

Supplementary Statement

1) Background

- 1.1 The applicant seeks planning permission from the Town Planning Board (the Board) to use *Lots 7 (Part), 8 S.A, 8 S.B, 9 S.A (Part), 9 S.B (Part), 10 S.A, 10 S.B and 11 (Part) in D.D. 84 and Adjoining Government Land (GL), Ta Kwu Ling, New Territories* (the Site) for '**Proposed Temporary Warehouse (Excluding Dangerous Goods Godown (D.G.G.)), Medium Goods Vehicles (MGV) and Container Tractor/Trailer (CV/T) Park with Ancillary Facilities and Associated Filling of Land for a Period of 3 Years**' (the proposed development) (**Plan 1**).
- 1.2 The applicant's original business premises in Kwu Tung was affected by the Government's land resumption to facilitate the development of Kwu Tung North New Development Area (KTN NDA). Subsequently, the applicant submitted a S.16 planning application (No. A/NE-TKL/755) to facilitate the relocation of the original premises at the current Site, and that was approved by the Board in 2024. Since then, the applicant has made effort in complying with approval conditions and works related to the relocation of the premises.
- 1.3 Furthermore, portion of the Site is the subject a previous S.16 planning application (No. A/NE-TKL/757) for 'Proposed Temporary Warehouse (Excluding D.G.G.)', which the application was approved by the Board for a temporary basis of 3 years in 2024. Since the application sites (Nos. A/NE-TKL/755 and 757) are adjacent to each other, the applicant intends to submit a new application to facilitate comprehensive management of the overall operation.

2) Planning Context

- 2.1 The Site currently falls within areas zoned as "Agriculture" ("AGR") and "Industrial (Group D)" ("I(D)") on the Approved Ping Che and Ta Kwu Ling Outline Zoning Plan (OZP) No.: S/NE-TKL/14 (**Plan 2**). According to the Notes of the OZP, 'warehouse' and 'container vehicle park' is neither column one nor column two uses within "AGR" zone; whilst 'warehouse' and 'container vehicle park' uses are column one and two uses within "I(D)" zone respectively, which requires planning permission from the Board.
- 2.2 Although majority of the Site falls within "AGR" zone, there is no active agricultural activities found within the Site. Under the Town Planning Board Planning Guidelines No. 13G (TPB PG-No. 13G), the proposed use (i.e. *container vehicle park*) is considered as port back-up uses,

hence, this guideline is relevant. Northern portion of the Site falls within Category 2 area, and southern portion of the Site falls within Category 3 area; whilst the remaining minor portion falls within Category 1 area. All portions are considered suitable for open storage and port back-up uses (**Plan 4**). Therefore, approval of the current application on a temporary basis would not frustrate the long-term planning intention of the "AGR" zone.

- 2.3 The Site is surrounded by open storage yards and sites occupied by temporary structures for workshop and warehouse uses, hence, the proposed development with a few low-rise temporary structures is considered not incompatible with the surroundings. Furthermore, the proposed development is intended to serve the needs of the applicant which are involved in warehousing and the usage of heavy vehicles. Hence, it would better utilise precious land resources in the New Territories.
- 2.4 Various similar S.16 planning applications for 'warehouse' use were also approved by the Board within the same "AGR" zone, which the latest application (No. A/NE-TKL/803) was approved by the Board on a temporary basis for 3 years in 2025. Therefore, approval of the current application would not set an undesirable precedent within the same "AGR" zone.
- 2.5 In addition, the Site is the subject of four previous approved S.16 planning applications, whilst the latest applications (Nos. A/NE-TKL/755 and 757¹) are for 'MG/V and CV/T park' and 'warehouse' uses, therefore, approval of the current application is in line with the Board's previous decisions. Comparing with the previous applications (Nos. A/NE-TKL/755 and 757), most of the development parameters (e.g. plot ratio (PR), gross floor area (GFA), etc.) were amended so that a different layout with a larger circulation space is adopted to meet the applicant's operational need. Details of the differences between the previous applications (Nos. A/NE-TKL/755 and 757) and the current submission are shown at **Appendix I** and **Table 1** below:

¹ For information, application No. A/NE-TKL/755 is submitted by the same applicant; whilst No. A/NE-TKL/757 is submitted by a different applicant from the current application.

Table 1 - Comparison of Details Between the Current and Previous Applications

Development Parameters	Previous Application (No. A/NE-TKL/755) (a)	Previous application (No. A/NE-TKL/757) (b)	Current Application (c)	Difference (c) - [(a) + (b)]
Site Area	11,942 m ² (about)	7,508 m ² (about)	16,115 m ² (about)	+3,335 m ² , (+17 %)
Covered Area	547 m ² (about)	3,402 m ² (about)	5,269 m ² (about)	+1,320 m ² , (+25 %)
GFA	1,094 m ² (about)	6,804 m ² (about)	10,400 m ² (about)	+2,502 m ² , (+32 %)
Building Height	8 m (about)	13 m (about)	2.8 m - 13 m (about)	-

- 2.6 The applicants of both applications have made effort to comply with approval conditions of the previous applications (Nos. A/NE-TKL/755 and 757), details are shown at **Table 2** below:

Table 2 - Details of Compliance with Approval Conditions of the Previous Applications

Approval Conditions of Applications No. A/NE-TKL/755 and 757		Date of Compliance
(d)	The submission of a drainage impact assessment (DIA)	06.11.2024
(e)	The provision of drainage facilities	Not complied with
(g)	The submission of a fire service installations (FSIs) proposal	17.10.2024
(h)	The implementation of the FSIs proposal	Not complied with
(i)	The implementation of traffic management measures	Not complied with

- 2.7 During the approval period of the previous applications (Nos. A/NE-TKL/755 and 757), the applicants have made efforts in complying with approval conditions in regard to drainage and fire safety aspects. The applicants made several submissions for compliance with condition (d) of both applications in 2024, and the latest submissions were both considered acceptable by the Chief Engineer/Mainland North, Drainage Services Department on 06.11.2024. The applicants have started the site preparation works, and the proposed drainage facilities will be implemented after the site formation works are completed.
- 2.8 The applicants submitted FSIs proposals to comply with condition (g) of both applications on 26.09.2024 and both submissions were considered acceptable by Director of Fire Service on 17.10.2024. Since prior approval of Short Term Waiver (STW) is required for erection of

structure at the Site before implementing the FSIs proposal, the applicants submitted STW application to the District Lands Officer/North, Lands Department (DLO/N, LandsD) in 2025. The applicants are still pending reply from DLO/N, LandsD. As no structure is permitted to be erected before granting of STW, no FSIs could be implemented.

- 2.9 Due to the change of site boundary and internal layout of the current application, the updated DIA is provided in support of the current application (**Appendix II**).

3) Development Proposal

- 3.1 The Site occupies an area of 16,115 m² (about), including 42 m² (about) of GL (**Plans 1 and 3**). 8 structures are provided at the Site for warehouse (excluding D.G.G.), covered parking spaces, site office, washroom and meter room with the total GFA of 10,400 m² (**Plan 5**). Other parts of the Site are proposed for parking spaces for private car (PC), MGV, CV/T and container trailer (CT), loading/unloading spaces for container vehicles (CVs) as well as circulation space. Ancillary facilities, including site office, washroom and meter room, are intended for operational needs and to provide indoor workspace for administrative staff to support the daily operation of the Site. It is estimated that the site would accommodate 40 nos. of staff. As the Site is for warehouse (excluding D.G.G.) and vehicle park use with no shopfront, no visitor is anticipated at the Site. Details of development parameters are shown at **Table 3** below:

Table 3 - Major Development Parameters

Application Site Area	16,115 m ² (about), including 42 m ² of GL (about)
Covered Area	5,269 m ² (about)
Uncovered Area	10,846 m ² (about)
Plot Ratio	0.65 (about)
Site Coverage	33 % (about)
Number of Structure(s)	8
Total GFA	10,400 m ² (about)
- Domestic GFA	Not applicable
- Non-Domestic GFA	10,400 m ² (about)
Building Height	2.8 m - 13 m (about)
No. of Storey	1 - 2

- 3.2 The warehouse is proposed for storage of miscellaneous goods (i.e. packaged food, apparel, footwear, electronic goods, furniture, etc.) to support the local warehousing and storage industry also. No dangerous goods will be stored at the Site and no open storage activities, dismantling, maintenance, repairing, cleansing, paint spraying or other workshop activities will be carried out at the Site at any time during the planning approval period.
- 3.3 The entire Site is proposed to be filled with concrete with proposed site level at +10.2 mPD (about), which also tallies with the previous applications (Nos. A/NE-TKL/755 and 757) (**Plan 6**). The filling of land is to facilitate a flat surface for site formation of structures, parking and L/UL spaces and circulation space uses. Such land filling is considered necessary and has been kept to minimal to meet the operational needs of the proposed development. No further filling of land will be carried out by the applicant during the planning approval period.
- 3.4 The Site is accessible from Ping Che Road via a local access (**Plan 1**). The operation hours of the proposed development are Mondays to Saturdays from 07:00 to 19:00. There will be no operation on Sundays and public holidays. A total of 41 parking and L/UL spaces will be provided at the Site, details of parking space provisions are shown at **Table 4** below:

Table 4 - Parking Provision

Types of Space	No. of Spaces
PC Parking Space - 2.5 m (W) x 5 m (L)	10
MGV Parking Space - 3.5 m (W) x 11 m (L)	9
CV/T Parking Space - 3.5 m (W) x 16 m (L)	5
CT Parking Space - 3.5 m (W) x 16 m (L)	9
CV L/UL Space - 3.5 m (W) x 16 m (L)	8

- 3.5 No queuing and/or waiting for motor vehicles from the Site onto Ping Che Road via the local access; and no motor vehicles will be permitted to reverse into and out of the Site onto Ping Che Road via the local access. Sufficient space is provided for vehicles to smoothly manoeuvre within the Site to ensure that no vehicle will turn back onto the local access (**Plan 7**). As the traffic generated/attracted by the proposed development is expected to be minimal (as shown at **Table 5** below), adverse traffic impacts arising from the proposed

development should not be anticipated.

Table 5 - Estimated Trip Generation and Attraction

Time Period	Trip Generation and Attraction						
	PC		MGV		CV/T		2-Way Total
	In	Out	In	Out	In	Out	
Trips at <u>AM peak</u> per hour (07:00 - 08:00)	10	0	7	2	10	5	34
Trips at <u>PM peak</u> per hour (18:00 - 19:00)	0	10	2	7	5	10	34
Traffic trip per hour (average)	2	2	3	3	6	6	22

- 3.6 The applicant will strictly follow the 'Code of Practice on Handling the Environmental Aspects of Temporary Uses and Open Storage Sites' issued by Environmental Protection Department and statutory requirements under relevant pollution control ordinances to minimise adverse environmental impacts and nuisance to the surrounding area. The applicant will strictly comply with all environmental protection / pollution control ordinances, i.e. *Water Pollution Control Ordinance, Air Pollution Control Ordinance, Noise Control Ordinance* etc. at all times during the planning approval period.

4) Conclusion

- 4.1 The proposed development will not create significant nuisance to the surrounding areas. Adequate mitigation measures will be provided by the applicant, i.e. submission and implementation of the updated DIA to mitigate any adverse impact arising from the proposed development after the planning application approved by the Board.
- 4.2 In view of the above, the Board is hereby respectfully recommended to approve the subject application for '**Proposed Temporary Warehouse (Excluding Dangerous Goods Godown), Medium Goods Vehicles and Container Tractor/Trailer Park with Ancillary Facilities and Associated Filling of Land for a Period of 3 Years**'.

R-riches Planning Limited

December 2025

LIST OF PLANS

Plan 1	Location Plan
Plan 2	Zoning Plan
Plan 3	Land Status Plan
Plan 4	Plan Showing the Application Site under TPB PG No. 13G
Plan 5	Layout Plan
Plan 6	Land Filling Plan
Plan 7	Swept Path Analysis

APPENDICES

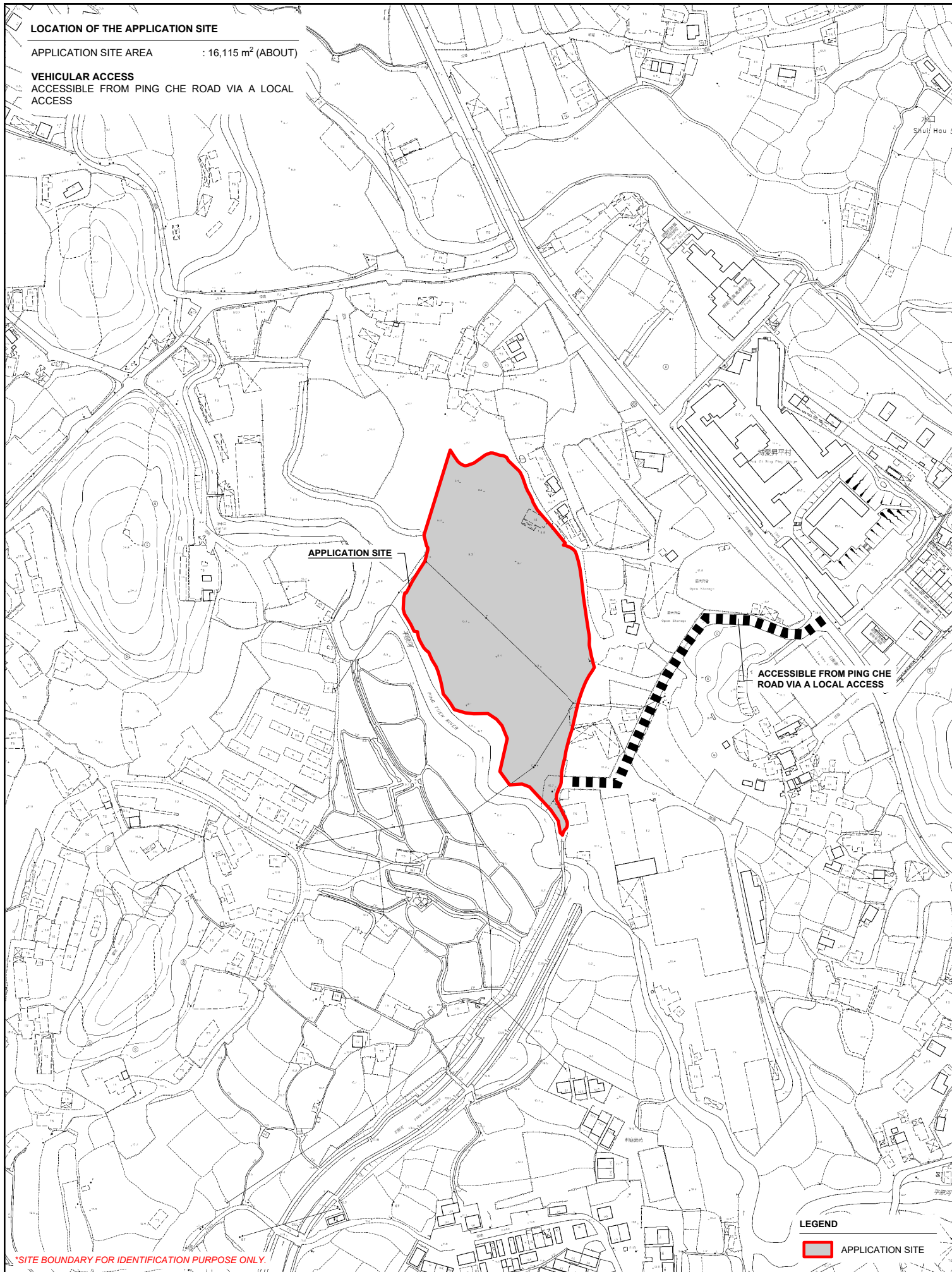
Appendix I	Comparison Table Showing the Differences of Previous Applications Nos. A/NE-TKL/755 and 757
Appendix I	Drainage Impact Assessment

LOCATION OF THE APPLICATION SITE

APPLICATION SITE AREA : 16,115 m² (ABOUT)

VEHICULAR ACCESS

ACCESSIBLE FROM PING CHE ROAD VIA A LOCAL ACCESS



*SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY.

