Annex G

Updated Sewerage Impact Assessment

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DELIVERING THE FUTURE

PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT USE AT TUNG CHUNG TOWN LOT 49, TUNG CHUNG ROAD NORTH, LANTAU ISLAND

Sewerage Impact Assessment

MARCH 2026


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Sewerage Impact Assessment

Author	Various
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Approver	TK Ting

Report No	KEB002681/SIA/R01
Date	MARCH 2026

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LIST OF APPENDICES

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1 INTRODUCTION

1.1 Background

1.1.1 Full Fame Development Limited (the "Applicant") intends to seek approval from the Town Planning Board ("TPB") under Section 16 of the Town Planning Ordinance for the Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use at Tung Chung Town Lot 49, Tung Chung Road North, Lantau Island ("the Site"). The Site falls primarily within an area zoned "Residential (Group B)3" ("R(B)3") zone, with a minor portion of it shown as "Road" on the Approved Tung Chung Town Centre Area Outline Zoning Plan ("the Approved OZP") No. S/I-TCTC/24.

1.1.2 Asia Infrastructure Solutions Limited was commissioned by the Applicant to undertake a Sewerage Impact Assessment (SIA) for the Proposed Residential Development and provide technical justifications in supporting the application from the sewerage point of view.

1.2 Objectives

1.2.1 This report outlines the existing sewerage system, proposed sewerage system for the proposed residential development and the planned public sewerage system being constructed by the Civil Engineering and Development Department (CEDD) under Contract No. NL/2020/05 Tung Chung New Town Extension – Site Formation and Infrastructure Works at Ma Wan Chung in the vicinity of the Site.

1.2.2 The objective of this Sewerage Impact Assessment (SIA) are as follows:

- Identify any potential sewerage impact arising from the Site;
- Assess the hydraulic performance of the proposed sewer connecting with the proposed foul terminal manhole and the planned public sewerage system being constructed by the CEDD in the vicinity of the Site; and
- Identify design requirements of the sewerage system of the proposed development.

1.3 Information Available for the Study

1.3.1 The following information was reviewed for the study:

- DSD Sewerage Manual (Part 1) – Key Planning Issues and Gravity Collection System (Third Edition, May 2013);
- Sewerage Manual (Part 1) - Corrigendum No. 1/2024
- EPD Technical Paper EPD/TP 1/05, Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning Version 1.0 (March 2005) (GESF);
- PlanD Study Document – Commercial and Industrial Floor Space Utilization Survey (CIFSUS);
- Planning Department (PlanD) Technical Document – Hong Kong Planning Standard and Guidelines, January 2024;
- Outline Zoning Plan No. S/I-TCTC/24;

- Tender Drawings of Contract No. NL/2020/05 and the design sewage flow of planned public sewerage system;
- WHO, Guidelines for Safe Recreational Water Environments – Vol 2 Swimming Pools and Similar Environments; and
- Cap. 123I Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulation.

2 PROJECT OUTLINE

2.1 Project Background and Project Site

2.1.1 The Site is located at the northwest of the planned public housing development at Area 23 of Tung Chung.

2.1.2 The Site is also bounded by Tung Chung Road North to the east and an existing nullah connecting to Ma Wan Chung to the west.

2.1.3 The Site has an area of approximate 5,400m^2 comprising mainly paved areas and some landscaped areas.

2.1.4 The proposed development is mainly comprised of two 13-storey residential towers and a 3-storey clubhouse block with an outdoor swimming pool, both atop 1 level of basement carpark. A master layout plan and a schematic section of the proposed residential development at Tung Chung Road North are contained in **Appendix A**.

3 EXISTING AND PLANNED SEWERAGE SYSTEMS

3.1 Existing Public Sewerage Infrastructure

3.1.1 After reviewing records of public sewerage system in Tung Chung Road North, it is revealed that the there is no public gravity sewerage network along Tung Chung Road North for receiving the sewage from the Site. Drainage Records Plans are contained in **Appendix B**.

3.2 Planned Public Sewerage Infrastructure

3.2.1 With reference to the tender drawings of Contract No. NL/2020/05 Tung Chung New Town Extension – Site Formation and Infrastructure Works at Ma Wan Chung, there are new public gravity sewers planned for construction along Tung Chung Road North for conveying sewage to Drainage Services Department (DSD) Chung Yan Road Sewage Pumping Station (CYRSPS). A sewerage connection to the planned public sewer manhole no. FMH-J07 is proposed for planned area no. Area 48.

3.2.2 With reference to Outline Zoning Plan No. S/I-TCTC/24, a residential (Group B) public housing development is proposed in the planned area no. Area 23 with 18169 m^2 in size, which is opposite to the proposed Site and bounded by Tung Chung Road North to the west. With reference to the tender drawings of Contract No. NL/2020/05, the sewage flow from the Area 23 will be discharged to the planned public sewer manhole no. FMH-J09.

3.2.3 The existing sewage rising mains along Tung Chung Road North and associated track conveying sewage from CYRSPS to the existing public sewer manhole no. FMH7043027 are planned to be diverted to match with the proposed widened road layout in the future.

3.2.4 After the construction of the planned sewerage system by CEDD, the sewage flow from the Site will be transferred to CYRSPS by new gravity sewerage pipelines along Tung Chung Road North, then it will be transferred to Tung Chung Sewage Pumping Station (TCSPS) via the diverted rising mains along

Tung Chung Road North and associated track and existing gravity sewerage pipelines along the track, Tat Tung Road, Mei Tung Street, Hing Tung Street, Fu Tung Street and Cheng Tung Road. It will be ultimately discharged to the Siu Ho Wan Sewage Treatment Works (SHWSTW) via existing rising mains along Cheng Tung Road.

3.3 Proposed Sewerage Connection for the Site

3.3.1 With reference to the **Appendix F** showing the proposed foul terminal manhole within the Site, a polyethylene (PE) pipe with 225mm inner diameter is proposed to connect with the proposed foul manhole within the Site and the planned public sewer manhole no. FMH-J07 at Tung Chung Road North.

3.3.2 Further liaison with the CEDD and DSD will be established, in order to confirm the design of the proposed sewerage connection works.

4 METHOD OF ANALYSIS

4.1 Method of Analysis for Estimation of Sewage Flow Rates

4.1.1 The design sewage flow rates are estimated in accordance with EPD Technical Paper EPD/TP 1/05, Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning Version 1.0 (March 2005) (GESF). The sewage flow rates estimation is contained in **Appendix C** of this report.

4.1.2 According to section 2.2 of the EPD GESF, the equation for average flow is as follows:

$$Q_{AVERAGE} = (Q_{DOMESTIC} + Q_{COMMERCIAL} + Q_{INSTITUTIONAL} + Q_{INDUSTRIAL}) \times P_{CIF}$$

Where

$Q_{DOMMESTIC}$	is the average dry weather domestic flow;
$Q_{COMMERCIAL}$	is the average dry weather commercial flow;
$Q_{INSTITUTIONAL}$	is the average dry weather institutional flow;
$Q_{INDUSTRIAL}$	is the average dry weather industrial flow; and
P_{CIF}	is the catchment inflow factor.

4.1.3 The catchment inflow factor takes into account the excessive inflow quantities that occurs in some catchments. They are catchment-dependent and applicable to major sewerage facilities of a catchment. The values are given in Table T-4 of the EPD GESF.

4.1.4 The average dry weather flows are calculated with the unit flow factor as follows:

Average Dry Weather Flow (ADWF) (m^3/day) =

Σ [Population (head) x unit flow factor (m^3/head/day)]

4.1.5 In the case of Commercial and Industrial Flows, the total unit flow generated from an employee in a particular trade is the sum of the unit flow factor of employee and the unit flow factor of a particular trade under consideration.

4.1.6 The peak flow is calculated with an appropriate peaking factor as follows:

Peak Flow (m^3/day) = ADWF (m^3/day) x Peaking Factor

Peaking factors are provided in Table T-5 of section 11.5 of the EPD GESF as a function of the contributing population. Peaking Factors excluding stormwater allowance were adopted for sewerage facilities receiving flow from new upstream

sewerage systems, which essentially have no misconnections and defects for infiltration.

4.1.7 For the purpose of determining the appropriate peaking factor, the contributing population is calculated using the expression presented in section 12.1 of EPD GESF as follows:

Contributing Population =

Calculated total average flow *(m^3/day)* / 0.27 *(m^3/person/day)*

4.2 Assumptions

4.2.1 All sewage flow rates were estimated with reference to the unit flow factors for domestic flows and unit flow factors of commercial flows and student flows given in Tables T-1 and T-2 of the EPD GESF respectively. Relevant peaking factors were adopted according to Table T-5 of the EPD GESF.

4.2.2 The unit flow factors adopted in estimating sewage flow for the proposed residential development are summarized in Table 1.

Type of Population	Total Unit Flow Factor (m^3/head/day)
Public Rental	0.19
Residential (Private R3)	0.37
Commercial, Social & Personal Services	0.08+0.20 = 0.28

Table 1- Unit Flow Factor

4.2.3 Development parameters given by the developer are adopted in this assessment after S16 are summarized in Table 2.

Development Parameters	
Site Area (m^2)	5400
Plot Ratio	2
Gross Floor Area – Towers (m^2)	10800
Gross Floor Area – Clubhouse (m^2)	540
No. of Units	269
Average Unit Size (m^2)	40.14
Estimated Population	754 (2.8 people per flat)
No. of Internal Parking Facilities	74

Table 2- Development Parameters

4.2.4 An additional 10% of average dry weather residential flow was taken into account the sewage flow generated by the proposed carpark.

4.2.5 The peaking factor adopted to estimate the peak flow was selected based on the contributing population of the sewage catchment areas under consideration.

4.2.6 The peaking factors excluding stormwater allowance were used since the sewerage facilities receiving flow from new upstream sewerage systems proposed under this project.

4.2.7 In accordance with the values given in Table T-4 of the EPD GESF, a catchment inflow factor (PCIF) of 1.0 was adopted in the calculation of the Average Dry Weather Flow.

4.2.8 For number of workers in the clubhouse, the value of worker density of 3.3 per Gross Floor Area (in 100 m^2) was adopted for all types community, social & personal services presented in Table 8 of the PlanD CIFSUS.

4.2.9 The sewage flow discharged from swimming pool filtration plant room was estimated using the data given in the Guidelines for Safe Recreational Water Environments (Volume 2) from the World Health Organization. The filter area was estimated based on the design filter flow rate and turnover periods given in Ordinance Cap. 132CA Swimming Pools Regulation, General Specification for Swimming Pool Water Treatment Installation by ArchSD and Guidelines for Safe Recreational Water Environments (Volume 2) by World Health Organization. Detailed calculation of the average volume of backwash water discharged to the building sewerage system and peak flow from backwash is contained in **Appendix C.**

4.2.10 Detailed calculation for the estimated population and sewage flow of the proposed residential development is contained in **Appendix C**.

4.2.11 To assess hydraulic impact of the proposed residential development on the planned public sewerage system, CEDD's design sewage flows for the planned public sewerage system under contract no. NL/2020/05 have been requested for.

4.2.12 A table summarizing catchment areas / existing sewers, CEDD's design sewage flows and receiving manholes is contained in **Appendix E**.

5 ASSESSMENT

5.1 Designed Sewage Flow – Proposed Development

5.1.1 The estimated peak flow generated by the estimated population for the proposed development is summarized on Table 3. Detailed calculation is contained in **Appendix D**.

Catchment ID	Contributing Population	ADWF (m^3/day)	Peaking Factor	Peak Flow (m^3/s)
T1 & T2 (carpark inclusive)	1263	306.88	5	0.0177
Clubhouse (swimming pool inclusive)		11.17	5	0.00065

Table 3- Estimated Peak Flow

5.1.2 The proposed sewer connecting with the proposed foul terminal manhole no. FTMH1 and the planned public sewer manhole no. FMH-J07 constructed by CEDD is checked to be hydraulic adequate by Colebrook-White equation. Detailed calculation is contained in **Appendix D**.

