

LIST OF APPENDICES

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Appendix I

Details of the affected business premises

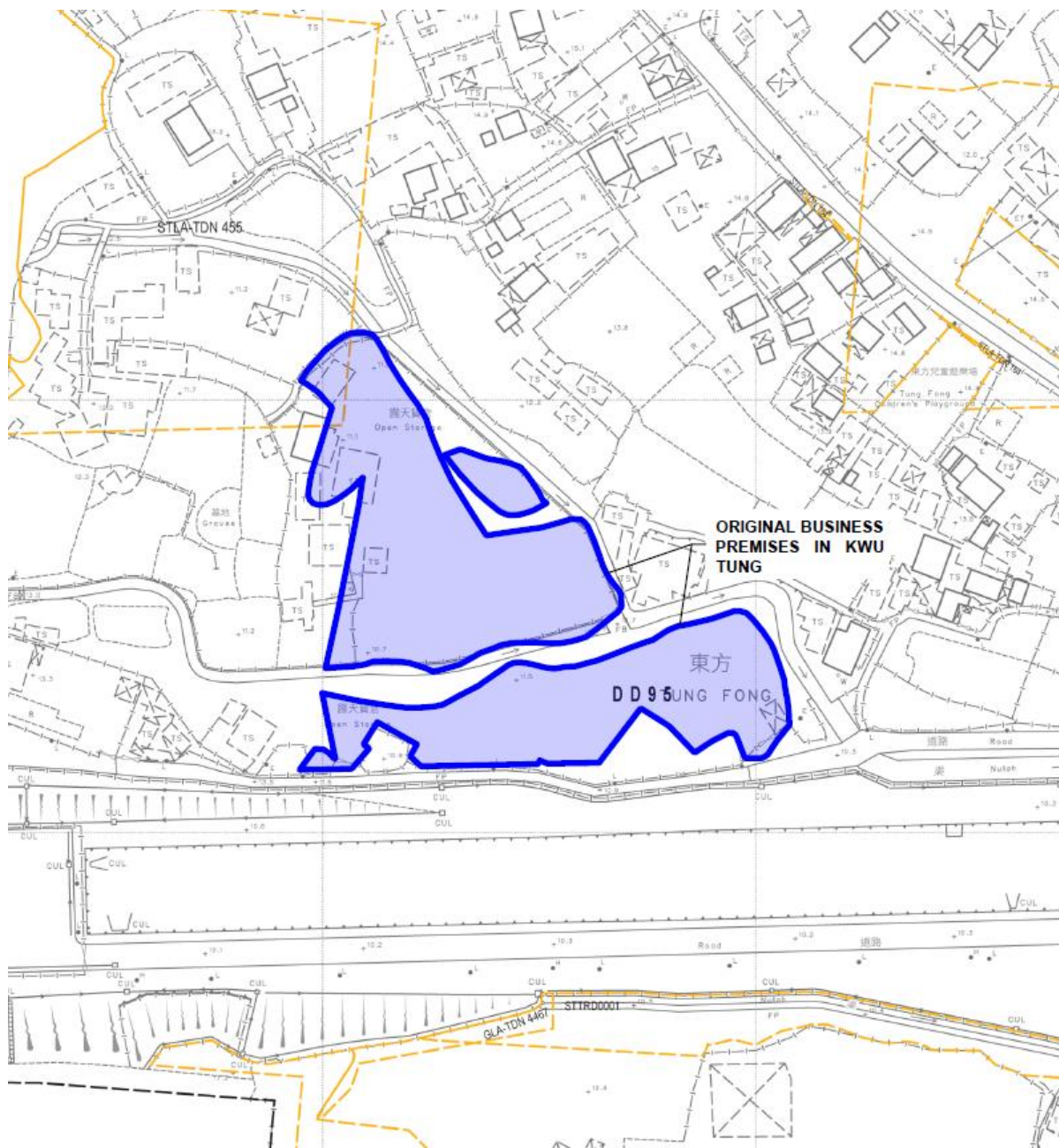
Appendix I – Details of the Affected Business Premises

Company Name: **Ming Lee Foundation Company Limited** 明利基礎工程有限公司

Details of the Affected Business Premises

Location: Various Lots in D.D. 95, Kwu Tung, New Territories
(the private lots were reverted to the Government on 12.04.2024)

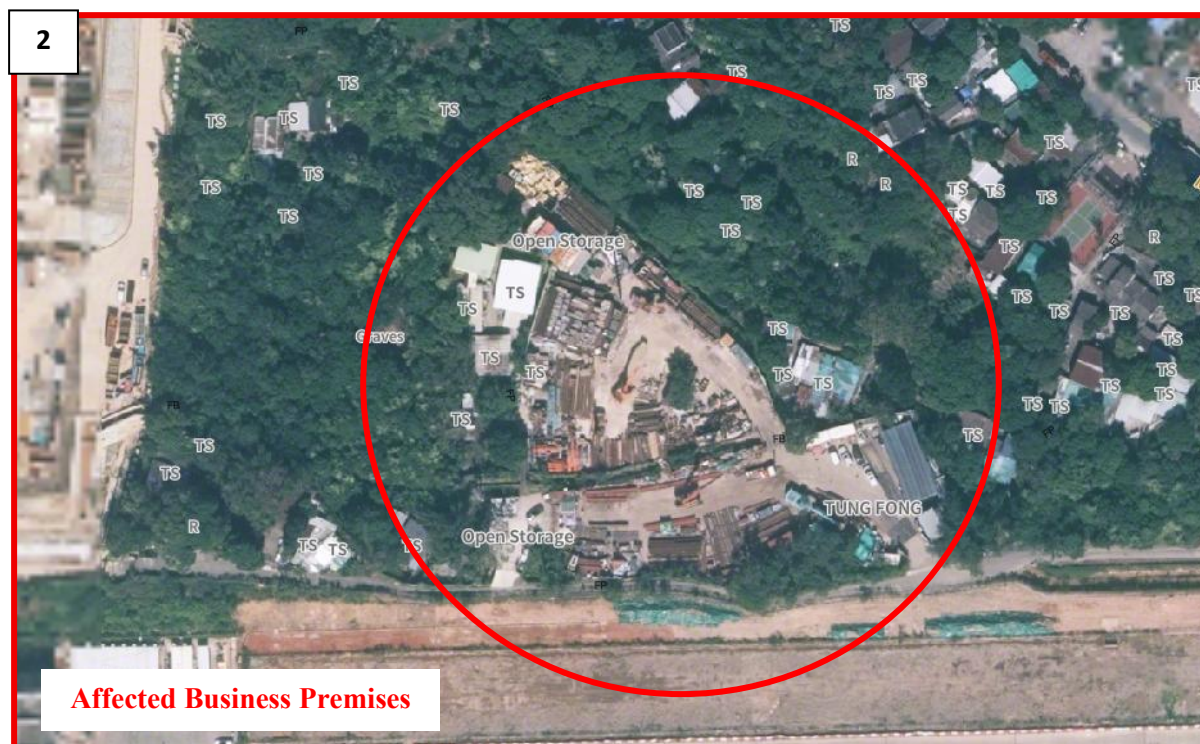
Use of Premises: Open Storage of Construction Materials and Machinery



Site Photo of the Affected Business Premises



Source: GeoInfo Map



Source: GeoInfo Map

Appendix II

Details of alternative sites for relocation

Appendix II – Alternative Sites for the Relocation of the Applicant's Original Premises

Alternative Site / Application Site	Site 1	Site 2	Site 3	Site 4	Site 5	Application Site
Location	Various Lots in D.D. 78, Lin Ma Hang, New Territories	Various Lots in D.D. 9, Kau Lung Hang, Tai Po, New Territories	Various Lots in D.D. 103, Kam Tin, Yuen Long, New Territories	Various Lots in D.D. 129, Lau Fau Shan, Yuen Long, New Territories	Various Lots in D.D. 130, Lam Tei, Tuen Mun, New Territories	Various Lots in D.D. 109 and adjoining GL, Kam Tin, Yuen Long, New Territories
Site Area	24,446 m ² (about)	11,045 m ² (about)	540 m ² (about)	10,740 m ² (about)	7,130 m ² (about)	5,610 m ² (about)
Accessibility	Accessible from Lin Ma Hang Road via a local access	Accessible from Tai Wo Service Road via a local access	Accessible from Kam Tin Road via a local access	Accessible from Deep Bay Road via a local access	Accessible from Fuk Hang Tsuen Road via a local access	Accessible from Kam Tin Bypass via Kong Tai Road
Distance from Original Premises	20.7 km (about)	10.0 km (about)	14.8 km (about)	22.7 km (about)	21.0 km (about)	19.4 km (about)
Outline Zoning Plan	Approved Ta Kwu Ling North OZP No.: S/NE-TKLN/2	Approved Kau Lung Hang OZP No.: S/NE-KLH/11	Approved Kam Tin South OZP No. S/YL-KTS/15	Approved Lau Fau Shan & Tsim Bei Tsui OZP No.: S/YL-LFS/11	Approved Lam Tei and Yick Yuen OZP No. S/TM-LTY/12	Approved Kam Tin North OZP No. S/YL-KTN/11
Zoning	"Recreation" ("REC")	"Green Belt" ("GB")	"AGR"	"GB"	"Comprehensive Development Area"	"AGR"
Existing Condition	Mostly vacant and partially hard-paved	Covered with vegetation and woodland	Vacant and covered with vegetation	Covered with vegetation and woodland	Hard-paved and occupied by temporary structures	Generally flat, partially covered with temporary structures and vegetation
Surrounding Area	Surrounded by vacant land, woodland, public roads, temporary structures and village houses	Surrounded by agricultural activities and vacant land covered with vegetation and woodland	Surrounded by open storage, some GIC uses, woodland and residential structures	Surrounded by tree groups, temporary structures for open storage and residential use	Surrounded by warehouse, workshop, logistic centre and land covered by residential use	Surrounded by vacant land covered with vegetation and temporary structures
Suitability for Relocation	<u>Not suitable</u> for relocation - much larger than the original premises - remote location - not compatible with the surrounding area	<u>Not suitable</u> for relocation - within the "GB" zone - site area is too small for current business - active agricultural activities - not compatible with the surrounding area	<u>Not suitable</u> for relocation: - much smaller than the original premises - in close proximity to residential developments - tree felling is required - not compatible with the surrounding area	<u>Not suitable</u> for relocation: - within the "GB" zone - not compatible with the surrounding area	<u>Not suitable</u> for relocation: - in close vicinity of area for residential use - land ownership issue	<u>Suitable</u> for relocation: - not incompatible with the surrounding area - easily accessible - relatively flat and mostly vacant

Appendix III

Drainage proposal

Proposed Temporary Open Storage of Construction Materials and Machinery with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years in “Agriculture” Zone, Various Lots in D.D. 109, Kam Tin, Yuen Long, N.T.

Drainage Proposal

Oct 2025 r1



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1 Introduction

1.1 Background

- 1.1.1 The applicant seeks planning permission from the Town Planning Board (the Board) under Section (S.) 16 of the Town Planning Ordinance (Cap. 131) to use Various Lots in D.D. 109, Kam Tin, Yuen Long, New Territories (the Site) for 'Proposed Temporary Open Storage of Construction Materials and Machinery with Ancillary Facilities and Associated Filling of Land and Pond 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 situated at the north of Chi Ho Road. It has an area of approx. 6,087 m². The site location is shown in **Figure 1**.
- 1.2.2 The existing site is mostly unpaved. The existing site levels are approx. +6.5 to +7.1 mPD. For formation of circulation space and open storage purpose, minor site formation (not more than 500mm) concrete to be applied at south portion of the site.
- 1.2.3 According to DSD record, there is an existing 15m width trapezoidal channel connected to the site by existing 750mm pipes. **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 6,087 m². The catchment plan is shown in **Figure 4**.

Proposed Development Area (Approx.)	
Total Site Area (m ²)	6,087
Paved Area after Development (m ²)	1,874
Unpaved Area after Development (m ²)	4,213
Assume all 6,087 m ² area to be paved for assessment purpose	

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 50 years return period is adopted for drainage design.