LEGEND

APPLICATION SITE

PLANNING CONSULTANT



PROJECT

PROPOSED TEMPORARY WAREHOUSE (EXCL. D.G.G.), MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR / TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS

ADDRESS

VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES

SCALE
1 : 3000 @ A4

DRAWN BY
MN

DATE
17.11.2025

REVISED BY

DATE

TITLE

LOCATION PLAN

DWG NO.
PLAN 1

VER.
001



ZONING OF THE APPLICATION SITE

APPLICATION SITE AREA : 16,115 m² (ABOUT)

OUTLINE ZONING PLAN : APPROVED PING CHE AND TA KWU LING OZP

OZP PLAN NO. : S/NE-TKL/14

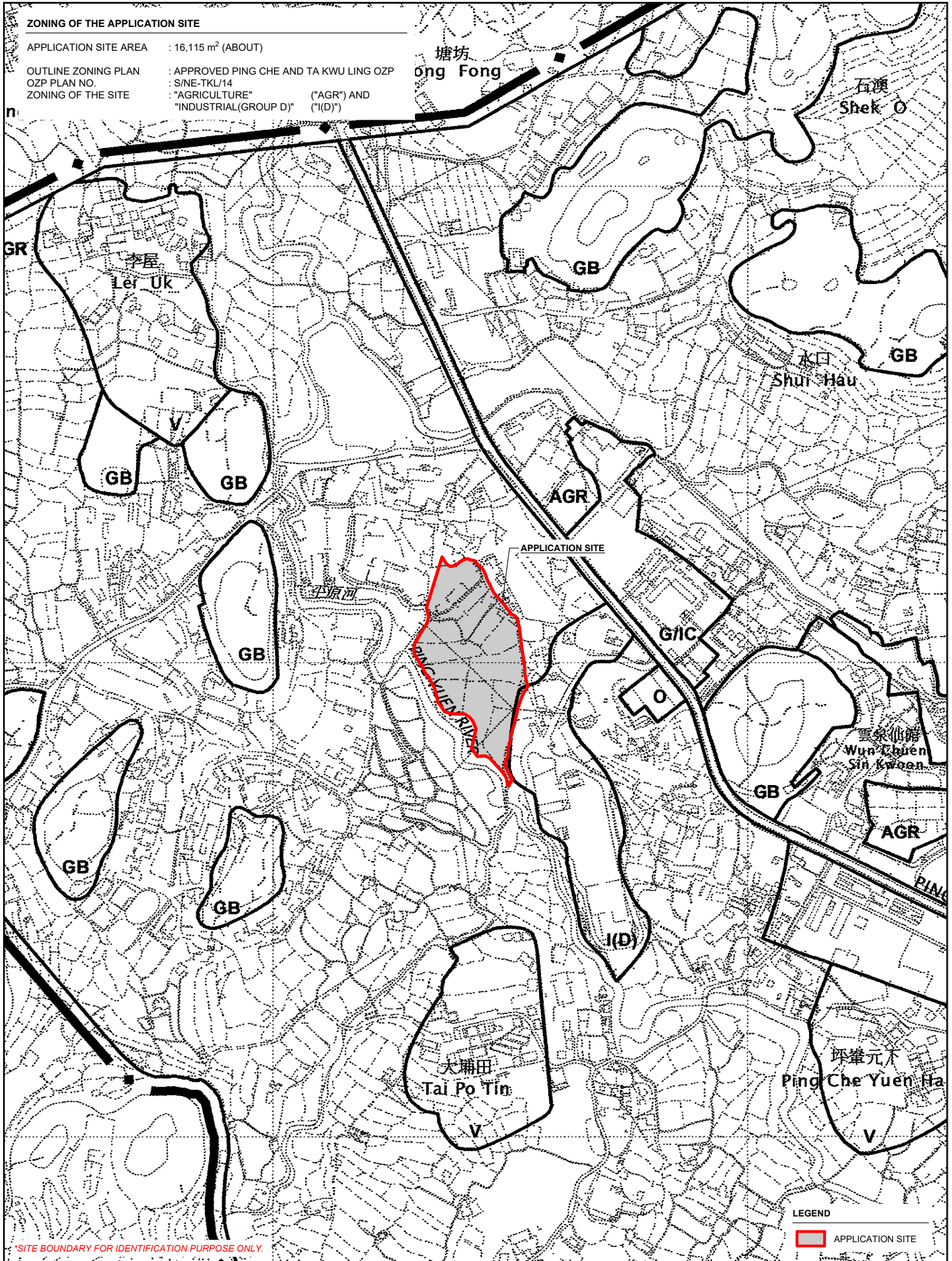
ZONING OF THE SITE

"AGRICULTURE"

"INDUSTRIAL(GROUP D)"

("AGR") AND

("I(D)")



*SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY.

LEGEND

 APPLICATION SITE

PLANNING CONSULTANT



PROJECT

PROPOSED TEMPORARY WAREHOUSE (EXCL. D.G.G.), MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR / TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS

ADDRESS

VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES

SCALE

1 : 5000 @ A4

DRAWN BY

MN

DATE

17.11.2025

REVISED BY

DATE

TITLE

ZONING PLAN

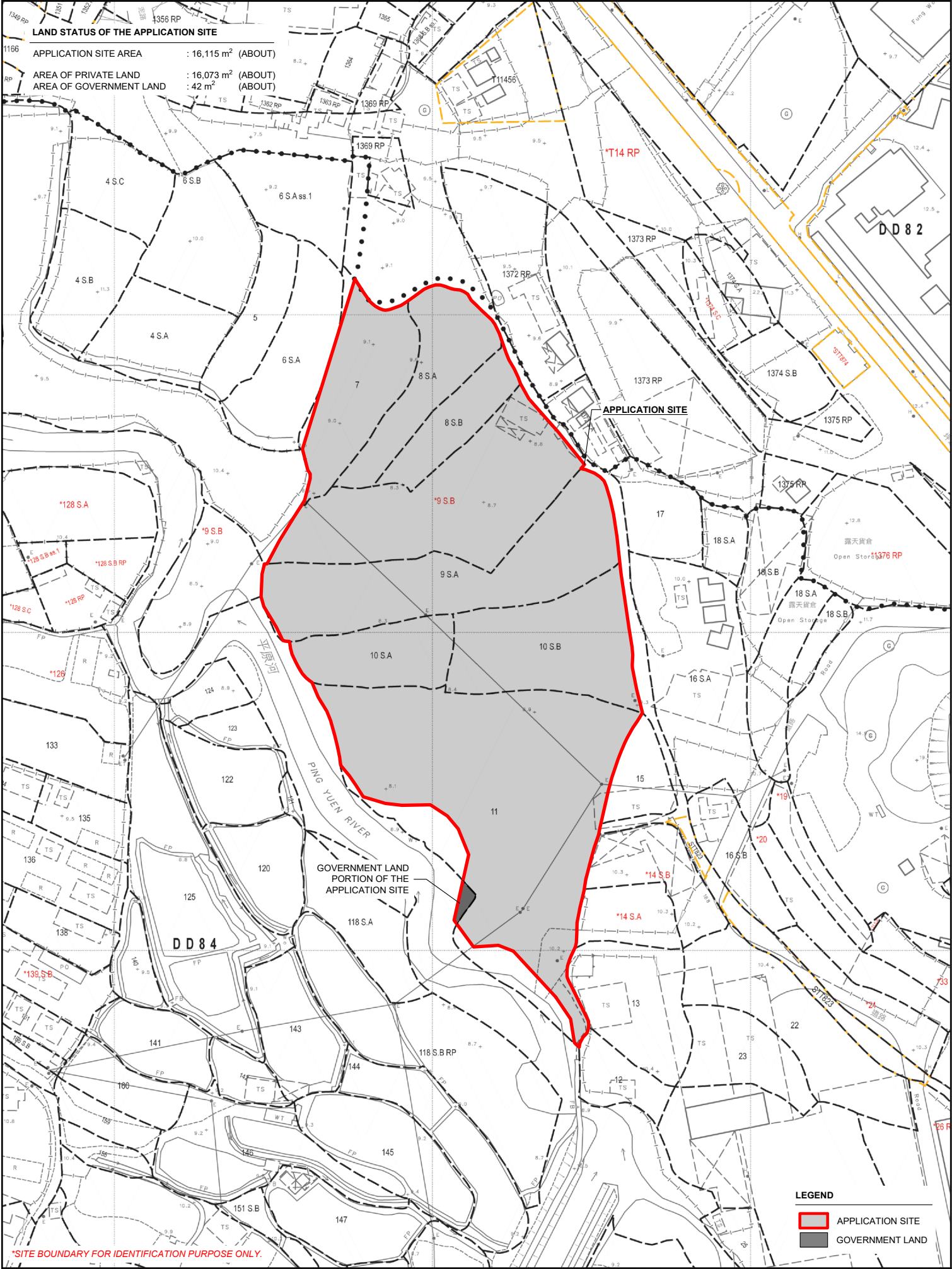
DWG NO.

PLAN 2

VER.

001





TOWN PLANNING BOARD GUIDELINES NO. 13G FOR
APPLICATION FOR OPEN STORAGE AND PORT BACK-UP USES
UNDER S.16 OF THE TOWN PLANNING ORDINANCE

APPLICATION SITE AREA : 16,115 m² (ABOUT)





CATEGORY OF SITE : CATEGORY 1 AREA;
CATEGORY 2 AREA; AND
CATEGORY 3 AREA

Caritas Fung Wong

APPLICATION SITE

Open
Storage

TPB Guidelines No. 13G

-  Category 1 Areas
-  Category 2 Areas
-  Category 3 Areas
-  Category 4 Areas

LEGEND

 APPLICATION SITE

*SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY.

PLANNING CONSULTANT



PROJECT

PROPOSED TEMPORARY WAREHOUSE (EXCL.
D.G.G.), MEDIUM GOODS VEHICLES AND
CONTAINER TRACTOR / TRAILER PARK WITH
ANCILLARY FACILITIES AND ASSOCIATED
FILLING OF LAND FOR A PERIOD OF 3 YEARS

ADDRESS

VARIOUS LOTS IN D.D. 84 AND ADJOINING
GOVERNMENT LAND, TA KWU LING, NEW
TERRITORIES

SCALE
1 : 1500 @ A4

DRAWN BY
MN

REVISED BY

DATE
17.11.2025

DATE

TITLE
TPB PG-NO. 13G

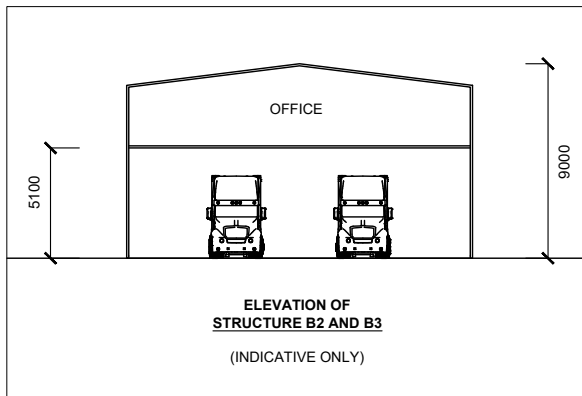
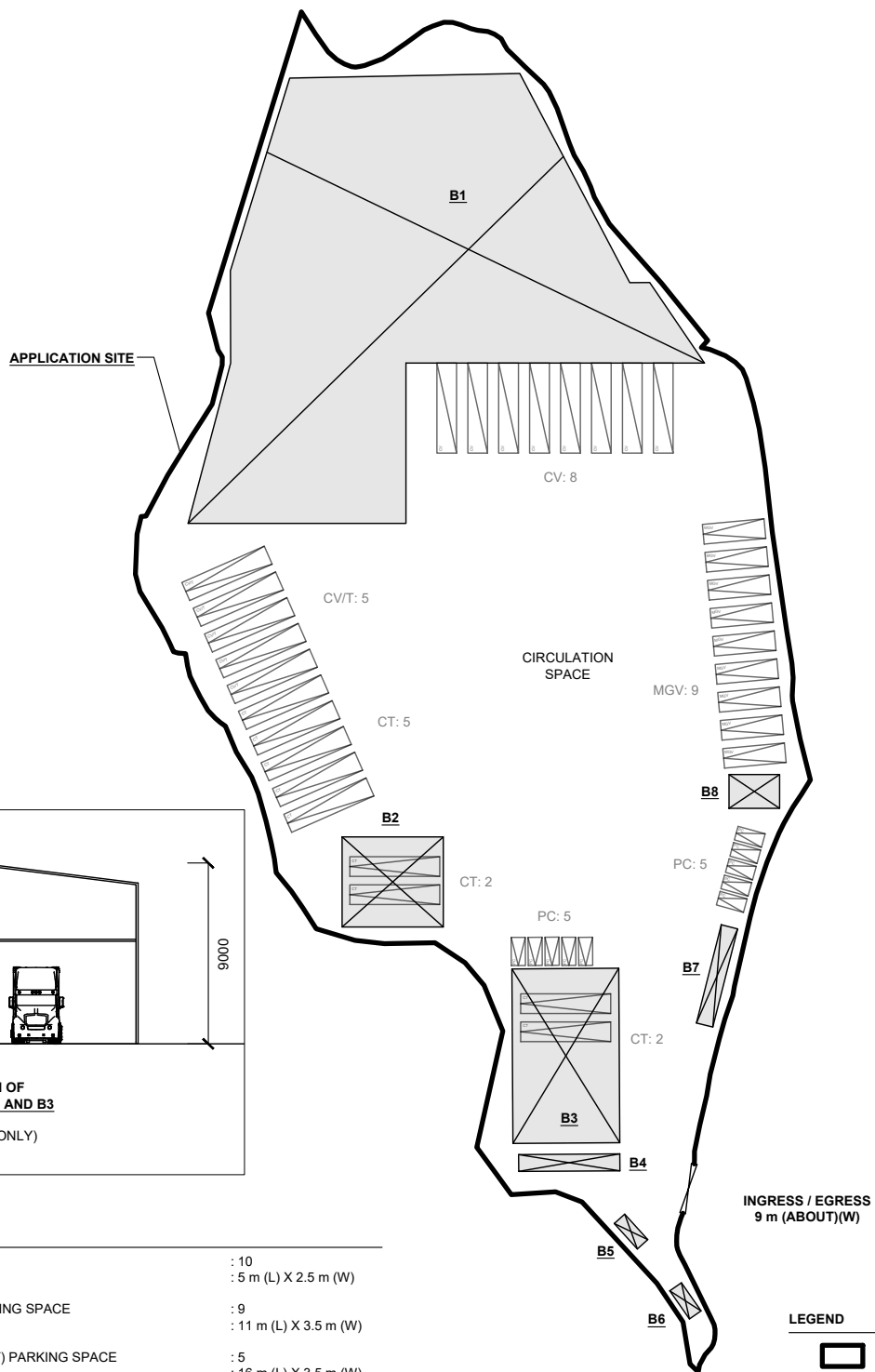
DWG NO.
PLAN 4

