and present land use activities at the Site.

Review of Historical Land Use

6.3.2 Aerial photographic records between Year 1963 and Year 2022 obtained from the Survey and Mapping Office (“SMO”) of Lands Department were reviewed. The Site was an agricultural land on or before 1963. In 1982, some temporary structures and village houses were identified within and nearby the Site, while the surrounding area was mainly agricultural lands, fish ponds and vacant land. In 1993, the Site has been converted to an open storage area with containers and sparse vegetation observed. In 2003, part of the Site

was used as open storage and the remaining area was vacant. In 2014, the entire Site was used as open storage with some temporary structures observed. The operator of open storage moved and the site became vacant in 2022. The historical land uses of the Site based on the aerial photographic records is summarised in **Table 6-1** and the aerial photographs are provided in **Appendix I**.

Table 6-1 Historical Land Uses of the Project Site

PHOTO ID	HISTORICAL LAND USES
1963_1963-8414	Agricultural land
1973_06054	Agricultural land
1982_42801	Temporary structures and village houses
1993_CN05966	Open storage with containers and sparse vegetation
2003_CW54027	Open storage and paved vacant land
2014_CW107934	Open Storage with temporary structures
2022_E148039C	Paved vacant land

Site Walkover

- 6.3.3 A site walkover was carried out on 9 January 2025 to understand the existing conditions of the Project Site and adjacent areas. As observed, the Site is mainly surrounded by road networks, residential buildings and some temporary structures. No suspected contamination potential was identified in the vicinity of the Site.
- 6.3.4 As observed during the site inspection, the Site is mainly paved with concrete with a part of unpaved ground with vegetation cover at the northeast of the Site. No suspected stains or stressed vegetation have been observed at the Site. As advised by the Applicant, the Site was previously used as an open storage for containers and construction materials. No chemicals and dangerous goods were stored on the Site. In general, no stains and land contamination activities were observed on the Site. As such, potential land contamination is not anticipated. The site walkover checklist and photos showing the existing site conditions are provided in **Appendix J**.

Dangerous Goods and Incident Records

- 6.3.5 Regional Office (North) of EPD was contacted to review if any record of registered Chemical Waste Producer (“CWP”) or accident spillage / leakage of chemical waste is related to the Site. According to EPD’s reply dated 14 March 2025, Regional Office (North) did not have any record of potential land contamination incident. The CWP register has been inspected at EPD Territory Control Office on 25 March 2025 and no record of CWP has been registered for the Site.
- 6.3.6 Moreover, the Fire Services Department (“FSD”) was also contacted to review any current / past licences for storage of Dangerous Goods (“DG”), registration of DG licence, fire incidents, spillage/leakage of DG etc., relating to the Site. According to FSD’s reply dated 20 February 2025, no DG licence was issued in respect of the Site, while one incident record of rubbish fire was recorded near Lamp Post No. FB5411 at Fui Sha Wai South Road, which was located outside the Site. As no CWP or DG license has been issued for the Site, and the incident of rubbish fire was not within the Site, it is considered that the fire incident does not have any

land contamination potential to the Site. The information request letters and replies from EPD and FSD are attached in **Appendix K**.

6.4 Conclusion

- 6.4.1 A desktop study of the past and present land-use of the Site was carried out. Based on historical records and the site walkover, no potential sources of land contamination were identified in the past and no existing land contamination issues were identified. As such, steps 1 to 6 of **paragraph 6.2.2** are not required. Hence, no adverse impact from the land contamination issue is anticipated and site investigation is considered not necessary.

7 CONCLUSIONS AND RECOMMENDATIONS

7.1.1 This EA has indicated that the Proposed Development will not generate any adverse environmental impacts during construction and operation phases, provided that all the recommended mitigation measures and good site practices are strictly implemented.

7.1.2 Specific conclusions for air quality, noise, water quality, waste management and land contamination are as follows:

Air Quality

7.1.3 With the implementation of the recommended mitigation measures and good site practices, adverse air quality impacts during construction phases are not anticipated.

7.1.4 During operation phase, no adverse air quality impact on the Site from chimney, vehicular and odour emissions are anticipated with the sufficient buffer distance provided between air pollution sources and the Site boundary.

7.1.5 Overall, no adverse air quality impact is anticipated during the construction and operation phases of the proposed development.

Noise

7.1.6 During construction phase, with the implementation of recommended noise mitigation measures, no adverse impact is anticipated.

7.1.7 A potential existing railway noise source (Light Rail) was observed within the vicinity of the Project Site during desktop review and site visit. Given that the Light Rail is approximately 187m northwest of the Project Site in shortest distance, and the railway noise was not noticeable in the vicinity of the Site, no adverse railway noise impact is expected.

7.1.8 A part of the future planned potential railway noise source (SGMTS) was noted within the vicinity of the Project Site. Based on the best available information, the proposed alignment is approximately 200m from the Project Site. Given this separation distance, adverse noise impact from the planned SGMTS is not anticipated.

7.1.9 A fixed noise source, Tai Tao Tsuen Substation, was identified within the vicinity of the Project Site during desktop review and site visit. Considering the observations from site visit, fixed noise from the operation of the Tai Tao Tsuen Substation was not noticeable. As such, adverse impact arising from its operation to the Proposed Development is not anticipated. fixed noise from Tai Tao Tsuen was not noticeable in vicinity of the Project Site.

7.1.10 Since most of the M&E equipment will be installed in plant rooms and will be enclosed with louvres installed at the openings, no adverse noise impact is anticipated. For the outdoor split-type air conditioners, as the noise is considered minimal and with the noise mitigation measures, no adverse noise impact is anticipated.

7.1.11 Road traffic noise impact on the Indicative Development scheme was assessed. Noise exceedances are predicted at RCHE (1/F – 5/F) and residential units at Tower A and B. With the mitigation measures including acoustic windows (baffle type) and fixed/lockable/maintenance windows, no adverse noise impact is anticipated.

7.1.12 Overall, no adverse noise impact is anticipated during the construction and operation phases of the Indicative Development scheme.

- 7.1.13 An updated Noise Impact Assessment Report will be submitted at a later stage under land lease mechanism, based on the latest design/layout of the proposed development to achieve full compliance with the noise criteria set out in the HKPSG.

Water Quality

- 7.1.14 During construction phase, water quality impacts will be properly controlled by implementing the good site practices recommended in **Section 4.4**. Portable toilets, when necessary, will be provided for construction workers on site. Provided these measures are implemented, adverse water quality impact is not anticipated during the construction phase. The Contractor shall apply for a Discharge Licence under WPCO and the effluent discharged from the construction site shall comply with the terms and condition of the Discharge Licence.
- 7.1.15 During operation phase, sewage and wastewater generated from toilets, showers and kitchens will be collected and discharged into the public sewerage system. The separate SIA Report prepared by the Project Sewerage Consultant has concluded that there will be no adverse sewerage impact on the municipal sewerage system arising from the Site.
- 7.1.16 Overall, no adverse water quality impact is anticipated during construction and operation phase of the Proposed Development.

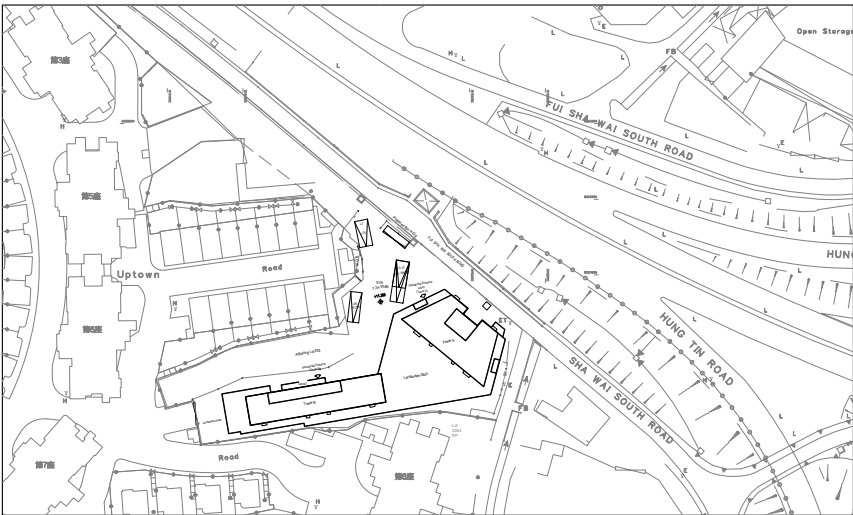
Waste Management

- 7.1.17 With the development of WMP and provision and implementation of the good site practices therein, the waste generation during construction phase will be reduced. Provided that good site practices are followed, no adverse impacts related to the management, handling and transportation of waste during construction phase is anticipated.
- 7.1.18 During operation phase, domestic waste, chemical wastes and clinical wastes produced by the Proposed Development will be the main concern with regard to waste generation. As domestic wastes will be collected on a daily basis, while both chemical wastes and clinical wastes will be collected on monthly basis, by registered collectors and will be disposed of at landfill or designated waste treatment centre (i.e., CWTC), it is concluded that no adverse waste impacts from handling, transportation or disposal are anticipated.
- 7.1.19 With the implementation of the recommended mitigation measures, adverse waste impacts generated during the construction and operation phases of the Proposed Development are not anticipated.

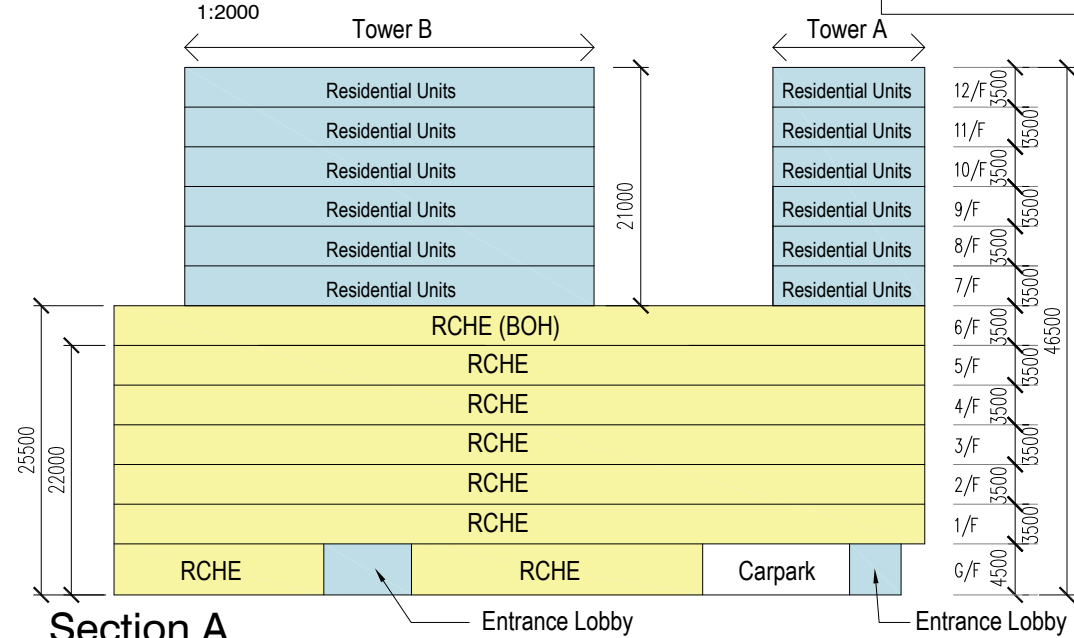
Land Contamination

- 7.1.20 A detailed investigation of the past and present land-use of the Site was carried out. Based on historical records and the site walkover, no potential sources of land contamination were identified in the past and no existing land contamination issues were identified. Hence, no adverse impact from the land contamination issue is anticipated and site investigation is considered not necessary.

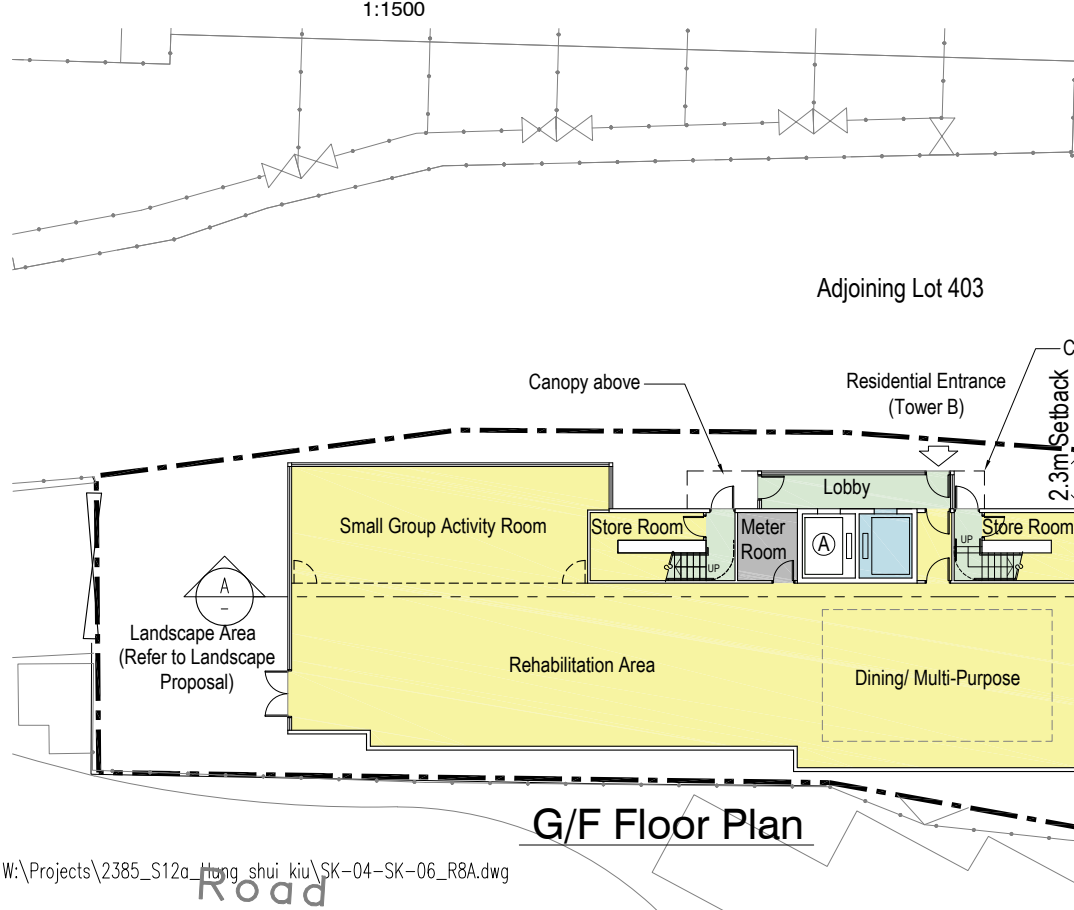
Appendix A PROJECT LAYOUT



Site Plan



Section A



G/F Floor Plan

	RCHE(P)	Residential Towers				Carparking Space		
		Tower A (Units)		Tower B (Units)		Parking	Private Cars (5x2.5m)	14
G/F	-	-		-			Light Bus (8x3m)	2
1/F-5/F	90 x 5	-		-				Motocycles (2.4x1m)
6/F	-	-		-		Loading/ Unloading Bay	Private Car (5x2.5m)	1
7-12/F	-	Living Unit B1-B6 =6	x 6	Living Unit A1-A6 =6	x 6		LGV (7x3.5m)	2
Total Capacity	450	36		36			MHGV (11x3.5m)	1
		72				Total		22
Total Nos. of Rooms for RCHE		14 x 5 = 70						
Total Blocks for Residence		2						

PLOT RATIO & SITE COVERAGE CALCULATIONS (AREA UNDER BD)

Site Area	= 2138 S.M.
Class of Site	= A
Mean Street Level	= 11.30mPD
Height of Building Above Mean Street Level	= 46.5m
Building Height in mPD	= (11.30 + 46.5) = 57.80mPD
Permitted Domestic Site Coverage (Over 43m)	= 37%
Permitted Non-Domestic Site Coverage (Over 24m)	= 89%
Permitted Domestic Plot Ratio (Over 43m)	= 5.9
Permitted Non-Domestic Plot Ratio (Over 24m)	= 8
Proposed Domestic Site Coverage Calculation	= 569 S.M. / 2138 x 100% = 26.6% < 37%
Proposed Non-Domestic Site Coverage Calculation	= 1219 S.M. / 2138 x 100% = 57% < 89%
Proposed Total Non-Domestic GFA	= 7406 / 2138 = 3.464
Non-Domestic Plot Ratio	= 3.464 < 8
Permitted Domestic Plot Ratio (Residue Method)	= (8 - 3.464) / 8 x 5.9 = 3.345
Proposed Total Domestic GFA	= 3519 / 2138 = 1.646
Domestic Plot Ratio	= 1.646 < 3.345

GFA CALCULATION

Ground Floor (Tower A)	= 114 S.M. (Exclude Carpark & Tx / Switch Room)
Ground Floor (Tower B)	= 576 S.M.
First to Sixth Floor	= 1159 x 5 + 1035 = 6830 S.M.
Seventh Floor (Tower A & B)	= 277 + 283 = 560 S.M. (Exclude Balconies)
Eighth to Twelfth Floor (Tower A & B)	= (282 + 287) x 5 = 2845 S.M. (Exclude Balconies)
Proposed Total Non-Domestic GFA	= 576 + 6830 = 7406 S.M.
Proposed Total Domestic GFA	= 114 + 560 + 2845 = 3519 S.M.

rev.	date	description
0	09-07-2025	First Issue
1	14-07-2025	Revision 1
2	16-07-2025	Revision 2
3	21-07-2025	Revision 3
4	01-09-2025	Revision 4
5	05-09-2025	Revision 5
6	03-03-2026	Revision 6
7	29-04-2026	Revision 7
8	25-06-2026	Revision 8

project title
Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and To Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) and at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

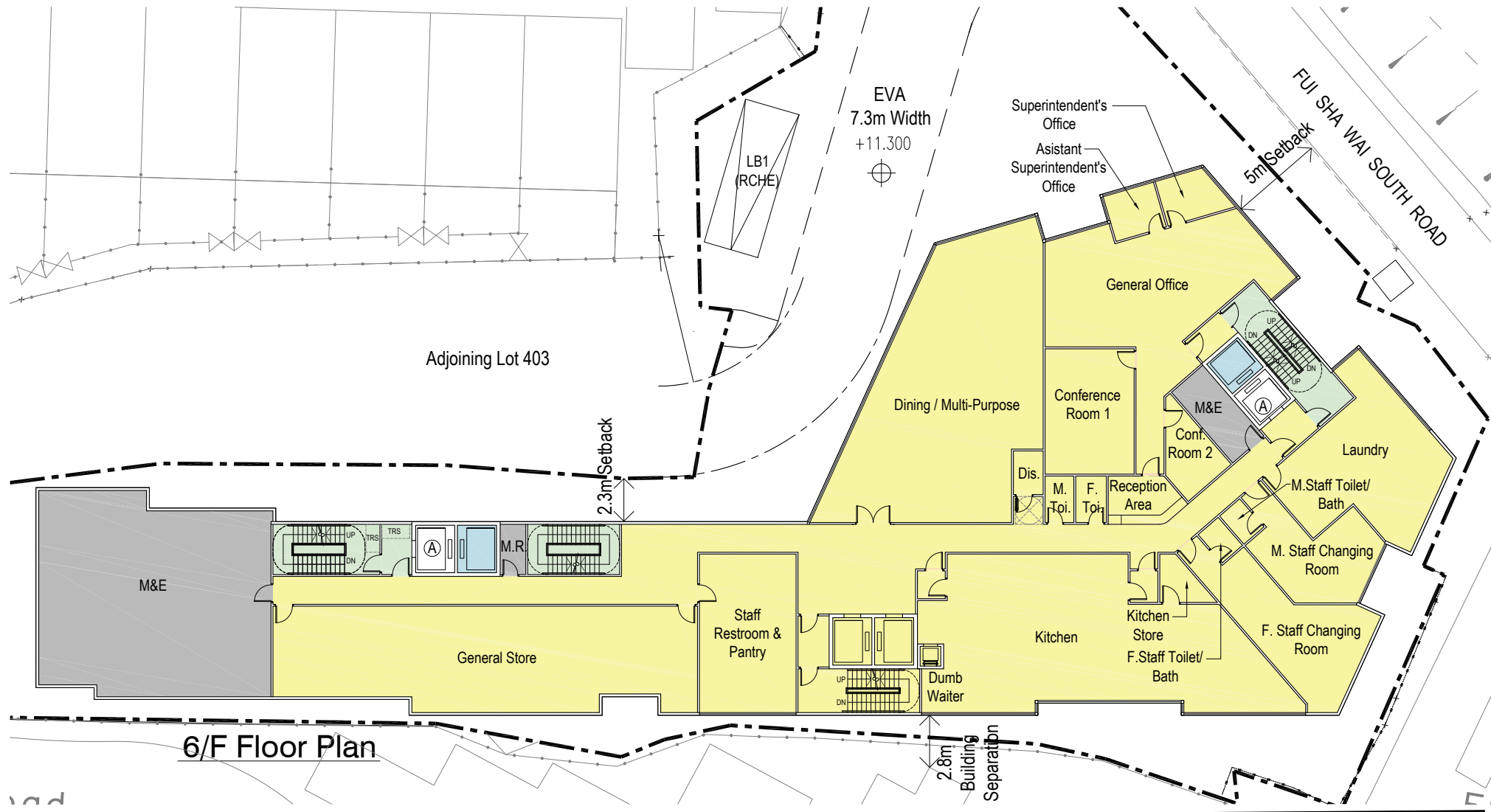
drawing title
Ground Floor Plan

drawing no.
SK-04_rev.8

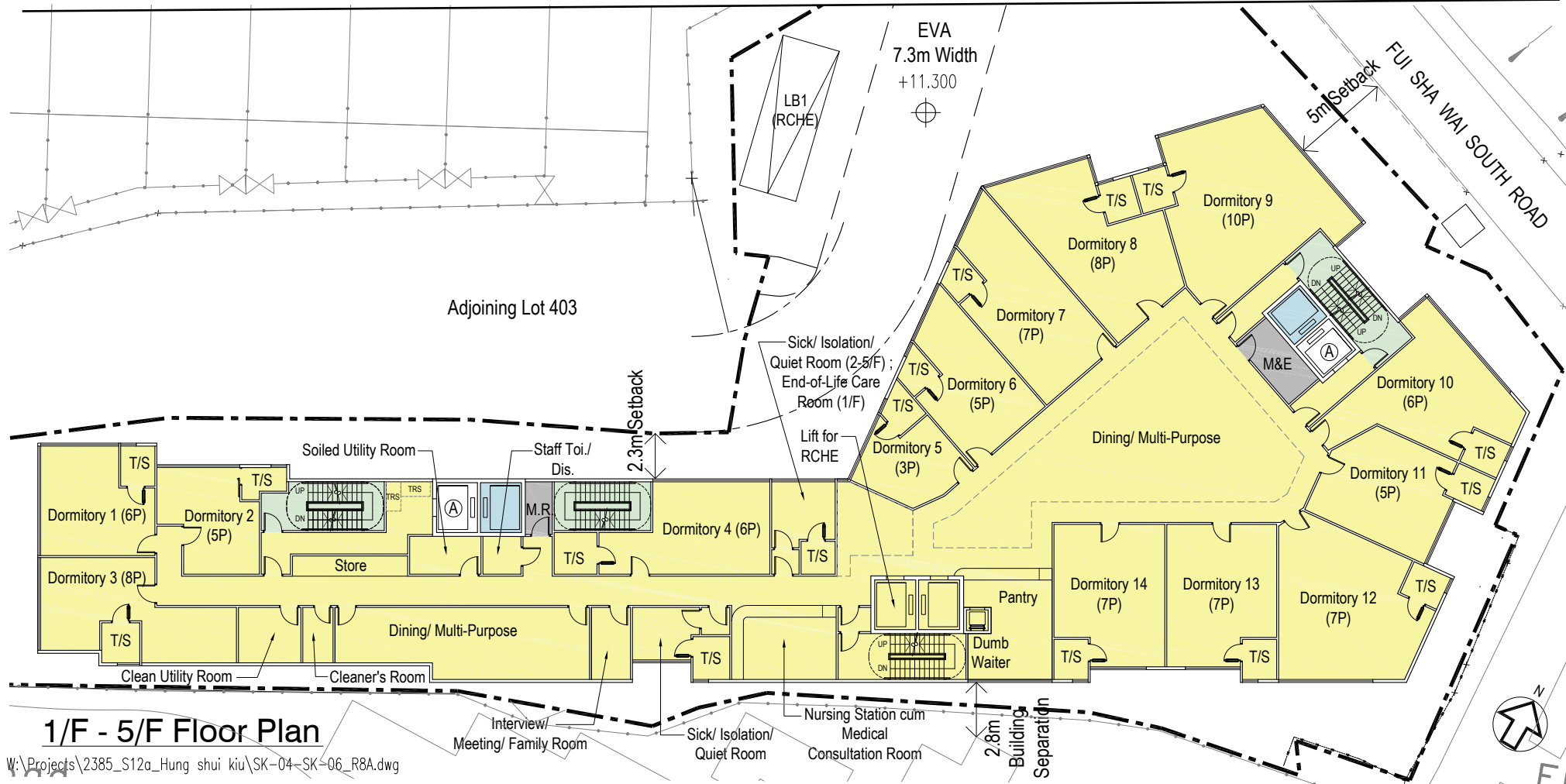
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LEGEND

- RCHE
- Residential
- RCHE & Residential
- E&M Services/ Supporting Facilities
- T/S Toilet & Shower
- Dis. Accessible Toilet
- (A) Firemen Lift to all Floors



6/F Floor Plan



1/F - 5/F Floor Plan

W:\Projects\2385_S12a_Hung shui kiu\SK-04-SK-06_R8A.dwg

SCHEDULE OF ACCOMMODATION FOR RESIDENTIAL CARE HOME FOR THE ELDERLY
(FOR 450 RESIDENTIAL CARE PLACES)

ITEM NO.	DESCRIPTION	NOFA (M²)	USABLE FLOOR AREA (M²)
		(PROPOSED 450 PERSONS)	
1	DORMITORY	2631	2631
2	ATTACHED BATHROOM/ SHOWER ROOM TO DORMITORY ROOM	AS APPROPRIATE	252.5
3	DINING/ MULTI-PURPOSE	989.2	989.2
4	PANTRY	AS APPROPRIATE	117.5
5	SMALL GROUP ACTIVITY ROOM	55.8	55.8
6	NURSING STATION CUM MEDICAL CONSULTATION ROOM	101.5	101.5
7	SICK/ ISOLATION/ QUIET ROOM	84.3	84.3
8	ACCESSIBLE TOILET CUM SHOWER ROOM ATTACHED TO EACH SICK/ ISOLATION/ QUIET ROOM	AS APPROPRIATE	32.1
9	REHABILITATION AREA	200	200
10	STORE FOR REHABILITATION AREA	10	10
11	END-OF-LIFE CARE ROOM	10.1	10.1
12	SOILED UTILITY ROOM	36	36
13	CLEANER'S ROOM	AS APPROPRIATE	22
14	LAUNDRY	55.4	55.4
15	KITCHEN & KITCHEN STORE	138.6	138.6
16	DUMB WAITER	AS APPROPRIATE	7.2
17	GENREAL STORE	159.5	159.5
18	CLEAN UTILITY ROOM	45	45
19	INTERVIEW/ MEETING/ FAMILY ROOM	37	37
20	REFUSE ROOM	AS APPROPRIATE	14
21	SUPERINTENDENT'S OFFICE	8	8
22	ASSISTANT SUPERINTENDENT'S OFFICE	7	7
23	GENERAL OFFICE	82.4	82.4
24	RECEPTION AREA	9.5	9.5
25	CONFERENCE ROOM	43.3	43.3
26	FEMALE/ MALE STAFF CHANGING ROOM AND REST ROOM CUM PANTRY	112	112
27	STAFF TOILET/ BATH ROOM	AS APPROPRIATE	24.7
28	TOILET FOR COMMUNAL USE A) FEMALE TOILET B) MALE TOILET C) ACCESSIBLE TOILET	AS APPROPRIATE	11.8
TOTAL		4815.6	5297.4
MAXIMUM OCCUPANTS PER FLOOR AREA (M²) = 4815.6/ 9.5 = 507 > 450 (PROPOSED TOTAL OCCUPANTS)			

rev.	date	description
0	09-07-2025	First Issue
1	14-07-2025	Revision 1
2	16-07-2025	Revision 2
3	21-07-2025	Revision 3
4	01-08-2025	Revision 4
5	05-08-2025	Revision 5
6	03-03-2026	Revision 6
7	29-04-2026	Revision 7
8	25-08-2026	Revision 8

project title
Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and To Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) and at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

drawing title
1/F - 6/F Floor Plans

drawing no.
SK-05_rev.8

scale
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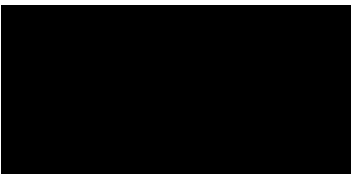
rev.	date	description
0	09-07-2025	First Issue
1	14-07-2025	Revision 1
2	16-07-2025	Revision 2
3	21-07-2025	Revision 3
4	01-08-2025	Revision 4
5	05-08-2025	Revision 5
6	03-03-2026	Revision 6
7	29-04-2026	Revision 7
8	25-06-2026	Revision 8

project title
Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and To Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) and at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

drawing title
7/F - 12/F Floor Plans

drawing no.
SK-06_rev.8

scale
1:300 @ A3



Appendix B **CORRESPONDENCE WITH TD**

Alex Wong

From: Chi Wai IP <chiwaiip@td.gov.hk>
Sent: 2025年8月28日星期四 11:45
To: [REDACTED]
Cc: Forrest Wing Kai NG; [REDACTED]
Subject: Re: Fw: 回覆: Proposed Residential & RCHE Development at Hung Shui Kiu, Lot No. 2188 & 398RP in D.D. 121, and Surrounding Government Land

Dear Lillian,

We have no comments on your proposed road type for Fui Sha Wai South Road as a Local Distributor and the Unnamed Access Road as a Feeder Road for the noise assessment purposes of the subject development.

As remarks, please note the following:-

1. The concerned Unnamed Access Road is not managed by this department.
2. Fui Sha Wai South Road does not connect with Hung Tin Road.

Regards,
Louis IP
E/YLS, TE(NTW), TD
Tel: 2399 2565

From: Chi Wai IP/TD/HKSARG
To: Forrest Wing Kai NG/TD/HKSARG@TD
Date: 2025/08/04 下午 05:50
Subject: Fw: 回覆: Proposed Residential & RCHE Development at Hung Shui Kiu, Lot No. 2188 & 398RP in D.D. 121, and Surrounding Government Land
TENTW/EYLS

Dear Forrest,

The subject case is under your purview. Please follow up the case. Thanks.

Regards,
Louis IP
E/YLS, TE(NTW), TD
Tel: 2399 2565

----- Forwarded by Chi Wai IP/TD/HKSARG on 2025/08/04 下午 05:49 -----

From: [REDACTED]
To: "Chi Wai IP" <[REDACTED]>
Cc: [REDACTED]
Date: 2025/04/29 下午 03:15
Subject: 回覆: Proposed Residential & RCHE Development at Hung Shui Kiu, Lot No. 2188 & 398RP in D.D. 121, and Surrounding Government Land

Dear Louis,

Justification of road types for the concerned road links are as follows for your consideration:

Fui Sha Wai South Road: According to TPDM Volume 2 Chapter 3.2, Local Distributors are defined as “Roads within Districts linking developments to the District Distributor Roads”. Fui Sha Wai South Road is a single-track (two-way) access road serving a low volume of traffic, linking developments like “Uptown” to the District Distributor Road (i.e. Hung Tin Road). Therefore, Fui Sha Wai South Road is considered to be a Local Distributor.

Unnamed Access Road: According to TPDM Volume 2 Chapter 3.2, “Feeder Roads are defined as “Roads connecting villages or more remote settlements to Rural Roads”. The Unnamed Access Road is a single-track (two-way) access road linking between Fui Sha Wai South Road to village of Tai Tao Tsuen and other rural area near Tai To Tsuen Road. While the Unnamed Access Road is serving a low volume of traffic, the concerned carriageway is considered as a Feeder Road.

Should there be any enquiries, please feel free to contact us.
Thank you.

Best Regards,

Lily LIN



寄件者: Chi Wai IP <chiwaiip@td.gov.hk>

寄件日期: 2025 年 4 月 28 日 10:44

收件者: [REDACTED]

副本: [REDACTED]

主旨: Re: Proposed Residential & RCHE Development at Hung Shui Kiu, Lot No. 2188 & 398RP in D.D. 121, and Surrounding Government Land

Dear Lily,

Grateful if you could provide the justification on your proposed road type for our further review.

Regards,

Louis IP

E/YLS, TE(NTW), TD

Tel: 2399 2565

From: [REDACTED]

To: <chiwaiip@td.gov.hk>

Cc: <wilsonkhman@td.gov.hk>, [REDACTED]

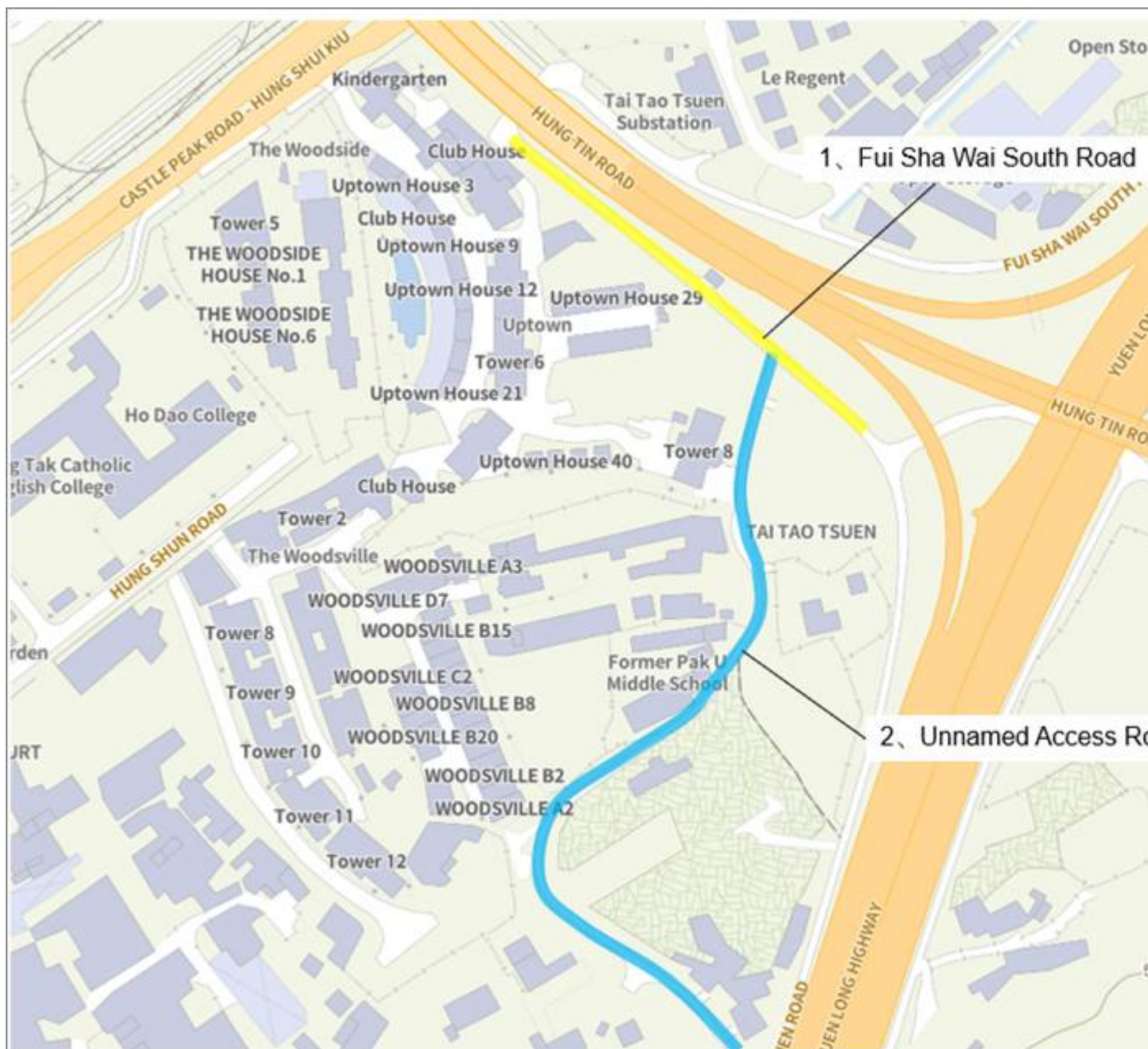
Date: 2025/04/02 下午 02:32

Subject: Proposed Residential & RCHE Development at Hung Shui Kiu, Lot No. 2188 & 398RP in D.D. 121, and Surrounding

Dear Mr. Ip,

We are the traffic consultant commissioned for the captioned project. We would like to seek your advice on the road types (not included and defined by ATC) presented in the table below, with their respective locations shown in the accompany figure, it would be grateful if you can let us have your confirmation / comment on the Road Types.

Road ID	Road Name	Section Between		Suggested Road Type
1	Fui Sha Wai South Road	Tai Tao Tsuen	Uptown	Local Distributor Road
2	Unnamed Access Road	Fui Sha Wai South Road	Cul-de-sac	Feeder Road



Should there be any enquiries, please feel free to contact us.
Thank you.

Best Regards,
Lily LIN

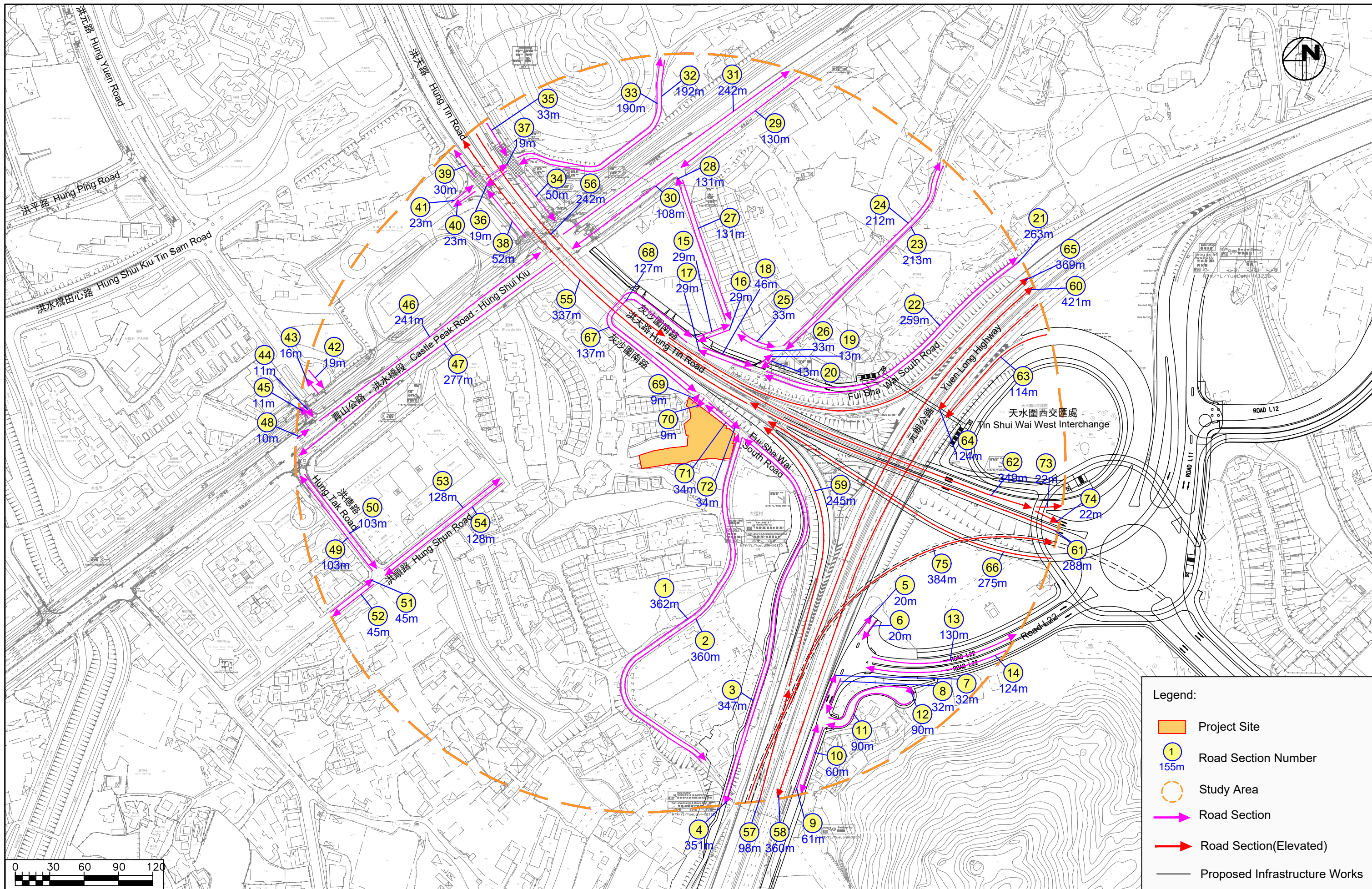


OZZO Technology HK Ltd



Appendix C TRAFFIC FORECAST IN 2046

X:\Ozzo\83136_S12A for Proposed Residential and RCHE Development at Lot No 2188 & 398 RP in DD121 Hung Shui Kiu\Data\Wg\83136_Figure 1B.dwg 2026/05/11 11:03:12



Section 12A Application for Proposed Rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and Amend the Notes of the Zone Applicable to the Site for Proposed Social Welfare Facility (Residential Care Home for the Elderly) and Residential Development (Senior Housing) at Lots 398 RP and 2188 in D.D. 121, Tai Tao Tsuen Hung Shui Kiu, New Territories

Key Plan for NIA (Noise Impact Assessment) Traffic Forecast

Date	Scale
11/05/2026	1:3000

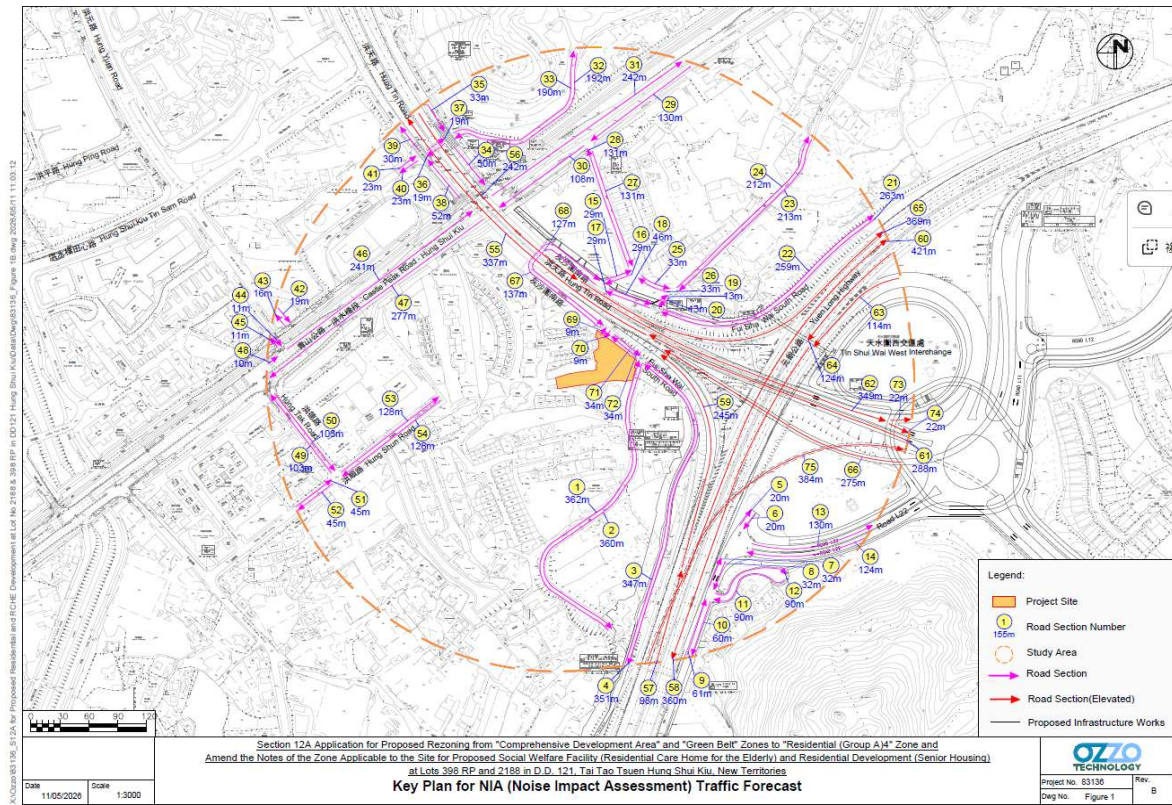


Project No. 83136
Dwg No. Figure 1

Rev.
B

2046 Peak Hour Traffic Forecast for Traffic Noise Impact Assessment

Road ID	Road Name	Section Between		Length (m)	AM Peak Hour		PM Peak Hour	
					Flow (veh/hr)	% HV	Flow (veh/hr)	% HV
1	Access Road	Cul-de-sac	Fui Sha Wai South Road	362	7	16.7%	5	25.0%
2	Access Road	Fui Sha Wai South Road	Cul-de-sac	360	4	33.3%	7	16.7%
3	Fui Sha Wai South Road	Tai To Tsuen Road	Access Road (near Uptown)	347	15	32.2%	21	10.3%
4	Fui Sha Wai South Road	Access Road (near Uptown)	Tai To Tsuen Road	351	9	34.5%	8	34.8%
5	Access Road	Road L22	Cul-de-sac	20	10	25.0%	10	20.0%
6	Access Road	Cul-de-sac	Road L22	20	10	25.0%	10	20.0%
7	Access Road	Access Road(near Yuen Long Highway)	Road L22	32	375	25.0%	300	20.0%
8	Access Road	Road L22	Access Road (near Yuen Long Highway)	32	375	25.0%	300	20.0%
9	Access Road	Tan Kwai Tsuen North Fresh Water Service Reservoir	Access Road (near Yuen Long Highway)	61	375	25.0%	300	20.0%
10	Access Road	Access Road (near Yuen Long Highway)	Tan Kwai Tsuen North Fresh Water Service Reservoir	60	375	25.0%	300	20.0%
11	Access Road	Open Storage	Access Road (near Yuen Long Highway)	90	10	25.0%	10	20.0%
12	Access Road	Access Road (near Yuen Long Highway)	Open Storage	90	10	25.0%	10	20.0%
13	Road L22	Access Road (near Yuen Long Highway)	Tin Shui Wai West Interchange	130	550	30.0%	350	20.0%
14	Road L22	Tin Shui Wai West Interchange	Access Road (near Yuen Long Highway)	124	450	30.0%	350	20.0%
15	Access Road	Fui Sha Wai South Road	Le Regent	29	30	27.8%	30	16.7%
16	Access Road	Le Regent	Fui Sha Wai South Road	29	11	48.3%	14	51.4%
17	Fui Sha Wai South Road	Open Storage	Tai Tao Tsuen Substation	29	5	100.0%	5	25.0%
18	Fui Sha Wai South Road	Tai Tao Tsuen Substation	Open Storage	46	1	100.0%	6	60.0%
19	Access Road	Fui Sha Wai South Road	Open Storage	13	1	100.0%	0	0.0%
20	Access Road	Open Storage	Fui Sha Wai South Road	13	2	100.0%	2	50.0%
21	Fui Sha Wai South Road	Fui Sha Wai South Road (near Forefront Cyber Centre)	Open Storage	263	2	100.0%	4	0.0%
22	Fui Sha Wai South Road	Open Storage	Fui Sha Wai South Road (near Forefront Cyber Centre)	259	0	0.0%	5	50.0%
23	Access Road	Le Regent	Open Storage	213	5	50.0%	5	25.0%
24	Access Road	Open Storage	Le Regent	212	4	33.3%	5	0.0%
25	Access Road	Tai Tao Tsuen Substation	Open Storage	33	4	0.0%	8	0.0%
26	Access Road	Open Storage	Tai Tao Tsuen Substation	33	6	20.0%	5	0.0%
27	Access Road	Castle Peak Road - Hung Shui Kiu	Le Regent	131	27	20.4%	38	31.8%
28	Access Road	Le Regent	Castle Peak Road - Hung Shui Kiu	131	49	24.3%	40	15.2%
29	Castle Peak Road - Ping Shan	Chinese Mission Seminary	Le Regent	130	1165	27.1%	1030	23.8%
30	Castle Peak Road - Hung Shui Kiu	Le Regent	Hung Tin Road (At grade)	108	1187	27.2%	1032	23.0%
31	ad - Hung Shui Kiu / Castle Peak R	Hung Tin Road (At grade)	Chinese Mission Seminary	242	1010	22.4%	876	23.4%
32	Access Road	Graves	Hung Tin Road (At grade)	192	8	0.0%	7	0.0%
33	Access Road	Hung Tin Road (At grade)	Graves	190	5	0.0%	1	0.0%
34	Hung Tin Road (At grade)	Access Road	Castle Peak Road - Hung Shui Kiu	50	688	18.3%	517	24.4%
35	Hung Tin Road (At grade)	Castle Peak Road - Hung Shui Kiu	Hung Shui Kiu Tin Sam Road	33	727	19.9%	558	28.7%
36	Hung Tin Road (At grade)	Hung Tin Road SB (At grade)	Hung Tin Road NB (At grade)	19	65	29.1%	59	12.0%
37	Hung Tin Road (At grade)	Hung Tin Road NB (At grade)	Hung Tin Road SB (At grade)	19	22	2.2%	19	12.4%
38	Hung Tin Road (At grade)	Castle Peak Road (Hung Shui Kiu)	MTR Hung Shui Kiu Bus Depot	52	767	23.1%	641	20.8%
39	Hung Tin Road (At grade)	MTR Hung Shui Kiu Bus Depot	Hung Shui Kiu Tin Sam Road	30	807	24.3%	683	20.3%
40	Access Road	Hung Tin Road NB (At grade)	MTR Hung Shui Kiu Bus Depot	23	5	25.0%	2	50.0%
41	Access Road	MTR Hung Shui Kiu Bus Depot	Hung Tin Road NB (At grade)	23	7	50.0%	5	50.0%
42	Hung Yuen Road	Park Nara	LRT (Hung Shui Kiu Station)	19	17	92.9%	9	50.0%
43	Hung Yuen Road	LRT (Hung Shui Kiu Station)	Park Nara	16	17	92.9%	9	50.0%
44	Access Road	Park Nara	Castle Peak Road - Hung Shui Kiu	11	48	7.3%	42	0.0%
45	Access Road	Castle Peak Road - Hung Shui Kiu	Park Nara	11	41	5.7%	26	13.6%
46	Castle Peak Road - Hung Shui Kiu	Access Road	Hung Tin Road (At grade)	241	1288	23.4%	1052	22.3%
47	Castle Peak Road - Hung Shui Kiu	Hung Tin Road (At grade)	Hung Tak Road	277	1410	24.1%	1098	24.5%
48	Castle Peak Road - Hung Shui Kiu	Shung Tak Catholic English College	Access Road	10	1281	23.5%	1036	23.7%
49	Hung Tak Road	Hung Shun Road	Castle Peak Road - Hung Shui Kiu	103	369	11.5%	207	11.4%
50	Hung Tak Road	Castle Peak Road - Hung Shui Kiu	Hung Shun Road	103	463	12.8%	312	21.6%
51	Hung Shun Road	Symphony Garden	Hung Tak Road	45	312	13.2%	184	11.6%
52	Hung Shun Road	Hung Tak Road	Symphony Garden	45	406	13.5%	294	23.3%
53	Hung Shun Road	Hung Tak Road	Cul-de-sac	128	93	5.1%	34	3.4%
54	Hung Shun Road	Cul-de-sac	Hung Tak Road	128	100	3.5%	35	6.7%
55	Hung Tin Road (Elevated)	Uptown	MTR Hung Shui Kiu Bus Depot	337	2265	30.0%	2992	20.0%
56	Hung Tin Road (Elevated)	MTR Hung Shui Kiu Bus Depot	Uptown	242	2643	30.0%	2956	20.0%
57	Yuen Long Highway	Manor Parc	Slip Road of Hung Tin Road	98	5117	30.0%	5559	25.0%
58	Yuen Long Highway	Tin Shui Wai West Interchange	Manor Parc	360	7425	25.0%	6558	15.0%
59	Hung Tin Road	Yuen Long Highway	Hung Tin Road (Elevated)	245	998	30.0%	1249	25.0%
60	Yuen Long Highway	Slip Road of Hung Tin Road	Tin Shui Wai West Interchange	421	4119	30.0%	4310	25.0%
61	Hung Tin Road (Elevated)	Tin Shui Wai West Interchange	Uptown	288	620	30.0%	385	20.0%
62	Hung Tin Road (Elevated)	Uptown	Tin Shui Wai West Interchange	349	1616	30.0%	1862	20.0%
63	Hung Tin Road	Tin Shui Wai West Interchange	Yuen Long Highway	114	1905	25.0%	1929	15.0%
64	Yuen Long Highway	Tin Shui Wai West Interchange	Slip Road of Hung Tin Road	124	5520	25.0%	4629	15.0%
65	Hung Tin Road	Uptown	Yuen Long Highway	369	1027	30.0%	1094	25.0%
66	Slip Road of Yuen Long Highway	Yuen Long Highway	Slip Road of Hung Tin Road	275	647	20.0%	1358	25.0%
67	Fui Sha Wai South Road	Access Road to Project Site	Tai Tao Tsuen Substation	124	25	18.9%	25	15.1%
68	Fui Sha Wai South Road	Tai Tao Tsuen Substation	Access Road to Project Site	124	11	37.8%	11	24.3%
69	Access Road	Project Site	Fui Sha Wai South Road	9	8	23.8%	18	23.8%
70	Access Road	Fui Sha Wai South Road	Project Site	9	9	23.8%	15	23.8%
71	Fui Sha Wai South Road	Access Road to Project Site	Access Road (near Uptown)	34	20	18.9%	23	15.1%
72	Fui Sha Wai South Road	Access Road (near Uptown)	Access Road to Project Site	34	11	37.8%	12	24.3%
73	Hung Tin Road (Elevated)	Slip Road of Hung Tin Road	Yuen Long Highway	22	1305	30.0%	1479	20.0%
74	Hung Tin Road (Elevated)	Slip Road of Hung Tin Road	Yuen Long Highway	22	311	30.0%	383	20.0%
75	Slip Road of Yuen Long Highway	Yuen Long Highway	Road L20	360	795	30.0%	870	20.0%



Appendix D **PREDICTED ROAD TRAFFIC NOISE LEVEL (BASE CASE)**

Project: Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Block: RCHE (G/F - 5/F)
Scenario: Road Traffic Noise (2046 AM flow) - Base Case

Floor	Floor Height (m)	Floor Level (mPD)	NAP Level (mPD)	RCHE (1/F - 5/F)											
				RCHE_TYP_01	RCHE_TYP_02	RCHE_TYP_03	RCHE_TYP_04	RCHE_TYP_05	RCHE_TYP_06	RCHE_TYP_07	RCHE_TYP_08	RCHE_TYP_09	RCHE_TYP_10	RCHE_TYP_11	RCHE_TYP_12
5/F	3.5	29.80	31.00	76	72	73	76	73	72	70	68	58	68	69	65
4/F	3.5	26.30	27.50	75	72	72	75	73	72	69	68	56	68	68	63
3/F	3.5	22.80	24.00	75	71	72	75	72	71	68	67	55	67	68	62
2/F	3.5	19.30	20.50	74		71	74	70	69	67	66	53	66	67	61
1/F	3.5	15.80	17.00	72	65	68	72	67	66	65	65	52	62	65	61
Criterion				70								70		70	

Floor	Floor Height (m)	Floor Level (mPD)	NAP Level (mPD)	RCHE (1/F - 5/F)												
				RCHE_TYP_13	RCHE_TYP_14	RCHE_TYP_15	RCHE_TYP_16	RCHE_TYP_17	RCHE_TYP_18	RCHE_TYP_19	RCHE_TYP_20	RCHE_TYP_21	RCHE_TYP_22	RCHE_TYP_23	RCHE_TYP_24	RCHE_TYP_25
5/F	3.5	29.80	31.00	66	68	69	72	72	72	72	73	74	74	74	74	74
4/F	3.5	26.30	27.50	64	66	66	70	71	71	71	72	73	74	74	74	74
3/F	3.5	22.80	24.00	62	64	63	68	69	70	69	71	72	73	73	73	74
2/F	3.5	19.30	20.50	61	62	62	67	68	69	68	70	71	72	72	72	73
1/F	3.5	15.80	17.00	61	61	61	66	66	67	67	68	70	70	70	71	71
Criterion				70				70		70						

Floor	Floor Height (m)	Floor Level (mPD)	NAP Level (mPD)	RCHE (G/F)				
				RCHE_GF_01	RCHE_GF_02	RCHE_GF_03	RCHE_GF_04	RCHE_GF_05
G/F	4.5	11.30	12.50	61	61	61	54	65
Criterion				70				

Note: Predicted noise level exceeded HKPSG Standard of 70 dB(A)
* Noise Assessment Point Level= Floor Slab Level +1.2m

Project: Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New

Block: Tower A - Residential & Tower B - Residential

Scenario: Road Traffic Noise (2046 AM flow) - Base Case

Floor	Floor Height (m)	Floor Level (mPD)	NAP Level (mPD)	Tower A - Residential													
				TYP_A_01	TYP_A_02	TYP_A_03	TYP_A_04	TYP_A_05	TYP_A_06	TYP_A_07	TYP_A_08	TYP_A_09	TYP_A_10	TYP_A_11	TYP_A_12	TYP_A_13	TYP_A_14
12/F	3.5	54.3	55.5	77	78	76	76	76	71	70	70	69	69	71	74	75	76
11/F	3.5	50.8	52.0	77	78	76	76	76	71	70	69	68	68	70	74	75	75
10/F	3.5	47.3	48.5	77	77	76	75	75	70	69	68	68	67	70	74	75	75
9/F	3.5	43.8	45.0	77	77	75	75	75	69	68	68	67	66	70	74	75	75
8/F	3.5	40.3	41.5	77	77	75	75	74	69	68	67	66	66	70	74	74	75
7/F	3.5	36.8	38.0	77	77	74	74	74	67	65	64	64	63	67	73	74	74
Criterion				70	70	70	70	70	70	70	70	70	70	70	70	70	70
Max Noise Level, dB(A)				77	78	76	76	76	71	70	70	69	69	71	74	75	76
Compliance				N	N	N	N	N	N	Y	Y	Y	Y	N	N	N	N

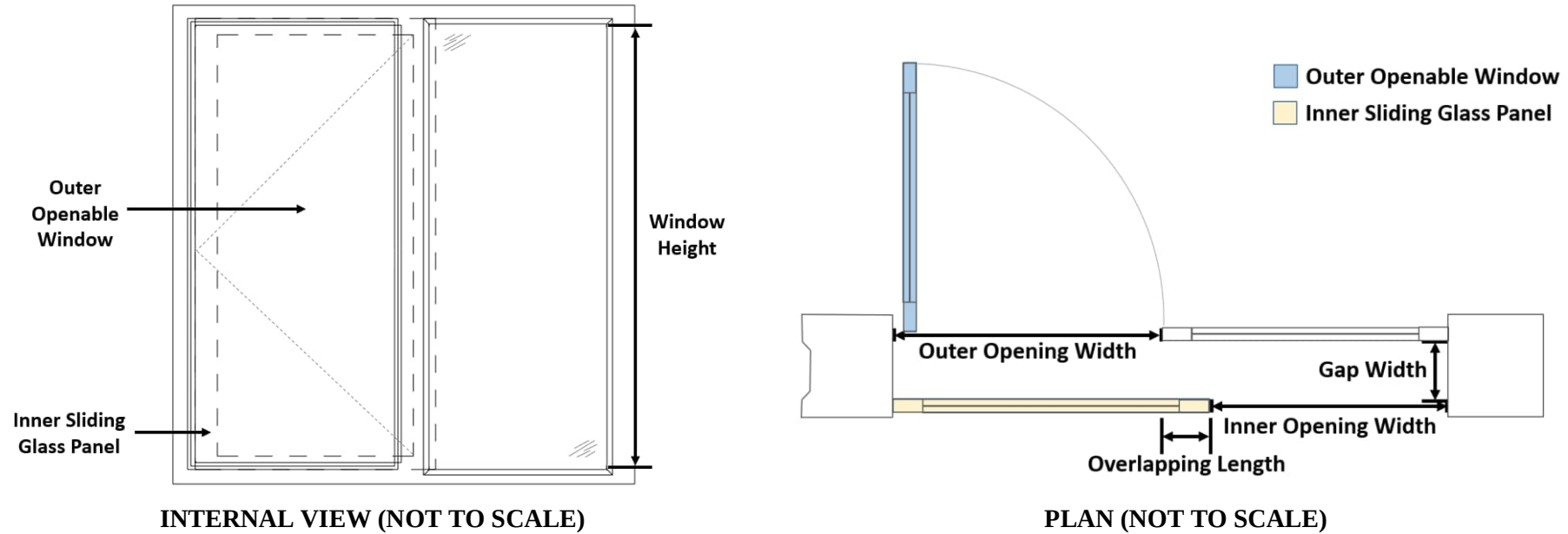
Floor	Floor Height (m)	Floor Level (mPD)	NAP Level (mPD)	Tower B - Residential												
				TYP_B_01	TYP_B_02	TYP_B_03	TYP_B_04	TYP_B_05	TYP_B_06	TYP_B_07	TYP_B_08	TYP_B_09	TYP_B_10	TYP_B_11	TYP_B_12	TYP_B_13
12/F	3.5	54.3	55.5	73	72	68	67	64	66	67	67	68	70	72	73	74
11/F	3.5	50.8	52.0	73	72	68	67	64	65	67	67	68	70	72	73	73
10/F	3.5	47.3	48.5	73	72	67	66	63	65	67	67	68	70	72	73	73
9/F	3.5	43.8	45.0	73	71	66	65	63	65	66	67	67	69	72	73	73
8/F	3.5	40.3	41.5	72	70	66	65	62	64	66	67	67	69	71	73	73
7/F	3.5	36.8	38.0	68	64	62	61	58	64	66	67	64	67	71	73	73
Criterion				70	70	70	70	70	70	70	70	70	70	70	70	70
Max Noise Level, dB(A)				73	72	68	67	64	66	67	67	68	70	72	73	74
Compliance				N	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N

Note: Predicted noise level exceeded HKPSG Standard of 70 dB(A)

* Noise Assessment Point Level= Floor Slab Level +1.2m

Appendix E **ACOUSTIC WINDOW REFERENCE FROM PROPECC PN 5/23**

(I) Possible design of “Acoustic Window (Baffle Type)” for 8m² and 18m² habitable rooms (i.e. dining room, living room or bedroom)



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 8m² and 18m² 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.

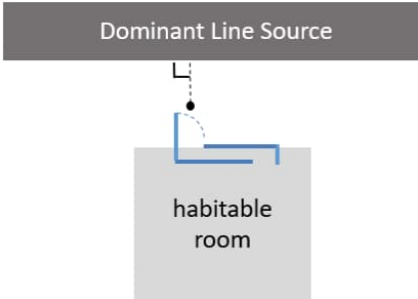
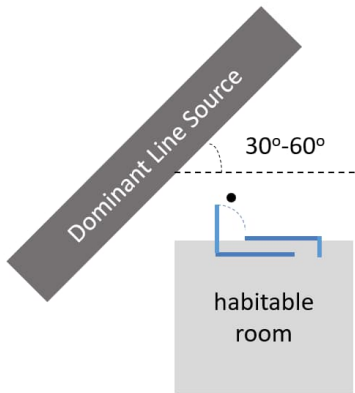
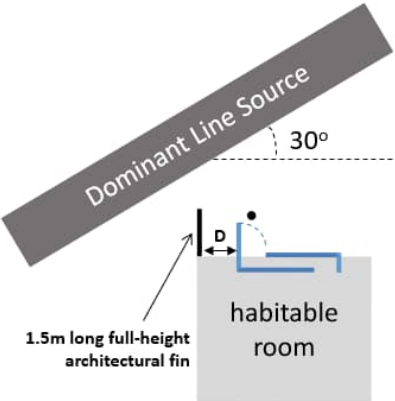
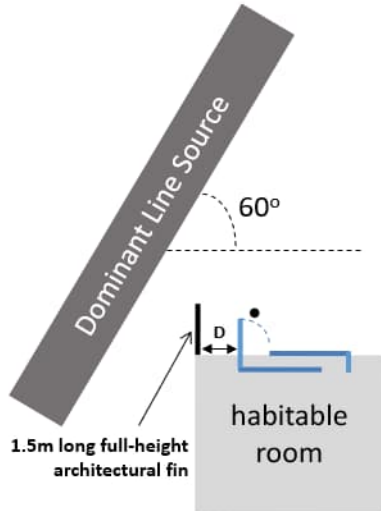
Table 1: Summary on RNR of Acoustic Window (Baffle Type) (for use in NIA) *Plan not to scale		Correction dB(A) L10(1hr)	
		8m ²	18m ²
	(a) Provision of AW(BT) parallel to dominant line source (whichever side the outer side-hung window is)	- 6.0	- 7.0
		- 7.5 (added SAM ¹)	- 8.5 (added SAM ¹)
	(b) Tilting 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	- 8.0
		- 8.5 (added SAM ¹)	- 9.5 (added SAM ¹)
 D = Distance from architectural fin to nearest window frame should be at most 900mm.	(b1) If tilted AW(BT) is at 30° horizontal incident angle to dominant line source + 1.5m long full-height architectural fin² * 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	- 9.0
		- 9.5 (added SAM ¹)	- 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)	
		8m ²	18m ²
 1.5m long full-height architectural fin habitable room 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	- 9.0	- 10.0
	+ 1.5m long full-height architectural fin ²	- 10.5 (added SAM ¹)	- 11.5 (added SAM ¹)
	* 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.		
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.			

Appendix F

NOISE REDUCTION PERFORMANCE OF THE PROPOSED ACOUSTIC WINDOW (BAFFLE TYPE)

Project: Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Noise Reduction Performance of the Proposed Acoustic Window (Baffle Type)

A Possible Design of AW(BT) for the Proposed Development						Reference Case								Correction factor ^[1]		Adjusted relative noise reduction, dB(A)	Mitigated?	
Room Type	Room floor size , m ²	Outer window opening, mm	Outer window opening, m ²	Overlapping length, mm	Gap width, mm	Type	Room floor size, m ²	Outer window opening, mm	Outer window opening, m ²	Overlapping length, mm	Gap width, mm	With SAM?	Relative noise reduction, dB(A)	Outer window opening correction, dB(A)	Room size correction, dB(A)		Yes/No/Partly	Remark
Dormitory 9 (RCHE_TYP_25)	63.035	1404 (W) x 2807 (H)	3.940	100	100mm - 175mm	PN 5/23, 18 m2	18.000	750 (W) x 1500 (H)	1.125	100	175	Yes	9.5	-5.44	0.00	4.1	Yes	
												No	8	-5.44	0.00	2.6	Partly	Only for 1/F
Dormitory 10 (RCHE_TYP_03)	41.875	1144 (W) x 2288 (H)	2.617	100	100mm - 175mm	PN 5/23, 18 m2	18.000	750 (W) x 1500 (H)	1.125	100	175	Yes	8.5	-3.67	0.00	4.8	Yes	
												No	7	-3.67	0.00	3.3	Yes	
Dormitory 11 (RCHE_TYP_05)	33.969	1030 (W) x 2061 (H)	2.123	100	100mm - 175mm	PN 5/23, 18 m2	18.000	750 (W) x 1500 (H)	1.125	100	175	Yes	8.5	-2.76	0.00	5.7	Yes	
												No	7	-2.76	0.00	4.2	Yes	
Dormitory 12 (RCHE_TYP_06)	52.476	1281 (W) x 2561 (H)	3.280	100	100mm - 175mm	PN 5/23, 18 m2	18.000	750 (W) x 1500 (H)	1.125	100	175	Yes	8.5	-4.65	0.00	3.9	Yes	
												No	7	-4.65	0.00	2.4	Yes	
Dormitory 4 (RCHE_TYP_16)	34.239	1034 (W) x 2069 (H)	2.140	100	100mm - 175mm	PN 5/23, 18 m2	18.000	750 (W) x 1500 (H)	1.125	100	175	Yes	8.5	-2.79	0.00	5.7	Yes	
												No	7	-2.79	0.00	4.2	Yes	
Sick/ Isolation/ Quiet Room cum End-of-Life Care Rm (RCHE_TYP_17)	10.194	652 (W) x 978 (H)	0.637	100	100mm - 175mm	PN 5/23, 8 m2	8.000	580 (W) x 870 (H)	0.505	100	175	Yes	7.5	-1.01	0.00	6.5	Yes	
												No	6	-1.01	0.00	5.0	Yes	
Dormitory 5 (RCHE_TYP_19)	17.890	748 (W) x 1495 (H)	1.118	100	100mm - 175mm	PN 5/23, 18 m2	18.000	750 (W) x 1500 (H)	1.125	100	175	Yes	8.5	0.03	-0.03	8.5	Yes	
												No	7	0.03	-0.03	7.0	Yes	
Dormitory 6 (RCHE_TYP_20)	30.707	980 (W) x 1959 (H)	1.919	100	100mm - 175mm	PN 5/23, 18 m2	18.000	750 (W) x 1500 (H)	1.125	100	175	Yes	8.5	-2.32	0.00	6.2	Yes	
												No	7	-2.32	0.00	4.7	Yes	
Dormitory 7 (RCHE_TYP_21)	40.040	1119 (W) x 2237 (H)	2.503	100	100mm - 175mm	PN 5/23, 18 m2	18.000	750 (W) x 1500 (H)	1.125	100	175	Yes	8.5	-3.47	0.00	5.0	Yes	
												No	7	-3.47	0.00	3.5	Yes	
Dormitory 8 (RCHE_TYP_22)	45.213	1189 (W) x 2377 (H)	2.826	100	100mm - 175mm	PN 5/23, 18 m2	18.000	750 (W) x 1500 (H)	1.125	100	175	Yes	9.5	-4.00	0.00	5.5	Yes	
												No	8	-4.00	0.00	4.0	Yes	

Note:

[1] The correction of outer opening is calculated by $10 \cdot \log(A_{or}/A_o)$, where the A_o is the Area of the outer window opening of the proposed AW(BT) and A_{or} is the Area of the outer window opening of the reference case.

As a conservative approach, no room size correction is made if the room size of the proposed development is greater than that of the reference case.