5.1.3 The proposed sewage flow for the Site under this S16 application is 318.04 m^3/day, which is larger than CEDD's design sewage flow of 166m^3/day for the Site (Area 48). An assessment on the pipelines connecting with planned public sewer manhole no. FMH-J07 and existing CYRSPS are conducted.

5.1.4 The hydraulic capacity of the planned public sewerage pipeline system being constructed by CEDD is checked to be hydraulic adequate by Colebrook-White equation. Detailed calculation is contained in **Appendix D**.

5.1.5 The current dry weather flow of the existing CYRSPS and TCSPS, and are 22,464 m^3/day and 52,992 m^3/day respectively, while the current treatment capacity of SHWSTW is approximately 70,000 m^3/day. Insignificant sewerage impact to the existing sewerage facilities is envisaged.

6 CONCLUSION & RECOMMENDATIONS

6.1 Conclusion

6.1.1 According to the Development Parameters for the proposed residential development provided by the developer, the estimated ADWF for the whole development site discharging to CYRSPS, TCSPS and SHWSTW is 318.04 m^3/day. No adverse impact to the existing sewerage facilities is envisaged.

6.1.2 The hydraulic capacity of the planned public sewerage pipeline system being constructed by CEDD is checked to be hydraulic adequate to convey both CEDD's design sewage flows and the increased sewage flow from the proposed residential development. No adverse impact on the sewerage system is expected.

6.2 Recommendations

6.2.1 Construction of a foul terminal manhole and a 225mm inner diameter PE connection pipe is recommended for conveyance of sewage discharged from the proposed residential development to the proposed public sewer along Tung Chung Road North. Hydraulic calculation of the proposed connection pipe is included in **Appendix D.**

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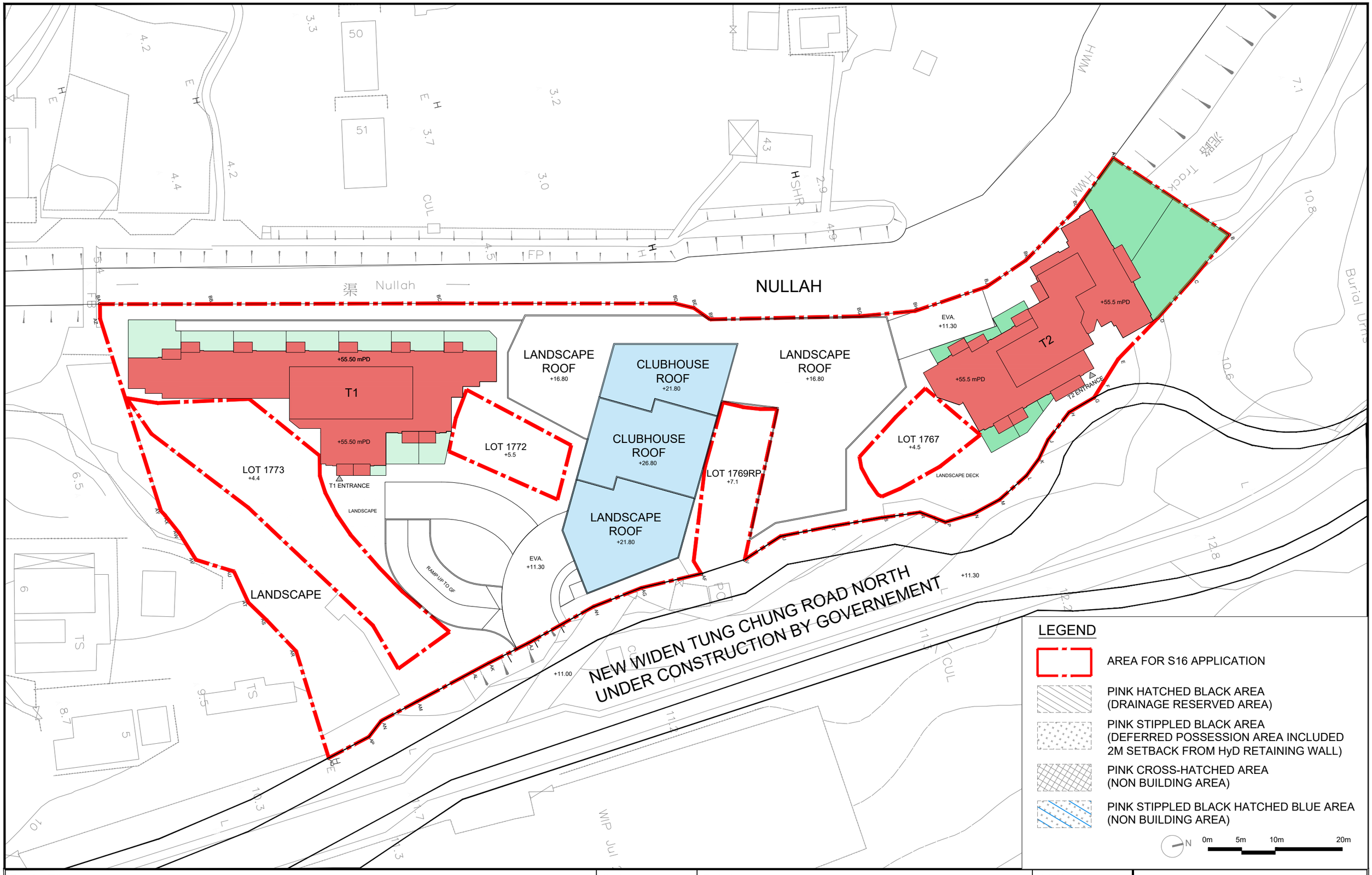
APPENDIX A

Proposed Development – Master Layout Plan

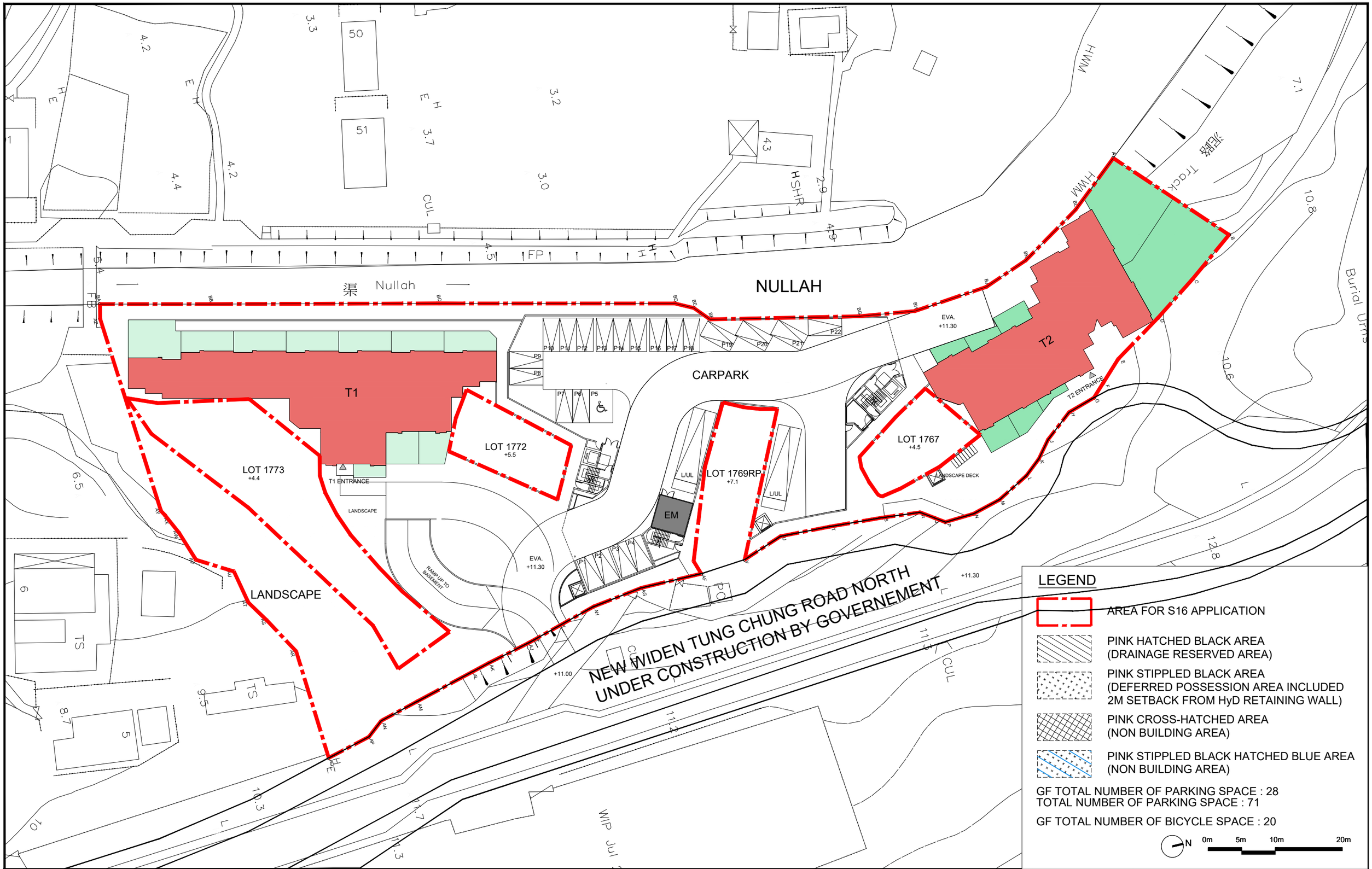


LEGEND

- AREA FOR S16 APPLICATION
- PINK HATCHED BLACK AREA (DRAINAGE RESERVED AREA)
- PINK STIPPLED BLACK AREA (DEFERRED POSSESSION AREA INCLUDED 2M SETBACK FROM HyD RETAINING WALL)
- PINK CROSS-HATCHED AREA (NON BUILDING AREA)
- PINK STIPPLED BLACK HATCHED BLUE AREA (NON BUILDING AREA)

N 0m 5m 10m 20m

Drawing Title MASTER LAYOUT PLAN	Scale 1:500 (A3) Date 25/03/2026	Project A-2517 PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT USE AT TUNG CHUNG TOWN LOT 49, TUNG CHUNG ROAD NORTH, LANTAU ISLAND	Job No. A-2517 Dwg No. MLP-01	ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD



LEGEND

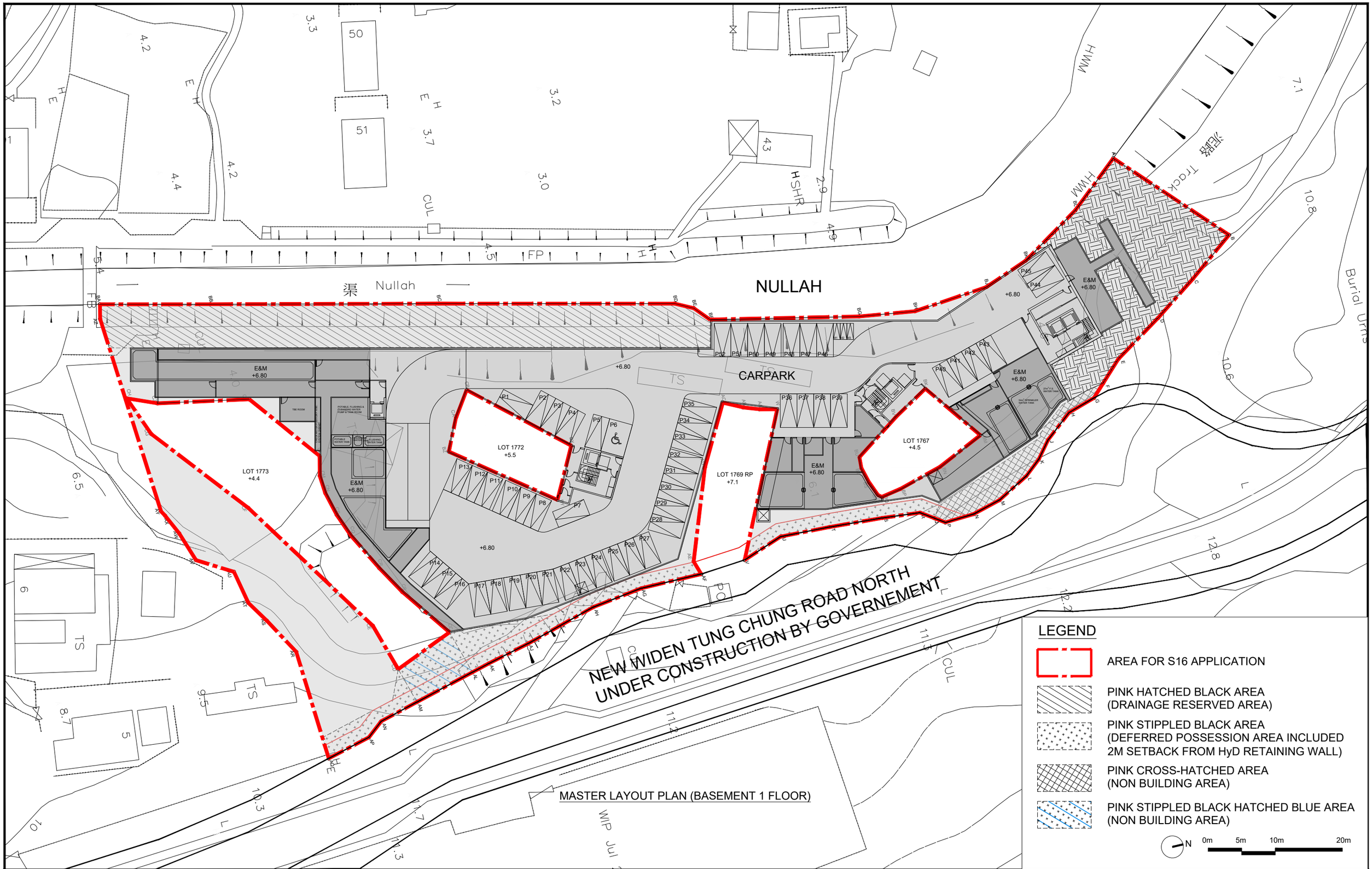
- AREA FOR S16 APPLICATION
- PINK HATCHED BLACK AREA (DRAINAGE RESERVED AREA)
- PINK STIPPLED BLACK AREA (DEFERRED POSSESSION AREA INCLUDED 2M SETBACK FROM HyD RETAINING WALL)
- PINK CROSS-HATCHED AREA (NON BUILDING AREA)
- PINK STIPPLED BLACK HATCHED BLUE AREA (NON BUILDING AREA)

GF TOTAL NUMBER OF PARKING SPACE : 28
TOTAL NUMBER OF PARKING SPACE : 71

GF TOTAL NUMBER OF BICYCLE SPACE : 20

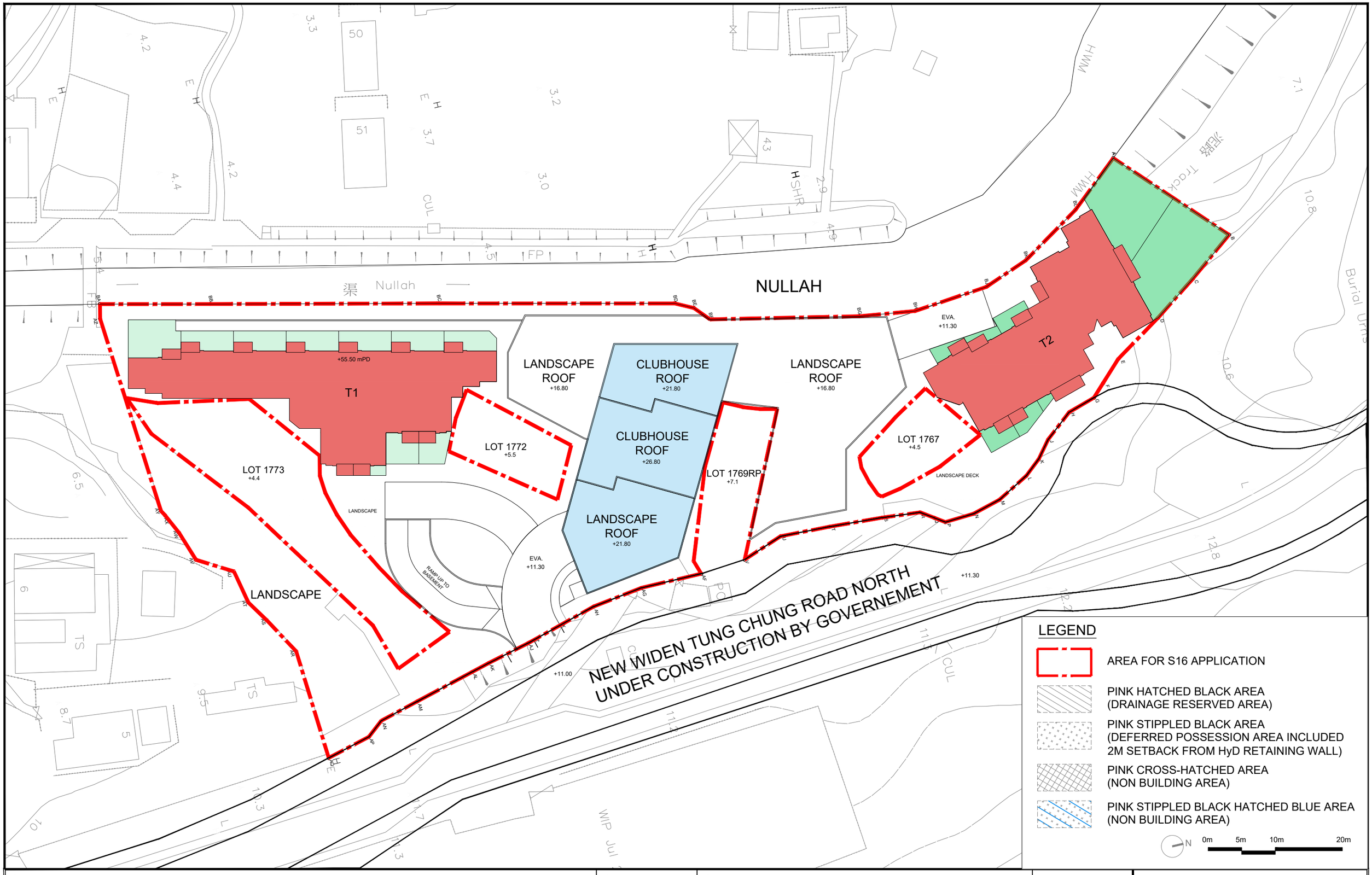
N 0m 5m 10m 20m

Drawing Title GROUND FLOOR PLAN	Scale 1:500 (A3) Date 25/03/2026	Project A-2517 PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT USE AT TUNG CHUNG TOWN LOT 49, TUNG CHUNG ROAD NORTH, LANTAU ISLAND	Job No. A-2517 Dwg No. GP-01	ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD



MASTER LAYOUT PLAN (BASEMENT 1 FLOOR)

Drawing Title BASEMENT 1 FLOOR PLAN	Scale 1:500 (A3) Date 25/03/2026	Project A-2517 PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT USE AT TUNG CHUNG TOWN LOT 49, TUNG CHUNG ROAD NORTH, LANTAU ISLAND	Job No. A-2517 Dwg No. GP-02	ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD



Drawing Title TYPICAL LAYOUT PLAN	Scale 1:500 (A3) Date 25/03/2026	Project A-2517 PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT USE AT TUNG CHUNG TOWN LOT 49, TUNG CHUNG ROAD NORTH, LANTAU ISLAND	Job No. A-2517 Dwg No. GP-03	ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

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APPENDIX B

Drainage Records

9-SE-8D-1

SCALE 1 : 500

Metres 10 0 20 40 60 80 100 Metres

Hong Kong and Islands Division
Drainage Services Department

DRAWING OFFICE COPY
HK & I DIVISION D.S.D.
PLEASE RETURN AFTER PERUSAL

Legend :

- Storm Water Manhole
- Storm Water Terminal Manhole
- Sewer Manhole
- Sewer Terminal Manhole
- Combined Manhole
- Catchpit
- Desilting Opening
- Inspection Opening
- Dry Weather Flow Interceptor
- Sand Trap
- Inlet
- Outlet
- Box Culvert (Storm/Sewer)
- Existing Pipe (Storm/Sewer/Combined)
- Existing Pipe (Storm/Sewer/Combined) (Planning / Identifying to be Abandoned)
- Proposed Pipe (Storm/Sewer)
- Works In Progress Pipe (Storm/Sewer)
- Abandoned Pipe
- Abandoned Pipe (Filled with Materials)
- Existing U Channel / Stepped Channel (Storm)
- Proposed U Channel / Stepped Channel (Storm)
- Works In Progress U Channel / Stepped Channel (Storm)
- Rising Main
- Vaccum Sewer
- Drainage Reserve
- Gully Sump / Gully
- Tapping Point (Storm/Sewer)
- Overflow (Sewer/Combined)
- Interface Valve Chamber
- Oil / Petrol Interceptor
- Valve
- Water Gauge
- Spot Level (Storm/Sewer)
- Existing Y-Junction (Storm/Sewer/Combined)
- Slope Sign Board
- Slope Number
- Slope Boundary
- Existing Submarine Outfall with Diffuser
- Proposed Submarine Outfall with Diffuser
- Works In Progress Submarine Outfall with Diffuser
- Harbour Area Treatment Scheme Sewage Tunnel Protection Area (100m width) (Please note that all proposed works within the HATS Sewage Tunnel Protection Area have to be complied with the requirements in the Environment, Transport and Works Bureau Technical Circular (Works) No.28/2003 or the Practice Note for Authorised Persons and Registered Structural Engineers No. 185 issued by the Building Department)
- Harbour Area Treatment Scheme Sewage Tunnel Outer Protection Area (200m width) (Please note that all proposed works within the HATS Sewage Tunnel Protection Area have to be complied with the requirements in the Environment, Transport and Works Bureau Technical Circular (Works) No.28/2003 or the Practice Note for Authorised Persons and Registered Structural Engineers No. 185 issued by the Building Department)

Notes :

1. All levels are in mPD.
2. All dimensions shown are in millimetres unless otherwise stated.
3. The information shown on the record drawings are subject to verification on site and no guarantee can be given that this is a complete record.
4. Abbreviations for Channels of width smaller or equal to 1200mm:
   900C - 900mm width Surface Channel
   900SC - 900mm width Stepped Channel
   900UC - 900mm width U Channel
   900DWFC - 900mm width Dry Weather Flow Channel
5. The Incoming Pipes are marked A1, A2, A3, ... counting clockwise from the first Outgoing Pipe X1. Outgoing Pipes are marked X1, X2, X3 ... counting clockwise from North.

eg.