VER.
001



APPLICATION SITE AREA	: 16,115 m ²	(ABOUT)
COVERED AREA	: 5,269 m ²	(ABOUT)
UNCOVERED AREA	: 10,846 m ²	(ABOUT)
PLOT RATIO	: 0.65	(ABOUT)
SITE COVERAGE	: 33 %	(ABOUT)
NO. OF STRUCTURE	: 8	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 10,400 m ²	(ABOUT)
TOTAL GFA	: 10,400 m ²	(ABOUT)
BUILDING HEIGHT	: 2.8 m - 13 m	(ABOUT)
NO. OF STOREY	: 1 - 2	

STRUCTURE	USE	COVERED AREA	GROSS FLOOR AREA	BUILDING HEIGHT
B1	WAREHOUSE (EXCL. D.G.G.)	4,200 m ² (ABOUT)	8,400 m ² (ABOUT)	13 m (ABOUT)(2-STOREY)
B2	COVERED PARKING SPACES, SITE OFFICE AND WASHROOM	288 m ² (ABOUT)	576 m ² (ABOUT)	9 m (ABOUT)(2-STOREY)
B3	COVERED PARKING SPACES, SITE OFFICE AND WASHROOM	589 m ² (ABOUT)	1,178 m ² (ABOUT)	9 m (ABOUT)(2-STOREY)
B4	SITE OFFICE	54 m ² (ABOUT)	54 m ² (ABOUT)	2.8 m (ABOUT)(1-STOREY)
B5	METER ROOM	15 m ² (ABOUT)	15 m ² (ABOUT)	2.8 m (ABOUT)(1-STOREY)
B6	METER ROOM	15 m ² (ABOUT)	15 m ² (ABOUT)	2.8 m (ABOUT)(1-STOREY)
B7	SITE OFFICE	54 m ² (ABOUT)	54 m ² (ABOUT)	2.8 m (ABOUT)(1-STOREY)
B8	SITE OFFICE AND WASHROOM	54 m ² (ABOUT)	108 m ² (ABOUT)	9 m (ABOUT)(2-STOREY)
TOTAL		<u>5,269m² (ABOUT)</u>	<u>10,400 m² (ABOUT)</u>	



NO. OF PRIVATE CAR PARKING SPACE	: 10
DIMENSION OF PARKING SPACE	: 5 m (L) X 2.5 m (W)
NO. OF MEDIUM GOODS VEHICLE (MGV) PARKING SPACE	: 9
DIMENSION OF PARKING SPACE	: 11 m (L) X 3.5 m (W)
NO. OF CONTAINER VEHICLE / TRACTOR (CV/T) PARKING SPACE	: 5
DIMENSION OF PARKING SPACE	: 16 m (L) X 3.5 m (W)
NO. OF CONTAINER TRAILER (CT) PARKING SPACE	: 9
DIMENSION OF PARKING SPACE	: 16 m (L) X 3.5 m (W)

NO. OF LOADING / UNLOADING (L/UL) SPACE FOR CONTAINER VEHICLE (CV)	: 8
DIMENSION OF PARKING SPACE	: 16 m (L) X 3.5 m (W)

PLANNING CONSULTANT



PROJECT

PROPOSED TEMPORARY WAREHOUSE (EXCL. D.G.G.), MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR / TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS

ADDRESS
VARIOUS LOTS IN D.D. 84 AND ADJOINING
GOVERNMENT LAND, TA KWU LING, NEW
TERRITORIES

SCALE
1 : 1250 @ A4

DRAWN BY
MN

REVISÉD BY

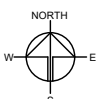
DATE	8.12.2025
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DATE _____

TITLE	LAYOUT PLAN
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DWG NO.
PLAN 5

VER.	001
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APPLICATION SITE BEFORE FILLING OF LAND

APPLICATION SITE AREA	: 16,115 m ²	(ABOUT)
SITE LEVELS BEFORE FILLING OF LAND	: +8.3 mPD TO +8.9 mPD	(ABOUT)



LEGEND

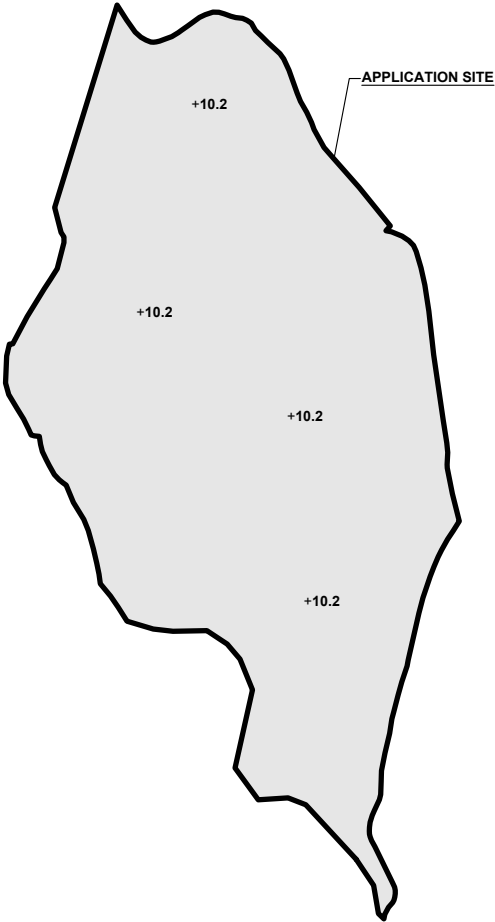
	APPLICATION SITE
+8.3	SITE LEVEL BEFORE FILLING

SITE LEVELS ARE FOR REFERENCE ONLY.
*SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY.

PROPOSED FILLING OF LAND AREA

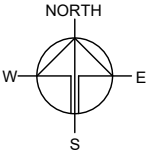
APPLICATION SITE AREA	: 16,115 m ²	(ABOUT)
COVERED BY STRUCTURE	: 4,755 m ²	(ABOUT)
PROPOSED FILLED AREA	: 16,115 m ²	(ABOUT)
DEPTH OF LAND FILLING	: NOT MORE THAN 1.9 m	(ABOUT)
EXISTING SITE LEVELS	: +10.2 mPD	(ABOUT)
MATERIAL OF LAND FILLING	: CONCRETE	
USE	: SITE FORMATION OF STRUCTURES, PARKING AND LOADING/UNLOADING SPACES, CIRCULATION AREA	

THE APPLICATION SITE HAS ALREADY BEEN HARD-PAVED. NO FURTHER FILLING OF LAND WILL BE CARRIED OUT AT THE APPLICATION SITE AFTER PLANNING APPROVAL HAS BEEN GRANTED FROM THE TOWN PLANNING BOARD.



LEGEND

	APPLICATION SITE
	FILLING OF LAND AREA
+10.2	SITE LEVEL AFTER FILLING



PLANNING CONSULTANT



PROJECT

PROPOSED TEMPORARY WAREHOUSE (EXCL. D.G.G.), MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR / TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS

SITE LOCATION

VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES

SCALE

1 : 2000 @ A4

DRAWN BY	DATE
MN	17.11.2025
REVISED BY	DATE
APPROVED BY	DATE

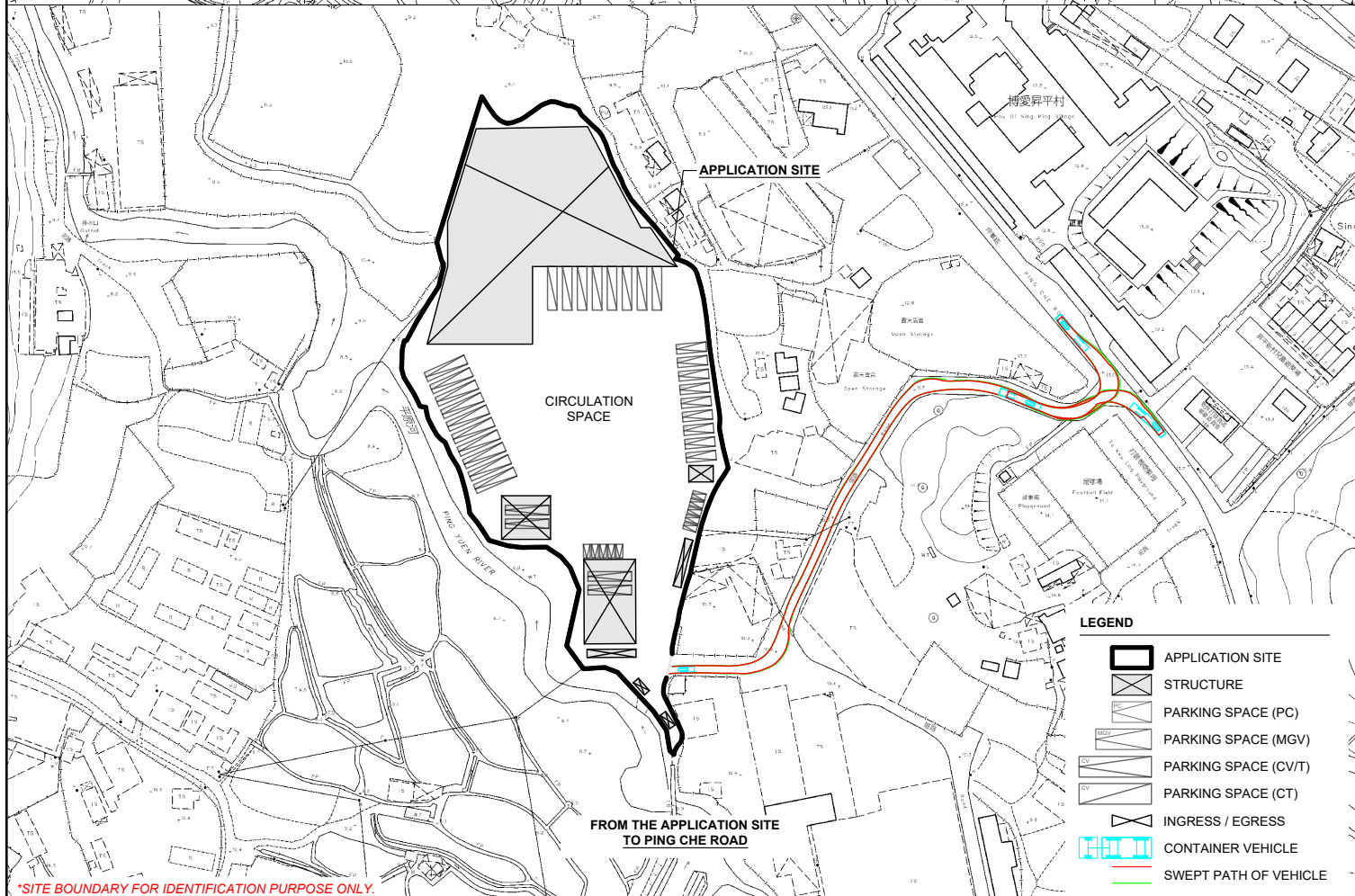
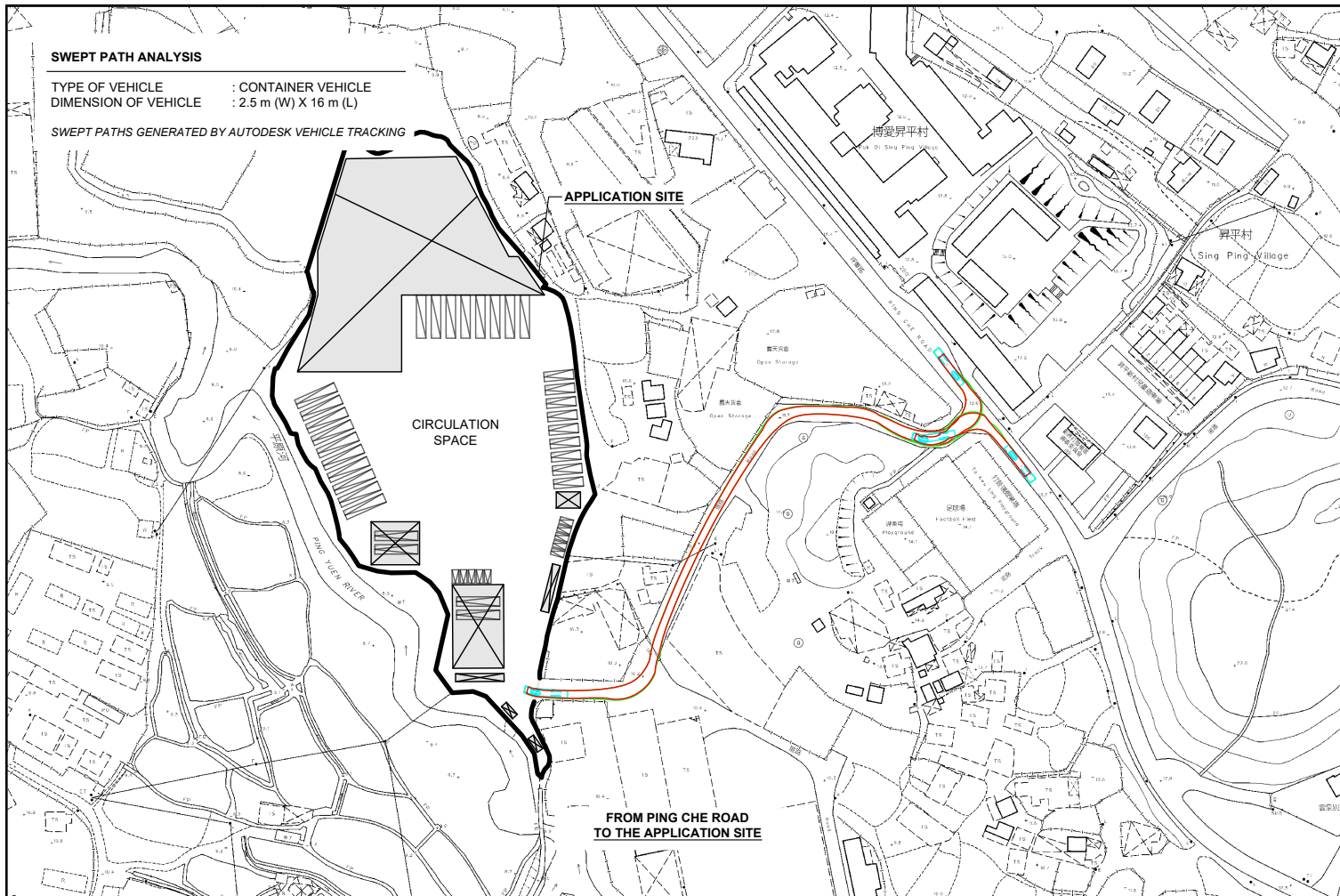
DWG. TITLE
FILLING OF LAND

DWG NO. PLAN 6	VER. 001
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SWEPT PATH ANALYSIS

TYPE OF VEHICLE : CONTAINER VEHICLE
 DIMENSION OF VEHICLE : 2.5 m (W) X 16 m (L)

SWEPT PATHS GENERATED BY AUTODESK VEHICLE TRACKING



LEGEND

- APPLICATION SITE
- STRUCTURE
- PARKING SPACE (PC)
- PARKING SPACE (MGV)
- PARKING SPACE (CV/T)
- PARKING SPACE (CT)
- INGRESS / EGRESS
- CONTAINER VEHICLE
- SWEEP PATH OF VEHICLE

*SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY.

