

Appendix 6

DRAINAGE IMPACT ASSESSMENT

Issue No. : Issue 2
Issue Date : September 2025
Project No. : 2240



DRAINAGE IMPACT ASSESSMENT

FOR

**PROPOSED MINOR RELAXATION
OF BUILDING HEIGHT
RESTRICTION FOR PERMITTED
FLAT (POLICE MARRIED
QUARTERS) IN “GOVERNMENT,
INSTITUTION OR COMMUNITY
(1)” ZONE AND PROPOSED FLAT
(POLICE MARRIED QUARTERS)
IN “GOVERNMENT,
INSTITUTION OR COMMUNITY”
ZONE IN GOVERNMENT LAND
AT TUNG CHUNG AREAS 134
AND 135, TUNG CHUNG,
LANTAU ISLAND**

Prepared by

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COMMERCIAL-IN-CONFIDENCE

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Document Verification

**Project Title**

PROPOSED MINOR
RELAXATION OF BUILDING
HEIGHT RESTRICTION FOR
PERMITTED FLAT (POLICE
MARRIED QUARTERS) IN
“GOVERNMENT, INSTITUTION
OR COMMUNITY (1)” ZONE
AND PROPOSED FLAT (POLICE
MARRIED QUARTERS) IN
“GOVERNMENT, INSTITUTION
OR COMMUNITY” ZONE IN
GOVERNMENT LAND AT TUNG
CHUNG AREAS 134 AND 135,
TUNG CHUNG, LANTAU ISLAND

Project No.
2240

Document Title

DRAINAGE IMPACT ASSESSMENT

Issue No.	Issue Date	Description	Prepared by	Checked by	Approved by
1	June 2025	Issue 1	Christine Goh	Cathy Man	Grace Kwok
2	September 2025	Issue 2	Christine Goh	Cathy Man	Grace Kwok

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1 Introduction

1.1 Background

- 1.1.1 The Hong Kong Police Force (the Applicant) intends to develop a Junior Police Officers Married Quarters (JPOMQ) (hereafter as “the proposed development”) at Tung Chung Area 134, Lantau Island (hereafter as “the Application Site”). The Application Site covers an area of about 4,876m².
- 1.1.2 The Application Site is located in Tung Chung East (TCE) of Tung Chung New Town Extension (TCNTE). It is predominantly zoned “Government, Institution or Community (1)” (“G/IC (1)”) with minor encroachment into the “Government, Institution or Community” (“G/IC”) zone. The “G/IC” and “G/IC (1)” zones are subject to BH restrictions of 50mPD and 70mPD respectively. A Section 16 (S16) Planning Application is being submitted in support of the Proposed Minor Relaxation of Building Height Restriction for Permitted Flat (Police Married Quarters) in “G/IC (1)” Zone and Proposed Flat (Police Married Quarters) in “G/IC” Zone at the Application Site.
- 1.1.3 Allied Environmental Consultants Limited (AEC) is commissioned to conduct a drainage impact assessment (DIA) in support of the Section 16 Planning Application.

1.2 Objectives of the DIA

- 1.2.1 The objectives of this DIA are to review the existing drainage facilities in the vicinity of the Application Site and to evaluate the potential impacts on the current drainage system due to the additional discharge from the proposed development, and proposed mitigation measures where appropriate to mitigate potential impacts.

1.3 Report Structure

- 1.3.1 The remaining chapters of this report are shown below:

Chapter 2 – Site Context

Chapter 3 – Drainage Impact Assessment

Chapter 4 – Conclusion

2 Site Context

2.1 Site Location and Its Environs

2.1.1 The proposed development is located at Area 134 in TCNTE which is at the junction of Road D2 to the east and Road L7 to the south. Across Road D2 are Area 137 and Area 138, located to the east, designated for a post-secondary institution and other educational uses, and a sports ground respectively. Area 131 is a planned police station and Area 132 is the planned Eastern Sewage Pumping System (ESPS) across Road L7 located to the south. Area 133C is located to the west, planned for public housing while Area 135 is designated for other educational use and is located to the immediate north. The Application Site is currently located on reclaimed land within TCNTE in Islands District.

2.1.2 **Figure 2.1** shows the site location and its environs.

