

Proposed Public Housing / Starter Homes Development and Private Residential Development with Government, Institution or Community Facilities at Various Lots in D.D. 122 and Adjoining Government Land, Yuen Long, New Territories (Land Sharing Pilot Scheme (Application No.: LSPS/005))

Sewerage Impact Assessment

September 2025

Proposed Public Housing / Starter Homes Development and Private Residential Development with Government, Institution or Community Facilities at Various Lots in D.D. 122 and Adjoining Government Land, Yuen Long, New Territories (Land Sharing Pilot Scheme (Application No.: LSPS/005))

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1. Introduction

1.1 Background

- 1.1.1 AECOM Asia Company Limited (AECOM) has been commissioned by the Applicant to carry out a Sewerage Impact Assessment (SIA) for the proposed Land Sharing Pilot Scheme (LSPS) Application in Wing Ning Tsuen, Yuen Long.
- 1.1.2 The purpose of this application is underpinned by the acute shortage of both public and private housing supply in Hong Kong. In the next decade, the Government estimates that there will be a major deficit of public and private housing production. Several policy initiatives have emerged to tackle the housing supply problem, the most notable of which is LSPS.
- 1.1.3 The Site is located in Wing Ning Tsuen, to the west of MTR Long Ping Station, to the east of Long Tin Road and to the northwest of Long Ping Road.
- 1.1.4 The Application Site falls within the area under the Approved Ping Shan Outline Zoning Plan No. S/YL-PS/20, and is zoned partly “Green Belt” (GB) and partly “Comprehensive Development Area” (CDA).
- 1.1.5 The Applicant proposes a public housing / starter homes development and private residential development (around 7:3 in terms of flat supply), with supporting infrastructure and community facilities under LSPS.
- 1.1.6 The Application Site refers to all land area covered by this LSPS application. The Development Sites comprise the proposed development of public and private residential flats with supporting commercial and G/IC facilities. The Application Site also includes an upgraded public access road. Please refer to **Table 1** for the proposed development scheme.

The Application Site	
Application Site Area incl.	
- Development Sites	45,465 m ² (about)
- Public Access Road	17,132 m ² (about)
Total GFA	
- Domestic	288,643 m ² (about)
- Non-domestic	11,060 m ² (about)
Total No. of Flats	5,773
Design Population	16,164
Development Site A1 (Private Residential Portion)	
Site Area	13,760 m ² (about)
Domestic Plot Ratio	6.0 (about)
Total GFA	
- Domestic GFA	82,560 m ² (about)
- Non-domestic GFA	7,000 m ² (about)
No. of Flats (Private)	1,651 (about)
Maximum Number of Storeys	39
Maximum Building Height	not more than 175mPD

Development Sites A2, B, C1 & C2 and D (Public Housing/Starter Homes (PH/SH) Portion)	
Site Area	31,705 m ² (about)
Domestic Plot Ratio	6.5 (about)
Total GFA	
- Domestic GFA	206,083m ² (about)
- Non-domestic GFA	4,060 m ² (about)
No. of Flats (Public)	4,122 (about)
Maximum Number of Storeys	45
Maximum Building Height	not more than 160mPD

Table 1 – Proposed Development Scheme

1.2 Objective of this Submission

1.2.1 This report outlines the assessment results of the potential sewerage impacts caused by the Proposed Development at the Application Site. The main objectives of this assessment include the followings:

- (i) Review the existing sewerage condition of the Application Site;
- (ii) Outline the methodology adopted in this assessment;
- (iii) Identify any potential impact on the current sewerage system due to the additional sewage discharge from the proposed development and the existing developments/villages nearby;
- (iv) Propose sewerage mitigation measures where appropriate to mitigate the potential sewerage impact.

1.3 Nomenclature

1.3.1 The following abbreviations and shortened expressions in **Table 2** are adopted in this report.

ADWF	Average Dry Weather Flow
AECOM	AECOM Asia Company Limited
CIFSUS	Commercial and Industrial Floor Space Utilization Survey (PlanD)
DSD	Drainage Services Department
EPD	Environmental Protection Department
F&B	Food and Beverage
GESF	Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning Version 1.0 (EPD)
GFA	Gross Floor Area
mPD	Metres above Principal Datum
PlanD	Planning Department
SM(I)	Sewerage Manual Part 1 (3 rd Edition, DSD)
SIA	Sewerage Impact Assessment
UFF	Unit Flow Factor
WCPHD	Public Housing Development at Wang Chau
PE	Polyethylene
VO	Village Office
RCP	Refuse Collection Point

Table 2 – Nomenclature

2. Development Proposal

2.1 The Proposed Development

- 2.1.1 The Application Site consists of (i) Development Sites with an area of about 45,465 m²; and (ii) proposed public access road of about 17,132 m². Welfare facilities including a 30-place Small Group Home for Mildly Mentally Handicapped Children (SGHMMHC) and a Neighbourhood Elderly Centre (NEC) are proposed. The general layout of the proposed development is shown in **Figure 2**. The development schedule presented is referred to the Planning Statement. Non-residential population estimation references the Commercial and Industrial Floor Space Utilization Survey (CIFSUS) conducted by Planning Department (PlanD).
- 2.1.2 The anticipated completion year of the Proposed Development is 2032/2033.
- 2.1.3 The Master Layout Plan (MLP) of the Proposed Development is shown in **Figure 2**. The proposed development site areas are summarized in **Table 3** below.

Development Site / Public Access Road	Site Area (m ²)
Private	
Site A1	13,760
Public	
Site A2	4,947
Site B	9,812
Site C1 & C2	12,500
--- Site C1	--- 4,208
--- Site C2	--- 8,292
Site D	4,446
Sub-Total (Private + Public (PH/SH))	45,465
Public Access Road	17,132

Table 3 – Development Schedule

3. Assessment Methodology

3.1 Sewerage Impact Assessment Methodology

3.1.1 The estimation of sewage flow for the proposed development is in accordance with the Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning Version 1.0 (GESF) published by Environmental Protection Department (EPD). The sewage calculation is in accordance with the Sewerage Manual (SM) published by Drainage Services Department.

3.1.2 The adopted parameters for sewage estimation and calculation are summarized in **Table 4**.

Development Type	Flow Type	Unit Flow Factor (UFF) (m ³ /head/day)
Domestic – PH/SH	R2	0.27
Domestic – Private	R2	0.27
Wholesale & Retail	J4	0.28
Restaurants & Hotels	J10	1.58
Community, Social & Personal Services	J11	0.28
SGHMMHC - residential	Public Rental	0.19
Kindergarten - Students	School Student	0.04

Table 4 – Adopted Parameters in Sewerage Impact Assessment

3.1.3 The average flat size (prescribed under the guidelines of Land Sharing Pilot Scheme) and population densities are similar between Private and Public developments. With additional buffer allowed, Residential Type (R2) is adopted for both public (PH/SH) and private residential development. The parameters of public and private residential development are shown in **Table 5** below. Detailed calculation of population estimation of private residential, public residential and other non-domestic provisions within Application Site can be found in **Annex 1**.

	Site A1	Site A2	Site B	Site C1	Site C2	Site D
Avg. Unit Size (m ²)	50	50	50	-	-	50
No. of Units	1,651	643	1,276	574	1,051	578
Person/Unit	2.8	2.8	2.8	2.8	2.8	2.8
Person/m ²	0.056	0.056	0.056	-	-	0.056
Population	4,623	1,800	3,573	1,607	2,943	1,618

Table 5 – Comparison of Public and Private Residential Development Parameters

4. Review on Existing Sewerage System

4.1 Existing Sewerage System

- 4.1.1 According to sewerage record in GeoInfo. Map, there is no public sewerage system within the Application Site. The nearest sewerage facilities are the public sewerage system along Fung Chi Road, east of the Application Site, discharge to existing Long Ping Sewage Pumping Station (LPSPS). According to Public Housing Development at Wang Chau – Final Sewerage Impact Assessment by Hong Kong Housing Authority (hereafter known as “WCPHD SIA”), the design capacity of LPSPS is 21,600 m³/day.
- 4.1.2 Currently, sewage collected along the existing Fung Chi Road sewers with sizes DN450 and DN750 conveys sewage to LPSPS, ultimately be treated at Yuen Long Sewage Treatment Works (YLSTW).
- 4.1.3 According to information from CEDD provided in **Annex 4**, a new DN450 and DN750 PE sewers will be constructed by CEDD (under WCPHD) along Fung Chi Road connecting to the existing manhole FMH1017978. Sewage flow from the proposed development will merge with flow from WCPHD at manhole FMH1-16 and continuously discharge through existing DN750 along Fung Chi Road to LPSPS. The proposed sewerage works are summarized in the **Table 6**. The new DN450 and DN750 PE sewers are anticipated to be completed before the commencement of the proposed development. The alignment of the new DN450 and DN750 PE sewers along Fung Chi Road are shown in **Figure 4**.

Manhole No.		Diameter (mm)
From	To	Proposed
FMH1-15	FMH1-16	450 PE
FMH1-16	FMH1-18	750 PE
FMH1-18	FMH1-19	750 PE
FMH1-19	FMH1017978	750 PE

Table 6 – Proposed Sewerage Works by WCPHD

4.2 Application Site Sewage Estimation

4.2.1 The estimated Average Dry Weather Flow (ADWF) from the proposed development is approximately 4,556 m³/day. Detailed sewage flow estimation can be referred to **Annex 2** and summarized in **Table 7**.