PLANNING CONSULTANT 	PROJECT PROPOSED TEMPORARY WAREHOUSE (EXCL. D.G.G.), MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR / TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS	ADDRESS VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES	SCALE 1 : 2500 @ A4 DRAWN BY MN REVISED BY DATE 8.12.2025	TITLE SWEPT PATH ANALYSIS DWG NO. PLAN 7 VER. 001	
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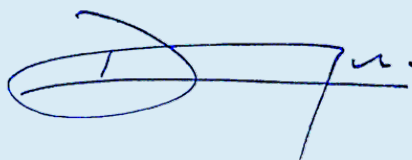
Appendix I - Comparison of Details Between the Previous Applications (No. A/NE-TKL/755 and 757) and the Current Application

Development Parameters	Previous Application (No. A/NE-TKL/755) (a)	Previous application (No. A/NE-TKL/757) (b)	Previous Applications Combined (Nos. A/NE-TKL/755 and 757) (c)	Current Application (d)	Difference (d) - (c)
Site Area	11,942 m ² (about)	7,508 m ² (about)	19,450 m ² (about)	16,115 m ² (about)	-3,335 m ² (-17.1 %)
Covered Area	547 m ² (about)	3,402 m ² (about)	3,949 m ² (about)	5,269 m ² (about)	+1,320 m ² (+33.4 %)
Uncovered Area	11,395 m ² (about)	4,106 m ² (about)	15,501 m ² (about)	10,846 m ² (about)	-4,655 m ² (-30.0 %)
Gross Floor Area	1,094 m ² (about)	6,804 m ² (about)	7,898 m ² (about)	10,400 m ² (about)	+2,502 m ² (+31.7 %)
Plot Ratio	0.09 (about)	0.91 (about)	1.00 (about)	0.64 (about)	-0.36 (-36.0 %)
Site Coverage	5 % (about)	45 % (about)	50% (about)	32% (about)	-18 % (-36.0 %)
No. of Structure	1	1	2	8	+6 (+300.0 %)
Building Height	8 m (about)	13 m (about)	8 m - 13 m (about)	2.8 m - 13 m (about)	-
No. of Storey	2	2	2 (Max)	1 - 2	-
No. of Private Car Parking Space	7	4	11	10	-1 (-9.1 %)
No. of Medium Goods Vehicle Parking Space	16	-	16	9	-7 (-43.8 %)
No. of Medium Goods Vehicle Loading/ Unloading Space	0	3	3	0	-3 (-300 %)
No. of Container Vehicle/Tractor Parking Space	15	0	15	5	-10 (-66.7 %)
No. of Container Trailer Parking Space	10	0	10	9	-1 (-10.0 %)
No. of Container Vehicle Loading/ Unloading Space	0	3	3	8	+5 (+166.67 %)

PROPOSED TEMPORARY MEDIUM GOODS AND
CONTAINER TRACTOR/TRAILER PARK AND
WAREHOUSE (EXCLUDING DANGEROUS GOODS
GODOWN) WITH ANCILLARY FACILITIES AND
ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3
YEARS, VARIOUS LOTS IN D.D. 84 AND ADJOINING
GOVERNMENT LAND, TA KWU LING, NEW
TERRITORIES

Drainage Impact Assessment

Nov 2025



Prepared by: YU Cheuk Yin Derek (RP0735920)



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1 Introduction

1.1 Background

- 1.1.1 The applicant seeks planning permission from the Town Planning Board (the Board) to use Various Lots in D.D. 84, Ta Kwu Ling, New Territories (the Site) for 'Proposed Temporary Medium Goods and Container Tractor/Trailer Park and Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities and Associated Filling of Land for a Period of 3 Years.
- 1.1.2 This report aims to support the development in drainage aspect.

1.2 Application Site

- 1.2.1 The application site is located to the west of Ping Che Road. It has an area of approx. 16,115 m². The site location is shown in **Figure 1**.
- 1.2.2 The existing site is mostly unpaved paved. Existing levels are various from approximately +9.0 to +10.2 mPD. The site would be concreted for not more than 0.2m for formation of structure and maneuvering of vehicle. No major site formation of the Application Site is anticipated.
- 1.2.3 There is an existing approx.. 12m width watercourse and an approx.. 15m width Ping Yuen River at the west of the site. **Figure 2** indicates the existing drainage system of the area.

2 Development Proposal

2.1 The Proposed Development

2.1.1 The total site area is approximately 16,115 m². The catchment plan is shown in **Figure 4**.

Proposed Development Area (Approx.)	
Total Site Area (m ²)	16,115
Paved Area after Development (m ²)	16,115

Table 1 – Site Development Area

3 Assessment Criteria

3.1.1 The Recommended Design Return Period based on Flood Level from SDM (Table 10) is adopted for this report. The recommendation is summarized in **Table 2** below.

Description	Design Return Periods
Intensively Used Agricultural Land	2 – 5 Years
Village Drainage Including Internal Drainage System under a polder Scheme	10 Years
Main Rural Catchment Drainage Channels	50 Years
Urban Drainage Trunk System	200 Years
Urban Drainage Branch System	50 Years

Table 2– Design Return Periods under SDM

3.1.2 The proposed drainage system intended to collect runoff from internal site and external catchment. 1 in 10 years return period is adopted.

3.1.3 Stormwater drainage design will be carried out in accordance with the criteria set out in the Stormwater Drainage Manual published by DSD. The proposed design criteria to be adopted for design of this stormwater drainage system and factors which have been considered are summarised below.

1. Intensity-Duration-Frequency Relationship – The Recommended Intensity-Duration-Frequency relationship is used to estimate the intensity of rainfall. It can be expressed by the following algebraic equation.

$$i = \frac{a}{(t_d + b)^c}$$

The site is located within the North District Zone. Therefore, for 10 years return period, the following values are adopted.

a	=	454.9
b	=	3.44
c	=	0.412

(Corrigendum No.1/2024)

The development is proposed for temporary use for a period of 3 years. 11.1% rainfall increase due to climate change is considered.

2. The peak runoff is calculated by the Rational Method
i.e. $Q_p = 0.278CiA$

where	Q_p	=	peak runoff in m^3/s
	C	=	runoff coefficient (dimensionless)
	i	=	rainfall intensity in mm/hr
	A	=	catchment area in km^2

3. The run-off coefficient (C) of surface runoff are taken as follows:

1. Paved Area: C = 0.95
2. Unpaved Area: C = 0.35

4. Manning's Equation is used for calculation of velocity of flow inside the channels:

$$\text{Manning's Equation: } v = \frac{1}{n} R^{\frac{2}{3}} S_f^{\frac{1}{2}}$$

Where,

V = velocity of the pipe flow (m/s)

S_f = hydraulic gradient

n = manning's coefficient

R = hydraulic radius (m)

5. Colebrook-White Equation is used for calculation of velocity of flow inside the pipes:

$$\text{Colebrook-White Equation: } \frac{1}{v} = -\sqrt{32gRS} \log \log \left(\frac{k_s}{14.8R} + \frac{1.255v}{R\sqrt{32gRS}} \right)$$

where,

V	=	velocity of the pipe flow (m/s)
S _f	=	hydraulic gradient
k _f	=	roughness value (m)
v	=	kinematics viscosity of fluid
D	=	pipe diameter (m)
R	=	hydraulic radius (m)

6. Volume of Drainage Detention Tank:

Extreme Rainfall intensity (1 in 10 yr) at North District Area for rainfall
duration of 240 mins, I = 44.5 mm/hr

4 Proposed Drainage System

4.1. Proposed Storage Tank

- 4.1.5 Additional runoff is generated due to the change of hard pavement ratio. Storage tank is proposed to collect the additional runoff from the site, such that there is no drainage impact to the nearby area.
- 4.1.6 The storage tank is proposed to collect the additional runoff for a 1 in 10 year rainfall event for 4 hours. As per the design for volume of storage tank shown in **Appendix A2**, the total storage volume of the storage tank is proposed to be not less than 1,722 m³.
- 4.1.7 At the beginning of rainstorm event, runoff would first be discharged to Ping Yuen River by Orifice in CP1.03, and it would discharge to existing stream (the orifice flow to Ping Yuen River is designed to not more than existing flow, see **Appendix A3**). The excessive flow would be stored in the storage tank. According to the checking in **Appendix A3**, the freeboard would be maintained not less than 500mm. The arrangement between CP1.03 and storage tank are shown in **Figure 6**.
- 4.1.8 An interconnection pipe is proposed between IL of storage tank and Ping Yuen River, and the flow is controlled by a penstock. The operation mechanism are as followings:-
- I. The storage tank to be emptied and the penstock to be closed before rainfall event.
 - II. The penstock to be kept close during rainfall event. The rainwater would be discharged by orifice and excessive water to be overflow to storage tank.
 - III. Within 8 hours after rainfall event, by opening the penstock, the water in the storage tank to be drained off to Ping Yuen River by gravity. The penstock to be closed after drain off.

4.2. Proposed Channels

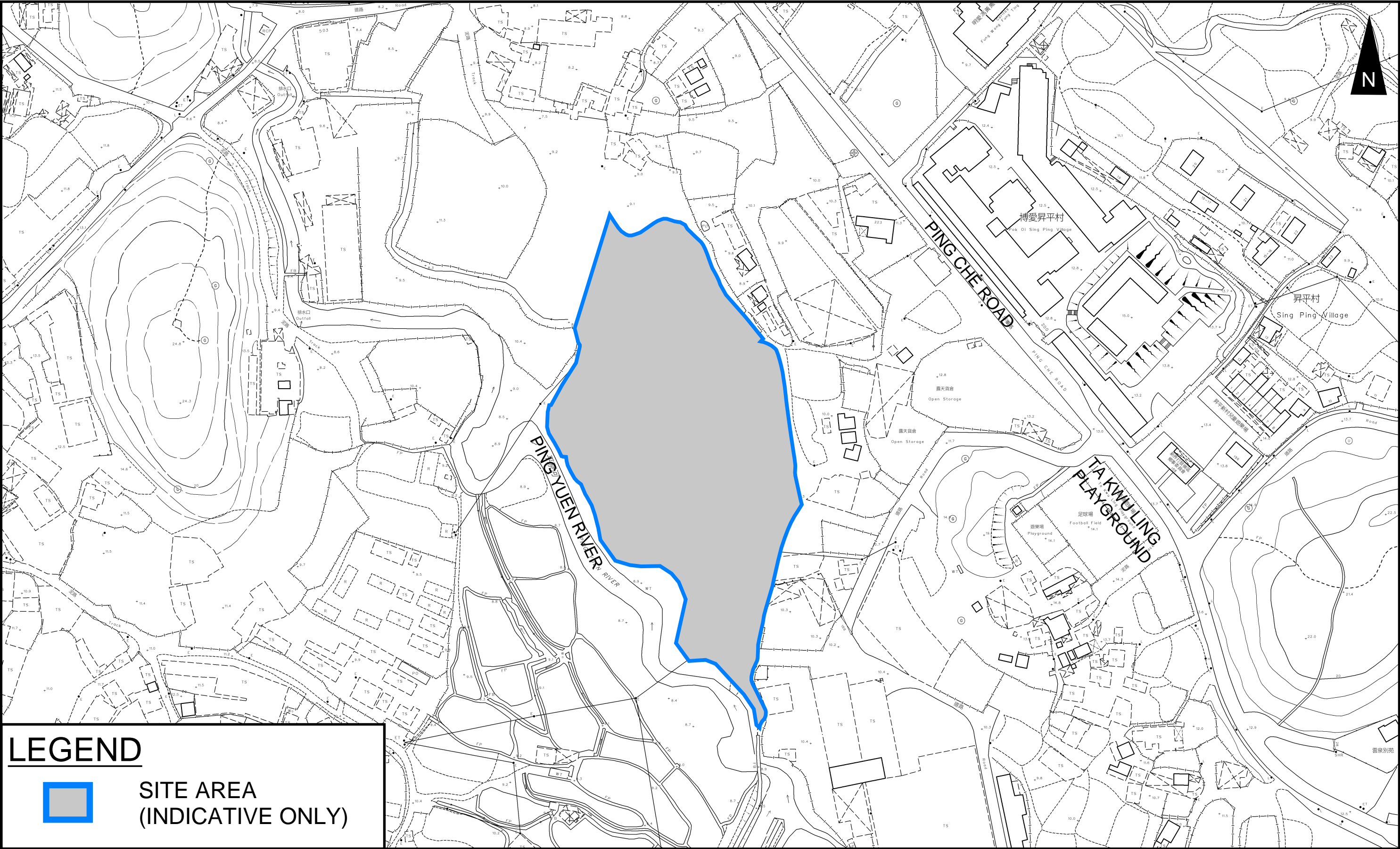
- 4.2.1 Proposed channels are designed for collection of runoff for application site. The design calculation of proposed drains are shown in **Appendix A1**.
- 4.2.2 The alignment, size, gradient and details of the proposed drains are shown in **Figure 3**. The catchment plan is shown in **Figure 4**.
- 4.2.4 Reference Drawings are shown in **Appendix C** for reference. Existing site photos are shown in **Appendix D**.

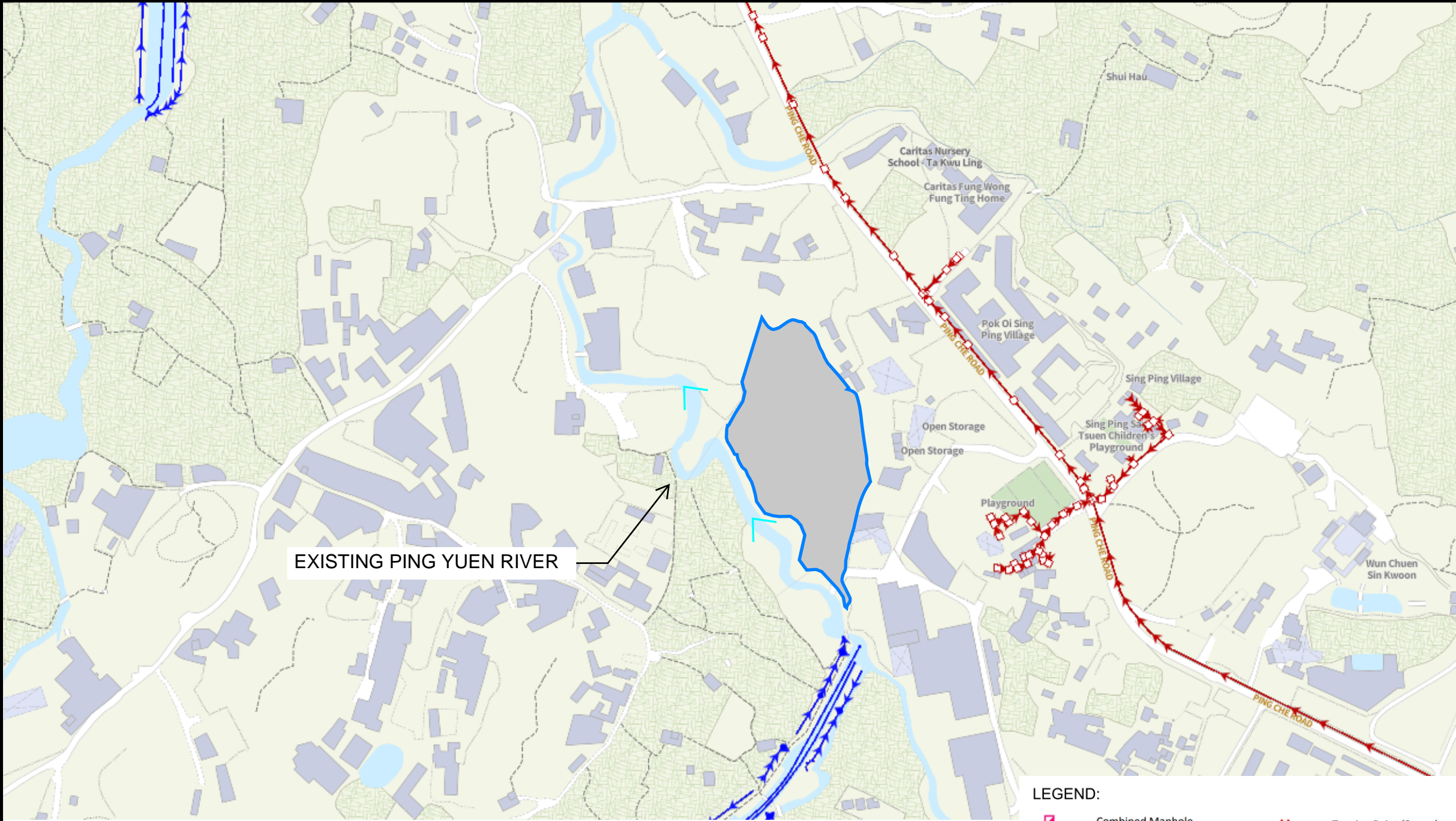
5 Conclusion

- 5.1.1 Drainage review has been conducted for the Proposed Development. The surface runoff will be collected by the proposed drains, excessive runoff would be overflow to storage tank such that discharge flow rate to existing Ping Yuen River is not more than existing.
- 5.1.2 With implementation of the above drainage system, no unacceptable drainage impact is anticipated.