2.2 Proposed Development Scheme

2.2.1 The proposed development comprises two residential towers with 3 podium floors and 27 residential floors with about 432 domestic units. Carpark are proposed at G/F and 1/F while E&M facilities and Loading/Unloading Bays are proposed at the G/F. Podium garden is located at 2/F.

2.2.2 The development schedule of the proposed development is tabulated in **Table 2.1**. The layout design scheme of the proposed development is shown in **Appendix A**.

Table 2.1 Development Schedule

Floor	Use
G/F	Carpark, E&M Facilities, Loading/Unloading Bays, Management Office/Toilet & Changing Room/ Multipurpose Room
1/F	Carpark
2/F	Podium garden
3/F – 29/F	Flat

2.2.3 According to the latest programme, the commencement of construction works will start in October 2027 tentatively and the proposed development is expected to be completed in Q4 2031.

3 Drainage Impact Assessment

3.1 Legislation, Standards and Guidelines

- 3.1.1 Water quality in Hong Kong is legislated by the provisions of the Water Pollution Control Ordinance (Cap 358), 1980 (“WPCO”). Territorial Water has been subdivided into ten Water Control Zones (“WCZ”) and four supplementary water control zones. The study area lies within the North Western WCZ. A Technical Memorandum on Standards for Effluents discharged into Drainage and Sewerage Systems, Inland and Coastal Water (TMES) has been issued, which requires licensing of all discharges into all public sewers and drains. The water quality standards will have to be met during the construction and operation stages.
- 3.1.2 Besides as stipulated in the Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations 41(1), 40(2), 41(1), 90 and recap in ProPECC PN 5/93, domestic sewage should be discharged to a foul water sewer whilst commercial and industrial wastewater should be pretreated before being discharged to foul water sewer. Surface water should be discharged via rainwater pipes to stormwater drains during operational phase.

3.2 Existing Drainage Condition

- 3.2.1 Drainage information was obtained from the Civil Engineering and Development Department (CEDD) in February 2025 to gather the background information on drainage infrastructure in the vicinity of the Application Site. The infrastructure works, including drainage works, sewerage works (including two sewage pumping stations) are under construction. The public stormwater drains are available at the southern and eastern boundary of the Application Site along Road L7 and Road D2, as shown in **Figure 3.1**.
- 3.2.2 Surface runoff from the Application Site will be discharged to an existing government stormwater manhole (CTC-4424) after development and conveyed east along Road L7, then south along Road D2.
- 3.2.3 The Application Site is situated on reclaimed land, with the sea located to the east. There is no vegetation present on or in proximity of the Application Site.
- 3.2.4 In accordance with DEVB TC (W) No. 3/2012 and PNAP APP-152 Sustainable Building Guidelines, at least 20% of the greenery area of total site (975.2 m²) will be provided and a primary zone (at-grade greenery) of 10% (487.6m²) within the site area (4,876m²) in the proposed development. The current proposed total greenery area is 1,070.45m² as shown in

Appendix C. In view of the increased greenery area, it helps to enhance infiltration and reduce surface runoff.

3.3 Potential Input on Public Stormwater System due to Surface Runoff

Operation Phase

- 3.3.1 The Application Site is currently reclaimed land with no existing vegetation.
- 3.3.2 Surface runoff within the Application Site will be collected and discharged into the existing public stormwater drainage network at the terminal manhole (CTC-4424) along Road L7 towards the east, then along Road D2 towards the north. Provision of greenery area of approximately 1070.45m² (overall site coverage) will increase the filtration of stormwater and minimize surface runoff. As there is a slight increase in greenery area in the proposed redevelopment, peak runoff from the Application Site will slightly decrease as compared to existing site conditions.
- 3.3.3 Furthermore, the existing stormwater connection pipe (S4424) from the terminal manhole (CTC-4424) will be upgraded from a 600mm to 750mm diameter precast concrete pipe. The upgraded drainage infrastructure will accommodate the excess surface runoff from the Application Site and adverse impact on the public drainage system is thus not anticipated.
- 3.3.4 During heavy rainfall, trace of pollutants may be wash-off and is often bound or absorbed onto particles (i.e. loose soil or litter). Therefore, the stormwater drainage system will be equipped with silt trap to remove the particles and associated pollutants prior to discharging into the public stormwater drainage system. The stormwater discharge will satisfy the effluent standards and requirements stipulated in the *Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters* ("WPCO-TM"). The detailed design of silt traps will be reviewed and confirmed during detailed design stage so that WPCO-TM will be complied with.
- 3.3.5 Since the stormwater will be properly treated to satisfy the effluent standards prior to discharge and complies with the clearance requirements as listed in the *Water Pollution Control Ordinance* and its TM, no adverse water quality impact on the public stormwater drainage system is anticipated during operation of the proposed development.