Project: Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Noise Reduction Performance of the Proposed Acoustic Window (Baffle Type)

A Possible Design of AW(BT) for the Proposed Development						Reference Case								Correction factor ^[1]		Adjusted relative noise reduction, dB(A)	Mitigated?	
Room Type	Room floor size , m ²	Outer window opening, mm	Outer window opening, m ²	Overlapping length, mm	Gap width, mm	Type	Room floor size, m ²	Outer window opening, mm	Outer window opening, m ²	Overlapping length, mm	Gap width, mm	With SAM?	Relative noise reduction, dB(A)	Outer window opening correction, dB(A)	Room size correction, dB(A)		Yes/No/Partly	Remark
Living unit A1 (TYP_A_14)	29.105	954 (W) x 1907 (H)	1.819	100	100mm - 175mm	PN 5/23, 18 m2	18.000	750 (W) x 1500 (H)	1.125	100	175	Yes	8.5	-2.09	0.00	6.4	Yes	Only for 7F to 10F
												No	7	-2.09	0.00	4.9	Partly	
Living unit A2 - B.R.1 (TYP_A_11)	11.130	681 (W) x 1021 (H)	0.696	100	100mm - 175mm	PN 5/23, 8 m2	8.000	580 (W) x 870 (H)	0.505	100	175	Yes	7.5	-1.39	0.00	6.1	Yes	
												No	6	-1.39	0.00	4.6	Yes	
Living unit A2 - B.R.2 (TYP_A_13)	7.036	541 (W) x 812 (H)	0.440	100	100mm - 175mm	PN 5/23, 8 m2	8.000	580 (W) x 870 (H)	0.505	100	175	Yes	7.5	0.60	-0.56	7.5	Yes	
												No	6	0.60	-0.56	6.0	Yes	
Living unit A5 - B.R.2 (TYP_A_04)	7.074	543 (W) x 814 (H)	0.442	100	100mm - 175mm	PN 5/23, 8 m2	8.000	580 (W) x 870 (H)	0.505	100	175	Yes	7.5	0.57	-0.53	7.5	Yes	
												No	6	0.57	-0.53	6.0	Yes	
Living unit A5 - B.R.1 (TYP_A_06)	11.130	681 (W) x 1021 (H)	0.696	100	100mm - 175mm	PN 5/23, 8 m2	8.000	580 (W) x 870 (H)	0.505	100	175	Yes	7.5	-1.39	0.00	6.1	Yes	
												No	6	-1.39	0.00	4.6	Yes	
Living unit A6 (TYP_A_03)	29.004	952 (W) x 1904 (H)	1.813	100	100mm - 175mm	PN 5/23, 18 m2	18.000	750 (W) x 1500 (H)	1.125	100	175	Yes	8.5	-2.07	0.00	6.4	Yes	Only for 7F to 9F
												No	7	-2.07	0.00	4.9	Partly	
Living unit B6 - BR (TYP_B_01)	12.492	721 (W) x 1082 (H)	0.781	100	100mm - 175mm	PN 5/23, 8 m2	8.000	580 (W) x 870 (H)	0.505	100	175	Yes	7.5	-1.90	0.00	5.6	Yes	
												No	6	-1.90	0.00	4.1	Yes	
Living unit B6 (TYP_B_12)	21.150	813 (W) x 1626 (H)	1.322	100	100mm - 175mm	PN 5/23, 18 m2	18.000	750 (W) x 1500 (H)	1.125	100	175	Yes	8.5	-0.70	0.00	7.8	Yes	
												No	7	-0.70	0.00	6.3	Yes	

Note:

[1] The correction of outer opening is calculated by $10 \cdot \log(A_{or}/A_o)$, where the A_o is the Area of the outer window opening of the proposed AW(BT) and A_{or} is the Area of the outer window opening of the reference case.

As a conservative approach, no room size correction is made if the room size of the proposed development is greater than that of the reference case.

Appendix G **PREDICTED ROAD TRAFFIC NOISE LEVEL (MITIGATION CASE)**

Project: Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Block: RCHE (1/F - 5/F)
Scenario: Road Traffic Noise (2046 AM flow) - Mit Case

Floor	Floor Height (m)	Floor Level (mPD)	NAP Level (mPD)	RCHE (1/F - 5/F)											
				RCHE_TYP_01	RCHE_TYP_02	RCHE_TYP_03	RCHE_TYP_04	RCHE_TYP_05	RCHE_TYP_06	RCHE_TYP_07	RCHE_TYP_08	RCHE_TYP_09	RCHE_TYP_10	RCHE_TYP_11	RCHE_TYP_12
5/F	3.5	29.80	31.00	[F/L/M]	[F/L/M]	70	[F/L/M]	69	70	70	68	58	68	69	65
4/F	3.5	26.30	27.50	[F/L/M]	[F/L/M]	69	[F/L/M]	69	69	69	68	56	68	68	63
3/F	3.5	22.80	24.00	[F/L/M]	[F/L/M]	69	[F/L/M]	68	68	68	67	55	67	68	62
2/F	3.5	19.30	20.50	[F/L/M]	[F/L/M]	67	[F/L/M]	70	69	67	66	53	66	67	61
1/F	3.5	15.80	17.00	[F/L/M]	[F/L/M]	68	[F/L/M]	67	66	65	65	52	62	65	61
Criterion				70								70		70	

Floor	Floor Height (m)	Floor Level (mPD)	NAP Level (mPD)	RCHE (1/F - 5/F)												
				RCHE_TYP_13	RCHE_TYP_14	RCHE_TYP_15	RCHE_TYP_16	RCHE_TYP_17	RCHE_TYP_18	RCHE_TYP_19	RCHE_TYP_20	RCHE_TYP_21	RCHE_TYP_22	RCHE_TYP_23	RCHE_TYP_24	RCHE_TYP_25
5/F	3.5	29.80	31.00	66	68	69	68	67	/	65	68	70	70	[F/L/M]	[F/L/M]	70
4/F	3.5	26.30	27.50	64	66	66	70	66	/	64	67	70	70	[F/L/M]	[F/L/M]	70
3/F	3.5	22.80	24.00	62	64	63	68	69	/	69	66	69	69	[F/L/M]	[F/L/M]	70
2/F	3.5	19.30	20.50	61	62	62	67	68	/	68	70	68	68	[F/L/M]	[F/L/M]	69
1/F	3.5	15.80	17.00	61	61	61	66	66	/	67	68	70	70	70	[F/L/M]	69
Criterion				70				70		70						

Note:

- Acoustic Window (Baffle Type) - With Sound Absorptive Material (SAM)
- Acoustic Window (Baffle Type) - Without Sound Absorptive Material (SAM)
- [F/L/M] Fixed/Lockable/Maintenance window
- / Non-noise sensitive uses/ Uses that do not rely on openable window for ventilation

* Noise Assessment Point Level= Floor Slab Level +1.2m

Project: Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

Block: Tower A - Residential & Tower B - Residential

Scenario: Road Traffic Noise (2046 AM flow) - Mit Case

Floor	Floor Height (m)	Floor Level (mPD)	NAP Level (mPD)	Tower A - Residential													
				TYP_A_01	TYP_A_02	TYP_A_03	TYP_A_04	TYP_A_05	TYP_A_06	TYP_A_07	TYP_A_08	TYP_A_09	TYP_A_10	TYP_A_11	TYP_A_12	TYP_A_13	TYP_A_14
12/F	3.5	54.3	55.5	[F/L/M]	[F/L/M]	70	70	[F/L/M]	67	70	70	69	69	66	[F/L/M]	69	69
11/F	3.5	50.8	52.0	[F/L/M]	[F/L/M]	69	70	[F/L/M]	66	70	69	68	68	70	[F/L/M]	69	69
10/F	3.5	47.3	48.5	[F/L/M]	[F/L/M]	69	69	[F/L/M]	70	69	68	68	67	70	[F/L/M]	69	70
9/F	3.5	43.8	45.0	[F/L/M]	[F/L/M]	70	69	[F/L/M]	69	68	68	67	66	70	[F/L/M]	69	70
8/F	3.5	40.3	41.5	[F/L/M]	[F/L/M]	70	69	[F/L/M]	69	68	67	66	66	70	[F/L/M]	68	70
7/F	3.5	36.8	38.0	[F/L/M]	[F/L/M]	69	68	[F/L/M]	67	65	64	64	63	67	[F/L/M]	68	69
Criterion				70	70	70	70	70	70	70	70	70	70	70	70	70	70
Max Noise Level, dB(A)				0	0	70	70	0	70	70	70	69	69	70	0	69	70
Compliance				Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Floor	Floor Height (m)	Floor Level (mPD)	NAP Level (mPD)	Tower B - Residential												
				TYP_B_01	TYP_B_02	TYP_B_03	TYP_B_04	TYP_B_05	TYP_B_06	TYP_B_07	TYP_B_08	TYP_B_09	TYP_B_10	TYP_B_11	TYP_B_12	TYP_B_13
12/F	3.5	54.3	55.5	69	[F/L/M]	68	67	64	66	67	67	68	70	[F/L/M]	67	[F/L/M]
11/F	3.5	50.8	52.0	69	[F/L/M]	68	67	64	65	67	67	68	70	[F/L/M]	67	[F/L/M]
10/F	3.5	47.3	48.5	69	[F/L/M]	67	66	63	65	67	67	68	70	[F/L/M]	67	[F/L/M]
9/F	3.5	43.8	45.0	69	[F/L/M]	66	65	63	65	66	67	67	69	[F/L/M]	67	[F/L/M]
8/F	3.5	40.3	41.5	68	70	66	65	62	64	66	67	67	69	[F/L/M]	67	[F/L/M]
7/F	3.5	36.8	38.0	68	64	62	61	58	64	66	67	64	67	[F/L/M]	67	[F/L/M]
Criterion				70	70	70	70	70	70	70	70	70	70	70	70	70
Max Noise Level, dB(A)				69	70	68	67	64	66	67	67	68	70	0	67	0
Compliance				Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Note:

Acoustic Window (Baffle Type) - With Sound Absorptive Material (SAM)

Acoustic Window (Baffle Type) - Without Sound Absorptive Material (SAM)

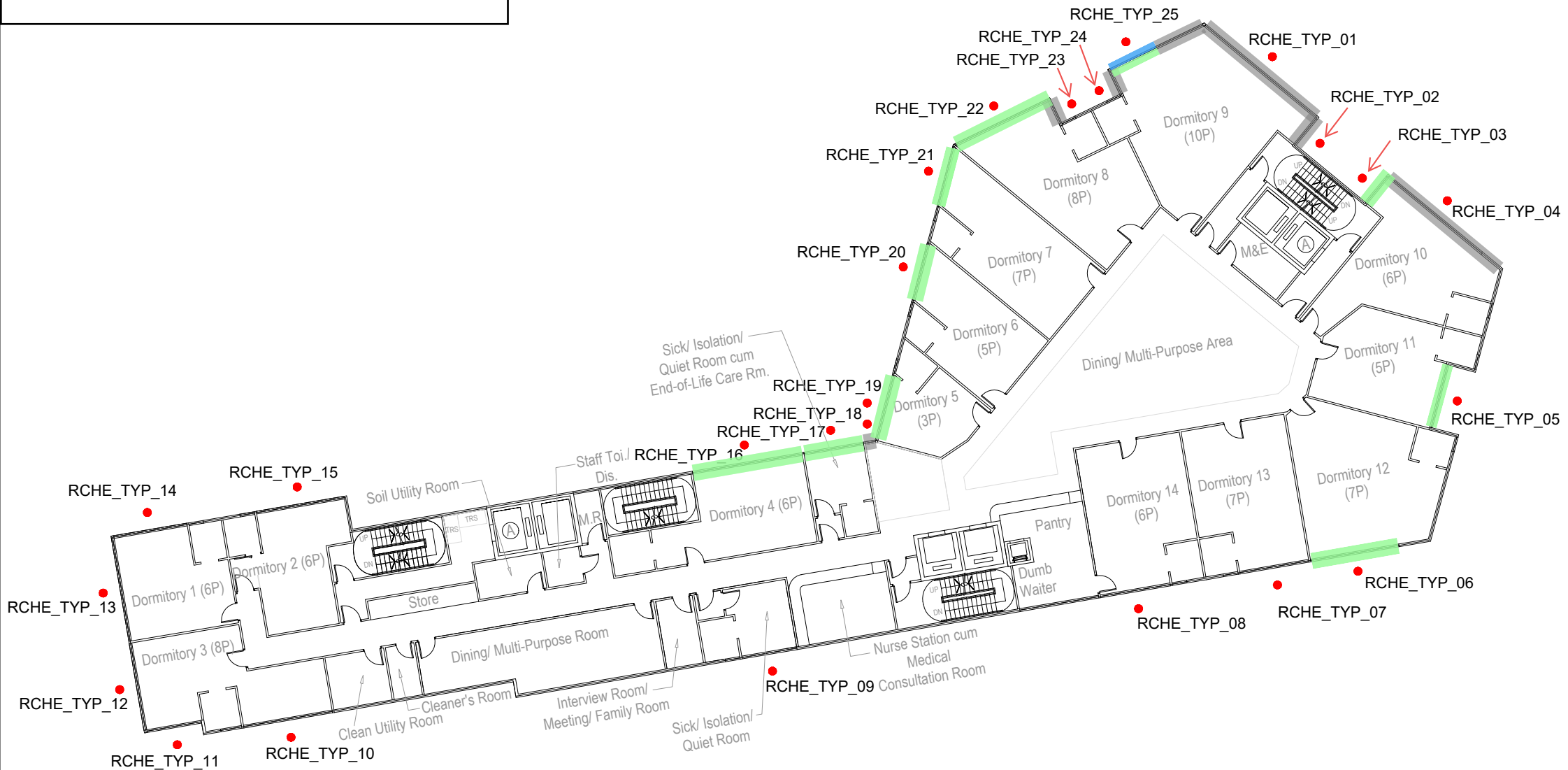
[F/L/M] Fixed/Lockable/Maintenance window

* Noise Assessment Point Level= Floor Slab Level +1.2m

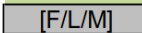
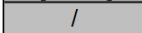
Appendix H

LOCATION OF MITIGATION MEASURES IMPLEMENTED

Remark:
For the detail implementation floor of the mitigation measurres, please refer to **Appendix G**

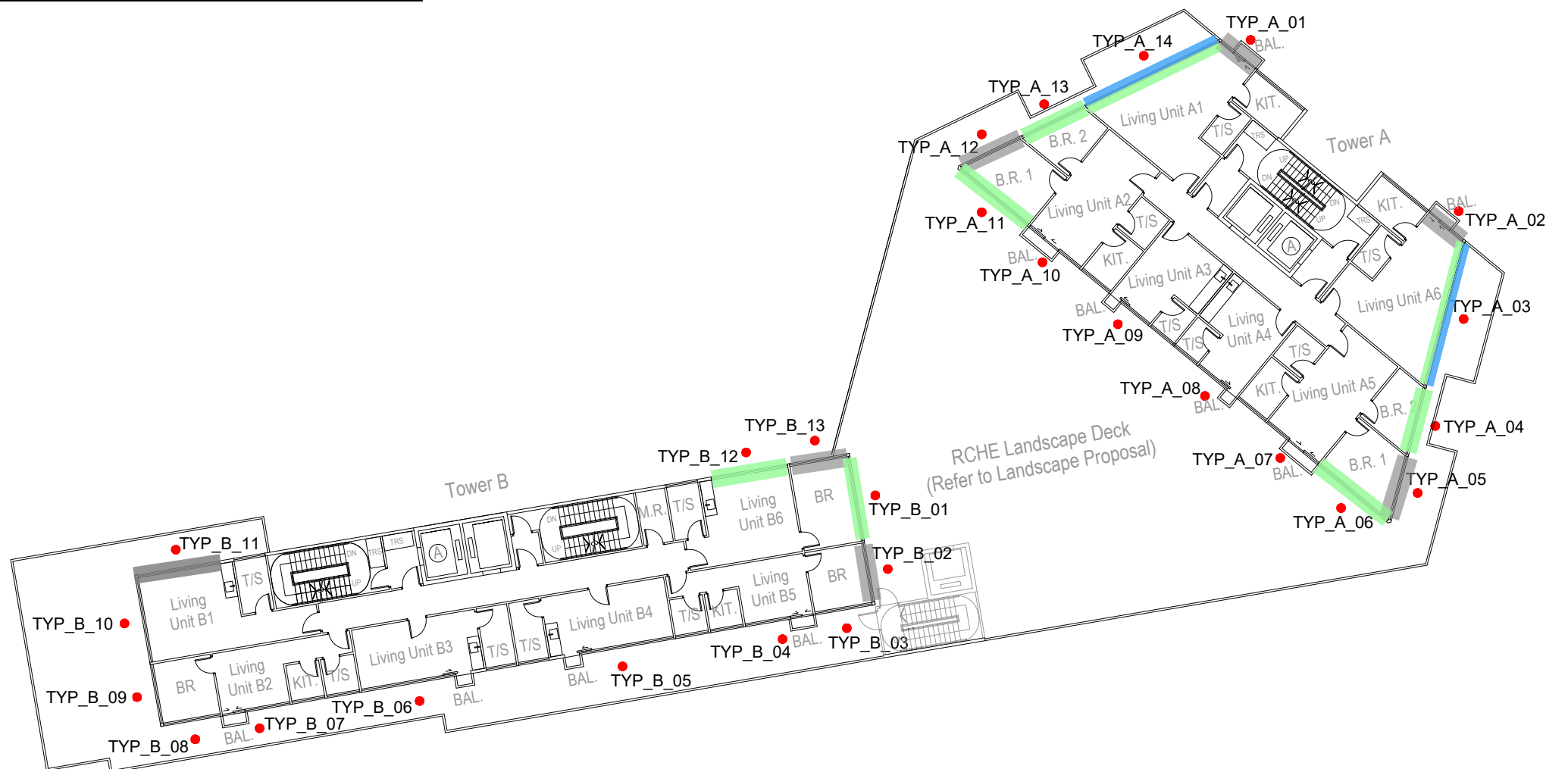


Note:

	Acoustic Window (Baffle Type) - With Sound Absorptive Material (SAM)
	Acoustic Window (Baffle Type) - Without Sound Absorptive Material (SAM)
	Fixed/Lockable/Maintenance window
	Non-noise sensitive uses/ Uses that do not rely on openable window for ventilation

* Noise Assessment Point Level= Floor Slab Level +1.2m

Remark:
For the detail implementation floor of the mitigation
measures, please refer to **Appendix G**



Note:

- Acoustic Window (Baffle Type) - With Sound Absorptive Material (SAM)
- Acoustic Window (Baffle Type) - Without Sound Absorptive Material (SAM)
- [F/L/M] Fixed/Lockable/Maintenance window
- / Non-noise sensitive uses/ Uses that do not rely on openable window for ventilation

* Noise Assessment Point Level= Floor Slab Level +1.2m

Appendix I HISTORICAL AERIAL PHOTOGRAPHS

Figure I-1 Aerial Photograph in Year 1963 (Photo No.: 1963-8414)

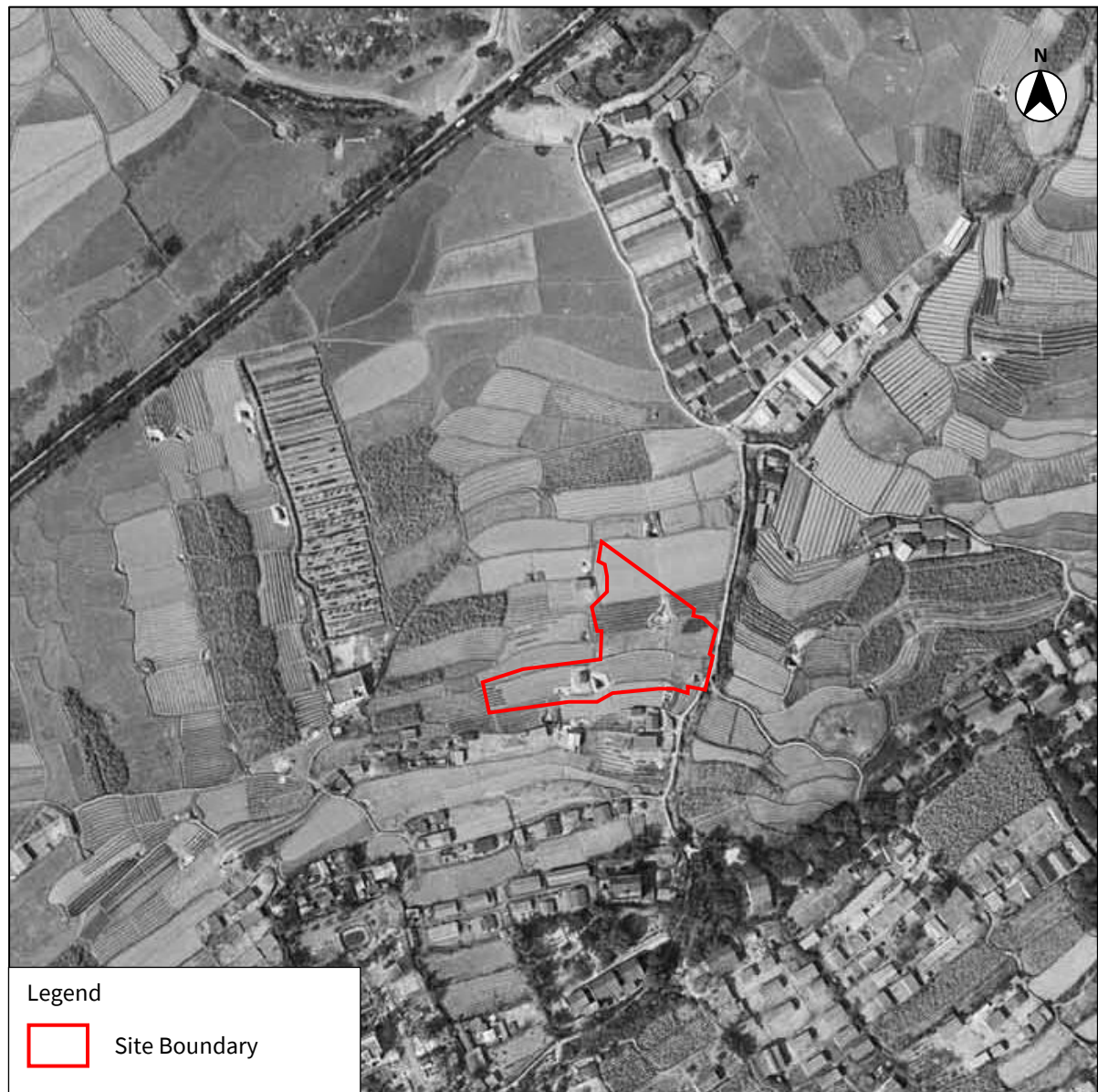


Figure I-2 Aerial Photograph in Year 1973 (Photo No.: 06054)

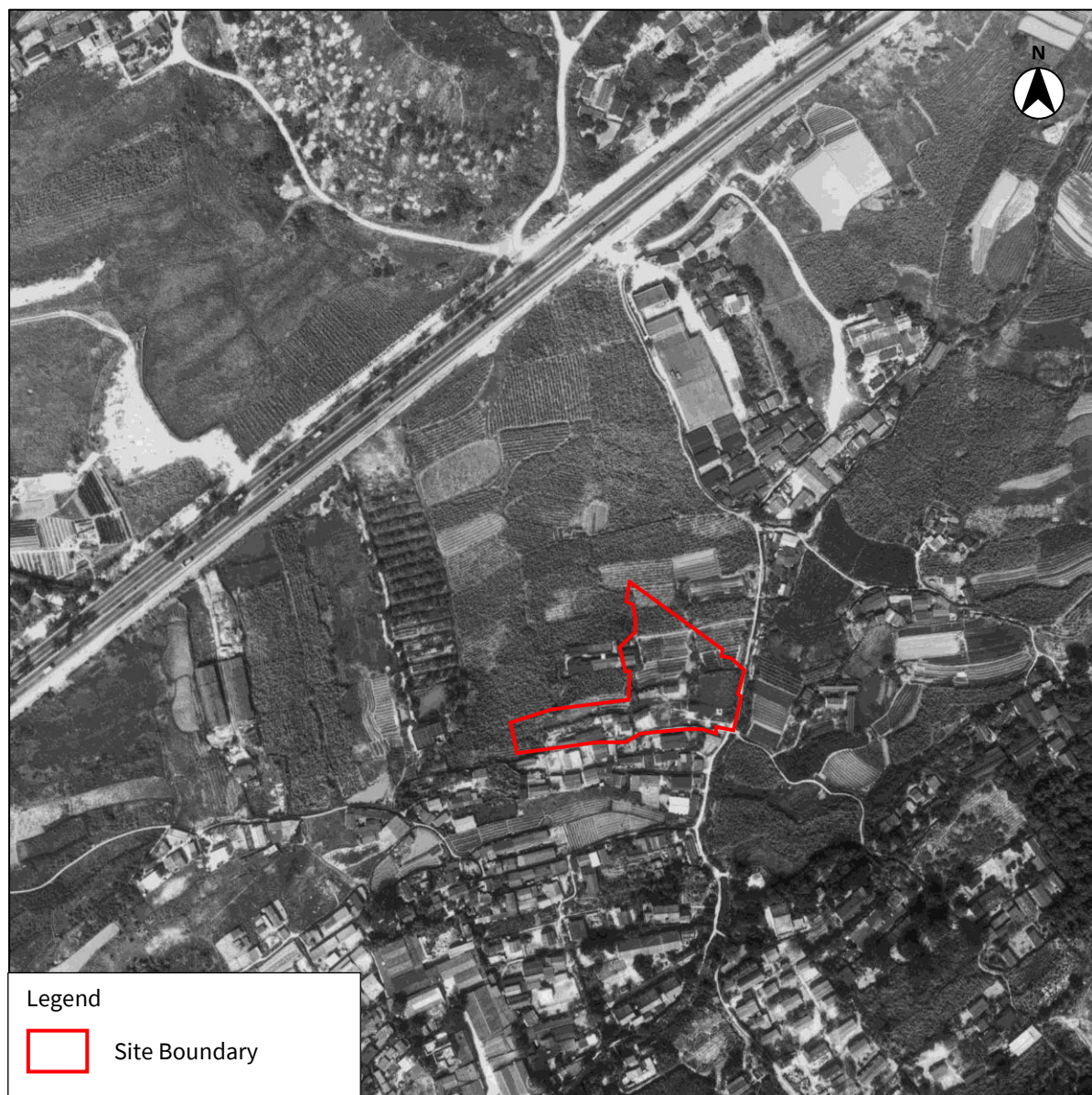


Figure I-3 Aerial Photograph in Year 1982 (Photo No.: 42801)

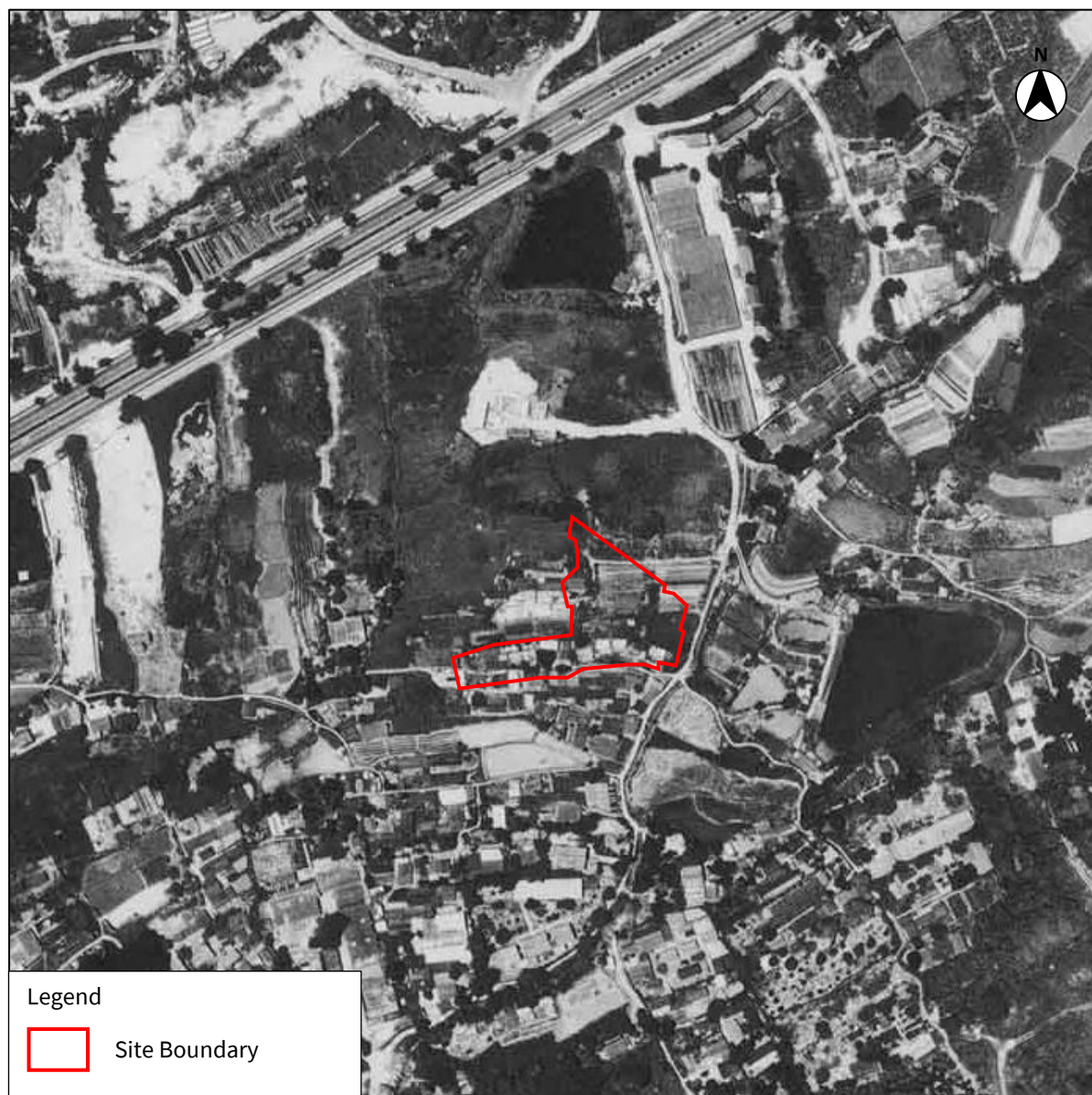


Figure I-4 Aerial Photograph in Year 1993 (Photo No.: CN05966)



Figure I-5 Aerial Photograph in Year 2003 (Photo No.: CW54027)



Figure I-6 Aerial Photograph in Year 2014 (Photo No.: CW107934)



Figure I-7 Aerial Photograph in Year 2022 (Photo No.: E148039C)



Appendix J

SITE SURVEY PHOTOGRAPHS AND SITE WALKOVER CHECKLISTS

Site Survey Photographs Taken on 9 January 2025



Site Walkover Checklist for Site Inspection on 09 January 2025

Annex C1

Site Walkover Checklist

GENERAL SITE DETAILS

SITE OWNER/CLIENT Right Fortune Investment Limited

PROPERTY ADDRESS Lots 2188 & 398 RP in D.D.121, Tai Tao Tsuen, Hung Shui Kiu, Yuen
Long, New Territories

PERSON CONDUCTING THE QUESTIONNAIRE

NAME Pinky LAM, Andy LAU

POSITION Consultant, Assistant Consultant

AUTHORIZED OWNER/CLIENT REPRESENTATIVE (IF APPLICABLE)

NAME N/A

POSITION N/A

TELEPHONE N/A

SITE ACTIVITIES

Briefly describe activities carried out on site, including types of products/chemicals/materials handled.
Obtain a flow schematic if possible.

Number of employees: Full-time: _____

Part-time: _____

Temporary/Seasonal: _____

Maximum no. of people on site at any time: _____

Typical hours of operation: _____

Number of shifts: _____

Days per week: _____

Weeks per year: _____

Scheduled plant shut-down: _____

Detail the main sources of energy at the site:

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

SITE DESCRIPTION

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

What is the total site area: about 2,200 m²

What area of the site is covered by buildings (%): 0 (no existing building structures on site)

Please list all current and previous owners/occupiers if possible. N/A

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

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

If yes, identify those parties: _____

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

North: Residential use, road networks

South: Residential use

East: Road networks

West: Residential use

Annex C1

Site Walkover Checklist

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

N/A

State the size and location of the nearest residential communities.

Private residential buildings (Uptown Houses at the immediate west and south of site.)

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

N/A

Questionnaire with Existing/Previous Site Owner or Occupier

	Yes/No	Notes
1. What are the main activities/operations at the above address?	N/A	Currently vacant land
2. How long have you been occupying the site?	N/A	-
3. Were you the first occupant on site? (If yes, what was the usage of the site prior to occupancy.)	N/A	-
4. Prior to your occupancy, who occupied the site?	N/A	-
5. What were the main activities/operations during their occupancy?	Y	Open storage of containers and construction materials
6. Have there been any major changes in operations carried out at the site in the last 10 years?	N	-
7. Have any polluting activities been carried out in the vicinity of the site in the past?	N/A	-
8. To the best of your knowledge, has the site ever been used as a petrol filling station/car service garage?	N	-
9. Are there any boreholes/wells or natural springs either on the site or in the surrounding area?	N	-
10. Do you have any registered hazardous installations as defined under relevant ordinances? (If yes, please provide details.)	N	-
11. Are any chemicals used in your daily operations? (If yes, please provide details.)	N	-
• Where do you store these chemicals?	N/A	-
12. Material inventory lists, including quantities and locations available? (If yes, how often are these inventories updated?)	N/A	-
13. Has the facility produced a separate hazardous substance inventory?	N/A	-
14. Have there ever been any incidents or accidents (e.g. spills, fires, injuries, etc.) involving any of these materials? (If yes, please provide details.)	N/A	-

	Yes/No	Notes
15. How are materials received (e.g. rail, truck, etc.) and stored on site (e.g. drums, tanks, carboys, bags, silos, cisterns, vaults and cylinders)?	N/A	-
16. Do you have any underground storage tanks? (If yes, please provide details.)	N	-
• How many underground storage tanks do you have on site?		/
• What are the tanks constructed of?		
• What are the contents of these tanks?		
• Are the pipelines above or below ground?		
• If the pipelines are below ground, has any leak and integrity testing been performed?		
• Have there been any spills associated with these tanks?		
17. Are there any disused underground storage tanks?	N	-
18. Do you have regular check for any spillage and monitoring of chemicals handled? (If yes, please provide details.)	N/A	-
19. How are the wastes disposed of?	N/A	-
20. Have you ever received any notices of violation of environmental regulations or received public complaints? (If yes, please provide details.)	N	-
21. Have any spills occurred on site? (If yes, please provide details.)	N/A	-
• When did the spill occur?		/
• What were the substances spilled?		
• What was the quantity of material spilled?		
• Did you notify the relevant departments of the spill?		
• What were the actions taken to clean up the spill?		
• What were the areas affected?		
22. Do you have any records of major renovation of your site or re-arrangement of underground utilities, pipe work/underground tanks (If yes, please provide details.)	N/A	-
23. Have disused underground tanks been removed or otherwise secured (e.g. concrete, sand, etc.)?	N/A	-
24. Are there any known contaminations on site? (If yes, please provide details.)	N	-
25. Has the site ever been remediated? (If yes, please provide details.)	N	-

Annex C1

Site Walkover Checklist

Observations

	Yes/No	Notes
1. Are chemical storage areas provided with secondary containment (i.e. bund walls and floors)?	N/A	No chemicals were stored on site.
2. What are the conditions of the bund walls and floors?	N/A	The paved area was in good condition without cracks.
3. Are any surface water drains located near to drum storage and unloading areas?	N/A	No drum storage was found on site.
4. Are any solid or liquid waste (other than wastewater) generated at the site? (If yes, please provide details.)	N/A	-
5. Is there a storage site for the wastes?	N/A	-
6. Is there an on-site landfill?	N/A	-
7. Were any stressed vegetation noted on site during the site reconnaissance? (If yes, please indicate location and approximate size.)	N	-
8. Were any stained surfaces noted on-site during the site reconnaissance? (If yes, please provide details.)	N	-
9. Are there any potential off-site sources of contamination?	N	-
10. Does the site have any equipment which might contain polychlorinated biphenyls (PCBs)?	N	-
11. Are there any sumps, effluent pits, interceptors or lagoons on site?	N	-
12. Any noticeable odours during site walkover?	N	-
13. Are any of the following chemicals used on site: fuels, lubricating oils, hydraulic fluids, cleaning solvents, used chemical solutions, acids, anti-corrosive paints, thinners, coal, ash, oily tanks and bilge sludge, metal wastes, wood preservatives and polyurethane foam?	N	-

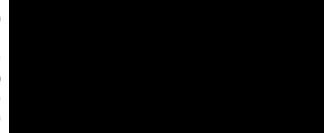
Appendix K **CORRESPONDENCE WITH EPD AND FSD**

Information Request to EPD



EnviroSolutions & Consulting Ltd

Solutions for Environment | Safety | Sustainability



Our Ref. J24.00706.HK.01/L00191/AW/PL

4 February 2025

Yuen Long West and San Tin - Regional Office (North)
Environmental Compliance Division
Environmental Protection Department
10th floor, Shatin Government Offices
No.1 Sheung Wo Che Road, Sha Tin
N.T., Hong Kong

By Email (hlai@epd.gov.hk)

Attention: Mr. LAI Ho Leung

Dear Sir

**Section 12A Planning Application for Proposed Residential and RCHE Development at Lots 2188 & 398 RP in D.D. 121, Hung Shui Kiu, New Territories
Environmental Assessment - Information Request to EPD**

We have been appointed by Right Fortune Investment Limited as the Environmental Consultant to prepare an Environmental Assessment (“EA”) report for the captioned project. The location of the Site is shown in **Figure 1**. The contract for the consultancy service is also enclosed for your information.

To address the potential land contamination issue, we would appreciate if you could provide us with a list of records of Chemical Waste Producers Registration or incidents of chemical spillage/leakage, etc, related to the site if any, including the company name, type of chemical, location etc.

Should you have any enquiries regarding the above, please do not hesitate to contact our Pinky LAM on [REDACTED] or the undersigned on [REDACTED]

Yours faithfully
for and on behalf of ESC



Antony WONG
Country Manager, Hong Kong



EPD's Reply

From: hllai@epd.gov.hk
Sent: Friday, March 14, 2025 2:38 PM
To: Pinky Lam
Subject: Re: FW: J24.00706.HK.01 - Section 12A Planning Application for Proposed Residential and RCHE Development at Lots 2188 & 398 RP in D.D. 121, Hung Shui Kiu, New Territories_Information Request to EPD

Dear Ms. Lam,

I refer to your email below about the captioned. Our reply is as below:-

(a) This Regional Office has no record of reported accidents of spillage / leakage of chemicals at the concerned site. You may also need to check with other parties / departments for such information as appropriate.

(b) For the register of Chemical Waste Producers, a registry is available at our Territory Control Office at Wan Chai. Please contact our Mr. KWAN, Senior Environmental Protection Inspector, at Tel : 2835 1027 for details;

Should you have any enquiry, you may contact me at 2158 5825.

Best Regards,
LAI Ho-leung, LEO
EPD, Tel :2158 5825

Best Regards,
LAI Ho-leung, LEO
EPD, Tel :2158 5825

From: "Pinky Lam" [REDACTED]
To: "hllai@epd.gov.hk" <hllai@epd.gov.hk>
Cc: "Antony" [REDACTED]
Date: 14/03/2025 12:17
Subject: FW: J24.00706.HK.01 - Section 12A Planning Application for Proposed Residential and RCHE Development at Lots 2188 & 398 RP in D.D. 121, Hung Shui Kiu, New Territories_Information Request to EPD

Dear Mr. Lai,

As per our phone conversation, please find the email below regarding the information request for the captioned project.

Should you have any enquiries, please do not hesitate to contact me on [REDACTED] Thank you.

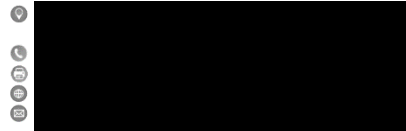
Regards,

Pinky LAM

Information Request to FSD



EnviroSolutions & Consulting Ltd
Solutions for Environment | Safety | Sustainability



Our Ref. J24.00706.HK.01/L00190/AW/PL

3 February 2025

Corporate Services Division
Corporate Strategy Command
Fire Services Department
9/F, Fire Services Headquarters Building
1 Hong Chong Road, Tsim Sha Tsui East
Kowloon, Hong Kong

By Email (ado_lad@hkfsd.gov.hk)

Attention: Mr. LAI Kin Man

Dear Sir

**Section 12A Planning Application for Proposed Residential and RCHE Development at Lots 2188 & 398 RP in D.D. 121, Hung Shui Kiu, New Territories
Environmental Assessment - Information Request to FSD**

We have been appointed by Right Fortune Investment Limited as the Environmental Consultant to prepare an Environmental Assessment (“EA”) report for the captioned project. The location of the Site is shown in **Figure 1**. The contract for the consultancy service is also enclosed for your information.

To address the potential land contamination issue, we would appreciate if you could provide us with a list of records of dangerous goods license, fire incidents or incidents of dangerous goods spillage/leakage, etc, related to the site if any, including the company name, type of chemical, location etc.

Should you have any enquiries regarding the above, please do not hesitate to contact our Pinky LAM on [REDACTED] or the undersigned on [REDACTED]

Yours faithfully
for and on behalf of ESC



Antony WONG
Country Manager, Hong Kong



FSD's Reply

From: SSO SD LAD/FSD <sso_lad_sd@hkfsd.gov.hk>
Sent: Thursday, February 20, 2025 8:43 AM
To: Pinky Lam
Cc: ADO SD LAD/FSD; OE8 CS/FSD
Subject: FW: J24.00706.HK.01 - Section 12A Planning Application for Proposed Residential and RCHE Development at Lots 2188 & 398 RP in D.D. 121, Hung Shui Kiu, New Territories_Information Request to FSD
Attachments: (23)_Pt.57_reply_incident_appendix A.pdf

Our reference: (23) in FSD GR 6-5/4 R Pt. 57

Your reference: J24.00706.HK.01/L00190/AW/PL

Dear Ms. LAM,

**Section 12A Planning Application for
Proposed Residential and RCHE Development at
Lots 2188 & 398 RP in D.D. 121, Hung Shui Kiu, New Territories
Request for Information of Dangerous Goods & Incident Records**

I refer to your email of 3.2.2025 regarding the captioned request and reply below in response to your questions:-

1. No Dangerous Goods Licence was issued in respect of the captioned address.
2. A total of 1 incident record was found at the subject location. Please refer to Appendix A for details.

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

Best regards,

FU Wang-chi
Assistant Divisional Officer (Legal Affairs and Discipline) Special Duty (Acting)
Corporate Services Division
Fire Services Department

Tel.: 2733 7896

Disclaimer:

Appendix A

Section 12A Planning Application for
Proposed Residential and RCHE Development at
Lots 2188 & 398 RP in D.D. 121, Hung Shui Kiu, New Territories
Request for Information of Dangerous Goods & Incident Records

No.	Date	Type of Incident	Address
1.	28/5/2023	Rubbish Fire	Near Lamp Post No. FB5411 of Fui Sha Wai Couth Road



EnviroSolutions & Consulting Ltd

Solutions for Environment | Safety | Sustainability



Accountability

We understand the importance of being accountable to each other and our clients.



Passion

We are completely passionate about providing practical solutions and outcomes that deliver for our clients.



Insight

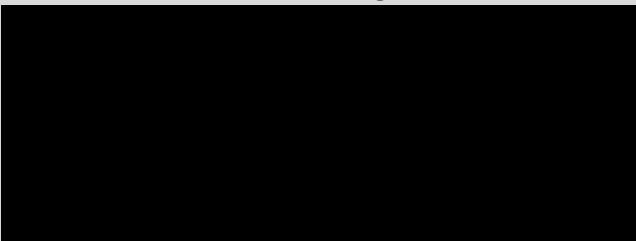
We work in an environment that encourages and values insight as a critical quality which informs our decisions and our clients and supports practical solutions and project delivery.



Integrity

We behave with respect and honesty toward each other, our clients and our stakeholders.

EnviroSolutions & Consulting Ltd





APPENDIX 5

SEWERAGE IMPACT ASSESSMENT

Sewerage Impact Assessment

in support of

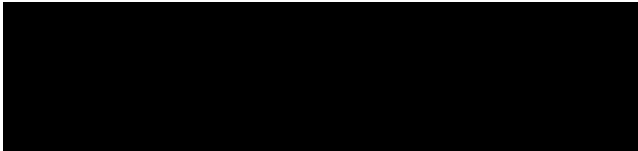
**Section 12A Application for Proposed Rezoning from
"Comprehensive Development Area" and "Green Belt" Zones
to "Residential (Group A)4" Zone and
to Amend the Notes of the Zone Applicable to the Site for
Proposed Residential Development and Social Welfare Facility
(Residential Care Home for the Elderly)
at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen,
Hung Shui Kiu, New Territories**

(HT 23121)

April 2026

Drainage Consultant:

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED



Prepared and approved by:	LEE Kwok Cheung <i>RPE(Civil, Geo., Env.)</i>
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CONTENT

List of Abbreviations

1. Introduction
2. The Subject Site and Proposed Development
3. Existing Sewerage Conditions of the Subject Area
4. Proposed Sewerage Works
5. Design Assumptions and Criteria
6. Potential Sewerage Impacts
7. Conclusion and Recommendations

FIGURES

Figure S1	Site Location Plan
Figure S2	Details of the Existing 400mm diameter Sewerage Branch Drain in front of 'Uptown'
Figure S3	Proposed Sewerage Works

APPENDICES

Appendix 1	Copies of the BD approval letter and relevant drawings of the original sewerage proposal
Appendix 2	Copies of the relevant document submitted in associated with the Drainage Plan to BD
Appendix 3	Hydraulic Analysis of Relevant Sewers

List of Abbreviations

ADWF	Average Dry Weather Flow
C.I.	Cast Iron
EPD	Environmental Protection Department
GESF	EPD's Report No. EPD/TP 1/05 - Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning
HTA	Ho Tin & Associates Consulting Engineers Limited
FMH / SM	Foul / Sewer Manhole
FTM / STM	Foul / Sewer Terminal Manhole
OZP	Outline Zoning Plan
PDWF	Peak Dry Weather Flow
SIA	Sewerage Impact Assessment
SM	Sewerage Manual Part 1 (DSD, 2013)

1. Introduction

- 1.1 Ho Tin & Associates Consulting Engineers Limited was appointed by the Client to prepare this sewerage impact assessment to support a Section 12A Application for proposed rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and to amend the Notes of the Zone applicable to the site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly).
- 1.2 This report presents the SIA for the proposed development under this rezoning application.
- 1.3 The objectives of this SIA are to:-
- indicate any changes/increase in the sewage flow due to the proposed residential development under application;
 - assess any potential sewage impacts of the proposed development on the existing sewerage facilities; and
 - propose mitigation measures and sewerage improvement scheme, if necessary, to minimize any adverse sewage impact.
- 1.4 The scope of this SIA includes:-
- general site description;
 - identification of existing/planned sewerage facilities for the concerned area;
 - estimation of sewage flow of the proposed development;
 - SIA on the existing sewerage facilities due to the increased sewage flow of the proposed development; and
 - proposal of new sewerage facilities to cater for the proposed development if found necessary.

2. The Subject Site and Proposed Development

- 2.1 The subject site comprises of at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories. It has an area of about 2,138m² and is located on the southeastern side of the 'Uptown' residential development and is bounded by Fui Sha Wai South Road on the northeastern side. The subject site is currently zoned "Comprehensive Development Area" and "Green Belt" on the Approved Tong Yan San Tsuen Outline Zoning Plan No. S/YL-TYST/14 (the OZP). The site location is shown on **Figure S1**.
- 2.2 It is proposed to rezone the subject site to "Residential (Group A)4" Zone and to amend the Notes of the Zone applicable to the Site for proposed residential development and social welfare facility (Residential Care Home for the Elderly) in order to develop the subject site with the following parameters:

Parameter	Remark
Total number of units of residential development	72
Population of residential development (average 2.7 persons/flat)	195 persons
Gross floor area (GFA) of RCHE	6,961m ²
Bed spaces in the RCHE	450 nos.

3. Existing Sewerage Conditions of the Subject Area

- 3.1 Drainage Plan including existing sewerage in the vicinity and proposed sewerage connection works of the former Proposed Residential Care Home for the Elderly at Lot No. 2188 in D.D. 121, Tai Tao Tsuen had been submitted and was approved by Buildings Department ("BD") on 3 November 2022 (hereunder called the "original sewerage proposal"). Copies of the BD approval letter and relevant drawings of the original sewerage proposal are enclosed in **Appendix 1** for reference.
- 3.2 It was proposed in the original sewerage proposal to connect the sewerage of the subject development via a proposed sewerage running underneath Fui Sha Wai South Road and the emergency vehicular access to the nearest public sewerage manhole at the westbound of Castle Peak Road in front of the Uptown Tower 1. The adopted no. of employee and peak sewage flow from Lot No. 2188 in D.D. 121 was 176 (based on a GFA of the RCHE = 5313m²) and 4.56l/s respectively under a Peaking Factor of 8 (total UFF = 0.280m³/day/employee).

4. Proposed Sewerage Works

- 4.1 The subject development now comprises of both Lot Nos. 398 RP and 2188 in D.D. 121. Its anticipated intake year is 2031. There is not much changes in the sewerage conditions of the subject area since the BD approving the Drainage Plan. Therefore, it is proposed to maintain adopting the original sewerage proposal which was designed and approved for the then proposed RCHE at Lot No. 2188 in D.D. 121, except the proposed sewerage is to be connected to an existing 400mm diameter sewer branch drain at the existing footpath in front of the adjacent residential development 'Uptown' (details of the existing sewer refer to **Figure S2**) instead of directly connected to the existing manhole FMH1036685 such that excavation at the carriageway of Castle Peak Road – Hung Shui Kiu can be avoided as shown in **Figure S3**.

5. Design Assumptions and Criteria

- 5.1 Design approach, assumptions and criteria adopted in the original sewerage proposal (included in the BD approved Drainage Plan) are considered still valid and acceptable, therefore they are continued to be adopted in this assessment. Copies of the relevant document submitted in associated with the Drainage Plan to BD is enclosed in

Appendix 2 for reference.

5.2 The key relevant information in the original sewerage proposal are summarized as follows:

5.2.1 Design References –

- Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning (GESF), Environmental Protection Department
- Hong Kong Planning Standards and Guidelines (HKPSG), Planning Department
- Sewerage Manual (SM), Drainage Services Department
- Corrigendum No. 1/2024 of Sewerage Manual Part 1
- Commercial and Industrial Floor Space Utilization Survey (CIFSUS), Planning Department
- Sewerage Records retrieved from GeoInfo Map

5.2.2 Unit Flow Factors (UFF) –

- For domestic flows (for domestic sewage flow estimation of residential population in the sewerage catchment adjacent to the subject development, the proposed residential and RCHE development)

Residential Type	Unit Flow Factors (m ³ /person/day)
Private R2	0.270
Institutional and special class	0.190

Referenced from Table T-1 in GESF

- For commercial flows (for sewage flow estimation of employed population of the proposed RCHE)

Commercial Type	Unit Flow Factors (m ³ /person/day)
Commercial Employee	0.080
Commercial Activities	
(a) Specific trades:	
J11 – Community, Social and Personal Services	0.200*
Total UFF	0.280

Referenced from Table T-2 in GESF

* UFF for J11 accounts for flows of customers and tenants

5.2.3 Peaking Factors –

Population Range**	Peaking Factor (including stormwater allowance)*** for Facility with Existing Upstream Sewerage
(a) For sewers	
< 1,000	8
1,000 – 5,000	6

Referenced from Table T-5 in GESF

** Contributing Population = Calculated total average flow (m³/day)/0.27(m³/person/day)

*** To be conservative

5.2.4 Catchment Inflow Factor (P_{CIF}) - 1.00 for Yuen Long Catchment as recommended in Table T-4 in the GESF is applied to the existing sewerage system to indicate the potential net overall ingress of water or waste water to the sewerage system in the assessment.

5.2.5 Hydraulic Analysis –

- Colebrook-White equation is applied for pipe hydraulic analysis.
- The design roughness coefficients (k_s) for all pipes is conservatively taken as 3.0mm (slimed sewer, clayware, under poor condition).
- For small diameter sewer of diameter less than 300mm, the flow velocity of at least 0.7m/s shall occur daily, or that a gradient of at least 1:DN (i.e. nominal diameter of the sewer in mm) is provided, provided that a flow of 2 times of Average Dry Weather Flow (ADWF) is assumed to occur at least once daily. For larger diameter sewers of diameter up to 900mm, a self-cleansing velocity of 1.0m/s in full pipe condition shall be achieved. The maximum flow velocity at peak flow shall be 3m/s.

5.2.6 Sewage Flow Estimation of the Original Sewerage Proposal –

- the maximum number of employees in the proposed RCHE is estimated based on the worker density with reference to the PlanD's CIFSUS and the maximum GFA of the RCHE development in the following table:

GFA (m ²)	Industry Group [#]	Worker Density (No. of Employee/100m ² GFA) [#]	No. of Employee
5,313	Community, Social & Personal Services	3.3	176

[#]Referenced from Figure 9 – "Worker Density by Industry Group" of the PlanD's CIFSUS

- the sewage flow estimation of the RCHE development is illustrated in the following table:

No. of Employee	UFF (m ³ /day/person)	ADWF (m ³ /day)	Peaking Factor	Peak Flow (l/s)
176	0.28	49.28	8	4.56

- the sewage flow estimation of the private residential development of Uptown and the Woodside (for assessing the existing DN375 sewer along Castle Peak Road) is illustrated in the following table:

Contributing Sewerage Catchment	No. of Flat	No. of Residents	UFF (m ³ /day/person)	ADWF (m ³ /day)	Peaking Factor	Peak Flow (l/s)
Uptown	734	2,055	0.27	554.90	6	38.54
The Woodside	98	274		74.09	8	6.86

5.3 Sewage Flow Estimation of the Subject Development –

- the maximum number of employees in the proposed RCHE part is estimated in the following table:

GFA (m ²)	Industry Group [#]	Worker Density (No. of Employee/100m ² GFA) [#]	No. of Employee
6,961	Community, Social & Personal Services	3.3	230

- the sewage flow estimation of the proposed RCHE part is evaluated in the following table:

No. of Employee or Bed Space	UFF (m ³ /day/person or bed space)	ADWF (m ³ /day)	Peaking Factor	Peak Flow (l/s)
230	0.28	64.40	8	5.97
450	0.19	85.50	8	7.92
			Total =	13.89

- the sewage flow estimation of the residential development part of the subject development is referenced to Private R2 Residential Type development as follows:

No. of Residents	UFF (m ³ /day/person)	ADWF (m ³ /day)	Peaking Factor	Peak Flow (l/s)
195	0.27	52.65	8	4.88

- the total sewage flow estimation (under a Peaking Factor of 8) of the subject development is therefore as follows:

Contributing Part	Peak Flow (l/s)
RCHE part	13.89
Residential Development part	4.88
Total	18.77

6. Potential Sewerage Impacts

- 6.1 Sewerage of the subject area is assessed to identify any sewers with inadequate capacity arising from the subject development as included in **Appendix 3**. Internal sewerage system of the subject development will be designed and submitted to BD for approval at the later detailed design stage.
- 6.2 Results of the assessment of the existing DN400 branch sewer and DN375 sewers at Castle Peak Road – Hung Shui Kiu (conservatively presuming the existing sewers being precast concrete pipes) are summarized in the following table:

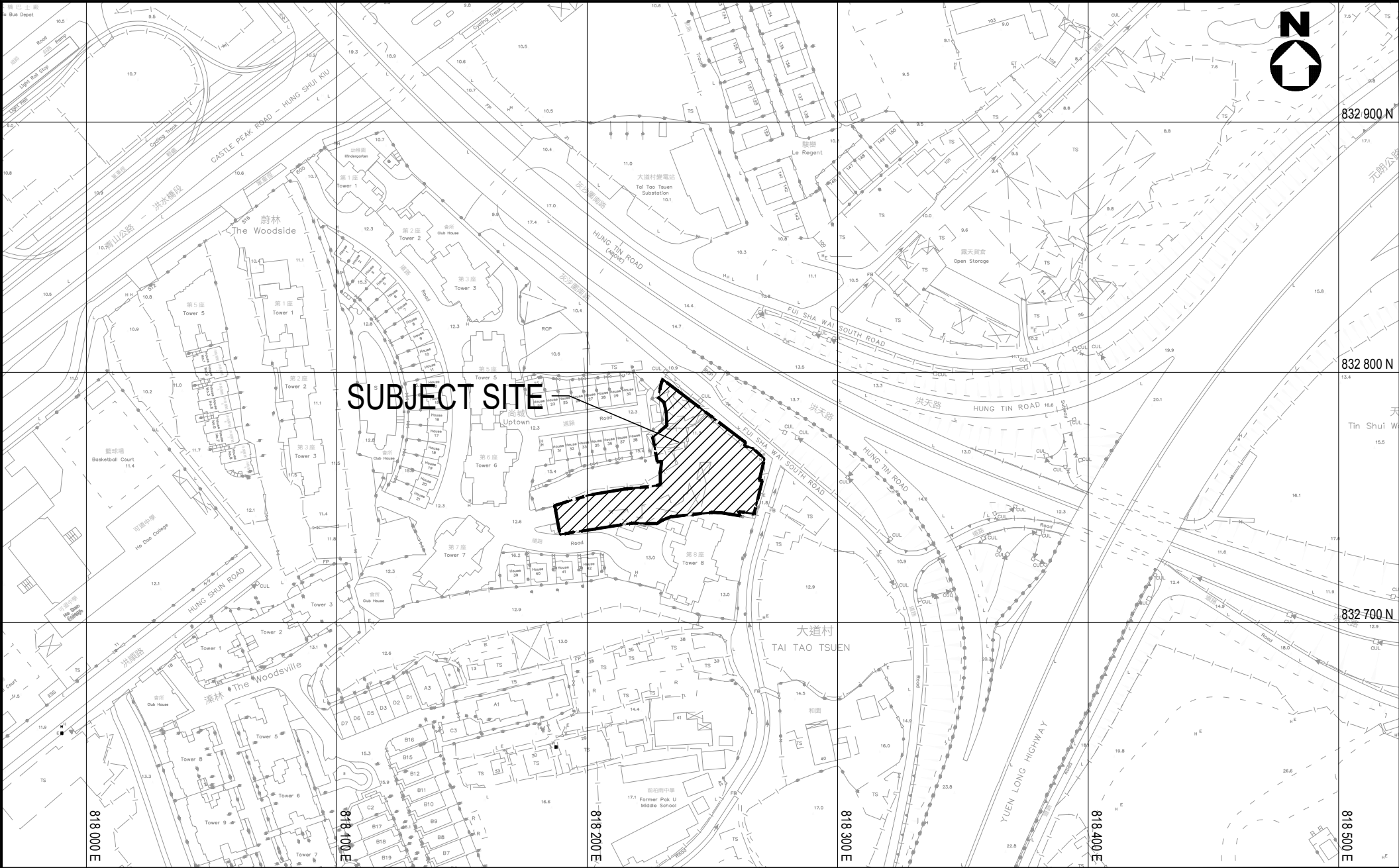
Upstream Manhole ID	Downstream Manhole ID	Sewer Length (m)	Peak Flow* (l/s)	Sewer Hydraulic Capacity (l/s)	% of Peak Flow over Sewer Hydraulic Capacity
Feature FWD1045721 (400mm dia. drain IL +8.585)	FMH1036685 (IL +8.502)	13.31	46.678	211.663	28%
FMH1036685	FMH1043120	41.7	46.678	77.904	75%
FMH1043120	FMH1036686	3.2	49.250	154.319	40%
FMH1036686	FMH1036687	19.1	49.250	96.377	64%
FMH1036687	FMH1036688	41.7	49.250	199.071	31%
FMH1036688	FMH1036689	3.2	51.823	178.237	36%
FMH1036689	FMH1036690	41.2	51.823	85.886	75%
FMH1036690	FMH1036691	39.2	51.823	91.664	70%

* Peaking Factor = 6 since total population >1,000 and <5,000

7. Conclusion and Recommendations

- 7.1 The sewage flow generated from the subject development will be collected by an internal sewerage system and conveyed into a proposed terminal sewerage manhole from which a new sewer will be laid to connect to the existing 400mm diameter branch sewer drain at the footpath in front of 'Uptown' encroaching upon Castle Peak Road – Hung Shui Kiu.
- 7.2 From the hydraulic capacity checking of the existing sewers at Castle Peak Road – Hung Shui Kiu serving the subject area, it reveals that the existing sewers are capable to collect the sewage flow generated from the subject development. It has been assessed that even with the subject development, only about maximum 75% capacity of the existing 375mm diameter public sewer at the immediate downstream at Castle Peak Road – Hung Shui Kiu will be utilized. The existing sewer system will still have spare capacity to receive the sewage flow generated from other developments in the area when necessary.
- 7.3 Detailed design of the proposed sewerage connecting works and the internal sewerage system will be submitted to the Building Authority who will circulate the submission to all relevant departments by means of central processing mechanism for comment, for approval prior to commencement of the construction works.
- 7.4 In view of the above, the subject development would have no adverse sewerage impact on the local existing sewerage system.

H:\23121_Lot 2188\DRAWING\23121_FIGURE S1.dwg, 29/2025 15:44:55



PROJECT		何田顧問工程師有限公司 HO TIN & ASSOCIATES CONSULTING ENGINEERS LIMITED	
TITLE LOCATION PLAN		SCALE 1 : 2000(A4)	DRAWING No. FIGURE S1

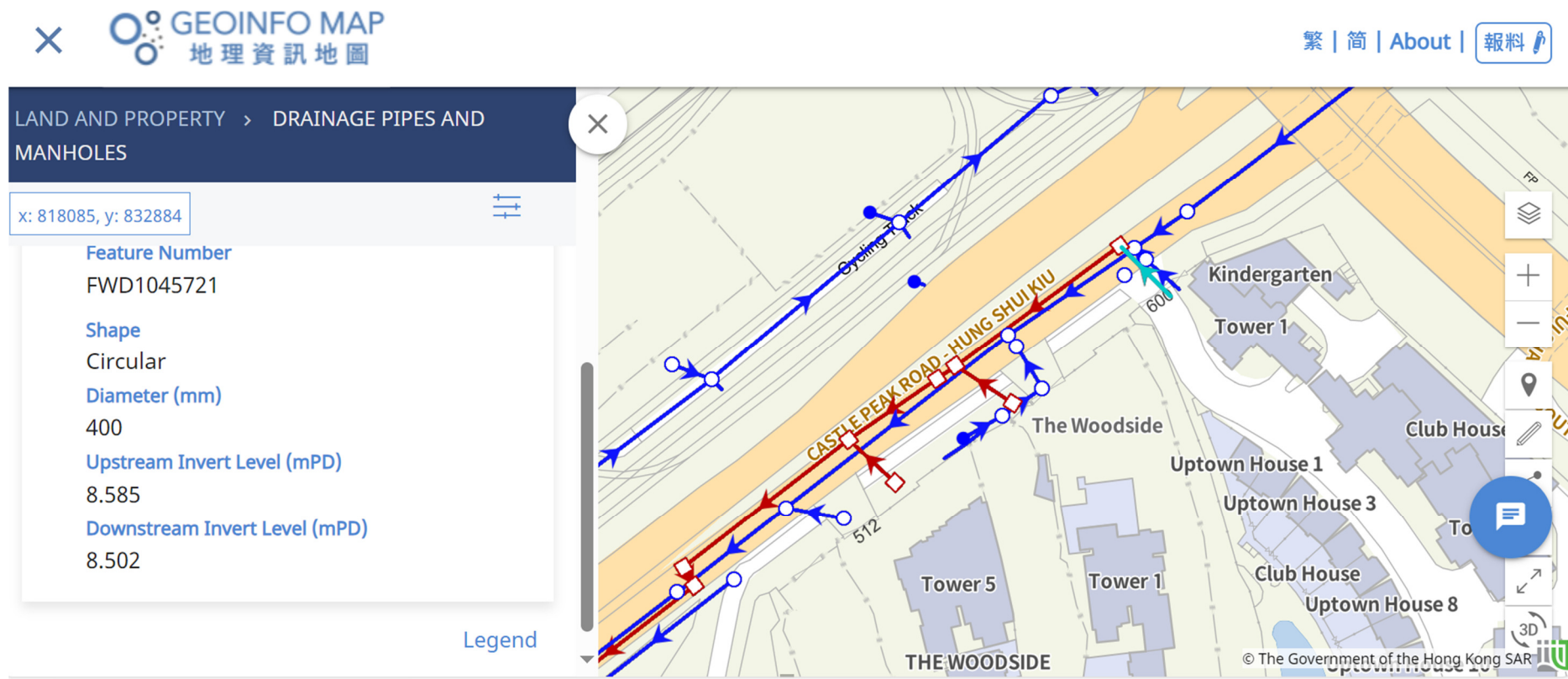
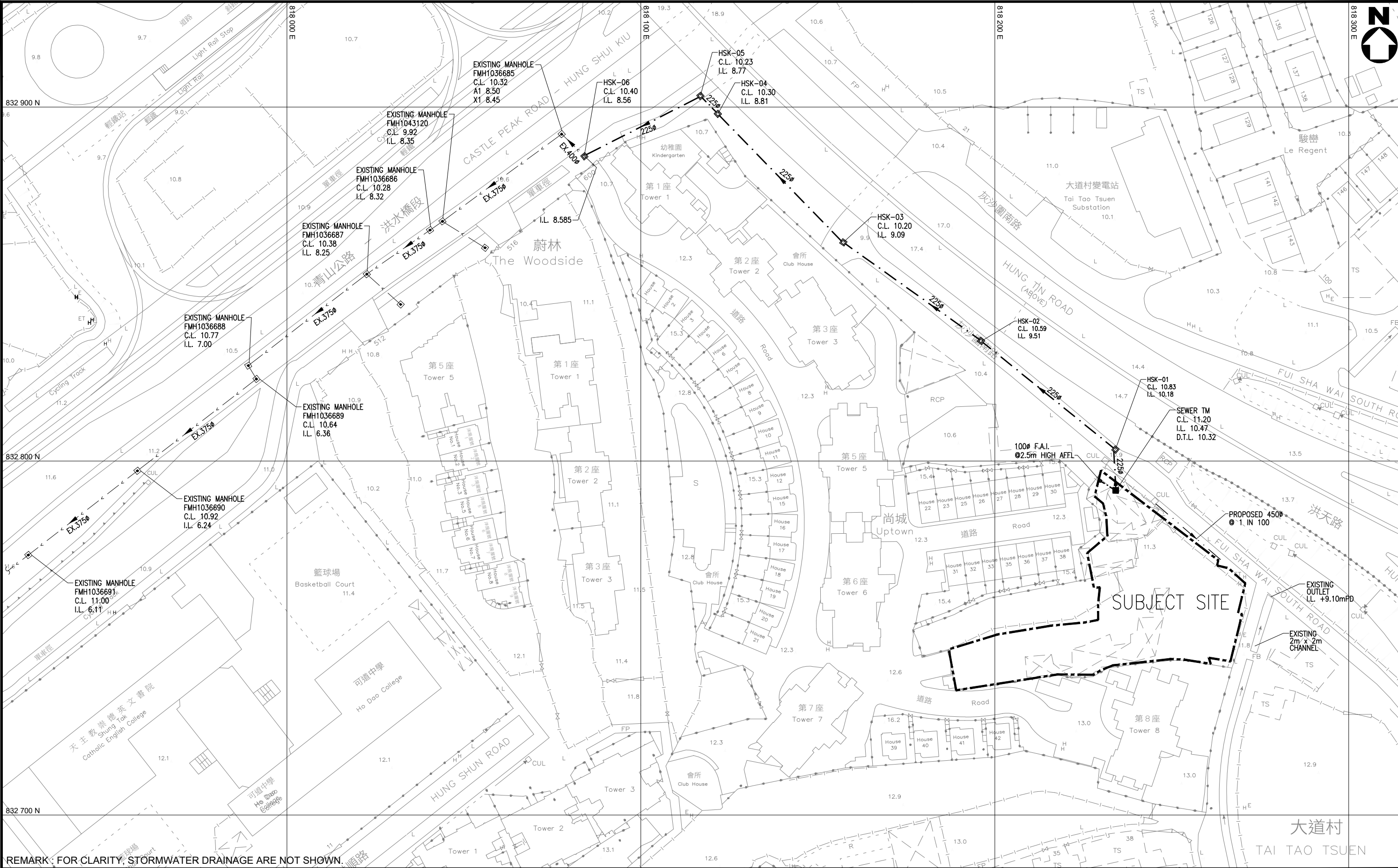


Figure S2 – Details of the Existing Sewer Branch Drain in front of ‘Uptown’



LEGEND: THE SUBJECT SITE BOUNDARY PROPOSED SEWER PROPOSED SEWER TERMINAL MANHOLE (INTERNAL SEWERAGE WORK WILL BE SUBMITTED SEPARATELY) PROPOSED SEWER MANHOLE EXISTING PUBLIC SEWER EXISTING PUBLIC SEWER MANHOLE	PROJECT	何田顧問工程師有限公司 HO TIN & ASSOCIATES CONSULTING ENGINEERS LIMITED
TITLE PROPOSED SEWERAGE WORKS	SCALE 1 : 1000(A3)	DRAWING No. FIGURE S3

Appendix 1 - Copies of the BD approval letter and relevant drawings of the original sewerage proposal

Lam Wan Fung Bernard Vincent

3 November 2022

RECEIVED
04 NOV 2022

BY:.....

220

(51)

Dear Sir,

Tai Tao Tsuen, Hung Shui Kiu, Yuen Long, N.T.
- D.D. 121 Lot 2188

I refer to your application received on 8 September 2022 with complete substitution of drawings on 31 October 2022 for approval of proposals in respect of Drainage.

2. Your submission of plans has been checked under the curtailed check system announced in Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) ADM-19 and refined according to the Circular letter issued on 30 October 2013. On this basis, I am satisfied that your submission is fundamentally acceptable and may be approved.

3. You are reminded that under the refined curtailed check system, the items of fundamental issues have been curtailed and only a specified percentage of the drainage proposal has been randomly checked. Hence, notwithstanding that there may be fundamental issues and non-fundamental issues, they will not be raised as reasons for disapproving a submission. However, I expect that all contraventions of the Buildings Ordinance (BO) and its subsidiary legislation are rectified as and when they are discovered and in any event, before completion of the works is certified. In this connection, I ask you to note that the Building Authority attaches great importance to the proper assumption of duties and responsibilities by authorized persons and registered structural engineers and registered geotechnical engineers.