- End of Text -

FIGURES





LEGEND



SITE AREA
(INDICATIVE ONLY)

LEGEND:

	Combined Manhole		Tapping Point (Sewer)		Tapping Point (Storm)
	Overflow (Combined)		Sewer Terminal Manhole		Storm Water Terminal Manhole
	Pipe (Combined)		Catchpit		Tunnel Protection Zone (100m / 200m)
	Interface Valve Chamber		Inlet		Tunnel Protection Zone (General Range)
	Sewer Manhole		Storm Water Manhole		Tunnel / Box Culvert (Sewer)
	Oil / Petrol Interceptor		Outlet		Tunnel / Box Culvert (Storm)
	Overflow (Sewer)		Pipe (Storm)		
	Pipe (Sewer)		Sand Trap		

PROJECT:

PROPOSED TEMPORARY MEDIUM GOODS AND CONTAINER TRACTOR/TRAILER PARK AND WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS

LOCATION:

VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES

TITLE

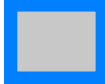



EXISTING DRAINAGE PLAN

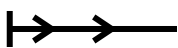
FIGURE NUMBER

FIGURE 2

VER	DESCRIPTION	DATE
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LEGEND

	SITE AREA (INDICATIVE ONLY)
	PROPOSED CHANNEL
	PROPOSED CATCHPIT
	PROPOSED CATCHPIT w/TRAP



PROPOSED CHANNEL



PROPOSED CATCHPIT w/TRAP



CP4.02


CP4.01 SP03

SP03

CP3.01

Diagram showing a sequence of arrows pointing left, ending with a square box labeled CP1.02.

ARRANGEMENT OF
CP1.03 AND
STORAGE TANK
REFER TO FIGURE 6



PROPOSED
STORAGE TANK

CP1.01

CP2.04

CP2.03

CP2.02

SP01

CP2 01

SP02 10.4

TO CP4.01

DETAIL A
NTS

MATCH WITH EXISTING WATERCOURSE

1. ALL LEVELS ARE IN METRES TO HONG KONG PRINCIPAL DATUM (m.P.D.) UNLESS NOTED OTHERWISE.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
3. LOCATION OF CATCHPITS ARE APPROX. ONLY.
4. CONNECTION LEVELS ARE APPROX. ONLY AND SHALL BE VERIFIED ON SITE.

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2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
3. LOCATION OF CATCHPITS ARE APPROX. ONLY.
4. CONNECTION LEVELS ARE APPROX. ONLY AND SHALL BE VERIFIED ON SITE.

US MH/PIT	DS MH/PIT	US GL	DS GL	Size mm	Gradient 1 in	Type	US IL	DS IL	U/S MH/PIT TYPE #	Remark
SP01	CP1.01	10.2	10	675	300	UC	9.53	9.26	SP	#SP: Start Point
CP1.01	CP1.02	10.0	10.0	1050	300	UC	8.95	8.80	CP	
CP1.02	CP1.03	10.0	10.2	1050	300	UC	8.61	8.25	CP	
CP1.03	Storage Tank	10.2	10.2	1050	300	UC	8.65	8.63	CP	Overflow Channel
CP1.03	Ping Yuen River	10.2	9.0	675	300	UC	8.07	8.05	CP	Channel with Short Pipe to Ping Yuen River
SP02	CP2.01	10.2	10.2	300	400	UC	9.90	9.84	SP	
CP2.01	CP2.02	10.2	10.2	675	400	UC	9.53	9.46	CP	
CP2.02	CP2.03	10.2	10.2	675	400	UC	9.46	9.43	CP	
CP2.03	CP2.04	10.2	10.2	675	400	UC	9.43	9.33	CP	
CP2.04	CP1.03	10.2	10.2	1050	300	UC	9.15	8.83	CP	
SP03	CP3.01	9.6	10.0	675	350	UC	8.93	8.79	SP	
CP3.01	CP1.02	10.0	10.0	750	200	UC	8.79	8.61	CP	
CP4.01	CP4.02	9.6	9.1	750	350	UC	8.85	8.35	CP	
CP4.02	CP1.03	9.1	9.0	750	350	UC	8.35	8.07	CP	

US MH/PIT	DS MH/PIT	US GL	DS GL	Size mm	Gradient 1 in	Type	US IL	DS IL	U/S MH/PIT TYPE #	Remark
SP01	CP1.01	10.2	10	675	300	UC	9.53	9.26	SP	#SP: Start Point
CP1.01	CP1.02	10.0	10.0	1050	300	UC	8.95	8.80	CP	
CP1.02	CP1.03	10.0	10.2	1050	300	UC	8.61	8.25	CP	
CP1.03	Storage Tank	10.2	10.2	1050	300	UC	8.65	8.63	CP	Overflow Channel
CP1.03	Ping Yuen River	10.2	9.0	675	300	UC	8.07	8.05	CP	Channel with Short Pipe to Ping Yuen River
SP02	CP2.01	10.2	10.2	300	400	UC	9.90	9.84	SP	
CP2.01	CP2.02	10.2	10.2	675	400	UC	9.53	9.46	CP	
CP2.02	CP2.03	10.2	10.2	675	400	UC	9.46	9.43	CP	
CP2.03	CP2.04	10.2	10.2	675	400	UC	9.43	9.33	CP	
CP2.04	CP1.03	10.2	10.2	1050	300	UC	9.15	8.83	CP	
SP03	CP3.01	9.6	10.0	675	350	UC	8.93	8.79	SP	
CP3.01	CP1.02	10.0	10.0	750	200	UC	8.79	8.61	CP	
CP4.01	CP4.02	9.6	9.1	750	350	UC	8.85	8.35	CP	
CP4.02	CP1.03	9.1	9.0	750	350	UC	8.35	8.07	CP	

PROPOSED TEMPORARY MEDIUM GOODS AND CONTAINER TRACTOR/TRAILER PARK AND WAREHOUSE
(EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF
LAND FOR A PERIOD OF 3 YEARS

PROPOSED TEMPORARY MEDIUM GOODS AND CONTAINER TRACTOR/TRAILER PARK AND WAREHOUSE
(EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF
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VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES

VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES

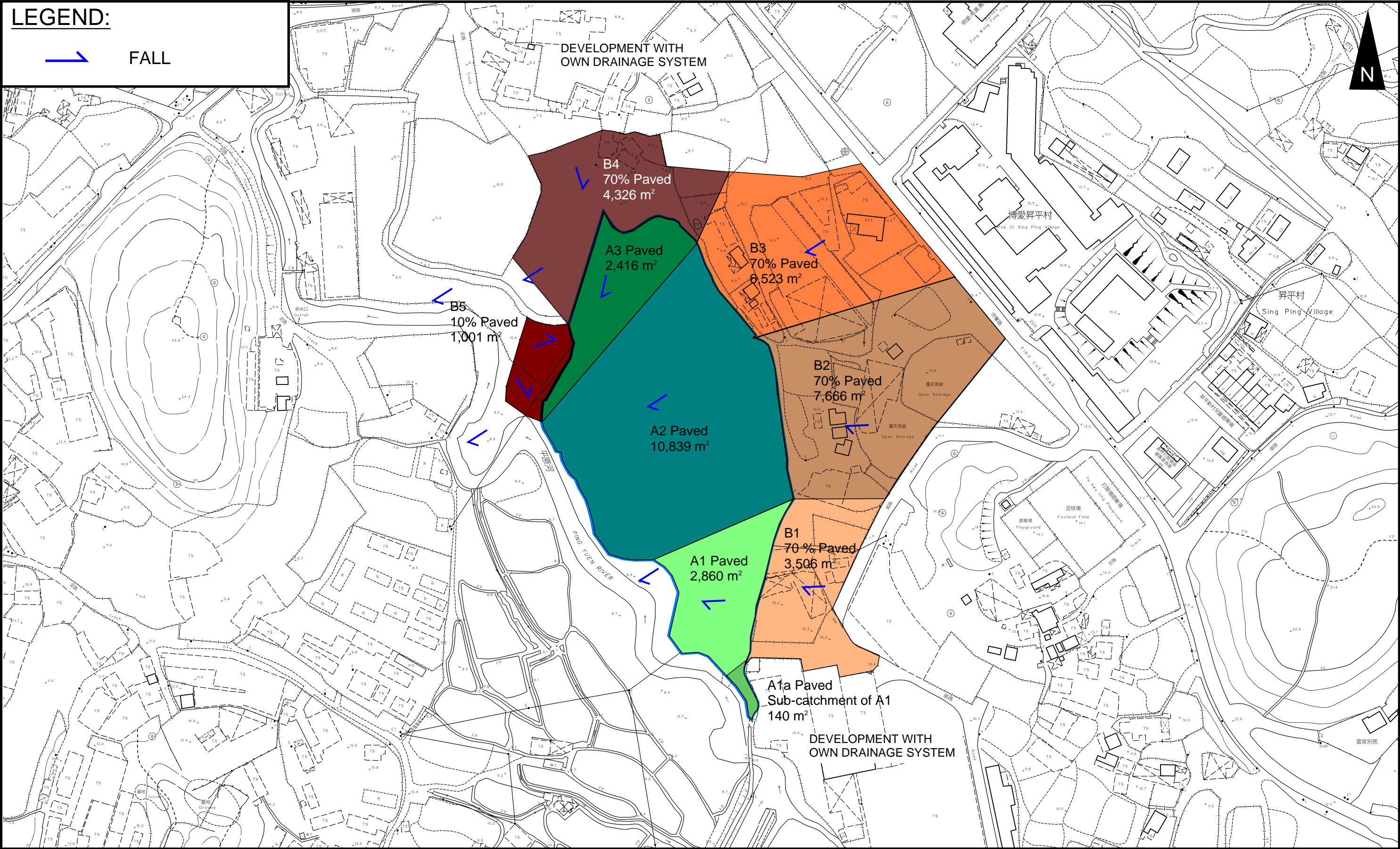
TITLE
PROPOSED DRAINAGE
SYSTEM

TITLE
PROPOSED DRAINAGE
SYSTEM

FIGURE NUMBER
FIGURE 3

FIGURE NUMBER
FIGURE 3

VER	DESCRIPTION	DATE
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PROJECT:

PROPOSED TEMPORARY MEDIUM GOODS AND CONTAINER TRACTOR/TRAILER PARK AND WAREHOUSE
(EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF
LAND FOR A PERIOD OF 3 YEARS

TITLE

CATCHMENT PLAN

FIGURE NUMBER

FIGURE 4

LOCATION:

VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW
TERRITORIES

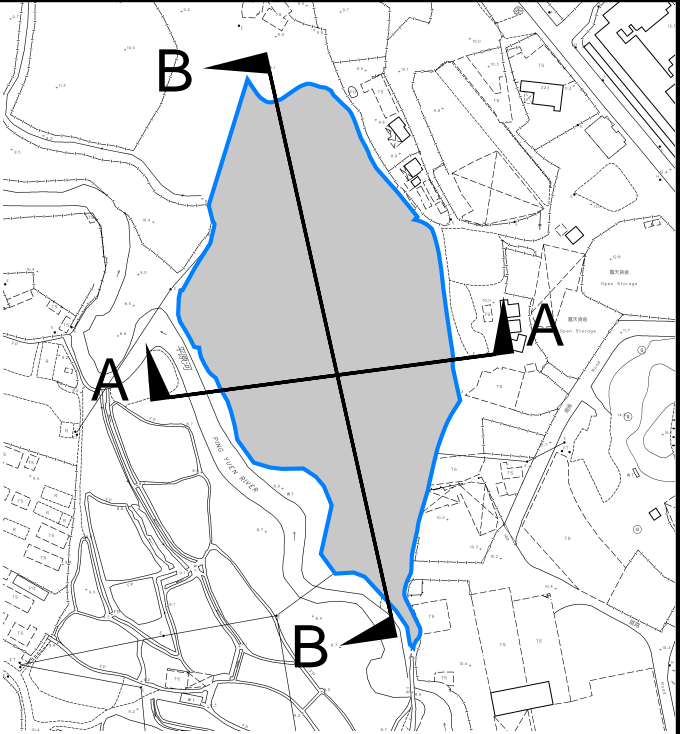
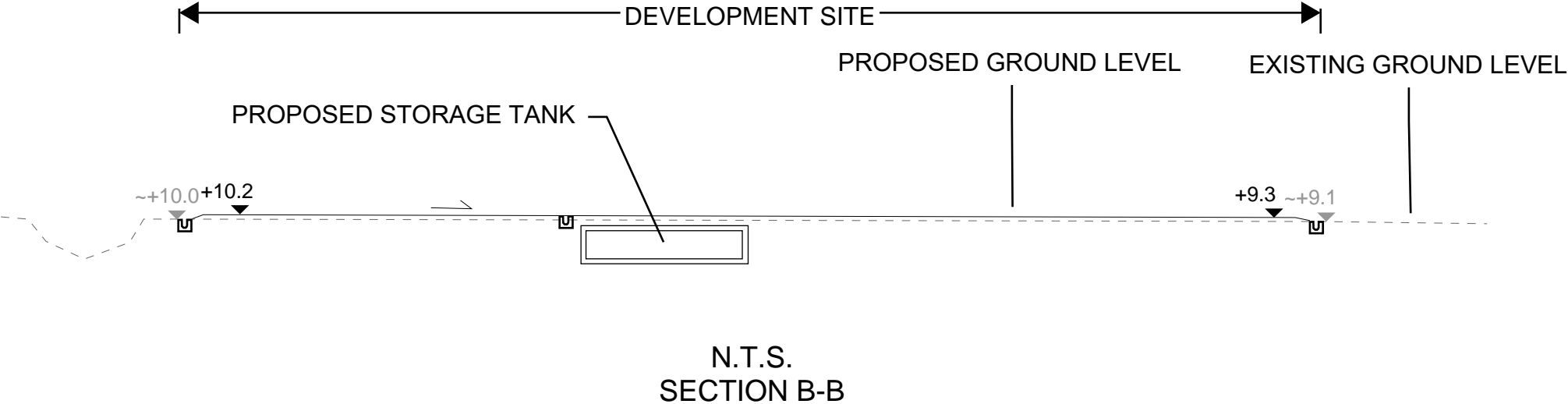
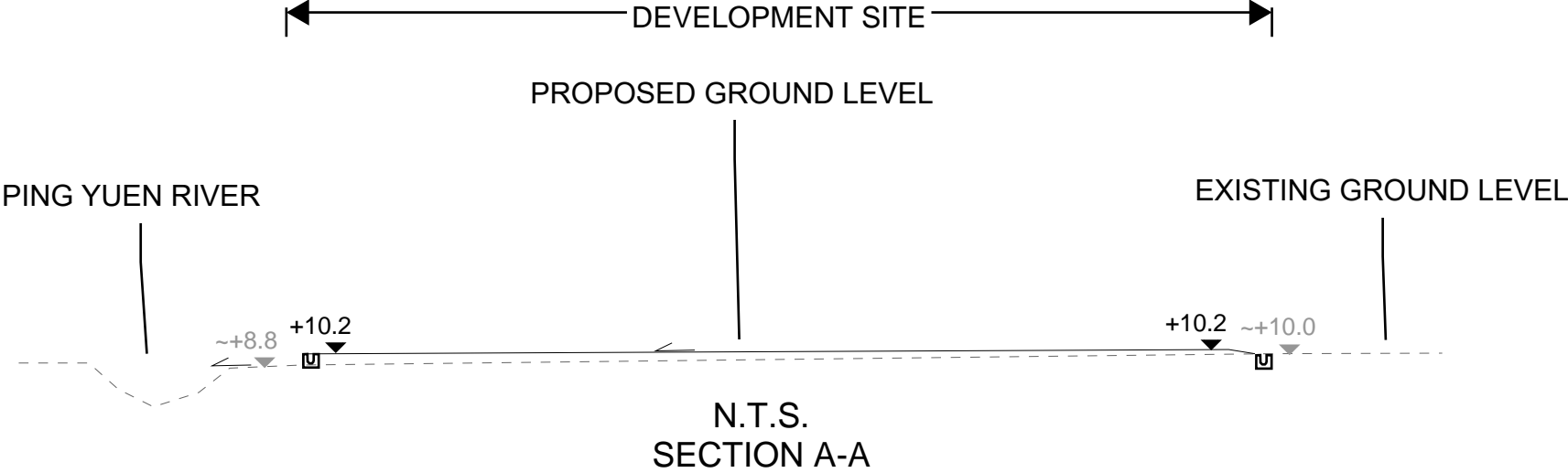
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DESCRIPTION