Flow Type	Average Dry Daily Flow (ADWF) (m ³ /day)
Domestic (Private)	1,248
Domestic (PH/SH)	3,117
Other Non-domestic Provisions	191
Total ADWF	4,556
Peaking Factor	3
Peak Flow	0.158 m ³ /s
Backwash Flow from Site A1 Swimming Pool*	0.001 m ³ /s
Total Peak Flow	0.159 m ³ /s
Peak Flow	159 L/s

Table 7 – Sewage Flow Estimation

*Note: Holding tank will be provided to attenuate the pool backwash flow by controlling the discharge flowrate to empty the tank in 4 hours.

- 4.2.2 The adopted peaking factor excluding stormwater allowance is 3, in accordance with GESF, the estimated peak sewage flow is 159 L/s.
- 4.2.3 The sewage generated from the Application Site would be collected at terminal manholes for individual sites and propose to discharge to sewerage manhole FMH1-16, then to existing manhole FMH1017978 via new conveying trunk sewer, and ultimately to LSPS via existing sewer.
- 4.2.4 The new DN750 PE sewer from FMH1-16 to existing manhole FMH1017978 is designed to cater for the sewage flow from WCPHD (Phase 1), Wing Ning Tsuen LSPS/005 Development and other future developments.

5. Proposed Sewerage System

5.1 Proposed Connection

- 5.1.1 The existing Application Site does not have public sewerage system. The closest sewerage manhole available for connection could be the new public sewerage manhole FMH1-16, located at the junction of Fung Chi Road and Long Ping Road.
- 5.1.2 DN400 sewer is proposed to discharge all the sewage from Private Site A1 via terminal manhole FTMH1, which connects to a series of DN500 sewers. Other Public Site A2, B, C1, C2 and D will be connected to proposed DN355 sewers, connecting to the same DN500 sewer at different points along the main road under this application.
- 5.1.3 All the development sewage will enter the DN500 sewer, and discharge to manhole FMH1-16. The section of proposed sewer along Fung Chi Road would be constructed by CEDD under Wang Chau Public Development Project (WCPHD). After liaison with CEDD, a DN750 sewer connecting to the existing manhole no. FMH1017978 is proposed to cater for the sewage from both projects towards LPSPS. The sewage then reaches LPSPS and ultimately to the YLSTW for the treatment. The proposed alignment is shown in **Figure 5**.
- 5.1.4 The design capacities of LPSPS and YLSTW are summarized in **Table 8**. According to sewerage review carried out by EPD, the design capacity of LPSPS is 21,600 m³/day. LPSPS would have sufficient capacity to handle the existing and proposed development discharge. The current design capacity of YLSTW is about 35,000 m³/day, which is enough to cater for the additional discharge from the proposed development.

ADWF	
Sewage generated from the Proposed Development	4,556 m ³ /day (about)
Sewage generated from the Proposed Wang Chau Development	2,822 m ³ /day (about)
Existing sewage flow to Long Ping Sewage Pumping Station	6,971 m ³ /day (about)
Combined proposed sewage flow	14,715 m ³ /day (about)
Design Capacity of Long Ping Sewage Pumping Station	21,600 m ³ /day (about)
Design Capacity of Yuen Long Sewage Treatment Works (Current)	35,000 m ³ /day (about)
Planned Design Capacity of Yuen Long Effluent Polishing Plant	100,000 m ³ /day (about)

Table 8 – Summary of Design Capacities

Notes:

- Existing average daily flow to LPSPS is 6,971 m³/day according to boundary condition received from DSD on 22/02/2023.
- The sewage generated from the Proposed Wang Chau Development is 2,822 m³/day according to CEDD information provided dated 28 August 2025.

- 5.1.5 Hydraulic checking of the sewage discharge from proposed terminal manholes to existing LPSPS can be found in **Annex 2**. The total peak flow from the Development and WCPHD (Phase 1) utilizing the new DN750 PE sewer has been considered in the assessment. The result indicated that the sewer has adequate capacities to cater for the sewage flow from WCPHD (Phase 1), Wing Ning Tsuen LSPS005 Development, and other future developments. The hydraulic checking of the existing DN750 sewer connecting manhole FMH1017978 and downstream sewers to LPSPS has also been carried out which shows that the existing sewer has sufficient capacities for catering the upstream existing flow as well as the flow from the new DN750 PE sewer stated above. The following considerations have been taken into account in the hydraulic checking. DSD undertook to carry out routine cleansing on (i) the existing 450mm sewerage pipes upstream of FMH1017978 or FMH1-19 on Fung Chi Road, and (ii) the existing 450mm sewerage pipes upstream of FMH1017977 and (iii) the existing 750mm sewerage pipes from FMH1017978 to Long Ping SPS before the targeted population intake of the proposed public housing/Starter Home development and/or the private housing development, whichever is the earlier. In view that the existing upstream sewers are restored to “mint” condition after DSD’s cleansing, there should be no doubt about the service condition of the existing upstream sewerage system for the proposed sewerage works under the LSPS/005 project in accordance with Para. 11.5 and Table T-5 of GESF. ‘Normal’ classification is assumed for slimed concrete sewers flowing half full at the velocity of approximately 1.2 m/s in accordance with Table 5 of the DSD’s Sewerage Manual.
- 5.1.6 For uncertainty no. of employees working in Village Office (VO) or Refuse Collection Point (RCP) facilities and those working in the Proposed Development, 10m³/day is assumed as a conservative approach with allowance as miscellaneous sewage flow in hydraulic checking. Details refer to remarks stated under **Annex 2** and **Annex 3**.

6. Maintenance Responsibility

- 6.1.1 The LSPS Applicant will be responsible for the construction of all necessary associated public sewers, including the proposed pipes to be connected to the development sites under the site formation works along the access road which is within the application boundary and proposed sewers under Long Ping Road up to junction of Fung Chi Road which are outside application boundary (but excluding internal pipes within Site A1, A2, B, C1 & C2 and D). **Figure 5** shows the construction responsibility by the applicant.
- 6.1.2 Future property management will be responsible for the maintenance of all proposed sewers within the private development portion.
- 6.1.3 The Government will take over the maintenance of public sewers and sewerage infrastructure on the Government Land with prior agreement on those sewerage infrastructure necessarily provided and practicably operated and maintainable to serve the development(s).
- 6.1.4 To ensure the normal condition of existing sewer, DSD will undertake to carry out routine cleansing on (i) the existing 450mm sewerage pipes upstream of FMH1017978 or FMH1-19 on Fung Chi Road, (ii) the existing 450mm sewerage pipes upstream of FMH1017977 and (iii) the existing 750mm sewerage pipes from FMH1017978 to Long Ping SPS before the targeted population intake of the proposed public housing/Starter Home development and/or the private housing development, whichever is the earlier.