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 HKO Zone. Therefore, for 50 years return period, the following values are adopted.

a	=	505.5
b	=	3.29
c	=	0.355

(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:

$$\text{Manning's Equation: } v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$$

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:

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

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)

4 Proposed Drainage System

4.1. Proposed Channels

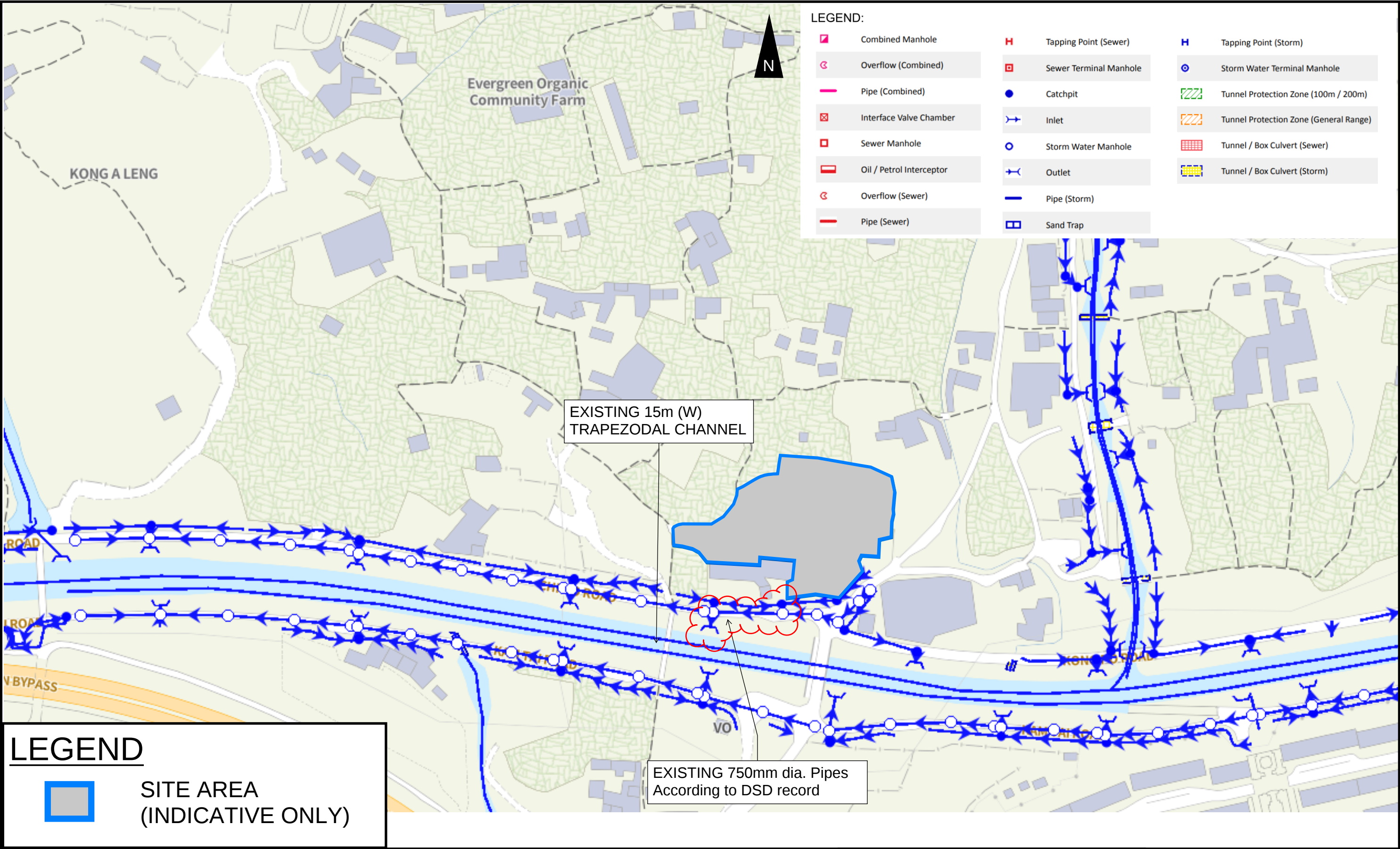
- 4.1.1 Proposed Channels are designed for collection of runoff for internal and external catchment. They are proposed to discharge to existing 15 m trapezoidal channel by existing 750mm pipes in between. The 15 m trapezoidal channel would eventually discharge to Kam Tin River. The utilization of the existing 15 m trapezoidal channel due to the development is about 0.12% according to checking in **Appendix A**.
- 4.1.2 The design calculations of proposed UChannel are shown in **Appendix A**.
- 4.1.3 The alignment, size, gradient and details of the proposed drains are shown in **Figure 3**. The catchment plan is shown in **Figure 4**.
- 4.1.4 Reference Drawings are shown in **Appendix B** for reference.

5 Conclusion

- 4.1.1 Drainage review has been conducted for the Proposed Development. The surface runoff will be collected by the proposed drains and discharged to existing trapezoidal channel and eventually to Kam Tin River.
- 4.1.2 With implementation of the above drainage system, no unacceptable drainage impact is anticipated.

- End of Text -

FIGURES



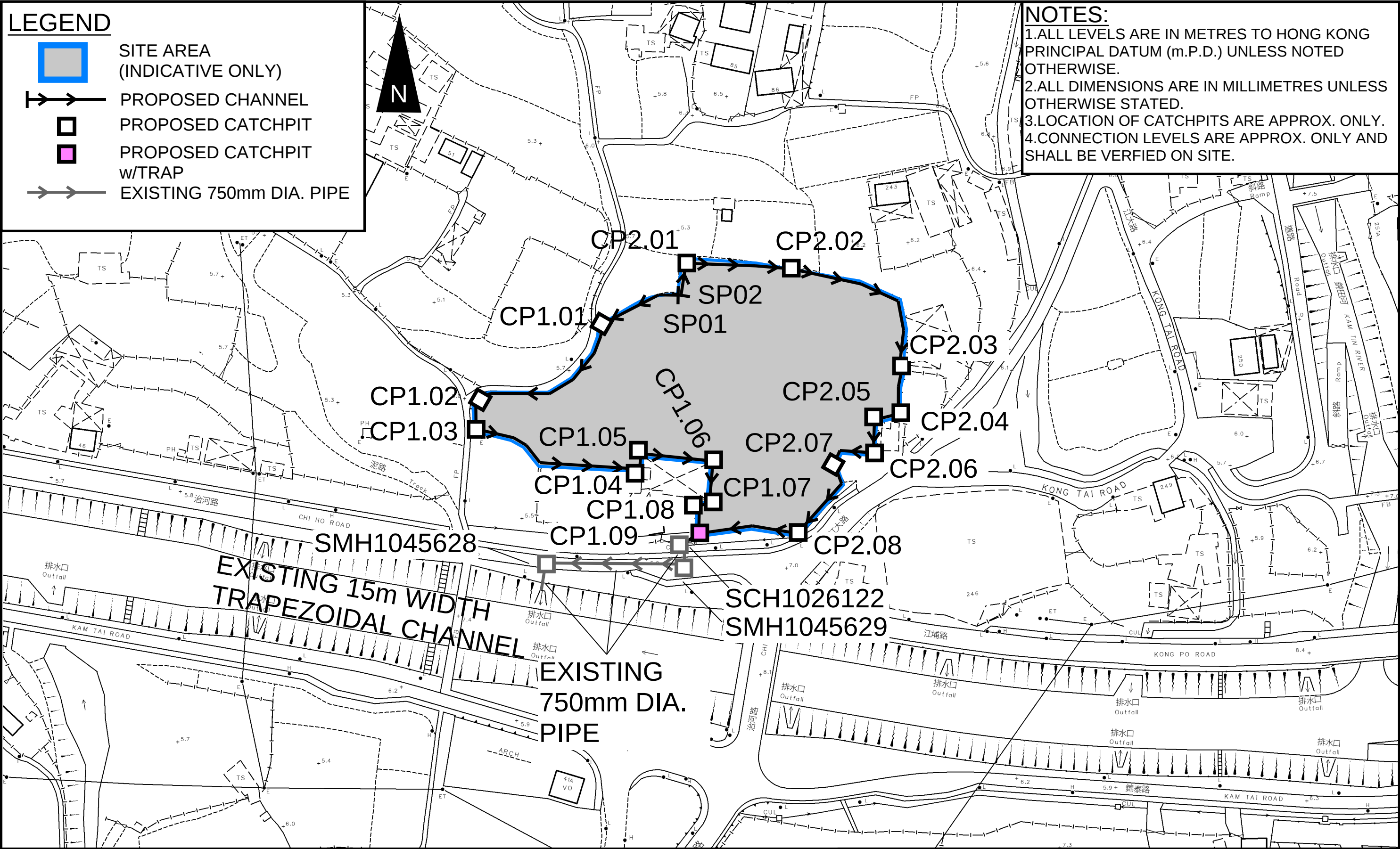
PROJECT:
Proposed Temporary Open Storage of Construction Materials and Machinery with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years in “Agriculture” Zone

TITLE
EXISTING DRAINAGE PLAN

FIGURE NUMBER
FIGURE 2

LOCATION:
Various Lots in D.D. 109, Kam Tin, Yuen Long, N.T.

VER	DESCRIPTION	DATE
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DRAINAGE SCHEDULE

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	6.5	6.5	675	400	UC	5.83	5.76	SP	#SP: Start Point
CP1.01	CP1.02	6.5	6.5	750	400	UC	5.75	5.63	CP	
CP1.02	CP1.03	6.5	6.5	750	400	UC	5.63	5.61	CP	
CP1.03	CP1.04	6.5	6.5	750	400	UC	5.61	5.48	CP	
CP1.04	CP1.05	6.5	6.5	750	400	UC	5.48	5.47	CP	
CP1.05	CP1.06	6.5	6.5	750	400	UC	5.47	5.42	CP	
CP1.06	CP1.07	6.5	7.1	750	200	UC	5.42	5.36	CP	
CP1.07	CP1.08	7.1	7.1	750	200	UC	5.36	5.34	E1	
CP1.08	CP1.09	7.1	7.1	750	200	UC	5.34	5.30	E1	
CP1.09	SCH1026122	7.1	6.5	750	95	UC	5.27	5.22	E1	
SCH1026122	SMH1045629	6.5	6.1	750	95	UC	4.19	4.14	Existing	
SMH1045629	SMH1045628	6.1	6.0	750	95	UC	4.11	3.69	Existing	
SMH1045628	Existing Trapezoidal Channel	6.0	6.0	750	95	UC	3.69	3.60	Existing	
SP02	CP2.01	6.5	6.5	750	400	UC	5.75	5.73	SP	
CP2.01	CP2.02	6.5	6.5	750	400	UC	5.73	5.65	CP	
CP2.02	CP2.03	6.5	6.5	750	400	UC	5.65	5.52	CP	
CP2.03	CP2.04	6.5	6.5	750	400	UC	5.52	5.48	CP	
CP2.04	CP2.05	6.5	6.5	750	400	UC	5.48	5.46	CP	
CP2.05	CP2.06	6.5	6.5	750	400	UC	5.46	5.44	CP	
CP2.06	CP2.07	6.5	7.1	750	400	UC	5.44	5.41	CP	
CP2.07	CP2.08	7.1	7.1	750	400	UC	5.41	5.34	E1	
CP2.08	CP1.09	7.1	7.1	750	400	UC	5.34	5.27	E1	

PROJECT:

Proposed Temporary Open Storage of Construction Materials and Machinery with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years in "Agriculture" Zone

TITLE

DRAINAGE SCHEDULE

FIGURE NUMBER

FIGURE 3-2

LOCATION:

Various Lots in D.D. 109, Kam Tin, Yuen Long, N.T.