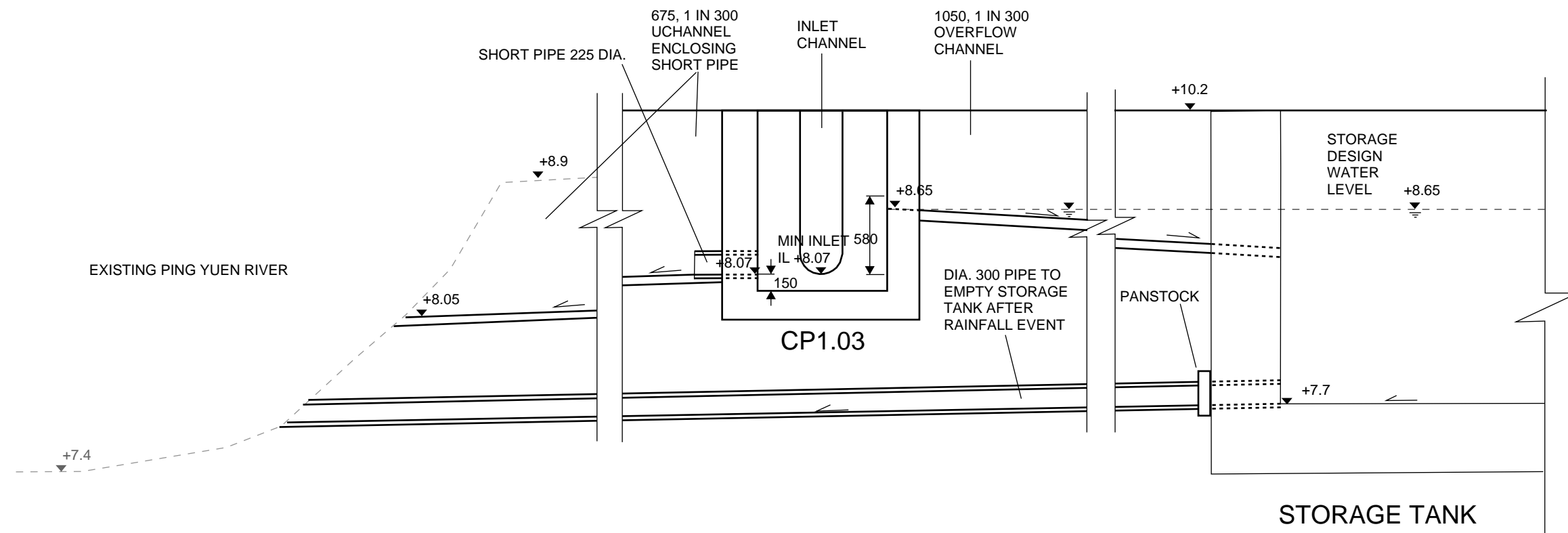
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LEGEND

SITE AREA
(INDICATIVE ONLY)



PROJECT: PROPOSED TEMPORARY MEDIUM GOODS AND CONTAINER TRACTOR/TRAILER PARK AND WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS	TITLE SECTIONS	FIGURE NUMBER FIGURE 5		
LOCATION: VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES		VER	DESCRIPTION	DATE



DETAIL 1 - PROPOSED ARRANGEMENT BETWEEN CP1.03 AND STORAGE TANK

PROJECT:

PROPOSED TEMPORARY MEDIUM GOODS AND CONTAINER TRACTOR/TRAILER PARK AND WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS

TITLE

PROPOSED ARRANGEMENT OF CP1.03 AND STORAGE TANK

FIGURE NUMBER

FIGURE 6

LOCATION:

VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES

VER	DESCRIPTION	DATE

APPENDIX

Appendix A1: Design Calculation

Zone	North District	Return Period	1 in	10	years	n	0.014	Storm Constant	North District a	454.9
						Ks	0.15		North District b	3.44
						Viscosity	0.000001		North District c	0.412

Catchment Area Table (Area in m ²)																		
Catchment	A1	A1a	A2	A3	B1	B2	B3	B4	B5	Site Area Before Development								
Total Area	2860	140	10839	2416	3506	7666	6523	4326	1001	16115								
Hard Paved Area	2860	140	10839	2416	2454.2	5366.2	4566.1	3028.2	100.1	0								
Unpaved Area	0	0	0	0	1051.8	2299.8	1956.9	1297.8	900.9	16115								
Equival. Area	2717	133	10297.05	2295.2	2699.62	5902.82	5022.71	3331.02	410.41	5640.25								

Pavement Type	Hard Paved	Unpaved
Runoff Coefficient	0.95	0.35

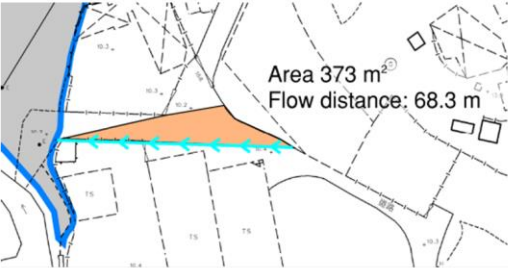
Calculation Table of Drainage System

US MH/PIT	DS MH/PIT	US GL	DS GL	Size mm	Gradient 1 in	Type	US IL	DS IL	U/S MH/PIT TYPE [#]	Length m	V m/s ^{##}	Capacity m ³ /s	Catchments	Total Equivalent Area m ²	ToC min	Intensity mm/hr ^{##}	Total Discharge m ³ /s	Utilitizatio n	Remark
SP01	CP1.01	10.20	10.00	675	300	UC	9.53	9.26	SP	79	1.57	0.64	B1	2699.62	5.10	209	0.16	24.6%	
CP1.01	CP1.02	10.00	10.00	1050	300	UC	8.95	8.80	CP	45.5	2.10	2.07	B1,B2	8602.44	5.94	201	0.48	23.2%	
CP1.02	CP1.03	10.00	10.20	1050	300	UC	8.61	8.25	CP	108.4	2.10	2.07	A2,A3,B1,B2,B3,B4	29548.42	6.30	198	1.63	78.5%	
CP1.03	Storage Tank	10.20	10.20	1050	300	UC	8.65	8.63	CP	7.5	2.10	2.07	Overflow Channel to Storage Tank (See Appendix A3)						
CP1.03	Ping Yuen River	10.20	9.00	675	300	UC	8.07	8.05	CP	5	1.57	0.64	Max flow of short pipe see Appendix A3					0.17	27.3%
SP02	CP2.01	10.20	10.20	300	400	UC	9.90	9.84	SP	22.5	0.79	0.06	A1a	133.00	5.10	209	0.01	12.2%	
CP2.01	CP2.02	10.20	10.20	675	400	UC	9.53	9.46	CP	27.4	1.36	0.55	A1	2717.00	5.57	204	0.15	27.9%	
CP2.02	CP2.03	10.20	10.20	675	400	UC	9.46	9.43	CP	8.9	1.36	0.55	A1	2717.00	5.91	201	0.15	27.5%	
CP2.03	CP2.04	10.20	10.20	675	400	UC	9.43	9.33	CP	42.8	1.36	0.55	A1	2717.00	6.02	200	0.15	27.4%	
CP2.04	CP1.03	10.20	10.20	1050	300	UC	9.15	8.83	CP	95	2.10	2.07	A1	2717.00	6.55	196	0.15	7.1%	
SP03	CP3.01	9.60	10.00	675	350	UC	8.93	8.79	SP	48.8	1.45	0.59	B3,B4	8353.73	5.10	209	0.49	82.2%	
CP3.01	CP1.02	10.00	10.00	750	200	UC	8.79	8.61	CP	35.5	2.06	1.03	B2,B3,B4	14256.55	5.66	203	0.81	78.0%	
CP4.01	CP4.02	9.60	9.10	750	350	UC	8.85	8.35	CP	53.3	1.56	0.78	A3,B3,B4	10648.93	5.10	209	0.62	79.1%	
CP4.02	CP1.03	9.10	9.00	750	350	UC	8.35	8.07	CP	99.5	1.56	0.78	A3,B3,B4,B5	11059.34	5.67	203	0.63	80.0%	
Checking Total Flow Collected by CP1.03													A1,A2,A3,B1,B2,B3,B4,B5	32675.83	6.55	196	1.78		
Flow from Site Before Development													Site Area Before Development	5640.25	6.55	196	0.31		

#SP: Start Point
: With 11.1% rainfall increase as per Table 28 of SDM Corrigendum No. 1/2022.

Time of Concentration Checking

Catchment	Flow Distance	Highest Level	Lowest Level	Gradient (per 100m) = (H1-H2)/L x 100	to (min) = 0.14465L / (H ^{0.2} A ^{0.1})	tc = to + tf
A	L	H1	H2			
(m2)	(m)	(mPD)	(mPD)		(min)	(min)
373	68.3	11.2	10.2	1.464	5.1	5.1



Appendix A2: Sizing of Storage Tank

North District

Return Period 1 in 10 years

Duration 240 min

Rainfall Intensity, I 44.5 mm/hr

Site Area

16115 m²

	Pre-Development			Post-Development	
Hard Paved		0 m ²			16115 m ²
Green		16115 m ²			0 m ²
Total Equivalent Area	= 0 x 0.95 + 16115 x 0.35	5640.25 m ²		= 16115 x 0.95 + 0 x 0.35	15309.25 m ²
Design Flow Rate, Q	= 0.278 x 5640.25 x 44.5 / 1000000	0.070 m ³ /s		= 0.278 x 15309.25 x 44.5 / 1000000	0.189 m ³ /s
Volume of Runoff in 240 min	= 0.07 x 240 x 60	1005 m ³			2727 m ³

Runoff Coefficient
0.95
0.35

Storage Vol. Required = 2727 - 1005 = 1722 m³

Assume to Provide Tank

Tank Area

L1 =	-	m
L2 =	-	m
W =	-	m
A(min.)=	1850	m ²

Water Depth

Assume Water Level is 1.55 m below GL and IL is 2.5m below GL.
Water Depth = 0.95 m

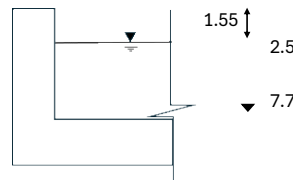
Therefore, the Provided Storage Volume is 1758 m³
> 1722 m³

L1

GL = + 10.2

Irregular Shape

W



= 10.2 - 8.65

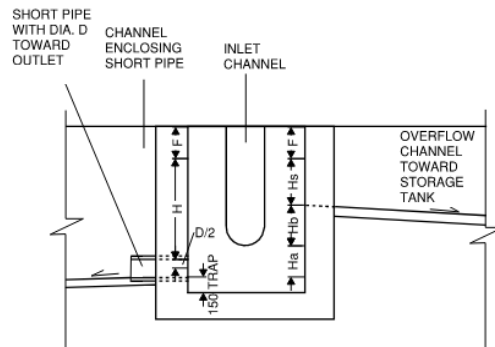
= 10.2 - 7.7

L2

PLAN

SECTION

Appendix A3 - Design of Orifice



Catch Pit: CP1.03

Total Flow from Inlet Channels (Qi) = Outlet flow by Short Pipe (Qo1) + Flow toward Storage Tank by Overflow Channel (Qo2)

Flow from Inlet Channels,	$Q_i = 1.78$	m^3/s	(Total Flow Collected by CP1.03, See Appendix A1)	
Outlet flow by Short Pipe,	$Q_{o1} = C_d \times A \times \sqrt{2 \times g \times [H + D/2]}$		Where	C_d Coefficient of Discharge $C_d = 0.8$ for Short Pipe (Dally et al. (1993)) A Area of Orifice $H + D/2$ Mean Centre Height
Flow toward Storage Tank,	$Q_{o2} =$ Capacity of Overflow Channel toward Storage Tank $= 2.07$	m^3/s	When $H_s =$ size of Overflow Channel = 1050 mm (See Appendix A1)	

When Freeboard = 0.5, Check if $Q_{o1} + Q_{o2} \geq Q_i$, and

Check if $Q_{o1} \leq$ Total Flow before Development = 0.31 m^3/s (See Appendix A1)

Freeboard, F (m)	Provide H_a (m)
0.5	0

C_d	Provide Short Pipe Dia. (m)	Area of Orifice (m^2)	g (m^2/s)	Provide H (m)	H + D/2 (m)	$Q_{o1}^{\#}$ (m^3/s)
0.8	0.225	0.040	9.81	1.41	1.52	0.174

$^{\#} Q_{o1} = C_d \times A \times \sqrt{2 \times g \times [H + D/2]}$

≤ 0.31 , OK

(Outlet flow controlled by orifice \leq existing flow before development)

$H_s =$ Size of Overflow Channel (m)	$Q_{o2}^{##}$ (m^3/s)
1.05	2.07

$^{##} Q_{o2} =$ Capacity of Overflow Channel toward Storage Tank = 2.07 m^3/s
When $H_s =$ size of Overflow Channel

$Q_{o1} + Q_{o2}$ (m^3/s)
2.245

$\geq Q_i$, OK

H_s	$=$	1.05	m				
$F + H_s + H_b$	$=$	GL - Inlet IL		$=$	10.20	$-$	8.07
				$=$	2.13	m	
(GL and IL, See Figure 7 and Appendix A1)							
Therefore							
H_b	$=$	2.13 - 0.5 - 1.05					
	$=$	0.58	m				
Provide	225	mm	Short Pipe, and				
	1050	mm	Overflow Channel.				
In addition, Provide	675	mm	Channel enclosing the Short Pipe to D/S.				