Manhole number
Cover Level or Ground Level
225mm dia. Incoming Pipe Invert Level
375mm dia. Incoming Pipe Invert Level
525mm dia. Outgoing Pipe Invert Level

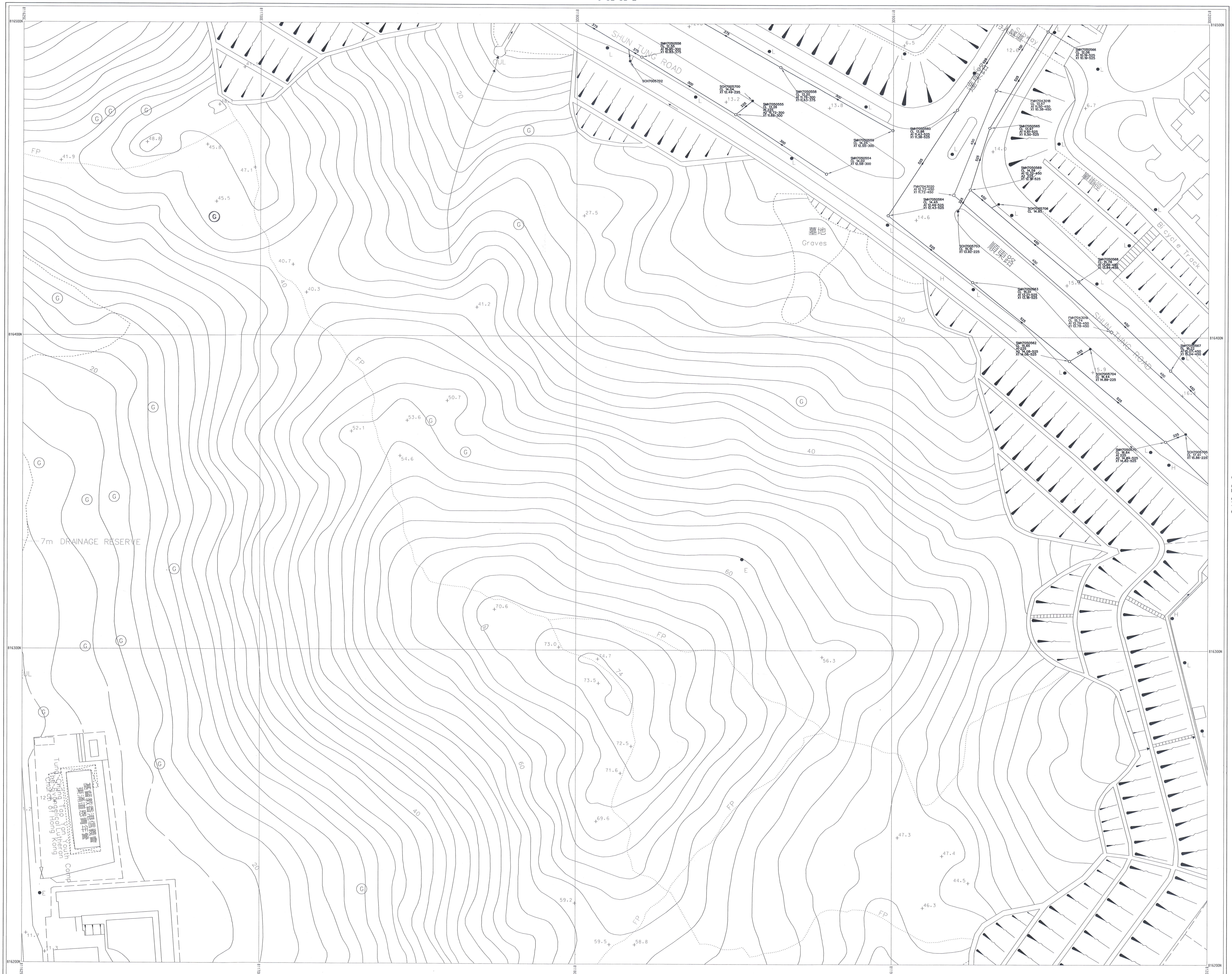
6. Piling foundations on culverts may be present but not shown for brevity. Please refer to the relevant as-built drawings on details of the pile foundation.
7. Drainage facilities maintained by other parties, if shown, are indicative only. It is no guarantee that these information are exact.

Drainage Record Sheet Number

9-SE-8B-3

Last Updating : 27-02-2006

Map data renewed on June 2009



Legend :

- Storm Water Manhole
- Storm Water Terminal Manhole
- Sewer Manhole
- Sewer Terminal Manhole
- Combined Manhole
- Catchpit
- Desilting Opening
- Inspection Opening
- Dry Weather Flow Interceptor
- Sand Trap
- Inlet
- Outlet
- Box Culvert (Storm/Sewer)
- Existing Pipe (Storm/Sewer/Combined)
- Existing Pipe (Storm/Sewer/Combined) (Planning / Identifying to be Abandoned)
- Proposed Pipe (Storm/Sewer)
- Works In Progress Pipe (Storm/Sewer)
- Abandoned Pipe
- Abandoned Pipe (Filled with Materials)
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- Proposed U Channel / Stepped Channel (Storm)
- Works In Progress U Channel / Stepped Channel (Storm)
- Rising Main
- Vaccum Sewer
- Drainage Reserve
- Gully Sump / Gully
- Tapping Point (Storm/Sewer)
- Overflow (Sewer/Combined)
- Interface Valve Chamber
- Oil / Petrol Interceptor
- Valve
- Water Gauge
- Spot Level (Storm/Sewer)
- Existing Y-Junction (Storm/Sewer/Combined)
- Slope Sign Board
- Slope Number
- Slope Boundary
- Existing Submarine Outfall with Diffuser
- Proposed Submarine Outfall with Diffuser
- Works In Progress Submarine Outfall with Diffuser
- Harbour Area Treatment Scheme Sewage Tunnel Protection Area (100m width)
  (Please note that all proposed works within the HATS Sewage Tunnel Protection Area have to be complied with the requirements in the Environment, Transport and Works Bureau Technical Circular (Works) No.28/2003 or the Practice Note for Authorized Persons and Registered Structural Engineers No. 165 issued by the Building Department)
- Harbour Area Treatment Scheme Sewage Tunnel Outer Protection Area (200m width)
  (Please note that all proposed works within the HATS Sewage Tunnel Protection Area have to be complied with the requirements in the Environment, Transport and Works Bureau Technical Circular (Works) No.28/2003 or the Practice Note for Authorized Persons and Registered Structural Engineers No. 165 issued by the Building Department)

Metres 10 0 20 40 60 80 100 Metres

SCALE 1 : 500

Hong Kong and Islands Division
Drainage Services Department

Notes :

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5. The Incoming Pipes are marked A1, A2, A3, ... counting clockwise from the first Outgoing Pipe X1. Outgoing Pipes are marked X1, X2, X3 ... counting clockwise from North.
   eg. SMH7000123 — Manhole number; CL 4.68 — Cover Level or Ground Level; A1 1.14-225 — 225mm dia. Incoming Pipe Invert Level; A2 1.29-375 — 375mm dia. Incoming Pipe Invert Level; X1 1.14-525 — 525mm dia. Outgoing Pipe Invert Level
6. Piling foundations on culverts may be present but not shown for brevity. Please refer to the relevant as-built drawings on details of the pile foundation.
7. Drainage facilities maintained by other parties, if shown, are indicative only. It is no guarantee that these information are exact.

CHECKED BY STOK(C)

- JUL 2021

Drainage Record Sheet Number

9-SE-8B-4

Last Updating : 27-02-2006

Map data renewed on June 2009

黃泥屋
WONG NAI UK

瑞逸樓
Sui Yat House

悅逸樓
Yuet Yat House

翠逸樓
Chui Yat House

信逸樓
Shun Yat House

謙逸樓
Him Yat House

逸東（二）邨
YAT TUNG (II) ESTATE

德逸樓
Tak Yat House

寶逸樓
Po Yat House

逸東街

傑逸樓
Kit Yat House

奇逸樓
Kui Yat House

東涌天主教學校
Tung Chung Catholic School

籃球場
Basketball Court

三號停車場
Carpark No.3

(下層巴士總站)
(Bus Terminus under)

道路
Road

渠
Nullah

Legend :

- Storm Water Manhole
- Storm Water Terminal Manhole
- Storm Water Special Manhole
- Sewer Manhole
- Sewer Terminal Manhole
- Sewer Special Manhole
- Combined Manhole
- Catchpit
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- Abandoned Pipe (Filled with Materials)
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- Drainage Reserve
- Tunnel Protection Zone
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- Overflow (Sewer/Combined)
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- Slope Boundary
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- Proposed Submarine Outfall with Diffuser
- Works In Progress Submarine Outfall with Diffuser
- Harbour Area Treatment Scheme Sewage Tunnel Protection Area (100m width) (Please note that alignment works within the HATS Sewage Tunnel Protection Area have to be complied with the requirements in the Environment, Transport and Works Bureau Technical Circular (Works) No.28/2002 or the Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers No. APP-82 issued by the Buildings Department)
- Harbour Area Treatment Scheme Sewage Tunnel Outer Protection Area (200m width) (Please note that alignment works within the HATS Sewage Tunnel Protection Area have to be complied with the requirements in the Environment, Transport and Works Bureau Technical Circular (Works) No.28/2002 or the Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers No. APP-82 issued by the Buildings Department)

09-SE-08D-3

SCALE 1 : 500

Metres 10 0 20 40 60 80 100 Metres

Hong Kong and Islands Division
Drainage Services Department

DRAWING OFFICE COPY
HK & I DIVISION D.S.D.
PLEASE RETURN AFTER PERUSAL

Notes :

1. All levels are given in metres principle datum.
2. All dimensions shown are in millimetres unless otherwise stated.
3. The information shown on the record drawings are subject to verification on site and no guarantee can be given that this is a complete record.
4. Abbreviations for Channels of width smaller or equal to 1200mm:
   900C = 900mm width Surface Channel
   900SC = 900mm width Stepped Channel
   900UC = 900mm width U Channel
   900DWFC = 900mm width Dry Weather Flow Channel
5. The Incoming Pipes are marked A1, A2, A3, ... counting clockwise from the first Outgoing Pipe X1. Outgoing Pipes are marked X1, X2, X3 ... counting clockwise from North.

   eg. SMH7000123 / CL 4.68 / A1 1.14-225 / A2 1.29-375 / X1 1.14-525

   Manhole number
   Cover Level or Ground Level
   225mm dia. Incoming Pipe Invert Level
   375mm dia. Incoming Pipe Invert Level
   525mm dia. Outgoing Pipe Invert Level
6. Piling foundations on culverts may be present but not shown for brevity. Please refer to the relevant as-built drawings on details of the pile foundation.
7. Drainage facilities maintained by other parties, if shown, are indicative only. It is no guarantee that these information are exact.

Drainage Record Sheet Number

9-SE-8D-1

Last Updating : 14/6/2016

Map data renewed on September 2015

JUL 2021

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APPENDIX C

Sewage Flow Estimation

asia infrastructure solutions a GISI Consulting Group company	**Project No.: KEB002681 - Proposed Residential Developmment at Tung Chung North Road (S16 Application)**
	Date: January 2026
	Designed By: Edric Julian
	Checked By: Victus Kwan
	Sewage Flow Estimation for Proposed Residential Development at Tung Chung North Road

Sewage Flow Estimation

		Commercial and Institutional Flow					Domestic						
Catchment ID	Building Type	Commerical Activity	Total Gross Floor Area (m^2)	Worker Density (person/100m^2)	Number of Employees	Unit flow factor (m^3/head/day)	Number of Flats	Persons per flat	Population (head)	Unit flow factor (m^3/head/day)	Average Dry Weather Commercial Flow (m^3/d)	Average Dry Weather Residential Flow (m^3/d)	Remarks
T1 & T2	Private R3	-	-	-	-	-	269	2.8	754	0.37	-	278.98	-
	Car Park	-	-	-	-	-	-	-	-	-	-	27.90	Assume ADWF of car park equals 10% of AWDF (residential sewage)
Clubhouse	Community, Social & Personal Services (J11)	Private Recreational Facilities	540.0	3.3	18	0.28	-	-	-	-	5.04	-	-
		Outdoor Swimming Pool	-	-	-	-					4.08		-
										Total	**316.00**		

Notes:

1) EPD's Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning" (GESF) is referenced for the adopted UFF.
2) Average persion per flats of 2.8 adopted for towers of residential development based on Recruitment Plan from the Developer.
3) Worker Density of 3.3 adopted for Clubhouse Employees with reference to CIFSUS Table 8.

asia infrastructure solutions a GISI Consulting Group company	**Project No.: EB002217 - Proposed Residential Developmment at Tung Chung North Road (S16 Application)**
	Date: September 2025
	Designed By: Edric Julian
	Checked By: Victus Kwan
	Sewage Flow Estimation for Proposed Residential Development at Tung Chung North Road