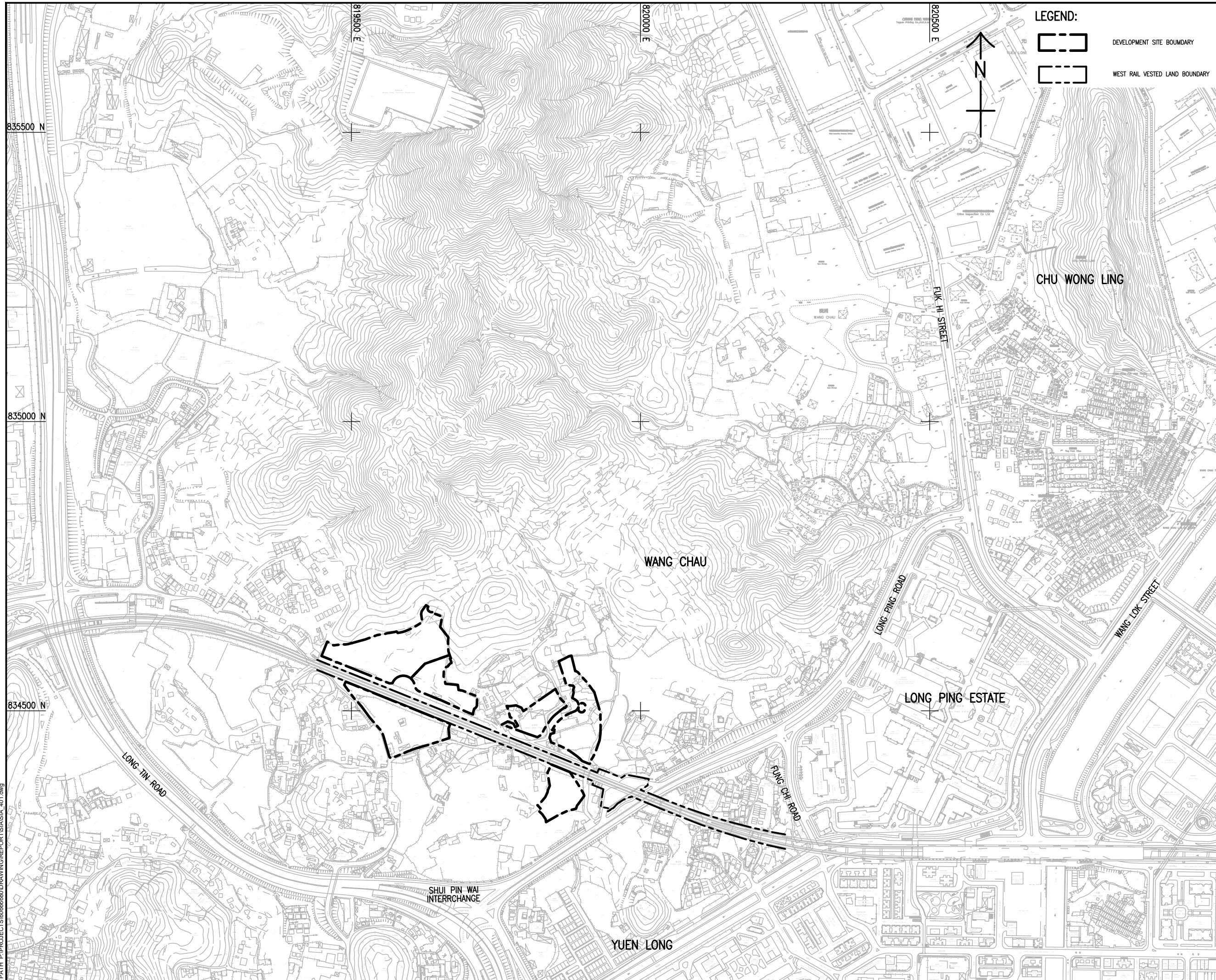
7. Conclusion

- 7.1.1 The SIA has been carried out to assess the impact on the existing and proposed sewerage system due to the proposed development.
- 7.1.2 The development (Sites A1, A2, B, C1, C2 and D) would have 5,773 flats with total domestic population of 16,164 people.
- 7.1.3 The estimated total Average Dry Weather Flow (ADWF) from the proposed development is approximately 4,556 m³/day.
- 7.1.4 New 355mm, 400mm and 500mm PE pipes are proposed from development sites towards the south of the site boundary, connecting to the new DN750 PE sewer and conveying to existing manhole FMH1017978, discharge to LPSPS. The sewage from LPSPS will be conveyed to YLSTW for centralized sewage treatment.
- 7.1.5 The new DN750 PE sewer from FMH1-16 to existing manhole FMH1017978 are capable of catering for the sewage discharge from WCPHD (Phase 1), Wing Ning Tsuen LSPS005 Development and other future developments.
- 7.1.6 The existing DN750 sewer from existing manhole FMH1017978 to LPSPS are capable of catering for the sewage discharge from WCPHD (Phase 1), Wing Ning Tsuen LSPS005 Development, other future developments, and the upstream existing flow.
- 7.1.7 Current LPSPS and YLSTW have sufficient capacity to handle the proposed development discharge.
- 7.1.8 The proposed development will be completed in Year 2032/2033 and begin sewage discharge to public sewer. According to the upgrade schedule of YLEPP, after Year 2027, the public sewerage infrastructure would have adequate capacity to cater for the proposed discharge. No adverse sewerage impact is anticipated.

End of Report

Proposed Public Housing / Starter Homes Development and Private Residential Development with Government, Institution or Community Facilities at Various Lots in D.D. 122 and Adjoining Government Land, Yuen Long, New Territories (Land Sharing Pilot Scheme (Application No.: LSPS/005))

Figures



LEGEND:



DEVELOPMENT SITE BOUNDARY



WEST RAIL VESTED LAND BOUNDARY

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PROJECT

PROPOSED PUBLIC HOUSING /
STARTER HOMES DEVELOPMENT
AND PRIVATE RESIDENTIAL
DEVELOPMENT WITH GOVERNMENT,
INSTITUTION OR COMMUNITY
FACILITIES AT VARIOUS LOTS IN
D.D. 122 AND ADJOINING
GOVERNMENT LAND, WING NING
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SHARING PILOT SCHEME (LSPS/005)

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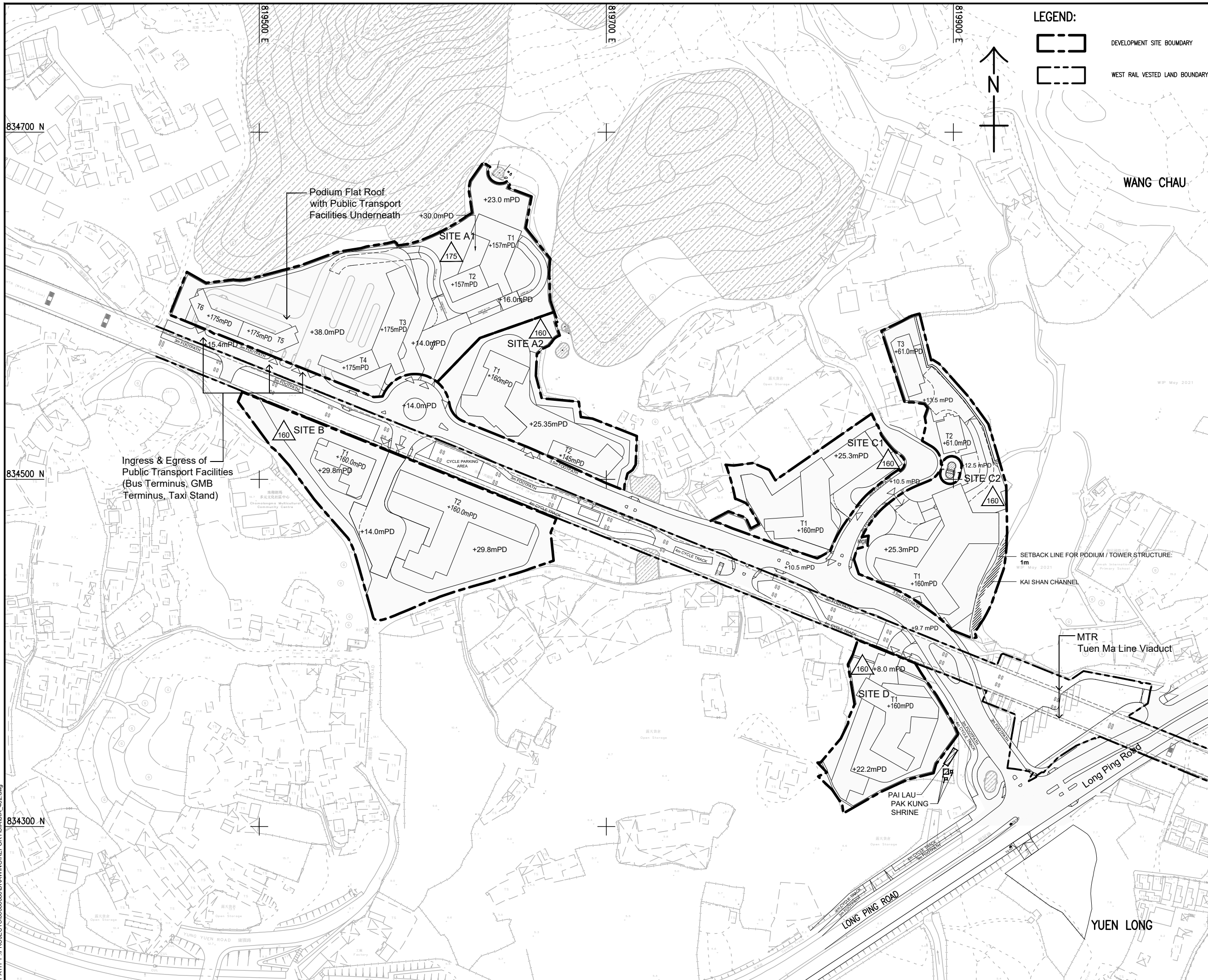
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6066680/SIA/FIGURE 1

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LEGEND:

- DEVELOPMENT SITE BOUNDARY
- WEST RAIL VESTED LAND BOUNDARY



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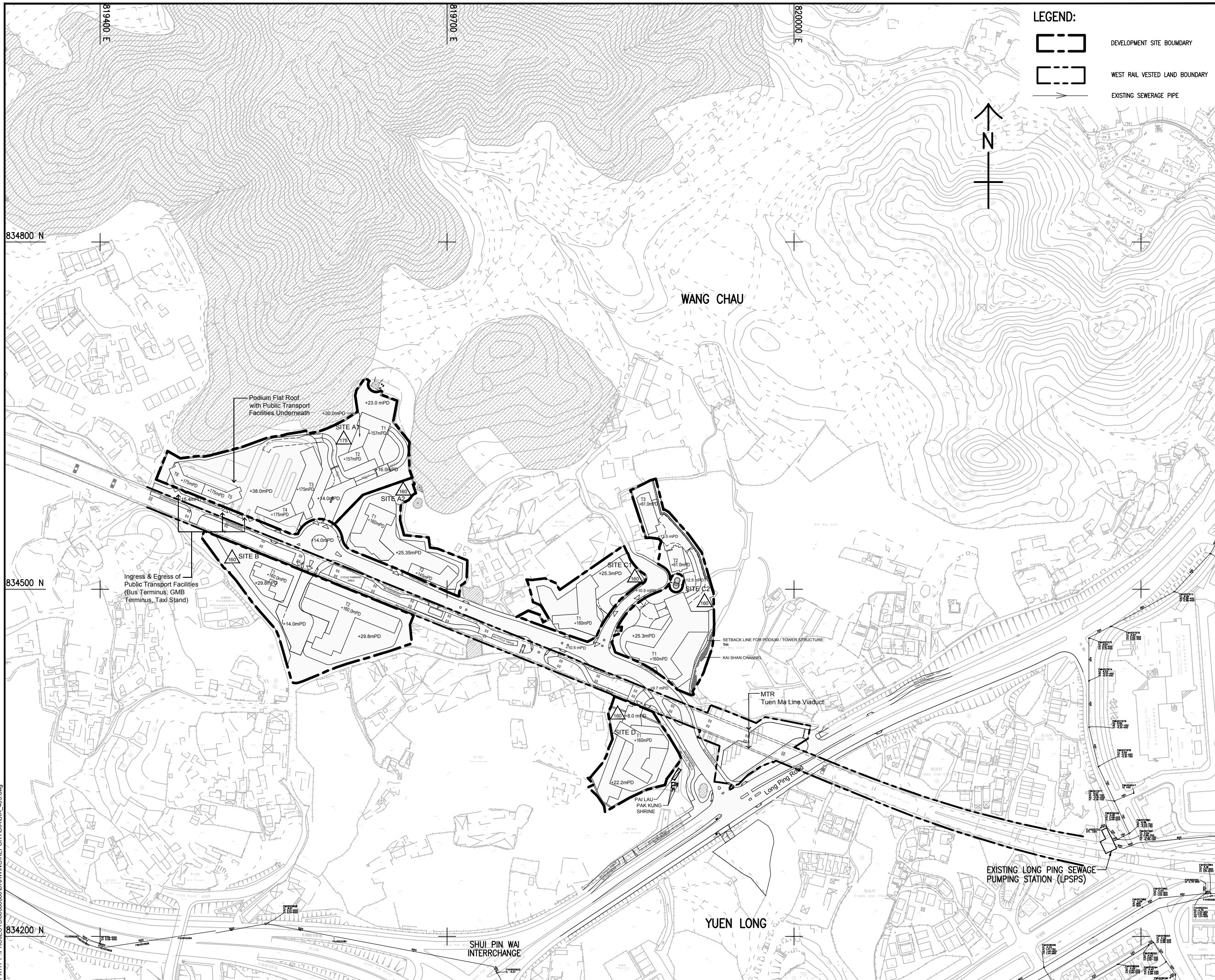
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MASTER LAYOUT PLAN