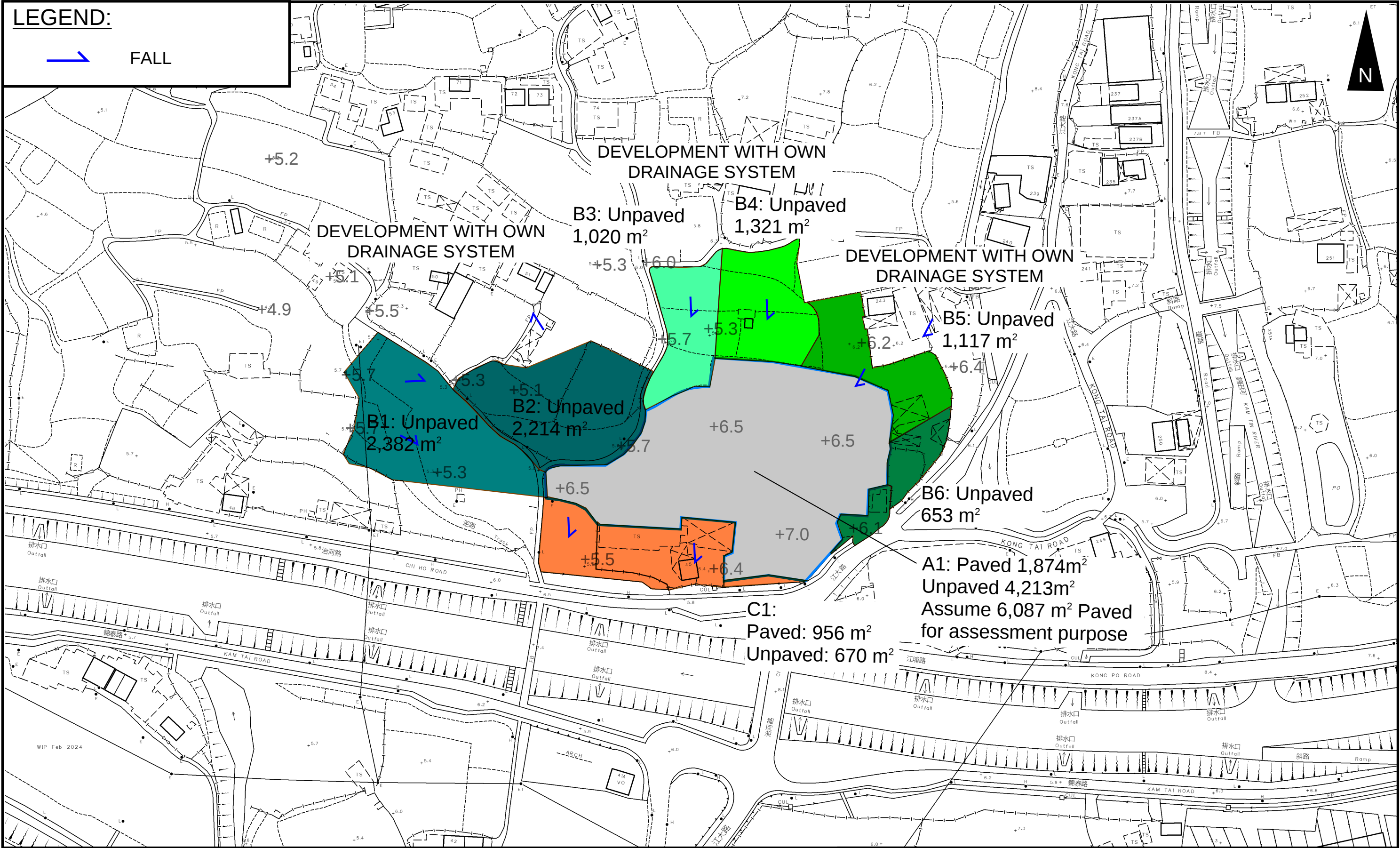
VER

DESCRIPTION

DATE

LEGEND:

FALL



PROJECT:

Proposed Temporary Open Storage of Construction Materials and Machinery with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years in “Agriculture” Zone

TITLE
CATCHMENT PLAN

FIGURE NUMBER
FIGURE 4

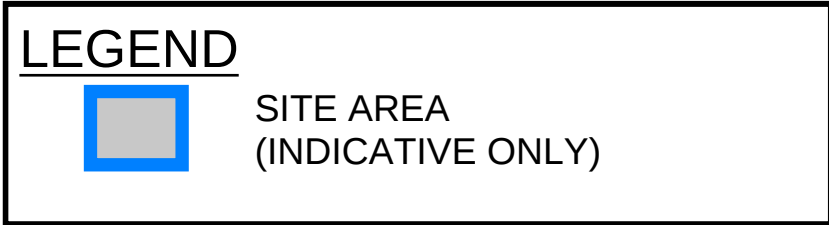
LOCATION:

Various Lots in D.D. 109, Kam Tin, Yuen Long, N.T.

VER	DESCRIPTION	DATE
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LEGEND

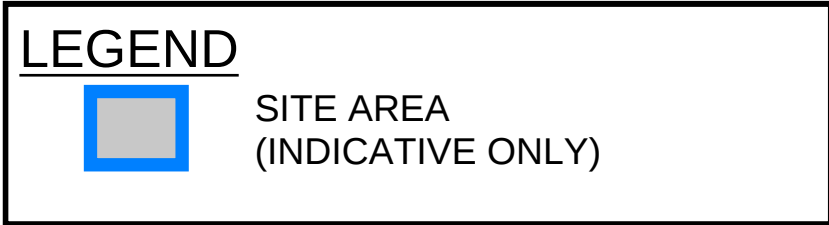
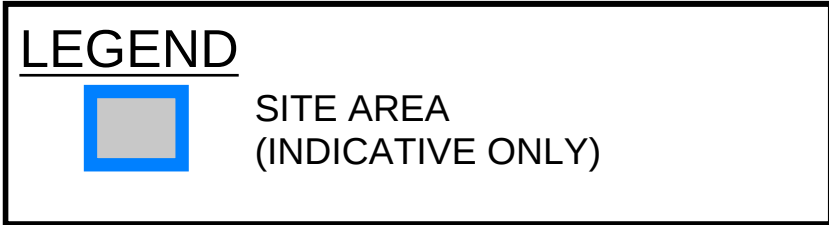
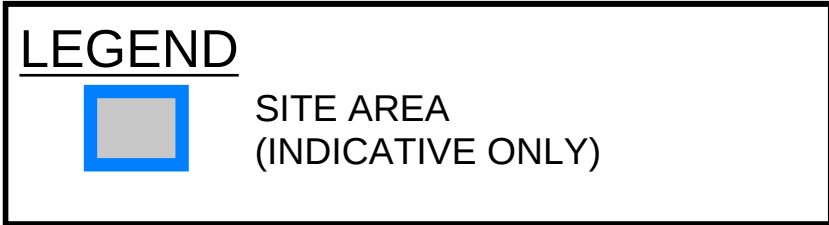
SITE AREA
(INDICATIVE ONLY)



LEGEND



SITE AREA
(INDICATIVE ONLY)



LEGEND



SITE AREA
(INDICATIVE ONLY)

APPENDIX

Appendix A: Design Calculation

Zone	HKO	Return Period	1 in	50	years	n	0.014	Storm Constant	HKO a	505.5
						Ks	0.15		HKO b	3.29
						Viscosity	0.000001		HKO c	0.355

Catchment Area Table (Area in m²)

Catchment	A1	B1	B2	B3	B4	B5	B6	C1										
Total Area	6087	2382	2214	1020	1321	1117	653	1626										
Hard Paved Area	6087	0	0	0	0	0	0	956										
Unpaved Area	0	2382	2214	1020	1321	1117	653	670										
Equival. Area	5782.65	833.7	774.9	357	462.35	390.95	228.55	1142.7										

Pavement Type	Hard Paved	Unpaved
Runoff Coefficient	0.95	0.35

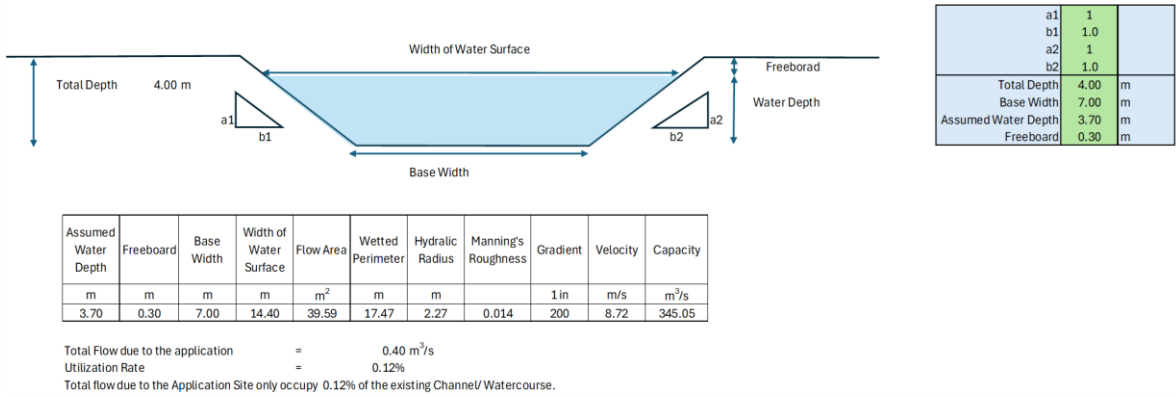
Calculation Table of Drainage System

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	6.50	6.50	675	400	UC	5.83	5.76	SP	24.4	1.36	0.55	A1,B3	6139.65	4.40	272	0.46	84.1%	
CP1.01	CP1.02	6.50	6.50	750	400	UC	5.75	5.63	CP	47.7	1.46	0.73	A1,B2,B3	6914.55	4.70	269	0.52	70.6%	
CP1.02	CP1.03	6.50	6.50	750	400	UC	5.63	5.61	CP	9.2	1.46	0.73	A1,B1,B2,B3	7748.25	5.25	262	0.57	77.3%	
CP1.03	CP1.04	6.50	6.50	750	400	UC	5.61	5.48	CP	51.1	1.46	0.73	A1,B1,B2,B3	7748.25	5.35	261	0.56	76.9%	
CP1.04	CP1.05	6.50	6.50	750	400	UC	5.48	5.47	CP	4.5	1.46	0.73	A1,B1,B2,B3	7748.25	5.94	255	0.55	75.2%	
CP1.05	CP1.06	6.50	6.50	750	400	UC	5.47	5.42	CP	21.1	1.46	0.73	A1,B1,B2,B3	7748.25	5.99	255	0.55	75.0%	
CP1.06	CP1.07	6.50	7.10	750	200	UC	5.42	5.36	CP	12	2.06	1.03	A1,B1,B2,B3	7748.25	6.23	252	0.54	52.6%	
CP1.07	CP1.08	7.10	7.10	750	200	UC	5.36	5.34	E1	3.2	2.06	1.03	A1,B1,B2,B3	7748.25	6.33	251	0.54	52.4%	
CP1.08	CP1.09	7.10	7.10	750	200	UC	5.34	5.30	E1	7.8	2.06	1.03	A1,B1,B2,B3	7748.25	6.35	251	0.54	52.3%	
CP1.09	SCH1026122	7.10	6.50	750	95	UC	5.27	5.22	E1	5.1	2.99	1.50	A1,B1,B2,B3,B4,B5,B6,C1	9972.80	6.60	249	0.69	46.0%	
SCH1026122	SMH1045629	6.50	6.08	750	95	UC	4.19	4.14	Existing	5	2.99	1.50	A1,B1,B2,B3,B4,B5,B6,C1	9972.80	6.63	249	0.69	45.9%	Existing
SMH1045629	SMH1045628	6.08	5.96	750	95	UC	4.11	3.69	Existing	40	2.99	1.50	A1,B1,B2,B3,B4,B5,B6,C1	9972.80	6.66	248	0.69	45.9%	Existing
SMH1045628	Existing Trapezoidal Channel	5.96	5.96	750	95	UC	3.69	3.60	Existing	8	2.99	1.50	A1,B1,B2,B3,B4,B5,B6,C1	9972.80	6.88	247	0.68	45.5%	Existing
SP02	CP2.01	6.50	6.50	750	400	UC	5.75	5.73	SP	9.5	1.46	0.73	A1,B3	6139.65	4.40	272	0.46	63.5%	
CP2.01	CP2.02	6.50	6.50	750	400	UC	5.73	5.65	CP	30.6	1.46	0.73	A1,B3,B4	6602.00	4.51	271	0.50	68.0%	
CP2.02	CP2.03	6.50	6.50	750	400	UC	5.65	5.52	CP	52.5	1.46	0.73	A1,B3,B4,B5	6992.95	4.86	267	0.52	70.9%	
CP2.03	CP2.04	6.50	6.50	750	400	UC	5.52	5.48	CP	14.5	1.46	0.73	A1,B3,B4,B5,B6	7221.50	5.46	260	0.52	71.4%	
CP2.04	CP2.05	6.50	6.50	750	400	UC	5.48	5.46	CP	7.2	1.46	0.73	A1,B3,B4,B5,B6	7221.50	5.63	258	0.52	70.9%	
CP2.05	CP2.06	6.50	6.50	750	400	UC	5.46	5.44	CP	9.6	1.46	0.73	A1,B3,B4,B5,B6	7221.50	5.71	257	0.52	70.7%	
CP2.06	CP2.07	6.50	7.10	750	400	UC	5.44	5.41	CP	14	1.46	0.73	A1,B3,B4,B5,B6	7221.50	5.82	256	0.51	70.4%	
CP2.07	CP2.08	7.10	7.10	750	400	UC	5.41	5.34	E1	25.6	1.46	0.73	A1,B3,B4,B5,B6	7221.50	5.98	255	0.51	69.9%	
CP2.08	CP1.09	7.10	7.10	750	400	UC	5.34	5.27	E1	28.7	1.46	0.73	A1,B3,B4,B5,B6	7221.50	6.27	252	0.51	69.2%	