Pool Type: 20 m Long Indoor Swimming Pool			
Surface Area	100.00	m^2	
Depth	1.50	m	
Volume	150.00	m^3	
Turnover period	6	h	Cap. 132CA & General Specification for Swimming Pool Water Treatment Installation by ArchSD
Circulation Rate	25.00	m^3/h	
Design filtration rate	30	$m^3/m^2/h$	Reference to Plumbing Engineering Services Design Guide - Domestic Swimming Pool and Guidelines for Safe Recreational Water Environments (Volume 2), World Health Organization
Filter Area	0.83	m^2	One Sand filter assumped to be used
Backwash Flow Rate	0.7	$m^3/(m^2$filter area)/min	Reference to Wastewater Engineering - Treatment, Disposal, Reuse, 4th ed., Metcalf and Eddy and Guidelines for Safe Recreational Water Environments (Volume 2), World Health Organization
Back Wash Duration	7.00	mins	Reference to Section B8.5.5 of General Specification for Swimming Pool Water Treatment Installation in Government Buildings of the HKSAR published by the ArchSD, “the water velocity chosen shall be effective in cleaning the filter in duration of 7 minutes for sand filter”.
Volume of Backwash Water Per Day	4.08	m^3	
Peak Flow Rate	9.72	L/s	

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APPENDIX D

Hydraulic Calculations – Connection Pipe & Planned Public Sewerage System

asia infrastructure solutions
a GISI Consulting Group company

Project No.: KEB002681 - Proposed Residential Developmment at Tung Chung North Road (S16 Application)
Date: January 2026
Designed By: Edric Julian
Checked By: Victus Kwan
Hydraulic Calculations - Connection Pipe & Planned Public Sewerage System

Table D.1) Adopted peaking factors

Peaking Factors, P	
Population Range	Peaking Factor excluding stormwater allowance
<1000	6
1000-5000	5
5000-10000	4
10000-50000	3
>50000	Max (6/N^0.175 , 1.6)

Design Parameters	
Kinematic Viscosity (m2/s)	1.00E-06
Pipe Roughness (Ks) (mm)	0.15

For the purpose of determining the appropriate peaking factor the contributing population is calculated using the expression presented in section 12.1 of EPD GESF as follows:
Contributing Population = Calculated total average flow (m^3/day) / 0.27 (m^3/person/day)

Table D.2) Design Peak Flows and Pipe Capacity Calculations

Links		Average Flows					Peak Flows		Hydraulics Check									
Upstream Node	Downstream Node	From buildings (m^3/day)	From branch pipe (m^3/day)	From US pipe (m^3/day)	Cummulative average flow (m^3/day)	Contributing Population	Peaking Factor	Peak design flow (m^3/s)	US IL (mPD)	DS IL (mPD)	Length (m)	Gradient (m/m)	Internal Diameter (mm)	Pipe Area (m2)	Full Bore Velocity (m/s)	Full Bore Pipe Capacity (m^3/s)	Pipe Capacity (%)	Discharge Check
Proposed Connection Pipes																		
FTMH1 (from development)	FMH-J07	316.00	-	-	316.00	1,171	5	0.018	9.26	9.22	9.8	0.004	200	0.031	0.891	0.028	65.3	OK
Planned Public Sewers																		
FMH-J07	FMH-J08	316.00	-	144.00	460.00	1,704	5	0.027	9.05	8.50	78.5	0.007	300	0.071	1.525	0.108	24.7	OK
FMH-J08	FMH-J09	-	-	460.00	460.00	1,704	5	0.027	8.50	8.21	35.4	0.008	300	0.071	1.652	0.117	22.8	OK
FMH-J09	FMH-J10	-	1620.00	460.00	2080.00	7,704	4	0.096	5.56	5.30	32.0	0.008	300	0.071	1.645	0.116	82.8	OK
FMH-J10	FMH-J11	-	-	2080.00	2080.00	7,704	4	0.096	4.73	4.45	18.1	0.015	300	0.071	2.286	0.162	59.6	OK
FMH-J11	FMH-L01	-	-	2080.00	2080.00	7,704	4	0.096	0.77	0.72	17.0	0.003	400	0.126	1.168	0.147	65.6	OK
FMH-L03	FMH-L02	-	3637.00	-	3637.00	13,471	3	0.126	1.92	1.85	39.6	0.002	700	0.385	1.276	0.491	25.7	OK
FMH-L02	FMH-L01	-	-	3637.00	3637.00	13,471	3	0.126	1.84	1.32	19.0	0.027	700	0.385	5.143	1.979	6.4	OK
FMH-L01	Existing CYRSPS	-	1796.00	3637.00	5433.00	20,123	3	0.189	0.72	0.70	13.9	0.001	700	0.385	1.147	0.441	42.7	OK

Design Sewage Flows under CEDD's Contract No. NL/2020/05 and Agreement No. CE70/2015(CE).

Pipe Roughness:
HDPE pipes: 0.15mm (Slimed Sewers)

Planned Public Sewerage Network Hydraulic Checking Assumptions:
1. The planned and existing sewage flows conveyed by the planned public sewerage network are based on the values provided by CEDD's consultant of Contract No. NL/2020/05.
2. All invert levels and materials of the planned public sewerage network are based on the drawings provided by CEDD.
3. Since downstream invert level of planned sewer connecting with FMH-L02 and Existing CYRSPS is unknown in available CEDD's drawings, the value of downstream invert level of existing sewer no. FWD7054300 (750ø) to be abandoned under No. NL/2020/05 is estimated based on GEOINFO MAP information and adopted in this assessment, i.e. 0.03 (USIL) - 1/750 (Min. Gradient)* 11.5 (Length) = 0.015mPD.
4. As the proposed sewage flow from the site (Area 48) under S16 Application is larger than the CEDD's design sewage flow, i.e., 340.84m3/day > 166m3/day, pipe capacity assessment for the downstream pipelines connecting with FMH-J07 and Existing CYRSPS is conducted with consideration of both CEDD's planned sewage flows, existing sewage flows and proposed sewage flow from the site (Area 48).
5. The hydraulic capacity of assessed pipelines are considered as sufficient if the full-bore capacity calculated by Colebrook-White Equation is larger than the peak sewage flow.

In the hydraulic assessment Colebrook-White equation is used:

$$V = -\sqrt{(8gDs)}\log\left(\frac{ks}{3.7D} + \frac{2.5\,\nu}{D\sqrt{(2gDs)}}\right)$$

where
V = mean velocity (m/s)
g = gravitational acceleration (m/s2)
R = hydraulic radius (m)
D = internal pipe diameter (m)
ks = hydraulic pipeline roughness (m)
v = kinematic viscosity of fluid (m2/s)
s = hydraulic gradient (energy loss per unit length due to friction)

APPENDIX E

Design Sewage Flows for Planned Public Sewerage System by CEDD

asia infrastructure solutions
a GISI Consulting Group company

Project No.: KEB002681 - Proposed Residential Developmment at Tung Chung North Road (S16 Application)
Date: January 2026
Designed By: Edric Julian
Checked By: Victus Kwan
Summary of CEDD's Design Sewage Flows for Planned Public Sewerage System

Catchment Area/ Existing Sewer	CEDD's Design Sewage Flow (m3/day) #	S16 Proposed Sewage Flow (m3/day)	Receiving Manhole	Receiving Manhole in the assessed pipelines	CEDD's Total Design Sewage Flow (m3/day)	S16 Total Proposed Sewage Flow (m3/day)
Area 34 by Ma Wan Chung SPS	32	32	MN08 eventually to FMH-J01	FMH-J07	310	**460.00**
Area 29A	112	112	FMH-J01			
Area 48	166	**316.00**	FMH-J07			
Area 23	1620	1620	FMH-J09	FMH-J09	1620	1620
Area 41	500	500	FMH-K01	FMH-L01	1796	1796
Area 24A	1296	1296	FMH-K03			
ADWF from Yu Tong Road Sewers	3637	3637	FMH-L08	FMH-L03	3637	3637
					7363	7513.00

Notes:
Design Sewage Flow Data under CEDD's Contract No. NL/2020/05 obtained from CEDD and CEDD's consultant. (Updated as of 26/01/2026)

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APPENDIX F

Proposed Sewerage Connection Layout Plan

LEGEND

- *AREA FOR S16 APPLICATION
- PROPOSED TERMINAL FOUL MANHOLE
- PROPOSED SEWER
- PLANNED PUBLIC SEWER MANHOLE (BY CEDD)
- PLANNED SEWER (BY CEDD)

LOCATION PLAN
SCALE 1 : 7500

Nullah

LOT 1773

LOT 1772

LOT 1769

LOT 1767

TUNG CHUNG ROAD NORTH

225Ø

315Ø

355Ø

+11.0

FMH-J07 (BY CEDD)
IL +8.46

Tung Chung Youth Camp
The Evangelical Lutheran
Church of Hong Kong

Rev	Description	Date
B	PRELIMINARY DESIGN	20/03/2026
A	PRELIMINARY DESIGN	28/01/2026

50mm on Original

Client: FULL FRAME DEVELOPMENT LIMITED

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

		Current Issue Signatures	
Scales	1 : 500 @ A3	Draw	EJ
Original Size	A3	Checker	VK
Height Datum	HKPD	Approver	TK
Grid		© Copyright reserved	

Filename: KEB002681-SIA-1001-2.DWG

Project: S16 APPLICATION FOR PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT USE AT TUNG CHUNG TOWN LOT 49, TUNG CHUNG ROAD NORTH, LANTAU ISLAND

Title: PROPOSED SEWERAGE LAYOUT PLAN

asia infrastructure solutions

Drawing No.: KEB002681/SIA/1001

Plot Date: 20/Mar/2026 5:14:40 pm File Location: P:\KEB002681 DIA & SIA TUNG CHUNG\F-REPORTS (WORKING)\SIA\DRAWINGS\KEB002681-SIA-1001-2.DWG

APPENDIX G

Correspondence and Updated Drawings from CEDD

Victus Kwan

Subject: FW: Drainage and Sewerage Impact Assessment Consultancy Services - The Proposed Residential Development at Lot 1766RP, 1768RP, 1770RP, 1771RP and 1774RP, DD3 Tung Chung - Request for Information

Attachments: NL202005 Sewerage Drawings_20260120.pdf

Importance: High

Regards,

Victus KWAN | Civil – Infrastructure
Asia Infrastructure Solutions Limited
asia infrastructure solutions
D [redacted] **T** [redacted] | **F** [redacted]
E [redacted] | **W** [redacted]
A 23/F, Two Harbour Square, 180 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

From: KIMBERLY YU LIN LU/CEDD [redacted]
Sent: Monday, 26 January 2026 5:33 pm
To: Victus Kwan [redacted]
Cc: Julian, Edric [redacted]; CAROL CHEUK TING LAM/CEDD [redacted]; RYAN HOK LEUNG CHAK/CEDD [redacted]; CAROL CHEUK TING LAM/CEDD [redacted]; Sam [redacted]
Subject: Fw: Drainage and Sewerage Impact Assessment Consultancy Services - The Proposed Residential Development at Lot 1766RP, 1768RP, 1770RP, 1771RP and 1774RP, DD3 Tung Chung - Request for Information
Importance: High

Dear Victus,

Please find attached latest working drawings for sewerage system constructed under CEDD Contract No. NL/2020/05 for your information.

Please note:

- AIS should independently verify these existing flow values and data.
- Only relevant subject sewerage system (i.e. from Area 48 to Chung Yan Road Sewage Pumping Station) is extracted and attached.
- The drawings are subject to changes to suit the actual site conditions.
- We could transmit a set of as-built drawings after the subject sewerage system is handed over to DSD.