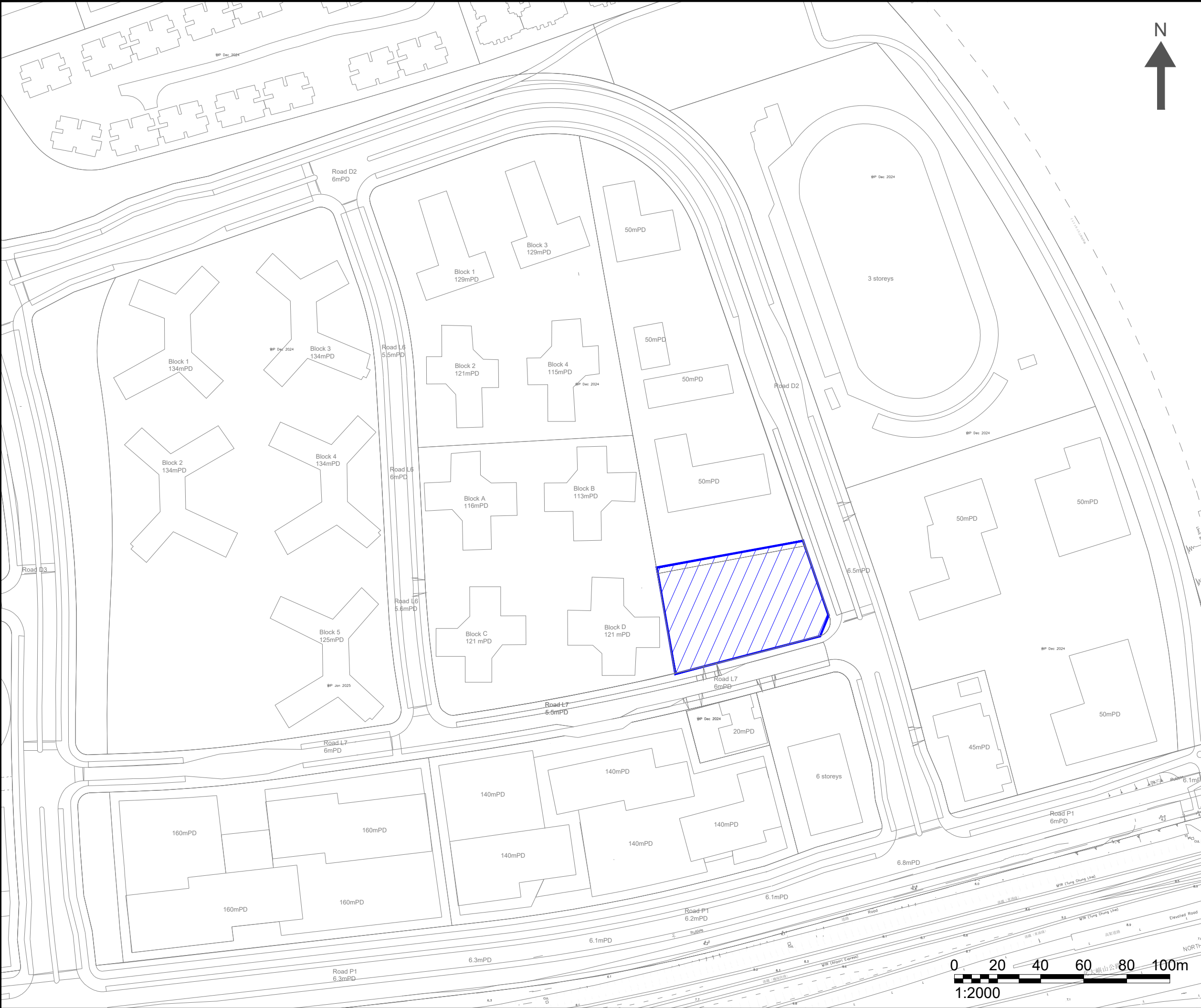
3.4 Liability

- 3.4.1 The Applicant will be responsible for the construction of all necessary drainage system, including the upgrading of pipe connected to the public stormwater drain as well as other internal drainage infrastructure within the Application Site.
- 3.4.2 No fertilisers or pesticides will be routinely used for vegetation management in landscape area in accordance with the General Specification for Building (2012 edition) by Architectural Services Department (ASD). During heavy rainfall, trace of pollutants may be wash-off and is often bound or adsorbed onto particles (i.e. loose soil or litter). The stormwater drainage system on site will be equipped with silt trap to remove the particles and associated pollutants. The stormwater discharge will satisfy the effluent standards and requirements stipulated in the WPCO-TM, notably, with respect to prohibited substances as stated in clauses 8.4 and 9.1, as the case may be.
- 3.4.3 Layout of major drainage channels within the proposed development will be submitted to the relevant authorities. All drainage facilities shall be designed and constructed to conform to the requirements laid down in:
- a. The Stormwater Drainage Manual, DSD (Fifth edition, Corrigendum No. 1/2022, No. 1/2024 and No. 2/2024)
 - b. The General Specification for Civil Engineering Works, Hong Kong Government
 - c. The DSD Standard Drawings

4 Conclusion

- 4.1.1 A Drainage Impact Assessment (DIA) has been conducted to evaluate the possible impacts on the public drainage network due to the proposed development. The surface runoff generated from the proposed development will be collected and discharged into the existing terminal manhole.
- 4.1.2 Stormwater collected from the proposed development will be discharged into the existing stormwater manhole (CTC-4424) at Road L7 via an upgraded 750mm diameter stormwater pipe. As the Application Site is situated on a reclaimed land with no existing vegetation, with the provision of greenery, the contribution of stormwater surface runoff associated with the proposed development is anticipated to be insignificant. Therefore, no adverse stormwater drainage impact due to the proposed development would be imposed on the existing drainage system.
- 4.1.3 Silt trap will be installed to remove particles/pollutants from the drainage collected within the Application Site prior to discharging into the public stormwater drainage system. The effluent standards and requirements stipulated in the *WPCO-TM* will be satisfied.
- 4.1.4 The Applicant will be responsible for the design and construction of the proposed stormwater pipes and manholes, which will be further discussed with DSD, while future maintenance of pipes outside the Application Site boundary will be carried out by DSD.
- 4.1.5 Based on the above, it is concluded that the drainage impact arising from the proposed development is not anticipated.

Figures



NOTES :