4. In accordance with the provisions of regulation 30(1) of the Building (Administration) Regulations, this is to notify that the Drainage plans submitted with your application received on 8 September 2022 with complete substitution of drawings on 31 October 2022 are hereby approved. One set of the said plans, on which I have signified my approval, is enclosed. Your client has been sent a copy of this letter but I would request that you ensure that the contents are understood by him.

5. This approval should not be deemed to confer any title to land or to act as a waiver of any term in any lease or licence. This approval does **NOT** authorize the commencement or the carrying out of any works shown in the approved plans. Section 14(2) of the BO refers.

6. Approval of the subject drainage plans covers the proposed provisions and layouts of drainage items only. Building layouts as shown are for reference only. Those shown on approved building plans shall prevail.

7. A Form BD 106 is attached herewith.

/8...

SL 9(12/2015) (T-D ra)

8. The Chief Engineer/Mainland North of Drainage Services Department (CE/MN of DSD) (contact officer: Jeff C W TSE at tel: 2300 1627) has comments (attached in Appendix I) which had been conveyed to your representative on 30 September 2022 via email. It was noted that your representative had responded her comments on 24 October 2022 and CE/MN of DSD had no further comment to your submission on 25 October 2022. Since you have amended the subject plans according to CE/MN of DSD's comments prior to this approval, you should forward a copy of the relevant approved drainage plans to the Department for record.

9. The Chief Highway Engineer/NT West of Highways Department (CHE/NTW, HyD) (contact officer: Ben CK CHAN at tel: 2762 4965) has comments in Appendix II attached.

10. Chief Geotechnical Engineer / Mainland West, Geotechnical Engineering Office, Civil Engineering and Development Department (GEO, CEDD) (contact officer: Sylvia S W CHIK at tel: 2762 5222) has no geotechnical objection to the approval of the plans with reminder to AP/RSE/RGE that excavation and lateral support plans taking into consideration the requirements of B(A)R8(1)(bc) shall be submitted to BD for approval prior to consent application for commencement of the works, if found necessary.

11. The Project Manager (West), Civil Engineering and Development Department (PM(W), CEDD) (contact officer: Odilia Y Y NG at tel: 2158 5617) has no comment on your submission.

12. Your plans have also been referred to the District Lands Officer/Yuen Long (DLO/YL) for comment which will be issued to you directly.

13. This records that you have completely substituted drawings [drawing nos.: HT 21016/DD/001 to 005] on 31 October 2022. Please furnish a copy of this approved plan to relevant departments for record and further comments, if any. Your attention is again drawn to section 4(3) of the BO.

14. If you have any queries, please contact our Mr. Amen YUNG at 2626 1434.

Yours faithfully,

c.c. Right Fortune Investment Limited

CE/MN, DSD
CHE/NTW, HyD
GEO, CEDD
PM/NTW, CEDD
DLO/YL

[By Fax Only: 2674 2301]

[By Fax Only: 2770 4761]
[By Fax Only: 2714 5228]
[By Fax Only: 2194 0165]
[By Fax Only: 2693 2918]
[By Fax Only: 2473 3134]

(CHENG Hang-on, Colin)
Senior Building Surveyor
for Building Authority

Our Ref. : (14) in BD 4/9045/21

Address : Tai Tao Tsuen, Hung Shui Kiu, Yuen Long, New Territories - D.D. 121 Lot 2188

Appendix I

CE/MN of DSD has the following comments, and it was noted that your representative had responded her comments on 24 October 2022 and CE/MN of DSD had no further comment to your submission on 25 October 2022.

The submitted drawings have been examined and my comments are as follows:

- (a) Cover level, invert level and manhole type of the proposed stormwater terminal manhole TM should be provided for comments.
 - (b) Please indicate the ID nos. of the existing government manholes (i.e. Existing Catchpit 1 and Existing Catchpit 2) on the drainage layout plan.
 - (c) The proposed connection pipes should have 300mm clearance as far as possible from any existing drains or other proposed connection pipes.
 - (d) According to the attached SIA Report (ver. March 2018), it is noted that the proposed alignment of the sewerage connection is not updated and have difference with the one as shown in drawing no. HT 21016/DD/001. Please check.
2. In addition, the A.P. is reminded of the following general comments:
- (a) This Department will only take over those public drainage facilities constructed on government land and located downstream of the terminal manhole.
 - (b) DSD shall not maintain all such drains and manholes proposed to be laid within private lots adjacent to the development. The A.P. has to confirm the future maintenance responsibilities of such drains and manholes.
 - (c) Any alternation/demolition/modification/removal works made upon existing DSD's facilities should have consent and agreement from this Division prior to commencement of works and should ensure that the proposed works would not adversely affect the structural integrity of any existing drainage/sewerage system.
 - (d) The proposed drainage works, whether within or outside the lot boundary, should be constructed and maintained by the lot owner at their own expense. For works to be undertaken outside the boundary, prior consent and agreement from DLO/YL and/or relevant private lot owners should be sought.
 - (e) All proposed drainage connection works should be carried out by the developer in accordance with DSD Standard Drawings at the developer's cost. The A.P. is reminded to submit the HBP1 application form together with a cheque to DSD for a technical audit of 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.

The A.P. is required to submit the declaration form (form no.: HBP1_CC) before the inspection and to provide certified as-built drainage plans to DSD for record.

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.

Our Ref. : (14) in BD 4/9045/21

Address : Tai Tao Tsuen, Hung Shui Kiu, Yuen Long, New Territories - D.D. 121 Lot 2188

Appendix I [Cont'd]

- (f) It is the developer's responsibility to identify/locate the existing government sewers and stormwater drains to which drainage connections from his site are to be proposed. The A.P. should verify the existence of any drains/sewers/utilities and also their exact locations, levels and alignments on site in order to ascertain the positions and levels of the proposed manholes and the associated connection works. The A.P. should also verify that the existing government drains/sewer, to which connections are proposed, are in normal working conditions and capable for taking the discharge from the site. Besides, for any excavation works over or in close vicinity to existing government drains/sewers, the A.P. should notify DSD in writing at least 14 working days before backfilling the excavation works and arrange joint site inspection with DSD prior to covering up.

The A.P. is also reminded that any person wilfully, except with the permission in writing of the Authority, or negligently damages, alters, disconnects or otherwise interferes with any public sewer or drain or any connection therewith, shall be guilty of an offence under Section 6 of Public Health and Municipal Services Ordinance (Cap 132).

- (g) The A.P. 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 A.P. 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.
- (h) The A.P. 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 A.P. shall monitor the internal conditions of the existing 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 A.P. 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 A.P.'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.
- (i) Under the Water Pollution Control Ordinance (Cap 358), discharge of wastewater into stormwater drains is not permitted. The A.P. 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 fittings, through the sewage terminal manhole(s) to the public sewers. Besides, to ensure the sustainability of the public sewerage network, the A.P. 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.

Our Ref. : (14) in BD 4/9045/21

Address : Tai Tao Tsuen, Hung Shui Kiu, Yuen Long, New Territories - D.D. 121 Lot 2188

Appendix II

The CHE/NTW, HyD has the following comments:

I refer to your referenced memo and have the following comments from the highways maintenance point of view:

- (a) The sewerage connection is outside the purview of this Office;
- (b) It is noted that the stormwater connection is made to DSD catchpit SCH1013920. I have no comment on this arrangement. Please be reminded that the existing 375 UC just next to the above catchpit falling toward NW direction is maintained by this Office, the AP and his contractor shall ensure the connection is not made to this existing 375 UC;
- (c) The drainage designs should be subject to the comment and approval of CE/MN, DSD. The AP shall also clarify with DSD for the maintenance responsibility of the drainage system;
- (d) A minimum cover of 900mm and 450mm should be provided for drainage pipes under carriageway and footpath respectively;
- (e) The AP should ensure that the existing drainage system has sufficient capacity to carry the discharge from the proposed development;
- (f) The AP should ascertain the alignment and level of existing utility services in the vicinity prior to the commencement of drainage works;
- (g) No runoff contaminated with cement/grout/sand/silt shall be discharged to public road drains. Adequate drainage measures including interception channels should be provided to prevent runoff from the lot from flowing into public road drains;
- (h) Comments from Lighting Division of this Department should be sought if public lightings are affected;
- (i) The AP should exercise due care to avoid damaging public footpaths/roads, and other highway structures/facilities arising from his drainage works. Any damages should be immediately repaired to highway standards and my satisfaction by the developer at his own expense; and
- (j) Should excavation works on public roads or footpaths be required, an Excavation Permit should be obtained from this Office prior to commencement of excavation works. Should excavation works on unallocated Government Land be required, an Excavation Permit should be obtained from DLO/YL direct.

BUILDING AUTHORITY OF HONG KONG
Form BD 106
BUILDINGS ORDINANCE
(Chapter 123)
Section 42

Permit under Section 42

Permit No. NT516/2022/MOD
Our Ref. No. (15) in BD 4/9045/21
To : Right Fortune Investment Limited
c/o Lam Wan Fung Bernard Vincent

Date 3 November 2022

In exercise of the powers vested in me by section 42 of the Buildings Ordinance, I hereby grant modification of and/or exemption from the provisions of:-

- (A) **Regulation 44(1) of Building (Standards of Sanitary Fitments, Plumbing, Drainage Works & Latrines) Regulations [B(SSFPDW&L)R]** to permit the use of ductile iron pips for the covered drains; and
- (B) **Regulation 56(7) of B(SSFPDW&L)R** to permit the use of ductile iron cover for manhole;

in respect of the proposed building works at (No. and name of street and locality) Tai Tao Tsuen, Hung Shui Kiu, Yuen Long, N.T. on (lot no.) D.D. 121 Lot 2188 :-

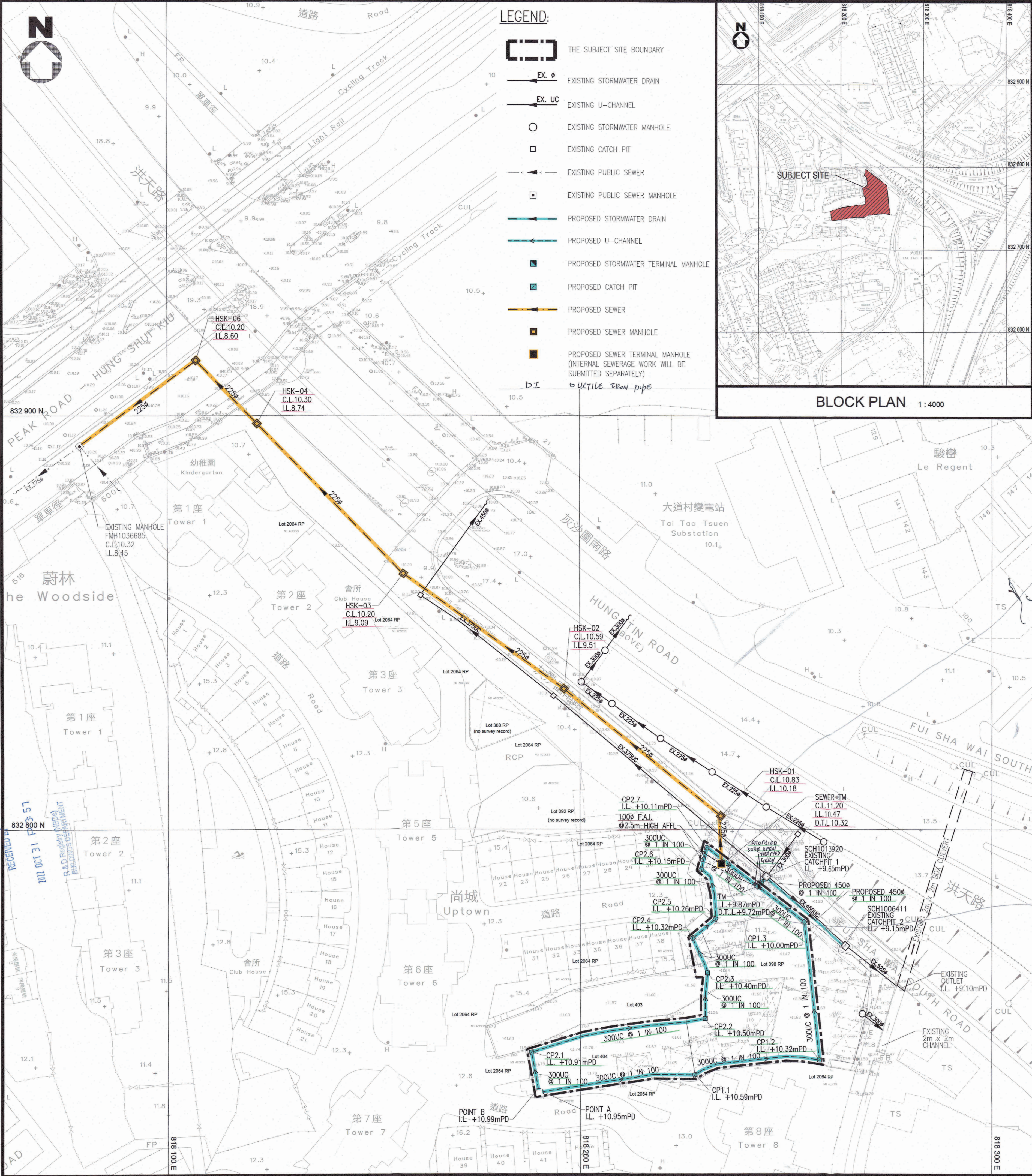
2. This permit is granted subject to the following conditions:-

- (a) The said works are to be carried out in accordance with the plans approved on 3 November 2022 under our Ref. No. BD 4/9045/21.
- (b) The conditions imposed in this paragraph are to be incorporated in the subsequent amendment plans for approval before the application for an occupation permit is submitted.
- (c) A checklist of valid Forms BD106 is to be submitted at the time of the submission of the application of occupation permit upon completion.
- (d) This permit will expire on 2 November 2024 if the consent to commence the above works is not obtained on or before the specified date or where such consent has been obtained but is deemed to be revoked under section 20(1) of the Buildings Ordinance after the specified date.

-- End --

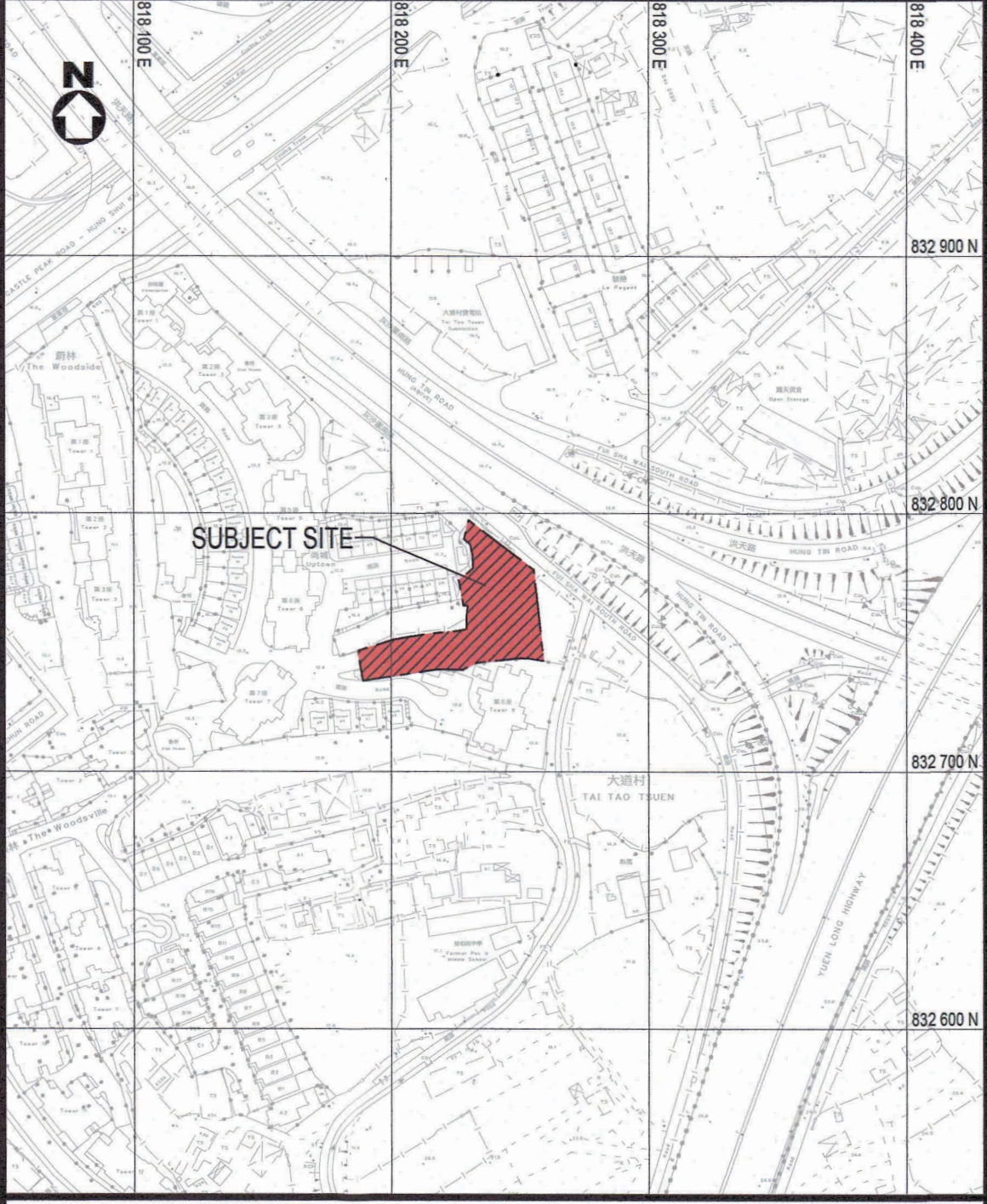
c.c. CO/SM
BD GR/OA/118

(CHENG Hang-on, Colin)
Senior Building Surveyor
for Building Authority



LEGEND:

- THE SUBJECT SITE BOUNDARY
- EXISTING STORMWATER DRAIN
- EXISTING U-CHANNEL
- EXISTING STORMWATER MANHOLE
- EXISTING CATCH PIT
- EXISTING PUBLIC SEWER
- EXISTING PUBLIC SEWER MANHOLE
- PROPOSED STORMWATER DRAIN
- PROPOSED U-CHANNEL
- PROPOSED STORMWATER TERMINAL MANHOLE
- PROPOSED CATCH PIT
- PROPOSED SEWER
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER TERMINAL MANHOLE (INTERNAL SEWERAGE WORK WILL BE SUBMITTED SEPARATELY)



BLOCK PLAN 1:4000

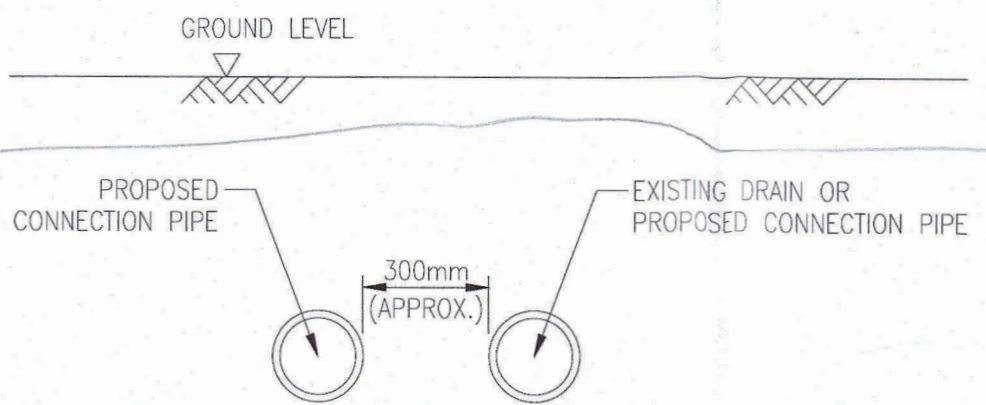
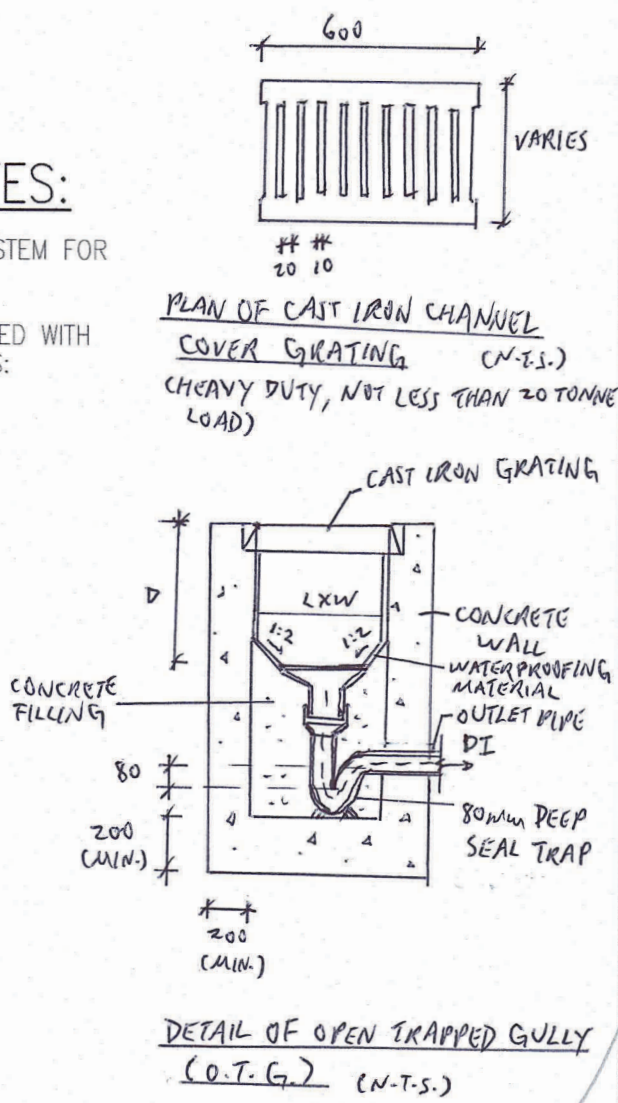
GENERAL NOTES:

- ALL ALIGNMENTS OF THE EXISTING DRAINAGE/SEWERAGE SYSTEM AS SHOWN ON THE DRAWINGS ARE INDICATIVE ONLY. THE EXACT LEVEL AND LOCATION OF EXISTING DRAINAGE SYSTEM SHALL BE DETERMINED ON SITE.
- ALL DIMENSIONS ARE IN MM. ALL LEVELS ARE IN MPD UNLESS NOTED OTHERWISE.
- ALL MATERIAL AND WORKMANSHIP REQUIREMENTS SHALL BE IN ACCORDANCE WITH APPROVED MATERIALS SUBMISSIONS, TESTING AND WORKMANSHIP REQUIREMENTS OF THE GENERAL SPECIFICATION FOR CIVIL ENGINEERING WORKS (LATEST EDITION) AND RELEVANT SPECIFICATION.
- REINSTATEMENT OF EXISTING CONCRETE CARRIAGEWAY SHALL BE IN ACCORDANCE WITH HYD STANDARD DRAWING NOS. H1124 AND H1125 (LATEST VERSION) UNLESS OTHERWISE SPECIFIED. (FOR DSD & HYD REFERENCE, AND NOT FOR BD APPROVAL)
- REINSTATEMENT OF EXISTING BITUMINOUS CARRIAGEWAY SHALL BE IN ACCORDANCE WITH HYD STANDARD DRAWING NOS. H1129 AND H1130 (LATEST VERSION) UNLESS OTHERWISE SPECIFIED. (FOR DSD & HYD REFERENCE, AND NOT FOR BD APPROVAL)
- REINSTATEMENT OF EXISTING PAVED AREA SHALL BE IN ACCORDANCE WITH HYD STANDARD DRAWING NOS. H1127 AND H1128 (LATEST VERSION) UNLESS OTHERWISE SPECIFIED. (FOR DSD & HYD REFERENCE, AND NOT FOR BD APPROVAL)
- PE PIPES AND FITTINGS SHALL COMPLY WITH BS EN 12201-2 AND BS EN 12201-3 RESPECTIVELY, AND HAVE A MATERIAL DESIGNATION OF PE 100.
- THE LOCATIONS OF THE PROPOSED MANHOLES AND DRAINAGE/SEWERAGE ALIGNMENTS SHOWN ON DRAWINGS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS AND ALIGNMENTS AND MANHOLES ARE TO BE DETERMINED ON SITE.
- PIPE BEDDING SHALL REFER TO DSD STANDARD DRAWINGS DS1048B AND DS1049B UNLESS OTHERWISE SPECIFIED. (FOR DSD & HYD REFERENCE, AND NOT FOR BD APPROVAL)
- ALL MATERIALS FOR PIPEWORK SHALL BE IN ACCORDANCE WITH CEDD'S GENERAL SPECIFICATION FOR CIVIL ENGINEERING WORKS AND DSD'S STORMWATER DRAWING MANUAL.
- FLEXIBLE JOINTS FOR PIPES WITH CONCRETE BEDDING OR SURROUND ARE TO CONFORM WITH THE REQUIREMENTS OF DSD STANDARD DRAWING DS 1050B. (FOR DSD & HYD REFERENCE, AND NOT FOR BD APPROVAL)
- THE GROUND LEVEL SHOWN ON MANHOLE SCHEDULE AND LONGITUDINAL PROFILE IS APPROXIMATE ONLY.
- FOR ALL PROPOSED CONNECTION INTO THE EXISTING MANHOLES AND DRAINS, THE EXACT LOCATION OF CONNECTION POINT AND INVERT LEVELS SHALL BE VERIFIED ON SITE PRIOR TO CONSTRUCTION.
- STEP IRONS SHALL FOLLOW THE STANDARD AS PER DSD STANDARD DRAWING NO. DS 1043B.
- PRECAST CONCRETE PIPES AND FITTINGS SHALL COMPLY WITH BS EN 1916 AND BS 5911:PART 1 AND SHALL HAVE FLEXIBLE SPIGOT AND SOCKET JOINTS.
- FULL PIPE LENGTHS ARE TO BE INSTALLED AS FAR AS POSSIBLE.
- CONCRETE GRADE TO MANHOLES SHALL BE AS SHOWN ON DSD STANDARD DRAWINGS AND AS DESCRIBED ON THE DRAWINGS FOR SPECIAL MANHOLES. ALL CONCRETE IN CONTACT WITH THE GROUND SHALL BE LAID ON 75MM THICK BLINDING CONCRETE OF GRADE 10/20 UNLESS OTHERWISE STATED. (FOR DSD & HYD REFERENCE, AND NOT FOR BD APPROVAL)
- ALL EXISTING DRAINAGE/SEWERAGE FACILITIES SHALL ONLY BE ABANDONED / DEMOLISHED AFTER THE COMPLETION OF THE ASSOCIATED DIVERSION WORKS TO THE SATISFACTION OF DSD. IN ADVANCE, APPROVAL BY DSD SHALL BE SOUGHT PRIOR TO ANY ABANDONMENT OR DEMOLITION.
- ALL EXISTING DRAINS/SEWERS TO BE ABANDONED SHALL BE FILLED WITH CEMENT GROUT. DETAILS AND MATERIALS SHALL BE SUBMITTED TO DSD FOR APPROVAL.
- ALL DIMENSIONS SHOULD BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- ALL EXPOSED CONCRETE EDGES TO HAVE 25x25 CHAMFER UNLESS OTHERWISE STATED.
- ALL STRUCTURAL DESIGN, CALCULATIONS, DETAILS FOR DRAINAGE WORKS WITHIN SITE BOUNDARY ARE UNDER SEPARATE SUBMISSION.
- TESTING OF DRAINAGE WORKS WITHIN SITE BOUNDARY SHALL BE IN COMPLIANCE WITH PNAP APP-58.
- DI PIPES AND FITTINGS SHALL COMPLY WITH BS EN 12201-2 AND BS EN 12201-3. PIPES AND FITTINGS SHALL BE LINED INTERNALLY WITH CEMENT MORTAR AND SHALL BE COATED EXTERNALLY WITH BITUMINOUS COATING.

EXTERNAL DRAINAGE AND SEWERAGE NOTES:

- REFER TO HO TIN'S DRAINAGE PROPOSAL OF DRAINAGE AND SEWERAGE SYSTEM FOR THE DESIGN CRITERIA AND CALCULATIONS.
- DESIGN OF THE EXTERNAL DRAINAGE AND SEWERAGE SYSTEMS IS CONDUCTED WITH REFERENCE TO THE REQUIREMENTS SET OUT UNDER THE FOLLOWING DOCUMENTS:
 - STORMWATER DRAINAGE MANUAL (FIFTH EDITION, JANUARY 2018).
 - SEWERAGE MANUAL PART 1 (THIRD EDITION, MAY 2013).
 - CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT (CEDD) GENERAL SPECIFICATION FOR CIVIL ENGINEERING WORKS VOLUME 1 AND VOLUME 2 (2020 EDITION).

TRAPPED GULLY SCHEDULE (RAINWATER DRAINAGE SYSTEM)					
DISCHARGE PIPE SIZE (mm)	L	W	D (mm)	GRATING SIZE	COVER SIZE
300 Ø	1200	1200	740	600x600	800x800



B.D. REF.

F.S.D. REF.

Do not scale drawing

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Plan Approved

CHENG Hing-on, Colin
Senior Building Surveyor
for BUILDING AUTHORITY
- 3 NOV 2022

REVISIONS

PROJECT

PROPOSED RESIDENTIAL CARE HOME FOR THE ELDERLY AT LOT NO. 2188 (FORMERLY LOTS 398 RP AND 404) IN D.D.121, TAI TAO TSUEN, HUNG SHUI KIU, YUEN LONG, N.T.

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

DATE PRINTED

JOB NO. HT 21016

SCALE: 1 : 500 OR AS SHOWN - A1

DRAWN: A. CHENG

CHECKED: W. SETO

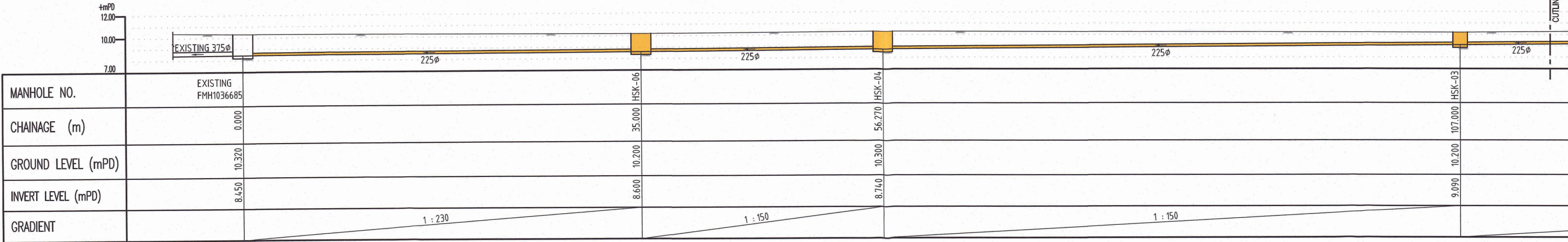
APPROVED: K. C. LEE

TITLE

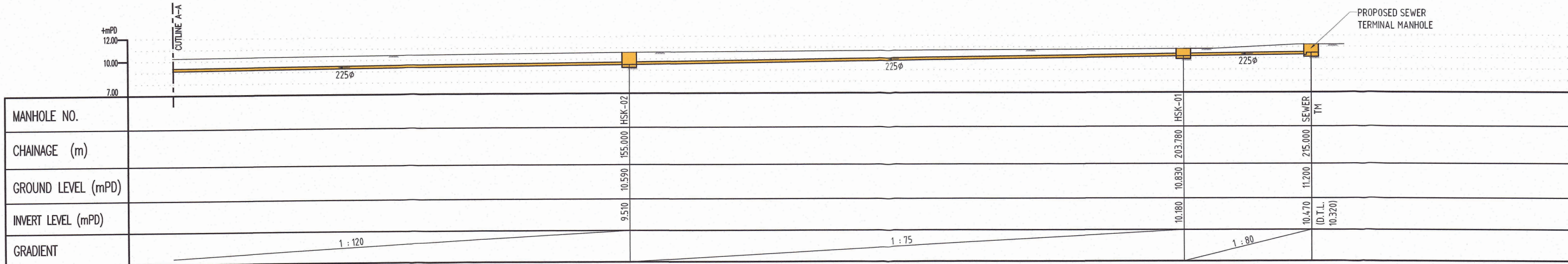
PROPOSED EXTERNAL STORMWATER DRAINAGE AND SEWERAGE LAYOUT

DRAWING NO. HT 21016 / DD / 001

LM Wan-ling, Bernard Vincent, JPHWMA
Authorized Person (List of Architects)
Registration No. AP(A) 4984



LONGITUDINAL PROFILE OF PROPOSED 225ø SEWER PIPELINE



LONGITUDINAL PROFILE OF PROPOSED 225ø SEWER PIPELINE

SCHEDULE FOR STORMWATER DRAINAGE

USCP/USMH	DSCP/DSMH	USGL	DSGL	USIL	DSIL	LENGTH (m)	SLOPE 1 IN	SUB-CATCHMENT AREA (m2)	DESIGN FLOW (m3/s)	SIZE (mm)	UC Type	VEL (m/s)	*FLOW CAPACITY (m3/s)	90% FLOW CAPACITY (for pipe) (m3/s)	SPARE CAPACITY (m3/s)	REMARK
Within the Subject Site																
Sub-catchment Area 4		Point B						500								
	Point B	CP2.1	11.79	11.79	10.99	10.91	8.50	100	899	0.119	300	UC	1.70	0.14		0.018
	CP2.1	CP2.2	11.79	11.56	10.91	10.50	41.00	100	0	0.116	300	UC	1.70	0.14		0.021
	CP2.2	CP2.3	11.56	11.65	10.50	10.40	10.00	100	0	0.115	300	UC	1.70	0.14		0.022
	CP2.3	CP2.4	11.65	11.69	10.40	10.32	8.00	100	0	0.118	300	UC	1.70	0.14		0.019
	CP2.4	CP2.5	11.69	11.48	10.32	10.26	5.50	100	0	0.115	300	UC	1.70	0.14		0.022
	CP2.5	CP2.6	11.48	11.20	10.26	10.15	11.50	100	0	0.115	300	UC	1.70	0.14		0.022
	CP2.6	CP2.7	11.20	11.47	10.15	10.11	4.00	100	0	0.115	300	UC	1.70	0.14		0.022
	CP2.7	TM	11.47	11.32	10.11	9.97	14.00	100	0	0.114	300	UC	1.70	0.14		0.023
	Point A	CP1.1	11.75	11.70	10.95	10.59	38.00	100	899	0.075	300	UC	1.70	0.14		0.062
	CP1.1	CP1.2	11.70	11.64	10.59	10.32	27.00	100	0	0.074	300	UC	1.70	0.14		0.063
	CP1.2	CP1.3	11.64	11.42	10.32	10.00	32.00	100	0	0.072	300	UC	1.70	0.14		0.065
	CP1.3	TM	11.42	11.32	10.00	9.87	13.00	100	0	0.073	300	UC	1.70	0.14		0.064
External Drainage (between the Subject Site and Outfall)																
TM (Manhole Type : T1_1 Cover Class : C250)	Existing External Catchpit 1 (SCH1013920)	11.32	11.50	9.72	9.70	2.00	100	0	0.187	450	concreted pipe	2.03	0.32	0.29	0.104	
Existing External Catchpit 1 (SCH1013920)	Existing External Catchpit 2 (SCH1006411)	11.50	11.56	9.65	9.42	23.00	100	373	0.214	450	concreted pipe	2.03	0.32	0.29	0.077	FOR DSD & HYD REFERENCE, AND NOT FOR BD APPROVAL
Existing External Catchpit 2 (SCH1006411)	Existing Outlet	11.56	11.69	9.15	9.10	15.00	300	0	0.212	525	concreted pipe	1.29	0.28	0.25	0.039	

ABBREVIATION

USMH	Upstream Manhole
DSMH	Downstream Manhole
USGL	Upstream Ground Level, mPD
DSGL	Downstream Ground Level, mPD
USIL	Upstream Invert Level, mPD
DSIL	Downstream Invert Level, mPD

SCHEDULE FOR SEWERAGE

Manhole No.		Ground Level		Invert Level		Manhole Depth		U/S Manhole		Pipe				Remark
U/S	D/S	U/S mPD	D/S mPD	U/S mPD	D/S mPD	U/S m	D/S m	Type	Cover Class	Length m	Diameter mm	Bedding Type	Material	
SEWER TM	HSK-01	11.20	10.83	10.47	10.18	0.88	0.65	T1_1	C250	11	225	B	PE100	
HSK-01	HSK-02	10.83	10.59	10.18	9.51	0.65	1.08	D1	E600	49	225	B	PE100	
HSK-02	HSK-03	10.59	10.20	9.51	9.09	1.08	1.11	D1	E600	48	225	B	PE100	FOR DSD & HYD REFERENCE, AND NOT FOR BD APPROVAL
HSK-03	HSK-04	10.20	10.30	9.09	8.74	1.11	1.56	D1	E600	50	225	B	PE100	
HSK-04	HSK-06	10.30	10.20	8.74	8.60	1.56	1.60	E1	E600	21	225	B	PE100	
HSK-06	EX. MANHOLE FMH1036685	10.20	10.32	8.60	8.45	1.60	1.87	E1	E600	35	225	B	PE100	

GENERAL NOTES FOR DUCTILE IRON MANHOLE COVER & FRAME

1. GENERAL

- D.I. MANHOLE COVERS SHALL BE SUPPLIED WITH FRAMES AND SHALL CONFORM TO THE RELEVANT REQUIREMENTS OF BS EN 124 : 1994.
- ALLOWANCE SHOULD BE MADE FOR MACHINING WHERE APPLICABLE.
- SHARP EDGES SHALL BE REMOVED.

2. DIMENSIONS AND MARKINGS

- THE CASTING OF MARKINGS SHALL BE CLEARLY LEGIBLE.

3. TEST LOADS AND WEIGHT

- THE D.I. MANHOLE COVERS AND FRAMES SHALL BE DESIGNED AND TESTED ACCORDING TO BS EN 124 : 1994 WITH TEST LOAD SPECIFIED IN THE TABLE BELOW -

DESIGNATION	DIAMETER OF TEST BLOCK	TEST LOAD	WEIGHT (APPROX.)
STANDARD 675 SQUARE ONE-PIECE D.I. DOUBLE-SEAL TERMINAL MANHOLE COVER & FRAME, CLASS C250 (FOR FOOTWAYS, PEDESTRIAN AREAS, CAR PARKS AND AREAS WHERE THERE ARE SLOW-MOVING SERVICE AND DELIVERY VEHICLES, REFUSE COLLECTION VEHICLES, EMERGENCY VEHICLES ETC.)	250mm	250kN	129 kg (COVER) 98 kg (FRAME)
STANDARD 675 SQUARE DOUBLE TRIANGULAR D.I. MANHOLE COVER & FRAME, CLASS E600	250mm	600kN	110 kg (COVER) 58 kg (FRAME)

4. MATERIAL

- MANHOLE COVER AND FRAME SHALL BE MADE OF SPHEROIDAL GRAPHITE CAST IRON (DUCTILE IRON) OF GRADES EN-GJS-500-7 TO BS EN 1563 : 1997.
- UNLESS OTHERWISE INDICATED, BOLTS FOR THE COVERS SHALL BE GRADE 8.8 M16 HEXAGON HEADED BOLTS COMPLETE WITH HEXAGON LOCK NUTS.
- THE DIMENSIONS OF THE BOLTS SHALL COMPLY WITH THE RELEVANT REQUIREMENTS OF BS 4190.
- MANHOLE COVER AND FRAME SHALL BE COATED WITH 2 LAYERS OF BLACK NON-TOXIC WATER-BASED BITUMENT COATING TO BS 3416.
- ALL CASTINGS SHALL BE THOROUGHLY CLEANED AND FREE OF MOLDING SANDS, RUST OR ANY OTHER IMPURITY BEFORE APPLYING THE PROTECTIVE COATING.
- THE COATING SHALL BE FREE OF BARE PATCHES OR LACK OF ADHESION.

5. COATING

- THE MANHOLE COVERS SHALL BE COMPATIBLE WITH THEIR SEATINGS. THESE SEATINGS SHALL BE MANUFACTURED IN SUCH A WAY TO ENSURE STABILITY AND QUIETNESS IN USE.
- ALL CAST UNITS SHALL BE CLEANLY CAST AND FREE FROM AIR HOLES, SAND HOLES AND ANY SURFACE DEFECTS.
- MANHOLE FRAMES SHOULD BE BEDDED UPON BEDDING MATERIAL WHICH IS NON-SHRINK AND HAVE COMPRESSIVE STRENGTH EXCEEDING 30 N/mm².
- THE PATTERN OF THE STRUCTURAL SUPPORT ELEMENTS OF THE COVER AND THE WEB OF THE FRAME MAY BE MODIFIED SUBJECT TO APPROVAL OF THE A.P.

LIM Wan-fung, Bernard Vincent, JPAH04
Authorized Person (List of Architects)
Registration No. AP(A) 4084

B.D. REF.

F.S.D. REF.

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Plan Approved

CHENG Yung-on, Colin
Senior Building Surveyor
for BUILDING AUTHORITY
3 NOV 2022

REVISIONS

PROJECT

PROPOSED
RESIDENTIAL CARE HOME
FOR THE ELDERLY AT
LOT NO. 2188
(FORMERLY LOTS 398 RP
AND 404) IN D.D.121,
TAI TAO TSUEN,
HUNG SHUI KIU,
YUEN LONG, N.T.

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

DATE PRINTED

JOB NO. HT 21016

SCALE: 1 : 200 - A1

DRAWN: A. CHENG

CHECKED: W. SETO

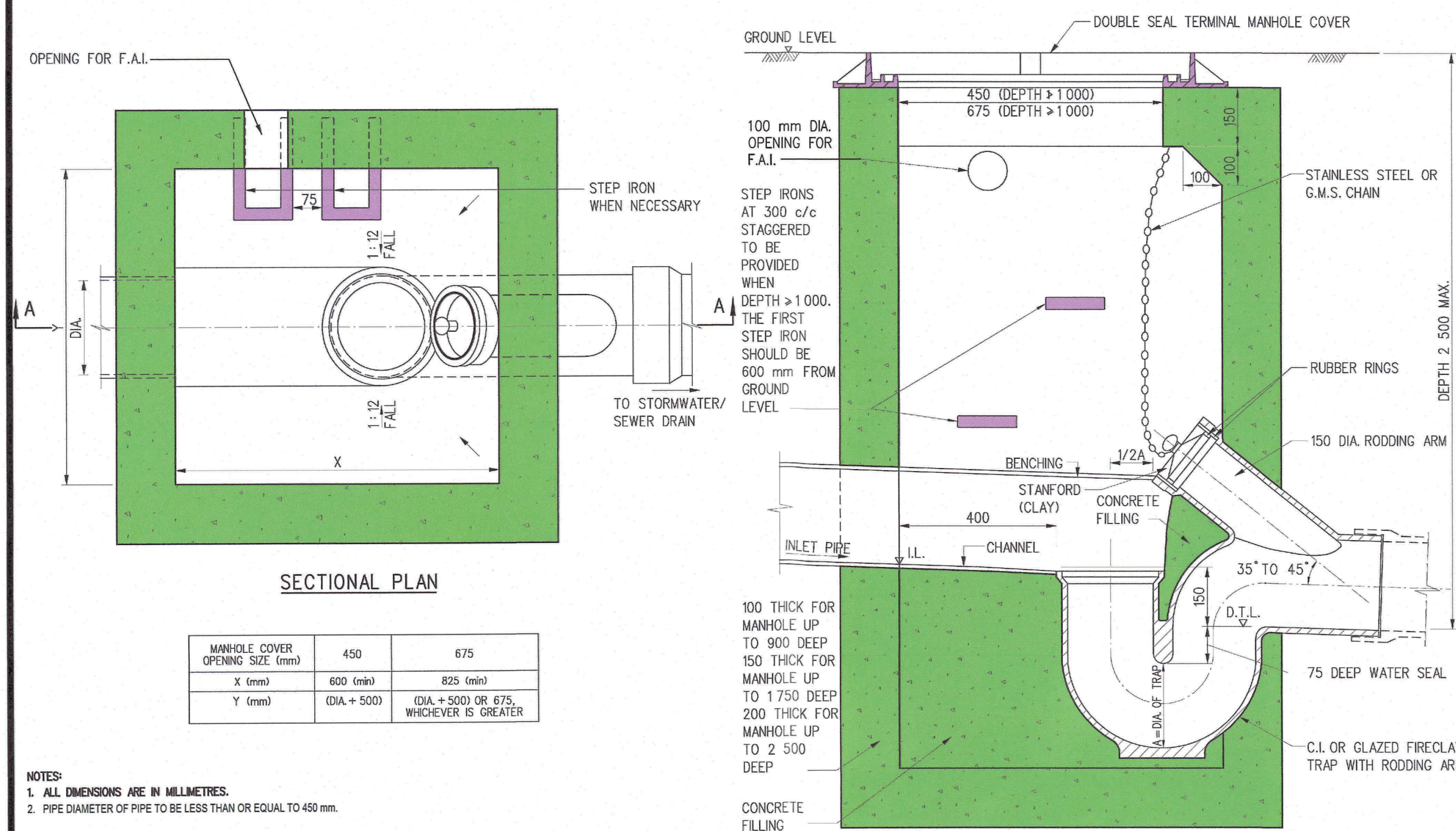
APPROVED: K. C. LEE

TITLE

DETAILS OF
DRAINAGE AND
SEWERAGE

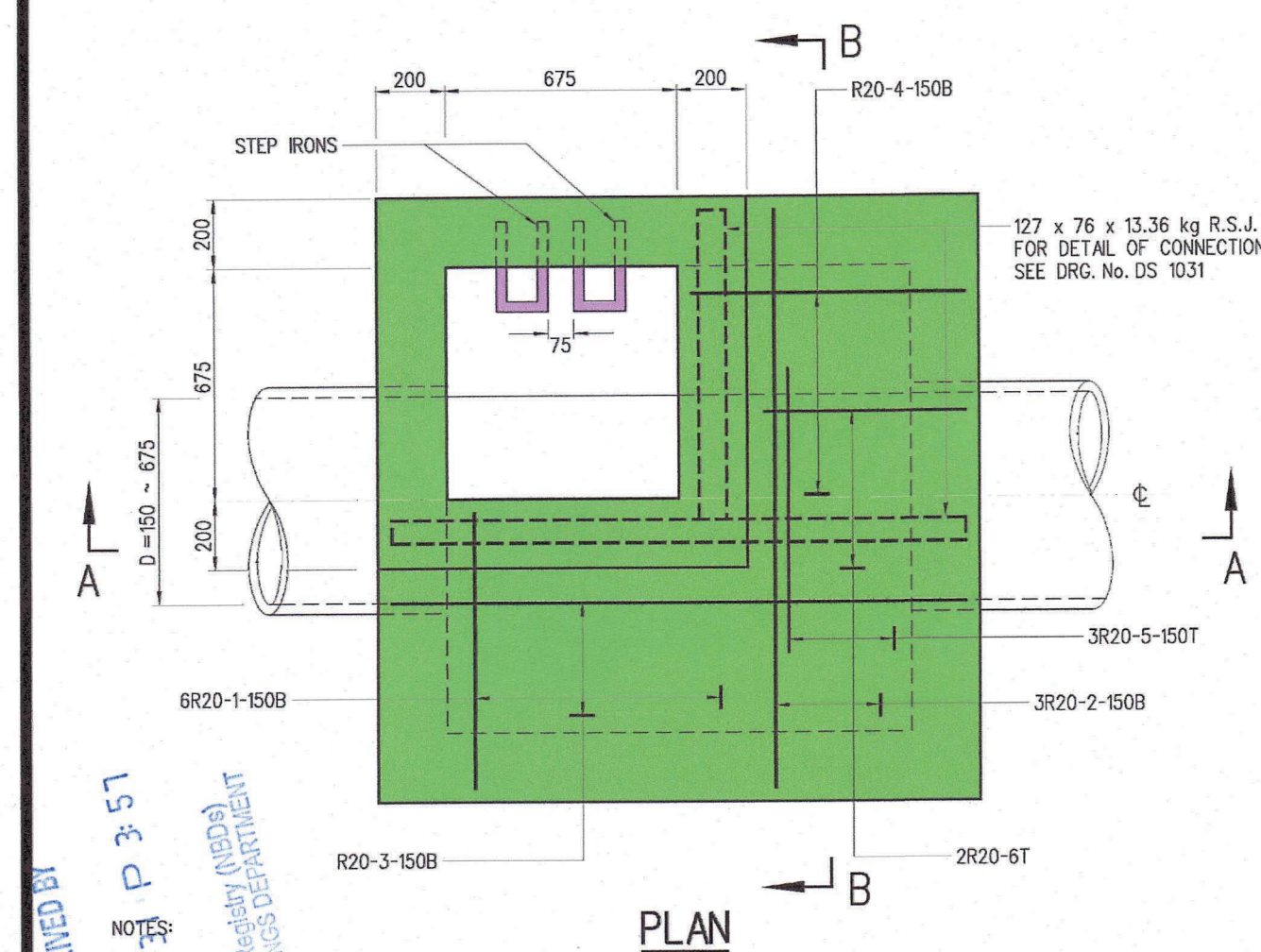
DRAWING NO.

HT 21016 / DD / 002



- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. PIPE DIAMETER OF PIPE TO BE LESS THAN OR EQUAL TO 450 mm.

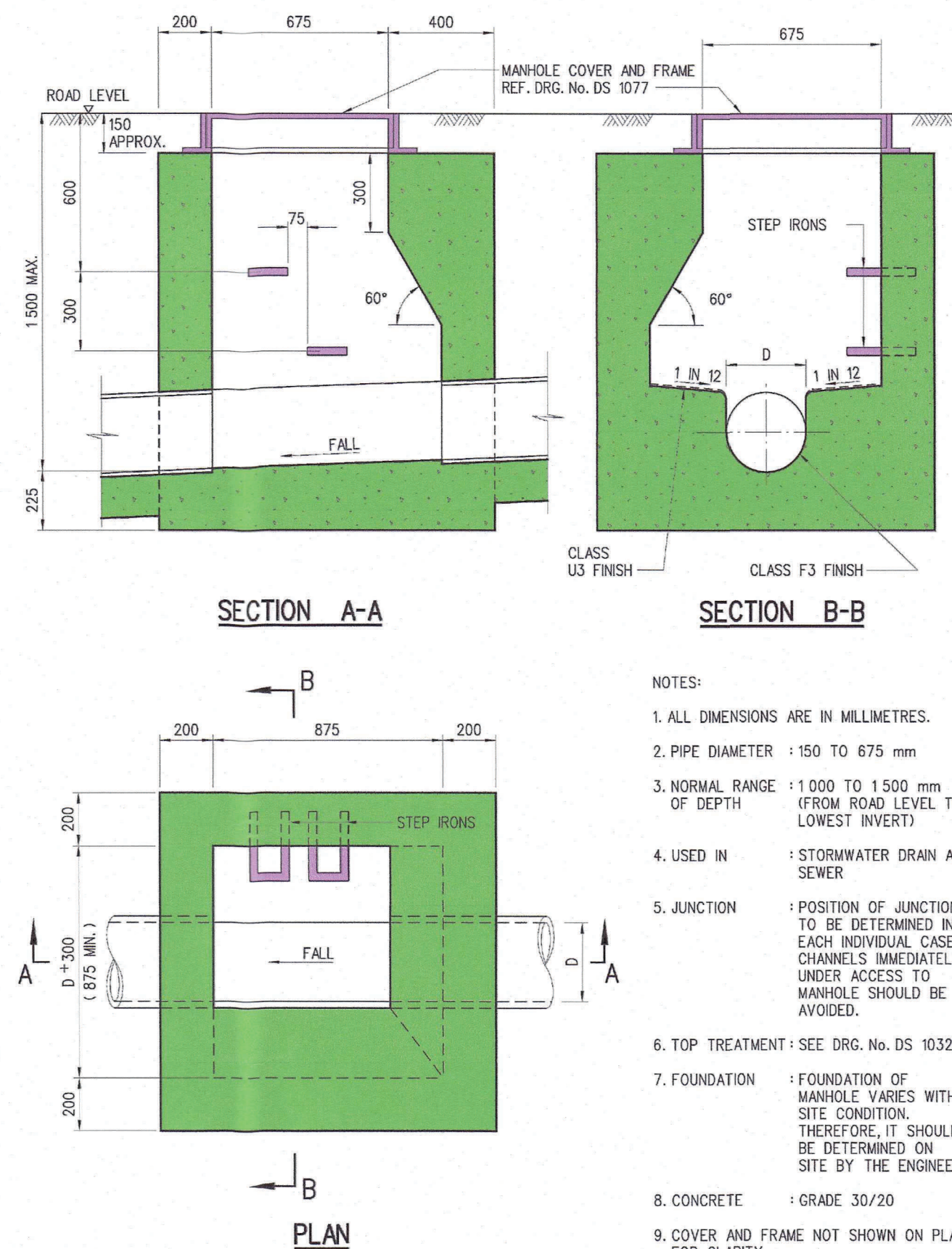
TERMINAL MANHOLE TYPE T1_1



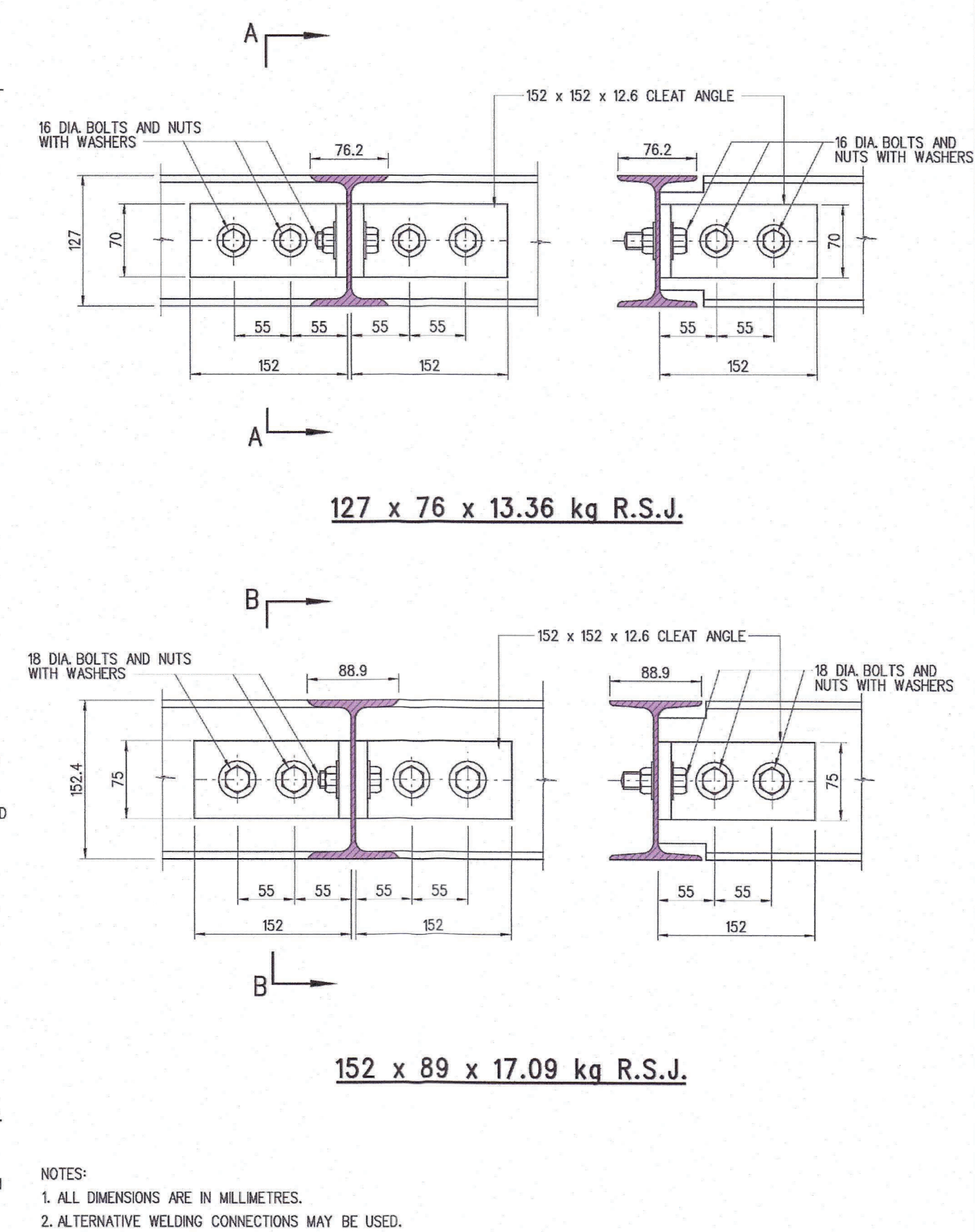
- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. THE SEQUENCE OF DESCRIPTION OF IDENTIFICATION MARKS ON DRAWINGS FOR STEEL REINFORCING BARS FOR CONCRETE WORK IS AS FOLLOWS (NUMBER, TYPE, SIZE, MARK, SPACING, LOCATION OR COMMENT).
 3. B DENOTES GRADE 500B RIBBED REINFORCEMENT.
 4. R DENOTES GRADE 250 PLAIN REINFORCEMENT.
 5. PIPE DIAMETER : 150 TO 675 mm
 6. NORMAL RANGE OF DEPTH : 1150 TO 3 000 mm (MEASURED FROM ROAD LEVEL TO LOWEST INVERT)
 7. USED IN : STORMWATER DRAIN AND SEWER
 8. JUNCTION : POSITION OF JUNCTION TO BE DETERMINED IN EACH INDIVIDUAL CASE. CHANNELS IMMEDIATELY UNDER ACCESS TO MANHOLE SHOULD BE AVOIDED.
 9. TOP TREATMENT : SEE DRG. No. DS 1032
 10. FOUNDATION : FOUNDATION OF MANHOLE VARIES WITH SITE CONDITION. THEREFORE, IT SHOULD BE DETERMINED ON SITE BY THE ENGINEER.
 11. CONCRETE : GRADE 30/20
 12. ALL BAR MARKS APPEARED HEREON ARE USED FOR REFERENCE IN THIS DRAWING ONLY.
 13. MINIMUM COVER AT END OF BARS 40 mm
 14. COVER AND FRAME NOT SHOWN ON PLAN FOR CLARITY.

BAR MARKS	SHAPE CODE	○
1 & 4	②	
2, 3 & 6	③	
5	④	

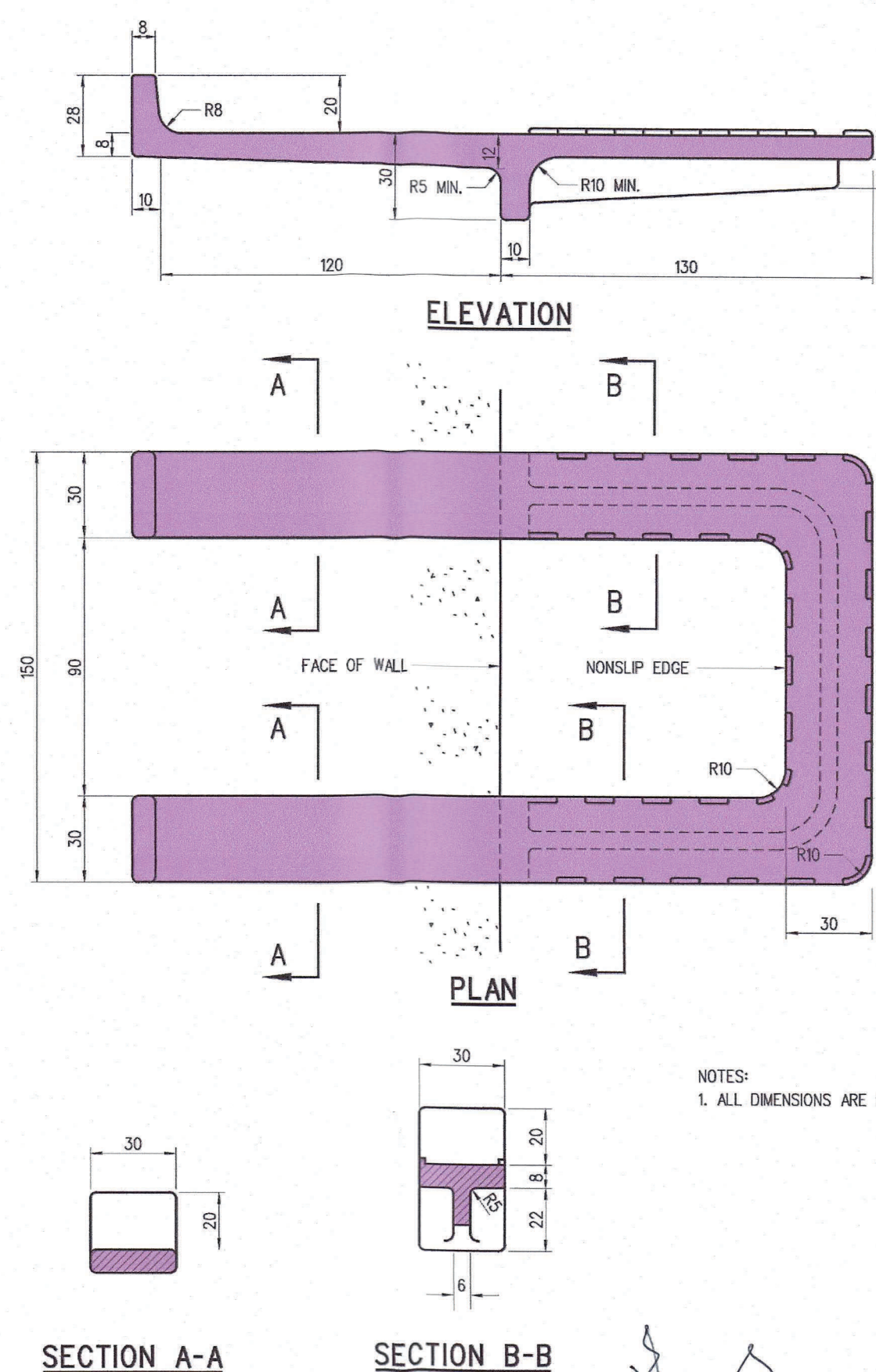
STANDARD MANHOLE TYPE E1
(FOR DSD & HYD REFERENCE, AND NOT FOR BD APPROVAL)



STANDARD MANHOLE TYPE D1
(FOR DSD & HYD REFERENCE, AND NOT FOR BD APPROVAL)



R. S. J. CONNECTIONS (IN MANHOLES)
(FOR DSD & HYD REFERENCE, AND NOT FOR BD APPROVAL)



MANHOLE STEP IRONS
Authorized Person (List of Architects)
Registration No. AP(A) 4884

B.D. REF.

F.S.D. REF.

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Plan Approved

CHENG Hing-on, Colin
Senior Building Surveyor
for BUILDING AUTHORITY
- 3 NOV 2022

REVISIONS

PROJECT

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FOR THE ELDERLY AT
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何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

DATE PRINTED

JOB NO. HT 21016

SCALE: N.T.S.

DRAWN: A. CHENG

CHECKED: W. SETO

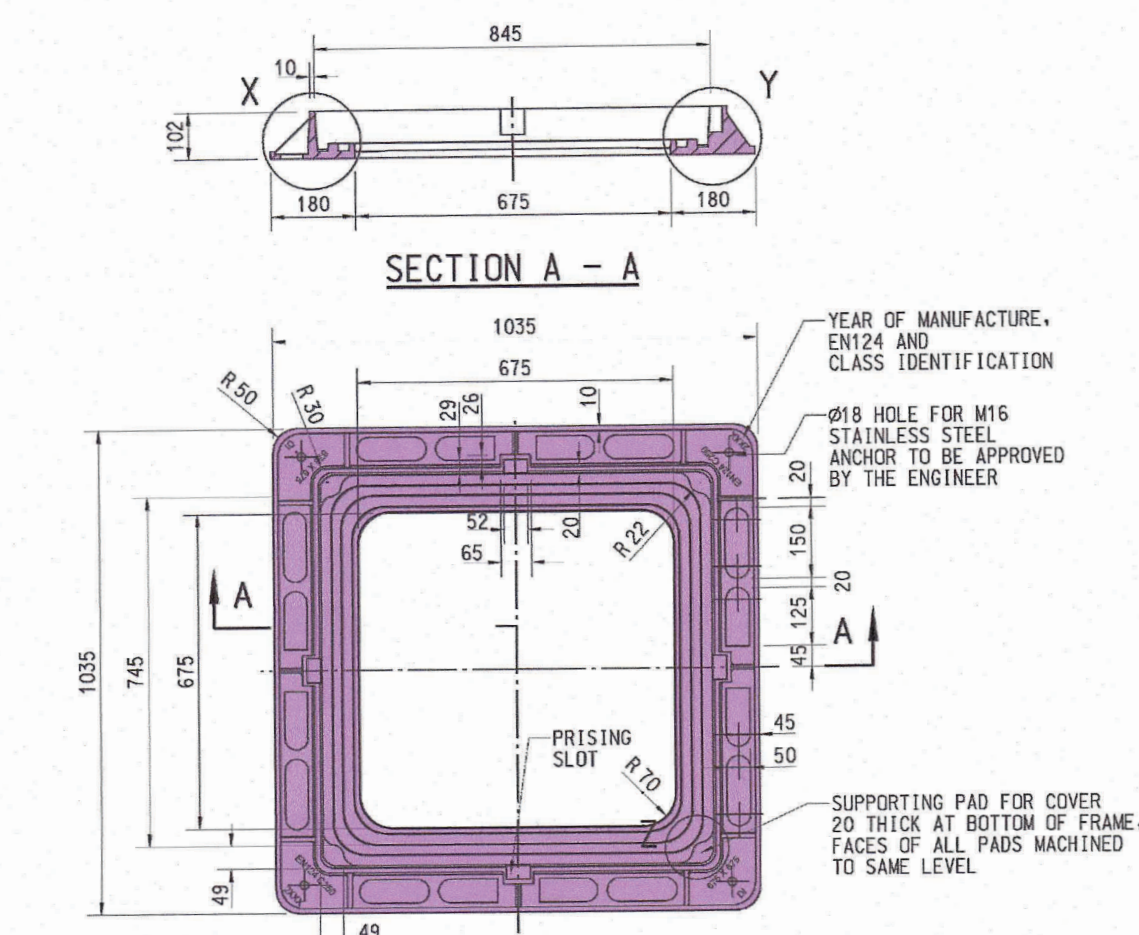
APPROVED: K. C. LEE

TITLE

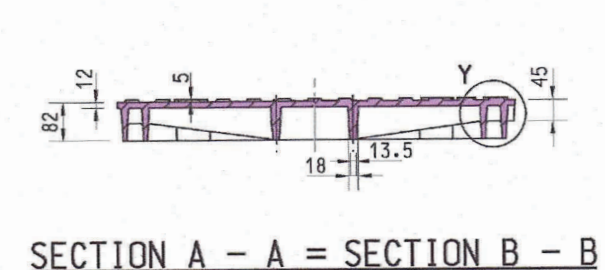
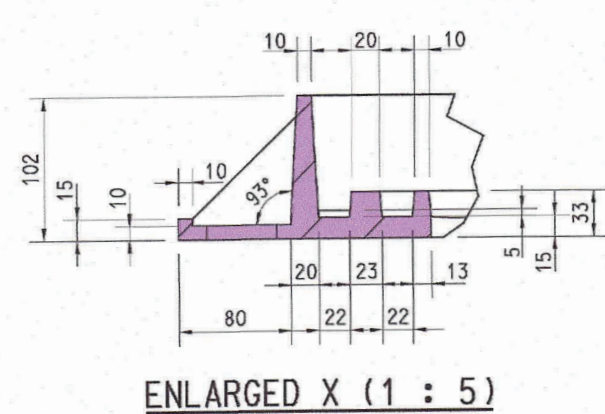
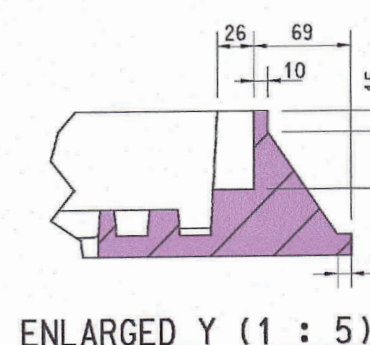
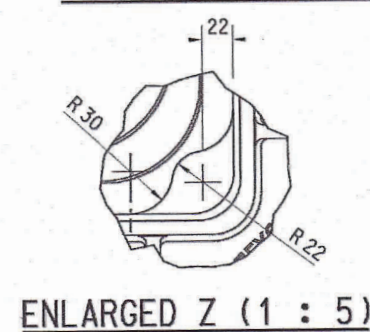
PROPOSED
MANHOLE DETAILS

DRAWING NO.