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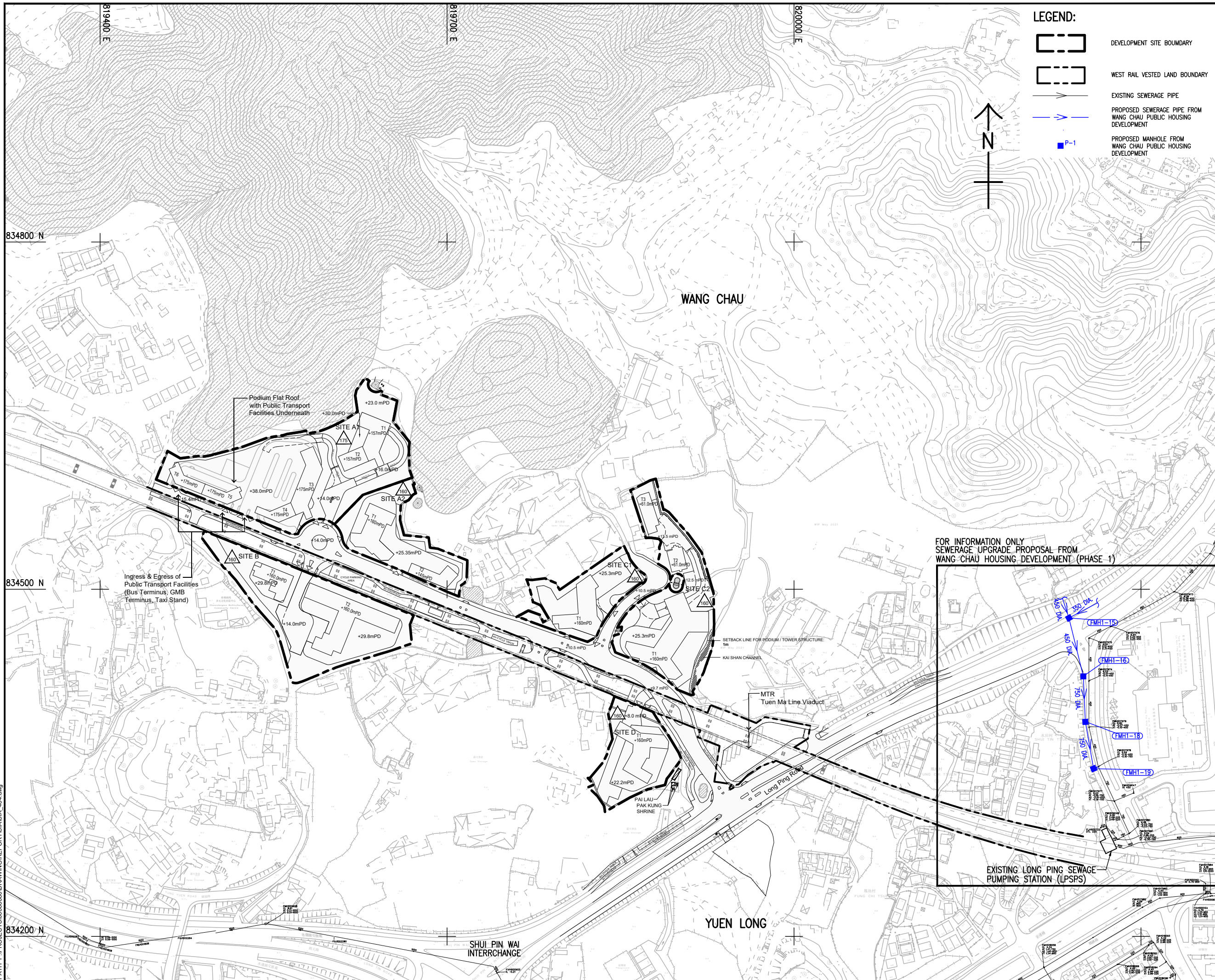
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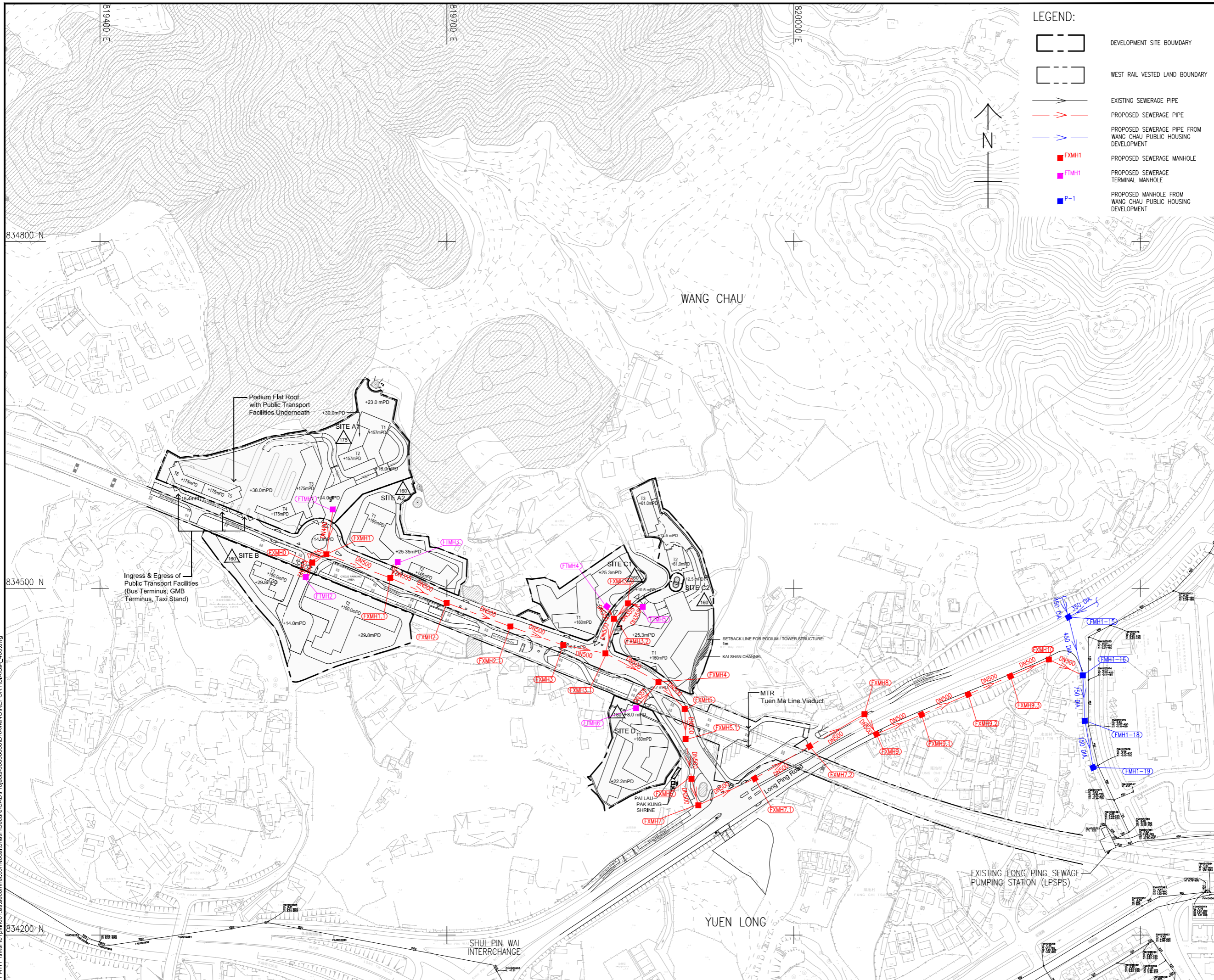
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SHEET TITLE
 EXISTING SEWERAGE LAYOUT PLAN

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LEGEND:

- DEVELOPMENT SITE BOUNDARY
- WEST RAIL VESTED LAND BOUNDARY
- EXISTING SEWERAGE PIPE
- PROPOSED SEWERAGE PIPE
- PROPOSED SEWERAGE PIPE FROM WANG CHAU PUBLIC HOUSING DEVELOPMENT
- PROPOSED SEWERAGE MANHOLE
- PROPOSED SEWERAGE TERMINAL MANHOLE
- P-1

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 PROPOSED SEWERAGE ARRANGEMENT

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 6066680/SIA/FIGURE 5

Proposed Public Housing / Starter Homes Development and Private Residential Development with Government, Institution or Community Facilities at Various Lots in D.D. 122 and Adjoining Government Land, Yuen Long, New Territories (Land Sharing Pilot Scheme (Application No.: LSPS/005))