Flow From Proposed Development

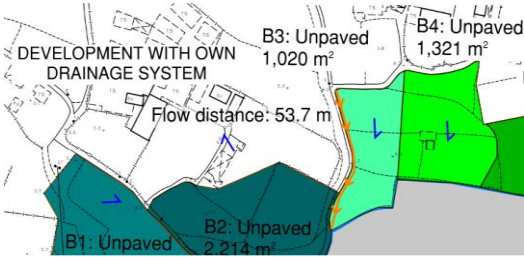
#SP: Start Point
: With 11.1% rainfall increase as per Table 28 of SDM Corrigendum No. 1/2022.

Capacity Checking of existing 15m (W) Trapezoidal Channel for flow from Proposed Development Area



Time of Concentration Checking

Catchment	Flow Distance	Highest Level	Lowest Level	Gradient (per 100m) = (H1-H2)/L x 100	to (min) = 0.14465L/ (H ^{1.48} A ^{0.1})	tc = to + tf
A	L	H1	H2			
(m2)	(m)	(mPD)	(mPD)		(min)	(min)
1020	53.7	6	5.7	0.559	4.4	4.4

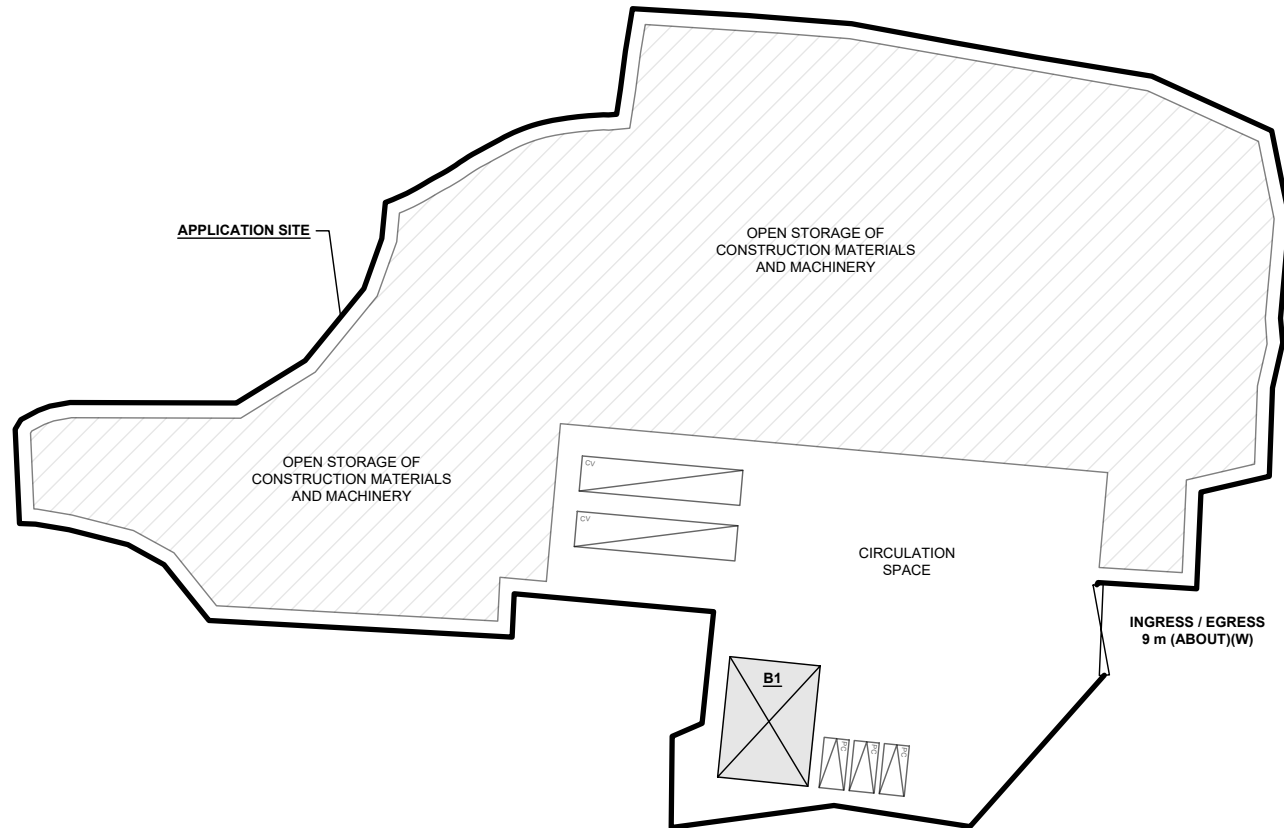
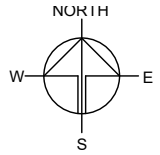


APPENDIX B - PROPOSED SITE LAYOUT PLAN

DEVELOPMENT PARAMETERS

APPLICATION SITE AREA	: 6,087 m ²	(ABOUT)
COVERED AREA	: 108 m ²	(ABOUT)
UNCOVERED AREA	: 5,979 m ²	(ABOUT)
PLOT RATIO	: 0.02	(ABOUT)
SITE COVERAGE	: 2%	(ABOUT)
NO. OF STRUCTURE	: 1	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 108 m ²	(ABOUT)
TOTAL GFA	: 108 m ²	(ABOUT)
BUILDING HEIGHT	: 4 m	(ABOUT)
NO. OF STOREY	: 1	
OPEN STORAGE AREA	: 4,069 m ²	(ABOUT)
STACKING HEIGHT	: NOT MORE THAN 3 m	

STRUCTURE	USE	COVERED AREA	GROSS FLOOR AREA	BUILDING HEIGHT
B1	SITE OFFICE AND WASHROOM	108 m ² (ABOUT)	108 m ² (ABOUT)	4 m (ABOUT)(1-STOREY)
TOTAL		108 m ² (ABOUT)	108 m ² (ABOUT)	



PARKING PROVISIONS

NO. OF PRIVATE CAR PARKING SPACE	: 3
DIMENSION OF PARKING SPACE	: 5 m (L) x 2.5 m (W)

LOADING / UNLOADING (L/UL) PROVISIONS

NO. OF L/UL SPACE FOR CONTAINER VEHICLE	: 2
DIMENSION OF L/UL SPACE	: 16 m (L) x 3.5 m (W)

LEGEND

	APPLICATION SITE
	STRUCTURE
	OPEN STORAGE AREA
	PARKING SPACE (PC)
	L/UL SPACE (CV)
	INGRESS / EGRESS

*SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY.

PLANNING CONSULTANT



PROJECT

PROPOSED TEMPORARY OPEN STORAGE OF CONSTRUCTION MATERIALS AND MACHINERY WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND AND POND FOR A PERIOD OF 3 YEARS