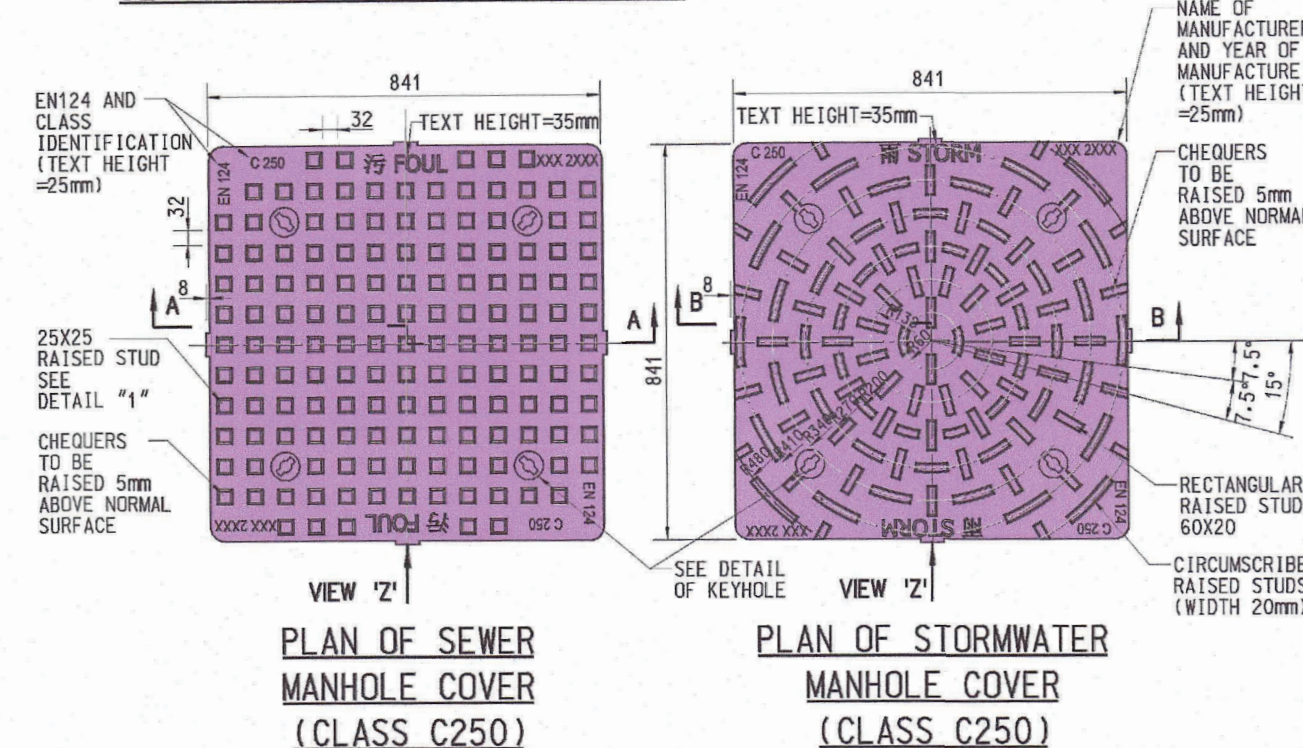
HT 21016 / DD / 003



PLAN OF FRAME FOR 675X675 TERMINAL
SEWER AND STORMWATER MANHOLE COVER (CLASS C250)

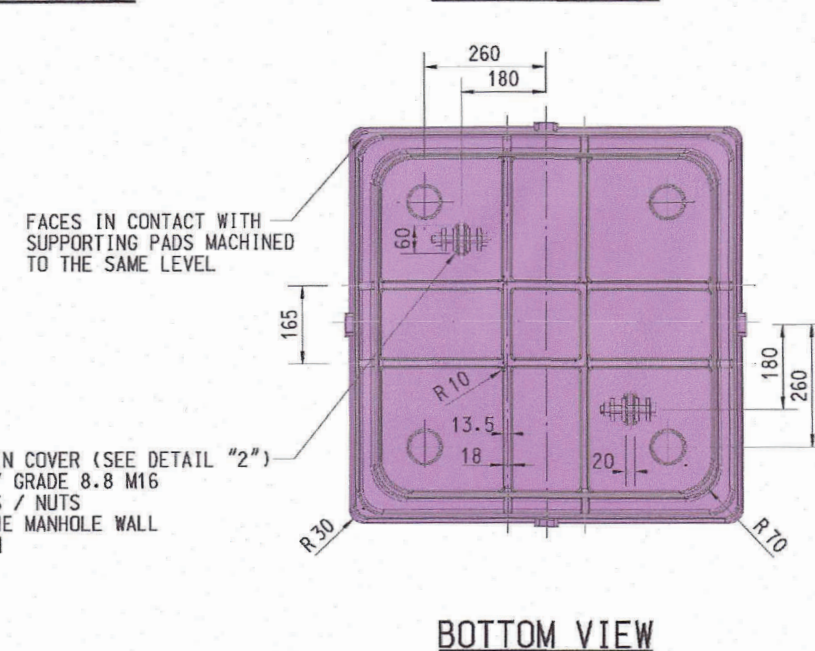


SECTION A - A = SECTION B - B

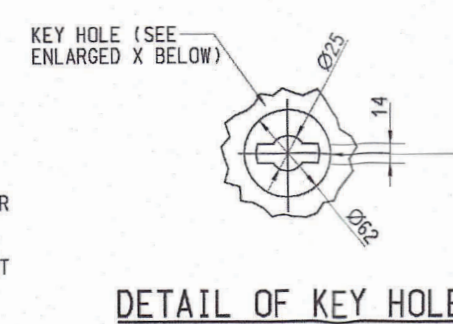


PLAN OF SEWER MANHOLE COVER (CLASS C250)

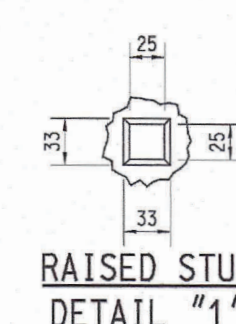
PLAN OF STORMWATER MANHOLE COVER (CLASS C250)



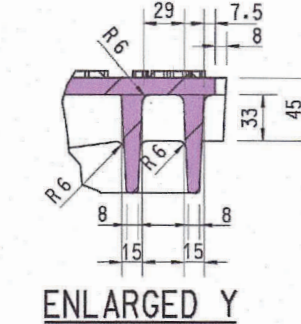
BOTTOM VIEW



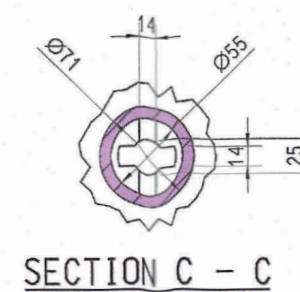
DETAIL OF KEY HOLE



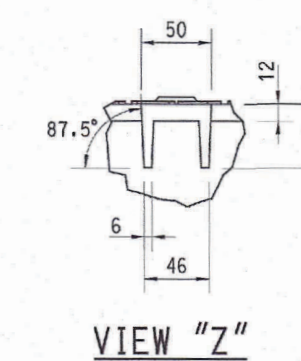
RAISED STUD DETAIL '1'



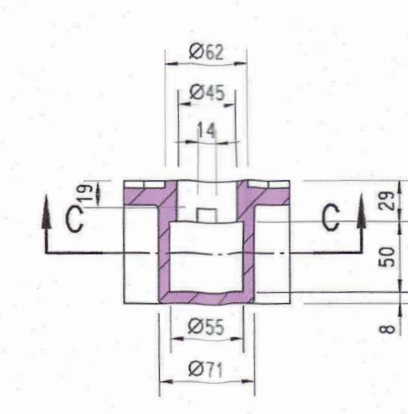
ENLARGED Y



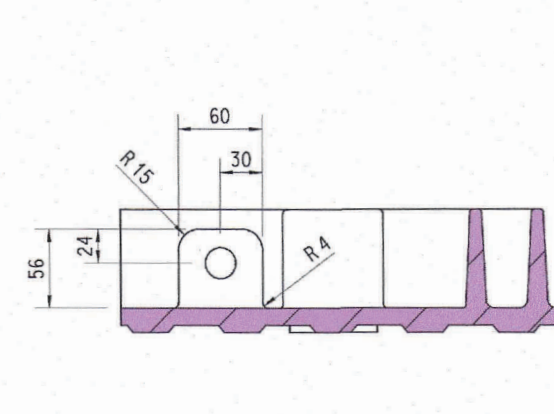
SECTION C - C



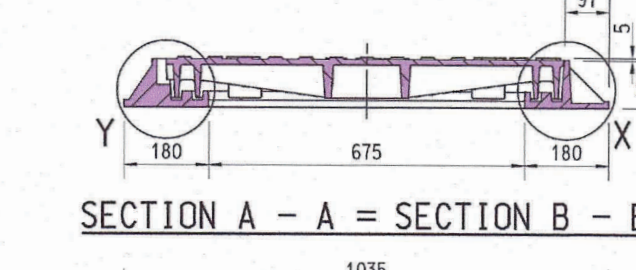
VIEW 'Z'



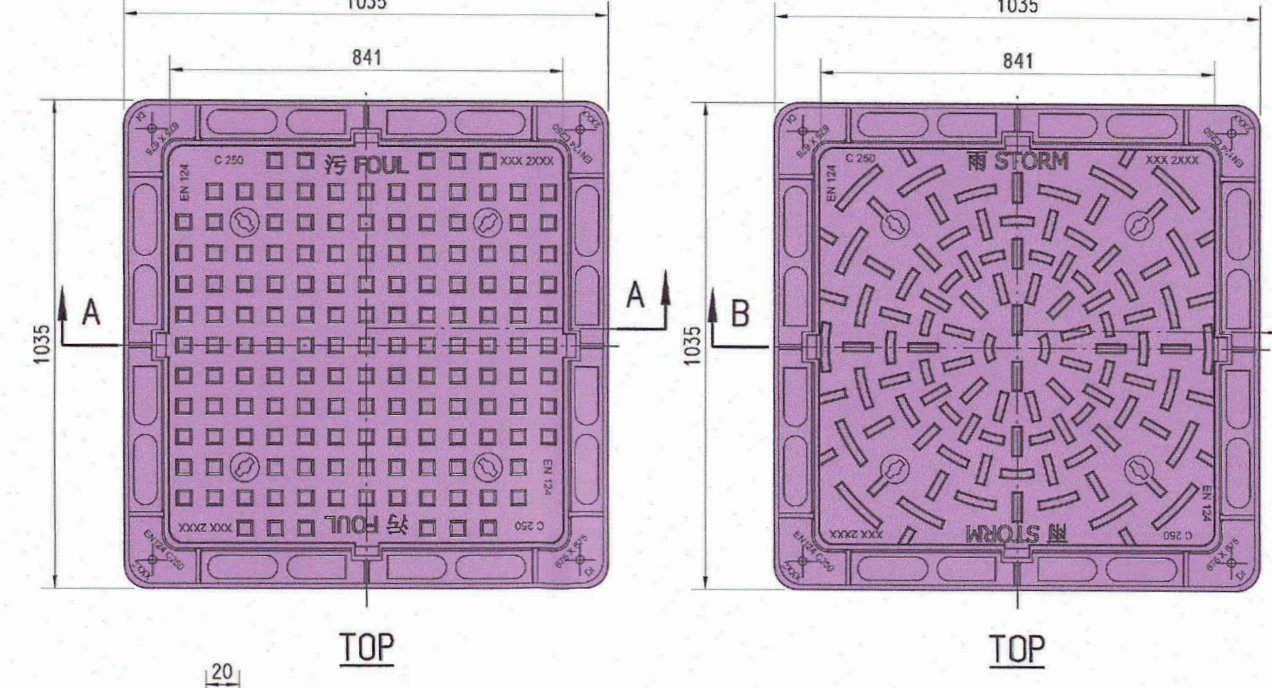
ENLARGED X (KEY HOLE)



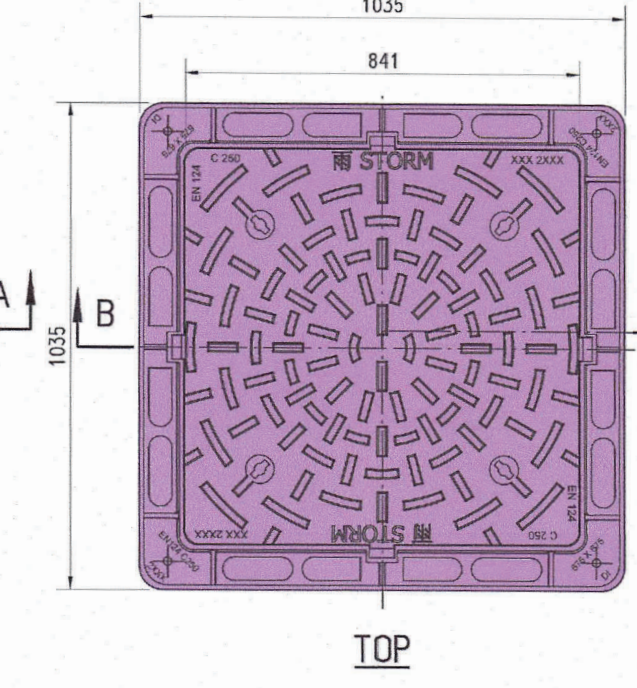
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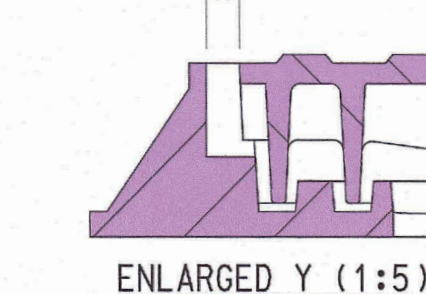
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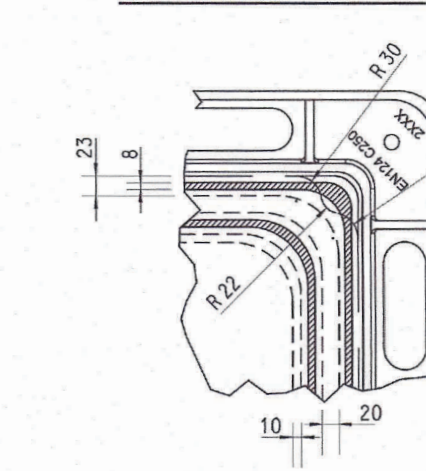
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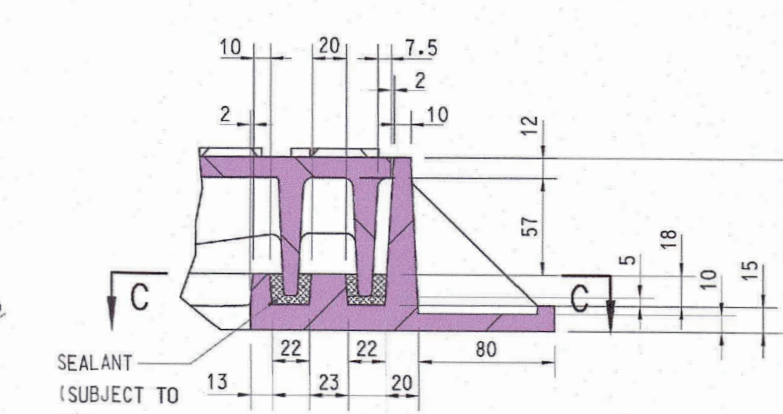
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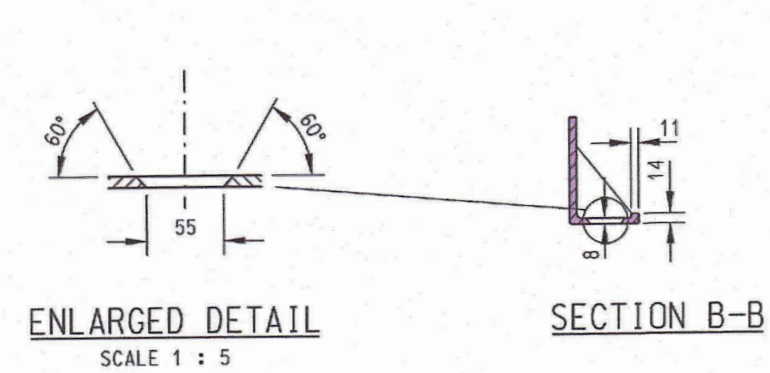


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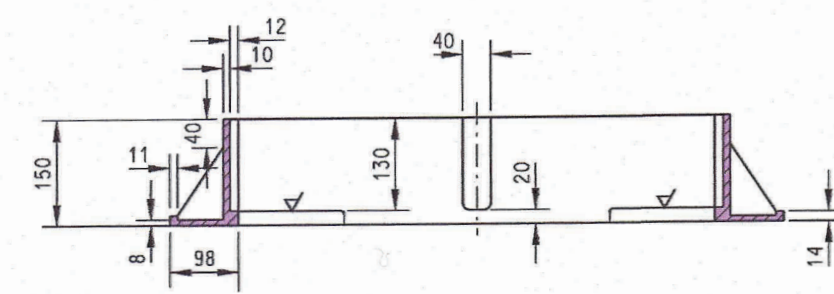
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STANDARD 675 SQUARE ONE - PIECE DUCTILE IRON DOUBLE SEAL TERMINAL MANHOLE COVER & FRAME, CLASS C250

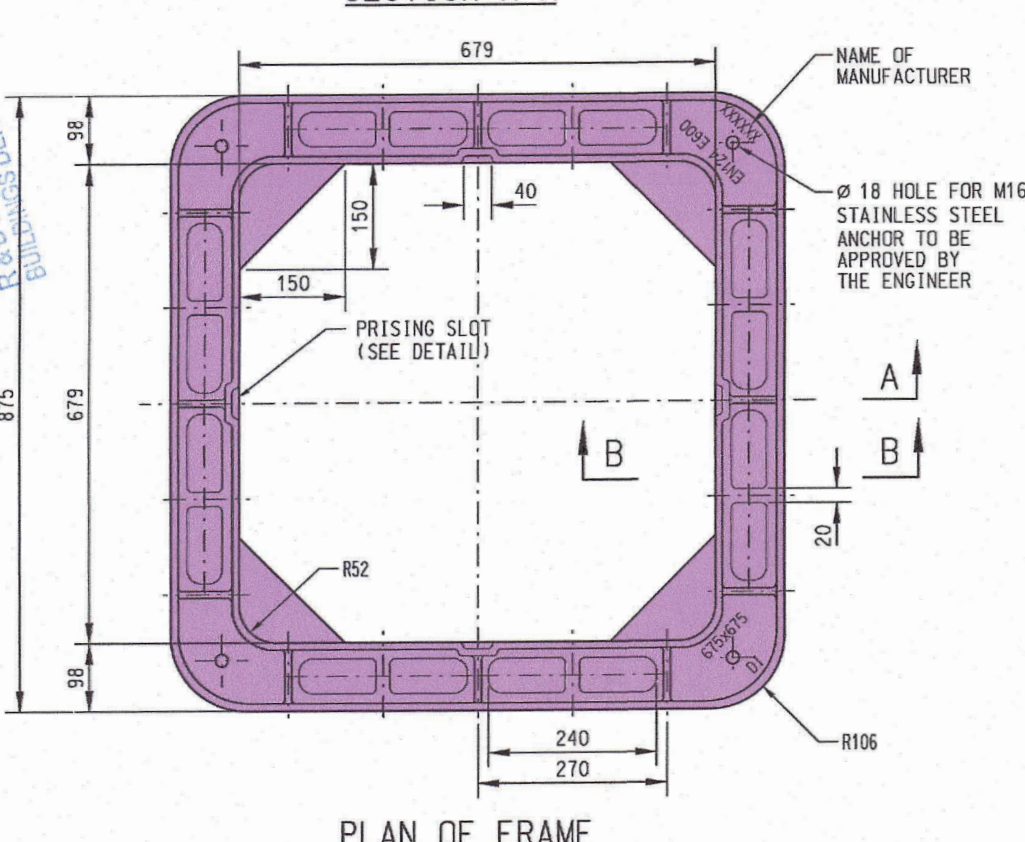


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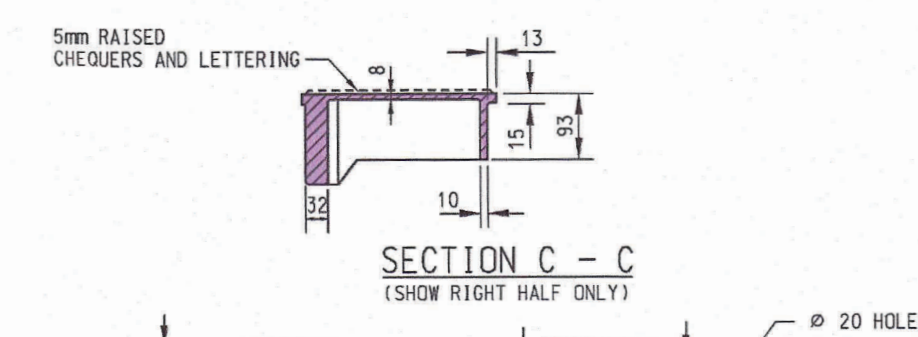
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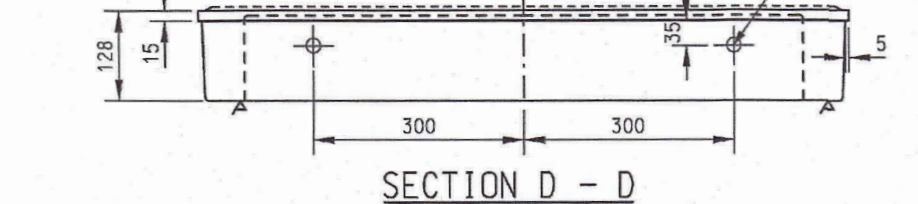
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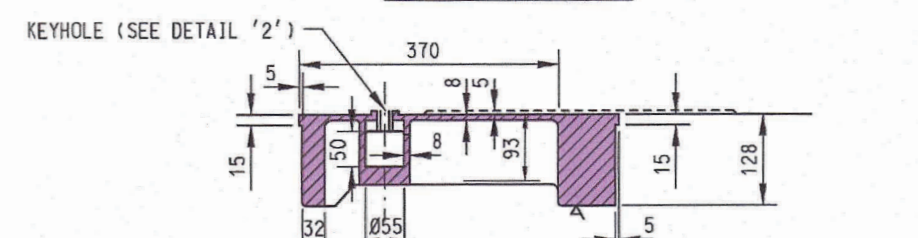
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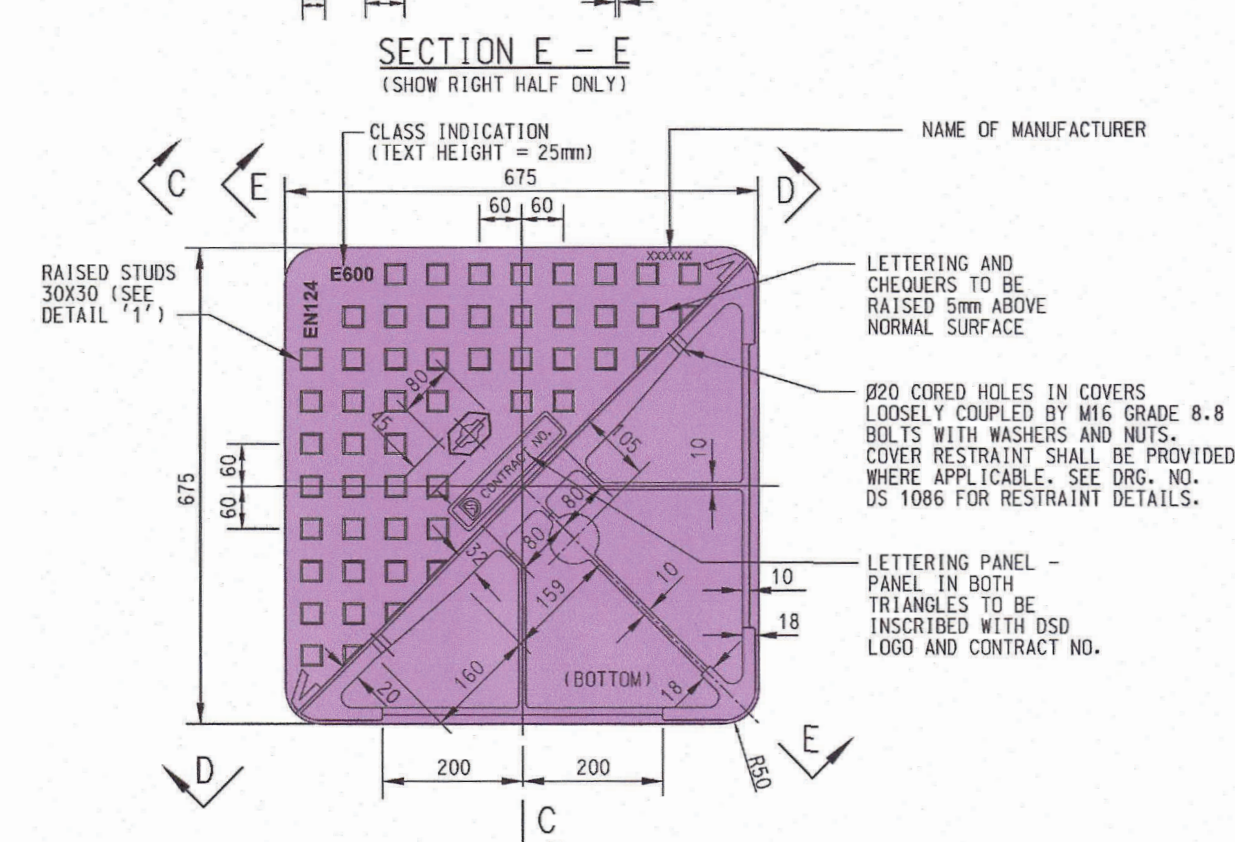
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SECTION D - D

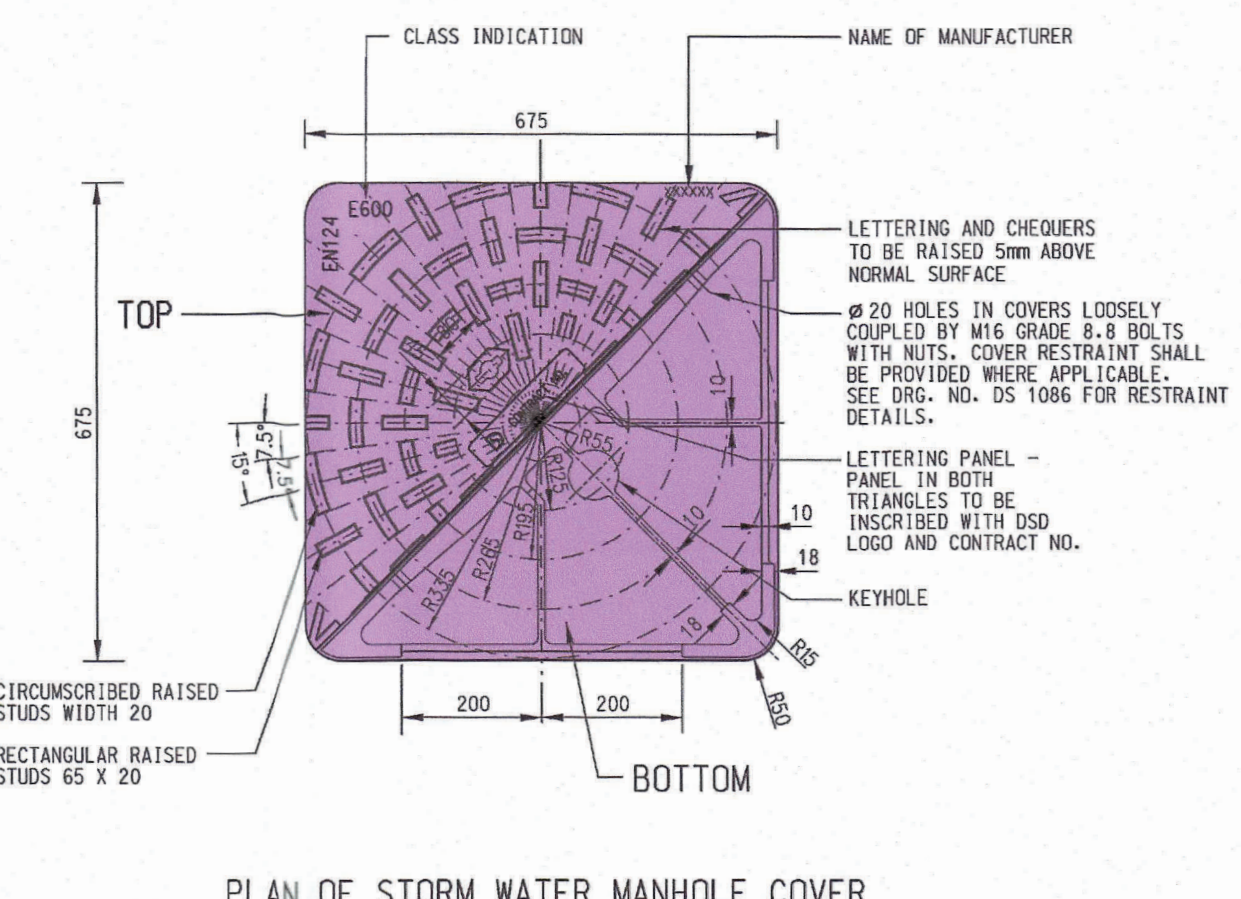


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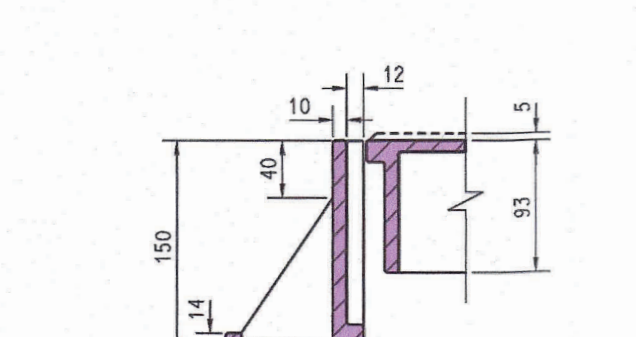
PLAN OF SEWER MANHOLE COVER

PLAN OF STORMWATER MANHOLE COVER

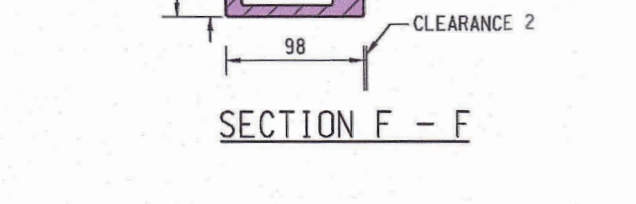


PLAN OF STORM WATER MANHOLE COVER

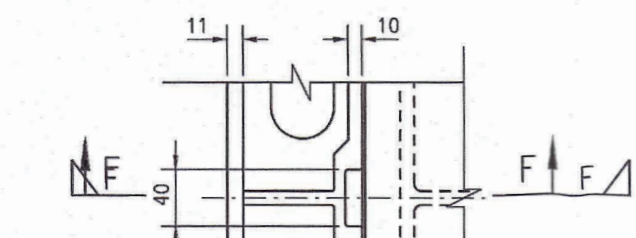
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2. REMOVE SHARP EDGES, MACHINED SURFACE ARE MARKED WITH 'v'.



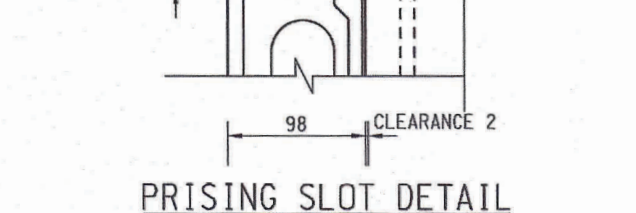
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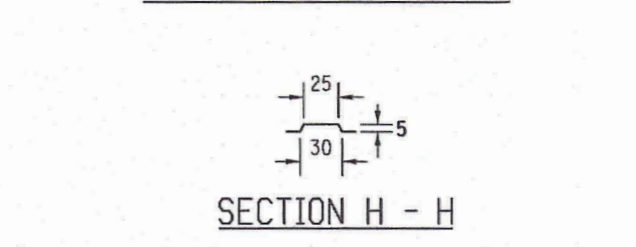
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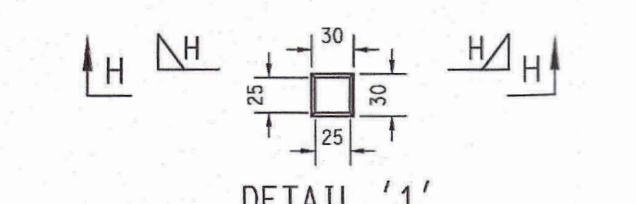
SECTION G - G



DETAIL '2'



SECTION H - H



DETAIL '1'

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REMOVE SHARP EDGES, MACHINED SURFACE ARE MARKED WITH 'v'.

B.D. REF.

F.S.D. REF.

Do not scale drawing

Figured dimensions are to be taken in preference to scaled dimensions in all cases.

Read this drawing in conjunction with general architectural plans, structural plans and other related drawings. Before commencing work, the full extent and exact nature of the works shown on this drawing shall be ascertained and all dimensions verified with site measurements. Any discrepancy must be brought immediately to the notice of Ho Tin & Associates Consulting Engineers Limited.

All prints and copies of this drawing are the properties of Ho Tin & Associates Consulting Engineers Limited and shall be returned on completion of works.

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Note: This plan has been processed on a outland check basis under the controlled processing system as promulgated in PNAP ADM-19. The duties of the authorized person, registered structural engineer and/or registered geotechnical engineer concerned as specified under section 4(3)(b) and the provision of section 14(2)(c) of the Buildings Ordinance are of particular relevance in this regard.

Plan Approved
CHENG Man-on, Colin
Senior Building Surveyor
for BUILDING AUTHORITY
- 3 NOV 2022

REVISIONS

PROJECT

PROPOSED
RESIDENTIAL CARE HOME
FOR THE ELDERLY AT
LOT NO. 2188
(FORMERLY LOTS 398 RP
AND 404) IN D.D.121,
TAI TAO TSUEN,
HUNG SHUI KIU,
YUEN LONG, N.T.

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

DATE PRINTED

JOB NO. HT 21016

SCALE: N.T.S.

DRAWN: A. CHENG

CHECKED: W. SETO

APPROVED: K. C. LEE

TITLE

PROPOSED
MANHOLE COVER
DETAILS

DRAWING NO.

HT 21016 / DD / 004

LIM Wen-fung, Bernard Vincent, J.P.A.M.
Authorized Person (List of Architects)
Registration No. AP(A) 4884

**Appendix 2 - Copies of the relevant document submitted in associated with
the Drainage Plan to BD**

Drainage Proposal

in support of

**Proposed Social Welfare Facility (Residential Care Home for the Elderly (RCHE)) at Lot No. 2188
(former Lot Nos. 398 RP (Part) and 404) in D.D. 121,
Tai Tao Tsuen, Hung Shui Kiu, Yuen Long, New Territories**

(HT 21016)

August 2022

Drainage Consultant:

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED



Prepared and approved by:	K. C. LEE RPE(Civil, Geo., Env.) Telephone: 2639 6655 Email: 21016-rche@hotin.com.hk
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CONTENT

1. Background
2. Objectives and Scope of this Report
3. The Subject Site and Proposed Development
4. Existing Drainage Conditions of the Subject Site
5. Approach and Methodology of Drainage Assessment
6. Proposed Drainage Works
7. Proposed Sewage Disposal Arrangement
8. Conclusion and Recommendations

FIGURES

Figure D1 - Drainage Path and Catchment Areas

Figure D2 - Extract of the Relevant Recorded Existing Drainage Information of the Area
retrieved from the GEOINFO Map

Figure D3 - Existing Public Stormwater Drainage Layout in the Immediate Vicinity

Figure D4 - Proposed Stormwater Drainage Layout

DSD Standard Drawing No. DS 1090 (2 sheets)

Figure S1 - Proposed Connecting Sewerage in the Original Final SIA Report

Figure S2 - Amended Alignment of the Proposed Connecting Sewerage

Plan No. 3761/01 (3 sheets) - Topographic and Boundary Survey

APPENDIX

Appendix 1 - Hydraulic Calculations

Appendix 2 - Copy of the Final Sewerage Impact Assessment (SIA) Report submitted in
support of the planning application in March 2018

1. Background

1.1 Ho Tin & Associates Consulting Engineers Limited was appointed by the Client to prepare this drainage proposal to satisfy the planning approval condition (f) of the Section 16 Planning Application No. A/YL-TYST/870.

1.2 A Drainage Proposal was submitted to PlanD in February 2022 and PlanD transmitted the following DSD's comments via a letter to the Applicant on 8 March 2022:

'In the submitted drainage proposal, only the proposed stormwater drainage arrangement was provided while the proposed sewage disposal arrangement was not mentioned. Please clarify your finalized sewage disposal proposal of either connection to the public sewer according to the SIA submitted via the subject planning application in 2018 or adoption of private sewage disposal facilities such as private sewage treatment works. You are required to provide supplementary information regarding sewage disposal arrangement.'

1.3 This Drainage Proposal has incorporated the DSD's comments to include a section of proposed sewage disposal arrangement, and is resubmitted for satisfying the relevant planning approval condition.

1.4 Further DSD's comments were received via PlanD's letters dated 29 April 2022 and 25 May 2022, and they have been responded in this resubmission. A summary of responses to the DSD's comments is enclosed in this report.

2. Objectives and Scope of this Report

2.1 The objective of this report is to propose drainage works in support of the proposed development (the 'subject development') in ensuring no unacceptable adverse drainage impact to be caused on the subject site and the surrounding areas, and seeking approvals of the PlanD and DSD in accordance with the planning approval condition. Besides, this report also reconfirms the proposed sewage disposal arrangement submitted during the planning application.

2.2 The scope of this report includes:

- (i) identifying existing drainage conditions of the subject area;
- (ii) evaluating flooding susceptibility and potential drainage impacts on the subject area;

- (iii) proposing drainage improvement works; and
- (iv) reconfirming the proposed sewage disposal arrangement.

3. The Subject Site and Proposed Development

3.1 The subject site comprises of Lot No. 2188 (former Lots 398 RP (Part) and 404) in D.D.121, Tai Tao Tsuen, Hung Shui Kiu, Yuen Long, New Territories. It has an area of about 1,798m² and is located on the southeastern side of the ‘Uptown’ residential development and is bounded by Fui Sha Wai South Road on the northeastern side. The site location is shown on **Figure D1**.

3.2 It is proposed to develop a Residential Care Home for the Elderly (RCHE) with the following parameters:

Parameter	Remark
Site area	About 1,798m ²
Plot ratio (PR)	Not more than 2.96
Gross floor area (GFA)	Not more than 5,313m ²
Height of building	Not exceeding 24m (in 7-storeys)
No. of beds	284

4. Existing Drainage Conditions of the Subject Site

4.1 The subject site is located on a generally flat area bounded by the ‘Uptown’ residential development and Fui Sha Wai South Road/Hung Tin Road which are now served by own stormwater drainage systems and would not discharge onto the subject site.

4.2 The subject site was previously used as open storage and is vacant at present. With respect to the drainage information retrieved recently from the GEOINFO Map, there should have an existing 450U channel running to the southeast in front of the northeastern boundary of the subject site. The 450U channel would discharge into a 525mm diameter drain and then into an existing 2000mm x 2000mm box culvert to the east of the subject site. An extract of the relevant recorded existing drainage information of the area retrieved from the GEOINFO Map is shown on **Figure D2**.

4.3 Site inspections were conducted recently. Colour photos (locations of the photo taken shown in **Figure D3**) showing the existing drainage conditions of the subject area are shown in the following:

	
Plate No. 1 – Existing conditions of the subject site	Plate No. 2 – General view of Fui Sha Wai South Road in front of the subject site entrance (a refuse collection point is located on the opposite side of the subject site)
	
Plate No. 3 – Existing conditions of the subject site entrance (Existing Catchpit 1 is located on the right hand side of the entrance but no existing 450U channel is found)	Plate No. 4 – Existing Catchpit 1 and the adjacent existing U channel which is separated from the Existing Catchpit 1 and conveys flow toward Castle Peak Road
	

Plate No. 5 – Far view toward the existing 2000mm x 2000mm channel showing existing Catchpit 2 located beside Fui Sha Wai South Road	Plate No. 6 – Existing Catchpit 2 which should receive flow from an existing 450U channel and discharge into an existing 525mm diameter drain with respect to the GEOINFO Map
	
Plate No. 7 – View back toward the subject site entrance from the existing 2000mm x 2000mm channel/box culvert	Plate No. 8 – Existing 2000mm x 2000mm channel to the east of the subject site
	
Plate No. 9 – Existing outlet of the 525mm diameter drain at the existing 2000mm x 2000mm box culvert (under the road)	Plate No. 10 – Existing 2000mm x 2000mm channel to the east of the subject site (showing an existing outlet of the drain of the adjacent lot of the subject site)

4.4 With respect to the recent site inspections, it is considered that the existing 450U channel in front of the subject site shown in the GEOINFO Map has been damaged and the existing 525mm diameter drain between the existing Catchpit 2 and its Outlet at the existing 2000mm x 2000mm box culvert still exists.

5. Approach and Methodology of Drainage Assessment

- 5.1 Capability of the existing drainage is assessed and new drainage is proposed in this report. Assessment criteria is based on the recommendation set out in the Stormwater Drainage Manual (Fifth edition, Jan 2018) (SDM) issued by DSD. The corresponding runoffs under rainfall intensity for various return period are worked out with reference to Rational Method with incorporation of effects due to climate change. The projection of rainfall increase percentage given in Table 28 in SDM, i.e. 13.8%, is added to the respective design rainfall intensities in the assessment.
- 5.2 Flow directions of the surface runoff and catchment boundaries of the subject area is shown in **Figure D1**, and assessment of the major drainage is illustrated in the **Appendix 1** of this report.
- 5.3 The subject proposed development would not alter the existing drainage patterns of the area and the surface runoff of the subject proposed development would be properly collected and conveyed to an appropriate discharge point. No blockage of any existing flow paths would be incurred.

6. Proposed Drainage Works

- 6.1 Peripheral channels with catchpits will be constructed to intercept all surface runoff running across the subject site boundary. Stormwater falling onto the roofs of the proposed building(s) of the subject development will be collected and conveyed to proposed channels on ground level by building drains. The flows inside the surface channels and peripheral channels will be eventually discharged into a terminal manhole with desilting trap (details refer to DSD Standard Drawing No. DS 1090) from which the flows will be further discharged into the existing Catchpit 1 outside the subject site entrance. A new 450mm diameter drain will be constructed to connect between the existing Catchpit 1 and Catchpit 2.
- 6.2 With respect to the hydraulic assessment enclosed in the **Appendix 1** of this report, the existing 525mm diameter drain at the downstream of the Catchpit 2 is still adequate to properly convey the estimated peak flow, i.e. the flow in 1 in 200 year return period rainfalls, into the existing 2000mm x 2000mm box culvert to the east of the subject site without causing any flooding.

- 6.3 Capacity of the existing 2000mm x 2000mm channel/box culvert has also been assessed and is confirmed to be adequate to convey the estimated peak flow without flooding.
- 6.4 A proposed stormwater drainage layout is shown on **Figure D4**. Detailed designs of the drainage system (including building drains) will be submitted to relevant government departments via Buildings Department's central processing mechanism for approval at the later stage. No insurmountable technical problems is envisaged.
- 6.5 The applicant is committed to obtain all necessary consents from the relevant government departments and lot owners, where necessary, in constructing the proposed drainage provisions outside the subject site boundary before construction.

7. Proposed Sewage Disposal Arrangement

- 7.1 During processing of the Planning Application No. A/YL-TYST/870, a Final Sewerage Impact Assessment (SIA) Report was submitted in support of the planning application in March 2018. It was proposed to connect the sewerage of the subject development via a proposed sewerage running underneath Fui Sha Wai South Road and the emergency vehicular access to the nearest public sewerage manhole at the westbound of Castle Peak Road in front of the Uptown Tower 1. A copy of the Final SIA Report is enclosed in **Appendix 2** in this report. The Existing and Proposed Sewerage Layout Plan enclosed in the Final SIA Report is reproduced as **Figure S1** in this report for easy reference.
- 7.2 Development parameters of the subject development would remain unchanged, otherwise application to the Government shall be made, in the planning application and in the detailed design for implementation. Therefore the assessment and conclusion in the original Final SIA Report (i.e. in the **Appendix 2** of this report) are still valid.
- 7.3 However, in order to enhance the alignment of the proposed connecting sewerage between the subject development and the nearest public sewerage manhole, it is proposed to realign the proposed connecting sewerage as shown in **Figure S2**. Since the proposed amendments would mainly only shorten the total length of the proposed sewerage alignment, there is no change in the total design sewage flows. Hence, it would not incur any adverse effects upon the existing sewerage system. Detailed

design of the proposed sewerage connecting works will be submitted to the Building Authority who will circulate the submission to all relevant departments by means of central processing mechanism for comment, for approval prior to commencement of the construction works.

- 7.4 With respect to the original submission enclosed in the **Appendix 2** of this report with modification to reflect the proposed shorter alignment, cover of the proposed sewer at carriageway is shown below for information:

Manhole ID	Ground Level* (mPD) (1)	Invert Level (mPD) (2)	Crown Level (mPD) (for DN225 SDR 7.4 sewer, wall thickness = 30.8mm, mean I.D. = 161mm) (3) = (2) + 0.161 + 0.0308	Pipe Cover (m) (4) = (1) – (3)
HSK-01	10.83	10.18	10.37	0.46
HSK-02	10.59	9.51	9.70	0.89
HSK-03	10.20	9.09	9.28	0.92
HSK-04	10.30	8.60	8.79	1.51
FMH1036685	10.30	8.45	8.64	1.66

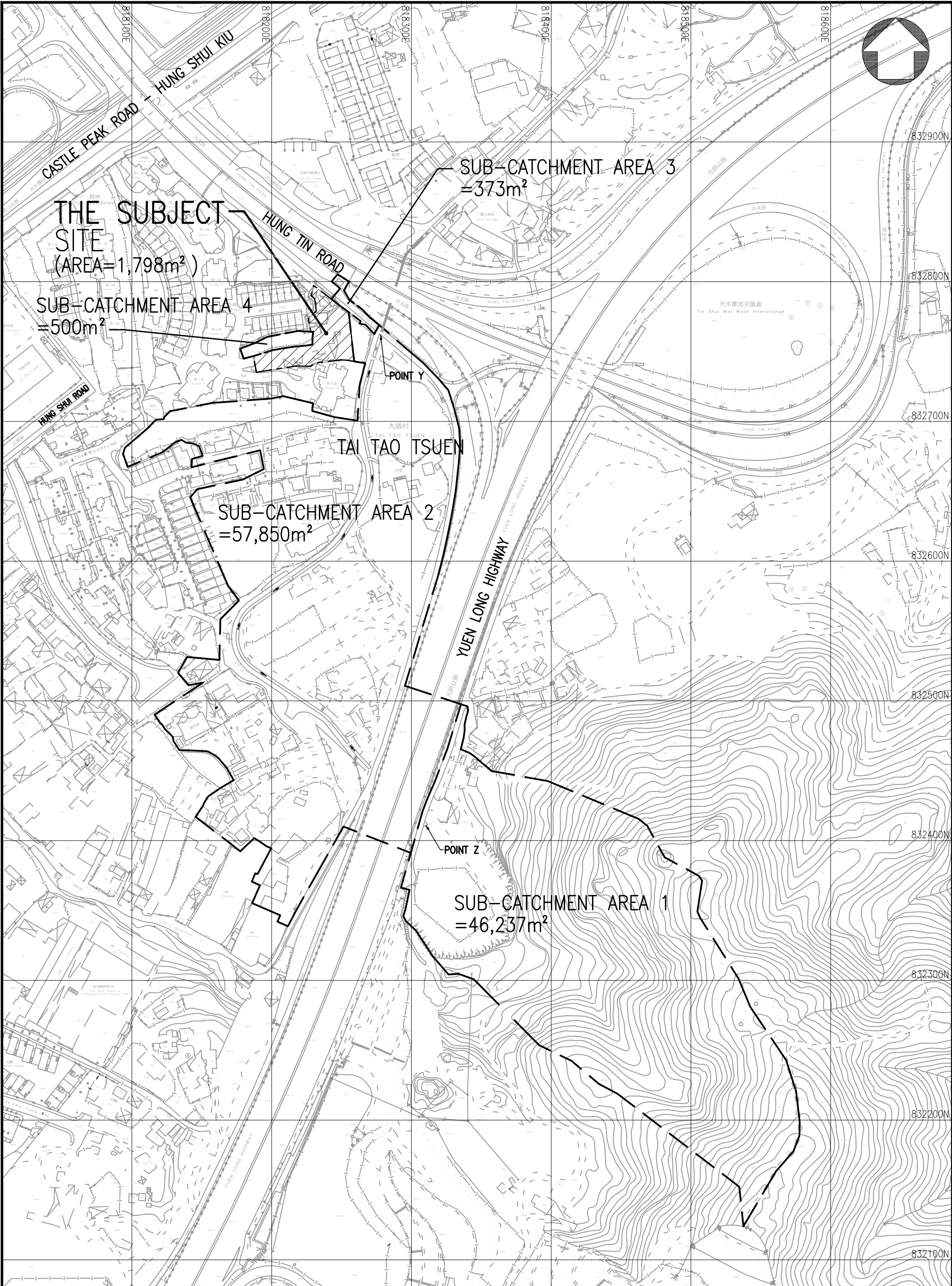
* referenced to the latest topographical survey results enclosed in this report

It is noticed from the above table that standard cover of 900mm at carriageway might not be achieved at the section of the proposed sewer near the subject site boundary. Invert levels of the proposed sewer will be fine-tuned during detailed design such that the standard cover of 900mm at carriageway will be achieved, or otherwise the applicant shall seek approval from the maintenance authority of the road, i.e. HyD, and concrete surround as recommended in DSD PN No. 1/2019 will be proposed for the proposed sewer with cover less than 900mm at carriageway.

8. Conclusion and Recommendations

- 8.1 The subject site area is now vacant. It is proposed to be developed into a RCHE.

- 8.2 All stormwater collected by the surface channels and building drains of the subject development will be conveyed into a terminal manhole with desilting trap from which the flows will be discharged to the existing Catchpit 1 outside the subject site entrance. The existing Catchpit 1 and Catchpit 2 outside the subject site boundary will be maintained and made good if necessary, and a new 450mm diameter drain will be laid between the two catchpits to convey flows to the further downstream. The existing 525mm diameter drain between the Catchpit 2 and the outlet at the existing 2000mm x 2000mm box culvert to the east of the subject site was checked to be adequate to convey the estimated peak flow. The flow incurred by the subject development would not overload the existing drainage of the subject area.
- 8.3 Sewerage connection between the subject development and the nearest public sewerage manhole will be implemented as proposed in the original Final SIA Report. Alignment of the proposed connecting sewerage will be amended to shorten the overall flow path as shown in **Figure S2**. Invert levels of the proposed sewer will be fine-tuned during detailed design to ensure that the standard cover of 900mm at carriageway will be achieved, or otherwise the applicant shall seek approval from the maintenance authority of the road, i.e. HyD, and concrete surround as recommended in DSD PN No. 1/2019 will be proposed for the proposed sewer with cover less than 900mm at carriageway.
- 8.4 Detailed drainage and sewerage connecting works designs will be submitted to the Building Authority for central processing for approval at the later stage. No insurmountable technical problems is envisaged.
- 8.5 The applicant will obtain all necessary consents from the relevant government departments and lot owners, where necessary, for constructing the proposed drainage and sewerage provisions outside the subject site boundary prior to construction.
- 8.6 The subject proposed development would not alter the existing drainage patterns and flow paths of the area. Besides, there is no change in the designed sewage flow between the proposal in the subject planning application and the development to be implemented. In conclusion, the subject development with implementation of the proposed drainage and sewerage connecting works will not cause any adverse drainage and sewerage impacts onto the area.



PROJECT

PROPOSED SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) AT LOT NO.2188 (FORMER LOTS 398 RP (PART) AND 404) IN D.D.121, TAI TAO TSUEN, HUNG SHUI KIU, YUEN LONG, N.T.

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

TITLE

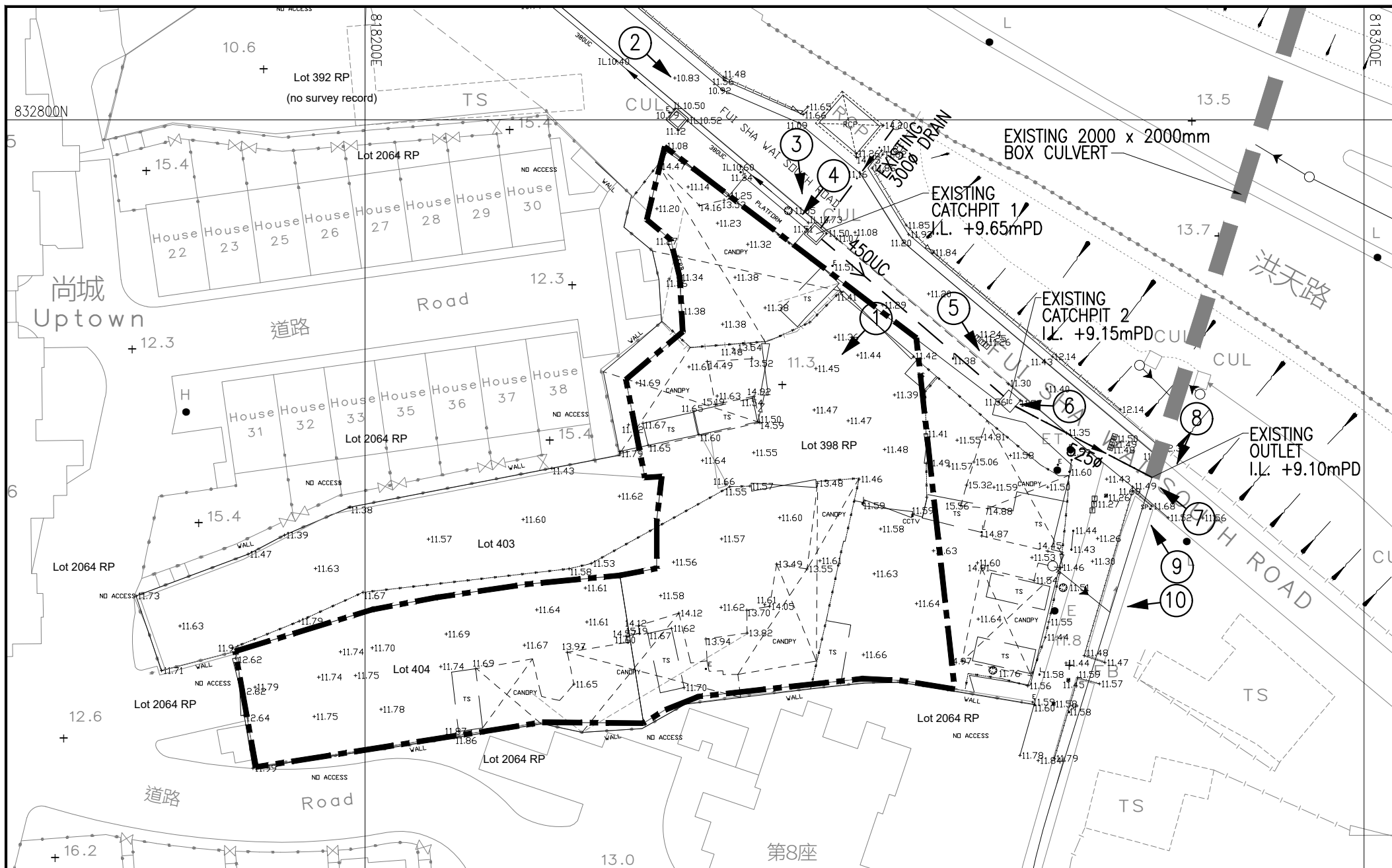
DRAINAGE PATH AND CATCHMENT AREAS

SCALE

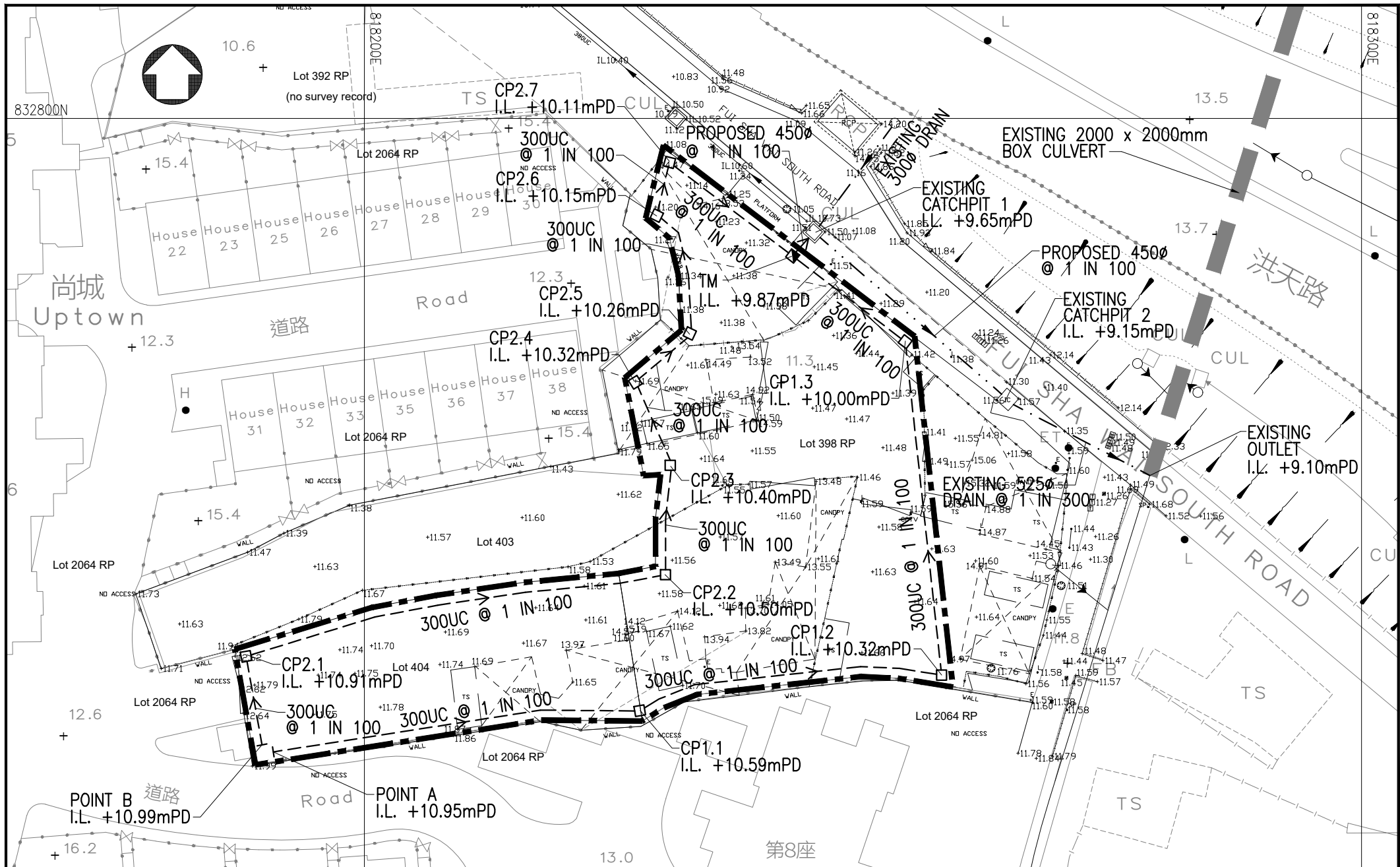
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DRAWING No.

FIGURE D1



LEGEND: THE SUBJECT SITE LOCATION OF PHOTO TAKEN (N-PLATE NO.) 450UC 525Ø EXISTING U-CHANNEL EXISTING DRAIN EXISTING STORMWATER DRAINAGE	PROJECT PROPOSED SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) AT LOT NO.2188 (FORMER LOTS 398 RP (PART) AND 404) IN D.D.121, TAI TAO TSUEN, HUNG SHUI KIU, YUEN LONG, N.T TITLE EXISTING PUBLIC STORMWATER DRAINAGE LAYOUT IN THE IMMEDIATE VICINITY (REFERS TO GEOINFO MAP'S INFORMATION)	何田顧問工程師有限公司 HO TIN & ASSOCIATES CONSULTING ENGINEERS LIMITED SCALE 1 : 500 DRAWING No. FIGURE D3
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LEGEND:

	THE SUBJECT SITE		PROPOSED TERMINAL MANHOLE		EXISTING DRAIN
	PROPOSED U-CHANNEL		PROPOSED DRAIN		EXISTING STORMWATER DRAINAGE
	PROPOSED CATCH PIT				

PROJECT

PROPOSED SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) AT LOT NO.2188 (FORMER LOTS 398 RP (PART) AND 404) IN D.D.121, TAI TAO TSUEN, HUNG SHUI KIU, YUEN LONG, N.T

TITLE

PROPOSED STORMWATER DRAINAGE LAYOUT

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

SCALE

1 : 500 - A4

DRAWING No.

FIGURE D4

Technical drawing of a manhole assembly, showing a cross-section and a plan view.

The cross-section (left) shows a manhole with a diameter (DIA.) and a depth (X). The plan view (right) shows a manhole with a diameter (DIA.) and a depth (X). The drawing includes labels for "STEP IRON WHEN NECESSARY" and "TO STORMWATER/SEWER DRAIN". The drawing is oriented vertically on the page.

MANHOLE COVER OPENING SIZE (mm)	450	675
X (mm)	600 (min)	825 (min)
Y (mm)	(DIA. + 500)	(DIA. + 500) OR 675, WHICHEVER IS GREATER

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. CONCRETE IS TO BE GRADE 30/20.
3. PIPE DIAMETER OF PIPE TO BE LESS THAN OR EQUAL TO 450 mm.

	NEW ISSUE	ORIGINAL SIGNED	13.1.2016
REV.	DESCRIPTION	SIGNATURE	DATE
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(SHEET 2 OF 2)

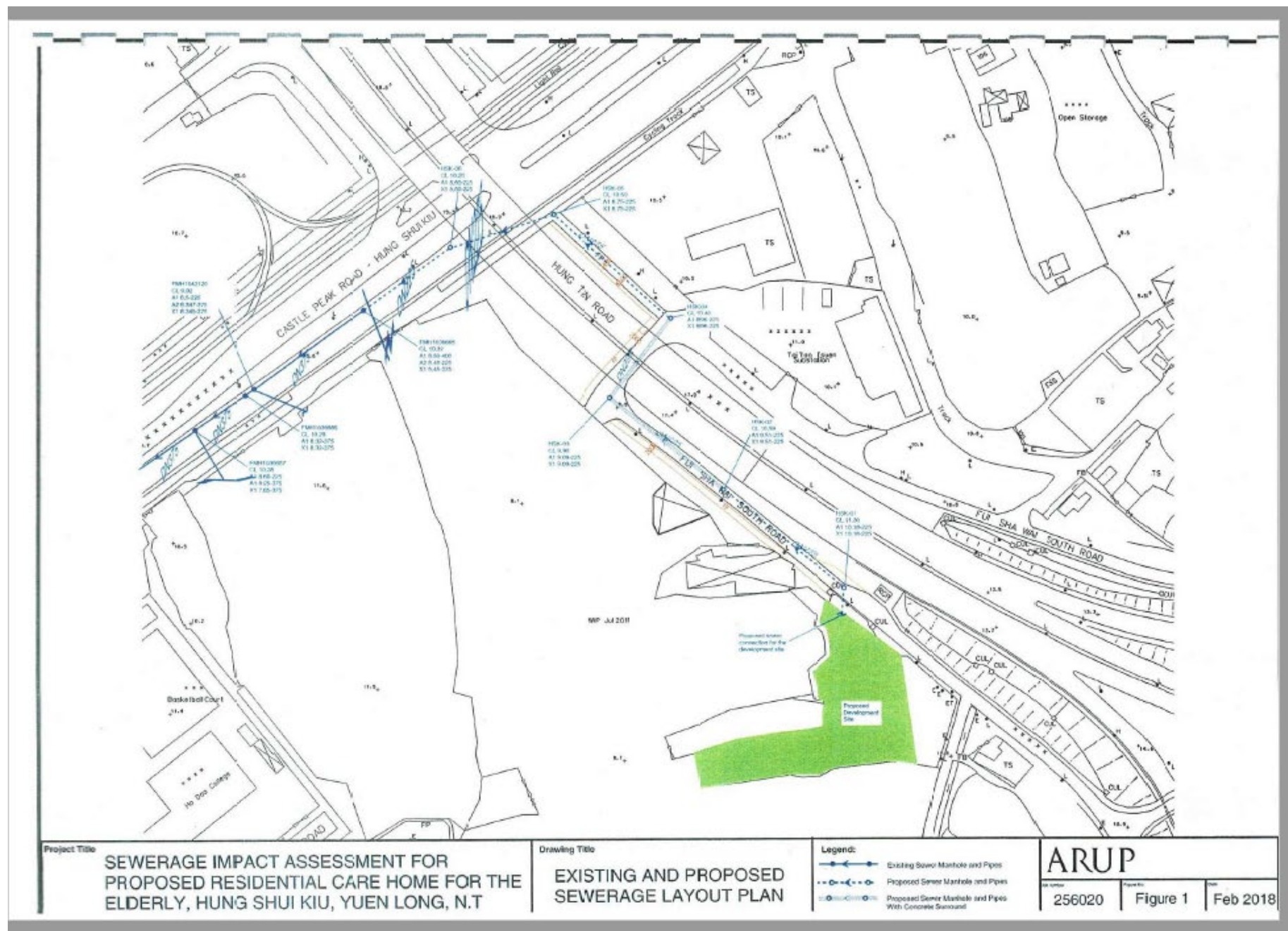
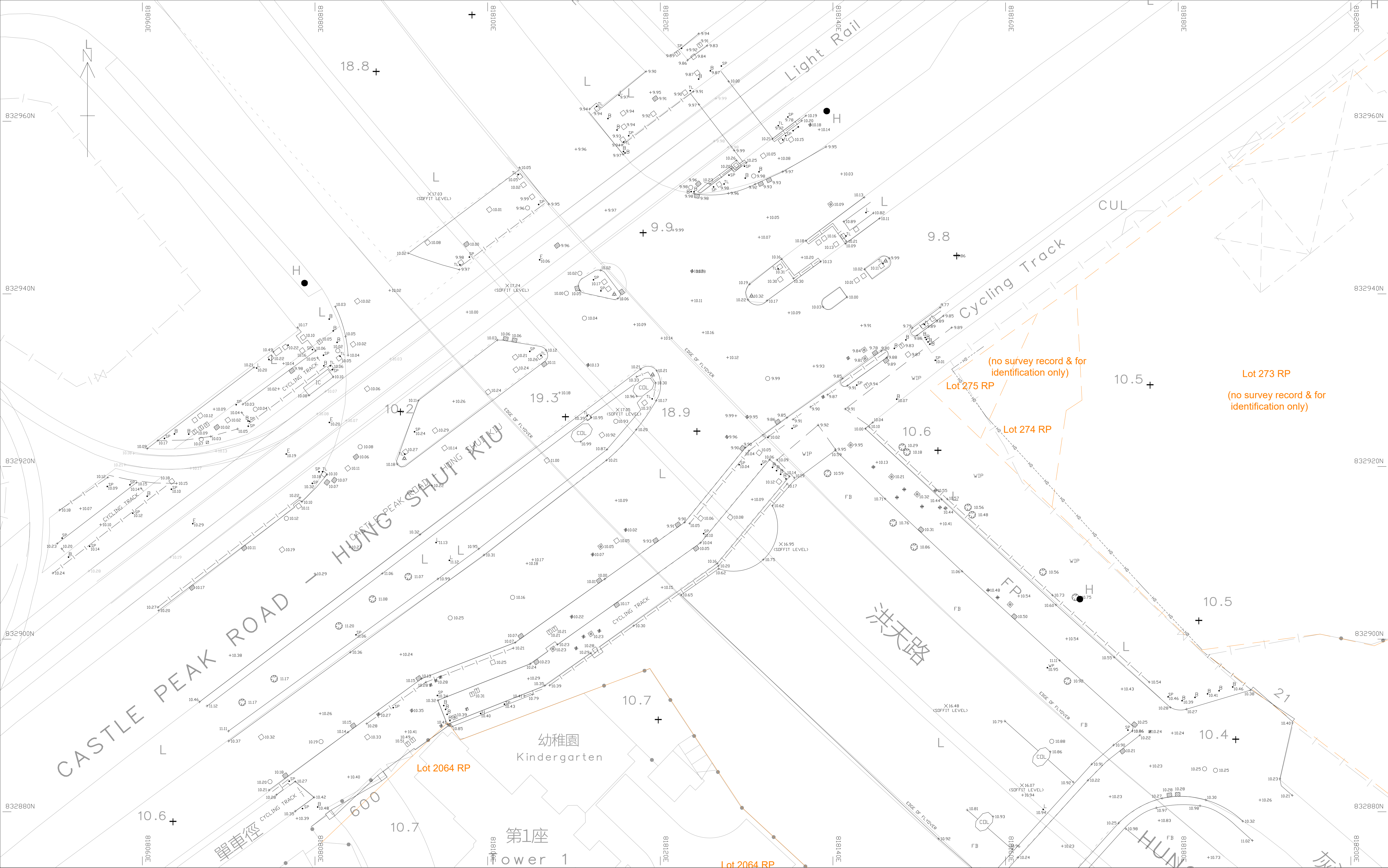


FIGURE S1 - Proposed Connecting Sewerage in the Original Final SIA Report



ABBREVIATIONS :-
BH BORE HOLE
CB CONCRETE BLOCK
CC COVERED CHANNEL
CL COVER LEVEL
CP CATCHPIT
CO COLUMN
CV CULVERT
DR DRAIN
FB FLOWER BED
FBR FOOTBRIDGE
FP FOOTPATH
PLF PLATFORM
PND POND
IC INSPECTION COVER
IL INVERT LEVEL
RCP REFUSE COLLECTION POINT
SHR SHRINE
SO SOFFIT LEVEL
TS TEMPORARY STRUCTURE
UC U CHANNEL
WIP WORKS IN PROGRESS

SYMBOLS :-
BALCONY / CANOPY
BUILDING
FENCE/RAILING
HOARDING
SITE BOUNDARY
SLOPE

B BOLLARD
BS BOUNDARY STONE
E ELECTRIC POLE
F FIRE HYDRANT
G GATE
GR GRATING
L LAMP POST
M MANHOLE/ MANHOLE FOUL
O MANHOLE STORM
T MANHOLE TELEPHONE
W MANHOLE WATERWORKS
PZ PIEZOMETER TUBE
PP PARKING METER POST
S SIGN POLE
SB SIGN BOARD
SH SHRINE
T TELEPHONE POLE
TK TELEPHONE KIOSK
TL TRAFFIC LIGHT

LIGHT BOX
TRAFFIC LIGHT
CONTROL BOX
TREE
UTILITY CONTROL BOX
GULLY
VALVE FIRE
VALVE GAS
VALVE WATERWORKS
WATER TAP

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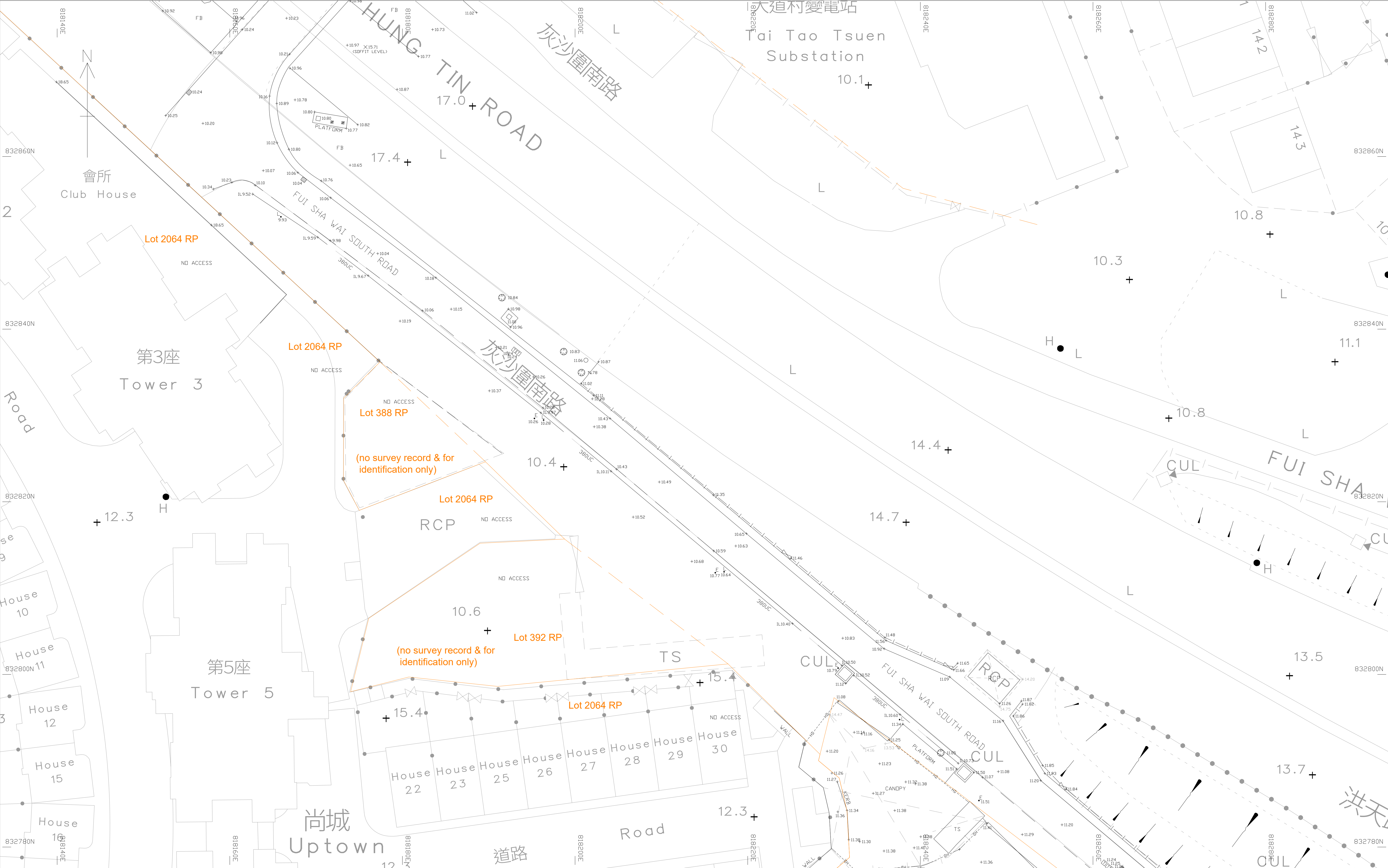
DATE OF SURVEY : JUNE 2021

NOTE :-
1) ALL SPOT LEVEL POSITIONS ARE INDICATED BY A CROSS.
2) ALL GRID LINES ARE IN HONG KONG 1980 PRINCIPAL DATUM
3) ALL UNITS ARE IN METRES

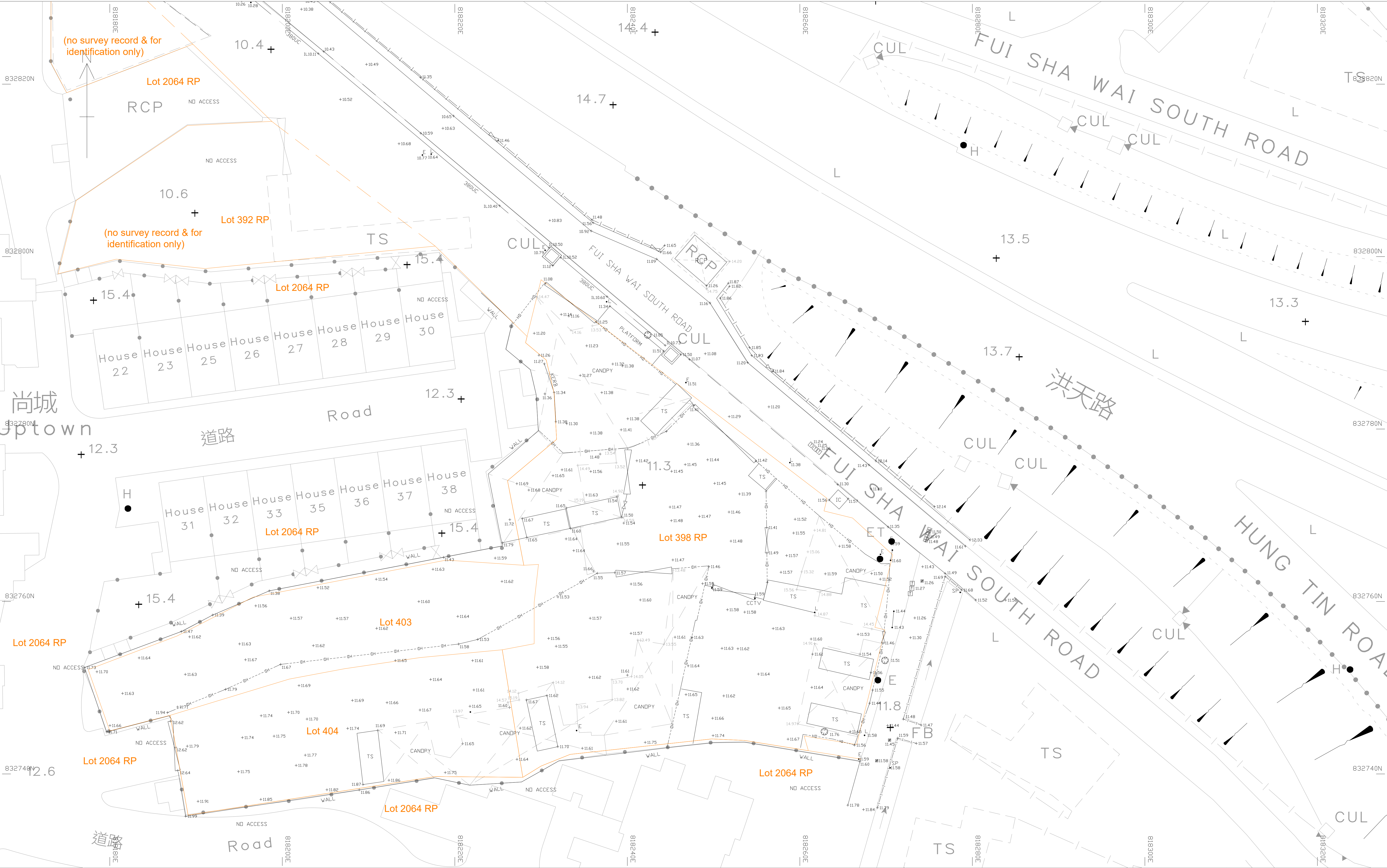
CHYNCHEN ASSOCIATES LIMITED
CHARTERED LAND SURVEYORS

PLAN NO.3761/01
REVISION NO. DESCRIPTIONS DATE
DRAWN BY: HENRI
CHECKED BY: WING LO
APPROVED BY:
NG DAT MING HENRY

TOPOGRAPHIC AND BOUNDARY SURVEY



ABBREVIATIONS :-		SYMBOLS :-		SCALE 1 : 200 (Size A1)		NOTE :-		CHYNCHEN ASSOCIATES LIMITED CHARTERED LAND SURVEYORS	
BH	BORE HOLE	PLF	PLATFORM	BS	BOLLARD	T	MANHOLE TELEPHONE	PLAN NO.3761/01	
CB	CONCRETE BLOCK	PND	POND	BS	BOUNDARY STONE	TL	TRAFFIC LIGHT		
CC	COVERED CHANNEL	IC	INSPECTION COVER	SP	ELECTRIC POLE	PZ	PIEZOMETER TUBE	REVISION NO. DESCRIPTIONS DATE	
CL	COVER LEVEL	IL	INVERT LEVEL	FD	FIRE HYDRANT	PM	PARKING METER POST		
CP	CATCHPIT	RCP	REFUSE COLLECTION POINT	HD	HOARDING	SP	SIGN POLE	DRAWN BY: KENNY CHECKED BY: WINGO LAM APPROVED BY:	
CO	COLUMN	SHR	SHRINE	HD	HOARDING	SP	SIGN BOARD		
CV	CULVERT	SO	SOFFIT LEVEL	HD	HOARDING	SH	SHRINE	TOPOGRAPHIC AND BOUNDARY SURVEY	
DR	DRAIN	TS	TEMPORARY STRUCTURE	HD	HOARDING	TP	TELEPHONE POLE		
FB	FLOWER BED	UC	U CHANNEL	HD	HOARDING	TK	TELEPHONE KIOSK	1/2 TAT MING HENRY 1/2025 1/2025 1/2025	
FBR	FOOTBRIDGE	WIP	WORKS IN PROGRESS	HD	HOARDING	TL	TRAFFIC LIGHT		
FP	FOOTPATH			HD	HOARDING				



ABBREVIATIONS :-

BH

BORE HOLE

CB

CONCRETE BLOCK

CC

COVERED CHANNEL

CL

COVER LEVEL

CP

CATCHPIT

CO

COLUMN

CV

CULVERT

DR

DRAIN

FB

FLOWER BED

FBR

FOOTBRIDGE

FP

FOOTPATH

PLF

POND

IC

INSPECTION COVER

IL

INVERT LEVEL

RCP

REFUSE COLLECTION POINT

SHR

SHRINE

SO

SOFFIT LEVEL

TS

TEMPORARY STRUCTURE

UC

U CHANNEL

WIP

WORKS IN PROGRESS

SYMBOLS :-

BALCONY / CANOPY

BUILDING

FENCE/RAILING

HOARDING

SITE BOUNDARY

SLOPE

BOLLARD

BOUNDARY STONE

ELECTRIC POLE

FIRE HYDRANT

GATE

GRATING

LAMP POST

MANHOLE/ MANHOLE FOUL

MANHOLE STORM

MANHOLE TELEPHONE

MANHOLE WATERWORKS

PIEZOMETER TUBE

PARKING METER POST

SIGN POLE

SIGN BOARD

SHRINE

TELEPHONE POLE

TELEPHONE KIOSK

TRAFFIC LIGHT

LIGHT BOX

TRAFFIC LIGHT CONTROL BOX

TREE

UTILITY CONTROL BOX

GULLY

VALVE FIRE

VALVE GAS

VALVE WATERWORKS

WATER TAP

SCALE 1 : 200 (Size A1)

DATE OF SURVEY : JUNE 2021

NOTE :-

1) ALL SPOT LEVEL POSITIONS ARE INDICATED BY A CROSS.