Annex 1

Population Estimation

Wing Ning Tsuen LSPS Development						
Population Estimation						
Development Schedule						
Development Type	GFA (m²)	Avg. Unit Size (m²)	No. of Units	Person/Unit	Person/m²	Population
Private Residential						
Site A1	82,560	50	1,651	2.8	0.056	4,623
Public (PH/SH) Residential						
Site A2	32,156.0	50	643	2.8	0.056	1,800
Site B	63,778	50	1,276	2.8	0.056	3,573
Site C1 & C2	82,150.0	50	1,625	2.8	0.056	4,550
---Site C1			574	2.8		1,607
---Site C2			1,051	2.8		2,943
Site D	28,899.0	50	578	2.8	0.056	1,618
Sub-Total						16,164
Other Non-domestic Provisions						
Site A1 - Clubhouse⁽³⁾	4,128	-	-	-	0.023	95
Site A2 - Retail (Non F&B)	1,666	-	-	-	0.035	58
Site A2 - Retail (F&B)	714	-	-	-	0.051	36
Site B - Retail (Non F&B)	280	-	-	-	0.035	10
Site B - Retail (F&B)	120	-	-	-	0.051	6
Site B 30-Place SGHMMHC⁽⁶⁾	536m ² NOFA					
Resident		-	-	-		30
Employee⁽⁷⁾						23
Site B - NEC⁽⁸⁾	328m ² NOFA					
Employee						11
Site C2 - Retail (Non F&B)	896	-	-	-	0.035	31
Site C2 - Retail (F&B)	384	-	-	-	0.051	20
Site C2 Kindergarten - Students	900	-	-	-	-	180
Site C2 Kindergarten - Staff	900	-	-	-	-	23
Sub-Total						523
Note 1	Person/m² for non-domestic provisions of Development Sites assumed according to Commercial and Industrial Floor Space Utilization Survey (CIFSUS) by Planning Department					
Note 2	Assume 30% of the non-domestic GFA is F&B and 70% of the non-domestic GFA is Non-F&B					
Note 3	Site A1 Clubhouse GFA is equivalent to 5% of the total domestic GFA with reference to Section 4 of PNAP APP-104. PNAP APP-104 refers to Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers from Building Department.					
Note 4	Assume 2.3 employee per 100 m² for Public Residential Clubhouse provision.					
Note 5	Assuming a 1-to-8 Staff-to-Student Ratio, according to Education Bureau's Key Statistics on Kindergarten Education (Local School). Adopt 6 classrooms with 30 students class size.					
Note 6	SGHMMHC refers to Small Group Home for Mildly Mentally Handicapped Children.					
Note 7	The estimation of no. of employee of SGHMMHC is referenced and prorata from Notional Staffing Establishment for 8 places SGHMMHC published by Social Welfare Department.					
Note 8	11 nos. of employee adopted for NEC facility is reference from Notional Staffing Establishment published by Social Welfare Department.					

Proposed Public Housing / Starter Homes Development and Private Residential Development with Government, Institution or Community Facilities at Various Lots in D.D. 122 and Adjoining Government Land, Yuen Long, New Territories (Land Sharing Pilot Scheme (Application No.: LSPS/005))

Annex 2

Sewage Estimation & Hydraulic Checking

Wing Ning Tsuen LSPS Development					
Sewage Estimation					
Development Type	Population	Flow Type Description	Flow Type Abbreviation	UFF (m ³ /head/day)	ADWF (m ³ /day)
Private Residential					
Site A1	4,623	Domestic - Private R2	R2	0.27	1,248
Sub Total ADWF (m³/day)					1,248
Public (PH/SH) Residential					
Site A2	1,800	Domestic - Public Housing/ Starter Homes	R2	0.27	486
Site B	3,573	Domestic - Public Housing/ Starter Homes	R2	0.27	965
Site C1 & C2	4,550	Domestic - Public Housing/ Starter Homes	R2	0.27	1,229
--- Site C1	1,607	Domestic - Public Housing/ Starter Homes	R2	0.27	434
--- Site C2	2,943	Domestic - Public Housing/ Starter Homes	R2	0.27	795
Site D	1,618	Domestic - Public Housing/ Starter Homes	R2	0.27	437
Sub Total ADWF (m³/day)					3,117
Other Non-domestic Provisions					
Site A1 Clubhouse	95	Community, Social & Personal Services	J11	0.28	27
Site A2 - Retail (Non F&B)	58	Wholesale & Retail	J4	0.28	16
Site A2 - Retail (F&B)	36	Restaurants & Hotels	J10	1.58	57
Site B 30-Place SGHMMHC(6)					
Resident	30	Public Rental	Public Rental	0.19	6
Employee	23	Community, Social & Personal Services	J11	0.28	6
Site B - NEC(8)					
Employee	11	Community, Social & Personal Services	J11	0.28	3
Site B - Retail (Non F&B)	10	Wholesale & Retail	J4	0.28	3
Site B - Retail (F&B)	6	Restaurants & Hotels	J10	1.58	9
Site C2 - Retail (Non F&B)	31	Wholesale & Retail	J4	0.28	9
Site C2 - Retail (F&B)	20	Restaurants & Hotels	J10	1.58	32
Site C2 Kindergarten - Students	180	School Student	School Student	0.04	7
Site C2 Kindergarten - Staff	23	Community, Social & Personal Services	J11	0.28	6
VO / RCP					10
Sub Total ADWF (m³/day)					191
Total ADWF (m³/day)					4,556

Note 1 Private R2 has been adopted for estimating public development sites as the public housing includes but not limited to public rental housing and subsidized sale flats

Note 2 Kindergarten locates in Site C2. Adopt 6 classrooms with 30 students class size according to Education Bureau's Key Statistics on Kindergarten Education (Local School).

Hydraulic Checking for connection to the Proposed Sewers

	ADWF (m ³ /day) (With Catchment Inflow Factor considered)	Contributing Population	Peaking Factor ***	Peak Flow (m ³ /s)
Site A1*	1,275	4,722	5	0.075
Site A2	559	2,070	5	0.032
Site B	992	3,674	5	0.057
Site C1 & C2	1,283	4,752	5	0.074
--- Site C1	434	1,607	5	0.025
--- Site C2	849	3,144	5	0.049
Site D	437	1,619	5	0.025

* Swimming pool backwash flow has been excluded from peak flow of Site A1. Detail refers to Table 7.

***Peaking Factors (excluding stormwater allowance) for facility with new upstream sewerage

Site A1 Swimming Pool Backwash Calculation

Backwash:		
Plan Area of Pool =	200	m ²
Assuming Depth of Pool =	2.0	m
Volume of Pool =	400	m ³
Turnover Rate =	4	hr
Assuming Surface Loading Rate of Filter =	20	m ³ /m ² /hr
Filter Area Required =	400/4/20	
=	5.00	m ²
Assumed Backwash Duration =	3.00	min
Assumed Backwash Flowrate =	30.00	m ³ /m ² /hr
Backwash Volume =	7.50	m ³
Assumed Discharge Duration =	4.00	hr
No. of Outdoor Swimming Pool =	2	
Discharge Flow rate =	0.06	m ³ /min
=	0.001	m ³ /s