SITE LOCATION

VARIOUS LOTS IN D.D. 109 AND ADJOINING GOVERNMENT LAND, KAM TIN, YUEN LONG, NEW TERRITORIES

SCALE

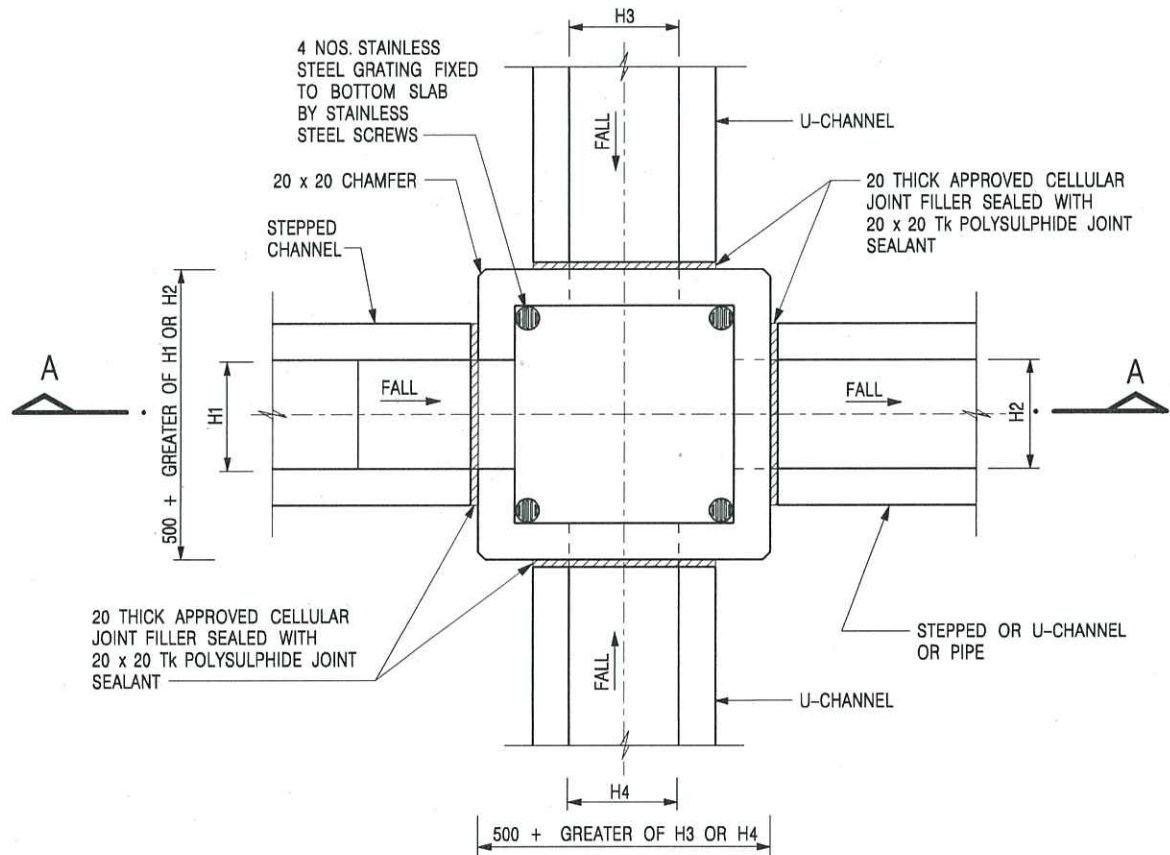
1 : 750 @ A4

DRAWN BY	DATE
MN	2.10.2025
REVISED BY	DATE
APPROVED BY	DATE

DWG. TITLE
LAYOUT PLAN

DWG NO. PLAN 9	VER. 001
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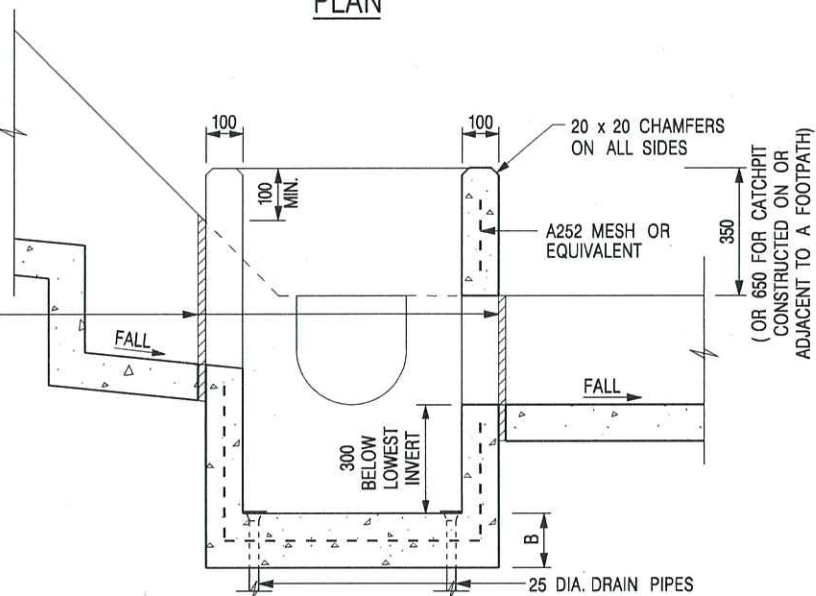
Appendix C - Reference Drawings



PLAN

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

20 THICK APPROVED CELLULAR JOINT FILLER SEALED WITH 20 x 20 Tk POLYSULPHIDE JOINT SEALANT



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



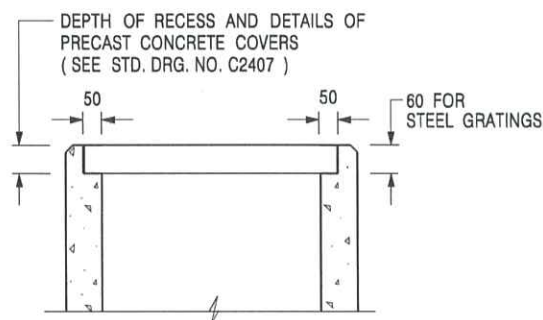
CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT

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)**



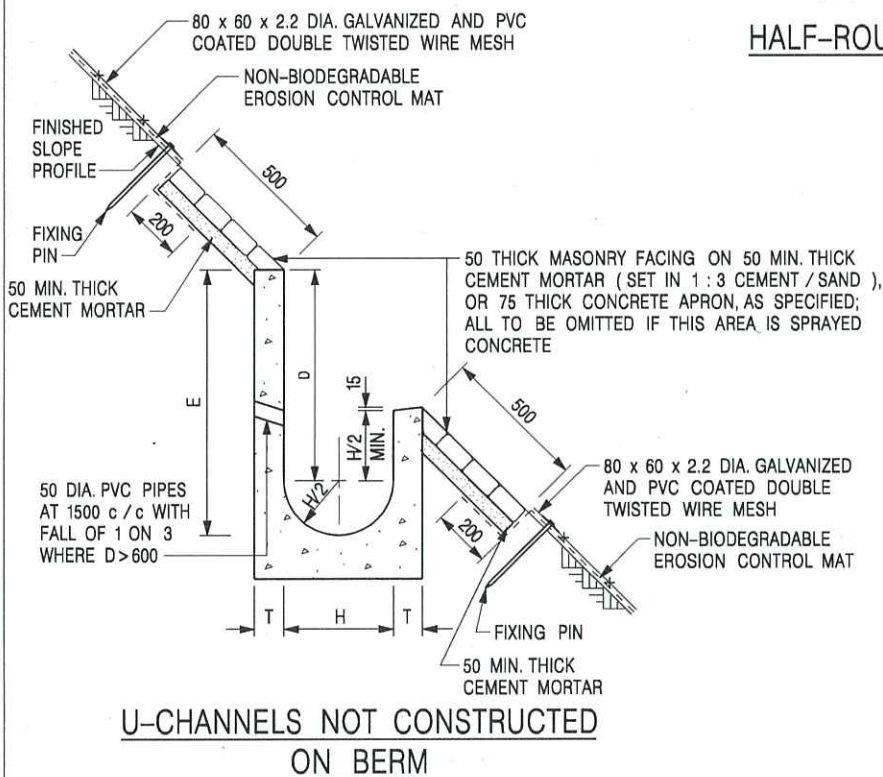
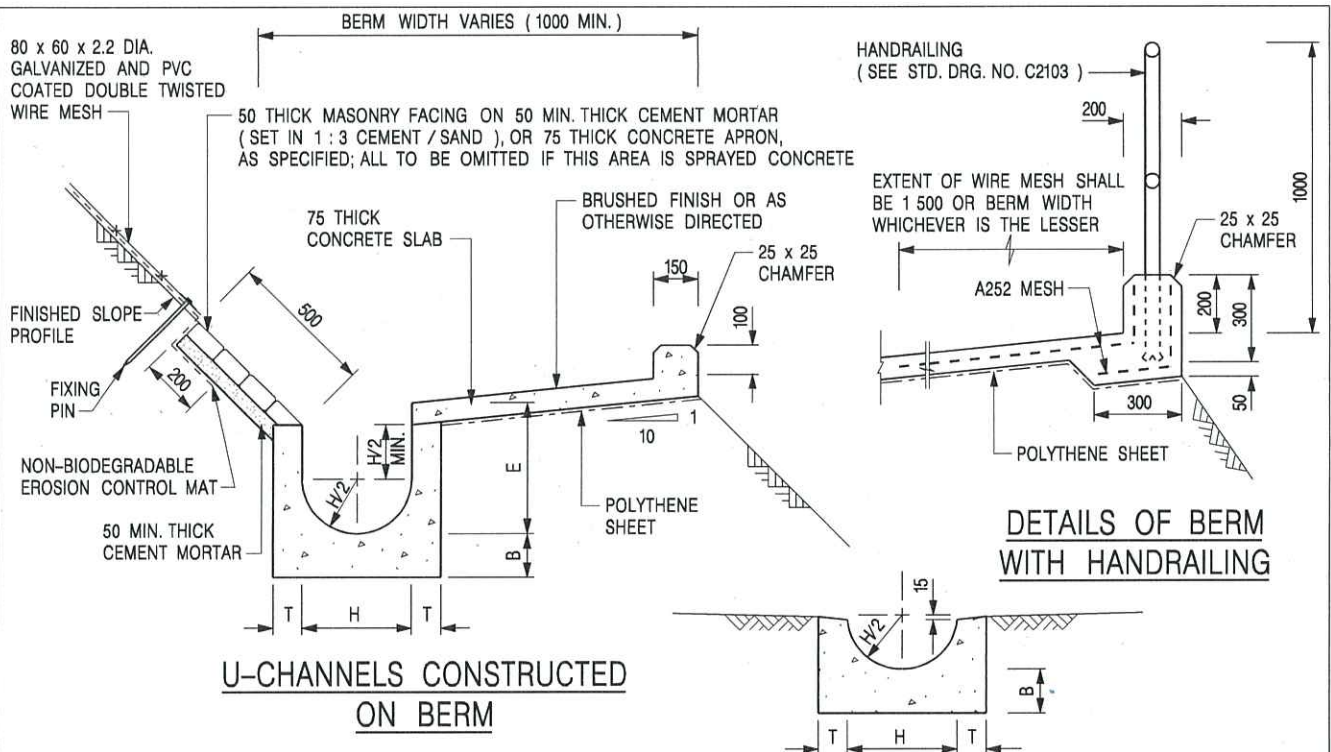
**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

SCALE 1 : 20

DRAWING NO.

DATE JAN 1991

C2406 /2A



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CONCRETE TO BE GRADE 20 / 20.
3. CONCRETE SURFACE FINISH SHALL BE CLASS U2, F2 OR BRUSHED FINISH AS DIRECTED.
4. SPACING OF EXPANSION JOINT IN CHANNELS, BERM SLABS AND APRONS TO BE 10 METRES MAXIMUM, SEE STD. DRG. NO. C2413 FOR DETAILS.
5. JOINTS FOR CHANNELS, BERM SLABS, APRONS AND WALLS, ETC. TO BE ON THE SAME ALIGNMENT.
6. FOR DIMENSIONS T, H, & B, SEE TABLE BELOW.
7. BIODEGRADABLE EROSION CONTROL MAT IF REQUIRED, SEE STD. DRG. NO. C2511/E.
8. CONCRETE TO BE COLOURED AS SPECIFIED.
9. CONCRETE U-CHANNEL CAN BE CAST IN-SITU OR PRECAST CONCRETE SUBJECT TO THE ENGINEER'S AGREEMENT ON THE DETAILS.
10. DETAILS OF EROSION CONTROL MAT AND WESH MESH ON BERM. (SEE STD DRG. NO. C2511/E)

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

I	MINOR AMENDMENT.	Original Signed	07.2018
H	THICKNESS OF MASONRY FACING AMENDED.	Original Signed	01.2005
G	MINOR AMENDMENT.	Original Signed	01.2004
F	GENERAL REVISION.	Original Signed	12.2002
E	DRAWING TITLE AMENDED.	Original Signed	11.2001
D	MINOR AMENDMENT.	Original Signed	08.2001
C	150 x 100 UPSTAND ADDED AT BERM.	Original Signed	6.99
B	MINOR AMENDMENTS.	Original Signed	3.94
REF.	REVISION	SIGNATURE	DATE

DETAILS OF HALF-ROUND AND U-CHANNELS (TYPE A - WITH MASONRY APRON)



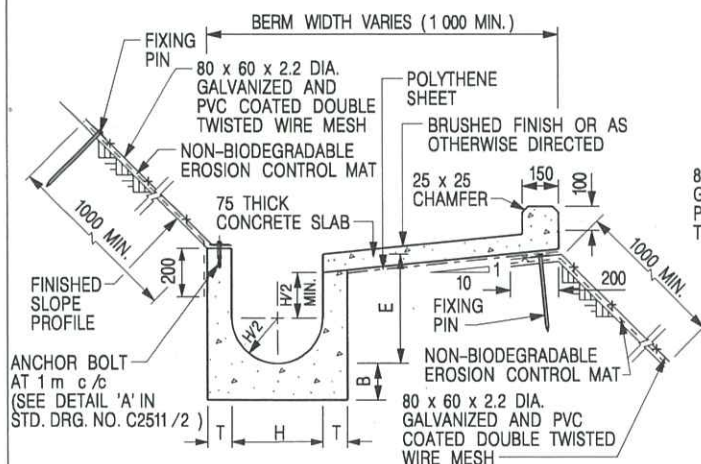
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 25

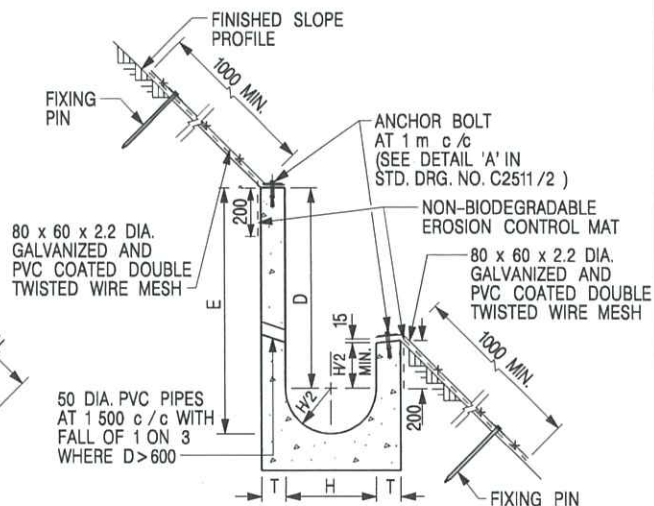
DRAWING NO.