2) ALL GRID LINES ARE IN HONG KONG 1980 PRINCIPAL DATUM

3) ALL UNITS ARE IN METRES

CHYNCHEN ASSOCIATES LIMITED
CHARTERED LAND SURVEYORS

PLAN NO.3761/01

REVISION NO.

DESCRIPTIONS

DATE

Drawn By: KENIA
Checked By: WINO LAM
Approved By:

NO. DAT. MRG. HENRY MARK. MRG. SP. LEO. ALS

TOPOGRAPHIC AND BOUNDARY SURVEY

Lots 389RP(part) and 404 in DD121
Tai Tao Tsuen, Hung Shui Kiu, Yuen Long

APPENDIX 1

Hydraulic Calculations

Assessment of Hydraulic Capacities of the Drainage System for 1 in 200 year design return period

Using Rational Method

Design Flow = 0.278CIA m³/s for grassland (heavy soil) - steep, C = 0.35
for concrete surface, C = 0.95

Using Manning Equation

Design Mean Velocity = $R^{1/6}/n(RS_p)^{1/2}$ and n= 0.013 for concrete pipe with good surface

Using Gumbel Solution in frequency analysis

Rainfall intensity = $a / (t_d+b)^c$ where a= 429.5 , b= 2.05 and c= 0.295 in 200 year design return period
referenced to Table 3a – ‘Storm Constants for Different Return Periods of HKO Headquarters’ in SDM

Using Brandsby William's Equation (for channel flow)

Inlet time t_0 = $0.14465L / (H^{0.2}A^{0.1})$ or 2 when the distance is too short

Inlet time t_0 to Point Z = $[0.14465 \times 370] / \{[(133.30 - 20.90) / 370 \times 100]^{0.2} \times 46237\}$ = 9.24
for Sub-Catchment 1 = 46,237 m²

Parameters Input

k_s (mm) = 0.6 k_s (m) = 0.0006
 v (m²/s) = 1.00E-06
 g (m²/s) = 9.81

(*allow minimum 500mm free board at the design section of U channels to allow for catchpit/manhole cover flushing with ground level)

USCP/USMH	DSCP/DSMH	USGL	DSGL	USIL	DSIL	INVERT DIFF.	LENGTH (m)	SLOPE s	SLOPE 1 IN	t ₀ (min)	t _c (= t _d) (min)	RAINFALL INTENSITY (mm/hr)	RAINFALL INCLUDING EFFECT OF CLIMATE CHANGE (+13.8%) (mm/hr)	RUNOFF COEF. C	SUB- CATCHMENT AREA (m ²)	EFF. AREA (m ²)	CUM. EFF. AREA (m ²)	DESIGN FLOW (m ³ /s)	SIZE (mm)	UC Type	VEL (m/s)	*FLOW CAPACITY (m ³ /s)	90% FLOW CAPACITY (for pipe) (m ³ /s)	SPARE CAPACITY (m ³ /s)	Occupancy of the proposed channel / pipe	
Within the Subject Site																										
Sub-catchment Area 4	Point B										2.00			0.95	500	475	475									
Point B	CP2.1	11.79	11.79	10.99	10.91	0.09	8.50	0.010	100	2.00	2.08	282.59	321.59	0.95	899	854	1,329	0.119	300	UC	1.70	0.14		0.018	87%	OK!
CP2.1	CP2.2	11.79	11.56	10.91	10.50	0.41	41.00	0.010	100	2.08	2.48	274.97	312.92	0.95	0	0	1,329	0.116	300	UC	1.70	0.14		0.021	84%	OK!
CP2.2	CP2.3	11.56	11.65	10.50	10.40	0.10	10.00	0.010	100	2.48	2.58	273.25	310.95	0.95	0	0	1,329	0.115	300	UC	1.70	0.14		0.022	84%	OK!
CP2.3	CP2.4	11.65	11.69	10.40	10.32	0.08	8.00	0.010	100	2.08	2.16	281.03	319.81	0.95	0	0	1,329	0.118	300	UC	1.70	0.14		0.019	86%	OK!
CP2.4	CP2.5	11.69	11.48	10.32	10.26	0.06	5.50	0.010	100	2.48	2.54	274.02	311.83	0.95	0	0	1,329	0.115	300	UC	1.70	0.14		0.022	84%	OK!
CP2.5	CP2.6	11.48	11.20	10.26	10.15	0.12	11.50	0.010	100	2.48	2.60	272.99	310.66	0.95	0	0	1,329	0.115	300	UC	1.70	0.14		0.022	84%	OK!
CP2.6	CP2.7	11.20	11.47	10.15	10.11	0.04	4.00	0.010	100	2.58	2.62	272.57	310.18	0.95	0	0	1,329	0.115	300	UC	1.70	0.14		0.022	84%	OK!
CP2.7	TM	11.47	11.32	10.11	9.97	0.14	14.00	0.010	100	2.58	2.72	270.91	308.29	0.95	0	0	1,329	0.114	300	UC	1.70	0.14		0.023	83%	OK!
Point A	CP1.1	11.75	11.70	10.95	10.59	0.36	36.00	0.010	100	2.00	2.35	277.38	315.66	0.95	899	854	854	0.075	300	UC	1.70	0.14		0.062	55%	OK!
CP1.1	CP1.2	11.70	11.64	10.59	10.32	0.27	27.00	0.010	100	2.35	2.62	272.65	310.28	0.95	0	0	854	0.074	300	UC	1.70	0.14		0.063	54%	OK!
CP1.2	CP1.3	11.64	11.42	10.32	10.00	0.32	32.00	0.010	100	2.62	2.93	267.48	304.39	0.95	0	0	854	0.072	300	UC	1.70	0.14		0.065	53%	OK!
CP1.3	TM	11.42	11.32	10.00	9.87	0.13	13.00	0.010	100	2.62	2.74	270.50	307.83	0.95	0	0	854	0.073	300	UC	1.70	0.14		0.064	53%	OK!
External Drainage (between the Subject Site and Outfall)																										
TM	Existing external Catchpit 1	11.32	11.50	9.87	9.85	0.02	2.00	0.010	100	0.00	2.76	270.23	307.52	0.95	0	0	2,183	0.187	450	concreted pipe	2.03	0.32	0.29	0.104	64%	OK!
Existing external Catchpit 1	Existing external Catchpit 2	11.50	11.56	9.65	9.42	0.23	23.00	0.010	100	0.00	2.95	267.18	304.05	0.95	373	354	2,537	0.214	450	concreted pipe	2.03	0.32	0.29	0.077	74%	OK!
Existing external Catchpit 2	Existing Outlet	11.56	11.69	9.15	9.10	0.05	15.00	0.003	300	0.00	3.14	264.19	300.65	0.95	0	0	2,537	0.212	525	concreted pipe	1.29	0.28	0.25	0.039	85%	OK!
The Existing 2000mm x 2000mm Box Culvert																										
highest point	Point Z	133.30	20.90				370.00			9.24	9.24			0.35	46,237	16,183	16,183									
Point Z	Point Y	20.90	11.69	18.90	9.10	0.90	450.00	0.002	500	9.24	12.09	196.58	217.03	0.95	60,521	57,495	73,678	4.445	2000	box culvert	2.63	10.50		6.056	42%	OK!
														total =	106,758											

Sub-Catchment Area 1 = 46,237
Sub-Catchment Area 2 = 57,850
Sub-Catchment Area 3 = 373
Sub-Catchment Area 4 = 500
Area of The Site = 1,798
Total = $\frac{106,758}{m^2}$

APPENDIX 2

**Copy of the Final Sewerage Impact Assessment (SIA) Report
submitted in support of the planning application in March 2018**

By Hand

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

12 March 2018

Dear Sir/Madam

**Application for Permission
Under Section 16 of the Town Planning Ordinance (Cap.131)
Lot Nos. 398RP (Part) and 404 in D.D.121, Tai Tao Tsuen
Hung Shui Kiu, Yuen Long, New Territories**

(Application No. A/YL-TYST/870)

Submission of Further Information

Thank you for your letter dated 26 January 2018 acknowledging our request for deferral of the consideration of the captioned S16 Planning Application for a period of 2 months.

We are pleased to submit Further Information on the captioned application. Please see attached our Responses to Comments Table (**Appendix A**), a proposed road widening scheme for the Application Site (**Appendix B**), updated Master Layout Plan and Architectural Drawings for the Proposed Development (**Appendix C**), updated Environmental Assessment Report (**Appendix D**), Sewerage Impact Assessment (**Appendix E**), a Technical Paper of traffic forecast for Traffic Noise Impact Assessment (**Appendix F**), a design intent in window opening and orientation (**Appendix G**), an updated Visual Impact Assessment (**Appendix H**), updated Landscape Master Plan and open space provision (**Appendix I**) and pedestrian route for Application Site (**Appendix J**) for your consideration.

We sincerely seek for the favourable consideration from the Town Planning Board to approve this S12A Planning Application.

Should you have any queries, please contact the undersigned or our Ms Minnie Law at [REDACTED]

Yours faithfully

Theresa YEUNG
Director of Planning

Encl. Appendices A - J
c.c. DPO/TM&YLW, PlanD (Attn: Mr. Floria Tsang (Fax: 2489 9711))
Client

Orient Talent Limited

**Sewerage Impact Assessment for
Proposed Residential Care Home
for the Elderly, Hung Shui Kiu,
Yuen Long, N.T**

Final Sewerage Impact Assessment Report

256020-REP-001-01

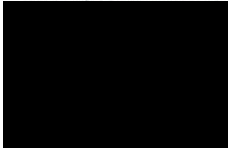
Rev 01 | March 2018

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 256020

Ove Arup & Partners Ltd



ARUP

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1.2 Proposed Development	1
1.3 Purpose of this Report	2
2 Sewerage Impact Assessment	3
2.1 Methodology and Design Criteria	3
2.2 Existing Sewerage System	5
2.3 Sewage Flow Estimation	5
2.4 Proposed Sewerage Provision	7
2.5 Potential Sewerage Impacts	7
3 Summary and Conclusion	9

Appendices

Appendix A

Drawings for Existing and Proposed Sewerage Layout Plan

Appendix B

Sewage Flow Estimation for Proposed Development and Existing Sewerage Catchment

Appendix C

Capacity Performance of the Proposed DN225 Sewers and the Existing DN375 Sewers

1 Introduction

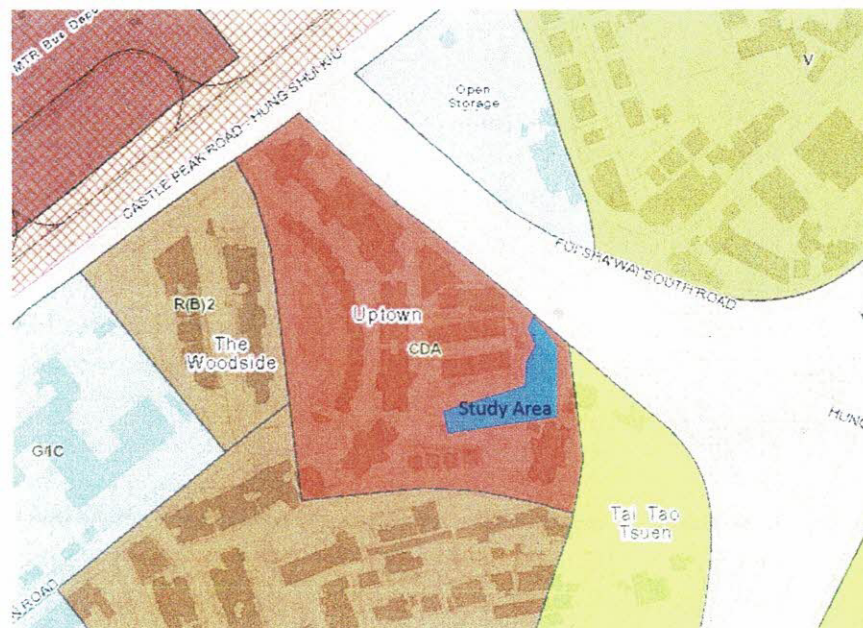
1.1 Background

1.1.1 Orient Talent Limited appointed Ove Arup and Partners (HK) Ltd to undertake a Sewerage Impact Assessment (SIA) of the Proposed Residential Care Home for the Elderly development at Lot nos. 398RP (Part) and 404 in D.D. 121, Hung Shui Kiu, Yuen Long, New Territories (Proposed Development).

1.2 Proposed Development

1.2.1 The study area of Proposed Development is about 1,795m². It is located at Lot Nos. 398RP (Part) and 404 in D.D. 121, Hung Shui Kiu, Yuen Long, N.T. The site is currently used as an open storage and rural workshop. It falls within a small portion of the “Comprehensive Development Area” (“CDA”) on the Draft Tong Yan San Tsuen Outline Zoning Plan No. S/YL-TYST/11. The study area is shown in Figure 1.1.

Figure 1.1 Location Plan of Study Area with OZP Zoning



1.2.2 The Proposed development will be a Residential Care Home for the Elderly (RCHE). The development parameters for the Proposed Development are summarized in Table 1.1 below.

Table 1.1 Proposed Development Parameters

Parameter	Remark
Site Area	About 1,795 m ²
Plot Ratio (PR)	Not more than 2.96 #

Parameter	Remark
Gross Floor Area (GFA)	Not more than 5,313 m ²
No. of beds	About 300
Local Open Space Provision *	Not less than 300 m ²

Note:

* According to the Hong Kong Planning Standards and Guidelines (HKPSG), there is no requirement for RCHE, as a social welfare facility, on active and passive recreational use. Notwithstanding, the Proposed Development will provide not less than 300m² open space for the occupants, which respects the standard of 3.

The subject "CDA" zone has an area of 23,282 m². According to the Notes of Outline Zoning Plan (OZP), a maximum GFA of 69,000m² is allowed. Therefore, a PR of 2.96 is adopted for the Application Site, assuming GFA is distributed evenly within the "CDA" zone.

1.3 Purpose of this Report

1.3.1

This SIA Report will assess the sewerage impacts, if any, that arise from the development of the lot and provide recommendations for mitigation measures and sewage connection proposals for the Proposed Development.

2 Sewerage Impact Assessment

2.1 Methodology and Design Criteria

2.1.1 The sewage flow estimation, assessment and evaluation of impacts are based on the following established principals, guidelines and record plans of Hong Kong:

- Guidelines for Estimating Sewage Flows for Sewage Infrastructure (GESF), Environmental Protection Department (EPD);
- Hong Kong Planning Standards and Guidelines (HKPSG), Planning Department (PlanD);
- Sewerage Manual, Drainage Services Department (DSD);
- Commercial and Industrial Floor Space Utilization Survey (CIFSUS), PlanD; and
- Sewerage Record Plans based on GeoInfo Map online

Unit Flow Factor – Domestic Flows

2.1.2 Unit flow factor (UFF) used for domestic sewage flow estimation of residential population in the sewerage catchment adjacent to the Proposed Development is shown in **Table 2.1** below.

Table 2.1 Unit Flow Factor for Domestic Flows

Residential Type	Unit Flow Factor (m ³ /person/day) ¹¹
Private R2	0.270

Note:

¹¹ Table T-1, GESF

Unit Flow Factors - Commercial and Institutional Flows

2.1.3 The unit flow factors for commercial flows due to employed population of the proposed social welfare facility for the Elderly is shown in **Table 2.2**.

Table 2.2 Unit Flow Factor for Commercial Flows

Commercial Type	Unit Flow Factor (m ³ /employee/day) ¹¹
Commercial Employee	0.080
Commercial Activities	
(a) Specific trades:	
J11 – Community, Social and Personal Services	0.200 ¹²
Total UFF	0.280

Notes:

¹¹ Table T-2, GESF

¹² UFF for J11 accounts for flows of customers and tenants

- 2.1.4** The total unit flow generated from an employee in a particular trade is the sum of the unit flow factor of the employee and the unit flow factor of commercial activities of a particular trade under consideration.

Peaking Factors

- 2.1.5** The peaking factors adopted in this study are shown in **Table 2.3**.

Table 2.3 Peaking Factors for Various Population Ranges

Population Range ^[1]	Peaking Factor (including stormwater allowance) for Facility with Existing Upstream Sewerage ^[2]
(a) For sewers	
< 1,000	8
1,000 – 5,000	6

Note:

^[1] Contributing Population = Calculated total average flow (m³/day) / 0.27 (m³/person/day)

^[2] Table T-5, GESF

- 2.1.6** Under normal condition, peaking factors (excluding stormwater allowance) are applicable to planning sewerage facilities receiving flow from new upstream sewerage systems which essentially have no misconnections and defects for infiltration while the peaking factor (including stormwater allowance) are applicable to aged sewerage facilities with some misconnections and defects for infiltration. In order to be conservative in this analysis and allowing for future potential storm water infiltration due to degradation of pipe material after many years, peaking factors (including stormwater allowance) is adopted for both Proposed Development and existing development.

Hydraulic Analysis

- 2.1.7** Colebrook-White equation is applied for pipe hydraulic analysis. The design roughness coefficients (Ks) for existing pipeline system is 3.0mm (Slimed sewer, clayware, under poor condition). The design roughness coefficients (Ks) for proposed pipeline system is also 3.0mm in consideration of its reduced hydraulic performance in future due to degradation of material.

- 2.1.8** For small diameter sewers of diameter less than 300mm, the flow velocity of at least 0.7m/s shall occur daily, or that a gradient of at least 1:DN (i.e. Nominal diameter of the sewer in mm) is provided, provided that a flow of 2 times of Average Dry Weather Flow (ADWF) is assumed to occur at least once daily. For larger diameter sewers of diameter up to 900mm, a self-cleansing velocity of 1.0m/s in full pipe condition shall be achieved. The maximum flow velocity at peak flow shall be 3m/s.

2.2 Existing Sewerage System

2.2.1 The sewerage records were extracted from free online source GeoInfo Map which show the existing sewerage network in the vicinity of study area (**Figure 2.1**). There are an existing DN375 sewer running along the Castle Peak Road (Hung Shui Kiu) from northeast to southwest and another DN225 to DN450 sewer running along the Hung Shun Road from northeast to southwest and turning to north at junction of Ying Fuk Street and Hung Shun Road. Both sewers combined near junction of Castle Peak Road (Hung Shui Kiu) and Tan Kwai Tsuen Road and enlarged to be DN750.

Figure 2.1 Existing Sewerage Record Plan



2.3 Sewage Flow Estimation

2.3.1 The maximum employees in the Proposed Development is estimated to be 176 based on the worker density with reference to the PlanD's CIFSUS and the maximum GFA of Proposed Development.

Table 2.4 Estimation of Employee in the Proposed Development

GFA(m ²)	Industry Group ^[1]	Worker Density (No of Employee / 100 m ² GFA) ^[1]	No of Employee
5,313	Community, Social & Personal Services	3.3	176

Note:

^[1] With reference to Figure 9 "Worker Density by Industry Group" of the PlanD's CIFSUS

2.3.2 With reference to EPD's GESF, the UFF for the Proposed Development is 0.28 m³/day/person according to **Table 2.2** and peaking factor of 8 is

adopted according to **Table 2.3**. Therefore, sewage flow estimation for the Proposed Development is shown in **Table 2.5** below.

Table 2.5 Sewage Flow Estimation of the Proposed Development

No of Employee	UFF (m ³ /day/person)	ADWF (m ³ /day)	Peaking Factor	Peak Flow (l/s)
176	0.28	49.28	8	4.56

2.3.3

There are two major Contribution Sewerage Catchments, private residential development of Uptown and the Woodside, for the existing DN375 sewer along Castle Peak Road (Hung Shui Kiu). The population of Uptown and the Woodside is estimated based on the total number of flats of the developments and the average household size with reference to "Hong Kong Domestic Household Projections up to 2051" from Census and Statistics Department(C&SD), which is shown in **Table 2.6** below.

Table 2.6 Estimation of Population in the Existing Contributing Sewerage Catchments

Contributing Sewerage Catchment	No of Flat	Person per Flat (PPF) ^[1]	No. of Residents
Uptown	734	2.8	2,055
The Woodside	98	2.8	274

Note:

^[1] With reference to "Table 2: Number of domestic households and average household size" from "Hong Kong Domestic Household Projections up to 2051", C&SD

2.3.4

With reference to EPD's GESF, the UFF for the domestic flow from the existing sewerage catchments is 0.27 m³/day/person according to **Table 2.1** and peaking factor is adopted according to **Table 2.3**. Therefore, sewage flow estimation for the existing contributing sewerage catchments is shown in **Table 2.7** below.

Table 2.7 Sewage Flow Estimation of the Existing Contributing Sewerage Catchment

Contributing Sewerage Catchment	No. of Residents	UFF (m ³ /day/person)	ADWF (m ³ /day)	Peaking Factor	Peak Flow (l/s)
Uptown	2,055	0.27	554.90	6	38.54
The Woodside	274	0.27	74.09	8	6.86

2.4 Proposed Sewerage Provision

Sewerage Connection Proposal

- 2.4.1** A new DN225 sewer is proposed to run along the Fui Sha Wai South Road from southeast to northwest, and turning into Castle Peak Road (Hung Shui Kiu) running from northeast to southwest along the footpath. The proposed alignment is shown in **Appendix A**.

Internal Development Sewerage System

- 2.4.2** New internal sewerage systems will be provided within the Proposed Development that will convey the sewage to the proposed manhole HSK-01 shown in **Appendix A**.

2.5 Potential Sewerage Impacts

- 2.5.1** There are three incoming sewage flow for the existing DN375 sewer after the proposed sewer connection: (i) the existing sewerage connection at manhole FMH1036685 for Uptown; (ii) existing sewerage connections at manhole FMH1043120 and FMH1036687 for the Woodside; and (iii) the proposed sewerage connection at manhole HSK-01 for the Proposed Development. Total estimated sewage flow for those connections is shown Table B3 in **Appendix B**.

- 2.5.2** Hydraulic calculation (attached in **Appendix C**) has been carried out to assess the capacity of the proposed and existing sewer capacities under the estimated peak flow (Table B3 of the **Appendix B**).

- 2.5.3** Results of the hydraulic calculation (**Appendix C**) demonstrated that the proposed sewerage provision, comprising the new gravity sewers of DN225 with approximate length of 235m, is adequate to serve the Proposed Development. **Table 2.8** summaries the key results of the hydraulic capacity assessment for the proposed DN225 sewer.

Table 2.8 Hydraulic Capacity of the Proposed DN225 Sewer

Upstream Manhole ID	Downstream Manhole ID	Sewer Length (m)	Peak Flow (l/s)	Sewer Hydraulic Capacity (l/s)	% of Peak Flow over Sewer Hydraulic Capacity
HSK-01	HSK-02	46.7	4.56	54.564	8%
HSK-02	HSK-03	45.6	4.56	43.485	10%
HSK-03	HSK-04	30.6	4.56	30.343	15%
HSK-04	HSK-05	47.4	4.56	30.343	15%
HSK-05	HSK-06	32.5	4.56	30.343	15%
HSK-06	FMH1036685	31.4	4.56	30.343	15%

- 2.5.4** Results of the hydraulic calculation (**Appendix C**) also indicated that the total peak sewage flow from the Proposed Development and from

existing sewerage catchments is less than 50% of the fullbore capacity of the existing DN375 sewer along the Castle Peak Road – Hung Shui Kiu. Therefore, the existing DN375 sewer at immediate downstream of the Proposed Development has adequate capacity to serve both the existing development and Proposed Development and it deems that no adverse sewerage impacts is anticipated on the existing sewerage network due to the Proposed Development. **Table 2.9** summaries the key results of the hydraulic capacity assessment for the existing DN375 sewer.

Table 2.9 Hydraulic Capacity of the Existing DN375 Sewer

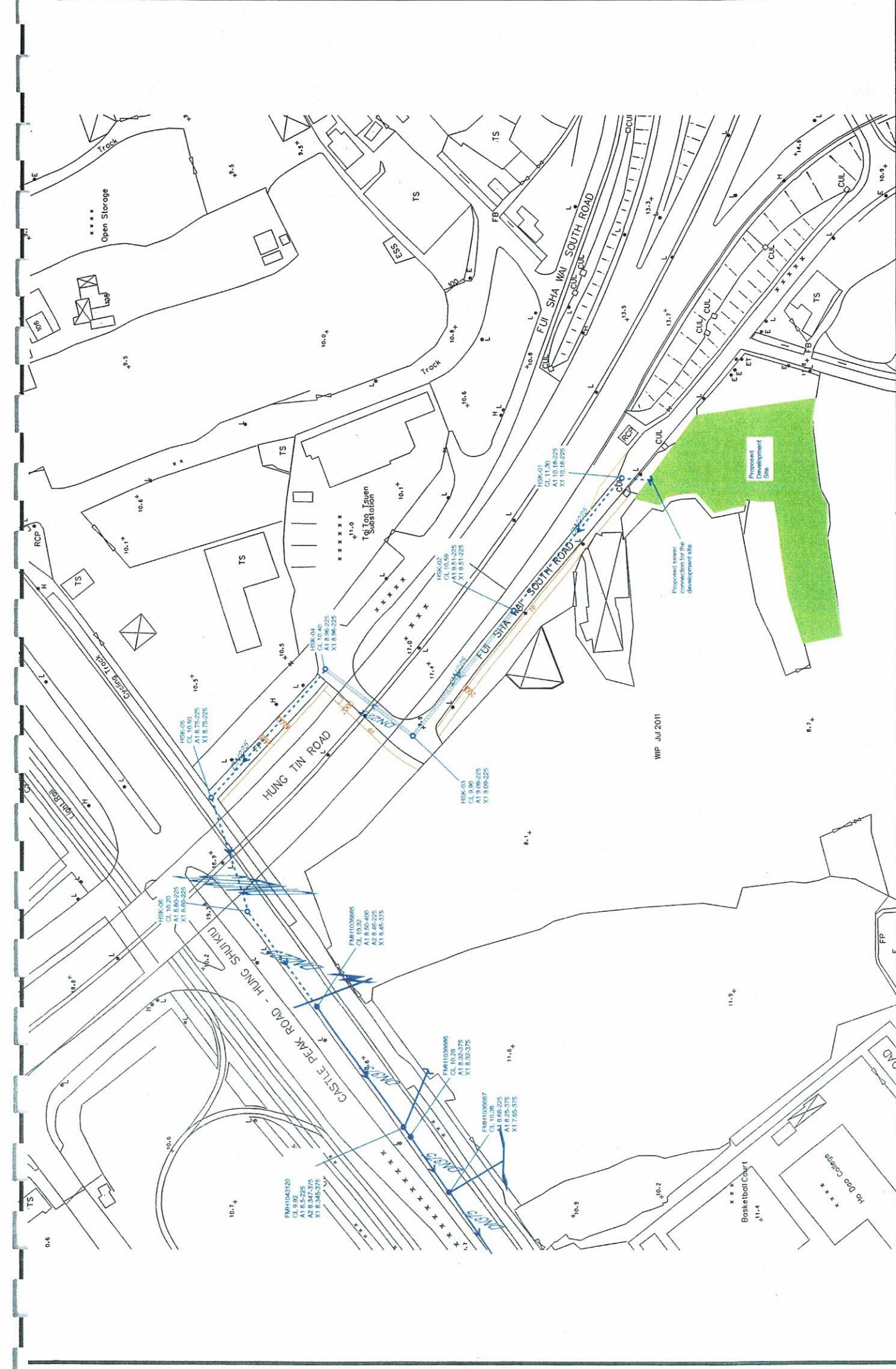
Upstream Manhole ID	Downstream Manhole ID	Sewer Length (m)	Peak Flow (l/s)	Sewer Hydraulic Capacity (l/s)	% of Peak Flow over Sewer Hydraulic Capacity
FMH1036685	FMH1043120	41.7	41.96	87.701	48%
FMH1043120	FMH1036686	3.2	44.53	156.419	28%
FMH1036686	FMH1036687	19.1	44.53	106.953	42%
FMH1036687	FMH1036688	41.7	47.10	221.184	21%
FMH1036688	FMH1036689	3.2	47.10	199.580	24%
FMH1036689	FMH1036690	41.2	47.10	95.284	49%
FMH1036690	FMH1036691	39.2	47.10	101.711	46%
FMH1036691	FMH1036692	20.9	47.10	115.981	41%
FMH1036692	FMH1036693	41.5	47.10	94.937	50%
FMH1036693	FMH1036694	39.7	47.10	101.065	47%
FMH1036694	FMH1036695	40.5	47.10	96.109	49%
FMH1036695	FMH1036696	18.3	47.10	101.129	47%
FMH1036696	FMH1036697	37.1	47.10	104.566	45%
FMH1036697	FMH1036698	34.7	47.10	112.245	42%
FMH1036698	FMH1032220	11.7	47.10	283.848	17%

3 Summary and Conclusion

- 3.1.1 The peak sewage flow from the Proposed Development is estimated to be 4.56l/s.
- 3.1.2 As the nearest sewer network is not directly adjacent to the development, a new DN225 sewer is proposed to run along the Fui Sha Wai South Road from southeast to northwest, and turning into Castle Peak Road (Hung Shui Kiu) running from northeast to southwest along the footpath, to convey the sewage from the development site to the existing DN375 sewer along Castle Peak Road (Hung Shui Kiu).
- 3.1.3 Hydraulic assessment indicates that the existing DN375 sewer running along the Castle Peak Road (Hung Shui Kiu) at immediate downstream of the Proposed Development has adequate capacity to serve both the existing and Proposed Development. Therefore, no adverse sewerage impacts are anticipated due to the Proposed Development.

Appendix A

Drawings for Existing and Proposed Sewerage Layout Plan



Appendix B

Sewage Flow Estimation for Proposed Development and Existing Sewerage Catchment

Sewerage Impact Assessment for Proposed Residential Care Home for the Elderly, Hung Shui Kiu, Yuen Long, N.T

Appendix B

Sewage Flow Estimation for Proposed Development and Existing Sewerage Catchment

Table B1 Sewage Flow Estimation of the Proposed Development

Contributing Sewerage Catchment	GFA (m ²)	Worker Density (per 100 m ² GFA) ⁽¹⁾	No of Employee	UFF (m ³ /day)	ADWF (m ³ /day)	Peaking Factor	Peak Flow (l/s)
The proposed development	5313	3.3	176	0.28	49.28	8	4.56

Note:

(1) According to Figure 9 of PlanD's CIFSUS

Table B2 Sewage Flow Estimation of the Existing Contributing Sewerage Catchment

Contributing Sewerage Catchment	No of Flat	Person per Flat (PPF) ⁽¹⁾	No of Residents	UFF (m ³ /day)	ADWF (m ³ /day)	Peaking Factor	Peak Flow (l/s)
Uptown	734	2.8	2055	0.27	554.90	6	38.54
The Woodside	98	2.8	274	0.27	74.09	8	6.86

Note:

(1) According to "Table 2: Number of domestic households and average household size" from "Hong Kong Domestic Household Projections up to 2051", C&SD

Table B3 Total Existing Sewage Flow to Discharging to DN375 along the Castle Peak Road - Hung Shui Kiu after the Proposed Development

Contributing Sewerage Catchment	No of Employee/ Residents	Connecting Manhole ID	ADWF (m ³ /day)	Total Accumulative ADWF (m ³ /day)	Total Contribution Population	Peaking Factor	Total Peak Flow (l/s)
The proposed development	176	HSK-01	49.28	49	183	8	4.56
Uptown	2055	FMH1036685	554.90	604	2238	6	41.96
Half of the Woodside ⁽¹⁾	137	FMH1043120	37.04	641	2375	6	44.53
Half of the Woodside ⁽¹⁾	137	FMH1036687	37.04	678	2512	6	47.10

Note:

(1) Assume half of the sewage flow from the Woodside will be discharged to FMH1043120 while the remaining half would be discharge to FMH1036687 (Refer to Appendix C for detail)

Appendix C

Capacity Performance of the Proposed DN225 Sewers and the Existing DN375 Sewers

Sewerage Impact Assessment for Proposed Residential Care Home for the Elderly, Hung Shui Kiu, Yuen Long, N.T

Appendix C

Capacity Performance of the Proposed DN 225 Sewers and the Existing DN375 Sewers

US MH No.	DS MH No.	Length (m)	Number of Pipe	Pipe Diameter (mm)	US GL (m MSL)	DS GL (m MSL)	US IL (m MSL)	DS IL (m MSL)	Gradient	Gradient (1 in X)	Area (m ²)	Perimeter (m)	R = A/P (m)	(32gRS) ^{0.5}	Velocity at full bore (m/s)	Total Peak Flow ⁽¹⁾ (L/s)	Velocity Check	Capacity (L/s)	% Full Flow
HSK-01	HSK-02	46.7	1	225	11.30	10.59	10.18	9.51	0.0143	70	0.0397	0.7	0.06	0.50	1.37	4.56	OK	54.564	8%
HSK-02	HSK-03	45.6	1	225	10.59	9.90	9.51	9.09	0.0091	110	0.0397	0.7	0.06	0.40	1.09	4.56	OK	43.485	10%
HSK-03	HSK-04	30.6	1	225	9.9	10.4	9.09	8.96	0.0044	225	0.0397	0.7	0.06	0.28	0.76	4.56	OK	30.343	15%
HSK-04	HSK-05	47.4	1	225	10.4	10.5	8.96	8.75	0.0044	225	0.0397	0.7	0.06	0.28	0.76	4.56	OK	30.343	15%
HSK-05	HSK-06	32.5	1	225	10.5	10.2	8.75	8.60	0.0044	225	0.0397	0.7	0.06	0.28	0.76	4.56	OK	30.343	15%
FMHI036685	FMHI043120	31.4	1	225	10.2	10.3	8.60	8.46	0.0044	225	0.0397	0.7	0.06	0.27	0.79	4.56	OK	30.343	15%
FMHI036685	FMHI036685	41.7	1	375	10.3	9.9	8.45	8.35	0.0025	405	0.1104	1.2	0.09	0.27	0.79	41.96	OK	87.701	48%
FMHI043120	FMHI036686	3.2	1	375	9.9	10.3	8.35	8.32	0.0078	128	0.1104	1.2	0.09	0.48	1.42	44.53	OK	156.419	28%
FMHI036686	FMHI036687	19.1	1	375	10.3	10.4	8.32	8.25	0.0037	273	0.1104	1.2	0.09	0.33	0.97	44.53	OK	106.953	42%
FMHI036687	FMHI036688	41.7	1	375	10.4	10.8	7.65	7.00	0.0156	64	0.1104	1.2	0.09	0.68	2.00	47.10	OK	221.184	21%
FMHI036688	FMHI036689	3.2	1	375	10.8	10.6	6.40	6.36	0.0127	79	0.1104	1.2	0.09	0.61	1.81	47.10	OK	199.580	24%
FMHI036689	FMHI036690	41.2	1	375	10.6	10.9	6.36	6.24	0.0029	343	0.1104	1.2	0.09	0.29	0.86	47.10	OK	95.284	49%
FMHI036690	FMHI036691	39.2	1	375	10.9	11.0	6.24	6.11	0.0033	302	0.1104	1.2	0.09	0.31	0.92	47.10	OK	101.711	46%
FMHI036691	FMHI036692	20.9	1	375	11.0	10.9	6.11	6.02	0.0043	232	0.1104	1.2	0.09	0.36	1.05	47.10	OK	115.981	41%
FMHI036692	FMHI036693	41.5	1	375	10.9	10.9	6.02	5.90	0.0029	346	0.1104	1.2	0.09	0.29	0.86	47.10	OK	94.937	50%
FMHI036693	FMHI036694	39.7	1	375	10.9	10.8	5.90	5.77	0.0033	305	0.1104	1.2	0.09	0.31	0.92	47.10	OK	101.065	47%
FMHI036694	FMHI036695	40.5	1	375	10.8	10.9	5.77	5.65	0.0030	338	0.1104	1.2	0.09	0.30	0.87	47.10	OK	96.109	49%
FMHI036695	FMHI036696	18.3	1	375	10.9	11.0	5.65	5.59	0.0033	305	0.1104	1.2	0.09	0.31	0.92	47.10	OK	101.129	47%
FMHI036696	FMHI036697	37.1	1	375	11.0	10.9	5.59	5.46	0.0035	285	0.1104	1.2	0.09	0.32	0.95	47.10	OK	104.566	45%
FMHI036697	FMHI036698	34.7	1	375	10.9	10.9	5.46	5.32	0.0040	248	0.1104	1.2	0.09	0.34	1.02	47.10	OK	112.245	42%
FMHI036698	FMHI032220	11.7	1	375	10.9	11.0	5.32	5.02	0.0256	39	0.1104	1.2	0.09	0.87	2.57	47.10	OK	283.848	17%

Note:

(1) Refer to Table B3 of the Appendix B for the Total Peak Flow Estimation

Appendix 3 - Hydraulic Analysis of Relevant Sewers

Assessment of Hydraulic Capacities of Sewers under Peak Flows

Using Colebrook's White Equation (for pipe flow)
 $V = - \text{Sqrt} (8gDs) \times \log [k_s / 3.7D + 2.51v / (D \times \text{Sqrt} (2gDs))]$
For precast concrete pipes with 'O' ring joints with poor condition, (for checking the existing public sewers, conservative)
 $k_s \text{ (mm)} = 3$ $k_s \text{ (m)} = 0.003$
 $v \text{ (m}^2\text{/s)} = 1.00\text{E-}06$
 $g \text{ (m}^2\text{/s)} = 9.81$
For Polyethylene (PE) pipe (PE100-RC) with poor condition, (for assessing the proposed sewers)
 $k_s \text{ (mm)} = 0.3$ $k_s \text{ (m)} = 0.0003$
 $v \text{ (m}^2\text{/s)} = 1.00\text{E-}06$
 $g \text{ (m}^2\text{/s)} = 9.81$

USCP/USMH	DSCP/DSMH		USGL	DSGL	USIL	DSIL	INVERT DIFF.	LENGTH (m)	SLOPE s	SLOPE 1 IN	PEAK DESIGN FLOW (l/s)	SIZE (mm)	Drain Type	VEL (m/s)	FLOW CAPACITY (l/s)	90% FLOW CAPACITY (for pipe) (l³/s)	SPARE CAPACITY (l³/s)	OCCUPANC Y OF THE PROPOSED DRAIN	
External Drainage (between the Subject Site and Existing Public Sewer) (Peaking Factor = 8)																			
Sewer TM (D.T.L.)	HSK-01	The subject development	11.20	10.83	10.32	10.18	0.14	11.00	0.013	79	18.770	225	Polyethylene (PE) pipe (PE100-RC)	1.61	63.898	57.508	38.738	33%	OK!
HSK-01	HSK-02	Ditto	10.83	10.59	10.18	9.51	0.67	49.00	0.014	73	18.770	225	Polyethylene (PE) pipe (PE100-RC)	1.67	66.265	59.639	40.869	31%	OK!
HSK-02	HSK-03	Ditto	10.59	10.20	9.51	9.09	0.42	48.00	0.009	114	18.770	225	Polyethylene (PE) pipe (PE100-RC)	1.33	52.822	47.540	28.770	39%	OK!
HSK-03	HSK-04	Ditto	10.20	10.30	9.09	8.81	0.28	50.00	0.006	179	18.770	225	Polyethylene (PE) pipe (PE100-RC)	1.06	42.076	37.868	19.098	50%	OK!
HSK-04	HSK-05	Ditto	10.30	10.23	8.81	8.77	0.04	7.80	0.005	195	18.770	225	Polyethylene (PE) pipe (PE100-RC)	1.01	40.226	36.203	17.433	52%	OK!
HSK-05	HSK-06	Ditto	10.23	10.40	8.77	8.56	0.21	38.00	0.006	181	18.770	225	Polyethylene (PE) pipe (PE100-RC)	1.05	41.792	37.613	18.843	50%	OK!
The Existing Sewers along Castle Peak Road - Hung Shui Kiu (Peaking Factor = 6)																			
HSK-06	FMH1036685	The subject development + Uptown	10.40	10.32	8.56	8.46	0.10	8.00	0.013	80	52.618	400	concrete drain	1.68	211.663	190.496	137.879	28%	OK!
FMH1036685	FMH1043120	Ditto	10.32	9.92	8.45	8.35	0.10	41.70	0.002	417	52.618	375	concrete drain	0.71	77.904	70.114	17.496	75%	OK!
FMH1043120	FMH1036686	The subject development + Uptown + 0.5 x Woodside	9.92	10.28	8.35	8.32	0.03	3.20	0.009	107	55.190	375	concrete drain	1.40	154.319	138.887	83.697	40%	OK!
FMH1036686	FMH1036687	Ditto	10.28	10.38	8.32	8.25	0.07	19.10	0.004	273	55.190	375	concrete drain	0.87	96.377	86.739	31.549	64%	OK!
FMH1036687	FMH1036688	Ditto	10.38	10.77	7.65	7.00	0.65	41.70	0.016	64	55.190	375	concrete drain	1.80	199.071	179.164	123.974	31%	OK!
FMH1036688	FMH1036689	The subject development + Uptown + Woodside	10.77	10.64	6.40	6.36	0.04	3.20	0.013	80	57.763	375	concrete drain	1.61	178.237	160.414	102.651	36%	OK!
FMH1036689	FMH1036690	Ditto	10.64	10.92	6.36	6.24	0.12	41.20	0.003	343	57.763	375	concrete drain	0.78	85.886	77.297	19.535	75%	OK!
FMH1036690	FMH1036691	Ditto	10.92	11.00	6.24	6.11	0.13	39.20	0.003	302	57.763	375	concrete drain	0.83	91.664	82.498	24.735	70%	OK!

Peak Design Flows (l/s)
The subject develop 18.77 (for Peaking Factor = 8)
14.08 (for Peaking Factor = 6)
Uptown 38.54 (for Peaking Factor = 6)
Woodside 6.86 (for Peaking Factor = 8)
5.15 (for Peaking Factor = 6)



APPENDIX 6

DRAINAGE SUBMISSION

Drainage Submission

in support of

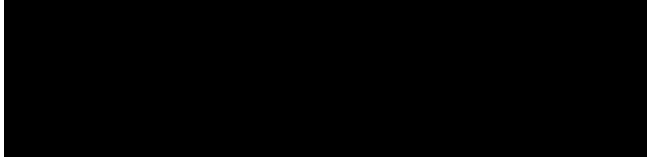
**Section 12A Application for Proposed Rezoning from
"Comprehensive Development Area" and "Green Belt" Zones
to "Residential (Group A)4" Zone and To Amend the Notes of the
Zone Applicable to the Site for Proposed Residential Development
and Social Welfare Facility (Residential Care Home for the
Elderly)
at Lots 398 RP and 2188 in D.D. 121, Tai Tao Tsuen,
Hung Shui Kiu, New Territories**

(HT 23121)

April 2026

Drainage Consultant:

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED



Prepared & approved by	LEE Kwok Cheung <i>RPE(Civil)</i> (Registration No. RP0159301)	
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CONTENT

1. Background
2. Objectives and Scope of this Report
3. The Subject Site and Proposed Development
4. Existing Drainage Conditions of the Subject Site
5. Approach and Methodology of Drainage Assessment
6. Proposed Drainage Works
7. Conclusion and Recommendations

FIGURES

Figure D1 - Drainage Path and Catchment Areas

Figure D2 - Extract of the Relevant Recorded Existing Drainage Information of the Area
retrieved from the GEOINFO Map

Figure D3 - Existing Public Stormwater Drainage Layout in the Immediate Vicinity

Figure D4 - Proposed Stormwater Drainage Layout

Figure D5 - Site Sections

DSD Standard Drawing No. DS 1090A (2 sheets)

APPENDIX

Appendix - Hydraulic Calculations

1. Background

- 1.1 Ho Tin & Associates Consulting Engineers Limited was appointed by the Client to prepare this drainage submission to support a Section 12A Application for proposed rezoning from "Comprehensive Development Area" and "Green Belt" Zones to "Residential (Group A)4" Zone and amend the Notes of the Zone applicable to the site for Proposed Residential Development and Proposed Social Welfare Facility (Residential Care Home for the Elderly).

2. Objectives and Scope of this Report

- 2.1 The objective of this report is to propose drainage works in support of the proposed development (the 'subject development') in ensuring no unacceptable adverse drainage impact to be caused on the subject site and the surrounding areas.
- 2.2 The scope of this report includes:
- (i) identifying existing/planned drainage conditions of the subject area;
 - (ii) evaluating flooding susceptibility and potential drainage impacts on the subject area; and
 - (iii) proposing drainage improvement works.

3. The Subject Site and Proposed Development

- 3.1 The subject site comprises of at Lots 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories. It has an area of about 2,138m² and is located on the southeastern side of the 'Uptown' residential development and is bounded by Fui Sha Wai South Road on the northeastern side. It is proposed to develop a Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly). The site location is shown on **Figure D1**.

4. Existing Drainage Conditions of the Subject Site

- 4.1 The subject site is located on a generally flat area bounded by the 'Uptown' residential development and Fui Sha Wai South Road/Hung Tin Road which are now served by own stormwater drainage systems and would not discharge onto the subject site.
- 4.2 The subject site was previously used as open storage and is vacant and fenced off at present. With respect to the drainage information retrieved recently from the GEOINFO Map, there should have an existing 450U channel running to the southeast in front of the northeastern boundary of the subject site. The 450U channel would discharge into a 525mm diameter drain and then into an existing 2000mm x 2000mm box culvert to the east of the subject site.
- 4.3 Besides, there is an existing 300mm diameter drain at the east side of the subject site collecting surface flow from the subject site and discharging into the existing 2000mm x 2000mm box culvert. An extract of the relevant records of the existing drainage information of the area retrieved from the GEOINFO Map is shown on **Figure D2**.
- 4.4 Colour photos (locations of the photo taken shown in **Figure D3**) showing the existing drainage conditions of the subject area are shown in the following:

	
Plate No. 1 – Existing conditions of the subject site	Plate No. 2 – General view of Fui Sha Wai South Road in front of the subject site entrance (an existing village-type refuse collection point is located on the opposite side of the subject site)



Plate No. 3 – Existing conditions of the subject site entrance (Existing Catchpit 1 is located on the right hand side of the entrance but no existing 450U channel is found)



Plate No. 4 – Existing Catchpit 1 and the adjacent existing U channel which is separated from the Existing Catchpit 1 and conveys flow toward Castle Peak Road – Hung Shui Kiu



Plate No. 5 – Far view toward the existing 2000mm x 2000mm channel showing existing Catchpit 2 located beside Fui Sha Wai South Road



Plate No. 6 – Existing Catchpit 2 which should receive flow from an existing 450U channel and discharge into an existing 525mm diameter drain with respect to the GEOINFO Map

	
Plate No. 7 – View back toward the subject site entrance from the existing 2000mm x 2000mm channel/box culvert	Plate No. 8 – Existing 2000mm x 2000mm channel to the east of the subject site
	
Plate No. 9 – Outlet of an existing 525mm diameter drain at the existing 2000mm x 2000mm box culvert (under the road) to the east of the subject site	Plate No. 10 – Outlet of an existing 300mm diameter drain at the existing 2000mm x 2000mm channel to the east of the subject site

5. Approach and Methodology of Drainage Assessment

- 5.1 Capability of the existing drainage is assessed and new drainage is proposed in this report. Assessment criteria is based on the recommendation set out in the Stormwater Drainage Manual (Fifth edition, Jan 2018) (SDM) and its Corrigendum No. 1/2022, 1/2024 and 2/2024 issued by DSD. Design Return Period of 200 and 50 years (recommended for 'Main Rural Catchment Drainage Channel' in SDM) is adopted for assessing the internal drainage and the existing 2000mm x 2000mm channel respectively.

5.2 Flow directions of the surface runoff and catchment boundaries of the subject area is shown in **Figure D1**, and assessment of the major drainage is illustrated in the **Appendix** of this report.

5.3 The corresponding runoffs under rainfall intensity for various return period are worked out with reference to Rational Method. Brandy-Williams method is used in calculation of the time of concentration. A uniformly distributed rainfall with an intensity is determined by the Intensity-Duration-Frequency. With referenced to Table 3a - Storm Constants for different return periods of HKO Headquarters from SDM, the rainfall profiles are derived based on the following equation:

$$i = \frac{a}{(t + b)^c}$$

where i = mean rainfall intensity (mm/hr)
 t = duration time of concentration (min)
 a, b and c = storm constants given in Table below

Table : Storm Constants

Return Period (years)	200	50
a	508.8	505.5
b	3.46	3.29
c	0.322	0.355

5.4 A 16.0% rainfall increase is adopted in the hydraulic calculation to cater for effects due to climate change in accordance with the table 28 with projection to End of 21st Century as stipulated in the item (e) and (k) of the SDM - Corrigendum No. 1/2022. Besides, taking into consideration of design allowance in End of 21st Century, a further 12.1% rainfall increase is incorporated into the hydraulic assessment.

5.5 Hydraulic assessment is enclosed in the **Appendix**. 10% reduction in flow area has been incorporated to cater for potential deposition of sediment in stormwater channels and pipes as recommended in the SDM. The proposed channels and underground drainage are designed to cater for the estimated runoff under the designed rainstorms. With respect to the calculation, the proposed stormwater drainage system is capable to cater for the surface runoff without causing any adverse drainage impacts on the subject site and its surroundings. Since all drainage would have sufficient spare capacity, no water backup will occur at the upstream under the design rainstorm return periods.

- 5.6 The subject proposed development would not alter the existing drainage patterns of the area and the surface runoff of the subject proposed development would be properly collected and conveyed to an appropriate discharge point. No blockage of any existing flow paths would be incurred.

6. Proposed Drainage Works

- 6.1 Peripheral channels with catchpits will be constructed to intercept all surface runoff running across the subject site boundary. Stormwater falling onto the roofs of the proposed building(s) of the subject development will be collected and conveyed to proposed channels on ground level by building drains.
- 6.2 The flows inside the surface channels and peripheral channels will be eventually discharged into a terminal manhole with desilting trap (details refer to DSD Standard Drawing No. DS 1090A) from which the flows will be further discharged into the existing 2000 x 2000mm channel to the east of the subject site. The existing 300mm diameter discharge pipe would be abandoned and a new 450mm diameter drain will be constructed to connect the proposed terminal manhole to the existing 2000 x 2000mm channel.
- 6.3 With respect to the hydraulic assessment enclosed in the **Appendix** of this report, the proposed drainage is adequate to properly convey the estimated peak flow into the existing 2000mm x 2000mm box culvert to the east of the subject site without causing any flooding.
- 6.4 Capacity of the existing 2000mm x 2000mm channel/box culvert has also been assessed and is confirmed to be adequate to convey the estimated peak flow without flooding. A summary table showing the hydraulic capacity/utilisation for the existing and proposed drainage facilities in the designed return period is shown below for reference:

USCP/USMH (refer to Figure D4)	DSCP/DSMH (refer to Figure D4)	SLOPE (1 in)	SIZE (mm)	CHANNEL TYPE	VELOCITY (m/s)	ADOPTED 90% FLOW CAPACITY (m ³ /s) (to cater for potential deposition of sediment)	OCCUPANCY OF THE PROPOSED PIPE / CHANNEL
Starting Point A	CP1.1	200	450	UC	1.28	0.21	65.1%
CP1.1	CP1.2	200	450	UC	1.28	0.21	64.6%
CP1.2	CP1.3	200	450	UC	1.28	0.21	62.7%
CP1.3	CP1.4	200	450	UC	1.28	0.21	61.4%
CP1.4	CP1.5	200	450	UC	1.28	0.21	61.1%
CP1.5	TM	200	450	UC	1.28	0.21	60.9%
Starting Point B	CP2.1	200	450	UC	1.28	0.21	70.1%
CP2.1	CP2.2	200	450	UC	1.28	0.21	69.6%
CP2.2	CP2.3	200	450	UC	1.28	0.21	69.2%
CP2.3	CP2.4	200	450	UC	1.28	0.21	68.5%
CP2.4	CP2.5	200	450	UC	1.28	0.21	68.3%
CP2.5	CP2.6	200	450	UC	1.28	0.21	66.7%
CP2.6	CP2.7	200	450	UC	1.28	0.21	66.2%
CP2.7	CP2.8	200	450	UC	1.28	0.21	65.8%
CP2.8	CP2.9	200	450	UC	1.28	0.21	65.4%
CP2.9	TM	200	450	UC	1.28	0.21	65.2%
TM	Outlet	50	450	concrete pipe	2.88	0.41	62.9%
The Existing 2000mm x 2000mm Box Culvert							
highest point	Point Z	-	-	-	-	-	-
Point Z	Point Y	500*	2000	box culvert	2.13	7.68	67.7%

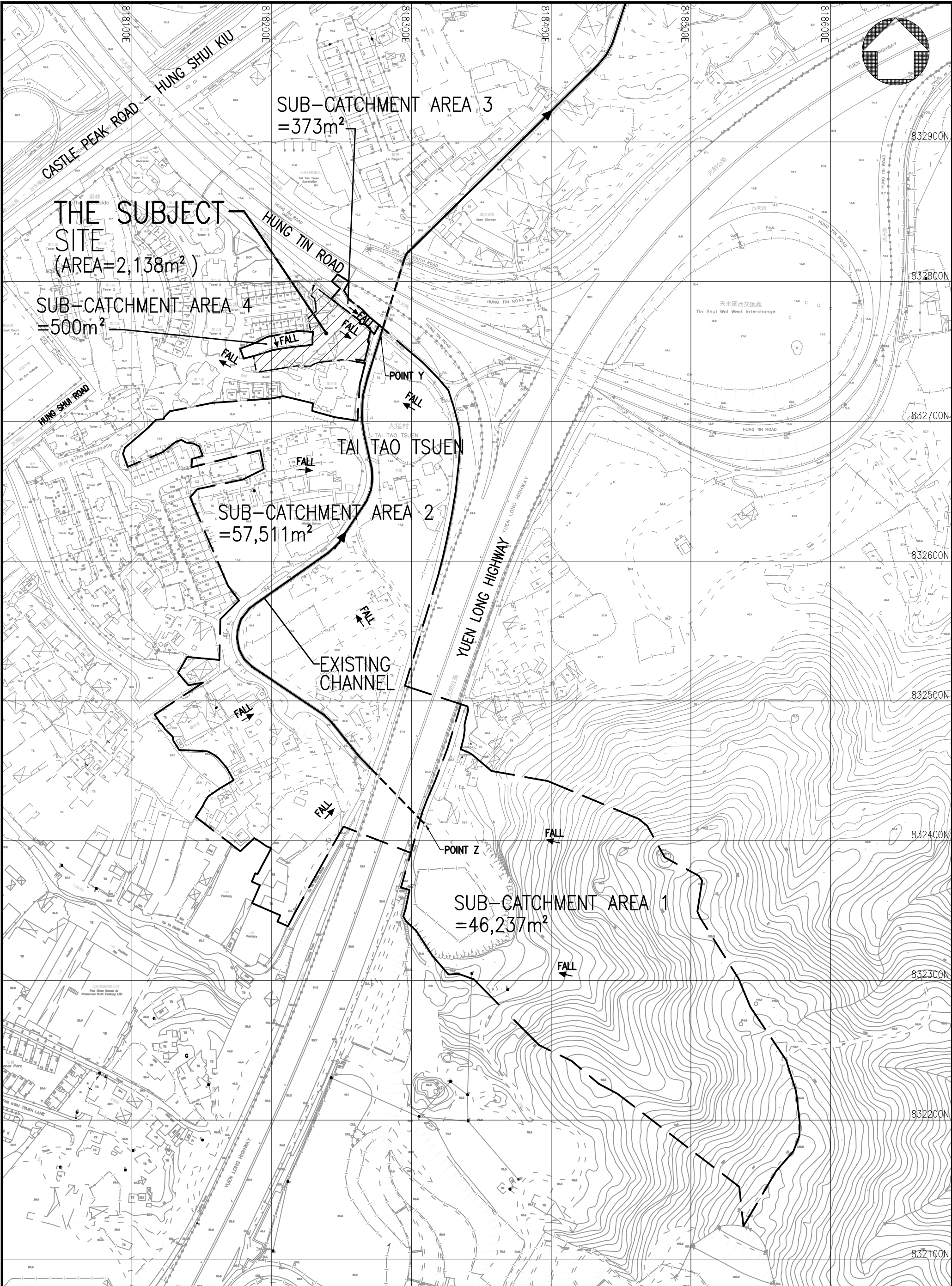
* gradient of the section of the channel adjoining the subject site

- 6.5 A proposed stormwater drainage layout is shown on **Figure D4**, and Site Sections are shown in **Figure D5**. Detailed designs of the drainage system (including building drains) will be submitted to relevant government departments via Buildings Department's central processing mechanism for approval at the later stage. No insurmountable technical problems is envisaged.
- 6.6 The applicant is committed to obtain all necessary consents from the relevant government departments and lot owners, where necessary, in constructing the proposed drainage provisions outside the subject site boundary before construction.

7. Conclusion and Recommendations

- 7.1 The subject site area is now vacant and fenced off. It is proposed to be developed into a residential development and Social Welfare Facility (Residential Care Home for the Elderly).
- 7.2 All stormwater collected by the surface channels and building drains of the subject development will be conveyed into a terminal manhole with desilting trap from which the flows will be discharged via a proposed new 450mm diameter drain (the existing 300mm diameter drain would be abandoned) to the existing 2000mm x 2000mm channel to the east of the subject site which was checked to be adequate to convey the estimated peak flow. The flow incurred by the subject development would not overload the existing drainage of the subject area.
- 7.3 Detailed drainage connecting works designs will be submitted to the Building Authority for central processing for approval at the later stage. No insurmountable technical problems is envisaged.
- 7.4 The applicant will obtain all necessary consents from the relevant government departments and lot owners, where necessary, for constructing the proposed drainage provisions outside the subject site boundary prior to construction.
- 7.5 The subject proposed development would neither alter the existing drainage patterns nor obstruct the flow paths of the area. In conclusion, the subject development with implementation of the proposed drainage connecting works will not cause any adverse drainage impacts onto the area.