GS for Swimming Pool Water Treatment Installation (ArchSD, 20

AECOM Asia Co. Ltd.		Wing Ning Tsuen LSPS Development (Including Proposed Wing Ning Tsuen and Proposed Wang Chau Phase 1 Development)																	Project No.	/	
		SIA - External Sewers																	Date	29/08/2025	
																			By		
Manhole		Ground		Invert Level		Size	Length	Grad	Material	k _s	Velocity ⁽¹⁾	Time of Flow ⁽²⁾	Capacity ⁽³⁾	Total Average Flow	Contributing Population	Peaking Factor	Catchment Inflow Factor	Total Peak Flow ⁽⁴⁾	Percentage Capacity	Factor of Safety	Remarks
U/S	D/S	U/S mPD	D/S mPD	U/S mPD	D/S mPD																
FTMH1	FXMH1	14.00	14.00	8.39	7.61	400	39.1	50	PE100	0.30	2.79	0.23	0.3077	1275.00	4722.00	5.0	1.0	0.0748	24.32%	4.11	Proposed Discharge from Development Site A1
FTMH2	FXMH0	14.00	14.00	8.05	7.61	355	21.9	50	PE100	0.30	2.42	0.15	0.1713	992.00	3674.00	5.0	1.0	0.0574	33.52%	2.98	Proposed Discharge from Development Site B
FXMH0	FXMH1	14.00	13.00	7.61	7.47	355	14.2	100	PE100	0.30	1.71	0.14	0.1206	992.00	3674.00	5.0	1.0	0.0574	47.60%	2.10	Proposed Discharge from Development Site A1 and B
FXMH1	FXMH1.1	13.00	12.30	7.47	6.88	500	59.0	100	PE100	0.30	2.20	0.45	0.3498	2267.00	8396.00	4.0	1.0	0.1060	30.30%	3.30	
FTMH3	FXMH1.1	13.00	12.30	7.21	6.88	355	16.3	50	PE100	0.30	2.42	0.11	0.1713	559.00	2070.00	5.0	1.0	0.0323	18.89%	5.29	Proposed Discharge from Development Site A2
FXMH1.1	FXMH2	12.30	11.70	6.88	6.35	500	53.2	100	PE100	0.30	2.20	0.40	0.3498	2826.00	10467.00	3.0	1.0	0.0992	28.35%	3.53	Proposed Discharge from Development Site A1, A2 and B
FXMH2	FXMH2.1	11.70	11.00	6.35	5.76	500	58.9	100	PE100	0.30	2.20	0.45	0.3498	2826.00	10467.00	3.0	1.0	0.0992	28.35%	3.53	Miscellaneous sewage flow explanation refers to Note 7
FXMH2.1	FXMH3	11.00	10.50	5.76	5.27	500	48.5	100	PE100	0.30	2.20	0.37	0.3498	2826.00	10467.00	3.0	1.0	0.0992	28.35%	3.53	
FXMH3	FXMH3.1	10.50	10.10	5.27	4.90	500	37.0	100	PE100	0.30	2.20	0.28	0.3498	2836.00	10504.00	3.0	1.0	0.0995	28.45%	3.52	
FTMH4	FXMH3.2	10.40	10.30	5.54	5.21	355	16.3	50	PE100	0.30	2.42	0.11	0.1713	434.00	1607.00	5.0	1.0	0.0251	14.67%	6.82	Proposed Discharge from a Portion of Development Site C1
FTMH5	FXMH3.3	10.50	10.40	5.65	5.39	355	13.0	50	PE100	0.30	2.42	0.09	0.1713	849.00	3144.00	5.0	1.0	0.0491	28.69%	3.49	Proposed Discharge from a Portion of Development Site C2
FXMH3.3	FXMH3.2	10.40	10.30	5.39	5.21	355	18.3	100	PE100	0.30	1.71	0.18	0.1206	849.00	3144.00	5.0	1.0	0.0491	40.74%	2.45	Proposed Discharge from a Portion of Development Site C2
FXMH3.2	FXMH3.1	10.30	10.10	5.21	4.90	500	30.8	100	PE100	0.30	2.20	0.23	0.3498	1283.00	4752.00	5.0	1.0	0.0742	21.22%	4.71	Proposed Discharge from the entire Development Site C1 & C2
FXMH3.1	FXMH4	10.10	9.70	4.90	4.38	500	52.3	100	PE100	0.30	2.20	0.40	0.3498	4119.00	15256.00	3.0	1.0	0.1441	41.18%	2.43	Proposed Discharge from Development Site A1, A2, B, C1 & C2
FTMH6	FXMH4	8.00	9.70	4.56	4.38	355	35.7	200	PE100	0.30	1.20	0.50	0.0848	437.00	1619.00	5.0	1.0	0.0253	29.83%	3.35	Proposed Discharge from Development D
FXMH4	FXMH5	9.70	9.20	4.38	4.13	500	32.6	130	PE100	0.30	1.93	0.28	0.3063	4556.00	16874.00	3.0	1.0	0.1592	51.98%	1.92	Proposed Discharge from Entire Wing Ning Tsuen Development
FXMH5	FXMH5.1	9.20	8.70	4.13	3.91	500	28.1	130	PE100	0.30	1.93	0.24	0.3063	4556.00	16874.00	3.0	1.0	0.1592	51.98%	1.92	
FXMH5.1	FXMH6	8.70	8.30	3.91	3.67	500	32.0	130	PE100	0.30	1.93	0.28	0.3063	4556.00	16874.00	3.0	1.0	0.1592	51.98%	1.92	
FXMH6	FXMH7	8.30	7.70	3.67	3.44	500	30.1	130	PE100	0.30	1.93	0.26	0.3063	4556.00	16874.00	3.0	1.0	0.1592	51.98%	1.92	
FXMH7	FXMH7.1	7.70	7.80	3.44	3.01	500	55.4	130	PE100	0.30	1.93	0.48	0.3063	4556.00	16874.00	3.0	1.0	0.1592	51.98%	1.92	
FXMH7.1	FXMH7.2	7.80	7.90	3.01	2.59	500	54.3	130	PE100	0.30	1.93	0.47	0.3063	4556.00	16874.00	3.0	1.0	0.1592	51.98%	1.92	
FXMH7.2	FXMH8	7.90	8.00	2.59	2.16	500	55.7	130	PE100	0.30	1.93	0.48	0.3063	4556.00	16874.00	3.0	1.0	0.1592	51.98%	1.92	
FXMH8	FXMH9	8.00	8.00	2.16	2.01	500	20.0	130	PE100	0.30	1.93	0.17	0.3063	4556.00	16874.00	3.0	1.0	0.1592	51.98%	1.92	
FXMH9	FXMH9.1	8.00	7.57	2.01	1.69	500	42.1	130	PE100	0.30	1.93	0.36	0.3063	4556.00	16874.00	3.0	1.0	0.1592	51.98%	1.92	
FXMH9.1	FXMH9.2	7.57	7.15	1.69	1.35	500	43.3	130	PE100	0.30	1.93	0.37	0.3063	4556.00	16874.00	3.0	1.0	0.1592	51.98%	1.92	
FXMH9.2	FXMH9.3	7.15	6.72	1.35	1.04	500	41.1	130	PE100	0.30	1.93	0.36	0.3063	4556.00	16874.00	3.0	1.0	0.1592	51.98%	1.92	
FXMH9.3	FXMH10	6.72	6.30	1.04	0.76	500	35.8	130	PE100	0.30	1.93	0.31	0.3063	4556.00	16874.00	3.0	1.0	0.1592	51.98%	1.92	
FXMH10	FMH-16	6.30	6.50	0.76	0.51	500	32.7	130	PE100	0.30	1.93	0.28	0.3063	4556.00	16874.00	3.0	1.0	0.1592	51.98%	1.92	
FMH-16	FMH1-18	6.50	5.90	0.51	0.37	750	38.5	275	PE100	0.30	1.81	0.35	0.7995	7378.00	27326.00	3.0	1.0	0.2572	32.17%	3.11	
FMH1-18	FMH1-19	5.90	5.70	0.15	0.00	750	39.3	262	PE100	0.30	1.85	0.35	0.8193	7378.00	27326.00	3.0	1.0	0.2572	31.39%	3.19	
FMH1-19	FMH1017978	5.70	5.54	0.00	-0.10	750	2.0	20	PE100	0.30	6.78	0.00	2.9942	7378.00	27326.00	3.0	1.0	0.2572	8.59%	11.64	
FMH1017978	FMH1017977	5.54	5.23	-0.10	-0.16	750	31.7	528	Existing	1.50	1.09	0.49	0.4794	12628.00	46770.00	3.0	1.0	0.4395	91.67%	1.09	Combined Discharge from Proposed Wing Ning Tsuen Development = 4,556m ³ /d and Proposed Wang Chau Phase 1 Development = 2,822m ³ /d (WC + WNT) + Existing flow = 6,971m ³ /d ⁽⁵⁾
FMH1017977	FMH1017980	5.23	4.96	-0.14	-0.22	750	29.8	373	Existing	1.50	1.29	0.38	0.5714	14349.00	53144.00	2.99	1.0	0.4982	87.19%	1.15	
FMH1017980	FMH1017981	4.96	5.04	-0.22	-0.25	750	9.0	300	Existing	1.50	1.44	0.10	0.6370	14349.00	53144.00	2.99	1.0	0.4982	78.21%	1.28	
FMH1017981	SPS	5.04	5.04	-0.30	-0.35	750	4.0	80	Existing	1.50	2.80	0.02	1.2357	14349.00	53144.00	2.99	1.0	0.4982	40.32%	2.48	

Notes:

- Velocity of flow is calculated using Colebrook-White Equation.
- Time of flow is calculated when sewer length is divided by velocity.
- Capacity is calculated when velocity times cross-section area of sewer. Q=AxV.
- Total Peak Flow is calculated when Total Average Flow times Peaking Factor according to Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning Version 1.0.
- Existing flow from the upstream of existing manhole FMH1017981 to LPSPS is 6,971 m³/day according to boundary condition received from DSD on 22/02/2023.
- The DN750 PE sewers highlighted in blue color will be constructed by Wang Chau Development.
- 10m³/day is assumed for miscellaneous sewage flow including employees working in VO, RCP and Proposed Development such as HA's ancillary facilities(i.e. 35 employees) for uncertainty.

Annex 3

Sensitivity Analysis

Sensitivity Analysis includes Sewage Estimation & Hydraulic Checking of Application Site with 10% increase in ADWF for Public Residential Provisions

(10% increase in ADWF for Domestic Provisions in Site A2, B, C1, C2 and D)