DATE JAN 1991

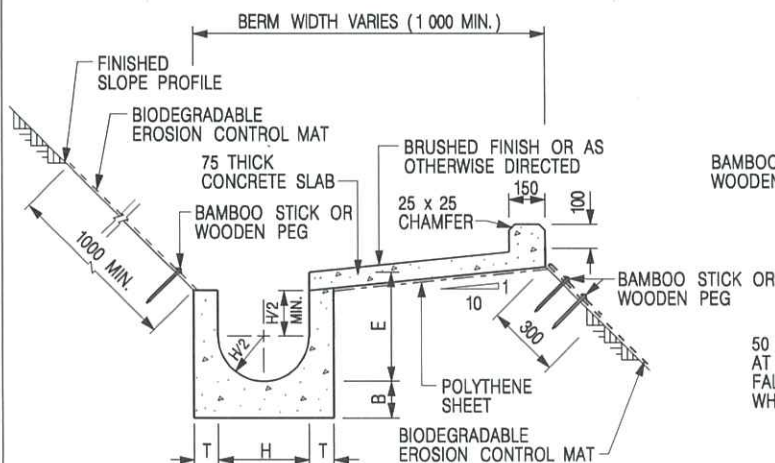
C2409I



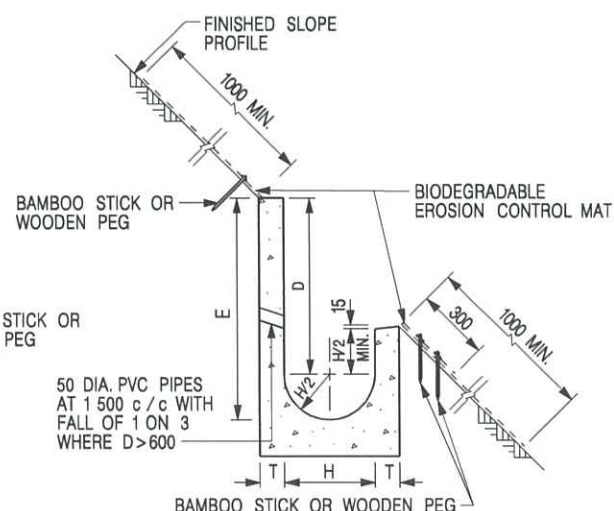
**U-CHANNELS CONSTRUCTED ON BERM
WITH NON-BIODEGRADABLE
EROSION CONTROL MAT**



**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)**



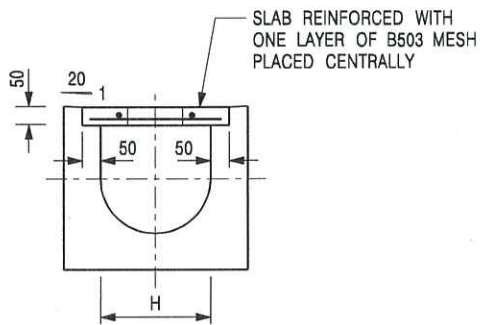
**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

SCALE DIAGRAMMATIC

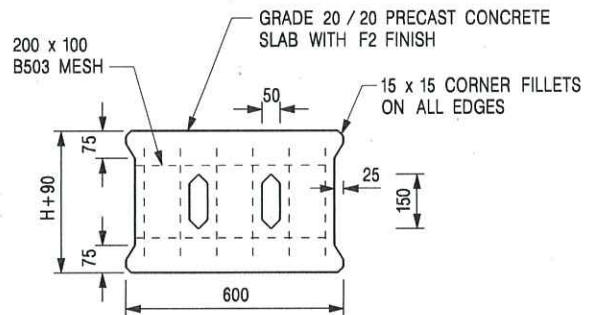
DRAWING NO.

DATE JAN 1991

C24101



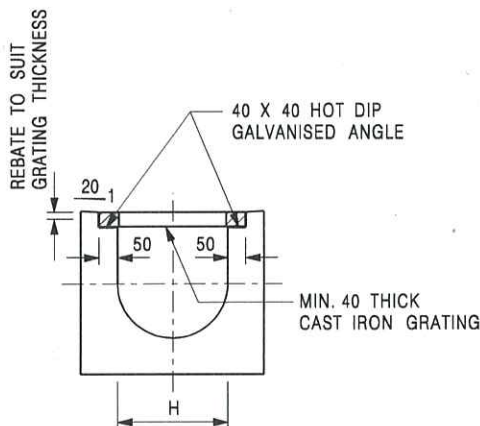
TYPICAL SECTION



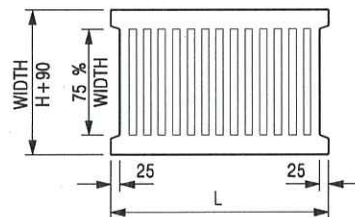
PLAN OF SLAB

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



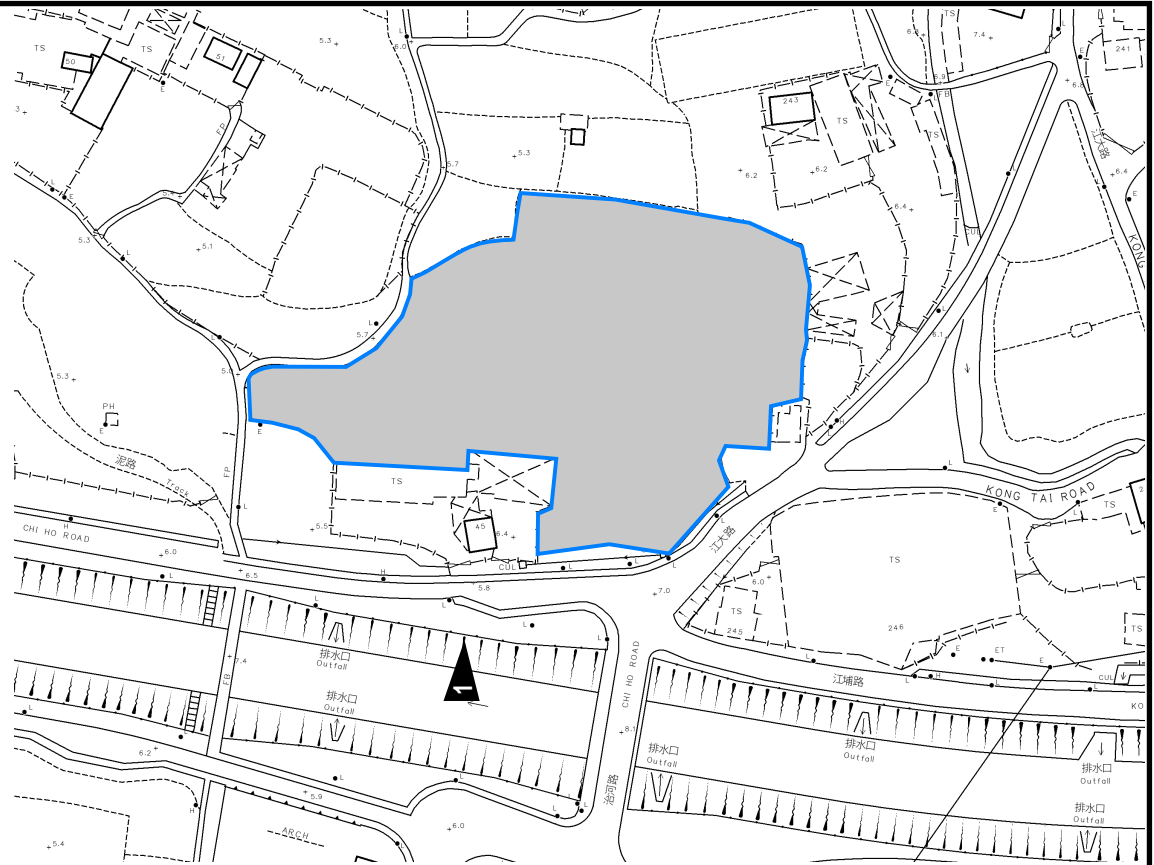
**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

SCALE 1 : 20

DATE JAN 1991

DRAWING NO.

C2412E



PROJECT:
Proposed Temporary Open Storage of Construction Materials and Machinery with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years in “Agriculture” Zone

SITE PHOTO

APPENDIX D

LOCATION:
Various Lots in D.D. 109, Kam Tin, Yuen Long, N.T.

VER	DESCRIPTION	DATE
-----	-------------	------

Appendix IV

Tree survey

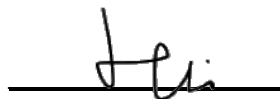
Tree Survey Report

Date of Survey: 22nd August 2025

Location:

**Various Lots In D.D. 109 And Adjoining Government Land,
Kam Tin, Yuen Long, New Territories**

Prepared by:



Mak Ka Hei

Registered Arborist

Date: 16th October 2025

Table of contents

1. Introduction	3
2. Summary of Existing Trees	4

Appendix:

- I. Tree Survey Plan
- II. Tree Survey Schedule
- III. Photo Records

Disclaimer:

The tree survey conducted indicates the condition of the surveyed trees at the time of inspection only. The assessments of amenity value, form, health and structural condition of the trees surveyed are based on visual inspection from the ground only. No aerial inspection, root digging or mapping, or diagnostic testing has been conducted as part of this survey. Wing Ho Yuen Landscaping Company Limited cannot accept responsibility for future failure or defects detected after the time of inspection of the trees surveyed in this report.

1. Introduction

The survey conducted is to record all the existing trees in the tree survey boundary. The survey include tree species identification, tree tagging with durable labels, the measurements of overall tree height, Diameter at Breast Height (DBH), average crown spread, the evaluation on amenity value, form, health and structural conditions.

The tree survey was conducted on 22nd August 2025. Plants with DBH less than 95mm were not recorded in the survey.