H:\23121_Lot 2188\DRAWING\23121_FIGURE D1_01 D3_00 & D4_01.dwg, 11/2/2026 12:01:41



PROJECT		何田顧問工程師有限公司 HO TIN & ASSOCIATES CONSULTING ENGINEERS LIMITED	
TITLE		SCALE	DRAWING No.
DRAINAGE PATH AND CATCHMENT AREAS		1 : 2500 - A3	FIGURE D1

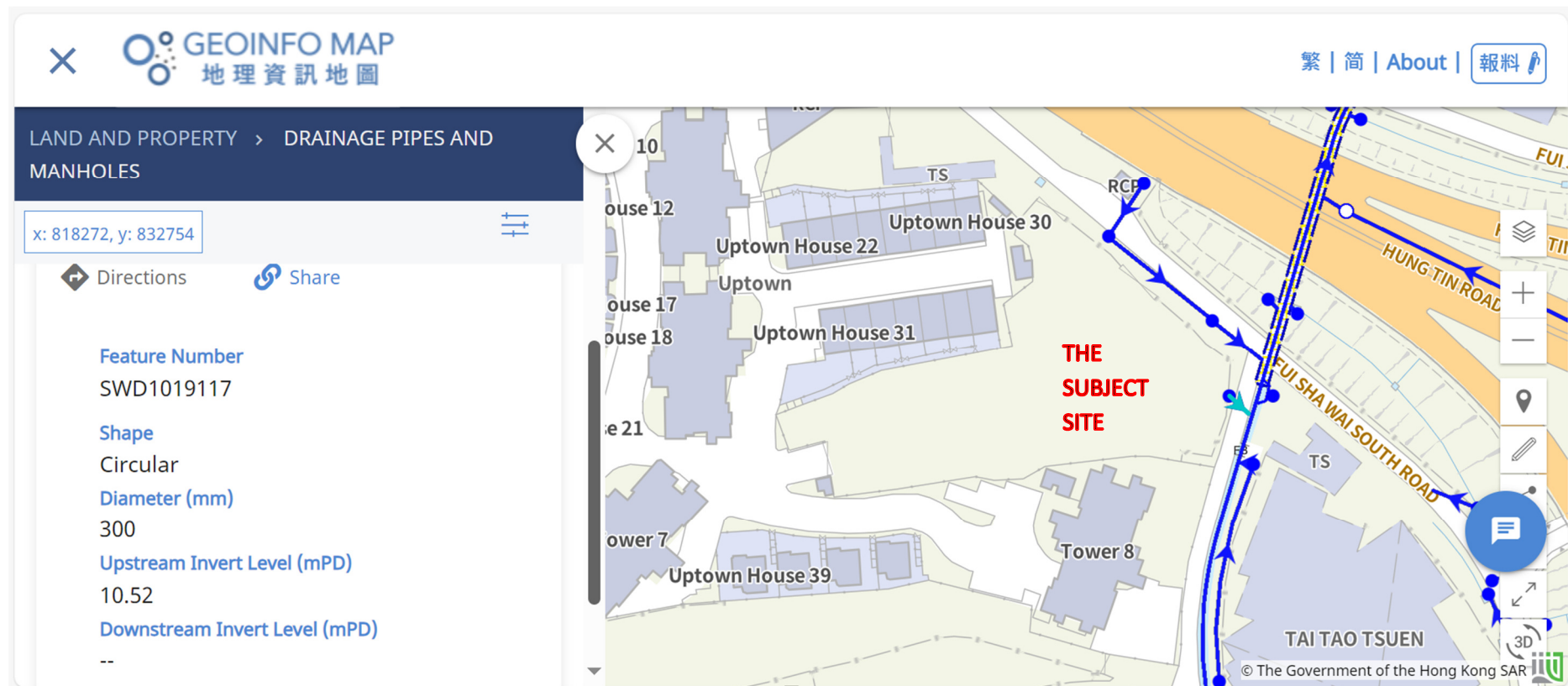
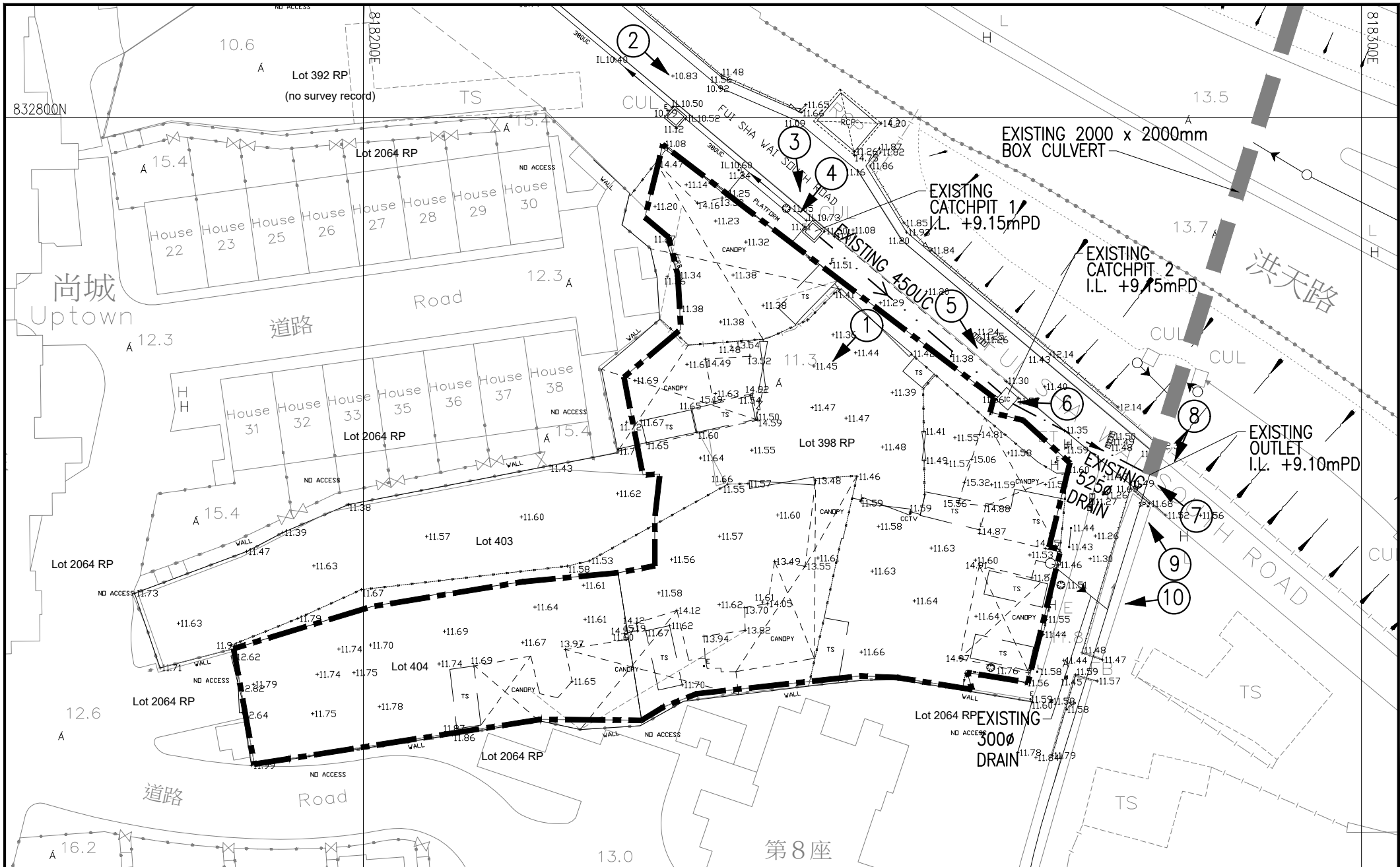


FIGURE D2 - Extract of the Relevant Recorded Existing Drainage Information of the Area retrieved from the GEOINFO Map

H:\23121_Lot 2188\DRAWING\23121_FIGURE D1 D3 & D4.dwg, 26/8/2025 14:59:10



LEGEND:



THE SUBJECT SITE

450UC

EXISTING U-CHANNEL

525Ø

EXISTING DRAIN



EXISTING STORMWATER DRAINAGE



LOCATION OF PHOTO TAKEN
(N-PLATE NO.)

PROJECT

TITLE

EXISTING PUBLIC STORMWATER DRAINAGE LAYOUT
IN THE IMMEDIATE VICINITY
(REFER TO GEOINFO MAP'S INFORMATION)

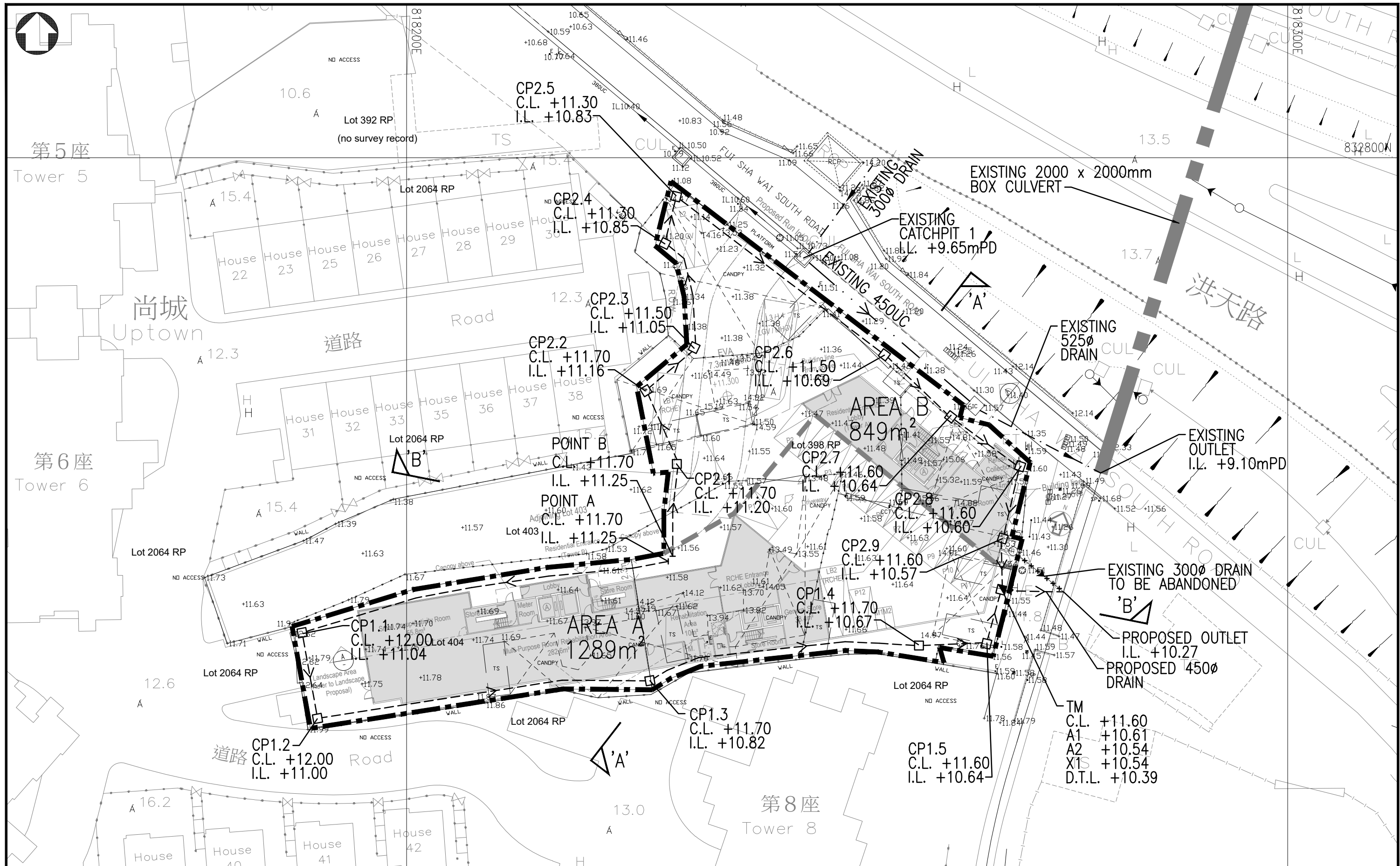
何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

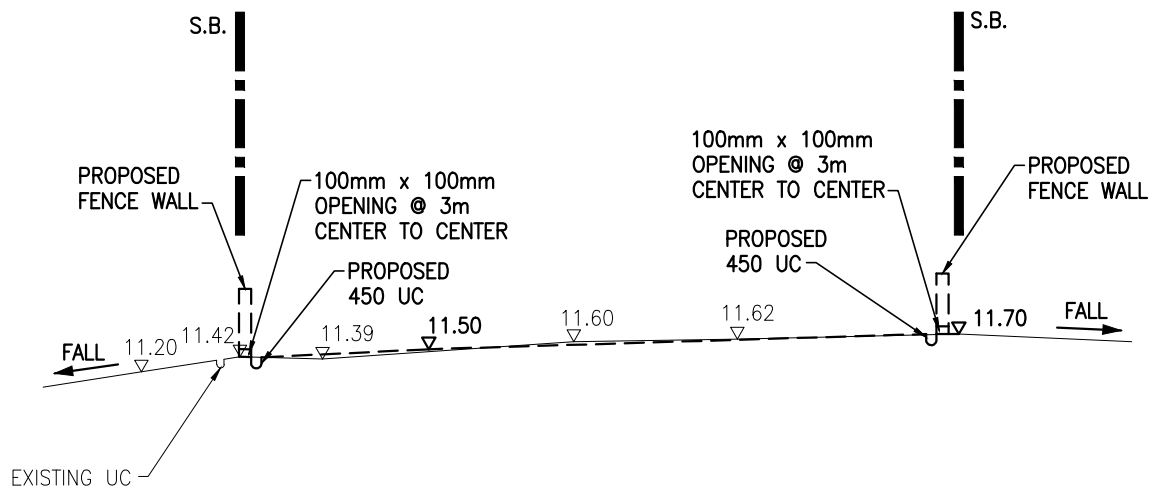
SCALE

1 : 500 - A4

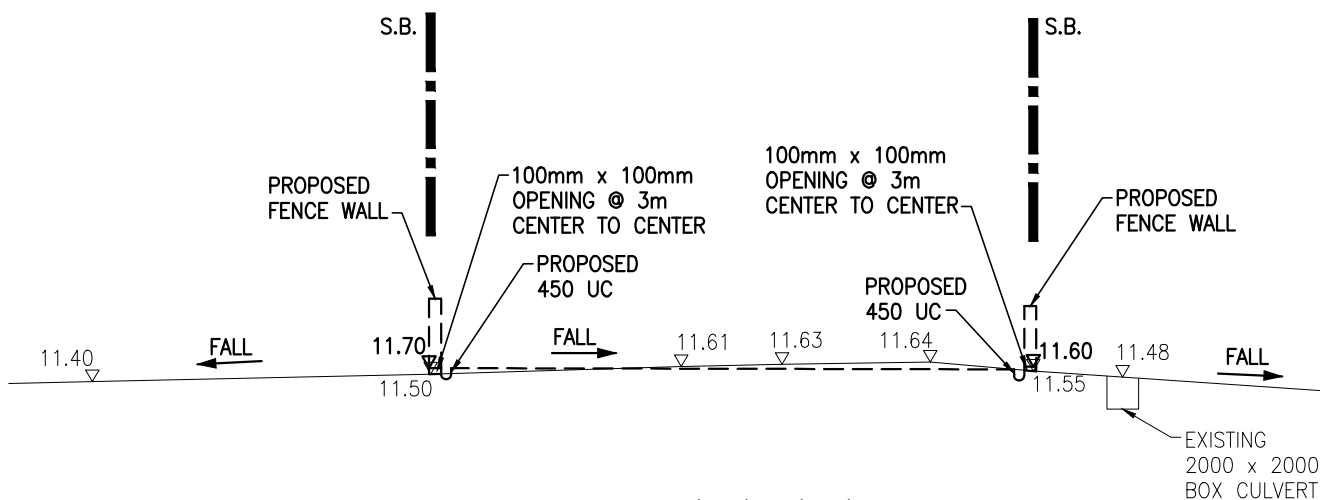
DRAWING No.

FIGURE D3





SECTION 'A'-'A'



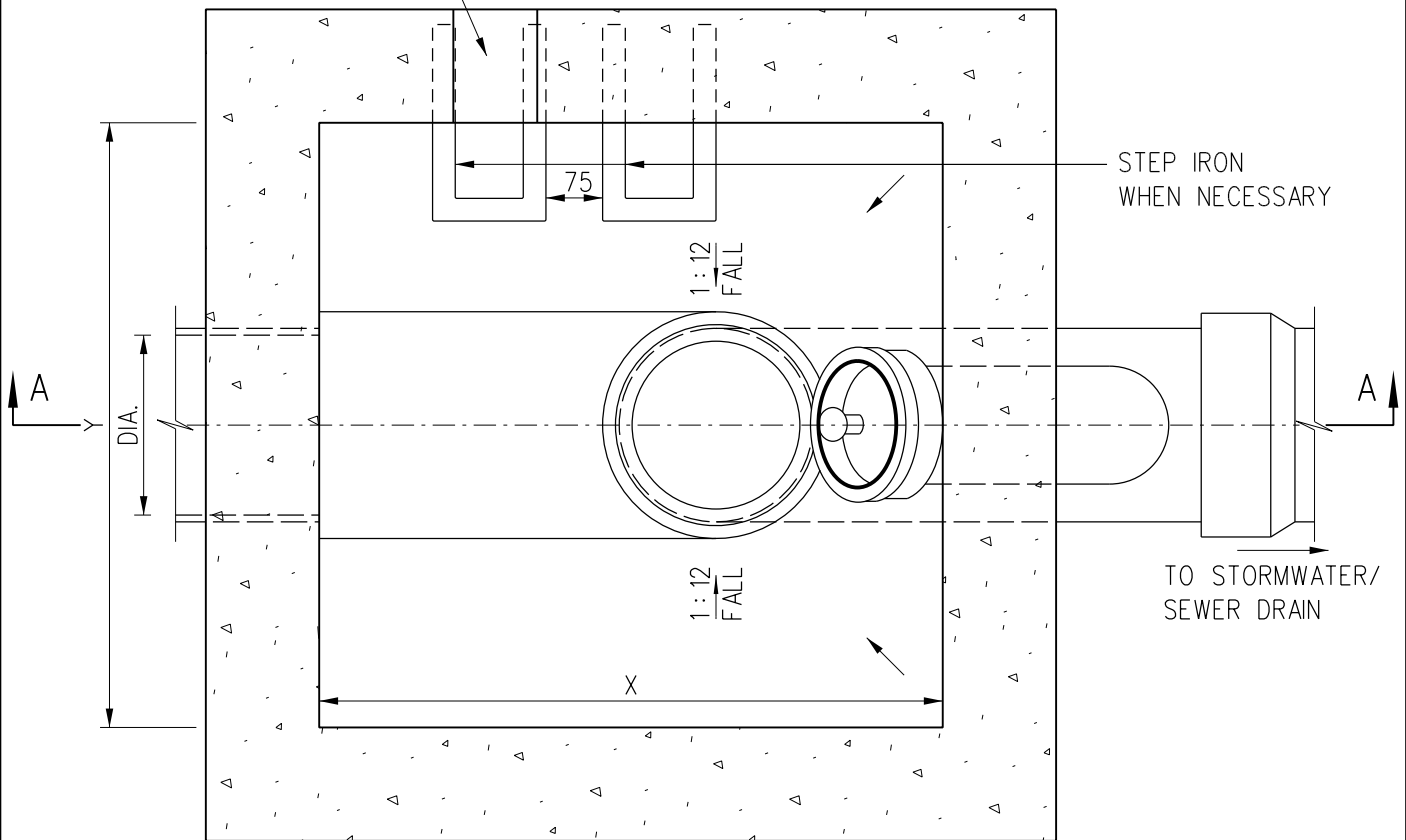
SECTION 'B'-'B'

LEGEND

- · — · — · SITE BOUNDARY
- - - - - PROPOSED GROUND LEVEL
- EXISTING GROUND LEVEL

PROJECT	何田顧問工程師有限公司 HO TIN & ASSOCIATES CONSULTING ENGINEERS LIMITED	
TITLE SITE SECTIONS	SCALE N.T.S.	DRAWING No. FIGURE D5

OPENING FOR F.A.I.
(FOR SEWER MANHOLE ONLY)



SECTIONAL PLAN

MANHOLE COVER OPENING SIZE (mm)	450	675
X (mm)	600 (min)	825 (min)
Y (mm)	(DIA. + 500)	(DIA. + 500) OR 675, WHICHEVER IS GREATER

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. CONCRETE IS TO BE GRADE 30/20.
3. PIPE DIAMETER OF PIPE TO BE LESS THAN OR EQUAL TO 450 mm.
4. FOR MANHOLE COVER OPENING SIZE 675, RECESS WITH SQUARE STEEL ROD SHALL BE PROVIDED AT TOP OF MANHOLE CHAMBER FOR INSTALLING MONITORING DEVICE(S). DETAILS REFER TO DSD STANDARD DRAWING NO. DS 1099.

A	NOTE 4 ADDED & DRAWING AMENDED	ORIGINAL SIGNED	2.8.2022
	NEW ISSUE	ORIGINAL SIGNED	13.1.2016
REV.	DESCRIPTION	SIGNATURE	DATE

**TERMINAL MANHOLE
TYPE T1_1**

DRAINAGE SERVICES DEPARTMENT

REFERENCE

DRAWING No.

SCALE

1 : 10

DS 1090A
(SHEET 1 OF 2)

APPENDIX - HYDRAULIC CALCULATION

Assessment of Hydraulic Capacities of the Proposed Drainage System for 1 in 200 year design return period

Using Rational Method
Design Flow = 0.278C/A m³/s for grassland (heavy soil) - steep, C = 0.35
for grassland (heavy soil) - flat, C = 0.25
for concrete surface, C = 0.95

Using Manning Equation
Design Mean Velocity = R^{1/6}/n(RS_p)^{1/2} where n = 0.016 for concrete-lined open channel with fair surface
(ref. Table13 in SDM) 0.045 for natural stream channels, winding some pools and shoals with some weeds and stones with fair surface

Using GEV distribution model in frequency analysis
Rainfall intensity = a / (t_b+b)^c where a = 508.8 , b= 3.46 and c= 0.322 in 200 year design return period, for internal drainage
505.5 3.29 0.355 in 50 year design return period, for Main Rural Catchment Drainage Channels
referenced from Table 3a in Corrigendum No. 1/2024 of SDM - Storm Constants for Different Return Periods of HKO Headquarters

Using Bransby William's Equation (for channel flow)
Inlet time t₀ = 0.14465L / (H^{0.2}A^{0.1}) or 2 when the distance is too short

Using Colebrook's White Equation (for pipe flow)
V = - Sqrt (8gDs) x log [k_s / 3.7D + 2.51v / (D x Sqrt (2gDs))]
For precast concrete pipes with 'O' ring joints with poor condition,
k_s (mm) = 0.6 k_s (m) = 0.0006
v (m²/s) = 1.00E-06
g (m²/s) = 9.81

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	
USCP/USMH (refer to Figure D4)	DSCP/DSMH (refer to Figure D4)	Collected Runoff from Catchment (refer to Figure D1 and D4)	USGL (mPD)	DSGL (mPD)	USIL (mPD)	DSIL (mPD)	INVERT DIFF. (m)	LENGTH OF CHANNEL / DRAIN l (m)	SLOPE s	SLOPE (1 in)	LENGTH FOR CALCULATION OF INLET TIME L (m)	AVERAGE SLOPE OF GROUND FOR CALCULATION OF INLET TIME H (m per 100m)	INLET TIME t ₀ (min) = 0.14465 x [L/(H ^{0.2} x A ^{0.1})]	TIME OF FLOW INSIDE CHANNEL/ DRAIN t _f (min) = l/v (i.e. Column (9) + Column (26) ÷ 60)	TIME OF CONCENTRATION t _c (min) = t ₀ + t _f	RAINFALL INTENSITY i (mm/hr)	RAINFALL INTENSITY INCLUDING EFFECT OF CLIMATE CHANGE (+16.0%*) (mm/hr) [refer to item (e) and (k) in SDM Corrigendum No. 1/2022]	ADOPTED RAINFALL INTENSITY INCLUDING EFFECT OF CLIMATE CHANGE (+16.0%) & DESIGN ALLOWANCE (12.1%) (mm/hr) [refer to item (e), (k) and (n) in SDM Corrigendum No. 1/2022]	RUNOFF COEF. C	SUB- CATCHMENT AREA A (m ²)	EFF. CAT. AREA (m ²)	CUM. EFF. CAT. AREA (m ²)	DESIGN FLOW (m ³ /s)	SIZE (mm)	CHANNEL TYPE	VELOCITY (m/s)	FLOW CAPACITY (m ³ /s)	ADOPTED 90% FLOW CAPACITY (m ³ /s) (to cater for potential deposition of sediment)	SPARE CAPACITY (m ³ /s)	OCCUPANCY OF THE PROPOSED PIPE / CHANNEL	
Starting Point A	CP1.1	Site Area A	11.70	12.00	11.250	11.043	0.208	41.50	0.005	200	10.00	0.50	0.81	0.54	1.35	306.80	355.89	398.95	0.95	1,289	1,225	1,225	0.136	450	UC	1.28	0.23	0.21	0.073	65.1%	OK!
CP1.1	CP1.2	ditto	12.00	12.00	11.043	10.998	0.045	9.00	0.005	200	-	-	1.35	0.12	1.47	304.44	353.15	395.88	0.95	0	0	1,225	0.135	450	UC	1.28	0.23	0.21	0.074	64.6%	OK!
CP1.2	CP1.3	ditto	12.00	11.70	10.998	10.818	0.180	36.00	0.005	200	-	-	1.47	0.47	1.94	295.67	342.98	384.48	0.95	0	0	1,225	0.131	450	UC	1.28	0.23	0.21	0.078	62.7%	OK!
CP1.3	CP1.4	ditto	11.70	11.70	10.818	10.673	0.145	29.00	0.005	200	-	-	1.94	0.38	2.31	289.31	335.60	376.21	0.95	0	0	1,225	0.128	450	UC	1.28	0.23	0.21	0.081	61.4%	OK!
CP1.4	CP1.5	ditto	11.70	11.60	10.673	10.638	0.035	7.00	0.005	200	-	-	2.31	0.09	2.40	287.86	333.92	374.32	0.95	0	0	1,225	0.127	450	UC	1.28	0.23	0.21	0.081	61.1%	OK!
CP1.5	TM	ditto	11.60	11.60	10.638	10.613	0.025	5.00	0.005	200	-	-	2.40	0.06	2.47	286.84	332.73	373.00	0.95	0	0	1,225	0.127	450	UC	1.28	0.23	0.21	0.082	60.9%	OK!
Starting Point E	CP2.1	Site Area B + Sub-catchment 4	11.70	11.70	11.250	11.200	0.050	10.00	0.005	200	10.00	0.50	0.81	0.13	0.94	315.80	366.33	410.65	0.95	1,349	1,282	1,282	0.146	450	UC	1.28	0.23	0.21	0.062	70.1%	OK!
CP2.1	CP2.2	ditto	11.70	11.70	11.200	11.160	0.040	8.00	0.005	200	-	-	0.94	0.10	1.04	313.43	363.58	407.58	0.95	0	0	1,282	0.145	450	UC	1.28	0.23	0.21	0.063	69.6%	OK!
CP2.2	CP2.3	ditto	11.70	11.50	11.160	11.050	0.033	6.50	0.005	200	-	-	1.04	0.08	1.13	311.56	361.41	405.14	0.95	0	0	1,282	0.144	450	UC	1.28	0.23	0.21	0.064	69.2%	OK!
CP2.3	CP2.4	ditto	11.50	11.30	11.050	10.850	0.053	10.50	0.005	200	-	-	1.13	0.14	1.26	308.63	358.02	401.34	0.95	0	0	1,282	0.143	450	UC	1.28	0.23	0.21	0.066	68.5%	OK!
CP2.4	CP2.5	ditto	11.30	11.30	10.850	10.830	0.020	4.00	0.005	200	-	-	1.26	0.05	1.32	307.55	356.76	399.92	0.95	0	0	1,282	0.142	450	UC	1.28	0.23	0.21	0.066	68.3%	OK!
CP2.5	CP2.6	ditto	11.30	11.50	10.830	10.688	0.143	28.50	0.005	200	-	-	1.32	0.37	1.69	300.24	348.27	390.42	0.95	0	0	1,282	0.139	450	UC	1.28	0.23	0.21	0.070	66.7%	OK!
CP2.6	CP2.7	ditto	11.50	11.60	10.688	10.643	0.045	9.00	0.005	200	-	-	1.69	0.12	1.80	298.07	345.76	387.60	0.95	0	0	1,282	0.138	450	UC	1.28	0.23	0.21	0.071	66.2%	OK!
CP2.7	CP2.8	ditto	11.60	11.60	10.643	10.600	0.043	8.50	0.005	200	-	-	1.80	0.11	1.91	296.08	343.46	385.01	0.95	0	0	1,282	0.137	450	UC	1.28	0.23	0.21	0.071	65.8%	OK!
CP2.8	CP2.9	ditto	11.60	11.60	10.600	10.565	0.035	7.00	0.005	200	-	-	1.91	0.09	2.00	294.49	341.60	382.94	0.95	0	0	1,282	0.136	450	UC	1.28	0.23	0.21	0.072	65.4%	OK!
CP2.9	TM	ditto	11.60	11.60	10.565	10.543	0.023	4.50	0.005	200	-	-	2.00	0.06	2.06	293.48	340.43	381.63	0.95	0	0	1,282	0.136	450	UC	1.28	0.23	0.21	0.073	65.2%	OK!
TM	Outlet	Site Area + Sub-catchment 4	11.60	11.50	10.393	10.273	0.120	6.00	0.020	50	-	-	2.47	0.03	2.50	286.30	332.11	372.30	0.95	0	0	2,506	0.259	450	concrete pipe	2.88	0.46	0.41	0.153	62.9%	OK!
The Existing 2000mm x 2000mm Box Culvert																															
highest point	Point Z	Sub-catchment 1	133.30	20.90	-	-	-	-	-	-	370.00	30.38	9.24	0.00	9.24	-	-	-	0.35	46,237	16,183	18,689	-	-	-	-	-	-	-	-	-
Point Z	Point Y	Sub-catchment 1, 2, 3 & 4 + Site Area	20.90	11.69	18.900	9.100	9.800*	450.00	0.002	500	-	-	9.24	3.52	12.75	188.73	218.93	245.42	0.95	57,884	54,990	76,185	5.198	2000	box culvert	2.13	8.53	7.68	2.481	67.7%	OK!

* For information/reference only; general gradient of the channel section adjoining the Application Site, i.e. 1 in 500, is adopted for this hydraulic assessment

check total catchment 106,759

Sub-Catchment Area 1 = 46,237
Sub-Catchment Area 2 = 57,511
Sub-Catchment Area 3 = 373
Sub-Catchment Area 4 = 500
Area A = 1,289
Area B = 849

Area of The Site (A+B) = 2,138

Total = 106,759 m²

Flow inside the channel 5.198 m³/s

corresponding water level inside the channel 1.35 m

10.45 mPD



APPENDIX 7

LANDSCAPE PROPOSAL

**SECTION 12A APPLICATION FOR PROPOSED REZONING
FROM “COMPREHENSIVE DEVELOPMENT AREA” AND “GREEN BELT” ZONES
TO “RESIDENTIAL (GROUP A)4” ZONE AND TO AMEND THE NOTES OF THE ZONE
APPLICABLE TO THE SITE FOR PROPOSED RESIDENTIAL DEVELOPMENT AND
SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)
AT LOT NOS. 398 RP AND 2188 IN D.D. 121, TAI TAO TSUEN,
HUNG SHUI KIU, NEW TERRITORIES**

Landscape Proposal

1st Submission

by



Date: 27 August 2026

On behalf of

Right Fortune Investment Limited

CONTENTS

- 1.0 Introduction
- 2.0 The Site and Its Context
- 3.0 The Proposed Development
- 4.0 Existing Vegetation
- 5.0 Landscape Proposal
 - 5.1 Landscape Design Concept
 - 5.2 Hard Materials
 - 5.3 Soil Depth and Drainage for Planting
 - 5.4 Irrigation
 - 5.5 Communal Open Spaces
 - 5.6 Site Coverage of Greenery
 - 5.7 Planting Framework
 - 5.8 Future Maintenance
- 6.0 Planting Proposal

APPENDICES

- Appendix A Tree Survey Plan, Tree Assessment Schedule and Photographic Record of Existing Trees
- Appendix B Landscape Master Plan and Landscape Details
- Appendix C Planting Plans
- Appendix D Common Greenery and Open Space Provision
- Appendix E Maintenance Schedule of Soft Landscape Works

1.0 INTRODUCTION

- 1.1 The proposed residential development and social welfare facility (Residential Care Home for the Elderly) (“the Proposed Development”) is located at Lot Nos. 2188 & 398 RP in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, Yuen Long, New Territories. 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 as required in the Planning Department’s Practice Note for Professional Persons No. 1/2019. 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 CONTEXT

- 2.1 The proposed Development is located to the immediate southeast of Uptown while Tin Shui Wai West Interchange is located to its east with site area of about 2,138m². It is bounded by Fui Sha Wai South Road on its east. The current vehicular to the Site is Castle Peak Road – Hung Shui Kiu via Fui Sha Wai Road and a local access. The site location plan shall refer to Figure 1 below.

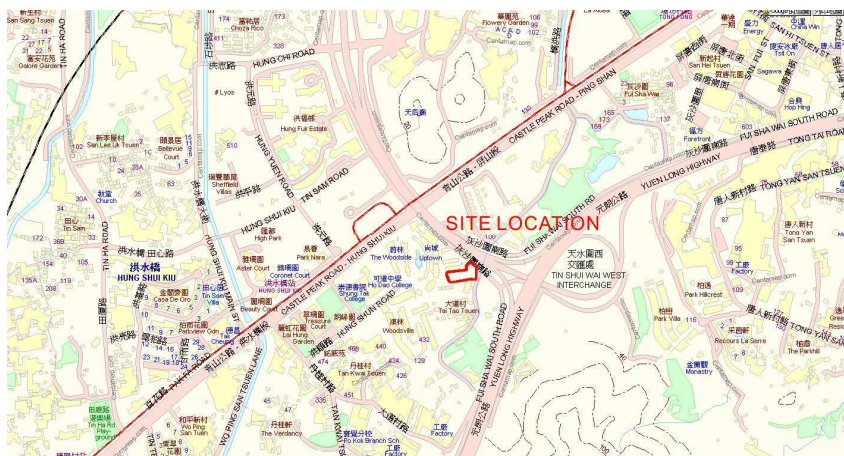


Figure 1 Site Location Plan

- 2.2 The site itself is gently flat and is currently vacant and fenced off. Majority of the Site is covered by bare soil with weed and only portion of land close to entrance is covered by concrete.
- 2.3 The landscape character of the site and its surrounding is mixed of low-rise and high-rise residential development and village houses, e.g. Uptown, the Woodside, the Woodsville, Le Regent and road corridors, e.g. Yuen Long Highway, Castle Peak Road – Hung Shui Kiu.

3.0 THE PROPOSED DEVELOPMENT

- 3.1 The development comprises two 6-storey residential development situated on top of an 7-storey RCHE. A podium garden is proposed at flat roof of 7th floor, while ancillary facilities such as a carpark and E/M rooms are located at G/F. Drawings of the proposed development can be referred to the building plans submitted with the planning application, and the indicative development schedule is outlined as follows:

Table 1.0 Indicative Development Schedule

Site Area	About 2,138 m ²
Mean Street Level	11.30mPD
Building Height	Not exceeding 60mPD
Domestic Site Coverage	about 26.6%
Non-Domestic Site Coverage	about 55.2%
Total Non-Domestic GFA	about 6,961 m ²
Non-Domestic Plot Ratio	about 3.26
Total Domestic GFA	about 3,528 m ²
Domestic Plot Ratio	about 1.65
No. of Population:	645

- 3.2 The vehicular road and footpath connect from Fui Sha Wai South Road at **+11.30mPD** to the central part of the proposed development at **+11.30mPD**. The formation level of the site follows the local topography in order to minimize the extent of site formation works. As the ground level needs to be recontoured and some vegetation will be affected by the site formation work, a detailed tree assessment will be provided in Paragraph 4.0 below.

4.0 EXISTING VEGETATION

- 4.1 A tree survey was carried out on **9 January 2025** in accordance with LAO PN No. 6/2023. A total of **2** trees were recorded within the Application Site Boundary. The tree survey schedule, tree survey plan and photographic record of existing trees are shown in **Appendix A** and are outlined below:

Table 2.0 Species Composition of Existing Trees

No.	Scientific Name	Chinese Name	Qty	Tree No.
1	<i>Dimocarpus longan</i>	龍眼	1	T01
2	<i>Ficus benjamina</i>	垂葉榕	1	T02
		Total:	2	

- 4.2 The tree species recorded are mostly common species found in Hong Kong. Both of them are in mature size and in fair health conditions. It is confirmed that no Old and Valuable Trees, OVT and protected species were identified in accordance with the DEVB TWC No. 5/2020 – Registration and Preservation of Old and Valuable Trees and Countryside Ordinance (Cap. 96) respectively.

Impact of the Proposed Development

- 4.3 The impact of the Proposed Development is generally caused by site formation works, construction of new building, the vehicular access/EVA, removal of existing vegetation for construction elements, and related construction activities, including excavation works for E&M reserves and structural footings. The proposed building layout has been overlaid on the Tree Survey Plan in **Appendix A** to illustrate the impact on the existing trees.

Retention of Trees

- 4.4 The construction of the new building, associated traffic provisions and the demolition of existing structures, will occupy nearly all outdoor areas within the Site. Due to the development activities and limited space remaining, it will not be feasible to retain any of the existing trees in situ.

Felling and Transplantation of Trees

- 4.5 For trees that will be in conflict with the proposed works shall be proposed to be transplanted if they fulfil all the criteria below:
- Trees have high amenity value;
 - Trees with good form and health;
 - Suitable access;
 - Tree species able to be transplanted easily;

- e. Trees have suitable size and;
- f. Trees are young to semi-mature.

4.6 In this project, **2** existing trees within the Site Boundary are in direct conflict with the proposed works and cannot be retained in situ. None of the disturbed trees meet the criteria for transplantation.

4.7 **2** affected trees, namely **T01** – *Dimocarpus longan* and **T02** – *Ficus benjamina*, are common hillside species in Hong Kong. As they are propagated from the adjacent hillsides, their root systems are highly susceptible to environmental changes, resulting in a relatively low survival rate after transplantation. Additionally, both trees are growing along the site boundary and are mature specimens. It is not practical to form viable and well-balanced root balls by excavating the adjacent road outside the site, and transporting such mature trees within the site during construction is also unfeasible. Therefore, it is proposed to remove these trees and replace them with quality trees as compensation.

4.8 **The proposed treatment to existing tree is summarized in table below:**

Table 3.0 Summary of Treatment to Existing Trees

Proposed Treatment to Existing Trees	No. of Trees
Number of Trees to be Retained	0
Number of Trees to be Felled	2
Number of Trees to be Transplanted	0
Total Number of Trees in Survey	2

5.0 LANDSCAPE PROPOSAL

5.0.1 The aim of the landscape proposals is to respond to site conditions, building form and function and to provide a quality landscape scheme. The main factors to be taken into consideration are:

- Response to the site context, both in terms of landscape character and visual amenity;
- Response to the proposed building and its architectural style;
- Creation of a green setting by maximising the opportunity for soft landscape;
- Establishment of pleasant landscape areas which meet the varying needs of staffs, users and visitors; and
- Minimization of future maintenance requirements.

5.0.2 Landscape Master Plan showing the proposed landscape treatment and their underlying principles have been attached in **Appendix B** for ease of reference.

5.0.3 The detail design of the Communal Open Space should consider the following relevant guidelines/legislation:

- Hong Kong Planning Standards and Guidelines;
- Technical Guidelines on Landscape Treatment for Slopes (GEO Publication No. 1/2011);
- 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; and
- PNAP APP 152 – Sustainable Building Design Guidelines;
- 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).

5.1 Landscape Design Concept

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

Integration of the development with the surrounding landscape

5.1.2 The provision of traffic facilities, including vehicular driveways, maneuvering spaces, and parking lots, occupies the majority of the open space at ground floor (G/F). To enhance greenery along the driveway, planting beds with evergreen trees and shrubs are proposed. The site is bounded by high retaining structures associated with the adjoining development, *Uptown*, on its south and west sides. In areas where space for planting is available, buffer planting strips featuring ornamental trees and shrubs are proposed. These planting strips, consisting of ornamental trees, shrubs, and groundcover,

are intended to create soft-edged boundaries along the site’s periphery. Please refer to the landscape sections and Landscape Master Plans in **Appendix B**. This design aims to facilitate a seamless transition between the development and the adjacent natural and built environments. Along the eastern boundary, the building has been strategically setback **5m** from Fui Sha Wai South Road. Planting verges and widened pedestrian pavement is proposed at setback area. The planting verges will be designed with adequate growing mediums to support the proposed vegetation, which will primarily consist of evergreen species.

Landscaped Garden at G/F and 7/F

- 5.1.3 Landscape open spaces are proposed at ground floor (G/F) and seventh floor (7/F) levels to cater to the recreational needs of both users and visitors respectively. Several landscaped open spaces, including an sitting gardens and a gathering courtyard are planned in vacant locations on the ground floor, creating inviting areas for social interaction and community activities. At the 7/F, outdoor spaces comprising a yoga area, terrace garden, fitness equipment zones and a viewing platform are designed to offer a variety of recreational and relaxation options. These gardens will be equipped with outdoor furniture and recreational facilities and will feature a diverse selection of plants to create attractive green spaces. The refined paving materials and carefully curated plant combinations are intended to enhance the development’s visual appeal by adding richness in color, texture, and visual gradation, ensuring a vibrant and aesthetically pleasing environment for all users.

Planting Design

- 5.1.4 Due to the building configuration, proposed planting is mainly located in planting strips along the site boundary, which will also serve to create a landscape and visual buffer to the new building. This will provide a soft segregation between the Site and the surrounding environment. Species should be selected for their pollution tolerance, drought resistance, and capability to provide a strong visual buffer.
- 5.1.5 Where practicable and feasible, heavy standard trees, medium shrubs, and foliage plants are proposed. These soft landscape measures will soften the hard lines of the Proposed Development. The use of heavier standard-sized vegetation will provide a more immediate greening effect. Planting Plans are included in **Appendix C**.

5.2 Hard Materials

- 5.2.1 Hard materials will be selected to create feature paved areas. The creation of simple patterns, e.g. through the use of banding in contrasting colours, can be used adjacent to the site and building entrances.

- 5.2.2 Paving on podium levels shall be artificial tiles of regular size and texture. Paving used for vehicular traffic shall be of adequate thickness to withstand the required loading. For kerb, planters and walls, artificial tiles with similar colour and texture are proposed and in line with the overall colour tone of the landscape.
- 5.2.3 The provision of landscape paving has been carefully integrated and responded to the architectural design, ensuring that the paving materials, layout, and detailing complement the overall architectural concept. This cohesive approach enhances the visual harmony between the landscape and built elements, creating a seamless transition that reinforces the design intent while providing functional and aesthetically pleasing outdoor spaces. The design of the paving not only supports accessibility and circulation but also contributes to the overall aesthetic quality and identity of the development.
- 5.2.4 The design of the hard landscape elements has been developed in accordance with the Elderly-Friendly Design Guidelines of “Design Manual Barrier Free Access 2008 (2025 Edition)”. This ensures that materials, finishes, and layouts are optimized for accessibility, safety, and ease of use for elderly users. Features such as non-slip surfaces, appropriate bench heights, and clear, unobstructed pathways have been incorporated to create an inclusive environment that promotes comfort and convenience for all users, particularly the elderly.
- 5.2.5 The range of recommended materials is listed in table 4.0 below.

Table 4.0 Summary of Hard Materials

Location	Description
Vehicular Access	
Carpark	Concrete/ Concrete Pavers
Road Kerb	Concrete
Pedestrian Areas	
Copings/ Steps	Artificial Granite Tile/ Homogeneous Tile
Sitting Garden	Artificial Granite Tile/ Homogeneous Tile
Amenity Area	Artificial Granite Tile/ Homogeneous Tile

5.3 Soil Depth and Drainage for Planting

- 5.3.1 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 layer, water-proofing and protective screeding exclusive is listed below:

Table 5.0 Planting Medium (Soil Depth)

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

- 5.3.2 All Planting areas on slab shall be provided with sub-soil drainage system with drainage cells with filter fabrics.

5.4 Irrigation

- 5.4.1 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.

5.5 Communal Open Spaces

- 5.5.1 Recreational facilities are proposed at the G/F and 7/F podium garden to cater to the recreational needs of the occupants of the RCHE and residential units respectively. The communal open spaces are equipped with outdoor furniture, such as seating and fitness equipment, to enhance comfort and promote social interaction among users. In addition, the viewing deck at 7/F will help to foster interaction among future users of residential units while offering a scenic vantage point. In designing these areas, particular attention has been paid to safety requirements for elderly users, including selecting furniture with smooth edges, stable and secure fixtures, and appropriate heights to facilitate ease of use.
- 5.5.2 It is expected that there will be about **645** occupants at the Proposed Development while the proposed area of the communal open spaces under application shall not be less than **645** m². Please refer to the Communal Open Space Calculation in **Appendix D**.

5.6 Site Coverage of Greenery

- 5.6.1 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 D**:

Table 6.0 Common Greenery Calculation

Required Common Greenery	
Site Area:	2,138.0m ²
Minimum Total Common Greenery:	2,138m ² x 20% = 427.60m ²
Minimum Common Greenery at Primary Zone:	2,138m ² x 10% = 213.80m ²
Provided Common Greenery	
Common Greenery Area at Primary Zone (G/F):	278.05m ² (>213.80m ²)
Common Greenery Area at Other Areas (7/F)	208.20m ²
Total Common Greenery Area:	486.25m ² (>427.60 m ²)
Total Green Coverage in Common Area	486.25/2,138.0 x 100% = <u>22.74%</u>

- 5.6.2 The proposed greenery at common area is approx. **486.25m²** which exceeds the required 20% greenery requirement, i.e. **427.60m²**. 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. **278.05m²** which also exceeds the required **213.80m²**.

5.7 Planting Framework

Planting adjacent to Car Park

- 5.7.1 Tree Planting adjacent to the car park to soften its hard appearance and create a more pleasant environment for its use. Species should be selected which are pollution and drought tolerant and which provide a good visual buffer.

Planting adjacent to Building

- 5.7.2 Tree planting adjacent to the building shall be used to create a landscape and visual buffer to the new building. This will also provide segregation between the building and public environment.

Planting adjacent to Amenity Area

- 5.7.3 Flowering trees are proposed at the amenity area to create a tranquil and pleasant environment for the visitors. Due to the local topography, shady species will be selected to adapt the hillside environment.

Planting adjacent to Refuse Collection Point (RCP)

- 5.7.4 The strategic placement of the refuse collection point to the southeast of the site takes advantage of the direction of the prevailing wind, allowing for the natural dispersion of odors and minimizing potential nuisance to the occupants. The use of fragrant plants, e.g. *Osmanthus fragrans*, *Murraya paniculata* around the RCP serves as a natural and aesthetically pleasing way to further mitigate odors and enhance the olfactory experience in the vicinity. Fragrant plants provide a pleasant aroma, masking any lingering odors and creating a more inviting and enjoyable environment.

5.8 Future Maintenance

Hard Landscape Elements

- 5.8.1 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

- 5.8.2 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 management office. Please refer to the maintenance schedule for soft landscape works in **Appendix E**.
- 5.8.3 Ultimately the management office will employ maintenance staff to take care of all landscape areas within the site.

6.0 PLANTING PROPOSALS

6.1 In order to provide quality landscape for the proposed development, soft landscape works will be the major landscape element of the landscaping proposal and satisfy the following criteria:

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

6.2 The proposed planting species list is shown as follows and details shall refer to the Planting Plan in **Appendix C**.

Table 7.0 Planting Schedule

Botanical Name	Chinese Name	Height x Spread x DBH (mm)	Spacing (mm)	Native/ Exotic
TREES				
<i>Jacaranda mimosifolia</i>	藍花楸	4500x2000x75	4000	Exotic
<i>Millettia pinnata</i>	水黃皮	3500x1500x75	4000	Native
<i>Terminalia mantaly 'Tricolor'</i>	花葉欖仁	4000x2000x75	4000	Exotic
<i>Thespesia populnea</i>	恒春黃槿	4000x2000x75	4000	Native
Botanical Name	Chinese Name	Height x Spread (mm)	Spacing (mm)	Native/ Exotic
SHRUB PLANTING				
<i>Codiaeum variegatum 'Gloriosa'</i>	紅葉洒金榕	450x400	400	Exotic
<i>Duranta repens 'Golden'</i>	黃金金露花	300x250	250	Exotic
<i>Ixora chinensis</i>	龍船花	500x450	450	Native
<i>Murray paniculatus</i>	九里香	500x450	400	Exotic
<i>Osmanthus fragrans</i>	桂花	500x450	400	Exotic
<i>Rhapis humilis</i>	小葉棕竹	450x300	300	Exotic

<i>Rhaphiolepis indica</i>	石斑木	450x300	300	Native
<i>Rhododendron simsii</i>	紅杜鵑	300x250	250	Native
GROUND COVER				
<i>Dieffenbachia picta</i>	白班萬年青	400x350	350	Exotic
<i>Lantana montevidensis</i>	小葉馬櫻丹	400x350	350	Native
<i>Ligustrum sinense</i>	山指甲	350x300	300	Native
<i>Nephrolepis auriculata</i>	腎蕨	350x300	300	Native

- 6.3 In this study area, a total of **2** trees within the Application Site Boundary were recorded. **None** of the surveyed trees will be retained in-situ while all **2** trees inside the Site will be felled due to in conflict with the Proposed Development and the associated works.
- 6.4 **17** heavy standard trees with average DBH approx. **75** mm are proposed to be planted to compensate the loss of **2** existing trees. All new trees within the Application Site Boundary will all be maintained by the Applicant.
- 6.5 In view of the above, the tree compensation proposal can achieve a ratio not less than 1:1 in terms of quantity as follows:
- | | |
|---------------------------------|---------------|
| Quantity of loss of trees: | 2 nos. |
| Quantity of compensatory trees: | 17 nos. |
| Quantity compensation ratio | approx. 1:8.5 |

Appendix A

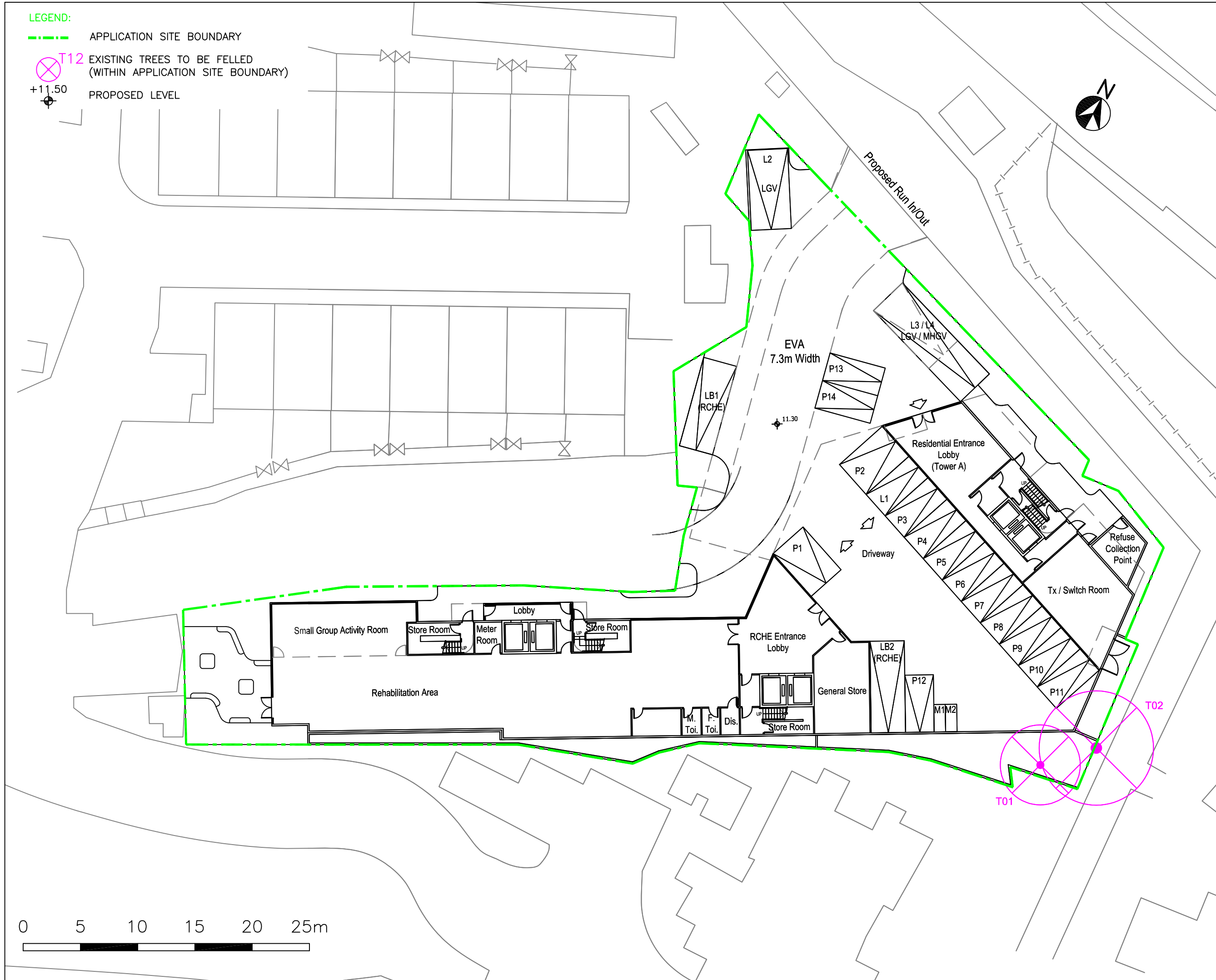
Tree Survey Plan, Tree Assessment Schedule

and

Photographic Record of Existing Trees

LEGEND:

- APPLICATION SITE BOUNDARY
- T12 EXISTING TREES TO BE FELLED
(WITHIN APPLICATION SITE BOUNDARY)
- +11.50 PROPOSED LEVEL



PROJECT :
SECTION 12A APPLICATION FOR PROPOSED REZONING FROM "COMPREHENSIVE DEVELOPMENT AREA" AND "GREEN BELT" ZONES TO "RESIDENTIAL (GROUP A)" ZONE AND TO AMEND THE NOTES OF THE ZONE APPLICABLE TO THE SITE FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY) AT LOT NOS. 398 RP AND 2188 IN D.D. 121, TAI TAO TSUEN HUNG SHUI KIU, NEW TERRITORIES

DRAWING TITLE :
TREE SURVEY PLAN

PROJECT No. C2225

DRAWING No. TS01

SCALE : 1:300

DATE OF ISSUE : JUL 2025

CAD FILENAME : C2225-TS01

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Tree Treatment Schedule at
Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone
and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly)
at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories
Prepared by Ted Lam (R.L.A. No. R-073) on 09/01/2025
To be read in conjunction with Tree Survey Plan, dwg. no. C2225-TS01

Tree	Species					Proposed Treatment	Remark ¹
No.	Scientific Name	Chinese Name	Height (m)	DBH ² (mm)	Crown Spread (m)	(Retain/Transplant/Fell)	
T01	<i>Dimocarpus longan</i>	龍眼	9	343	7	Fell	restricted root, cross branches with electric line
T02	<i>Ficus benjamina</i>	垂葉榕	12	442	10	Fell	restricted root, multiple attachments, cross branches, cross branches with electric line

Summary Table

Tree to be Retained	0
Tree to be Transplanted	0
Tree to be Felled	2 nos.
Total Number of Existing Trees	2 nos.

¹ Please state whether the OVT, potentially registrable OVT, trees of rare or protected species, trees with ecological and historical significance, etc. within and/or adjacent to the site is likely to be affected by the proposed development.

² DBH of a tree refers to its diameter at breast height (i.e. measuprooted at 1.3m above ground level)



T01 - Label (F)



T01 - Overview (F)



T01 - Trunk (F)



T01 - Crown (F)

LEGEND:

(R) - Retain , (F) - Fell , (T) - Transplant

Photographic Record of Existing Trees

SECTION 12A APPLICATION FOR PROPOSED REZONING FROM “COMPREHENSIVE DEVELOPMENT AREA” AND “GREEN BELT” ZONES TO “RESIDENTIAL (GROUP A)4” ZONE AND TO AMEND THE NOTES OF THE ZONE APPLICABLE TO THE SITE FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY) AT LOT NOS. 398 RP AND 2188 IN D.D. 121, TAI TAO TSUEN, HUNG SHUI KIU, NEW TERRITORIES



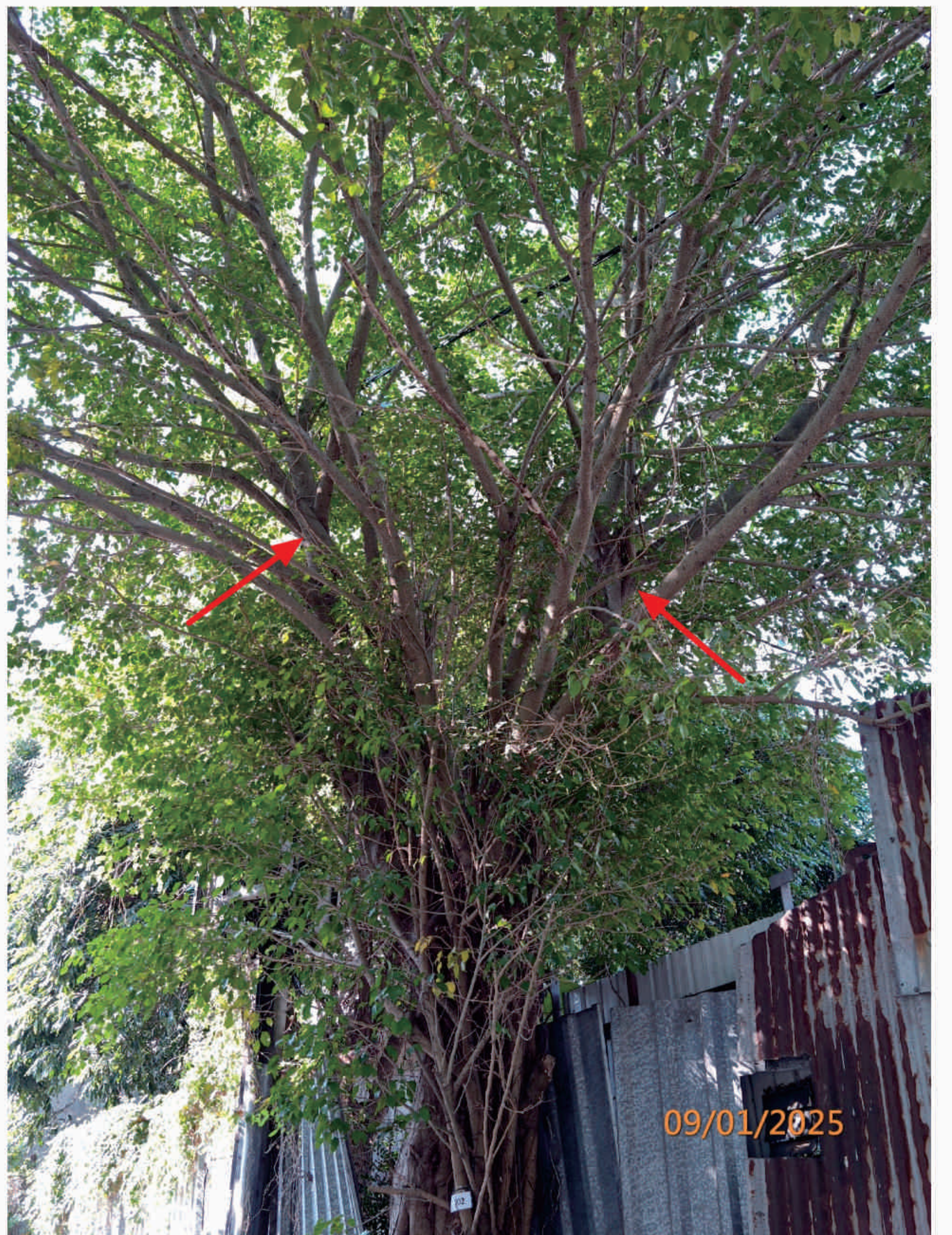
T02 - Label (F)



T02 - Overview (F)



T02 - Trunk (F)



T02 - Cross Branches (F)

LEGEND:
(R) - Retain , (F) - Fell , (T) - Transplant

Photographic Record of Existing Trees

LanDes

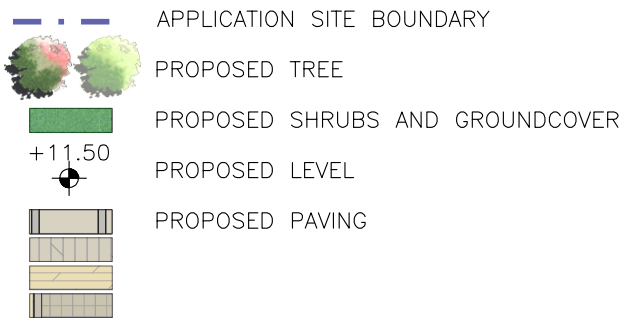
Appendix B

Landscape Master Plan

And

Landscape Details

LEGEND:



KEY:

- | | |
|--|-----------------------|
| ① Vehicular Access | ⑦ Sitting Garden |
| ② Parking Lots | ⑧ Gathering Courtyard |
| ③ Main Entrance to Building | ⑨ Yoga Place |
| ④ Peripheral Planters | ⑩ Fitness Equipment |
| ⑤ Right of Way for the adjacent Lot 403 in D.D.121 | ⑪ Viewing Platform |
| ⑥ Feature Tree | ⑫ Terrace Garden |

Provision of Edge Planters for Ornamental Trees and Shrubs to provide Smooth Transition Between the Development and the Adjoining Environment



Users and Visitors can enjoy the Open Ambience at Terrace Gardens

Provision of Functional Open Space including Gathering Courtyard and Sitting Gardens at G/F to cater for the Passive Recreational Need of the Users and Visitors

Provision of Edge Planters to soften the Hard Lines of Building Structures

0 5 10 15 20 25m



PROJECT :
SECTION 12A APPLICATION FOR PROPOSED REZONING FROM "COMPREHENSIVE DEVELOPMENT AREA" AND "GREEN BELT" ZONES TO "RESIDENTIAL (GROUP A)" ZONE AND ADJACENT LOT 403 (THE APPLICABLE APPLICABLE (FOR THE PURPOSE OF SPECIAL RESIDENTIAL DEVELOPMENT (ORANGE SOCIAL HOUSING) AND RESIDENTIAL DEVELOPMENT (FOR THE PURPOSE OF SPECIAL RESIDENTIAL DEVELOPMENT (ORANGE SOCIAL HOUSING) AT LOTS 888, 898 AND 908, 2ND ON 12D, 10/11/2025 HUNG SHUI KIU, NEW TERRITORIES

DRAWING TITLE :
LANDSCAPE MASTER PLAN
(OVERALL VIEW)

PROJECT No. C2225

DRAWING No. LMP01

SCALE : 1:300

DATE OF ISSUE : JUL 2025

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- LEGEND:
- APPLICATION SITE BOUNDARY
 - BUILDING LINE ABOVE
 - PROPOSED TREE
 - PROPOSED SHRUBS AND GROUNDCOVER
 - +11.50
 - PROPOSED LEVEL
 - PROPOSED PAVING

KEY:

- ① Vehicular Access
- ② Parking Lots
- ③ Main Entrance to Building
- ④ Peripheral Planters
- ⑤ Right of Way for the adjacent Lot 403 in D.D.121
- ⑥ Feature Tree
- ⑦ Sitting Garden
- ⑧ Gathering Courtyard

Provision of Edge Planters for Ornamental Trees and Shrubs to provide Smooth Transition Between the Development and the Adjoining Environment



Proposed Run In/Out

Fui Sha Wai South Road

Building Setback = 5m

EVA
7.3m Width

L3/L4
LGV/MHGV

Residential Entrance
Lobby
(Tower A)

Driveway

Refuse
Collection
Point

Tx / Switch Room

Small Group Activity Room

Store Room

Lobby

Meter Room

Store Room

Rehabilitation Area

RCHE Entrance
Lobby

General Store

LB2
(RCHE)

M1M2

M. Toi.
F. Toi.
Dis.

Store Room

Provision of Functional Open Space including Gathering Courtyard and Sitting Gardens... to cater for the Passive Recreational Need of the Users and Visitors

The use of fragrant plants, e.g. *Osmanthus fragrans*, *Murraya paniculata* around the RCP serves as a natural and aesthetically pleasing way to further mitigate odors and enhance the olfactory experience in the vicinity

PROJECT :

SECTION 12A APPLICATION FOR PROPOSED REZONING FROM "COMPREHENSIVE DEVELOPMENT AREA" AND "GREEN BELT" ZONES TO "RESIDENTIAL (GROUP A)" ZONE AND TO AMEND THE NOTES OF THE ZONE APPLICABLE TO THE SITE FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY) AT LOT NOS. 398 RP AND 2188 IN D.D. 121, TAI TAO TSUEN HUNG SHUI KIU, NEW TERRITORIES

DRAWING TITLE :

LANDSCAPE MASTER PLAN
(G/F)

PROJECT No. C2225

DRAWING No. LMP02

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0 5 10 15 20 25m



LEGEND:

- APPLICATION SITE BOUNDARY
- PROPOSED SHRUBS AND GROUNDCOVER
- +34.85 PROPOSED LEVEL
- PROPOSED PAVING

KEY:

- ① Terrace Garden
- ② Yoga Place
- ③ Fitness Equipment
- ④ Viewing Platform
- ⑤ Edge Planters

Provision of Edge Planters to Soften the Hard Lines of the Building Structures

Provision of Functional Open Space including Yoga Place, Fitness Equipment and Sitting Garden... to cater for the Recreational Need of the Users and Visitors

0 5 10 15 20 25m



PROJECT :

SECTION 12A APPLICATION FOR PROPOSED REZONING FROM "COMPREHENSIVE DEVELOPMENT AREA" AND "GREEN BELT" ZONES TO "RESIDENTIAL (GROUP A)4" ZONE AND TO AMEND THE NOTES OF THE ZONE APPLICABLE TO THE SITE FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY) AT LOT NOS. 398 RP AND 2188 IN D.D. 121, TAI TAO TSUEN HUNG SHUI KIU, NEW TERRITORIES

DRAWING TITLE :

LANDSCAPE MASTER PLAN (7/F)

PROJECT No. C2225

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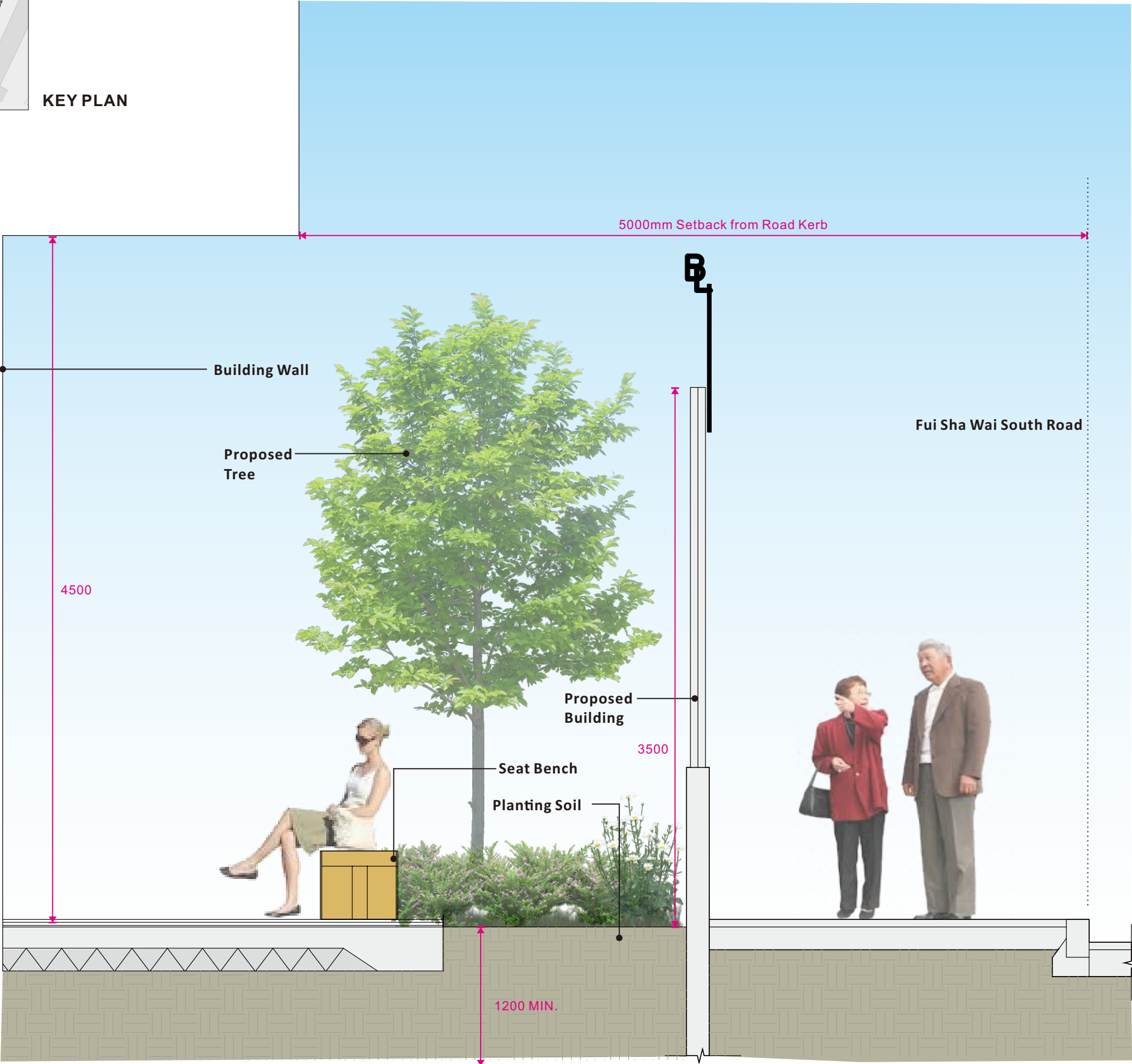
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KEY PLAN



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SECTION 12A APPLICATION FOR PROPOSED REZONING FROM "COMPREHENSIVE DEVELOPMENT AREA" AND "GREEN BELT" ZONES TO "RESIDENTIAL (GROUP A)4" ZONE AND TO AMEND THE NOTES OF THE ZONE APPLICABLE TO THE SITE FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)) AT LOT NOS. 398 RP AND 2188 IN D.D. 121, TAI TAO TSUEN HUNG SHUI KIU, NEW TERRITORIES

DRAWING TITLE :
LANDSCAPE SECTION

PROJECT No. C2225

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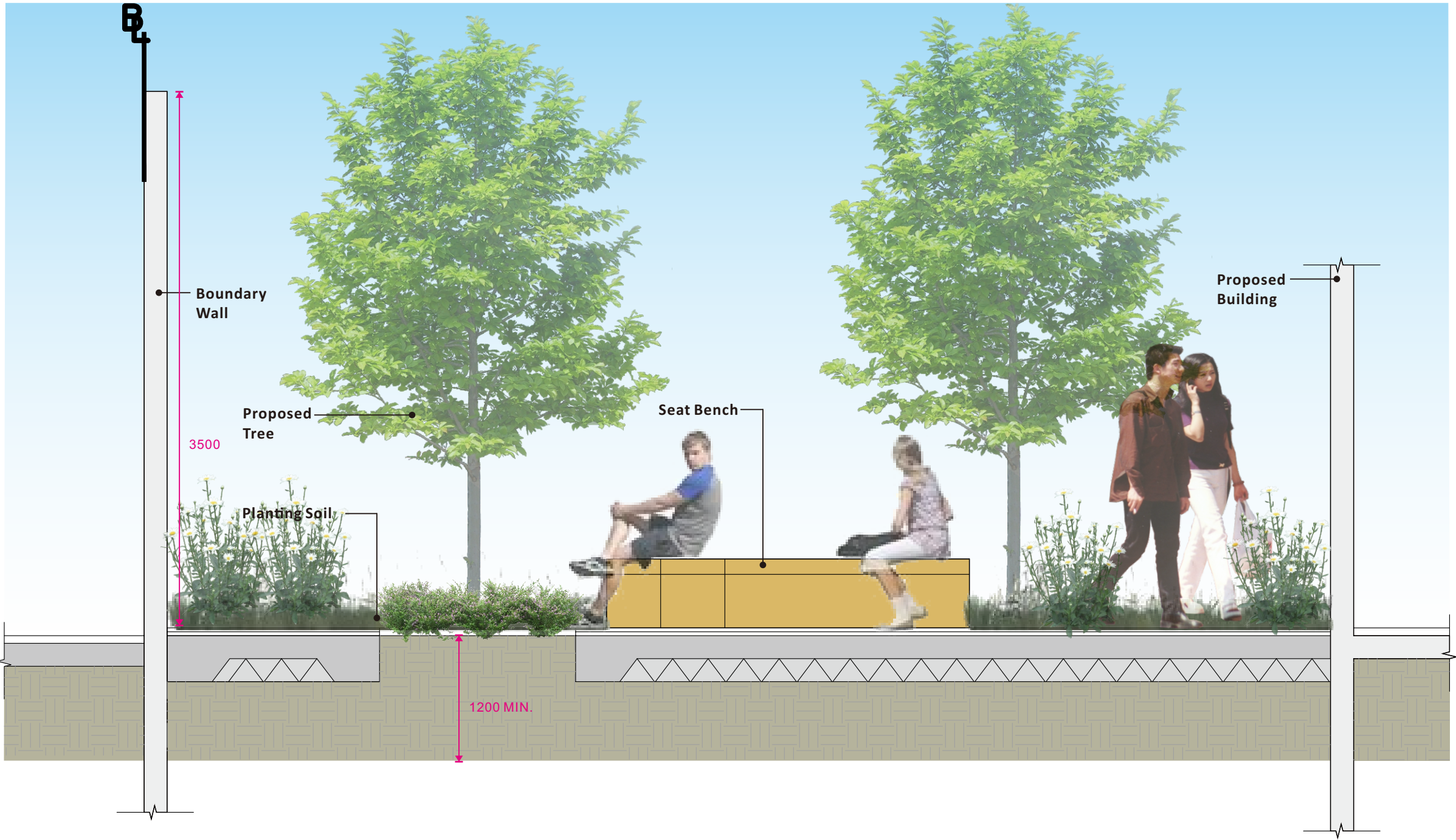
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KEY PLAN



PROJECT :
SECTION 12A APPLICATION FOR PROPOSED REZONING FROM "COMPREHENSIVE DEVELOPMENT AREA" AND "GREEN BELT" ZONES TO "RESIDENTIAL (GROUP A)4" ZONE AND AMEND THE NOTES OF THE ZONE APPLICABLE TO THE SITE FOR PROPOSED SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY) AND RESIDENTIAL DEVELOPMENT (SENIOR HOUSING) AT LOTS 398 RP AND 2188 IN D.D. 121, TAI TAO TSUEN HUNG SHUI KIU, NEW TERRITORIES

DRAWING TITLE :
LANDSCAPE SECTION

PROJECT No. C2225

DRAWING No. LD101

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DATE OF ISSUE : JUL 2025

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KEY PLAN

PROJECT :
SECTION 12A APPLICATION FOR PROPOSED REZONING FROM "COMPREHENSIVE DEVELOPMENT AREA" AND "GREEN BELT" ZONES TO "RESIDENTIAL (GROUP A)" ZONE AND TO AMEND THE NOTES OF THE ZONE APPLICABLE TO THE SITE FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY) AT LOT NOS. 398 RP AND 2188 IN D.D. 121, TAI TAO TSUEN HUNG SHUI KIU, NEW TERRITORIES

DRAWING TITLE :
LANDSCAPE SECTION

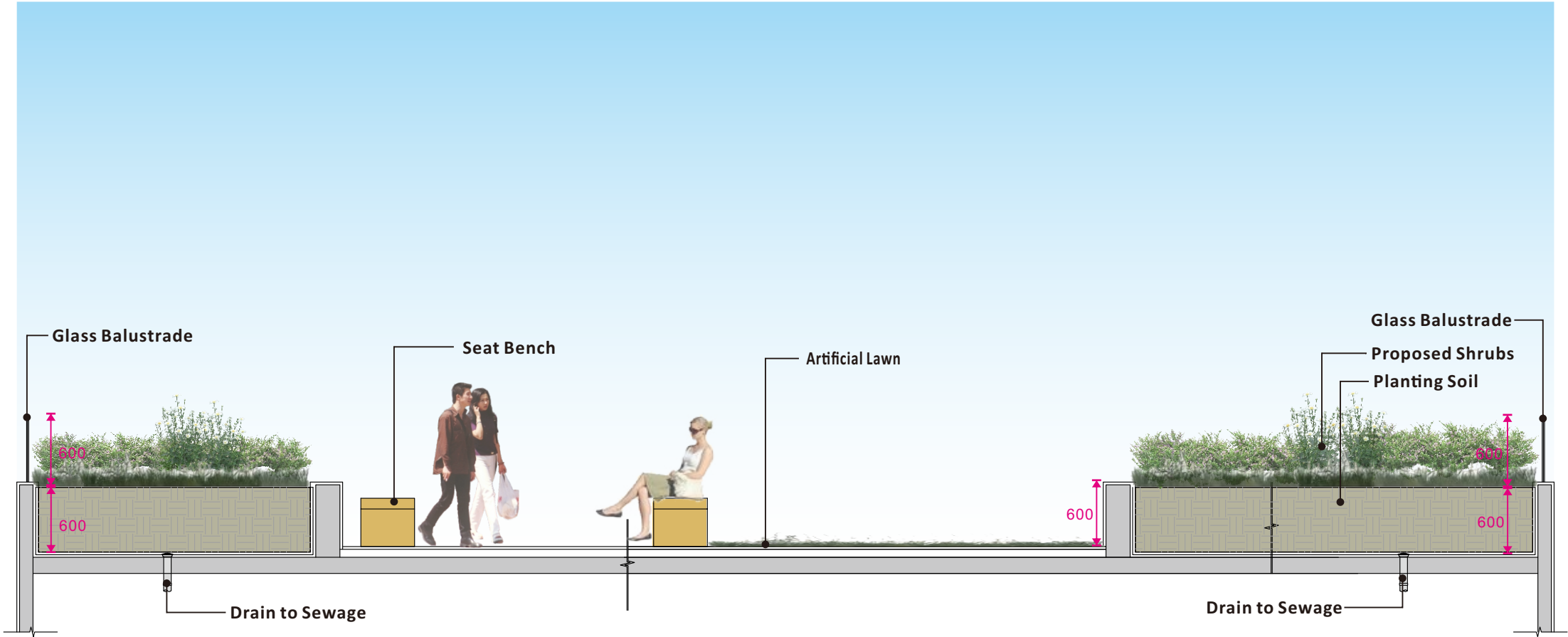
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DATE OF ISSUE : JUL 2025

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Appendix C

Planting Plans

Quantity	Code	Chinese Name	Botanical Name	Native/Exotic	DBH (mm)	Height (mm)	Spread (mm)	Spacing (mm)	Remark
TREES									
3	JM	藍花楹	<i>Jacaranda mimosifolia</i>	Exotic	75	4500	2000	4000	Staight Form, Full Abundance of Foliage
6	MP	水黃皮	<i>Millettia pinnata</i>	Native	75	3500	1500	4000	Staight Form, Full Abundance of Foliage
2	TM	花葉欖仁	<i>Terminalia mantaly 'Tricolor'</i>	Exotic	75	4000	2000	4000	Staight Form, Full Abundance of Foliage
6	TP	恒春黃槿	<i>Thespesia populnea</i>	Native	75	4000	2000	4000	Staight Form, Full Abundance of Foliage
SHRUBS									
-	Cov	紅葉洒金榕	<i>Codiaeum variegatum 'Gloriosa'</i>	Exotic	-	450	400	400	Balanced Form, Full Abundance of Foliage
-	Drg	黃金金露花	<i>Duranta repens 'Golden'</i>	Exotic	-	300	250	250	Balanced Form, Full Abundance of Foliage
-	Ich	龍船花	<i>Ixora chinensis</i>	Native	-	500	450	450	Balanced Form, Full Abundance of Foliage
-	Mup	九里香	<i>Murray paniculatus</i>	Exotic	-	500	450	400	Balanced Form, Full Abundance of Foliage
-	Osf	桂花	<i>Osmanthus fragrans</i>	Exotic	-	500	450	400	Balanced Form, Full Abundance of Foliage
-	Rh	小葉棕竹	<i>Rhapis humilis</i>	Exotic	-	450	300	300	Balanced Form, Full Abundance of Foliage
-	Rhi	石斑木	<i>Rhaphiolepis indica</i>	Native	-	450	300	300	Balanced Form, Full Abundance of Foliage
-	Rhs	紅杜鵑	<i>Rhododendron simsii</i>	Native	-	300	250	250	Balanced Form, Full Abundance of Foliage
GROUNDCOVERS									
-	Dip	白斑萬年青	<i>Dieffenbachia picta</i>	Exotic	-	400	350	350	Balanced Form, Full Abundance of Foliage
-	Lam	小葉馬櫻丹	<i>Lantana montevidensis</i>	Native	-	400	350	350	Balanced Form, Full Abundance of Foliage
-	Lis	山指甲	<i>Ligustrum sinense</i>	Native	-	350	300	300	Balanced Form, Full Abundance of Foliage
-	Nau	腎蕨	<i>Nephrolepis auriculata</i>	Native	-	350	300	300	at least 3 shoots per plant

PROJECT :
SECTION 12A APPLICATION FOR PROPOSED REZONING FROM "COMPREHENSIVE DEVELOPMENT AREA" AND "GREEN BELT" ZONES TO "RESIDENTIAL (GROUP A)4" ZONE AND TO AMEND THE NOTES OF THE ZONE APPLICABLE TO THE SITE FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY) AT LOT NOS. 398 RP AND 2188 IN D.D. 121, TAI TAO TSUEN HUNG SHUI KIU, NEW TERRITORIES

DRAWING TITLE :
PLANTING SCHEDULE

PROJECT No. C2225

DRAWING No. PS01

SCALE : N.T.S.