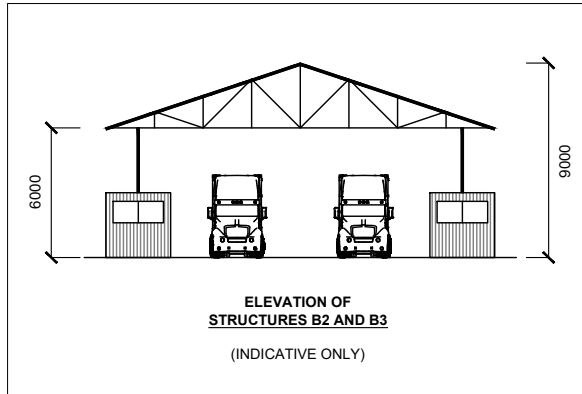
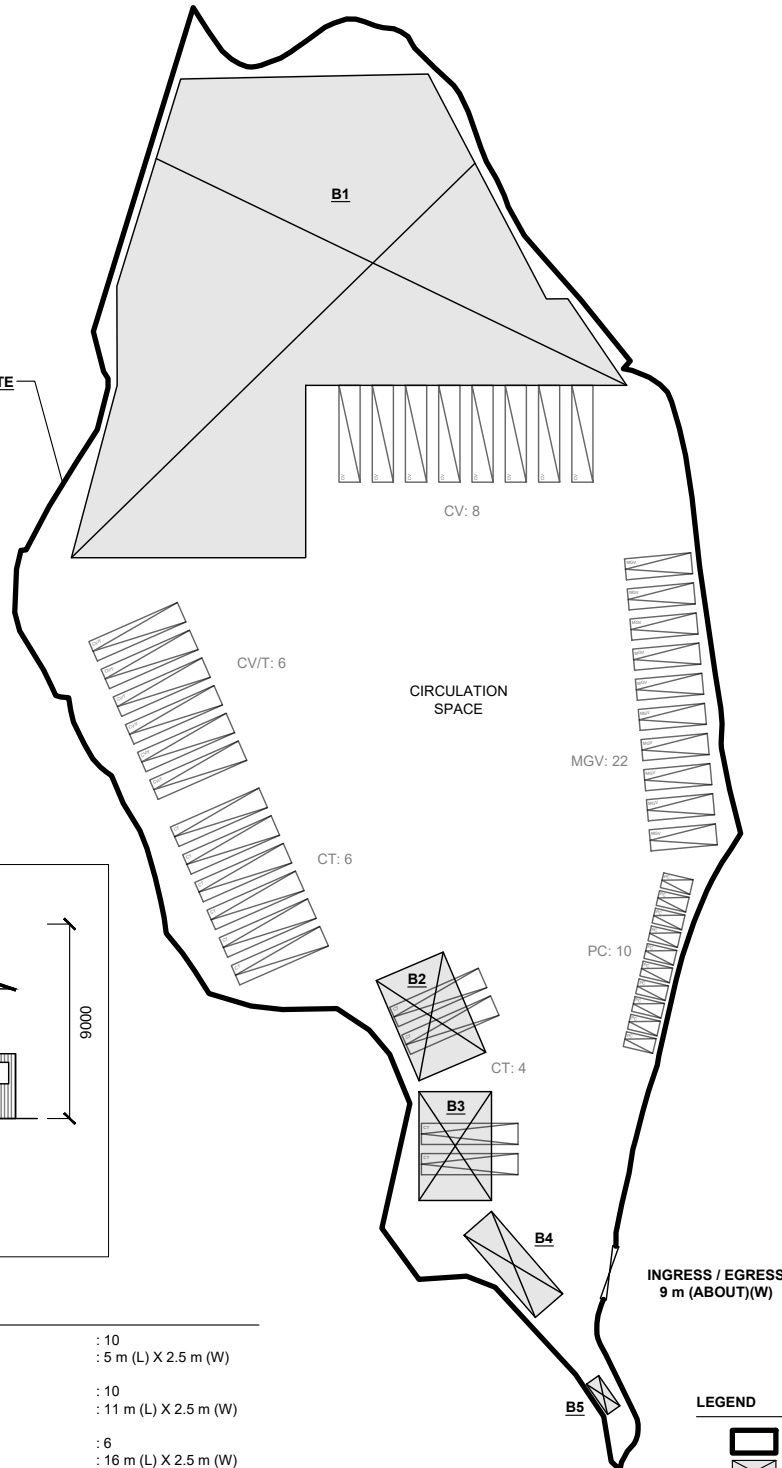
APPENDIX B - PROPOSED SITE LAYOUT PLAN

DEVELOPMENT PARAMETERS

APPLICATION SITE AREA	: 16,115 m ²	(ABOUT)
COVERED AREA	: 4,755 m ²	(ABOUT)
UNCOVERED AREA	: 11,360 m ²	(ABOUT)
PLOT RATIO	: 0.56	(ABOUT)
SITE COVERAGE	: 30 %	(ABOUT)
NO. OF STRUCTURE	: 5	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 8,955 m ²	(ABOUT)
TOTAL GFA	: 8,955m ²	(ABOUT)
BUILDING HEIGHT	: 2.8 m - 4 m	(ABOUT)
NO. OF STOREY	: 1	

STRUCTURE	USE	COVERED AREA	GROSS FLOOR AREA	BUILDING HEIGHT
B1	WAREHOUSE (EXCL. D.G.G.)	4,200 m ² (ABOUT)	8,400 m ² (ABOUT)	13 m (ABOUT)(2-STOREY)
B2	COVERED PARKING SPACES AND SITE OFFICE	216 m ² (ABOUT)	216 m ² (ABOUT)	9 m (ABOUT)(1-STOREY)
B3	COVERED PARKING SPACES AND SITE OFFICE	216 m ² (ABOUT)	216 m ² (ABOUT)	9 m (ABOUT)(1-STOREY)
B3	SITE OFFICE AND WASHROOM	108 m ² (ABOUT)	108 m ² (ABOUT)	4 m (ABOUT)(1-STOREY)
B4	METER ROOM	15 m ² (ABOUT)	15 m ² (ABOUT)	2.8 m (ABOUT)(1-STOREY)
TOTAL		4,755 m ² (ABOUT)	8,955 m ² (ABOUT)	

APPLICATION SITE



PARKING PROVISIONS

NO. OF PRIVATE CAR PARKING SPACE	: 10
DIMENSION OF PARKING SPACE	: 5 m (L) X 2.5 m (W)
NO. OF MEDIUM GOODS VEHICLE (MGV) PARKING SPACE	: 10
DIMENSION OF PARKING SPACE	: 11 m (L) X 2.5 m (W)
NO. OF CONTAINER VEHICLE / TRACTOR (CV/T) PARKING SPACE	: 6
DIMENSION OF PARKING SPACE	: 16 m (L) X 2.5 m (W)
NO. OF CONTAINER TRAILER (CT) PARKING SPACE	: 10
DIMENSION OF PARKING SPACE	: 16 m (L) X 2.5 m (W)

LOADING / UNLOADING PROVISIONS

NO. OF LOADING / UNLOADING (L/UL) SPACE FOR CONTAINER VEHICLE (CV)	: 8
DIMENSION OF PARKING SPACE	: 16 m (L) X 2.5 m (W)

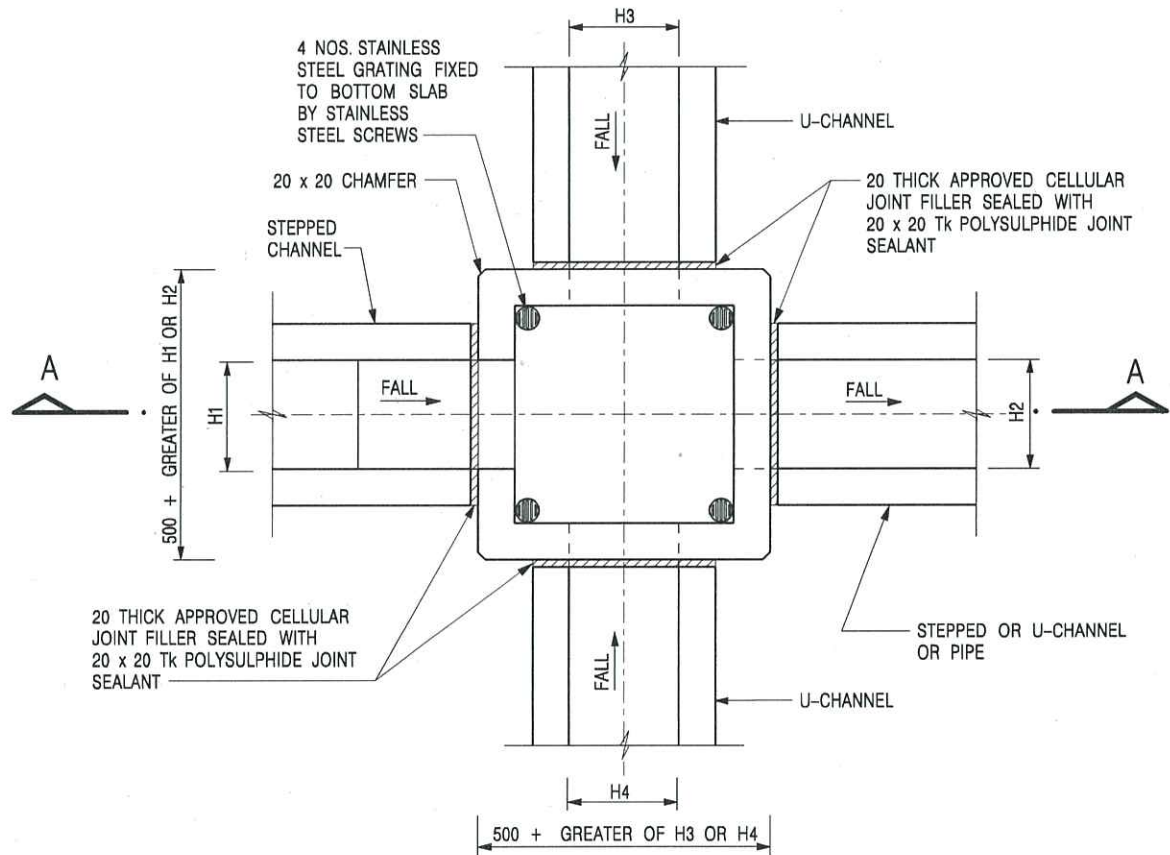
*SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY.

LEGEND

	APPLICATION SITE
	STRUCTURE
	PARKING SPACE (PC)
	PARKING SPACE (MGV)
	PARKING SPACE (CV/T)
	PARKING SPACE (CT)
	L/UL SPACE (CV)
	INGRESS / EGRESS

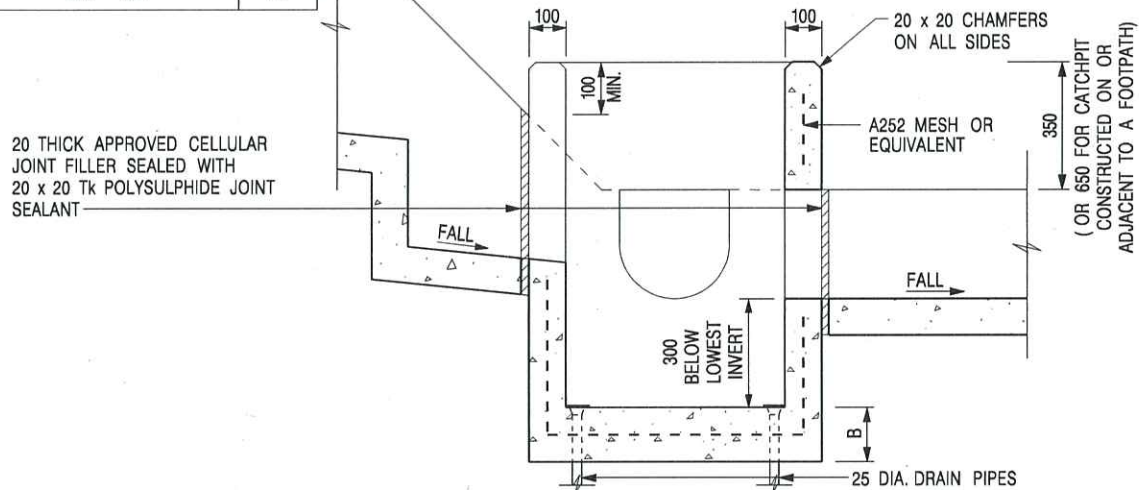
PLANNING CONSULTANT	PROJECT	ADDRESS	SCALE	TITLE	NORTH W—+—E S
	PROPOSED TEMPORARY WAREHOUSE (EXCL. D.G.G.), MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR / TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS	VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES	1 : 1250 @ A4	LAYOUT PLAN	
			DRAWN BY MN	DATE 17.11.2025	
			REVISED BY	DATE	
				DWG NO. PLAN 5	VER. 001

Appendix C - Reference Drawings



PLAN

NOMINAL SIZE (LARGEST OF H1, H2, H3 & H4)	B
300 - 600	150
675 - 900	175



SECTION A - A

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFER TO SHEET 2 FOR OTHER NOTES.

CATCHPIT WITH TRAP
(SHEET 1 OF 2)

-	FORMER DRG. NO. C2406J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE



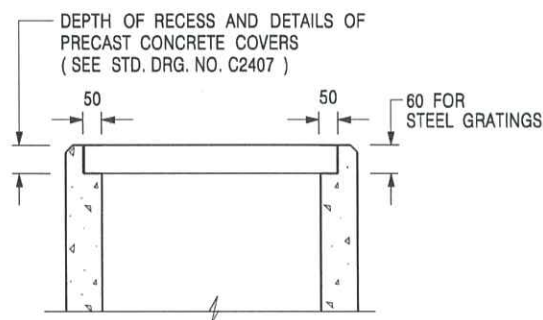
CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO.