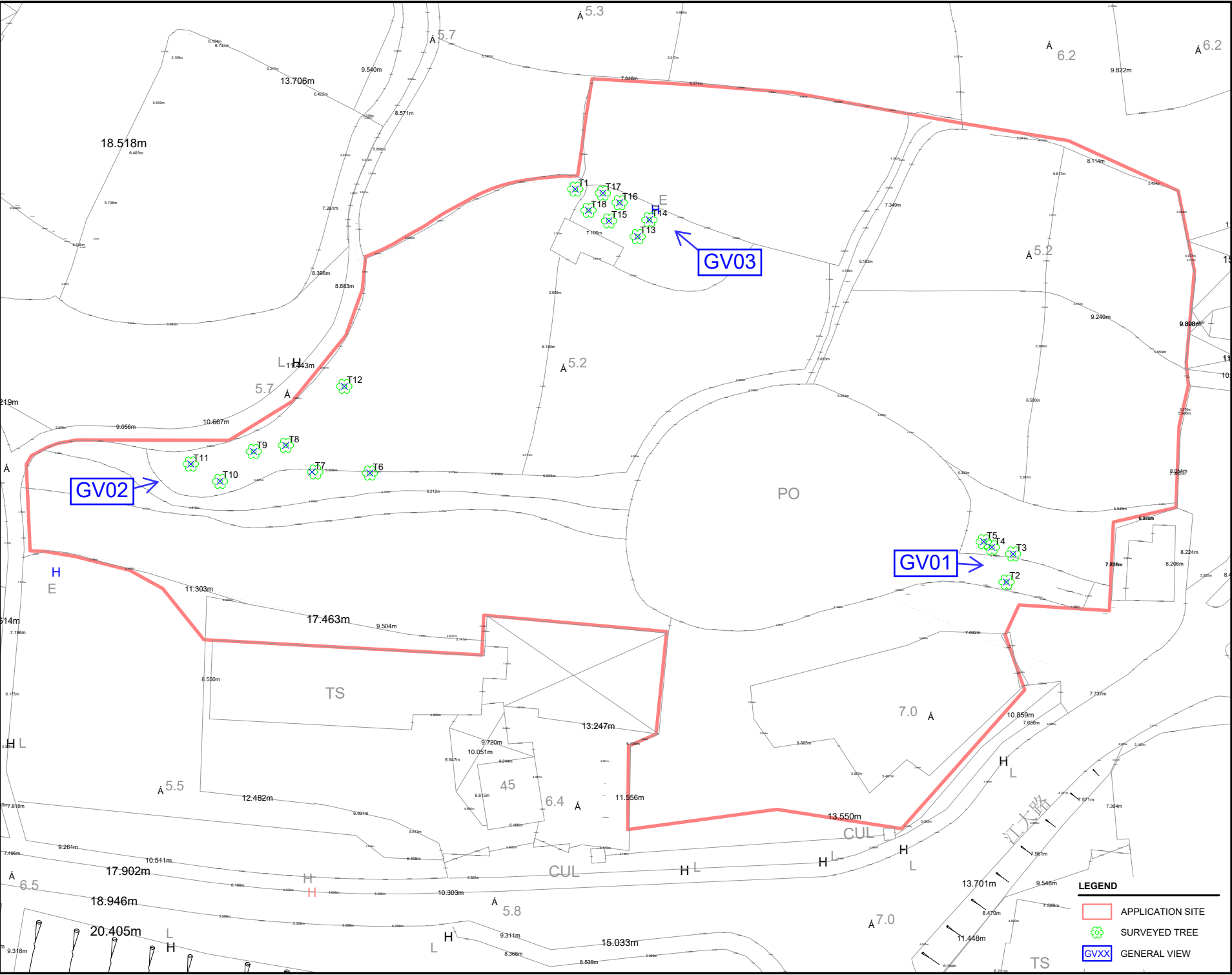
2. Summary of Existing Trees

The surveyed site is located at Various Lots In D.D. 109 And Adjoining Government Land, Kam Tin, Yuen Long, New Territories.

At the time of inspection on 22nd August 2025, **18 nos.** trees were found within the Site. **1 no.** dead tree (**T8**) was recorded in the surveyed area. Location of individual tree refers to Appendix I.

Details of tree conditions and photo records for individual tree are recorded in the Appendix II and Appendix III respectively.

Appendix I – Tree Survey Plan



PLANNING CONSULTANT

PROJECT

PROPOSED TEMPORARY OPEN STORAGE OF CONSTRUCTION MATERIALS AND MACHINERY WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND AND POND FOR A PERIOD OF 3 YEARS

SITE LOCATION

VARIOUS LOTS IN D.D. 109 AND ADJOINING GOVERNMENT LAND, KAM TIN, YUEN LONG, NEW TERRITORIES

SCALE

NOT ON SCALE

DRAWN BY	DATE
KYU	16.10.2025
REVISED BY	DATE
APPROVED BY	DATE

DWG. TITLE

TREE SURVEY PLAN

DWG NO.	VER.
TSP01	0

Appendix II –Tree Survey Schedule

Tree Survey Schedule

Location: Various Lots In D.D. 109 And Adjoining Government Land, Kam Tin, Yuen Long, New Territories
 Tree surveyor(s): Mak Ka Hei
 Field Survey was conducted on: 22 August 2025



Tree No.	Tree Species		Tree Size Measurements			Amenity Value	Form	Health Condition	Structural Condition	Suitability for Transplanting	Remarks
	Botanical Name	Chinese Name	Overall Height (m)	DBH (mm)	Average Crown Spread (m)	High /Med /Low	Good /Fair /Poor	Good /Fair /Poor /Dead	Good /Fair /Poor	High /Med /Low	
T1	<i>Litchi chinensis</i>	荔枝	6.0	140	5.0	Med	Fair	Fair	Fair	Low	multi-trunks, wound on trunk
T2	<i>Ficus microcarpa</i>	細葉榕	11.0	470	15.0	Low	Fair	Fair	Fair	Low	co-dominant trunks
T3	<i>Ficus microcarpa</i>	細葉榕	10.0	440	11.0	Low	Fair	Poor	Fair	Low	epicormics at trunk
T4	<i>Bombax ceiba</i>	木棉	16.0	300	9.0	Low	Poor	Fair	Fair	Low	
T5	<i>Ficus microcarpa</i>	細葉榕	10.0	410	9.0	Low	Fair	Fair	Poor	Low	broken trunk
T6	<i>Litchi chinensis</i>	荔枝	7.0	210	6.0	Med	Fair	Fair	Poor	Low	co-dominant trunks, dead stub, dead trunk
T7	<i>Litchi chinensis</i>	荔枝	4.0	230	6.0	Med	Fair	Fair	Poor	Low	multi-trunks, dead trunk
T8	Dead tree	死樹	3.0	480	4.0	-	-	Dead	-	-	dead tree
T9	<i>Litchi chinensis</i>	荔枝	2.0	220	5.0	Med	Fair	Fair	Poor	Low	multi-trunks
T10	<i>Litchi chinensis</i>	荔枝	3.0	230	6.0	Med	Fair	Fair	Poor	Low	multi-trunks
T11	<i>Litchi chinensis</i>	荔枝	2.0	250	4.0	Med	Fair	Fair	Poor	Low	multi-trunks
T12	<i>Litchi chinensis</i>	荔枝	3.0	230	4.0	Low	Poor	Poor	Poor	Low	broken trunk
T13	<i>Litchi chinensis</i>	荔枝	5.0	240	7.0	Med	Poor	Poor	Poor	Low	broken trunk, crooked trunk, multi-trunks
T14	<i>Litchi chinensis</i>	荔枝	5.0	230	4.0	Med	Poor	Poor	Poor	Low	dieback, multi-trunks
T15	<i>Litchi chinensis</i>	荔枝	6.0	220	6.5	Med	Fair	Fair	Poor	Low	multi-trunks, trunk conflict with structure
T16	<i>Litchi chinensis</i>	荔枝	5.0	180	5.0	Med	Fair	Fair	Poor	Low	multi-trunks
T17	<i>Litchi chinensis</i>	荔枝	6.0	160	5.0	Med	Fair	Fair	Fair	Low	
T18	<i>Litchi chinensis</i>	荔枝	5.0	210	4.0	Med	Fair	Fair	Poor	Low	multi-trunks, dead branch, trunk conflict with structure

Notes: Amenity Value, Form, Health Condition and Structural Condition of trees were obtained by Visual Assessment Only.

Appendix III – Photo Records

General View



General view 01



General view 02

General View



General view 03

Photo Records



T1 (Overview)



T1 Multi-trunks

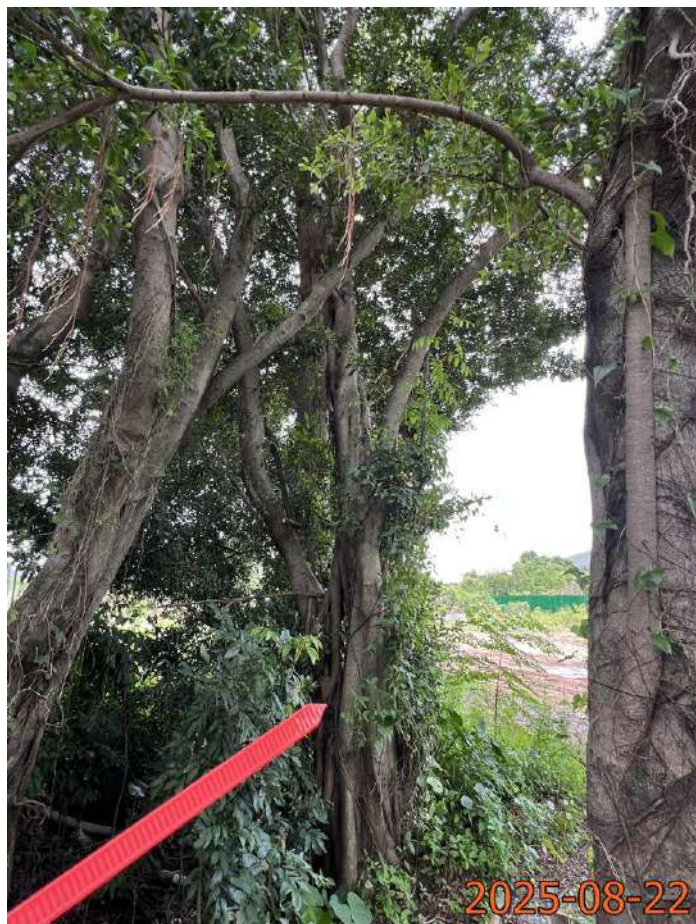


T1 Wound on trunk

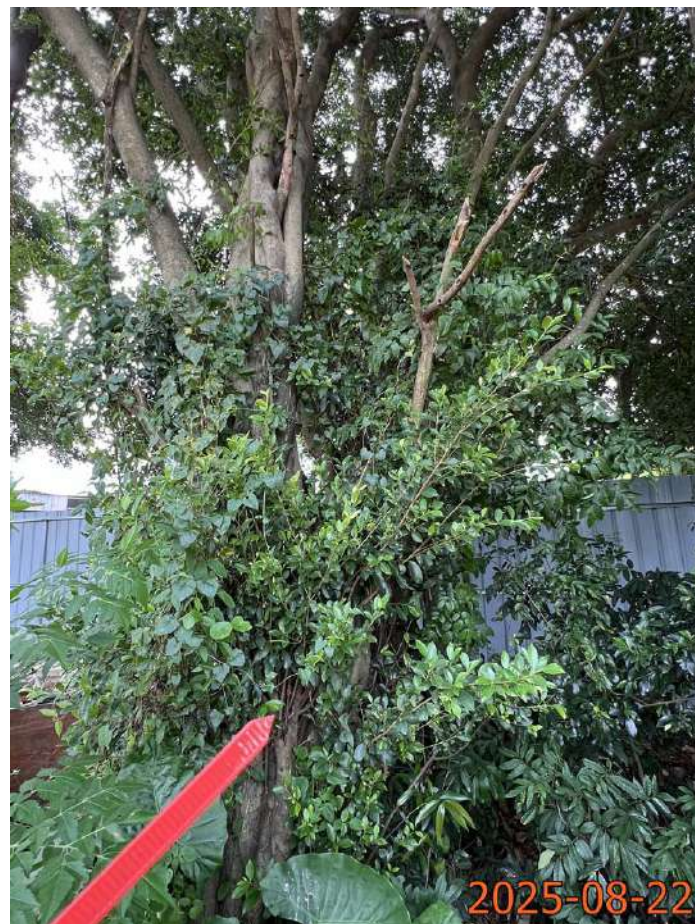


T2 (Overview) (Co-dominant trunks)

Photo Records



T3 (Overview)



T3 Epicormics at trunk

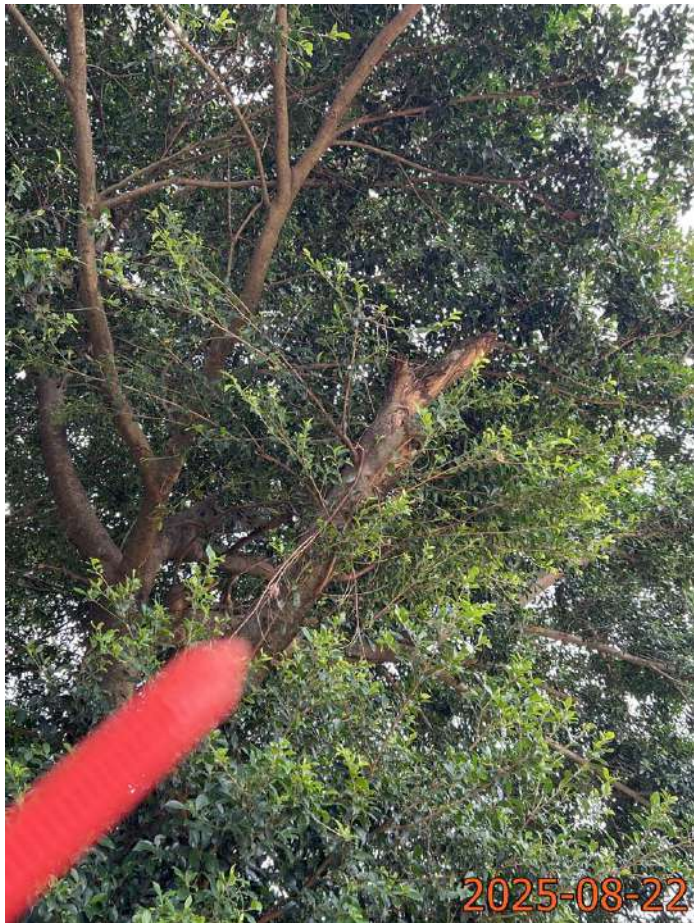


T4 (Overview)