DATE OF ISSUE : JUL 2025

CAD FILENAME : C2225-PS01

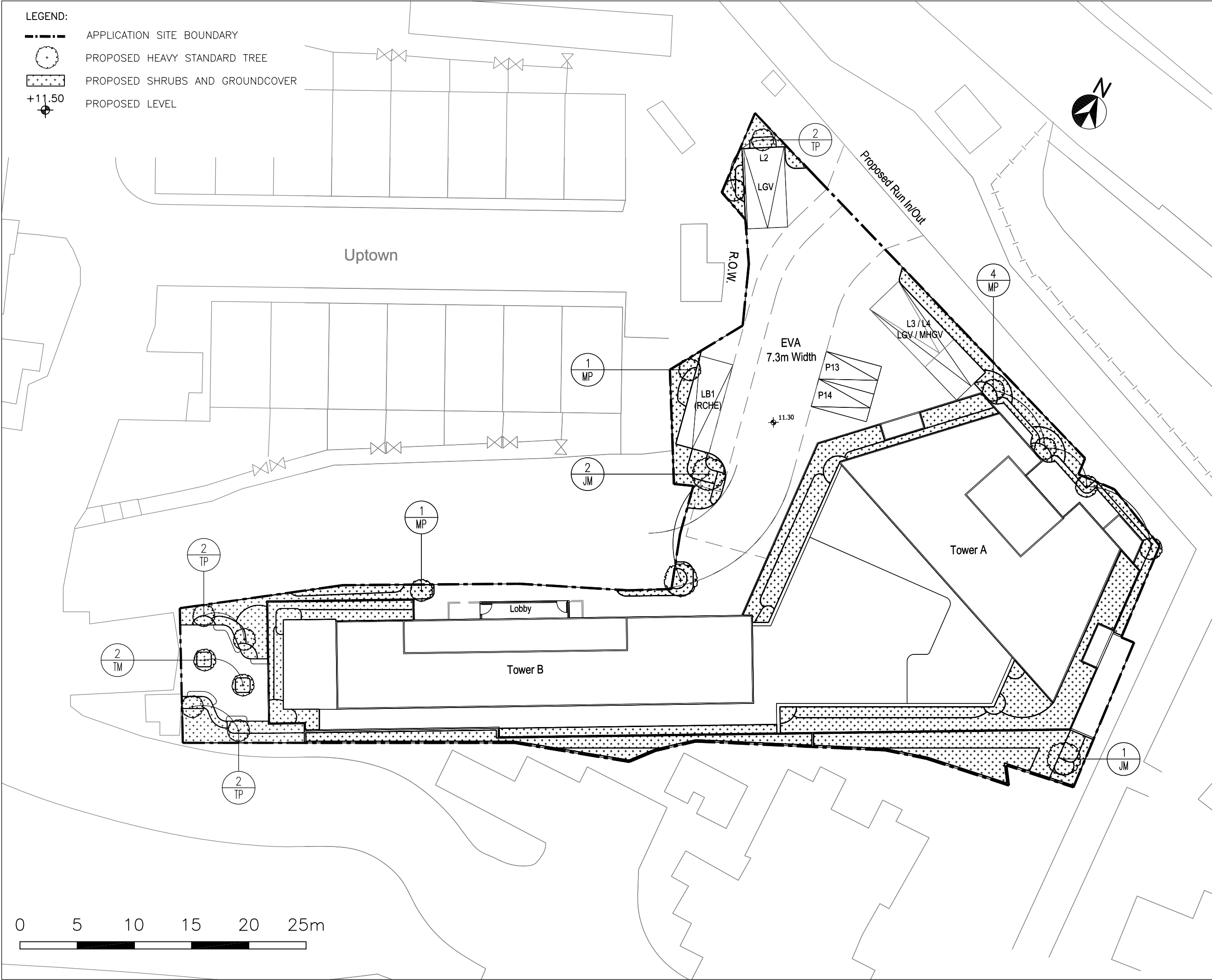
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PROJECT :

SECTION 12A APPLICATION FOR PROPOSED REZONING FROM "COMPREHENSIVE DEVELOPMENT AREA" AND "GREEN BELT" ZONES TO "RESIDENTIAL (GROUP A)4" ZONE AND TO AMEND THE NOTES OF THE ZONE APPLICABLE TO THE SITE FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY) AT LOT NOS. 398 RP AND 2188 IN D.D. 121, TAI TAO TSUEN HUNG SHUI KIU, NEW TERRITORIES

DRAWING TITLE :

PLANTING PLAN

PROJECT No. C2225

DRAWING No. PT01

SCALE : 1:300

DATE OF ISSUE : JUL 2025

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Appendix D

Common Greenery and Open Space Provision

LEGEND:

APPLICATION SITE BOUNDARY

UNCOVERED GREENERY IN PRIMARY ZONE

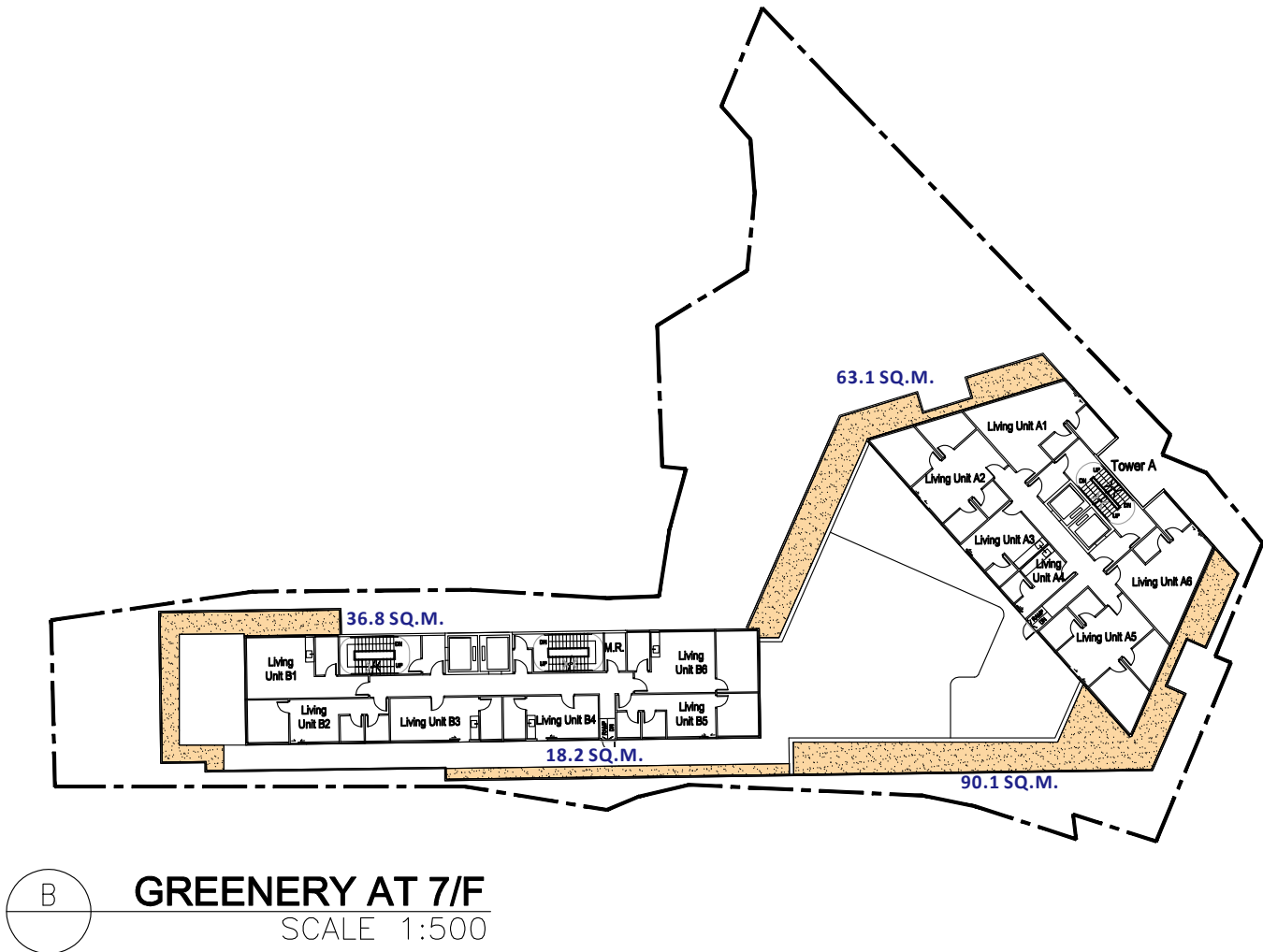
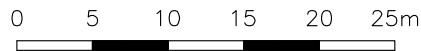
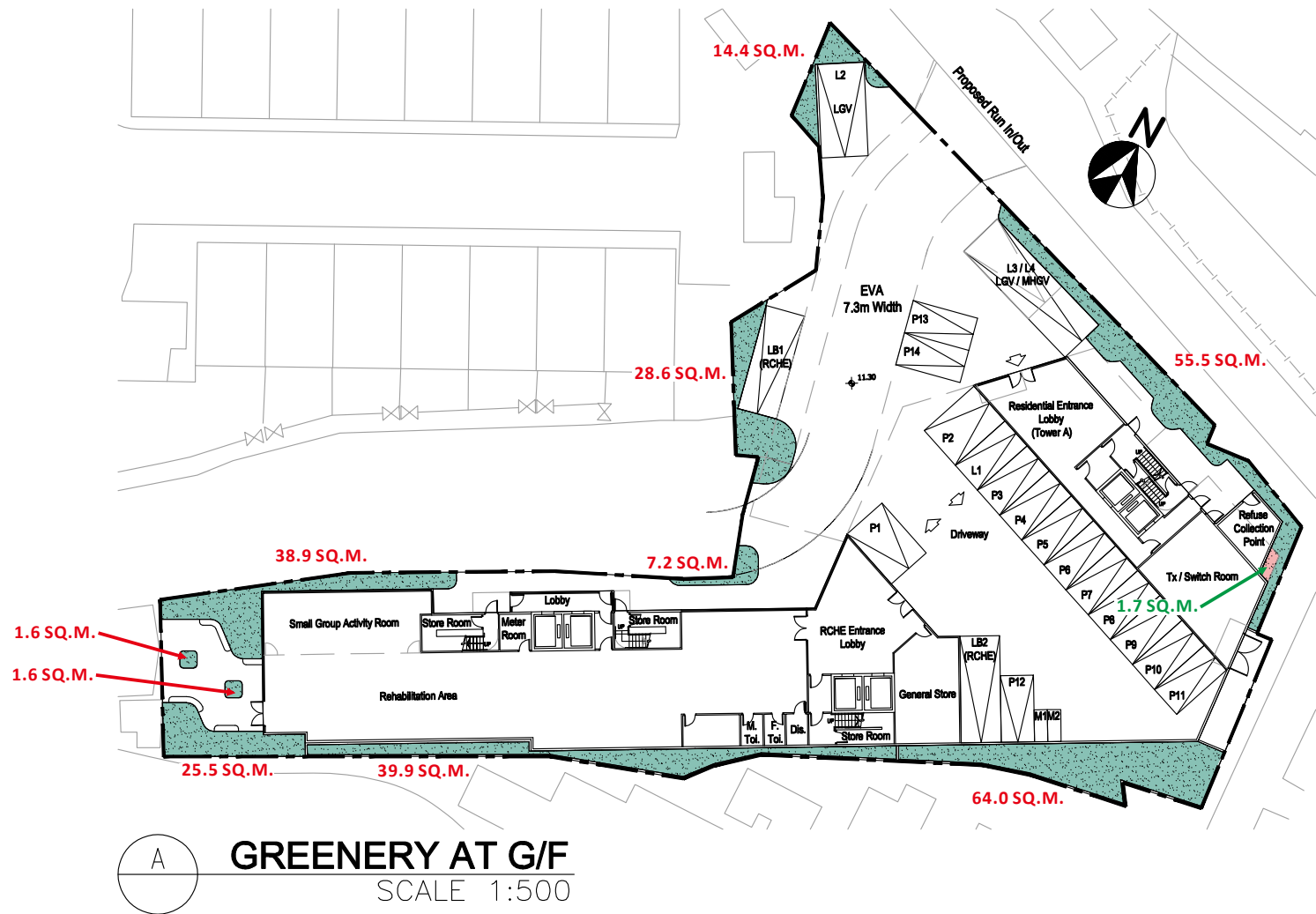
COVERED GREENERY IN PRIMARY ZONE

UNCOVERED GREENERY IN OTHER AREAS

+11.50

PROPOSED LEVEL

Required Greenery	Area	Unit
Site Area:	2,138.00	m ²
Required Area at Primary Zone:	213.80	m ²
Required Total Greenery:	427.60	m ²
Allowable Greenery Features:	128.28	m ²
Provided Greenery at Primary Zone	Area	Unit
Uncovered Planitng Area at G/F	277.20	m ²
Covered Planitng Area at G/F (With 0.5 reduction factor)	1.70	m ²
Greenery at Primary Zone	278.05	m ²
	(>213.80)	m ²
Greenery Ratio at Primary Zone	13.01%	
Provided Greenery at Other Areas	Area	Unit
Uncovered Planitng Area at 7/F	208.20	m ²
Greenery at Other Areas	208.20	m ²
Greenery Ratio at Other Areas	9.74%	
Total Greenery	486.25	m ²
	(>427.60)	m ²
Greenery Ratio	22.74%	



PROJECT :
SECTION 12A APPLICATION FOR PROPOSED REZONING FROM "COMPREHENSIVE DEVELOPMENT AREA" AND "GREEN BELT" ZONES TO "RESIDENTIAL (GROUP A)" ZONE AND TO AMEND THE NOTES OF THE ZONE APPLICABLE TO THE SITE FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY) AT LOT NOS. 398 RP AND 2188 IN D.D. 121, TAI TAO TSUEN HUNG SHUI KIU, NEW TERRITORIES

DRAWING TITLE :
COMMON GREENERY PROVISION

PROJECT No. C2225

DRAWING No. GC01

SCALE : 1:500

DATE OF ISSUE : JUL 2025

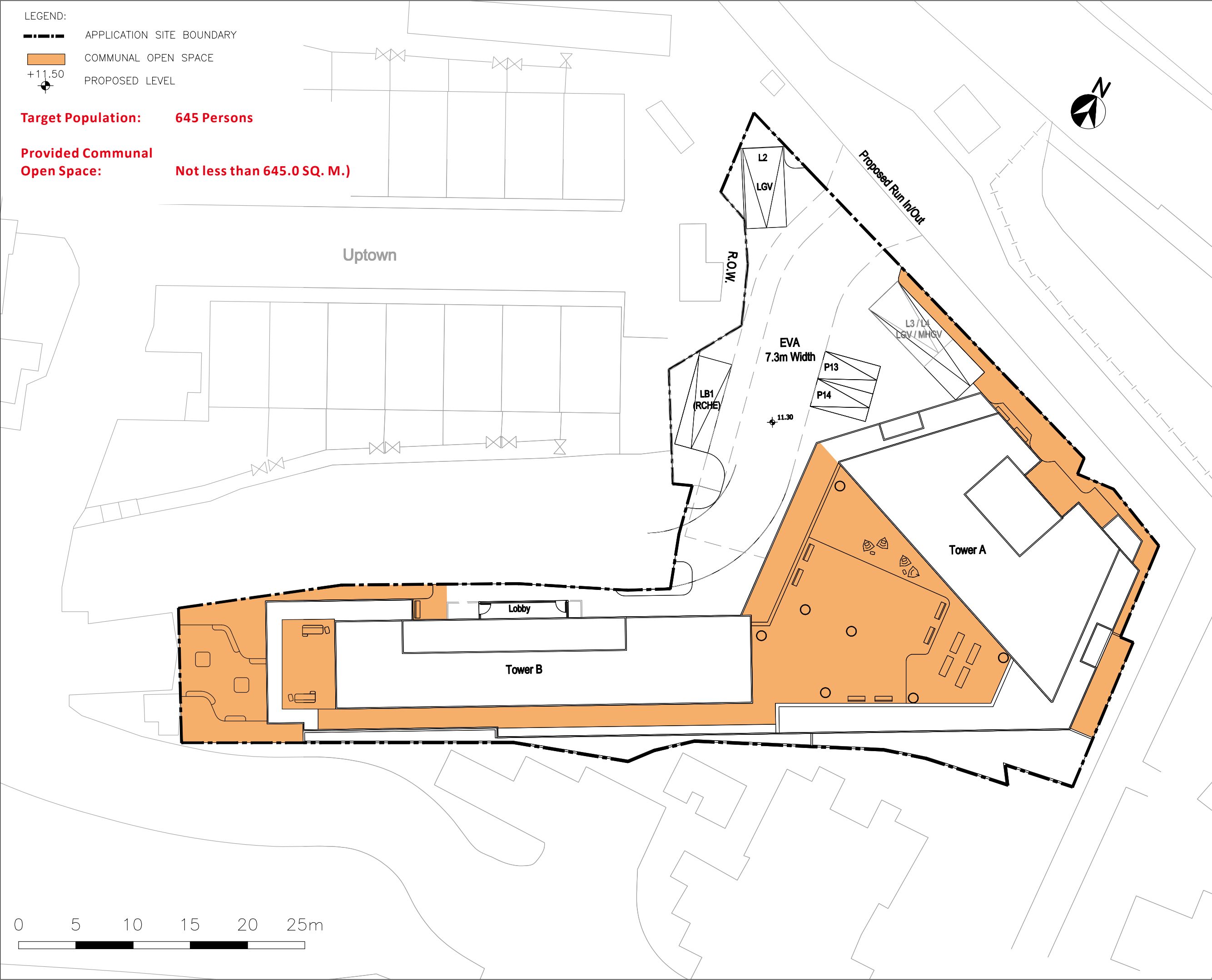
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- LEGEND:
- APPLICATION SITE BOUNDARY
 - COMMUNAL OPEN SPACE
 - PROPOSED LEVEL

Target Population: 645 Persons

Provided Communal Open Space: Not less than 645.0 SQ. M.)

PROJECT :
SECTION 12A APPLICATION FOR PROPOSED REZONING FROM "COMPREHENSIVE DEVELOPMENT AREA" AND "GREEN BELT" ZONES TO "RESIDENTIAL (GROUP A)" ZONE AND TO AMEND THE NOTES OF THE ZONE APPLICABLE TO THE SITE FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY)) AT LOT NOS. 398 RP AND 2188 IN D.D. 121, TAI TAO TSUEN HUNG SHUI KIU, NEW TERRITORIES

DRAWING TITLE :
OPEN SPACE PROVISION

PROJECT No. C2225

DRAWING No. OS01

SCALE : 1:300

DATE OF ISSUE : JUL 2025

CAD FILENAME : C2225-OS01

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Appendix E

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

Bi-W = Bi-weekly

W = once weekly

O = once

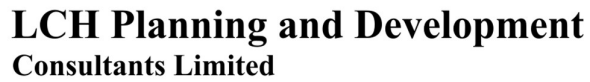
2W = twice weekly

R = repeat if necessary



APPENDIX 8

VISUAL APPRAISAL



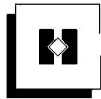
For Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A) 4” Zone and to Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

September 2026
Report : Version 1.1



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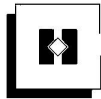
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1 INTRODUCTION

1.1 Visual Appraisal

- 1.1.1 We are commissioned by the Applicant to prepare this visual appraisal report on its behalf for proposing amendment (“Proposed Amendment”) to the Approved Tong Yan San Tsuen Outline Zoning Plan No. S/YL-TYST/14 (“Approved Tong Yan San Tsuen OZP”) under Section 12A of the Town Planning Ordinance (“the Ordinance”) at Lot Nos. 398 RP and 2188 in Demarcation District No. (D.D.) 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories (hereinafter referred to as the “Application Site”) in order to implement the development project.
- 1.1.2 The Application Site covers a total of about 2,138 square metres (“sq. m.”). The Site is currently zoned as “Comprehensive Development Area” (“CDA”) zone (about 1,798 square meter (“sq.m.”), equivalent to about 84%) and partly zoned as “Green Belt” (“GB”) (about 340 sq.m., equivalent to about 16%) on the Approved Tong Yan San Tsuen OZP (refers to **Diagram 1**). The Proposed Amendment involves rezoning the Application Site to a new “Residential (Group A) 4” (“R(A)4”) zone and to amend the Notes of the Outline Zoning Plan (OZP) applicable to the Application Site for residential development and a social welfare facility (RCHE) (“Proposed Development”).

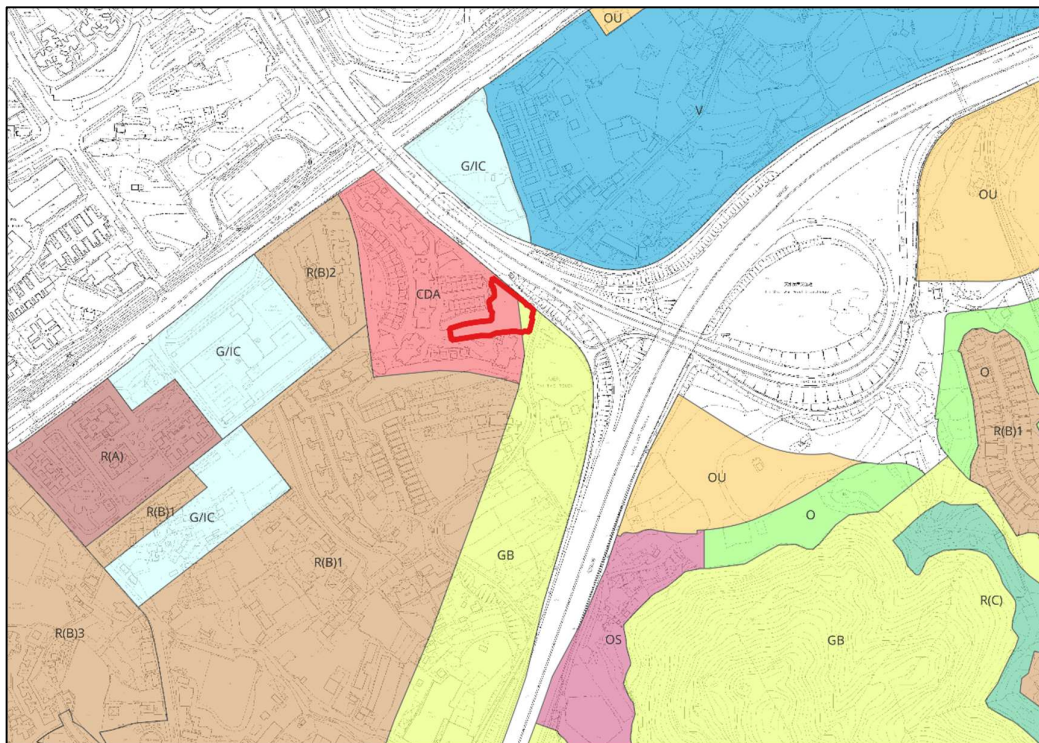
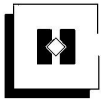
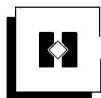


Diagram 1 Application Site on the Approved Tong Yan San Tsuen OZP
(Source: HKMS2.0, HKSAR Government)



- 1.1.3 According to the Guidelines on submissions of Visual Impact Assessment for Planning Applications to the Town Planning Board (TPB PG-No. 41A), a Visual Appraisal (VA) is required when “the proposal will not involve any major adverse visual impact from key public viewing points”.
- 1.1.4 To ascertain visual impact of the Proposed Development, this VA is prepared based on the existing context, instead of a full VIA shall be suffice. Given the Application Site is surrounded by medium-to-high-density residential developments (i.e. “*Uptown*”) with a maximum building height restriction (BHR) to 17 storeys to its immediate west.
- 1.1.5 This VA is prepared in accordance with the TPB PG-No. 41A to evaluate the visual compatibility and degree of anticipated visual impacts of the Proposed Development on public viewers relevant to the Application Site to seek for the Town Planning Board’s approval.
- 1.1.6 It shall be noted that this VA is conducted by comparing the Proposed Development against a scenario both with and without the Proposed Development, along with the corresponding mitigation measures.



2 THE INDICATIVE SCHEME

2.1 Indicative Development Scheme

- 2.1.1 The Application Site covers an area of about 2,138 sq.m. and involves two 6-storey building blocks atop a 7-storey RCHE in the lowest G/F to 6/F.
- 2.1.2 Details of the development proposal are provided in **Table 1** and indicative architectural drawings of the Proposed Development is shown in **Appendix 1**.

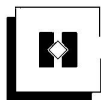
Development Parameters	Proposed Scheme
Site Area (about)	2,138 sq.m.
Gross Floor Area (about)	10,489 sq.m.
- Domestic	- 3,528 sq.m.
- Non-domestic	- 6,961 sq.m.
Plot Ratio (about)	4.91
- Domestic	- 1.65
- Non-domestic	- 3.26
Site Coverage (about)	
- Domestic	- 26.6%
- Non-domestic	- 55.2%
Maximum Building Height (BH)	Not exceeding 60mPD
No. of Block	2
No. of Storeys	13

Table 1 Key Development Parameters of the Indicative Scheme

- 2.1.3 Details of the schedule of use by floors is provided in **Table 2**.

No. of Floor(s)	Indicative Uses
8 -12/F	Flats
7/F	Flats and Landscape Deck
1/F-6/F	Dormitory Floors of RCHE with Supporting Facilities
G/F	Entrance Lobby, Supporting Facilities, Electrical and Mechanical (E&M) and Parking Spaces

Table 2 Schedule of Use by Floors



3 SITE CONTEXT AND ITS SURROUNDING

3.1 Site Context and Existing Condition

- 3.1.1 The Application Site abuts Fui Sha Wai South Road. Current vehicular access to the Application Site is Castle Peak Road – Ping Shan and Hung Shui Kiu sections via Fui Sha Wai South Road and a local access road.

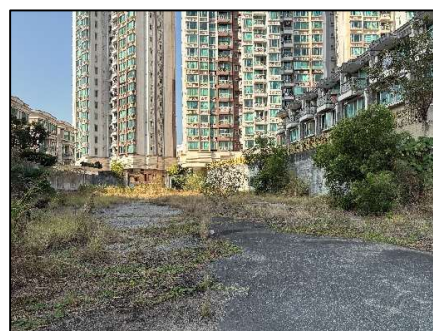
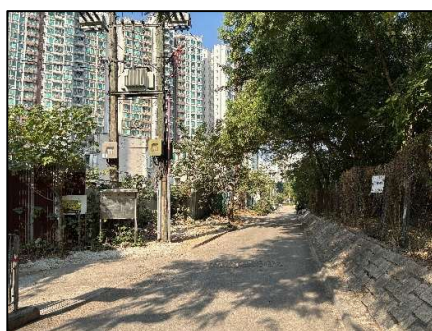
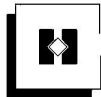


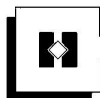
Diagram 2 Existing Condition of Application Site

- 3.1.2 The Application Site falls within an area zoned as “CDA” (equivalent to about 84%) and partly zoned as “GB” (equivalent to about 16%) on the Approved Tong Yan San Tsuen OZP No. S/YL-TYST/14 (refers to **Diagram 1**)
- 3.1.3 The planning intention of the “CDA” zone is “*intended for comprehensive development/redevelopment of the area for residential use with the provision of open space, commercial and other supporting facilities, if any. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints*”.
- 3.1.4 For the “CDA” site in the west of Hung Tin Road, the Note of the Approved Tong Yan San Tsuen OZP states that no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum gross floor area of 69,000 sq.m. and a maximum building height of 17 storeys. The Explanatory Statement (ES) of the Approved Tong Yan San Tsuen OZP stated that “*as the areas*”

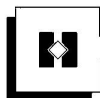


along Castle Peak Road – Hung Shui Kiu Section, Hung Tin Road and Yuen Long Highway would be subject to traffic noise, noise mitigation measures such as the use of screening structures and the adoption of self-protective building layout would need to be implemented”.

- 3.1.5 Noted that the approved gross floor area (GFA) for “Uptown” (50,290 sq.m.) within the “CDA” zone, the remaining GFA restriction is about 18,710 sq.m.. Of which, the GFA for the Proposed Development within “CDA” zone of the Approved Tong Yan San Tsuen OZP is 8,821 sq.m..
- 3.1.6 The Notes of the Approved Tong Yan San Tsuen OZP also stipulated that the planning intention of “GB” zone is *“primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone”*. Within the area zoned as “GB”, any filling of pond or excavation of land is required for permission from the Board under section 16 of the Town Planning Ordinance. Specifically, the ES of the Approved Tong Yan San Tsuen OZP stated that *“the “GB” zone along the north-western side of Yuen Long Highway serves as a buffer to the residential areas to its north-west”*.
- 3.1.7 It is noted that both ‘Flat’ and ‘Social Welfare Facility’ uses fall within Column 2 use of the “CDA” and “GB” zones on the Approved Tong Yan San Tsuen OZP. In view that all development on land designated as “CDA” zone requires planning application for the approval of the Board, to facilitate the Proposed Development and to release the development potential for minor amendments in the future, as well as to provide flexibility in subsequent modification of uses within the development without the need for submission of a revised Master Layout Plan (MLP), a rezoning application seeking the Board’s agreement on the Proposed Amendment is required (refers to **Diagrams 3 and 4**).



<u>COMPREHENSIVE DEVELOPMENT AREA</u>	
Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
	Eating Place Educational Institution Flat Government Refuse Collection Point Government Use (not elsewhere specified) House (other than rebuilding of New Territories Exempted House or replacement of existing domestic building by New Territories Exempted House permitted under the covering Notes) Institutional Use (not elsewhere specified) Library Off-course Betting Centre Office Place of Entertainment Place of Recreation, Sports or Culture Private Club Public Clinic Public Convenience Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Recyclable Collection Centre Religious Institution Residential Institution School Shop and Services Social Welfare Facility Utility Installation for Private Project
<u>Planning Intention</u>	
This zone is intended for comprehensive development/redevelopment of the area for residential use with the provision of open space, commercial and other supporting facilities, if any. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints.	



COMPREHENSIVE DEVELOPMENT AREA (cont'd)

Remarks

- (a) Pursuant to section 4A(2) of the Town Planning Ordinance, and except as otherwise expressly provided that it is not required by the Town Planning Board, an applicant for permission for development on land designated “Comprehensive Development Area” shall prepare a Master Layout Plan for the approval of the Town Planning Board and include therein the following information:
- (i) the area of the proposed land uses, the nature, position, dimensions, and heights of all buildings to be erected in the area;
 - (ii) the proposed total site area and gross floor areas for various uses, total number of flats and flat size, where applicable;
 - (iii) the details and extent of Government, institution or community (GIC) and recreational facilities, public transport and parking facilities, and open space to be provided within the area;
 - (iv) the alignment, widths and levels of any roads proposed to be constructed within the area;
 - (v) the landscaping and urban design proposals within the area;
 - (vi) programmes of development in detail;
 - (vii) an environmental assessment report to examine any possible environmental problems that may be caused to or by the proposed development during and after construction and the proposed mitigation measures to tackle them;
 - (viii) a drainage and sewerage impact assessment report to examine any possible drainage and sewerage problems that may be caused by the proposed development and the proposed mitigation measures to tackle them;
 - (ix) a traffic and transport impact assessment report to examine any possible traffic problems and impact on public transport service and facilities provisions that may be caused by the proposed development and the proposed mitigation measures to tackle them; and
 - (x) such other information as may be required by the Town Planning Board.
- (b) The Master Layout Plan should be supported by an explanatory statement which contains an adequate explanation of the development proposal, including such information as land tenure, relevant lease conditions, existing conditions of the site, the character of the site in relation to the surrounding areas, principles of layout design, major development parameters, design population, types of GIC facilities, and recreational and open space facilities.



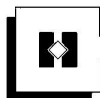
COMPREHENSIVE DEVELOPMENT AREA (cont'd)

Remarks (cont'd)

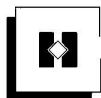
- (c) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum gross floor area and a maximum building height specified below:

<u>Location of CDAs</u>	<u>Maximum Gross Floor Area</u>	<u>Maximum Building Height</u>
“CDA” west of Hung Tin Road	69,000m ²	17 storeys
“CDA” in Tan Kwai Tsuen	9,925m ²	4 storeys over single-storey car park

- (d) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the gross floor area and building height restrictions stated in paragraph (c) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.
- (e) In determining the maximum gross floor area for the purposes of paragraph (c) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker’s office, or caretaker’s quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.



<u>GREEN BELT</u>	
Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Agricultural Use Barbecue Spot Government Use (Police Reporting Centre only) Nature Reserve Nature Trail On-Farm Domestic Structure Picnic Area Public Convenience Tent Camping Ground Wild Animals Protection Area	Animal Boarding Establishment Broadcasting, Television and/or Film Studio Burial Ground Columbarium (within a Religious Institution or extension of existing Columbarium only) Crematorium (within a Religious Institution or extension of existing Crematorium only) Field Study/Education/Visitor Centre Firing Range Flat Government Refuse Collection Point Government Use (not elsewhere specified) Helicopter Landing Pad Holiday Camp House (other than rebuilding of New Territories Exempted House or replacement of existing domestic building by New Territories Exempted House permitted under the covering Notes) Petrol Filling Station Place of Recreation, Sports or Culture Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Radar, Telecommunications Electronic Microwave Repeater, Television and/or Radio Transmitter Installation Religious Institution Residential Institution School Service Reservoir Social Welfare Facility Utility Installation for Private Project



GREEN BELT (cont'd)

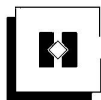
Planning Intention

The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone.

Remarks

- (a) Any filling of pond or excavation of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.
- (b) Any filling of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft Tong Yan San Tsuen Outline Zoning Plan No. S/YL-TYST/8 without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

Diagram 3 Extract of the Notes of the
Approved Tong Yan San Tsuen OZP No. S/YL-TYST/14
(Source: Town Planning Board, HKSAR Government)



10.1 Comprehensive Development Area (“CDA”) : Total Area : 3.32 ha

10.1.1 This zone is intended for comprehensive development/redevelopment of the area for residential use with the provision of open space, commercial and other supporting facilities, if any. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints. Although existing uses are tolerated, any development/redevelopment proposal on sites under this zoning should be submitted to the Board in the form of a Master Layout Plan (MLP) for consideration, except as otherwise expressly provided that it is not required by the Board. Pursuant to section 4A(3) of the Ordinance, a copy of the approved MLP shall be made available for public inspection in the Land Registry. The two “CDA” sites designated on the OZP are as follows:

10.1.2 “CDA” zone to the west of Hung Tin Road

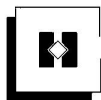
A site of about 2.30 ha at the intersection of Castle Peak Road and Hung Tin Road is zoned “CDA”. Development in the site is restricted to a total gross floor area (GFA) not exceeding 69,000m² (equivalent to a plot ratio of 3) and a maximum building height of 17 storeys. Major part of the site has been developed for residential use, known as Uptown.

10.1.3 “CDA” zone in Tan Kwai Tsuen

A site of about 1 ha to the south of Tan Kwai Tsuen was the subject of a residential development approved by the Board. Development in the site is restricted to a total GFA not exceeding 9,925m² (equivalent to a plot ratio of 1) and a maximum building height of 4 storeys over single-storey car park.

10.1.4 To provide flexibility for innovative design adopted to the characteristics of particular sites, minor relaxation of the above restrictions for the two “CDA” zones may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.

10.1.5 As the areas along Castle Peak Road - Hung Shui Kiu Section, Hung Tin Road and Yuen Long Highway would be subject to traffic noise impact, noise mitigation measures such as the use of screening structures and the adoption of self-protective building layout would need to be implemented.



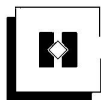
10.13 Green Belt (“GB”) : Total Area : 120.81 ha

- 10.13.1 The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. Area zoned “GB” may include foothills, lower hill slopes, spurs, isolated knolls, woodland, traditional burial ground or vegetated land which are found at the urban fringe. There is a general presumption against development within this zone. However, limited developments may be permitted with or without conditions on application to the Board, and each application will be considered on its individual merits taking into account the relevant Town Planning Board Guidelines.
- 10.13.2 The “GB” zone covers the foothills and slope of the mountain range at the south-western portion of the Area including the ex-quarry sites and areas with natural vegetation, woodlands, hill slopes and graves. It also covers the foothills and fallow agricultural land in the central part of the Area and two knolls near Ma Fung Ling Road to the south of Castle Peak Road - Ping Shan Section. The “GB” zone along the north-western side of Yuen Long Highway serves as a buffer to the residential areas to its north-west.
- 10.13.3 As filling of land/pond and excavation of land may cause adverse drainage impacts on the adjacent areas and adverse impacts on the natural environment, permission from the Board is required for such activities.

Diagram 4 Extract of the Explanatory Statement of the
Approved Tong Yan San Tsuen OZP No. S/YL-TYST/14
(Source: Town Planning Board, HKSAR Government)

3.2 Surrounding Context

- 3.2.1 To its west, south and northwest across Hung Tin Road are some low-rise residential developments/village houses including the Woodside, the Woodsville, Tai Tao Tsuen and Le Regent with the maximum BHR ranging between 8.23m to 21m. To the further northwest across the Castle Peak Road - Hung Shui Kiu would be a planned high-rise commercial and residential development with the BHR of 140mPD within “Residential (Group A) 4” (“R(A)4”) zone under the Approved Hung Shui Kiu and Ha Tsuen OZP No. S/HSK/2. To the further southeast and east, there are two planned “Other Specific Uses” annotated “Storage and Workshop” (“OU(SW)”) sites near Tin Shui Wai West Interchange subject to a BHR of 110mPD, intended for purpose-built multi-storey buildings (MSBs) for brownfield operations.



4 VIUSAL IMPACT ANALYSIS

4.1 Selection of Viewing Points

4.1.1 The Application Site is situated at the north-east part of Hung Shui Kiu with an area of about 2,138 sq.m.. It abuts Fui Sha Wai South Road. Current vehicular access to the Application Site is Castle Peak Road – Ping Shan and Hung Shui Kiu sections via Fui Sha Wai South Road and a local access road.

4.1.2 Key visual elements surrounding the Application Site are summarised as below: -

- To the immediate west of the Application Site is Hung Tak Road Sitting-out Area, and the further west is Light Rail Transit (LRT) Hung Shui Kiu Station;
- To its immediate north is Fui Sha Wai South Road, and the further north is Tai Tao Tsuen Bus Stop along Castle Peak Road – Ping Shan Section and near an existing cycling track of New Territories (NT) cycle track network (Tuen Mun to Yuen Long Section);
- To its south is a village cluster named Tai Tao Tsuen which adjacent to a low-rise residential development (i.e. the Woodsville) and the Former Pak U Middle School; and
- To its immediate east is Hung Tin Road and Yuen Long Highway, and beyond these roads, further to the east is an open space area known as Madam Chan Wai Chow Memorial Garden near a low-rise residential development known as Park Villa.

4.1.3 A total of six viewpoints (VPs) is selected to further assessment on the visual impact of the Proposed Development for demonstrating the potential cumulative impact as follows (**Figure 1** refers).

4.2 Assessment of Visual Impacts

VP1 – Light Rail - Hung Shui Kiu Station

4.2.1 This VP is about 385m to the west of the Application site. It represents viewers including residents, visitors and pedestrian passersby.

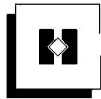
4.2.2 As shown in **Figure 2**, the visual composition of this VP is dominated by the existing light railway and road connecting to residential areas in Ping Shan and extending to the Yuen Long district centre. From this VP, the Application Site is obscured by the existing residential development (i.e. “Uptown”) and vegetation along the road and surrounding residential buildings. The visually sensitive receivers (VSRs) at this VP include residents of Park Nara, Symphony Garden, Treasure Court, Lai Hung Garden, etc., as well as students from nearby educational facilities like Shung Tak Catholic English College and Ho Dao College. There are also



park users in Tan Kwai Tsuen Road Garden and Hung Tak Road Sitting-out Area. Due to the transient nature of pedestrians and the significant distance to the Proposed Development, the visual sensitivity of this VP is considered **low**.

Discussion on Visual Impacts from VPs and corresponding mitigation/measures: -

- 4.2.3 The photomontage demonstrates that with and without the proposed development, the VSRs at this VP will experience a typical urban landscape view enriched with lush roadside greenery. The Proposed Development is mainly obstructed by the existing residential development and roadside greenery, and no significant views or key visual openness are impacted by the Proposed Development. The Proposed Development will not cause significant visual changes since the existing view is characterised by dominance of existing residential development and vegetation planting in the foreground.
- 4.2.4 The existing view, dominated by surrounding high-rise residential buildings, the light railway, road, bus stop and roadside greenery, remains largely unchanged. No part of the Proposed Development is visible to VSRs at this VP, as it is completely screened by the high-rise residential clusters. Hence, the visual change brought about by the Proposed Development will be **negligible**.

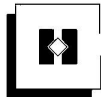


VP2 – Fui Sha Wai South Road

- 4.2.5 This VP is about 115m to the immediate north of the Application site. It is adjacent to the Hung Tin Road flyover. It serves as a main access route to the Application Site and Tai Tao Tsuen. It represents viewers including residents, pedestrians and vehicle users.
- 4.2.6 As illustrated in **Figure 3**, the visual composition of this VP is primarily shaped by the roadway and the surrounding vegetation along Fui Sha Wai South Road, set against a backdrop of high-rise residential developments known as the “*Uptown*”. From this location, the Application Site is mostly screened by existing residential buildings and roadside greenery. The VSRs of this VP will be mainly the residents, pedestrian and vehicle users. Given its role as a primary access route to the Application Site for residents and visitors, and its close proximity to the Proposed Development, the visual sensitivity of this VP is considered **moderate**.

Discussion on Visual Impacts from VPs and corresponding mitigation/measures: -

- 4.2.7 The photomontage demonstrates that with and without the proposed development, the VSRs at this VP will experience minimal visual change. Due to the transient nature of road and lane users, and the fact that the Application Site is largely obscured by existing infrastructure and surrounding residential developments, the visual impact of the Proposed Development is considered **moderate**.
- 4.2.8 The inclusion of peripheral planting in the Proposed Development will ensure a degree of visual permeability, maintaining compatibility with the surrounding built environment.

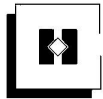


VP3 – Hung Tak Road Sitting-out Area

- 4.2.9 This VP is about 320m to the south of the Application site. It is situated within a cluster of educational facilities (i.e. Shung Tak Catholic English College and Ho Dao College) and residential buildings (i.e. Symphony Garden, Treasure Court and Lai Hung Garden), serving the residents as well as pupils in the surrounding. Thus, it represents viewers mainly the residents and pupils.
- 4.2.10 As shown in **Figure 4**, the visual composition of this VP is dominated by residential buildings, schools and their periphery trees. From this VP, the Application Site is completely screened by the schools, residential buildings and vegetation. The VSRs of this VP will be the residents, pupils who are traveling to or from school and pedestrians. Given the presence of sitting-out areas where people may stay for longer period over the Proposed Development, the visual sensitivity of this VP is considered **moderate**.

Discussion on Visual Impacts from VPs and corresponding mitigation/measures: -

- 4.2.11 As illustrated in **Figure 4**, the VSRs at this VP will experience minimal visual change disregarding the presence of Proposed Development. Due to the transient nature of street users including residents and students, and the fact that the Application Site is completely blocked by existing residential developments, the visual impact of the Proposed Development is considered **negligible**.

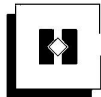


VP4 – Tai Tao Tsuen Bus Stop

- 4.2.12 This VP is about 270m to the north of the Application site. It represents residents and other users of the bus stop such as commuters and tourists. In view of the mid-range VP from the bus stop and the Proposed Development, its visual sensitivity is considered **low**.

Discussion on Visual Impacts from VPs and corresponding mitigation/measures: -

- 4.2.13 As illustrated in **Figure 5**, the visual composition of this VP is characterised by prominent high-rise residential buildings (i.e. “Uptown”), a flyover and roadside trees. The Proposed Development is largely screened by these existing structures and vegetation, with only a small portion of its upper section visible to VSRs. This limited visibility minimises the visual impact of the Proposed Development, resulting in a **slightly adverse** change to the existing scenic view. The screening effect of the high-rise buildings and surrounding greenery ensures that the Proposed Development integrates subtly into the urban landscape without significantly altering the overall visual character of this VP.

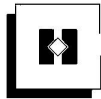


VP5 – Tai Tao Tsuen

- 4.2.14 This VP is about 180m to the immediate south-east of the Application site. It is situated along the main access road passing through Tai Tao Tsuen, leading directly to the Application Site. This VP represents villagers and pedestrians. Due to its close proximity to the Application Site, the Proposed Development is partially visible to VSRs at this VP. its visual sensitivity is therefore considered **moderate**.

Discussion on Visual Impacts from VPs and corresponding mitigation/measures: -

- 4.2.15 As shown in **Figure 6**, the visual composition of this VP is primarily characterised by the lush greenery and roadside trees, with the high-rise residential building as backdrop. Only a small portion of the upper section of the Proposed Development is visible to VSRs, as the surrounding high-rise residential structures significantly screen it from view. The VSRs in this area including local villagers, pedestrians and transient road users such as residents passing through Tai Tao Tsuen.
- 4.2.16 The high-rise residential buildings substantially limit the visibility of the Proposed Development, ensuring it blends into the existing urban landscape. The transient nature of the VSRs including villagers, pedestrians and other road users, reduces the overall significance of the visual change. The presence of abundant greenery further softens the visual intrusion, maintaining the aesthetic harmony of the area and minimising any visual effects from the Proposed Development. Hence, the visual impact of the Proposed Development is considered **negligible**.



VP6 – Madam Chan Wai Chow Memorial Garden

4.2.17 This VP is about 230m to the east of the Application site. It is situated along the main access road leading to and from the Madam Chan Wai Chow Memorial Garden, a notable open space near a residential development known as Park Villa. This VP represents residents, pedestrians and park users who frequent the garden and surrounding areas. Due to the substantial screening provided by dense tree cover and lush greenery along the access road, combined with the prominent circular structure of the Hung Tin Road flyover, the visual sensitivity at this VP is therefore considered **low**.

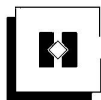
Discussion on Visual Impacts from VPs and corresponding mitigation/measures: -

4.2.18 As illustrated in **Figure 7**, the visual composition of this VP is characterised by prominent tall trees and lush greenery. These elements, alongside the imposing presence of the Hung Tin Road flyover, significantly limit the visibility of the Proposed Development, rendering it almost entirely screened from VSRs at this location. The limited visibility of the Proposed Development ensures that its visual impact is minimal, sustaining the aesthetic character of the area. Hence, the visual impact of the Proposed Development at this VP is considered **negligible**, as it does not significantly alter the existing scenic quality or visual experience for residents, pedestrians or park users.

4.2.19 The overall visual input analysis brought by the Proposed Development is summarised in **Table 3** below.

VP	Visual Sensitivity	Appraisal Components				Conclusion
		Visual Composition	Visual Obstruction and Visual Change	Effect on Public Viewers	Effect on Visual Element/Resources	
1	Low	Negligible	Negligible	Negligible	Negligible	Negligible
2	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
3	Moderate	Negligible	Negligible	Negligible	Negligible	Negligible
4	Low	Slightly adverse	Slightly adverse	Slightly adverse	Slightly adverse	Slightly adverse
5	Moderate	Negligible	Negligible	Negligible	Negligible	Negligible
6	Low	Negligible	Negligible	Negligible	Negligible	Negligible

Table 3 Summary of Visual Impact Analysis



4.3 Sensitive Design Measures (Figure 8)

Provision of 5m-Building Setbacks

- 4.3.1 To enhance air quality in the neighbourhood, a building setback of 5m is provided from Fui Sha Wai South Road to the nearby residential developments (i.e. “Uptown”) abutting Fui Sha Wai South Road, which helps to provide more natural light and ventilation to the existing buildings, as well to minimize air and traffic noise impacts from the surroundings. Design of building setback would be considered in compliance with the requirements under the Building (Planning) Regulations (B(P)R) (Cap. 123F) and the Sustainable Building Design Guidelines (SBD Guidelines) (PNAP APP-152) to ensure the adequate air and visual permeability.

Street-level Landscaping Design

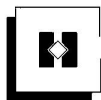
- 4.3.2 With the intention of enhancing the connectivity as well as improving the streetscape environment at pedestrian level, the street-level landscaping is proposed to create a landscape and visual buffer along the site boundary. It helps to facilitate a seamless transition between the Proposed Development and the adjacent natural and built environment. To maintain a visual relief and bring improvement to the pedestrian environment, proper landscaping with solid fence wall will be provided with planting beds with evergreen trees and shrubs, details of landscaping features are summarised in the Landscape Proposal. Provision of street-level landscaping will be managed and maintained by the future owners of the Proposed Development.

Building Disposition with Separations

- 4.3.3 About 14.5m building separation between two towers is proposed to reduce the building bulkiness of its podium for a better natural ventilation and visual permeability of the Proposed Development. The provision of building void not only can effectively improve visual openness of podium, but also to enhance air circulation at the pedestrian level and allow fresh air flow into the central courtyard. Besides, about 13.59m building separation between the proposed building block to the nearby residential developments (i.e., “Uptown”) is also provided.
- 4.3.4 In addition, the provision of building separation prioritizes urban design feature of visual openness, to ensure that the Proposed Development could be integrated harmoniously with the surrounding townscape while minimizing any sense of enclosure. Design of building separation would be considered in complying with the requirements under the B(P)R (Cap. 123F) and SBD Guidelines (PNAP APP-152).

Ensuring Compatibility to the Surrounding

- 4.3.5 Noting that the Application Site is surrounded by various land uses,



intermixed with residential developments, village houses, temporary structures, schools, carparks and open storage uses as described in **Section 2.3** in the supporting planning statement. The scale and design of the Proposed Developments, including but not limited to the PR and BH, are compatible to the surrounding existing and planned developments. Street-level landscaping will be provided along the Application Site to ensure compatibility to the surrounding environment, as well as to create a tranquil and pleasant environment for the future users and visitors. Appropriate landscape design and ample planting will be incorporated with the local open space provision of not less than 645 sq.m. on the landscaping area at ground floor and 7/F of the Proposed Developments to enhance the visual amenity of the area, as well as to serve both future occupants of the RCHE and residential units.

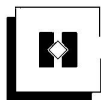
- 4.3.6 Noted that the local open space provision of about 300 sq.m. was proposed under previous approved application (No. A/YL-TYST/870). Compare to the indicative architectural drawings of the Proposed Development (**Appendix 1**) and the captioned approved application, a significant improvement scheme is identified with more open space provision shall be provided within the Site.

Creation of Age-friendly Environment

- 4.3.7 To create age-friendly environment within the Proposed Development, design elements and amenities such as elderly-friendly equipment/facilities (i.e., sitting garden, fitness equipment for the elderly) on the ground floor and landscape deck at 7/F. Thus, a more pleasing environment could be created to encourage the users and visitors of the RCHE and residential units to promote cohesion and interaction amongst, as well as live healthily and comfortably within the community.
- 4.3.8 The design of the hard landscape elements has been developed in accordance with the Elderly-Friendly Design Guidelines of “*Design Manual Barrier Free Access 2008 (2025 Edition)*” published by the Building Department (BD). This ensures that materials, finishes, and layouts are optimized for accessibility, safety, and ease of use for elderly users.

Maximise Greenery Provision throughout the entire Proposed Development

- 4.3.9 A total of 17 nos. of new trees is proposed throughout the Application Site to enhance the local biodiversity of existing environment. Compared to the existing condition, new ornamental tree and shrub plantings are also proposed along the Application Site to soften the built form and maximize the greenery.
- 4.3.10 The Proposed Development seeks to provide abundance of greenery with a total of about 486.25 sq.m. and a greenery ratio of about 22.74%, in which will be over 20% greenery requirement (equivalent to about 427.6 sq.m.) set out in the SBD Guideline (PNAP APP-152). All proposed greenery would be easily accessible and visible by the users and visitors. In addition, the proposed plantings at the amenity would create a



tranquil and pleasant environment for enjoyment of future residents.

Incorporation of Elderly-friendly Building Design

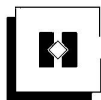
- 4.3.11 The design prioritises will be based upon the use of passive techniques such as natural ventilation, daylighting, and thermal mass to minimise the building's environmental impact while creating a comfortable and inviting interior. To ensure safe mobility and accessibility of the built environment, a wider canopy from barrier-free building entrance incorporating with landscaping plantations will be provided to create an age-friendly environment.
- 4.3.12 Age-friendly features such as non-slip surfaces, appropriate bench heights, and clear, unobstructed pathways have been incorporated to create an inclusive environment that promotes comfort and convenience for all users, particularly the elderly of the RCHE and residential units.
- 4.3.13 Other elderly-friendly building design will be prepared in accordance with the “*Best Practices in Design and Operation of Residential Care Homes for the Elderly*” as established by the Social Welfare Department (SWD) in 2023 and the “*Task Force on Promoting Elderly-friendly Building Design*” by the Government in 2024 accordingly.

Provision of Active and Passive Activities

- 4.3.14 According to the Indicative Development Scheme and Landscape Proposal shown in **Appendices 1 and 7**, not less than 645 sq.m. communal open space would be provided in serving about 645 future occupants at the Proposed Development. Landscape Areas are proposed on the ground floor and landscape deck at 7/F to provide enjoyment of the users and visitors for both future RCHE and residential units respectively. In addition, the communal open spaces are equipped with outdoor furniture, such as seating and fitness equipment, to enhance comfort and encourage social interactions among occupants. As suggested in the “*Study on Active Design for Healthier Lifestyle – Feasibility Study*” and the “*Study on Reimagining Public Spaces in Hong Kong – Feasibility Study*” commissioned by the Planning Department (PlanD) that were completed in 2023, the creation of active shared spaces for elderly could ensure both needs and foster a sense of community among different users.
- 4.3.15 Other elderly-friendly building design will be prepared in accordance with the “*Best Practices in Design and Operation of Residential Care Homes for the Elderly*” as established by the SWD in 2023 and the “*Task Force on Promoting Elderly-friendly Building Design*” by the Government in 2024 and the ‘Elderly-Friendly Building Certificate’ under the BEAM Plus framework announced in 2025 accordingly.

Promotion of Integrated and Interactive Neighbourhood

- 4.3.16 The Proposed Development features a design element that facilitates integrations and interactions among the future users and visitors of the

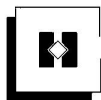


RCHE and residential units through the landscape areas on the ground floor and landscape deck at 7/F. The inclusion of shared open spaces incorporated with landscaping are provided, including a sitting garden and a gathering courtyard on the ground floor. While other recreation facilities, such as yoga area, terrace garden, fitness equipment zones, with a viewing platform are proposed at 7/F. It offers a variety of recreational and relaxation options, so as to encourage social interaction and alleviate feelings of isolation among occupants. Such improvement would not affect to the character of the nearby residential development (i.e., “Uptown”) within the “CDA” zone, indeed, would enhance the overall neighbourhood to be integrated and interactive among with the Proposed Development.

- 4.3.17 The landscape deck at 7/F provides a viewing platform space for the future residents to enjoy the view of Kung Um Shan (of about 297m) to the southeast in order to promote the elderly’s well-being. The open-sided void areas also allow cross view corridor to mountain backdrop to enhance visual permeability and the visual linkage of the building and surrounding environment. To maximize the greening opportunities within the Application Site, a diverse selection of plants would be incorporated with the outdoor furniture and recreational facilities to create attractive green spaces.

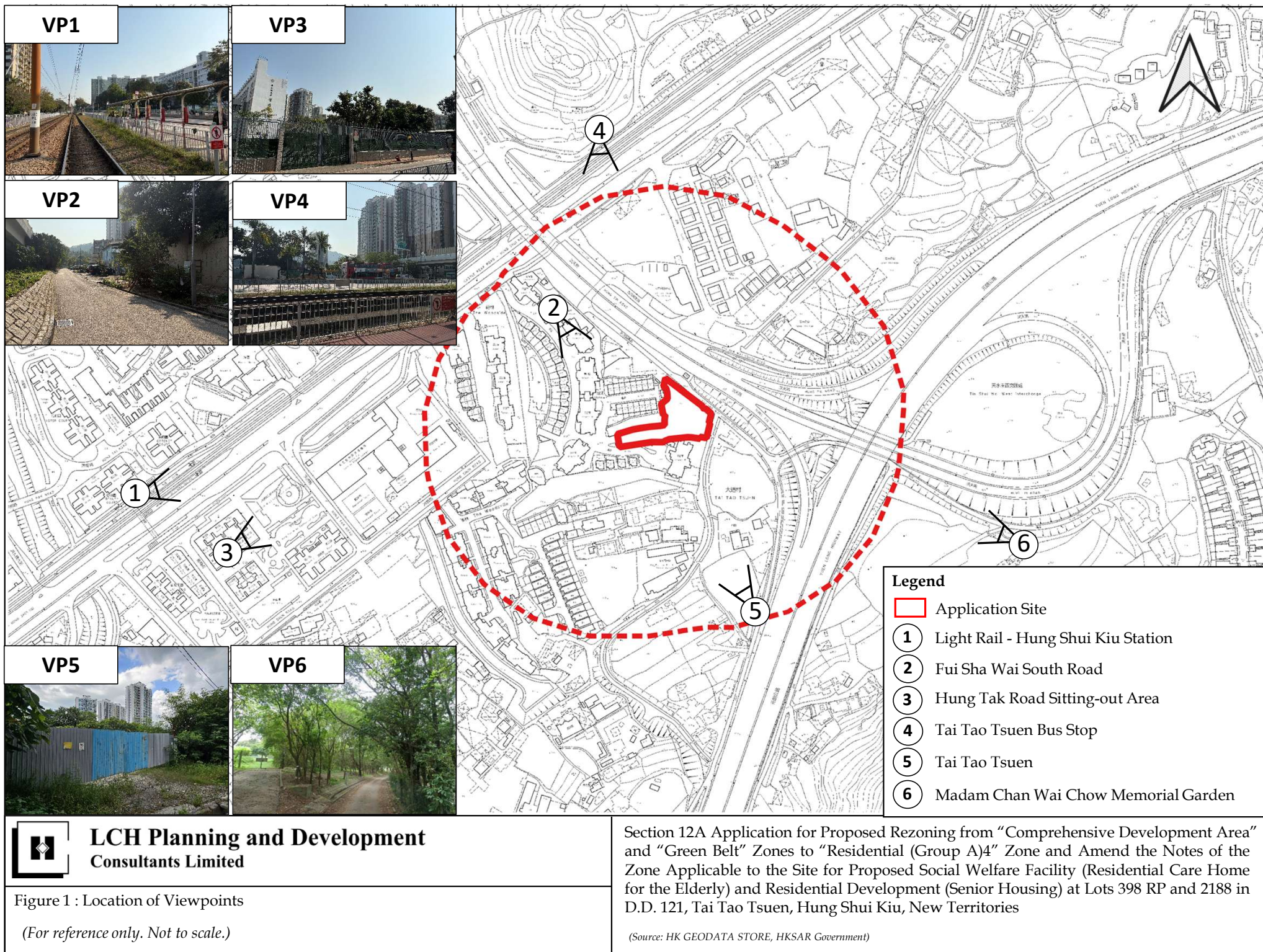
Maximise Provision of Open Space

- 4.3.18 To promote a high-quality living environment, the Proposed Development shall maximise of open space provision to enhance well-being and social interaction among the future users and visitors. A variety of landscape open spaces are proposed at the ground floor and landscape deck at 7/F, such as a sitting garden, a gathering courtyard, fitness equipment zones and a viewing platform, to cater to the mobility and recreational needs of elderly. Green features are incorporated to enhance the overall aesthetic and ecological quality of the surrounding urban fabric. The open spaces are universally accessible, with barrier-free pathways and rest areas tailored to support seniors’ safety and comfort.
- 4.3.19 Design requirements, including the barrier-free design requirements under the B(P)R (Cap. 123F), Elderly-friendly Design Guidelines published by the Architectural Services Department (ArchSD).



5 CONCLUSION

- 5.1.1 The Visual Appraisal is prepared in support of the the Proposed Amendment involves rezoning the Application Site from “CDA” and “GB” and to amend the Notes of the OZP applicable to the Application Site for Proposed Development.
- 5.1.2 As demonstrated above, the Proposed Development is designed to be compatible with the surrounding low-to-high-rise residential developments in the neighbourhood. To ensure compatibility and enhance the visual quality of the area, the Indicative Scheme incorporates thoughtful sensitive design features, including strategically planned building layouts to maximize visual permeability, optimised building disposition and massing, as well as the integrated landscape design that enriches the aesthetic appeal of the surroundings. These elements aim to create a cohesive and visually pleasing environment that complements the existing urban fabric in Hung Shui Kiu.
- 5.1.3 Hence, a Visual Appraisal has confirmed that the Proposed Development will create slight impact to the surroundings and is considered not incompatible with the surrounding residential neighbourhood. With the implementation of sensitive design measurement, it is anticipated that the Proposed Development will create minimal to negligible visual impact to the surroundings and is considered not incompatible with the surrounding environment.