AECOM Asia Co. Ltd.		Wing Ning Tsuen LSPS Development (Including Proposed Wing Ning Tsuen and Proposed Wang Chau Phase 1 Development)																	Project No. /		
SIA - External Sewers																			Date 29/08/2025		
Manhole		Ground		Invert Level		Size mm	Length m	Grad 1 in	Material	k _s mm	Velocity ⁽¹⁾ m/s	Time of Flow ⁽²⁾ min	Capacity ⁽³⁾ m ³ /s	Total Average Flow m ³ /day ADWF	Contributing Population	Peaking Factor	Catchment Inflow Factor	Total Peak Flow ⁽⁴⁾ m ³ /s PWWF	Percentage Capacity %	Factor of Safety	Remarks
U/S	D/S	U/S mPD	D/S mPD	U/S mPD	D/S mPD																
FTMH1	FXMH1	14.00	14.00	8.39	7.61	400	39.1	50	PE100	0.30	2.79	0.23	0.3077	1275.00	4722.00	5.0	1.0	0.0748	24.32%	4.11	Proposed Discharge from Development Site A1
FTMH2	FXMH0	14.00	14.00	8.05	7.61	355	21.9	50	PE100	0.30	2.42	0.15	0.1713	1089.00	4033.00	5.0	1.0	0.0630	36.80%	2.72	Proposed Discharge from Development Site B
FXMH0	FXMH1	14.00	13.00	7.61	7.47	355	14.2	100	PE100	0.30	1.71	0.14	0.1206	1089.00	4033.00	5.0	1.0	0.0630	52.26%	1.91	Proposed Discharge from Development Site A1 and B
FXMH1	FXMH1.1	13.00	12.30	7.47	6.88	500	59.0	100	PE100	0.30	2.20	0.45	0.3498	2364.00	8756.00	4.0	1.0	0.1105	31.58%	3.17	
FTMH3	FXMH1.1	13.00	12.30	7.21	6.88	355	16.3	50	PE100	0.30	2.42	0.11	0.1713	607.00	2248.00	5.0	1.0	0.0351	20.51%	4.88	Proposed Discharge from Development Site A2
FXMH1.1	FXMH2	12.30	11.70	6.88	6.35	500	53.2	100	PE100	0.30	2.20	0.40	0.3498	2971.00	11004.00	3.0	1.0	0.1042	29.79%	3.36	Proposed Discharge from Development Site A1, A2 and B
FXMH2	FXMH2.1	11.70	11.00	6.35	5.76	500	58.9	100	PE100	0.30	2.20	0.45	0.3498	2971.00	11004.00	3.0	1.0	0.1042	29.79%	3.36	Miscellaneous sewage flow explanation refers to Note 7
FXMH2.1	FXMH3	11.00	10.50	5.76	5.27	500	48.5	100	PE100	0.30	2.20	0.37	0.3498	2971.00	11004.00	3.0	1.0	0.1042	29.79%	3.36	
FXMH3	FXMH3.1	10.50	10.10	5.27	4.90	500	37.0	100	PE100	0.30	2.20	0.28	0.3498	2981.00	11041.00	3.0	1.0	0.1045	29.89%	3.35	
FTMH4	FXMH3.2	10.40	10.30	5.54	5.21	355	16.3	50	PE100	0.30	2.42	0.11	0.1713	477.00	1767.00	5.0	1.0	0.0276	16.12%	6.20	Proposed Discharge from a Portion of Development Site C1
FTMH5	FXMH3.3	10.50	10.40	5.65	5.39	355	13.0	50	PE100	0.30	2.42	0.09	0.1713	929.00	3441.00	5.0	1.0	0.0538	31.39%	3.19	Proposed Discharge from a Portion of Development Site C2
FXMH3.3	FXMH3.2	10.40	10.30	5.39	5.21	355	18.3	100	PE100	0.30	1.71	0.18	0.1206	929.00	3441.00	5.0	1.0	0.0538	44.58%	2.24	Proposed Discharge from a Portion of Development Site C2
FXMH3.2	FXMH3.1	10.30	10.10	5.21	4.90	500	30.8	100	PE100	0.30	2.20	0.23	0.3498	1406.00	5207.00	4.0	1.0	0.0651	18.61%	5.37	Proposed Discharge from the entire Development Site C1 & C2
FXMH3.1	FXMH4	10.10	9.70	4.90	4.38	500	52.3	100	PE100	0.30	2.20	0.40	0.3498	4387.00	16248.00	3.0	1.0	0.1534	43.84%	2.28	Proposed Discharge from Development Site A1, A2, B, C1 & C2
FTMH6	FXMH4	8.00	9.70	4.56	4.38	355	35.7	200	PE100	0.30	1.20	0.50	0.0848	481.00	1781.00	5.0	1.0	0.0278	32.83%	3.05	Proposed Discharge from Development D
FXMH4	FXMH5	9.70	9.20	4.38	4.13	500	32.6	130	PE100	0.30	1.93	0.28	0.3063	4868.00	18030.00	3.0	1.0	0.1701	55.52%	1.80	Proposed Discharge from Entire Wing Ning Tsuen Development
FXMH5	FXMH5.1	9.20	8.70	4.13	3.91	500	28.1	130	PE100	0.30	1.93	0.24	0.3063	4868.00	18030.00	3.0	1.0	0.1701	55.52%	1.80	
FXMH5.1	FXMH6	8.70	8.30	3.91	3.67	500	32.0	130	PE100	0.30	1.93	0.28	0.3063	4868.00	18030.00	3.0	1.0	0.1701	55.52%	1.80	
FXMH6	FXMH7	8.30	7.70	3.67	3.44	500	30.1	130	PE100	0.30	1.93	0.26	0.3063	4868.00	18030.00	3.0	1.0	0.1701	55.52%	1.80	
FXMH7	FXMH7.1	7.70	7.80	3.44	3.01	500	55.4	130	PE100	0.30	1.93	0.48	0.3063	4868.00	18030.00	3.0	1.0	0.1701	55.52%	1.80	
FXMH7.1	FXMH7.2	7.80	7.90	3.01	2.59	500	54.3	130	PE100	0.30	1.93	0.47	0.3063	4868.00	18030.00	3.0	1.0	0.1701	55.52%	1.80	
FXMH7.2	FXMH8	7.90	8.00	2.59	2.16	500	55.7	130	PE100	0.30	1.93	0.48	0.3063	4868.00	18030.00	3.0	1.0	0.1701	55.52%	1.80	
FXMH8	FXMH9	8.00	8.00	2.16	2.01	500	20.0	130	PE100	0.30	1.93	0.17	0.3063	4868.00	18030.00	3.0	1.0	0.1701	55.52%	1.80	
FXMH9	FXMH9.1	8.00	7.57	2.01	1.69	500	42.1	130	PE100	0.30	1.93	0.36	0.3063	4868.00	18030.00	3.0	1.0	0.1701	55.52%	1.80	
FXMH9.1	FXMH9.2	7.57	7.15	1.69	1.35	500	43.3	130	PE100	0.30	1.93	0.37	0.3063	4868.00	18030.00	3.0	1.0	0.1701	55.52%	1.80	
FXMH9.2	FXMH9.3	7.15	6.72	1.35	1.04	500	41.1	130	PE100	0.30	1.93	0.36	0.3063	4868.00	18030.00	3.0	1.0	0.1701	55.52%	1.80	
FXMH9.3	FXMH10	6.72	6.30	1.04	0.76	500	35.8	130	PE100	0.30	1.93	0.31	0.3063	4868.00	18030.00	3.0	1.0	0.1701	55.52%	1.80	
FXMH10	FMH-16	6.30	6.50	0.76	0.51	500	32.7	130	PE100	0.30	1.93	0.28	0.3063	4868.00	18030.00	3.0	1.0	0.1701	55.52%	1.80	
FMH-16	FMH10-18	6.50	5.90	0.51	0.37	750	38.5	275	PE100	0.30	1.81	0.35	0.7995	7690.00	28481.00	3.0	1.0	0.2681	33.53%	2.98	Combined Discharge from Proposed Wing Ning Tsuen Development = 4,556m ³ /d and Proposed Wang Chau Phase 1 Development = 2,822m ³ /d (WC + WNT)
FMH10-18	FMH1-19	5.90	5.70	0.15	0.00	750	29.8	282	PE100	0.30	1.79	0.28	0.7894	7690.00	28481.00	3.0	1.0	0.2681	33.96%	2.94	
FMH1-19	FMH1017978	5.70	5.54	0.00	-0.10	750	2.0	20	PE100	0.30	6.78	0.00	2.9942	7690.00	28481.00	3.0	1.0	0.2681	8.95%	11.17	
FMH1017978	FMH1017977	5.54	5.23	-0.10	-0.16	750	31.7	528	Existing	1.50	1.09	0.49	0.4794	12940.00	47926.00	3.0	1.0	0.4493	93.72%	1.07	Combined Discharge from Proposed Wing Ning Tsuen Development = 4,556m ³ /d and Proposed Wang Chau Phase 1 Development = 2,822m ³ /d (WC + WNT) + Existing flow = 6,971m ³ /d ⁽⁵⁾
FMH1017977	FMH1017980	5.23	4.96	-0.14	-0.22	750	29.8	373	Existing	1.50	1.29	0.38	0.5714	14661.00	54300.00	2.98	1.0	0.5061	88.56%	1.13	
FMH1017980	FMH1017981	4.96	5.04	-0.22	-0.25	750	9.0	300	Existing	1.50	1.44	0.10	0.6370	14661.00	54300.00	2.98	1.0	0.5061	79.45%	1.26	
FMH1017981	SPS	5.04	5.04	-0.30	-0.35	750	4.0	80	Existing	1.50	2.80	0.02	1.2357	14661.00	54300.00	2.98	1.0	0.5061	40.95%	2.44	

Notes:

1. Velocity of flow is calculated using Colebrook-White Equation.
2. Time of flow is calculated when sewer length is divided by velocity.
3. Capacity is calculated when velocity times cross-section area of sewer. Q=AxV.
4. Total Peak Flow is calculated when Total Average Flow times Peaking Factor according to Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning Version 1.0.
5. Existing flow from the upstream of existing manhole FMH1017981 to LSPS is 6,971 m³/day according to boundary condition received from DSD on 22/02/2023.
6. The DN750 PE sewers highlighted in blue color will be constructed by Wang Chau Development.
7. 10m³/day is assumed for miscellaneous sewage flow including employees working in VO, RCP and Proposed Development such as HA's ancillary facilities (i.e. 35 employees) for uncertainty.