C2406 /1



**ALTERNATIVE TOP SECTION
FOR PRECAST CONCRETE COVERS / GRATINGS**

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CONCRETE SHALL BE GRADE 20 /20.
3. CONCRETE SURFACE FINISH SHALL BE CLASS U2 OR F2 AS APPROPRIATE.
4. FOR DETAILS OF JOINT, REFER TO STD. DRG. NO. C2413.
5. CONCRETE TO BE COLOURED AS SPECIFIED.
6. UNLESS REQUESTED BY THE MAINTENANCE PARTY AND AS DIRECTED BY THE ENGINEER, CATCHPIT WITH TRAP IS NORMALLY NOT PREFERRED DUE TO PONDING PROBLEM.
7. UPON THE REQUEST FROM MAINTENANCE PARTY, DRAIN PIPES AT CATCHPIT BASE CAN BE USED BUT THIS IS FOR CATCHPITS LOCATED AT SLOPE TOE ONLY AND AS DIRECTED BY THE ENGINEER.
8. FOR CATCHPITS CONSTRUCTED ON OR ADJACENT TO A FOOTPATH, STEEL GRATINGS (SEE DETAIL 'A' ON STD. DRG. NO. C2405 /2) OR CONCRETE COVERS (SEE STD. DRG. NO. C2407) SHALL BE PROVIDED AS DIRECTED BY THE ENGINEER.
9. IF INSTRUCTED BY THE ENGINEER, HANDRAILING (SEE DETAIL 'J' ON STD. DRG. NO. C2405 /5; EXCEPT ON THE UPSLOPE SIDE) IN LIEU OF STEEL GRATINGS OR CONCRETE COVERS CAN BE ACCEPTED AS AN ALTERNATIVE SAFETY MEASURE FOR CATCHPITS NOT ON A FOOTPATH NOR ADJACENT TO IT. TOP OF THE HANDRAILING SHALL BE 1 000 mm MIN. MEASURED FROM THE ADJACENT GROUND LEVEL.
10. MINIMUM INTERNAL CATCHPIT WIDTH SHALL BE 1 000 mm FOR CATCHPITS WITH A HEIGHT EXCEEDING 1 000 mm MEASURED FROM THE INVERT LEVEL TO THE ADJACENT GROUND LEVEL. AND, STEP IRONS (SEE DSD STD. DRG. NO. DS1043) AT 300 c/c STAGGERED SHALL BE PROVIDED. THICKNESS OF CATCHPIT WALL FOR INSTALLATION OF STEP IRONS SHALL BE INCREASED TO 150 mm.
11. FOR RETROFITTING AN EXISTING CATCHPIT WITH STEEL GRATING, SEE DETAIL 'G' ON STD. DRG. NO. C2405 /4.
12. SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

A	MINOR AMENDMENT.	Original Signed	04.2016
-	FORMER DRG. NO. C2406J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE

**CATCHPIT WITH TRAP
(SHEET 2 OF 2)**



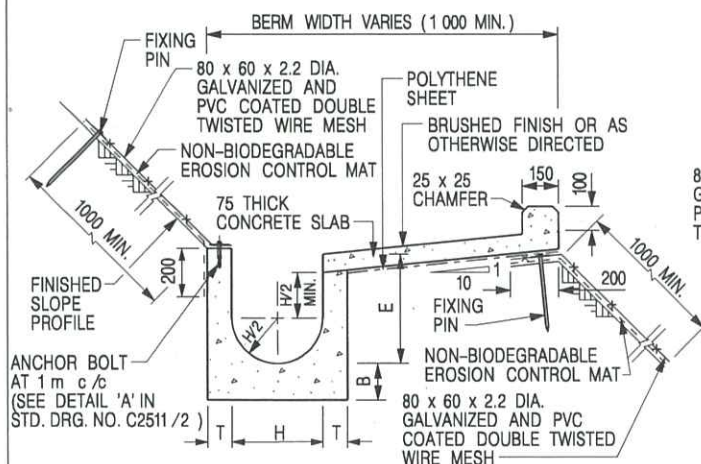
**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

SCALE 1 : 20

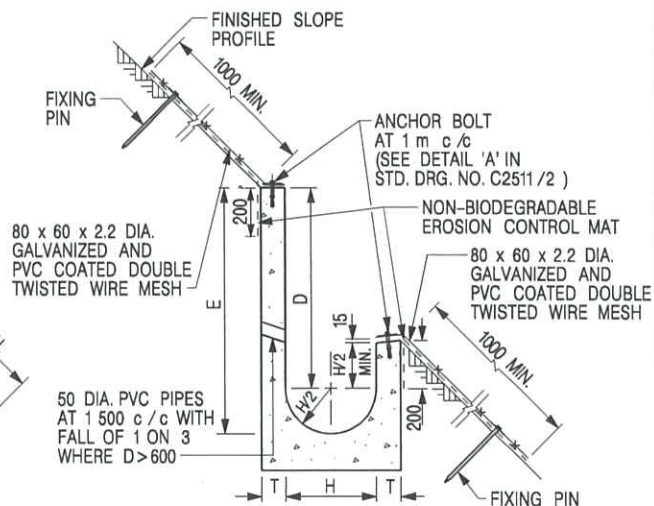
DRAWING NO.

DATE JAN 1991

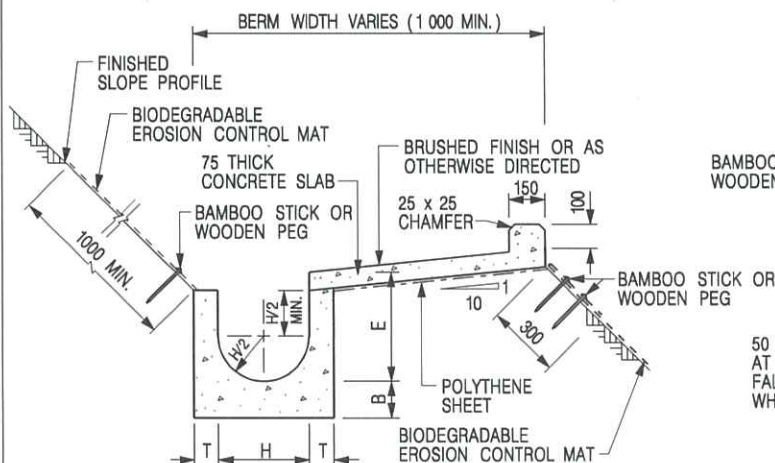
C2406 /2A



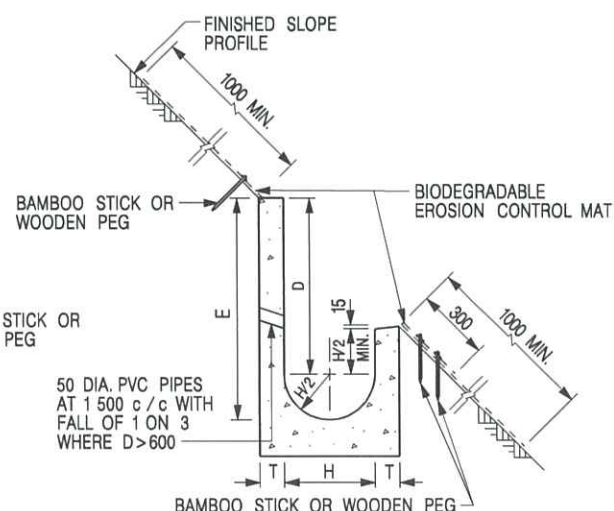
**U-CHANNELS CONSTRUCTED ON BERM
WITH NON-BIODEGRADABLE
EROSION CONTROL MAT**



**U-CHANNELS NOT CONSTRUCTED ON BERM
WITH NON-BIODEGRADABLE
EROSION CONTROL MAT**



**U-CHANNELS CONSTRUCTED ON BERM
WITH BIODEGRADABLE
EROSION CONTROL MAT**



**U-CHANNELS NOT CONSTRUCTED ON BERM
WITH BIODEGRADABLE
EROSION CONTROL MAT**

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES.
- ALL CONCRETE TO BE GRADE 20 /20.
- CONCRETE SURFACE FINISH SHALL BE CLASS U2, F2 OR BRUSHED FINISH AS DIRECTED.
- SPACING OF EXPANSION JOINT IN CHANNELS, BERM SLABS AND APRONS TO BE 10 METRES MAXIMUM, SEE STD. DRG. NO. C2413 FOR DETAILS.
- JOINTS FOR CHANNELS, BERM SLABS, APRONS AND WALLS, ETC. TO BE ON THE SAME ALIGNMENT.
- FOR DIMENSIONS T, H, & B, SEE TABLE BELOW.
- FOR TYPICAL FIXING PIN DETAILS, SEE STD. DRG. NO. C2511/2.
- MINIMUM SIZE OF 25 x 50 x 300mm SHALL BE PROVIDED FOR WOODEN PEG.
- MINIMUM SIZE OF 10mm DIAMETER WITH 200mm LONG SHALL BE PROVIDED FOR BAMBOO STICK.
- THE FIXING DETAILS OF NON-BIODEGRADABLE AND BIODEGRADABLE EROSION CONTROL MATS ON EXISTING BERM SHALL REFER TO STD. DRG. NO. C2511/1.

NOMINAL SIZE H	T	B	REINFORCEMENT
300	80	100	A252 MESH PLACED CENTRALLY AND T=100 WHEN E > 650
375 - 600	100	150	
675 - 900	125	175	A252 MESH PLACED CENTRALLY

REF.	REVISION	SIGNATURE	DATE
I	MINOR AMENDMENT.	Original Signed	07.2018
H	FIXING DETAILS OF BIODEGRADABLE EROSION CONTROL MAT ADDED.	Original Signed	12.2017
G	DIMENSION TABLE AMENDED.	Original Signed	01.2005
F	MINOR AMENDMENT.	Original Signed	01.2004
E	GENERAL REVISION.	Original Signed	12.2002
D	MINOR AMENDMENT.	Original Signed	08.2001
C	150 x 100 UPSTAND ADDED AT BERM.	Original Signed	6.99
B	MINOR AMENDMENT.	Original Signed	3.94
A	MINOR AMENDMENT.	Original Signed	10.92

**DETAILS OF HALF-ROUND AND
U-CHANNELS (TYPE B - WITH
EROSION CONTROL MAT APRON)**



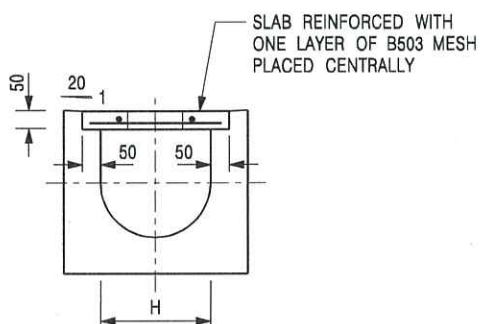
**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

SCALE DIAGRAMMATIC

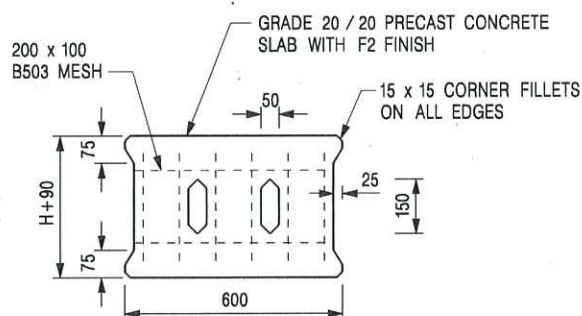
DRAWING NO.

DATE JAN 1991

C24101



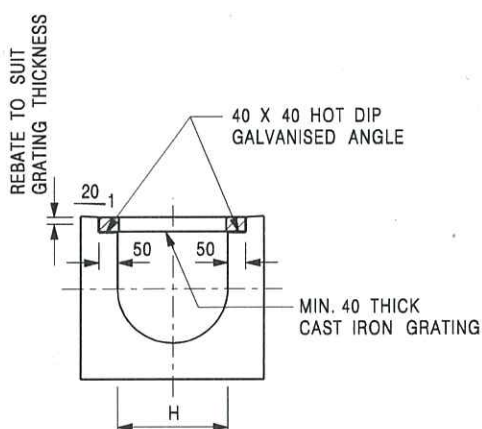
TYPICAL SECTION



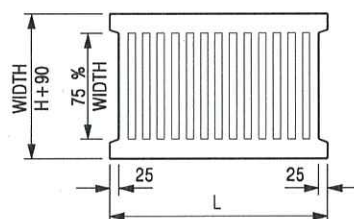
PLAN OF SLAB

U-CHANNELS WITH PRECAST CONCRETE SLABS

(UP TO H OF 525)



TYPICAL SECTION



L = 600mm FOR H ≤ 375mm
L = 400mm FOR H > 375mm

CAST IRON GRATING

(DIMENSIONS ARE FOR GUIDANCE ONLY, CONTRACTOR MAY SUBMIT EQUIVALENT TYPE)

U-CHANNEL WITH CAST IRON GRATING

(UP TO H OF 525)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. H = NOMINAL CHANNEL SIZE.
3. ALL CAST IRON FOR GRATINGS SHALL BE GRADE EN-GJL-150 COMPLYING WITH BS EN 1561.
4. FOR COVERED CHANNELS TO BE HANDED OVER TO HIGHWAYS DEPARTMENT FOR MAINTENANCE, THE GRATING DETAILS SHALL FOLLOW THOSE AS SHOWN ON HyD STD. DRG. NO. H3156.

E	NOTES 3 & 4 AMENDED.	Original Signed	12.2014
D	NOTE 4 ADDED.	Original Signed	06.2008
C	MINOR AMENDMENT. NOTE 3 ADDED.	Original Signed	12.2005
B	NAME OF DEPARTMENT AMENDED.	Original Signed	01.2005
A	CAST IRON GRATING AMENDED.	Original Signed	12.2002
REF.	REVISION	SIGNATURE	DATE

COVER SLAB AND CAST IRON
GRATING FOR CHANNELS



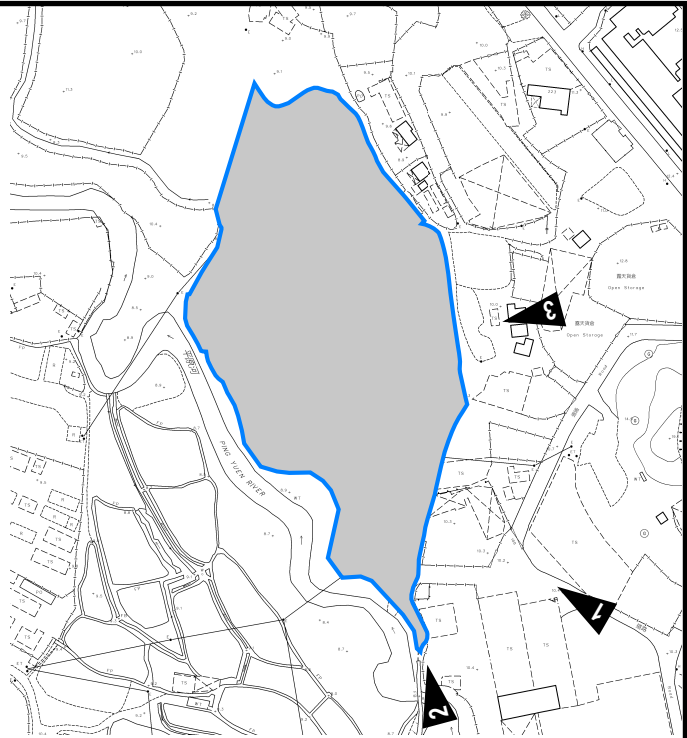
**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

SCALE 1 : 20

DATE JAN 1991

DRAWING NO.

C2412E



PROJECT: PROPOSED TEMPORARY MEDIUM GOODS AND CONTAINER TRACTOR/TRAILER PARK AND WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS	SITE PHOTOS		APPENDIX D		
LOCATION: VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES			VER	DESCRIPTION	DATE