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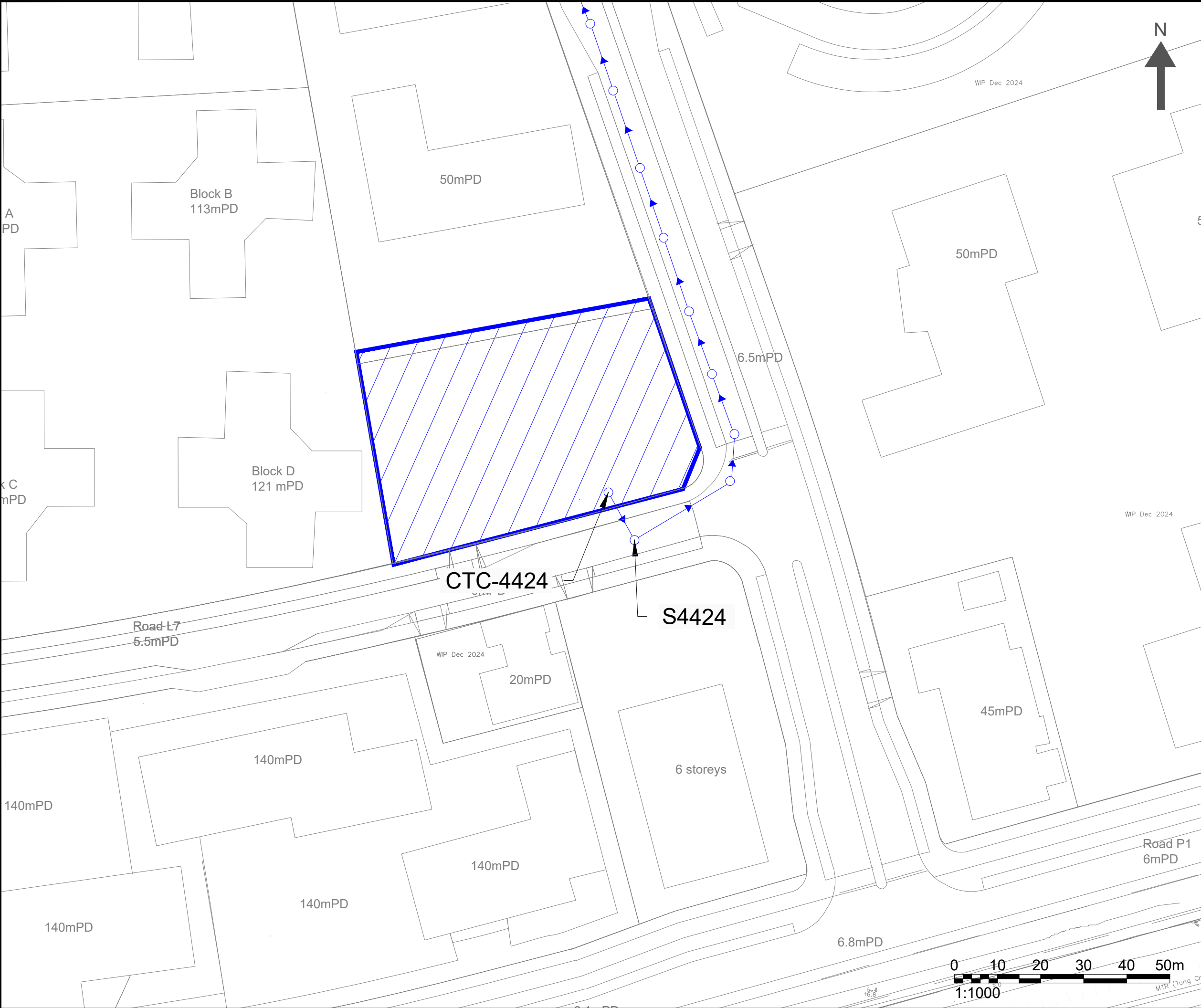
Drawing By : CC




Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
LOCATION OF PROJECT SITE AND ITS ENVIRON

Drawing No : FIGURE 2.1	Revision : 0
Scale : AS SHOWN	Date : MAY 2025

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- NOTES :
-  Subject Site
 -  Drainage Pipe
 -  Drainage Manhole

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Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
OVERVIEW OF PROPOSED AND EXISTING DRAINAGE NETWORK