Proposed Public Housing / Starter Homes Development and Private Residential Development with Government, Institution or Community Facilities at Various Lots in D.D. 122 and Adjoining Government Land, Yuen Long, New Territories (Land Sharing Pilot Scheme (Application No.: LSPS/005))

Annex 4

Correspondence with WCPHD

DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.
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SEWERAGE MANHOLE SCHEDULE

Manhole	Manhole Type	Ground Level (mPD)	Inlet Pipe/Channel			Outlet Pipe/Channel			
			Pipe/Channel No.	Nominal Diameter (mm)	Invert Level (mPD)	Nominal Diameter (mm)	Invert Level (mPD)	To Manhole/Catchpit	Gradient
FMH1-16	Custom Type S1	6.5	A1	450	0.51	750	0.51	FMH1-18	275
FMH1-18	Standard Type L	5.9	A1	750	0.37	750	0.15	FMH1-19	262
FMH1-19	Standard Type L	5.7	A1	750	0.00	750	0.00	FMH1017978(T)	100

PROPOSED SEWERAGE TAPPING POINT

Point Reference	Nominal Diameter (mm)	Gradient	Approximate Ground Level (mPD)	Approximate Invert Level (mPD)
FTP7	1000	1000	6.30	-2.30
FTP8	1000	1000	4.83	-2.40

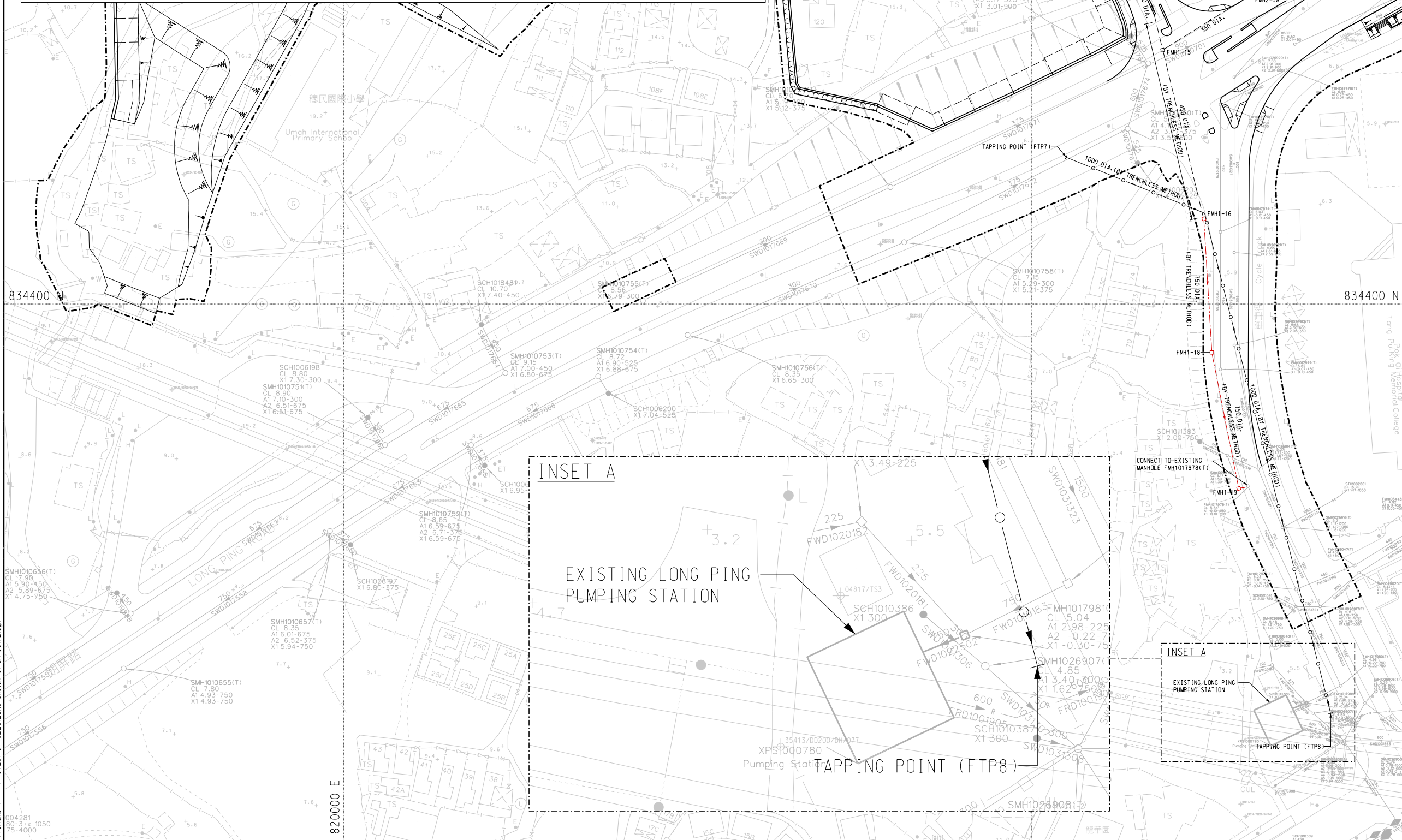
NOTES

- FOR NOTES AND LEGEND, REFER TO DRAWING NOS. C1-SK-0035A & 242693/WC/5002.
- DETAILS OF MANHOLES REFER TO RELEVANT DSD LATEST STANDARD DRAWINGS FOR TYPE OF MANHOLE SPECIFIED ON THE MANHOLE SCHEDULE.
- THE PIPE NUMBERING OF THE INLET PIPE / DRAIN SHOWN IN THE MANHOLE SCHEDULE SHALL BE AS FOLLOWS: A1, A2, A3, ETC COUNTED IN CLOCKWISE DIRECTION FROM THE OUTLET PIPE.
- THE COVER LEVELS SHOWN IN THE MANHOLE SCHEDULE ARE FOR REFERENCE ONLY. THE FINAL COVER LEVELS SHALL BE VERIFIED ON SITE TO MATCH WITH THE FINAL FINISHED ROAD / GROUND LEVELS.
- THE EXACT LOCATION OF TAPPING POINTS SHALL BE VERIFIED ON SITE.

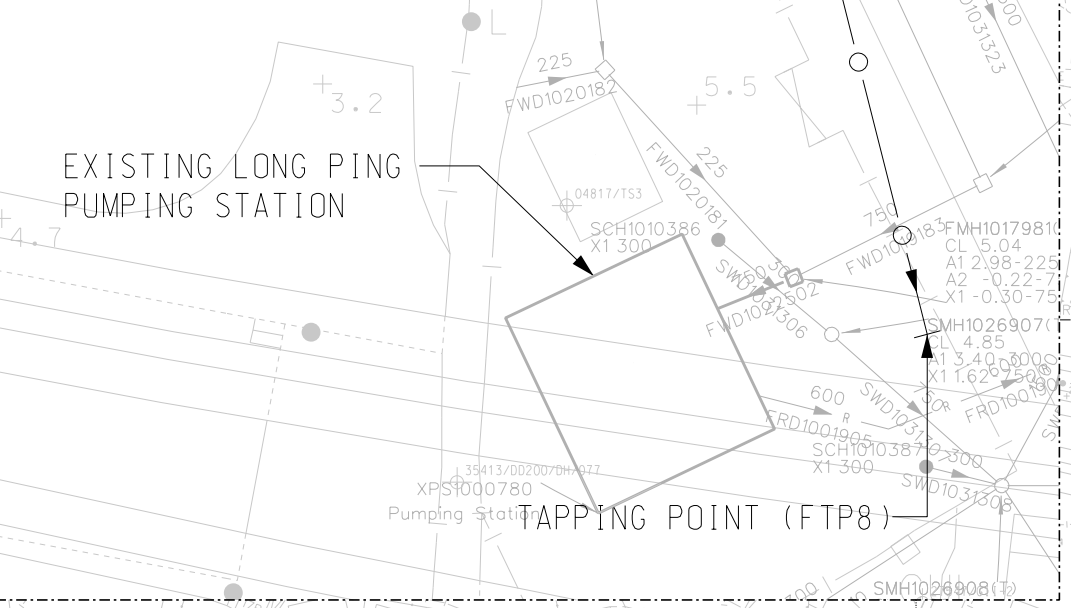
LEGEND

- SITE BOUNDARY OF CV/2017/07
- - - PROPOSED SEWER OF CV/2017/07
- - - PROPOSED SEWER (UPGRADED FOR LSPS)
- PROPOSED RISING MAIN

NOT FOR CONSTRUCTION



INSET A



Rev	Description	Cks	App	Date
E	FOR CIRCULATION	HT	CC	12/24
D	RFC/000137A	HT	CC	10/24
C	PM1-292	HT	CC	02/24
B	PPMI-009	HT	CC	08/23
A	UPDATE REVISION	HT	CC	07/23

Consultant
ARUP

Project title
Contract No. CV/2017/07
Site Formation and Infrastructure Works at Wang Chau, Yuen Long – Contract 1

Drawing title
PROPOSED SEWERAGE LAYOUT PLAN - SCHEME COMBINED WORKS DEVB'S LSPS AND DSD'S DC/2021/04

Sketch no. C1-SK-0317	Rev. E
Drawn CKL	Date 07/23
Checked HT	Approved CC
Scale 1:600 @A1	Working drawing ref: 242693/WC/5121.5122

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Civil Engineering and Development Department

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File name : T:\CV\2017\02_C1_Site Sketch\C1-SK-0317E.dgn
6/1/2025

From: DENISE WING SZE TSANG <dwstsang@cedd.gov.hk>
Sent: Thursday, August 28, 2025 11:27 AM
To: Steven SF HAR/DEVB <stevenhar@devb.gov.hk>
Cc: JESSIE CHONG ZHANG/CEDD <jessieczhang@cedd.gov.hk>; KENNY WING KI CHIU/CEDD <wkchiu@cedd.gov.hk>
Subject: 轉寄: LSPS/005 - Proposed Sewer interfaced with Wang Chau Public Housing Development

Dear Steven,
The estimated sewage flow from Wang Chau Phase 1 development is 2822 m³/day. Thanks.
Regards,

Denise Tsang
E8/HP2, CEO, CEDD
Tel: 3919 8667 / 3653 1529

----- Forwarded by DENISE WING SZE TSANG/CEDD/HKSARG on 08/28/2025 11:25 AM -----