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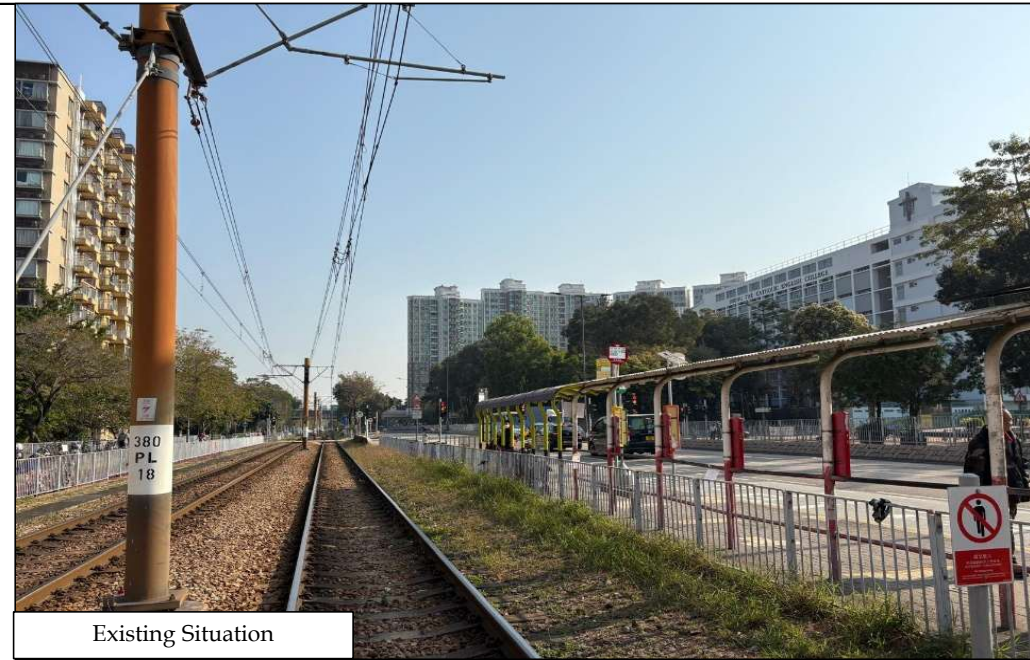
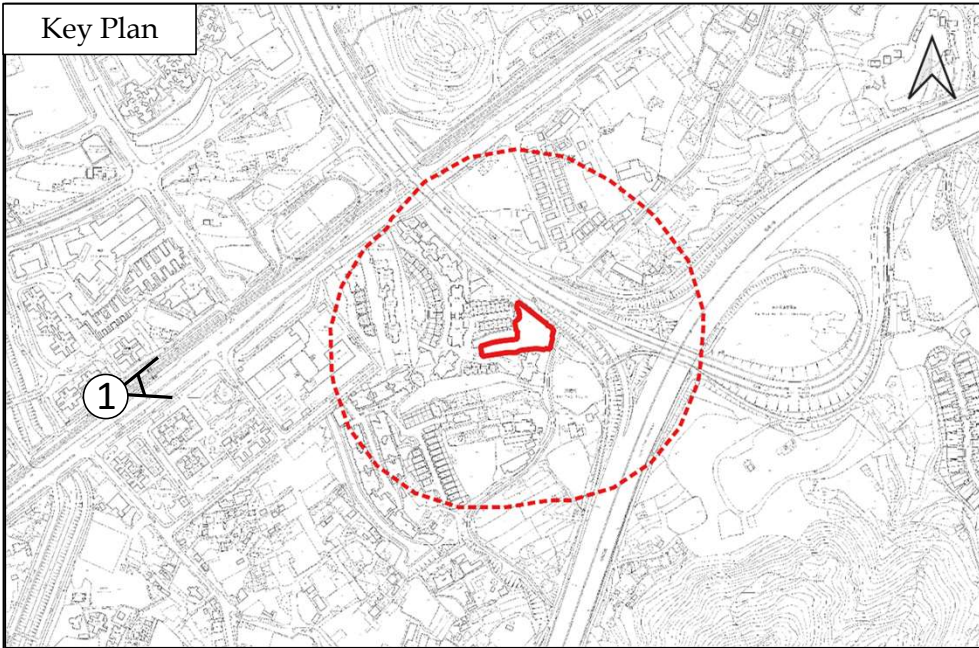
Figure 1 : Location of Viewpoints

(For reference only. Not to scale.)

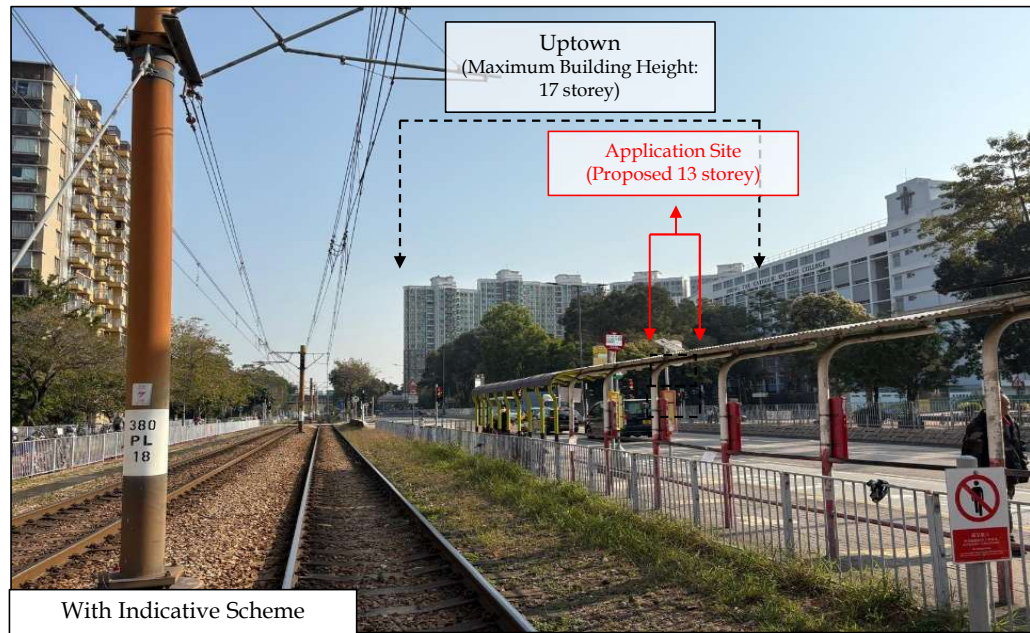
Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and Amend the Notes of the Zone Applicable to the Site for Proposed Social Welfare Facility (Residential Care Home for the Elderly) and Residential Development (Senior Housing) at Lots 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

(Source: HK GEODATA STORE, HKSAR Government)

Key Plan



Existing Situation



With Indicative Scheme



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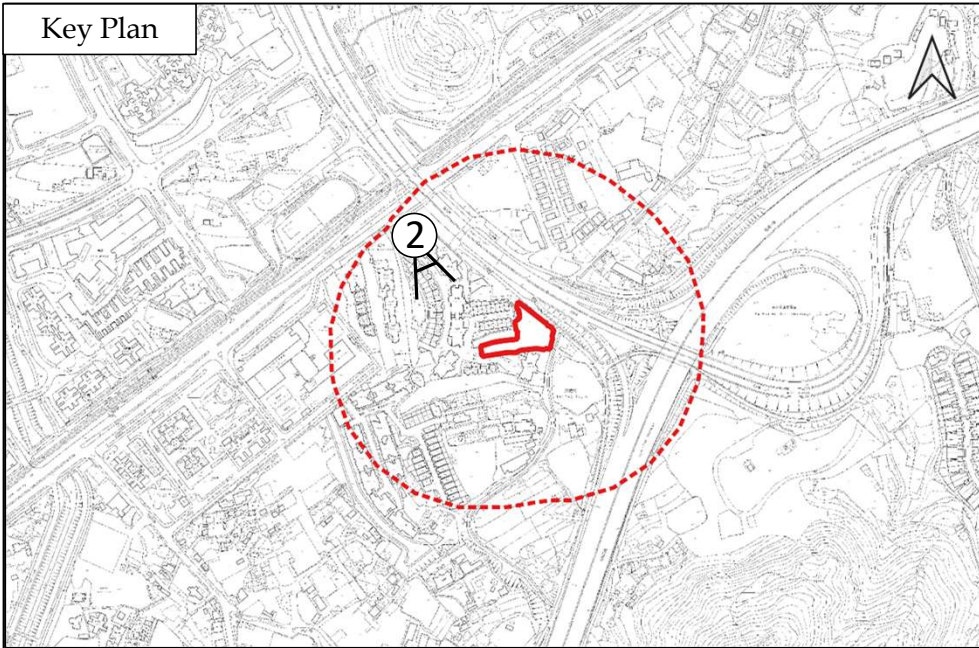
Figure 2 : Light Rail - Hung Shui Kiu Station (VP1)

(For reference only. Not to scale.)

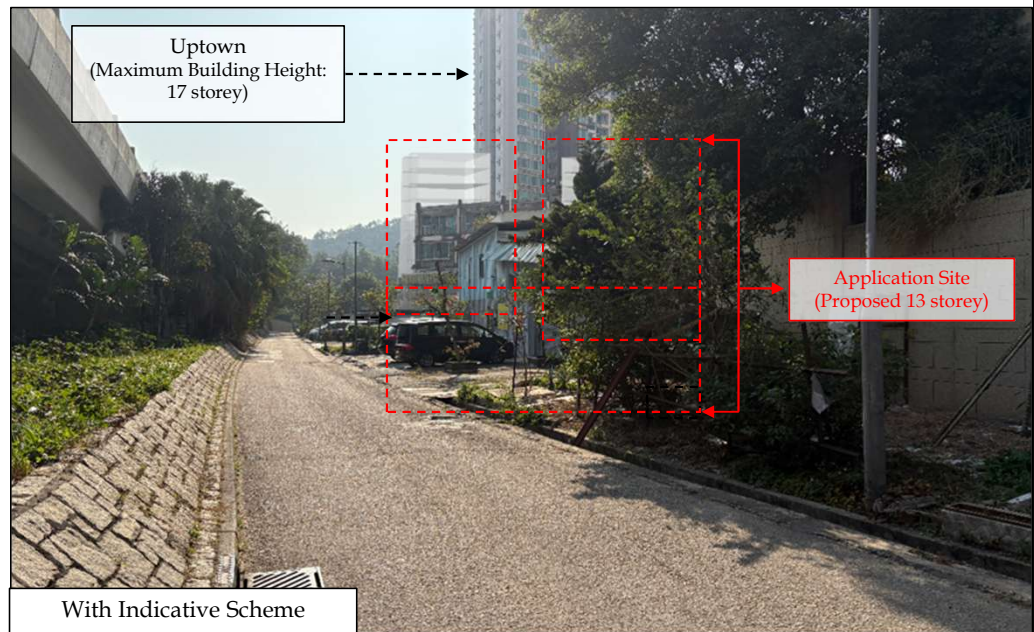
Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and Amend the Notes of the Zone Applicable to the Site for Proposed Social Welfare Facility (Residential Care Home for the Elderly) and Residential Development (Senior Housing) at Lots 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

(Source: HK GEODATA STORE, HKSAR Government)

Key Plan



Existing Situation



With Indicative Scheme



**LCH Planning and Development
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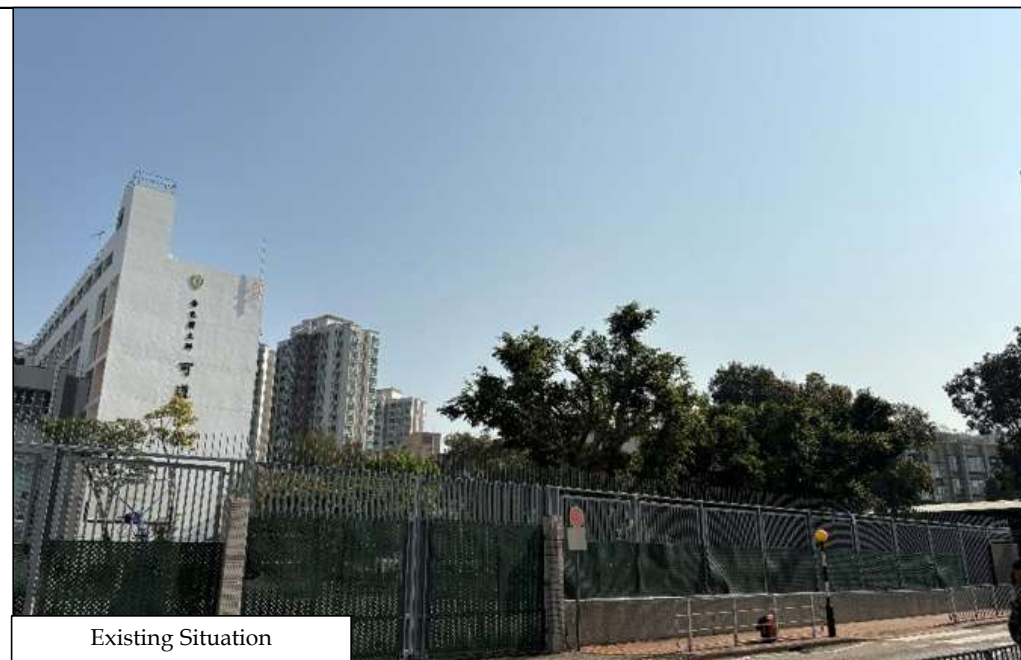
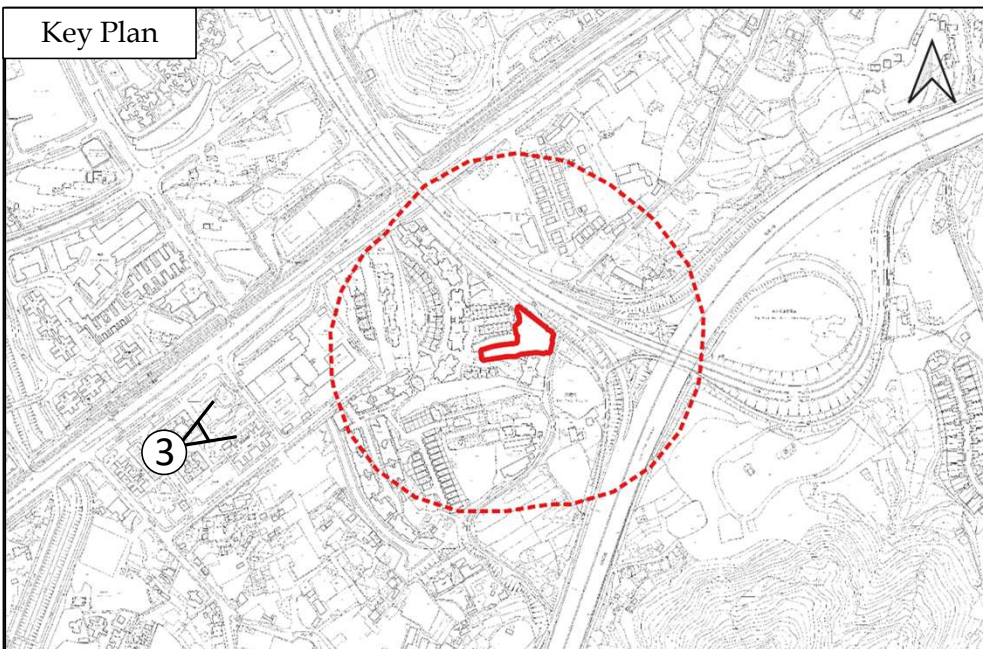
Figure 3 : Fui Sha Wai South Road (VP2)

(For reference only. Not to scale.)

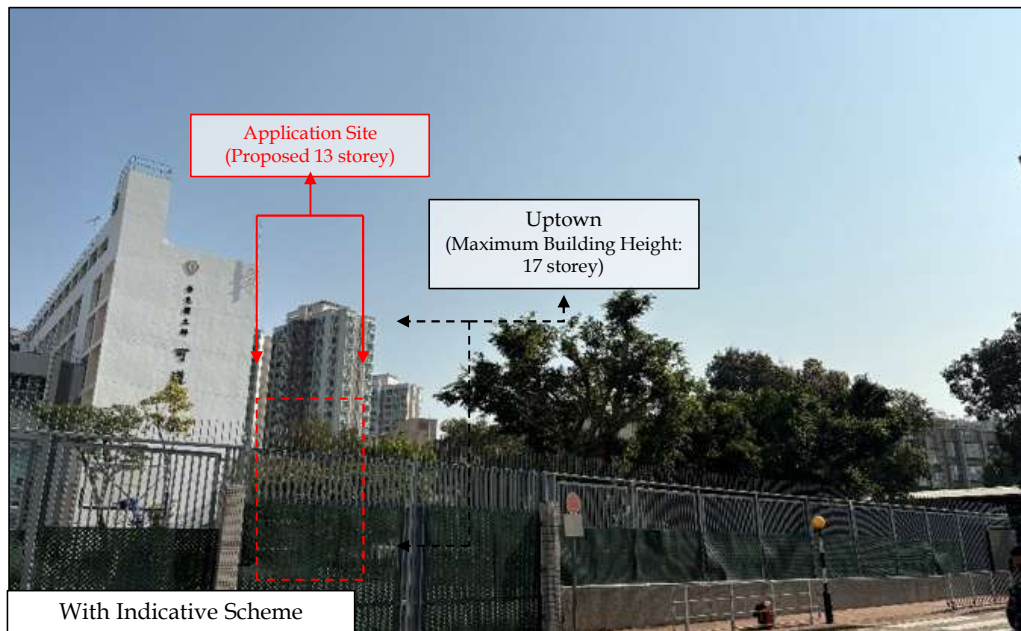
Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and Amend the Notes of the Zone Applicable to the Site for Proposed Social Welfare Facility (Residential Care Home for the Elderly) and Residential Development (Senior Housing) at Lots 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

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Key Plan



Existing Situation



With Indicative Scheme



**LCH Planning and Development
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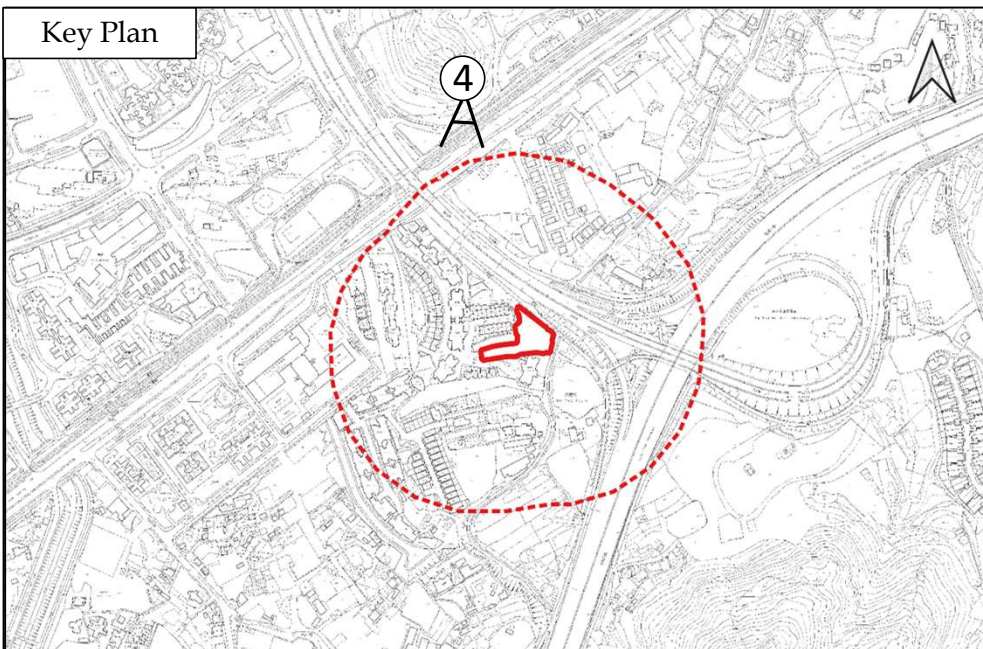
Figure 4 : Hung Tak Road Sitting-out Area (VP3)

(For reference only. Not to scale.)

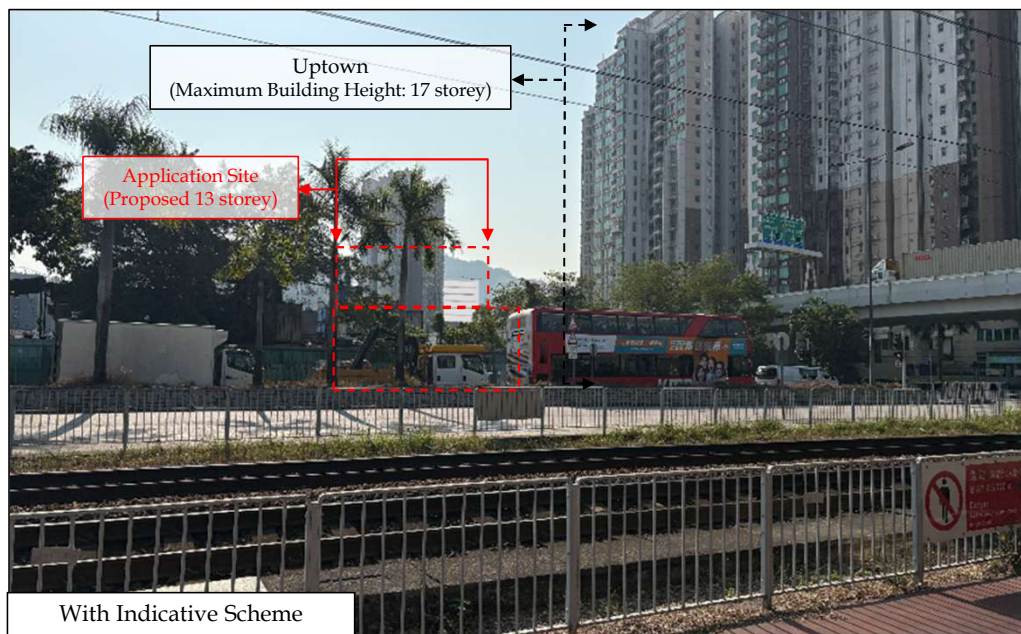
Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and Amend the Notes of the Zone Applicable to the Site for Proposed Social Welfare Facility (Residential Care Home for the Elderly) and Residential Development (Senior Housing) at Lots 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

(Source: HK GEODATA STORE, HKSAR Government)

Key Plan



Existing Situation



With Indicative Scheme



**LCH Planning and Development
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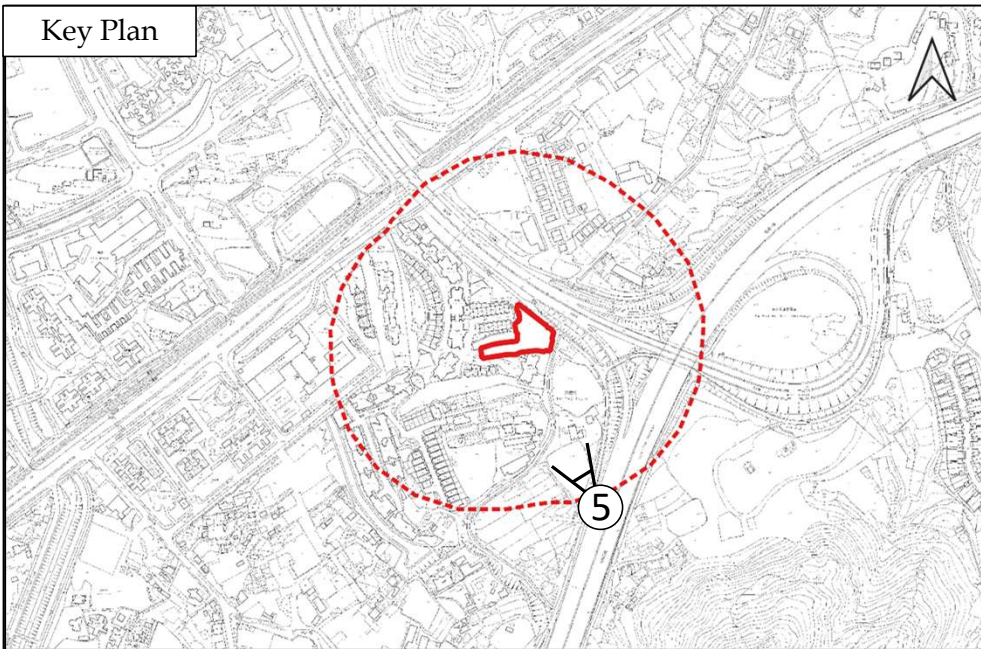
Figure 5 : Tai Tao Tsuen Bus Stop (VP4)

(For reference only. Not to scale.)

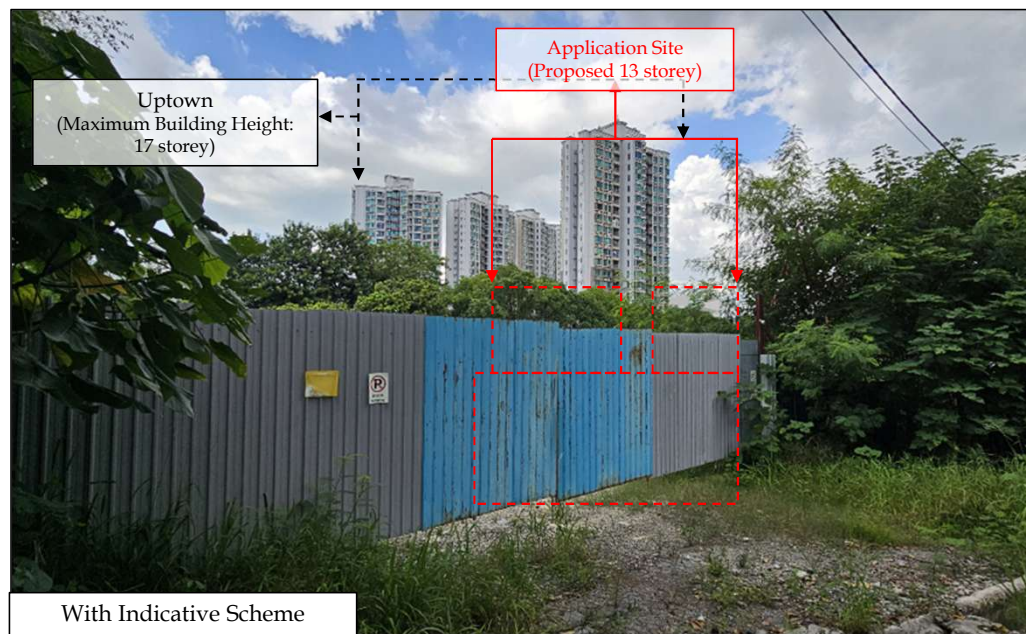
Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and Amend the Notes of the Zone Applicable to the Site for Proposed Social Welfare Facility (Residential Care Home for the Elderly) and Residential Development (Senior Housing) at Lots 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

(Source: HK GEODATA STORE, HKSAR Government)

Key Plan



Existing Situation



With Indicative Scheme



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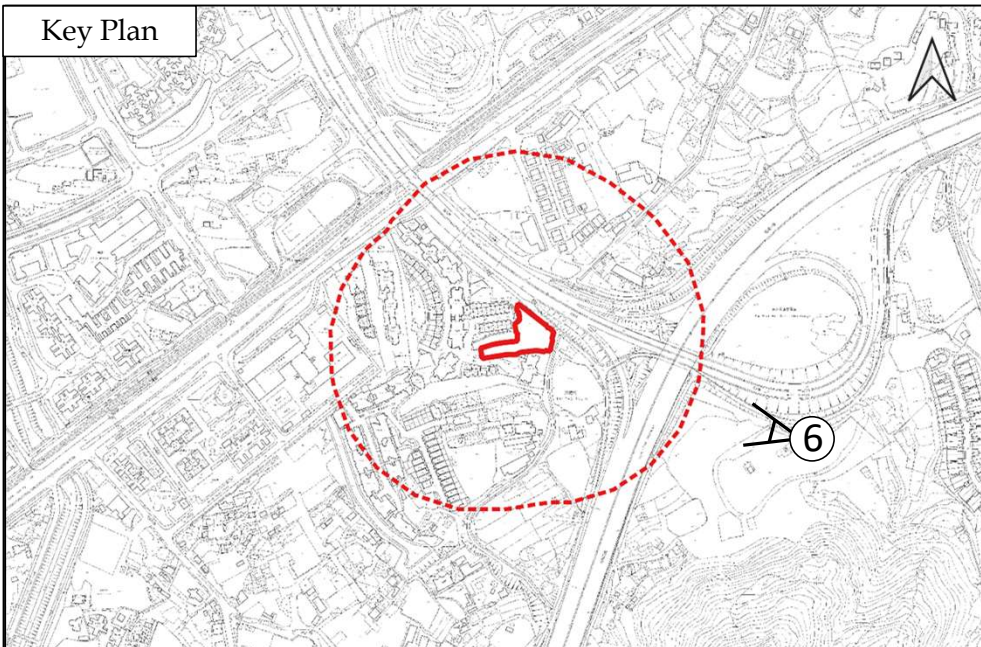
Figure 6 : Tai Tao Tsuen (VP5)

(For reference only. Not to scale.)

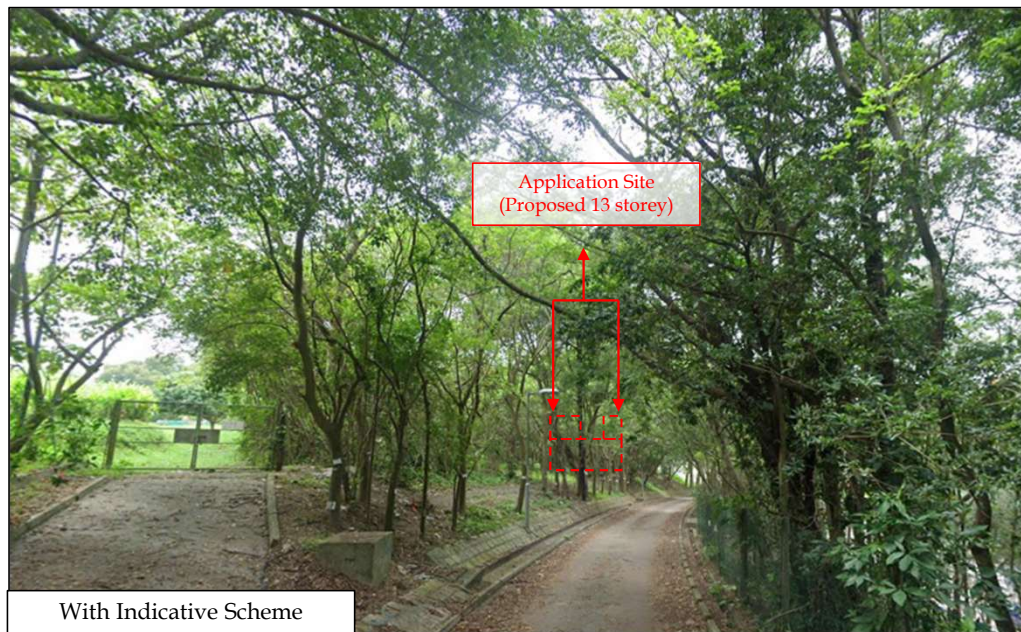
Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and Amend the Notes of the Zone Applicable to the Site for Proposed Social Welfare Facility (Residential Care Home for the Elderly) and Residential Development (Senior Housing) at Lots 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

(Source: HK GEODATA STORE, HKSAR Government)

Key Plan



Existing Situation



With Indicative Scheme



**LCH Planning and Development
Consultants Limited**

Figure 7 : Madam Chan Wai Chow Memorial Garden (VP6)

(For reference only. Not to scale.)

Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and Amend the Notes of the Zone Applicable to the Site for Proposed Social Welfare Facility (Residential Care Home for the Elderly) and Residential Development (Senior Housing) at Lots 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

(Source: HK GEODATA STORE, HKSAR Government)

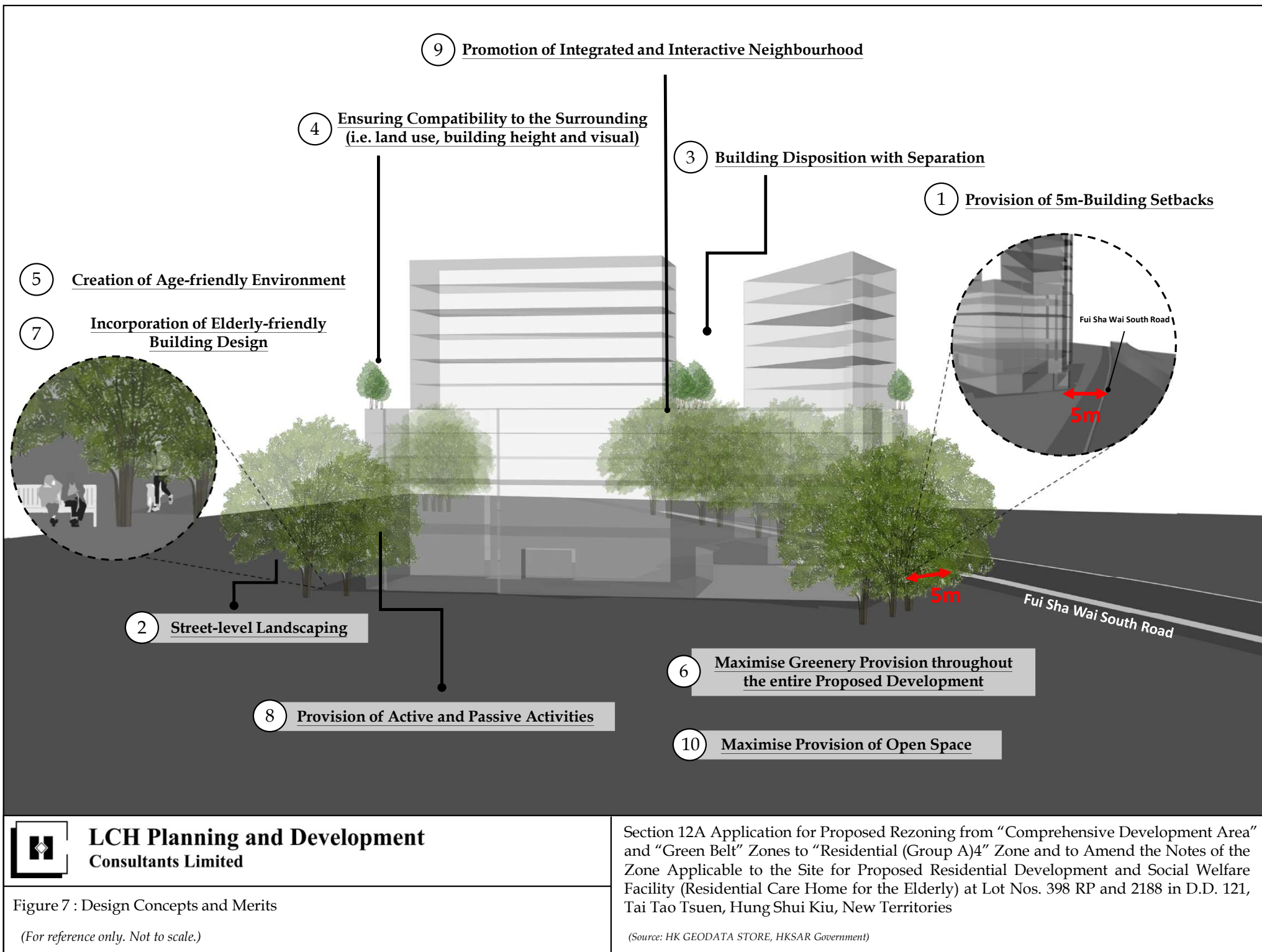


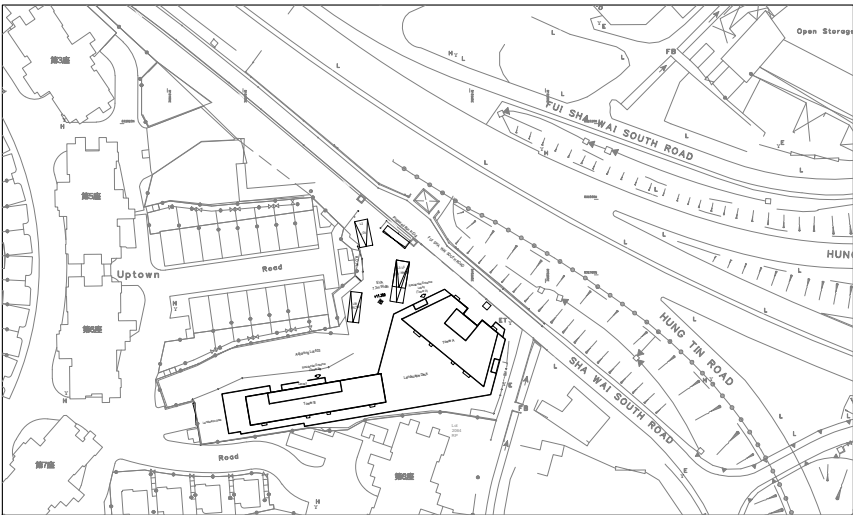
Figure 7 : Design Concepts and Merits

(For reference only. Not to scale.)

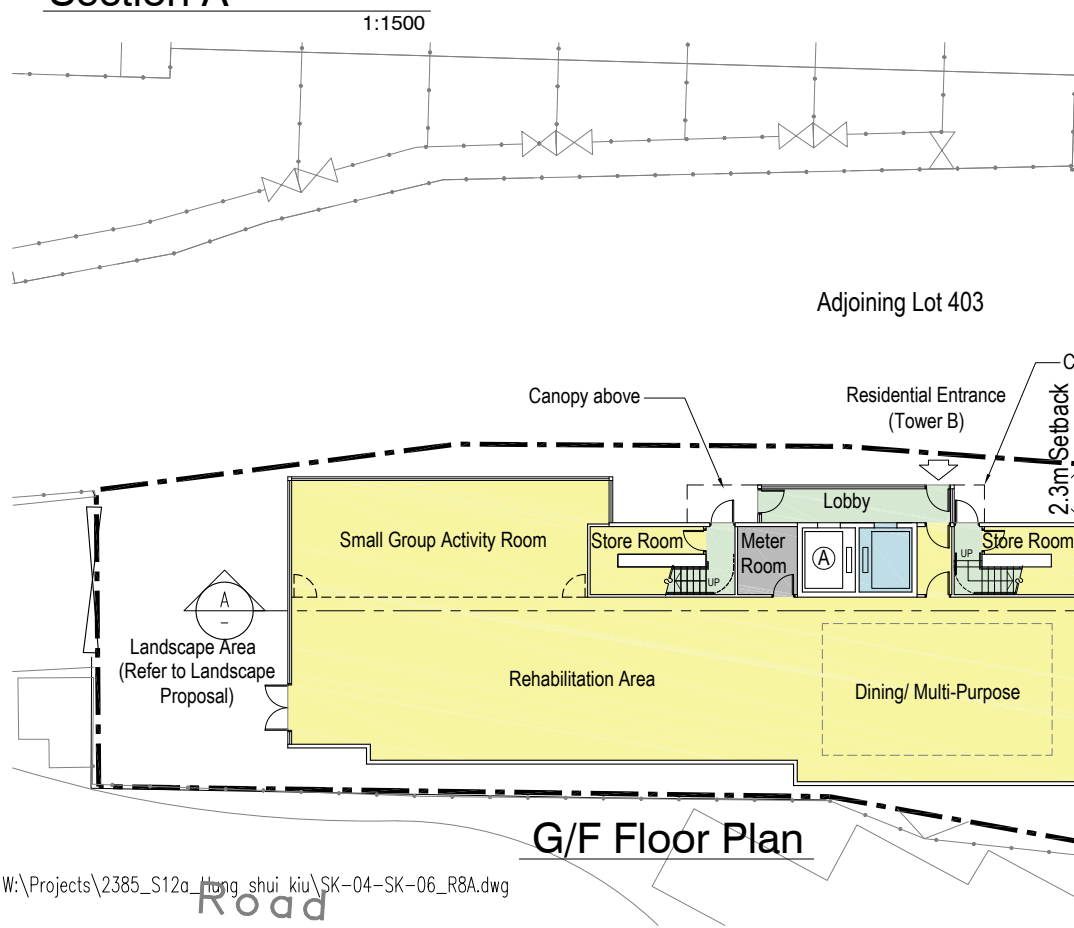
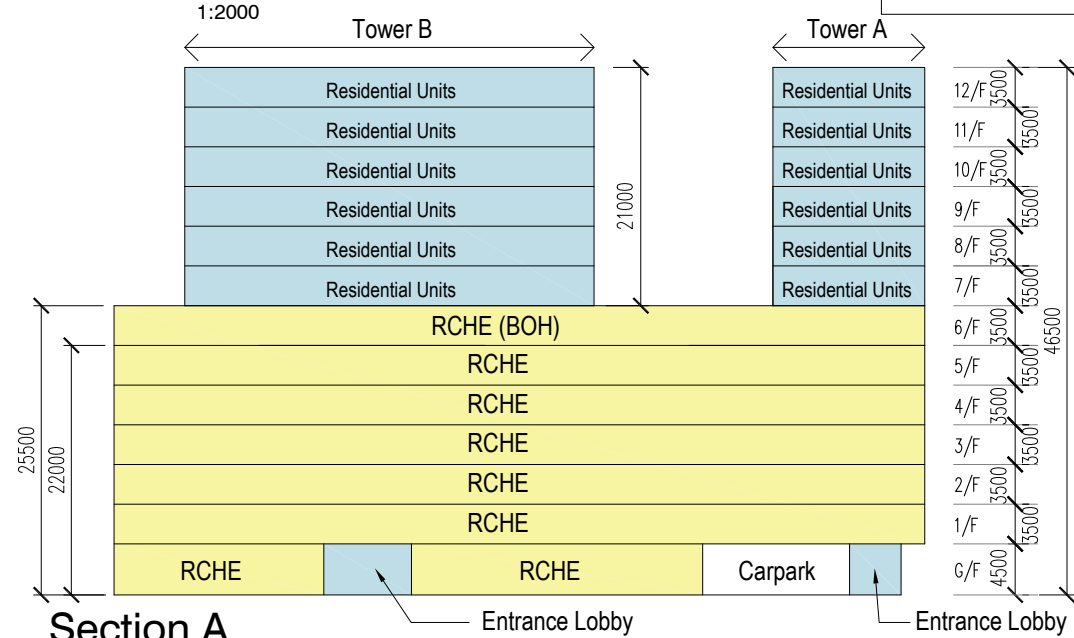


APPENDIX 1

INDICATIVE ARCHITECTURAL DRAWINGS



Site Plan



	RCHE(P)	Residential Towers				Carparking Space		
		Tower A (Units)		Tower B (Units)		Parking	Private Cars (5x2.5m)	14
G/F	-	-		-			Light Bus (8x3m)	2
1/F-5/F	90 x 5	-		-			Motocycles (2.4x1m)	2
6/F	-	-		-			Private Car (5x2.5m)	1
7-12/F	-	Living Unit B1-B6 =6	x 6	Living Unit A1-A6 =6	x 6	Loading/ Unloading Bay	LGV (7x3.5m)	2
Total Capacity	450	36		36			MHGV (11x3.5m)	1
		72				Total		22
Total Nos. of Rooms for RCHE		14 x 5 = 70						
Total Blocks for Residence		2						

PLOT RATIO & SITE COVERAGE CALCULATIONS (AREA UNDER BD)

Site Area	= 2138 S.M.
Class of Site	= A
Mean Street Level	=11.30mPD
Height of Building Above Mean Street Level	= 46.5m
Building Height in mPD	=(11.30 + 46.5) =57.80mPD
Permitted Domestic Site Coverage (Over 43m)	= 37%
Permitted Non-Domestic Site Coverage (Over 24m)	= 89%
Permitted Domestic Plot Ratio (Over 43m)	= 5.9
Permitted Non-Domestic Plot Ratio (Over 24m)	= 8
Proposed Domestic Site Coverage Calculation	= 569 S.M. / 2138 x 100% = 26.6% < 37%
Proposed Non-Domestic Site Coverage Calculation	= 1219 S.M. / 2138 x 100% = 57% < 89%
Proposed Total Non-Domestic GFA	= 7406 / 2138 = 3.464
Non-Domestic Plot Ratio	= 3.464 < 8
Permitted Domestic Plot Ratio (Residue Method)	= (8 - 3.464) / 8 x 5.9 = 3.345
Proposed Total Domestic GFA	= 3519 / 2138 = 1.646
Domestic Plot Ratio	= 1.646 < 3.345

GFA CALCULATION

Ground Floor (Tower A)	= 114 S.M. (Exclude Carpark & Tx / Switch Room)
Ground Floor (Tower B)	= 576 S.M.
First to Sixth Floor	= 1159 x 5 + 1035 = 6830 S.M.
Seventh Floor (Tower A & B)	= 277 + 283 = 560 S.M. (Exclude Balconies)
Eighth to Twelfth Floor (Tower A & B)	= (282 + 287) x 5 = 2845 S.M. (Exclude Balconies)
Proposed Total Non-Domestic GFA	= 576 + 6830 = 7406 S.M.
Proposed Total Domestic GFA	= 114 + 560 + 2845 = 3519 S.M.

rev.	date	description
0	09-07-2025	First Issue
1	14-07-2025	Revision 1
2	16-07-2025	Revision 2
3	21-07-2025	Revision 3
4	01-09-2025	Revision 4
5	05-09-2025	Revision 5
6	03-03-2026	Revision 6
7	29-04-2026	Revision 7
8	25-06-2026	Revision 8

project title
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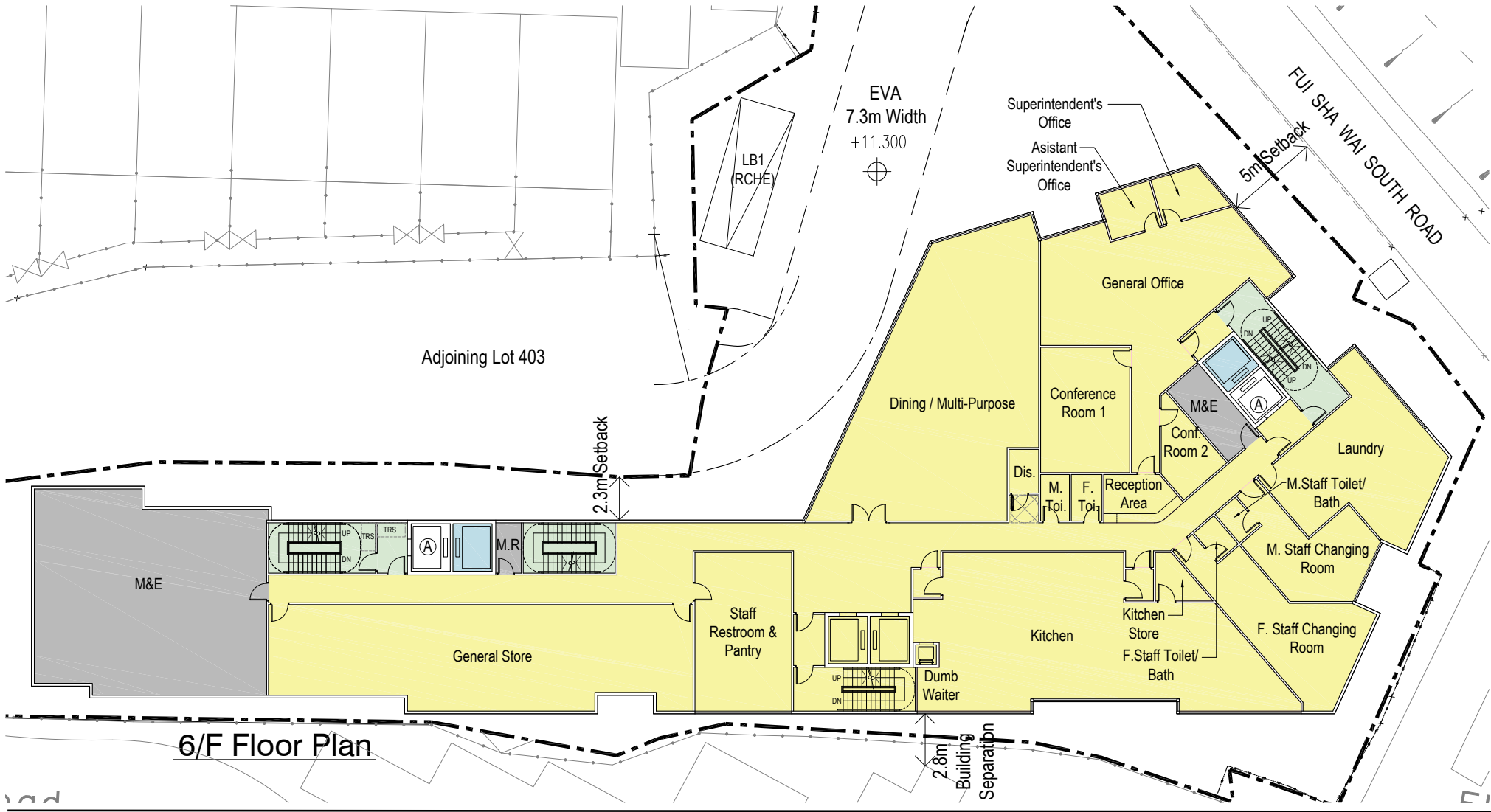
drawing title
Ground Floor Plan

drawing no.
SK-04_rev.8

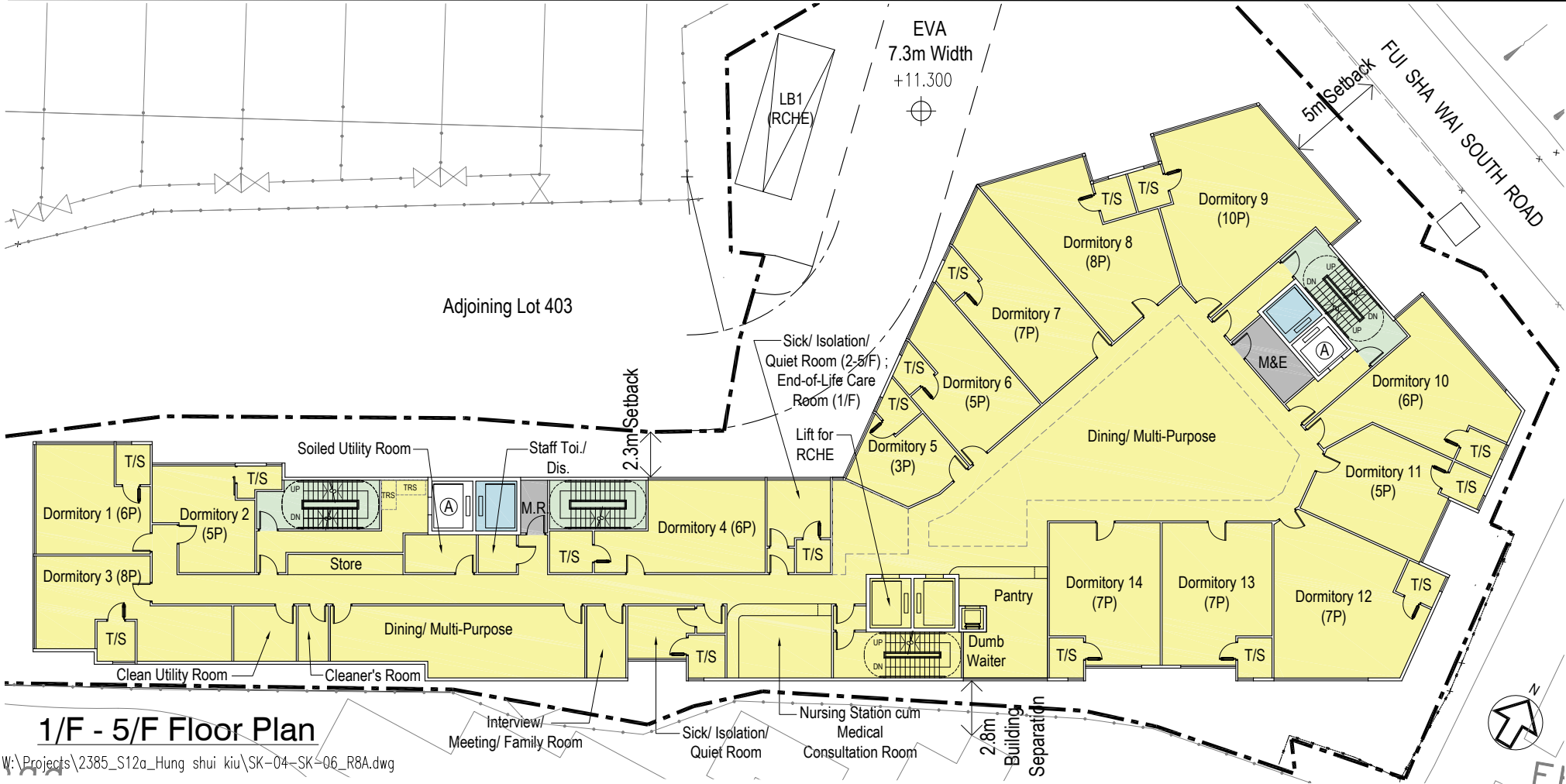
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LEGEND

- RCHE
- Residential
- RCHE & Residential
- E&M Services/ Supporting Facilities
- T/S Toilet & Shower
- Dis. Accessible Toilet
- (A) Firemen Lift to all Floors



6/F Floor Plan



1/F - 5/F Floor Plan

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SCHEDULE OF ACCOMMODATION FOR RESIDENTIAL CARE HOME FOR THE ELDERLY
(FOR 450 RESIDENTIAL CARE PLACES)

ITEM NO.	DESCRIPTION	NOFA (M²)	USABLE FLOOR AREA (M²)
		(PROPOSED 450 PERSONS)	
1	DORMITORY	2631	2631
2	ATTACHED BATHROOM/ SHOWER ROOM TO DORMITORY ROOM	AS APPROPRIATE	252.5
3	DINING/ MULTI-PURPOSE	989.2	989.2
4	PANTRY	AS APPROPRIATE	117.5
5	SMALL GROUP ACTIVITY ROOM	55.8	55.8
6	NURSING STATION CUM MEDICAL CONSULTATION ROOM	101.5	101.5
7	SICK/ ISOLATION/ QUIET ROOM	84.3	84.3
8	ACCESSIBLE TOILET CUM SHOWER ROOM ATTACHED TO EACH SICK/ ISOLATION/ QUIET ROOM	AS APPROPRIATE	32.1
9	REHABILITATION AREA	200	200
10	STORE FOR REHABILITATION AREA	10	10
11	END-OF-LIFE CARE ROOM	10.1	10.1
12	SOILED UTILITY ROOM	36	36
13	CLEANER'S ROOM	AS APPROPRIATE	22
14	LAUNDRY	55.4	55.4
15	KITCHEN & KITCHEN STORE	138.6	138.6
16	DUMB WAITER	AS APPROPRIATE	7.2
17	GENREAL STORE	159.5	159.5
18	CLEAN UTILITY ROOM	45	45
19	INTERVIEW/ MEETING/ FAMILY ROOM	37	37
20	REFUSE ROOM	AS APPROPRIATE	14
21	SUPERINTENDENT'S OFFICE	8	8
22	ASSISTANT SUPERINTENDENT'S OFFICE	7	7
23	GENERAL OFFICE	82.4	82.4
24	RECEPTION AREA	9.5	9.5
25	CONFERENCE ROOM	43.3	43.3
26	FEMALE/ MALE STAFF CHANGING ROOM AND REST ROOM CUM PANTRY	112	112
27	STAFF TOILET/ BATH ROOM	AS APPROPRIATE	24.7
28	TOILET FOR COMMUNAL USE A) FEMALE TOILET B) MALE TOILET C) ACCESSIBLE TOILET	AS APPROPRIATE	11.8
TOTAL		4815.6	5297.4
MAXIMUM OCCUPANTS PER FLOOR AREA (M²) = 4815.6/ 9.5 = 507 > 450 (PROPOSED TOTAL OCCUPANTS)			

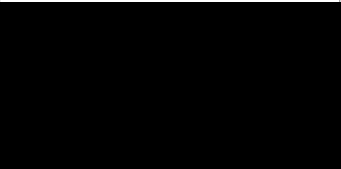
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7	29-04-2026	Revision 7
8	25-08-2026	Revision 8

project title
Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and To Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) and at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

drawing title
1/F - 6/F Floor Plans

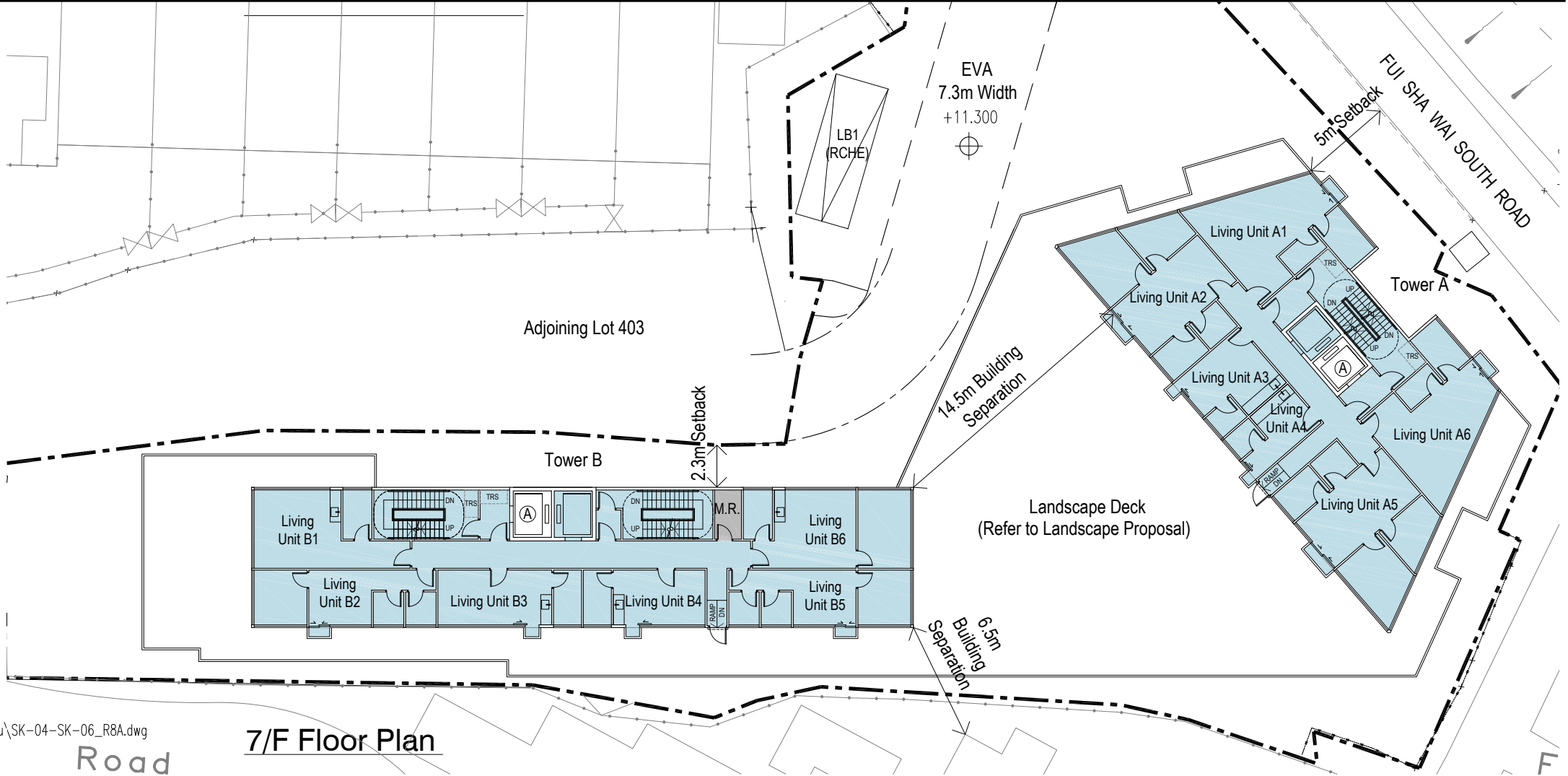
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8/F - 12/F Floor Plan



7/F Floor Plan

rev.	date	description
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1	14-07-2025	Revision 1
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3	21-07-2025	Revision 3
4	01-08-2025	Revision 4
5	05-08-2025	Revision 5
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project title

Section 12A Application for Proposed Rezoning from “Comprehensive Development Area” and “Green Belt” Zones to “Residential (Group A)4” Zone and To Amend the Notes of the Zone Applicable to the Site for Proposed Residential Development and Social Welfare Facility (Residential Care Home for the Elderly) and at Lot Nos. 398 RP and 2188 in D.D. 121, Tai Tao Tsuen, Hung Shui Kiu, New Territories

drawing title

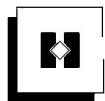
7/F - 12/F Floor Plans

drawing no.

SK-06_rev.8

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APPENDIX 9

**SCHEDULE OF USES FOR
"RESIDENTIAL (GROUP A) 4" ("R(A)4")
ZONE OF THE
TONG YAN SAN TSUEN OZP**

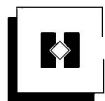
RESIDENTIAL (GROUP A)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Ambulance Depot Flat Government Use (not elsewhere specified) House Library Market Place of Recreation, Sports or Culture Public Clinic Public Transport Terminus or Station (excluding open-air terminus or station) Public Vehicle Park (excluding container vehicle) (on land designated "R(A)3" only) Religious Institution (Ancestral Hall only) Residential Institution Rural Committee/Village Office School (in free-standing purpose-designed building only) Social Welfare Facility Utility Installation for Private Project	Commercial Bathhouse/Massage Establishment Eating Place Educational Institution Exhibition or Convention Hall Government Refuse Collection Point Hospital Hotel Institutional Use (not elsewhere specified) Office Petrol Filling Station Place of Entertainment Private Club Public Convenience Public Transport Terminus or Station (not elsewhere specified) Public Utility Installation Public Vehicle Park (excluding container vehicle) (not elsewhere specified) Religious Institution (not elsewhere specified) School (not elsewhere specified) Shop and Services (not elsewhere specified) Training Centre

In addition, the following uses are always permitted
 (a) on the lowest three floors of a building, taken to
 include basements; or (b) in the purpose-designed
 non-residential portion of an existing building, both
 excluding floors containing wholly or mainly car
 parking, loading/unloading bays and/or plant room:

Eating Place
 Educational Institution
 Institutional Use (not elsewhere specified)
 Off-course Betting Centre
 Office
 Place of Entertainment
 Private Club
 Public Convenience
 Recyclable Collection Centre
 School
 Shop and Services
 Training Centre

(Please see next page)



APPENDIX 10

PROPOSED REVISION FOR THE NOTES OF THE TONG YAN SAN TSUEN OZP

RESIDENTIAL (GROUP A) (cont'd)Planning Intention

This zone is intended primarily for high-density residential developments. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.

Remarks

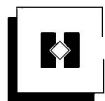
- (a) On land designated “Residential (Group A)” (“R(A)”), no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 5, a maximum site coverage of 42% and a maximum building height of 12 storeys (36m), or the plot ratio, site coverage and height of the building which was in existence on the date of the first publication in the Gazette of the notice of the draft development permission area plan, whichever is the greater. The lowest three floors could have a maximum site coverage of 100%.
- (b) On land designated “R(A)1” and “R(A)2”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio and maximum building height specified below, or the plot ratio and height of the existing building, whichever is the greater:

<u>Sub-area</u>	<u>Maximum Plot Ratio</u>	<u>Maximum Building Height</u>
R(A)1	6.5	155mPD
R(A)2	6.5	205mPD

- (c) On land designated “R(A)3”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 7 and a maximum building height of 160mPD, or the plot ratio and height of the existing building, whichever is the greater.
- (d) On land designated “R(A)4, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 4.91 and a maximum building height of 60mPD, or the plot ratio and height of the existing building, whichever is the greater.*

(Please see next page)

- (e) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio, site coverage and building height restrictions stated in paragraphs (a) to (d) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.
- (f) In determining the maximum plot ratio and site coverage for the purposes of paragraphs (a) to (d) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.
- (g) In determining the maximum plot ratio for the purposes of paragraph (c) above, any floor space that is constructed or intended for use solely as Government, institution or community (GIC) facilities and public vehicle park, as required by the Government, may be disregarded.
- (h) In determining the maximum plot ratio for the purposes of paragraphs (b) and (c) above, the area of any part of the site that is occupied or intended to be occupied by free-standing purpose-designed buildings (including both developed on ground and on podium level) solely for accommodating GIC facilities including school(s) as may be required by the Government shall be deducted in calculating the relevant site area.



APPENDIX 11

PROPOSED REVISION FOR THE EXPLANATORY STATEMENT OF THE TONG YAN SAN TSUEN OZP

10. LAND-USE ZONINGS

10.1 Comprehensive Development Area (“CDA”) : Total Area : **3.14 ha**

10.1.1. This zone is intended for comprehensive development/redevelopment of the area for residential use with the provision of open space, commercial and other supporting facilities, if any. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints. Although existing uses are tolerated, any development/redevelopment proposal on sites under this zoning should be submitted to the Board in the form of a Master Layout Plan (MLP) for consideration, except as otherwise expressly provided that it is not required by the Board. Pursuant to section 4A(3) of the Ordinance, a copy of the approved MLP shall be made available for public inspection in the Land Registry. The two “CDA” sites designated on the OZP are as follows:

10.1.2. “CDA” zone to the west of Hung Tin Road

A site of about **2.15 ha** at the intersection of Castle Peak Road and Hung Tin Road is zoned “CDA”. Development in the site is restricted to a total gross floor area (GFA) not exceeding **64,500m²** (equivalent to a plot ratio of 3) and a maximum building height of 17 storeys. Major part of the site has been developed for residential use, known as Uptown.

10.1.3. “CDA” zone in Tan Kwai Tsuen

A site of about 1 ha to the south of Tan Kwai Tsuen was the subject of a residential development approved by the Board. Development in the site is restricted to a total GFA not exceeding 9,925m² (equivalent to a plot ratio of 1) and a maximum building height of 4 storeys over single-storey car park.

10.1.4. To provide flexibility for innovative design adopted to the characteristics of particular sites, minor relaxation of the above restrictions for the two “CDA” zones may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.

10.1.5. As the areas along Castle Peak Road - Hung Shui Kiu Section, Hung Tin Road and Yuen Long Highway would be subject to traffic noise impact, noise mitigation measures such as the use of screening structures and the adoption of self-protective building layout would need to be implemented.

10.2 Residential (Group A) (“R(A)”) : Total Area : **36.23 ha**

- 10.2.1. This zone is intended primarily for high-density residential developments. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.
- 10.2.2. A site along Castle Peak Road - Hung Shui Kiu Section is designated as “R(A)” for high density residential development. Development within this zone is restricted to a maximum plot ratio of 5, a maximum site coverage of 42% and a maximum building height of 12 storeys (36m), or the plot ratio, site coverage and height of the building which was in existence on the date of the first publication in the Gazette of the notice of the draft DPA plan, whichever is the greater. The lowest three floors could have a maximum site coverage of 100%.
- 10.2.3. As the areas along Castle Peak Road - Hung Shui Kiu Section would be subject to traffic noise impact, noise mitigation measures such as the use of screening structures and the adoption of self-protective building layout would need to be implemented.
- 10.2.4. There are also three sub-areas which are subject to the following development restrictions:

“Residential (Group A)1” (“R(A)1”) and “Residential (Group A)2” (“R(A)2”) : Total Area : 10.16 ha and 10.63 ha respectively

- (a) The “R(A)1” site located to the west of Long Tin Road and to the north of the Tong Yan San Tsuen Interchange, and the “R(A)2” site located to the south of Tan Kwai Tsuen South Fresh Water Service Reservoir are intended for public housing developments. Developments within these sites are subject to a maximum plot ratio of 6.5 and a maximum building height of 155mPD and 205mPD for the “R(A)1” and “R(A)2” sites respectively, or the plot ratio and height of the existing building, whichever is the greater.
- (b) Various Government, institution or community (GIC) facilities including kindergartens, primary schools and social welfare facilities, retail facilities, as well as public transport termini would be provided within the developments of the “R(A)1” and “R(A)2” sites.
- (c) Two Air Ventilation Assessments-Expert Evaluation (AVAs-EE) have been carried out for the “R(A)1” and “R(A)2” sites. It is found that design measures, including non-building area, building separations and setbacks, would alleviate the potential air ventilation impacts on the surrounding wind environment. Quantitative AVAs should be carried out at the detailed design stage. Requirements of the design measures and quantitative AVAs

will be incorporated in the planning briefs for implementation as appropriate.

“Residential (Group A)3” (“R(A)3”): Total Area : 13.33 ha

- (d) Five sites to the west of Kung Um Road and south of Yuen Long Highway are intended for public housing developments. Developments within these sites are subject to a maximum plot ratio of 7 and a maximum building height of 160mPD, or the plot ratio and height of the existing building, whichever is the greater.
- (e) For the site abutting Kung Um Road, an area with a width of 20m should be reserved for provision of public open space, such that a green spine connecting the open space along this main thoroughfare could be formed for visual connectivity and air ventilation purposes as proposed under the YLS Study.
- (f) Various GIC facilities including kindergartens, social welfare facilities, open spaces, and retail facilities may be provided within the developments of the “R(A)3” sites. A wet market may be provided at one of the “R(A)3” sites subject to further study.
- (g) To facilitate provision of GIC facilities and public vehicle parks, in determining the maximum plot ratio of the development and/or redevelopments, any floor space that is constructed or intended for use solely as GIC facilities and public vehicle parks, as required by the Government, may be disregarded. ‘Public vehicle park (excluding container vehicle)’ use is always permitted within the “R(A)3” sub-area.
- (h) Planning briefs setting out the planning parameters, building heights, provision of GIC facilities and the design requirements of individual public housing sites will be prepared to guide the future development of the sites. In terms of design requirements, these may include the incorporation of lower-rise building areas abutting adjacent village settings and variations in building height to formulate an urban form with a building height profile gradually descending from north to south across the YLS area to ensure visual harmony with the surroundings.

“Residential (Group A)4” (“R(A)4”): Total Area: 0.21 ha

- (i) The “R(A)4” site located to the west of Fu Sha Wai South Road and Hung Tin Road and to the south west of the Tin Shui Wai West Interchange, are intended for residential development and*

residential care homes for the elderly. Development within this site is subject to a maximum plot ratio of 4.91 and a maximum building height of 60mPD for the “R(A)4”, or the plot ratio and height of the existing building, whichever is the greater

- 10.2.5. To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the above restrictions may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.

10.13 Green Belt (“GB”) : Total Area : *120.78 ha*

- 10.13.1. The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. Area zoned “GB” may include foothills, lower hill slopes, spurs, isolated knolls, woodland, traditional burial ground or vegetated land which are found at the urban fringe. There is a general presumption against development within this zone. However, limited developments may be permitted with or without conditions on application to the Board, and each application will be considered on its individual merits taking into account the relevant Town Planning Board Guidelines.
- 10.13.2. The “GB” zone covers the foothills and slope of the mountain range at the south-western portion of the Area including the ex-quarry sites and areas with natural vegetation, woodlands, hill slopes and graves. It also covers the foothills and fallow agricultural land in the central part of the Area and two knolls near Ma Fung Ling Road to the south of Castle Peak Road - Ping Shan Section. The “GB” zone along the north-western side of Yuen Long Highway serves as a buffer to the residential areas to its north-west.
- 10.13.3. As filling of land/pond and excavation of land may cause adverse drainage impacts on the adjacent areas and adverse impacts on the natural environment, permission from the Board is required for such activities.