Please find below the latest sewerage ADWF figures for the relevant areas:

Information requested by Asia Infrastructure Solutions Limited (AIS)	ADWF (m^3/d)	Remarks
ADWF from Area 29A collected by proposed MN08	112 m^3/d	/
ADWF from Area 48 collected by proposed FMH-J07	166 m^3/d	/
ADWF from Area 23 collected by proposed FMH-J09	1620 m^3/d	/
ADWF from Area 41 collected by proposed FMH-K01	500 m^3/d	/
ADWF from Area 24A collected by proposed FMH-K04	1296 m^3/d	/
ADWF from existing 750mm sewers along Yat Tung Street collected by FMH-L02	N/A	Due to revisions in the sewerage layout, FMH-L02 no longer collects flow from the existing 750mm sewer along Yat Tung Street
ADWF from existing 450mm sewers along Chui Kwan Lane collected by FMH-L04	N/A	Due to revisions in the sewerage layout, FMH-L04 no longer collects flow from 450mm sewers along Chui Kwan Lane
ADWF from North Lautau Hospital and Yat Tung Estate collected by FMH-L05	N/A	Due to revisions in the sewerage layout, FMH-L05 no longer collects flow from North Lautau Hospital and Yat Tung Estate
ADWF from existing 375mm sewers at Yu Tung Road collected by proposed FMH-L08	3637 m^3/d	/
Design capacity of existing Chung Yan Road Sewage Pumping Station (CYRSPS) and any proposed upgrading works on CYRSPS	67392 m^3/d No proposed upgrading work	/

The above figures incorporate existing flows and DSD provided information adopted in our calculations.

Best Regards,
Kimberly LU
SSLO, CEDD
Tel: [redacted]

From: Victus Kwan [redacted]
Sent: Wednesday, December 24, 2025 12:07 PM
To: KIMBERLY YU LIN LU/CEDD [redacted]
Cc: Julian, Edric [redacted]; CAROL CHEUK TING LAM/CEDD [redacted]
Subject: RE: Drainage and Sewerage Impact Assessment Consultancy Services - The Proposed Residential Development at Lot 1766RP, 1768RP, 1770RP, 1771RP and 1774RP, DD3 Tung Chung - Request for Information

Dear Ms. Lu,

We are the consultant appointed by Full Fame Development Limited to undertake the Sewerage Impact Assessment Review in support of the Section 16 Planning Application for the proposed residential development at Lot Nos. 1766RP, 1768RP, 1770RP, 1771RP, and 1774RP, DD3, Tung Chung (hereinafter referred to as the *Proposed Development*), further to the approval of the Section 16 application in 2021.

It is understood that the Site Formation and Infrastructure Works at Ma Wan Chung, under CEDD's Tung Chung New Town Extension Project, include the widening of Tung Chung Road North (TCRN) and the provision of a public sewerage system along TCRN and Chun Yan Road. Based on the available information, the sewage flow generated from the Proposed Development—located within Tung Chung Planning Area No. 48 as per Outline Zoning Plan No. S/I-TCTC/24—will be collected and conveyed via the new sewers (to be constructed by CEDD) to the Chun Yan Road Sewage Pumping Station.

Further to EPD's response during the Section 16 pre-submission stage, and with reference to the information obtained from the Consultant of Tung Chung West NDA in 2021, we would be grateful if you could kindly advise on the following:

- The validity of the information provided in 2021 (see attached email record).
- Status/versions of drawings for the sewerage works at Tung Chung Road North. (attached drawing binder)
- Provision of Deliverable REP-109 (Final Sewerage Design Report) under Agreement No. CE 70/2015 (CE), as referenced by EPD's officer. (attached departmental comment)

Should you have any query, please feel free to contact me at . Thank you for your kind attention.

Regards,

Victus KWAN | Civil – Infrastructure
Asia Infrastructure Solutions Limited
asia infrastructure solutions
D [redacted] | **T** | **F** [redacted]
E [redacted] | **W** [redacted]
A 23/F, Two Harbour Square, 180 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

---

From: DIANA PAK CHI TUNG/CEDD [redacted]
Sent: Tuesday, 23 December 2025 6:51 pm
To: Victus Kwan [redacted]
Cc: Julian, Edric [redacted]; CAROL CHEUK TING LAM/CEDD [redacted]
Subject: Re: Drainage and Sewerage Impact Assessment Consultancy Services - The Proposed Residential Development at Lot 1766RP, 1768RP, 1770RP, 1771RP and 1774RP, DD3 Tung Chung - Request for Information

Dear Victus,

Grateful if you can please contact Ms. Carol LAM (E/34(SSL)) for information related to Contract No. NL/2020/05. Thanks.

Regards,
Diana TUNG
E/35(SSL), SSLO, CEDD
Tel: [redacted]

From: Victus Kwan [redacted]
Sent: Tuesday, December 23, 2025 6:24 PM
To: DIANA PAK CHI TUNG/CEDD [redacted]
Cc: Julian, Edric [redacted]
Subject: FW: Drainage and Sewerage Impact Assessment Consultancy Services - The Proposed Residential Development at Lot 1766RP, 1768RP, 1770RP, 1771RP and 1774RP, DD3 Tung Chung - Request for Information

Dear Ms. Tung,

Further to our tele-conversation recently, please find attached below the email for your information. Thank you so much.

Regards,

Victus KWAN | Civil – Infrastructure
Asia Infrastructure Solutions Limited
asia infrastructure solutions
D [redacted] **T** [redacted] | **F** [redacted]
E [redacted] | **W** [redacted]
A 23/F, Two Harbour Square, 180 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

---

From: Victus Kwan
Sent: Thursday, 13 November 2025 8:05 pm
To: c
Cc: Julian, Edric [redacted]
Subject: RE: Drainage and Sewerage Impact Assessment Consultancy Services - The Proposed Residential Development at Lot 1766RP, 1768RP, 1770RP, 1771RP and 1774RP, DD3 Tung Chung - Request for Information

Dear Ms. Tung,

Further to our email below, most grateful if we could have the following information for our sewerage impact assessment to support S16 application.

- Drawings and calculations for proposed public sewerage works and the status of the mentioned sewerage provision;
- Allowable sewage flow from Area 48 discharged to Chung Yan Road Sewage Pumping Station, Tung Chung Sewage Pumping Station and Siu Ho Wan Sewage Treatment Works; and
- Capacity of Chung Yan Road Sewage Pumping Station, Tung Chung Sewage Pumping Station and Siu Ho Wan Sewage Treatment Works.

We would also appreciate it if you could share the contact details of the Consultant or RSS team responsible for retrieving the above information.

Thank you.

Regards,

Victus KWAN | Civil – Infrastructure
Asia Infrastructure Solutions Limited
D [redacted] | **T** [redacted] | **F** [redacted]
E [redacted] | **W** [redacted]
A 23/F, Two Harbour Square, 180 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

---

From: Victus Kwan
Sent: Wednesday, 22 October 2025 4:11 pm
To: '[redacted]
Cc: Julian, Edric [redacted]
Subject: FW: Drainage and Sewerage Impact Assessment Consultancy Services - The Proposed Residential Development at Lot 1766RP, 1768RP, 1770RP, 1771RP and 1774RP, DD3 Tung Chung - Request for Information

Dear Ms. Tung,

As discussed, we are the consultant appointed by Full Name Development Limited to carry out Sewerage Impact Assessment Review in Support of the Section 16 Planning Application for the proposed residential development at Lot 1766RP, 1768RP, 1770RP, 1771RP and 1774RP, DD3 Tung Chung (hereinafter as the Proposed Development). The appointment letter and a location plan showing the proposed development is attached for your reference.

We note that the site formation and information works under Contract No. NL/2020/05 for Tung Chung New Town Extension was commenced in May 2021 and understand that the works include the widening of Tung Chung Road North (TCRN) and provision of public sewerage systems along TCRN and Chung Yan Road. We would be grateful if you could provide the following information for our S16 application.

- Drawings and calculations for proposed public sewerage works and the status of the mentioned sewerage provision;
- Allowable sewage flow from Area 48 discharged to Chung Yan Road Sewage Pumping Station, Tung Chung Sewage Pumping Station and Siu Ho Wan Sewage Treatment Works; and
- Capacity of Chung Yan Road Sewage Pumping Station, Tung Chung Sewage Pumping Station and Siu Ho Wan Sewage Treatment Works.

Email reply from DSD was also attached for information.

Should you have any query, please feel free to contact me at [redacted]

Thank you.

Regards,

Victus KWAN | Civil – Infrastructure
Asia Infrastructure Solutions Limited

asia infrastructure solutions
D [redacted] | T [redacted] | F [redacted]
E [redacted] | W [redacted]
A 23/F, Two Harbour Square, 180 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

From: Jonathan CK CHAN/EPD [redacted]
Sent: Monday, 20 October 2025 10:52 am
To: Victus Kwan [redacted]
Cc: Julian, Edric [redacted]; Ting Tzer Kuan [redacted]; Adria HY CHUI/EPD [redacted]; DIANA PAK CHI TUNG/CEDD [redacted]
Subject: Re: Drainage and Sewerage Impact Assessment Consultancy Services - The Proposed Residential Development at Lot 1766RP, 1768RP, 1770RP, 1771RP and 1774RP, DD3 Tung Chung - Request for Information

Dear Mr. Kwan,

I refer to your email dated 17.10.2025 below.

For concerned flow and design capacities, please contact CEDD (Ms. Tung – phone number: 2231 4529) or their Consultant of Agreement No. CE 70/2015 (CE) for information.

Thanks and Regards,
Jonathan Chan
E(SI)32 / EPD
T. [redacted]

From: Victus Kwan [redacted]
Sent: Friday, October 17, 2025 7:05 PM
To: Adria HY CHUI/EPD [redacted]; Jonathan CK CHAN/EPD [redacted]
Cc: Julian, Edric [redacted]; Ting Tzer Kuan [redacted]
Subject: Drainage and Sewerage Impact Assessment Consultancy Services - The Proposed Residential Development at Lot 1766RP, 1768RP, 1770RP, 1771RP and 1774RP, DD3 Tung Chung - Request for Information

Dear Ms. Chui and Mr. Chan,

We are the consultant appointed by Full Fame Development Limited to carry out Sewerage Impact Assessment Review in Support of the Section 16 Planning Application for the proposed residential development at Lot 1766RP, 1768RP, 1770RP, 1771RP and 1774RP, DD3 Tung Chung (hereinafter as the Proposed Development).

It is given to understand that the Site Formation and Infrastructure Works at Ma Wan Chung under CEDD's Tung Chung New Town Extension Project includes the widening of Tung Chung Road North (TCRN) and provision of public sewerage system along TCRN and Chun Yan Road. Based on the available information, the sewage flow from the Proposed Development, which falls within Tung Chung Planning Area No. 48 s per Outline Zoning Plan no. S/I-TCTC/24, will be collected and converted by the new sewers (to be constructed by CEDD) to the Chung Yan Road Sewage Pumping Station.

We would be grateful if you could provide us (1) the allowable sewage flow from Area 48 to be discharge to Chung Yan Road Sewage Pumping Station, Tung Chung Sewage Pumping Station, and Siu Ho Wan Sewage Treatment Works and (2) their design capacities respectively at the early convenience please.

A copy of the appointment letter and a location plan of the Proposed Development is attached for your easy reference.

Should you have any query or require further information, please feel free to contact me at [redacted].

Thank you.