Drawing No : FIGURE 3.1	Revision : 0
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Scale : AS SHOWN	Date : MAY 2025
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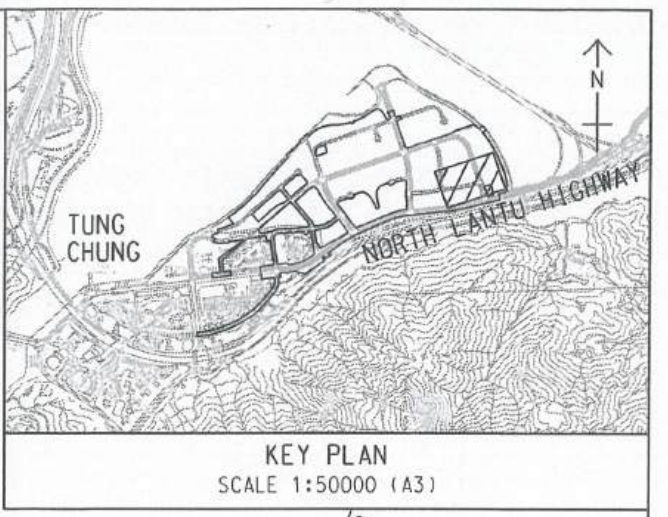
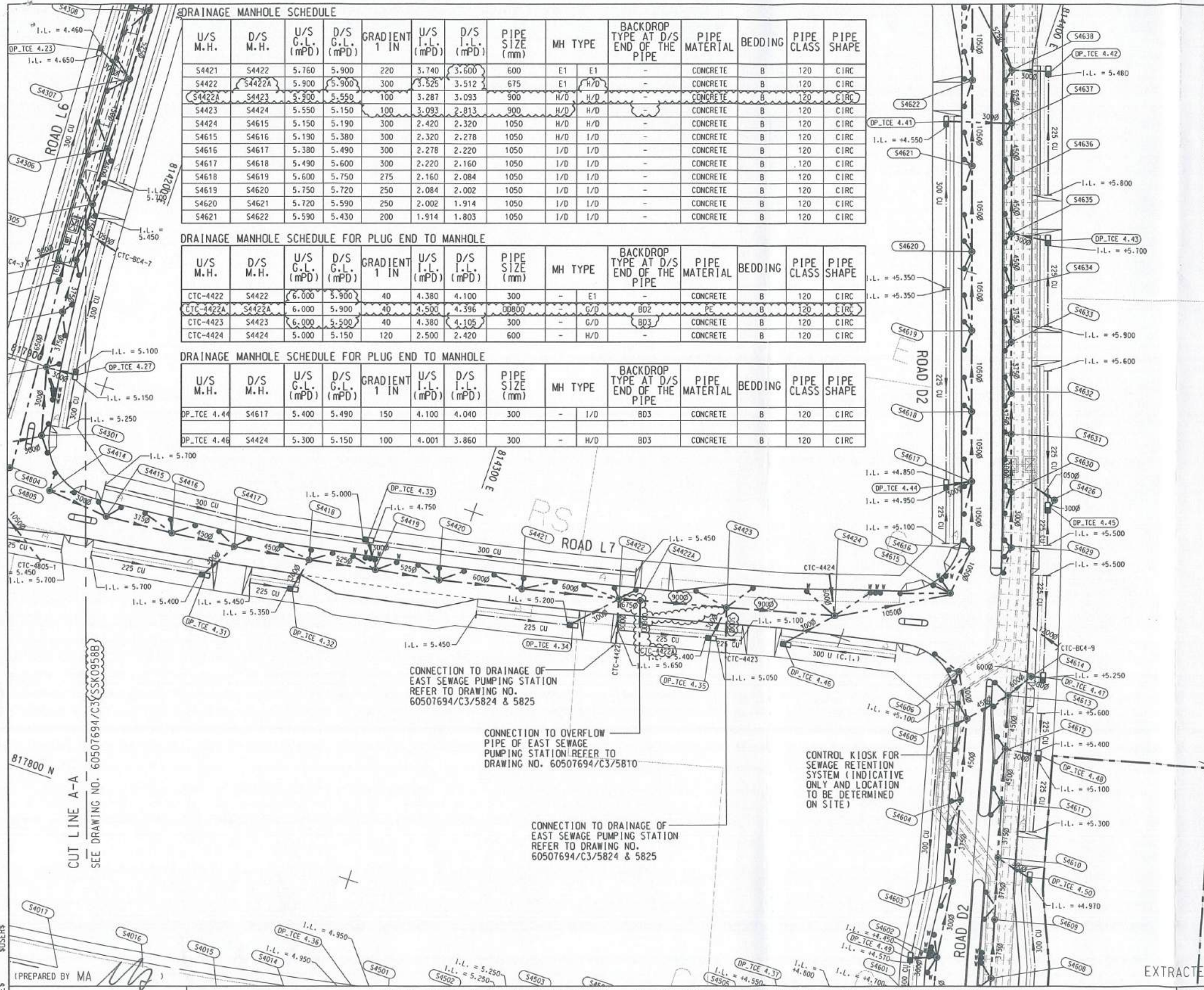
Appendix A

Design Layout Scheme of the Proposed Development

(Please refer to Appendix 1 of the Supplementary Planning Statement)

Appendix B

Drainage Plan of the Application Site



- NOTES:**
- FOR NOTES AND LEGEND REFER TO DRAWING NO. 60507694/C3/1300.
 - THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. 60507694/C3/SSK0958B TO SSK0959B.

EXTRACTED FROM DRG. NO. 60507694/C3/1319B & 1321B

Appendix C

Greenery Area of the Proposed Development

(Please refer to Appendix 1 of the Supplementary Planning Statement)