Regards,

Victus KWAN | Civil – Infrastructure
Asia Infrastructure Solutions Limited
asia infrastructure solutions
D [redacted] | **T** [redacted] | **F** [redacted]
E [redacted] | **W** [redacted]
A 23/F, Two Harbour Square, 180 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

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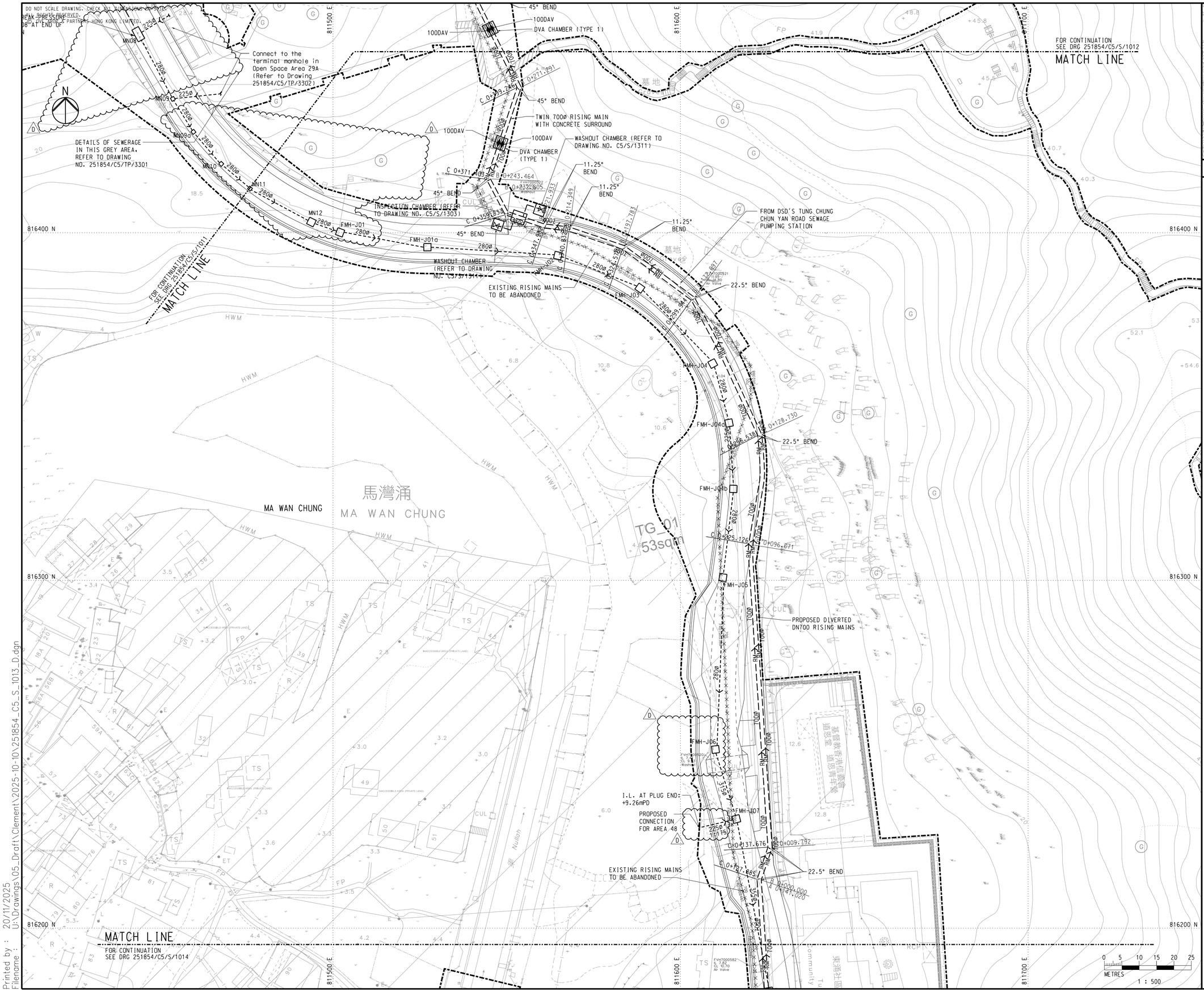
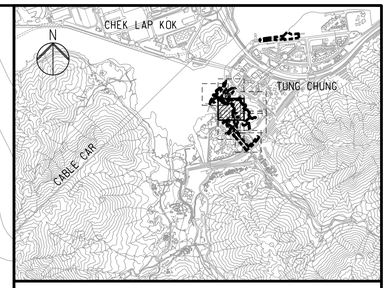




KEY PLAN

NOTES

1. FOR NOTES AND LEGEND, REFER TO DRAWING NO. 251854/C5/S/0001.
2. THE DISCHARGE PIPE FROM WASHOUT PIT SHALL BE 225MM DIAMETER OF 1 IN 100 FALL.

Rev	Description	By	Date
D	PMI-PMNCE-540	TW	11/25
C	RFI/D/0096	TW	01/23
B	PMI-PMNCE-039	WT	10/22
A	RFI/D/0015	WT	01/22
-	FIRST ISSUE	EF	11/20

Consultant

ARUP

Project Title

Contract No. NL/2020/05
Tung Chung New Town Extension - Site Formation and Infrastructure Works at Ma Wan Chung

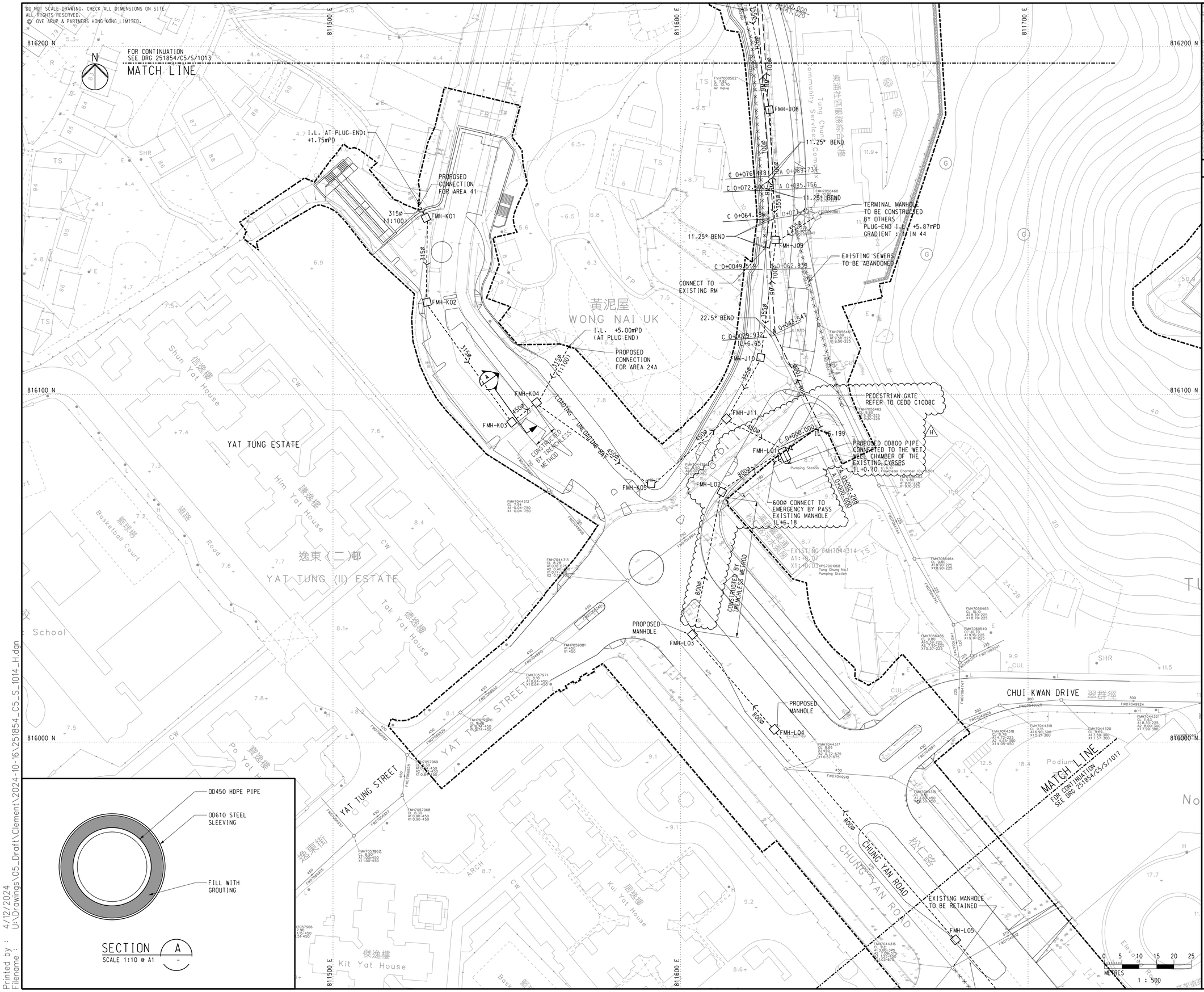
Drawing title

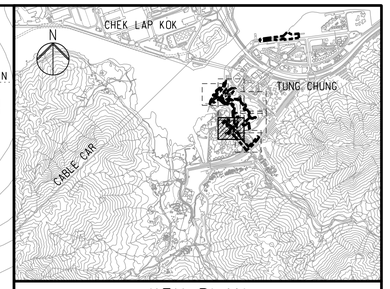
SEWERAGE NETWORK LAYOUT PLAN (SHEET 3 OF 7)

Drawing no.			Rev.
251854/C5/S/1013			D
Drawn	Date	Checked	Approved
CSK	05 / 20	AW	DL
Scale		Status	
1:500 @ A1		WORKING	

土木工程拓展署
Civil Engineering and Development Department

Printed by : 20/11/2025
Filename : U:\Drawings\05_Draft\Clement\2025-10-10\251854_C5_S_1013_D.dgn





KEY PLAN

NOTES

1. FOR NOTES AND LEGEND, REFER TO DRAWING NO. 251854/C5/S/0001.

LEGEND:

PROPOSED SITE FORMATION AREA

EXISTING MANHOLE AND SEWERS TO BE ABANDONED

NEW PROPOSED SEWERS AND MANHOLES

Rev	Description	By	Date
H	PM1-PMNCE-434	TW	12/24
G	PM1-PMNCE-416	TW	10/24
F	PM1-PMNCE-415	TW	10/24
E	PM1-PMNCE-414	TW	10/24
D	RF1/D/0159	TW	06/24
C	RF1/D/0096	TW	01/23
B	PM1-PMNCE-039	WT	04/22
A	RF1/D/0015	WT	01/22
-	FIRST ISSUE	EF	01/21

Consultant

ARUP

Project Title

Contract No. NL/2020/05
Tung Chung New Town Extension - Site Formation and Infrastructure Works at Ma Wan Chung

Drawing title

SEWERAGE NETWORK
LAYOUT PLAN
(SHEET 4 OF 7)

Drawing no.			Rev.
251854/C5/S/1014			H
Drawn	Date	Checked	Approved
CSK	05 / 20	AW	DL
Scale		Status	
1:500 @ A1		WORKING	

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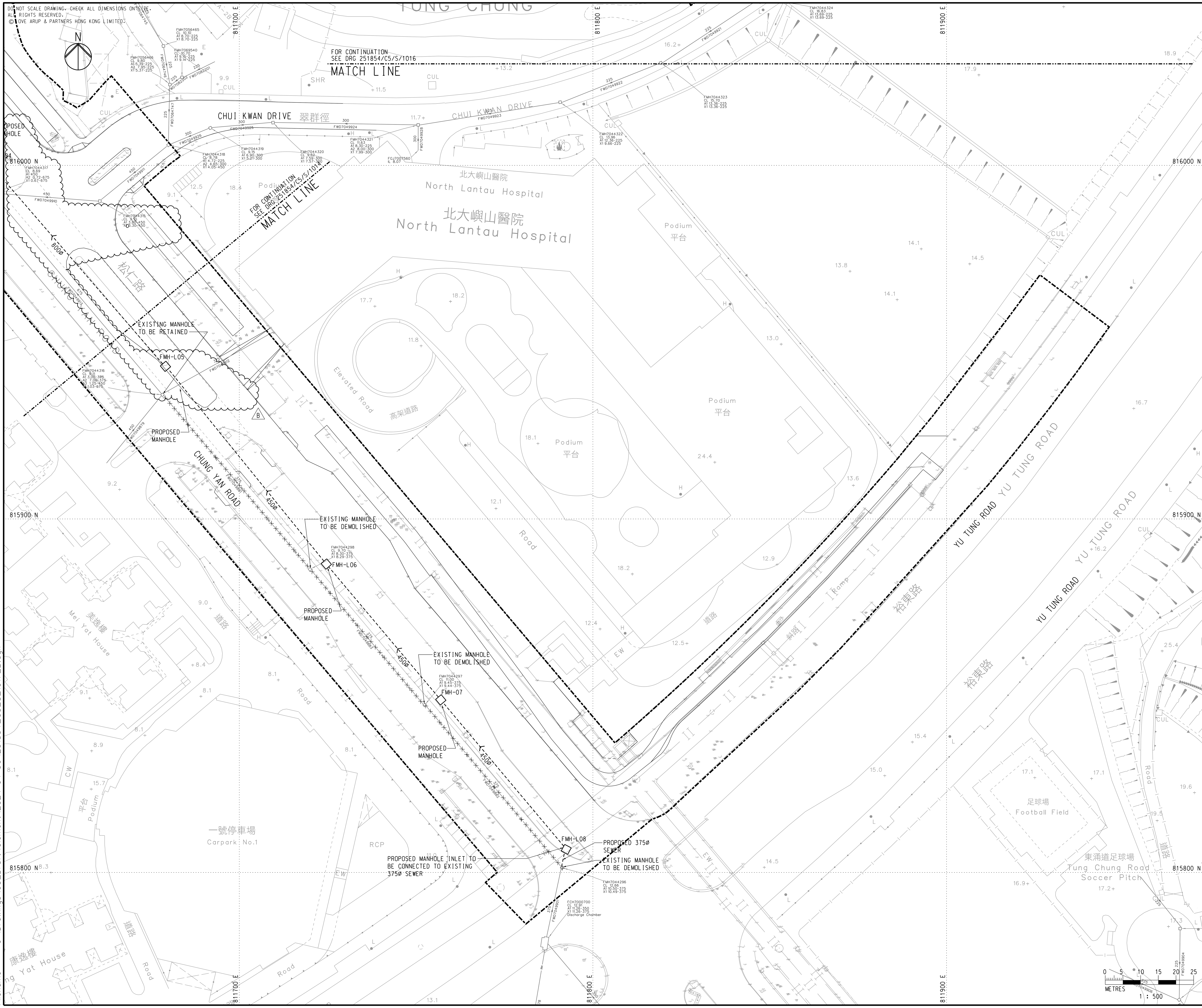
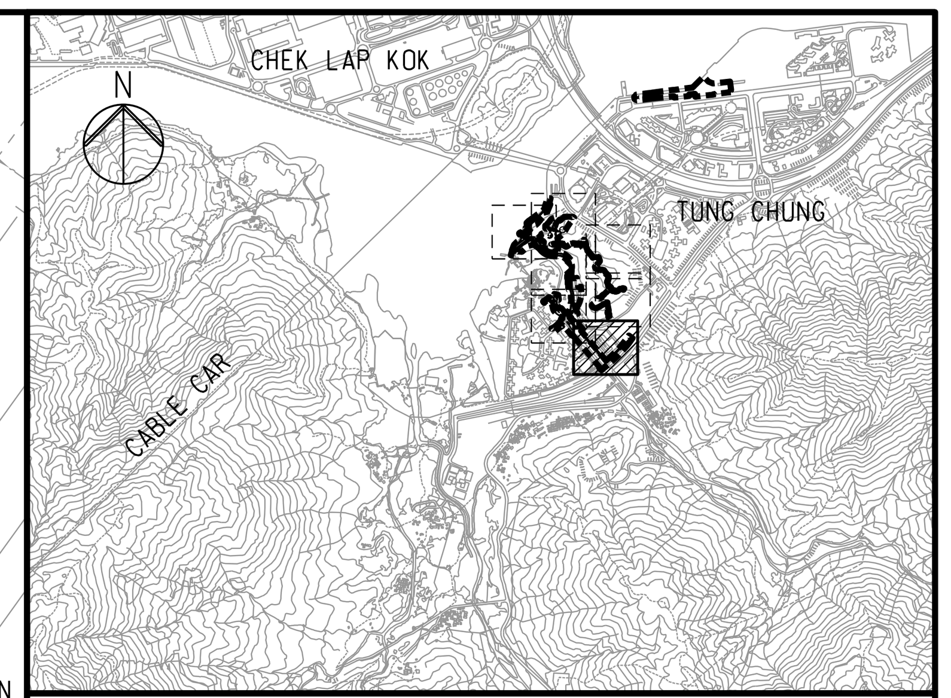
Civil Engineering and Development Department

Printed by : 4/12/2024
Filename : U:\Drawings\05_Draft\Clement\2024-10-16\251854_C5_S_1014_H.dgn





KEY PLAN

NOTES

1. FOR NOTES AND LEGEND, REFER TO DRAWING NO. 251854/C5/S/0001.

Rev	Description	By	Date
B	RFI/D/0159	TW	06/24
A	RFI/D/0096	TW	02/23
-	FIRST ISSUE	EF	11/20

Consultant

ARUP

Project Title

Contract No. NL/2020/05
Tung Chung New Town Extension - Site Formation and Infrastructure Works at Ma Wan Chung

Drawing title

SEWERAGE NETWORK LAYOUT PLAN (SHEET 7 OF 7)

Drawing no.	Rev.
251854/C5/S/1017	B

Drawn	Date	Checked	Approved
CSK	05 / 20	AW	DL

Scale	Status
1:500 @ A1	WORKING

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Civil Engineering and Development Department

Printed by : 3/6/2024
Filename : U:\Drawings\05_Draft\Clement\2024-04-30\251854_C5_S_1017_B.dgn

Manhole			Inlet Pipe				Outlet Pipe			
No.	Type	Ground Level (mPD)	Invert Level (mPD)	Outside Diameter (OD) (mm)	Material	From	Invert Level (mPD)	Outside Diameter (OD) (mm)	Material	To
FMH-J01	E1 + Backdrop Type 3	16.13	13.67	225	HDPE	Area 29A	13.67	280	HDPE	FMH-J01a
			15.20	280	HDPE	MN10				
FMH-J01a	D1	13.91	12.58	280	HDPE	FMH-J01	12.57	280	HDPE	FMH-J02
FMH-J02	D1	13.22	11.78	280	HDPE	FMH-J01a	11.77	280	HDPE	FMH-J03
FMH-J03	E1	13.62	11.66	280	HDPE	FMH-J02	11.66	280	HDPE	FMH-J04
FMH-J04	E1	13.62	11.52	280	HDPE	FMH-J03	11.51	280	HDPE	FMH-J04a
FMH-J04a	E1	13.17	11.44	280	HDPE	FMH-J04	11.43	280	HDPE	FMH-J04b
FMH-J04b	E1	12.71	10.58	280	HDPE	FMH-J04a	10.57	280	HDPE	FMH-J05
FMH-J05	E1	11.78	10.08	280	HDPE	FMH-J04b	10.07	280	HDPE	FMH-J06
FMH-J06	E1	11.24	9.21 G	280	HDPE	FMH-J05	9.21	315	HDPE	FMH-J07
FMH-J07	E1	11.17	9.22	225	HDPE	Area 48	9.05	355	HDPE	FMH-J08
			9.05	315	HDPE	FMH-J06				
FMH-J08	E1	10.58	8.50	355	HDPE	FMH-J07	8.50 G	355	HDPE	FMH-J09
FMH-J09	L + Backdrop Type 3	10.17	8.21 G	355	HDPE	FMH-J08	5.56	355	HDPE	FMH-J10
			5.56	355	HDPE	Area 23				
FMH-J10	L	8.86	5.30	355	HDPE	FMH-J09	4.73	355	HDPE	FMH-J11
G FMH-J11	Special Manhole Type 3 + Backdrop Type 3	8.25	4.45	355	HDPE	FMH-J10	0.77 G	450	HDPE	FMH-L01
			0.77 G	450	HDPE	FMH-K05				
FMH-K01	L	7.16	1.74	315	HDPE	Area 41	1.74	315	HDPE	FMH-K02
FMH-K02	L	7.30	1.62	315	HDPE	FMH-K01	1.62	315	HDPE	FMH-K03
FMH-K03	L	7.30	1.41	315	HDPE	Area 24A	0.97	450	HDPE	FMH-K04
FMH-K04	L + Backdrop Type 3	7.27	0.93 G	450	HDPE	FMH-K03	0.93	450	HDPE	FMH-K05
			4.84	315	HDPE	Area 24A				
FMH-K05	L	7.23	0.84	450	HDPE	FMH-K04	0.84	450	HDPE	FMH-J11
G FMH-L01	Special Manhole	8.47	0.72	450	HDPE	FMH-J11	0.72 G	800	HDPE	EXISTING CYRPS
			1.32	800	HDPE	FMH-L02				
FMH-L08	F1	13.35	10.42	375	HDPE	FCH7000700	10.00	450	HDPE	FMH-L07
FMH-L07	E1	11.84	9.45	450	HDPE	FMH-L08	9.44	450	HDPE	FMH-L06
FMH-L06	E1	10.59	8.30	450	HDPE	FMH-L07	8.29	450	HDPE	FMH-L05
FMH-L05	I + Backdrop Type 3	9.02	6.93	450	HDPE	FMH-L06	5.14	800	HDPE	FMH-L04
FMH-L04	L	8.75	4.30	800	HDPE	FMH-L05	4.29	800	HDPE	FMH-L03
FMH-L03	L + Backdrop Type 2	8.00	3.95	800	HDPE	FMH-L04	1.92	800	HDPE	FMH-L02
G FMH-L02	Special Manhole Type 1	7.40	1.85	800	HDPE	FMH-L03	1.84	800	HDPE	FMH-L01

NOTES:

1. FOR GENERAL NOTES, REFER TO DRAWING NOS. 251854/C5/S/0001.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH SEWERAGE LAYOUT PLAN DRAWING NO. 251854/C5/S/1011 TO 1017.
3. FOR PIPES WITH COVER LESS THAN 900mm UNDER CARRIAGEWAY OR 450mm UNDER FOOTPATH, 150mm CONCRETE SURROUND AS PER DSD STANDARD DRAWING DS 1049B SHALL BE APPLIED. OR ELSE, CLASS B GRANULAR BEDDING AS PER DSD STANDARD DRAWING DS 1048B SHALL PREVAIL.
4. TAPPING SEWER NOT SHOWN ON MANHOLE SCHEDULE.
5. BACKDROP MANHOLE TO BE USED WHERE LEVEL DIFFERENCE BETWEEN INCOMING AND OUTGOING SEWERS AT MANHOLE IS GREATER THAN 600mm.
6. HEAVY DUTY MANHOLE COVER SHALL BE USED FOR MANHOLES LOCATED AT AREAS UNDER VEHICLE LOADING. MEDIUM DUTY MANHOLE COVER SHAL BE USED FOR MANHOLES LOCATED AT AREAS NOT UNDER VEHICLE LOADING.
7. BEDDING FOR PIPES SHALL BE TYPE B OF DSD STANDARD DRAWING NO. DS1048B.
8. DETAILS OF MANHOLES SHALL REFER TO DSD STANDARD DRAWINGS.

Rev	Description	By	Date
G	PMI-PMNCE-416	TW	10/24
F	PMI-PMNCE-415	TW	10/24
E	PMI-PMNCE-414	TW	10/24
D	RFI/D/0159	TW	06/24
C	RFI/096	TW	3/23
B	RFI00082	WT	12/22
A	RFI-0010A	WT	2/22

Consultant

ARUP

Project Title

Contract No. NL/2020/05
Tung Chung New Town Extension - Site Formation and Infrastructure Works at Ma Wan Chung

Drawing title

SEWERAGE MANHOLE SCHEDULE

Drawing no.	Rev.
251854/C5/S/1100	G

Drawn	Date	Checked	Approved
CSK	05/20	AW	DL

Scale: N.T.S.
Status: WORKING

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