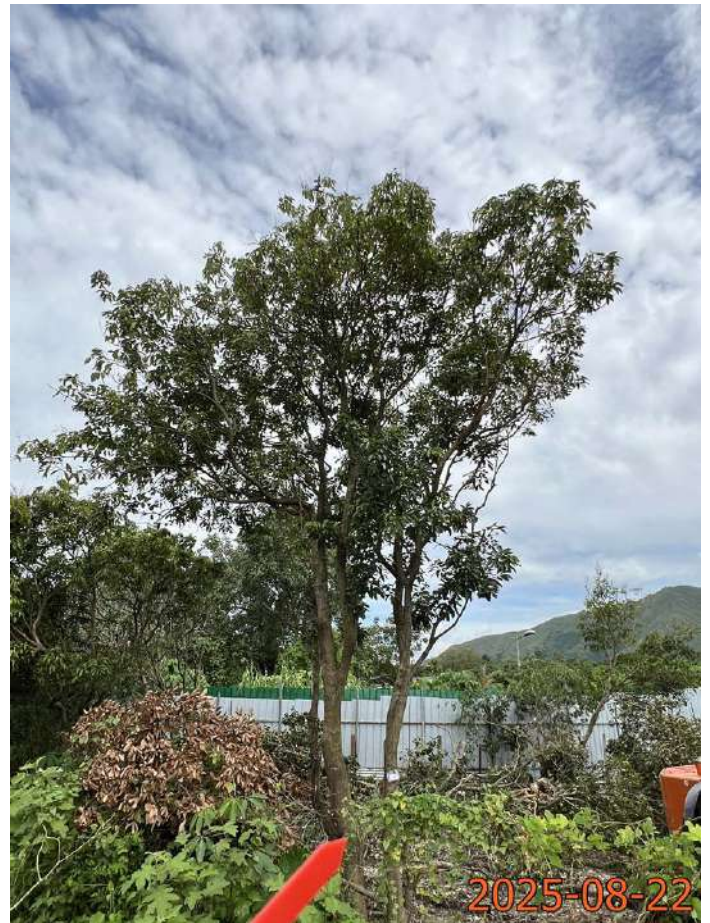


T5 (Overview)

Photo Records



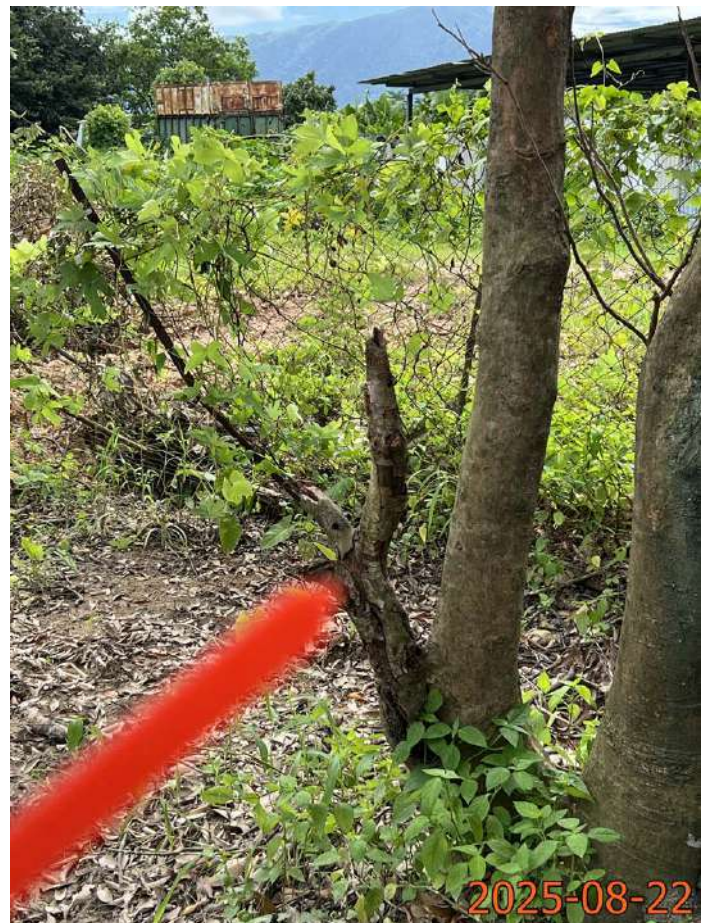
T5 Broken trunk



T6 (Overview)



T6 Co-dominant trunks

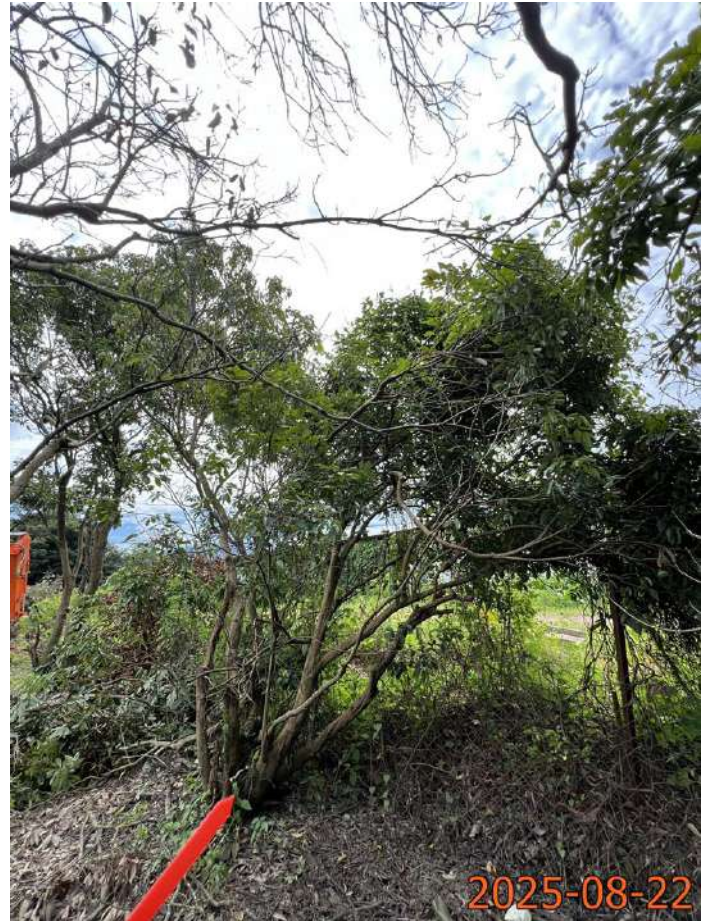


T6 Dead stub

Photo Records



T6 Dead trunk



T7 (Overview)



T7 Multi-trunks (Dead trunk)

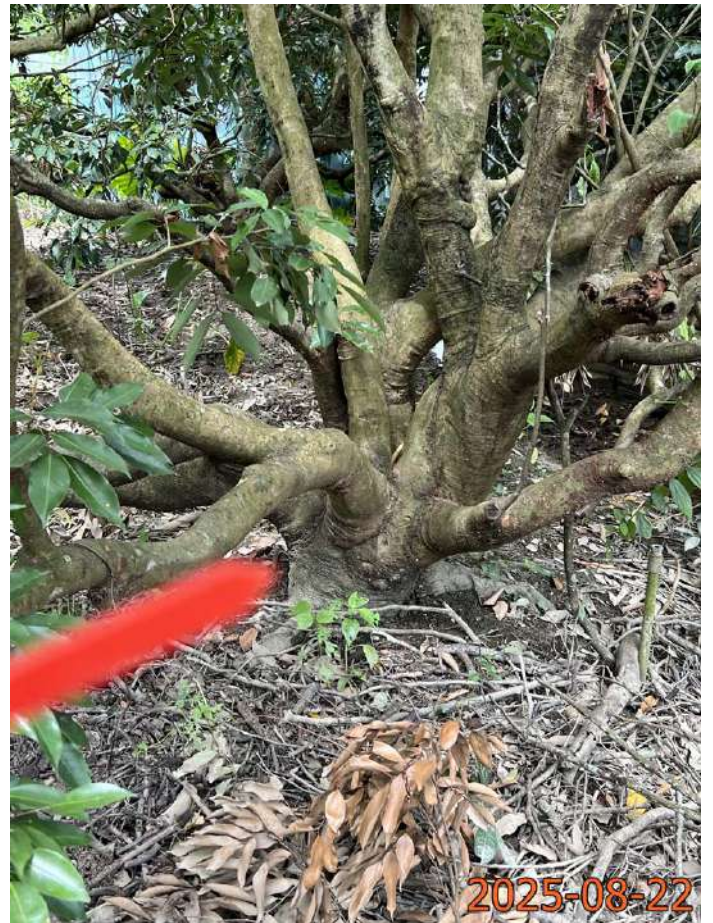


T8 (Overview) (Dead tree)

Photo Records



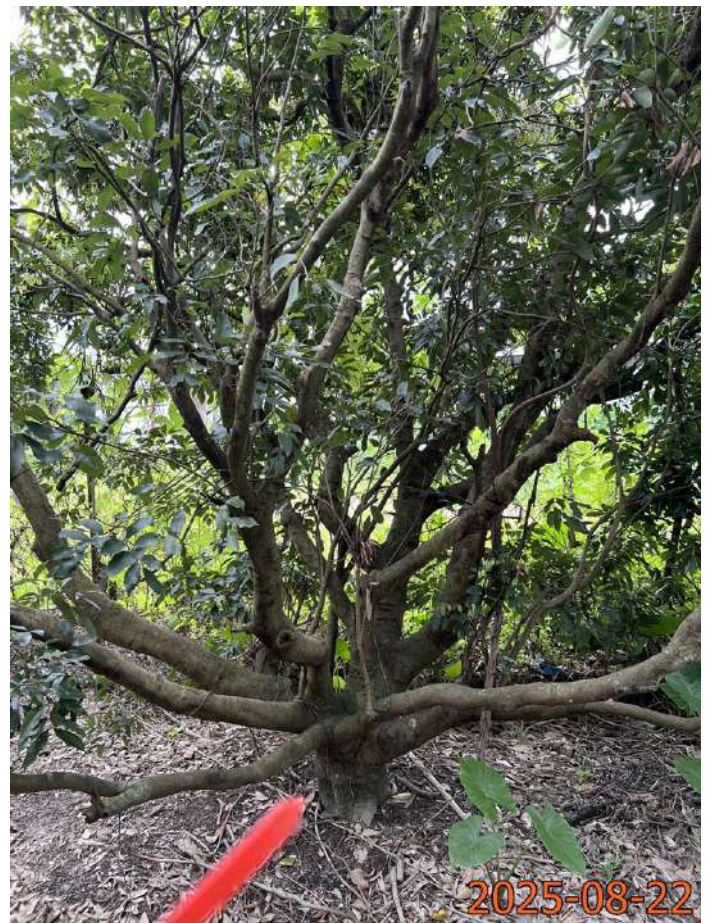
T9 (Overview)



T9 Multi-trunks

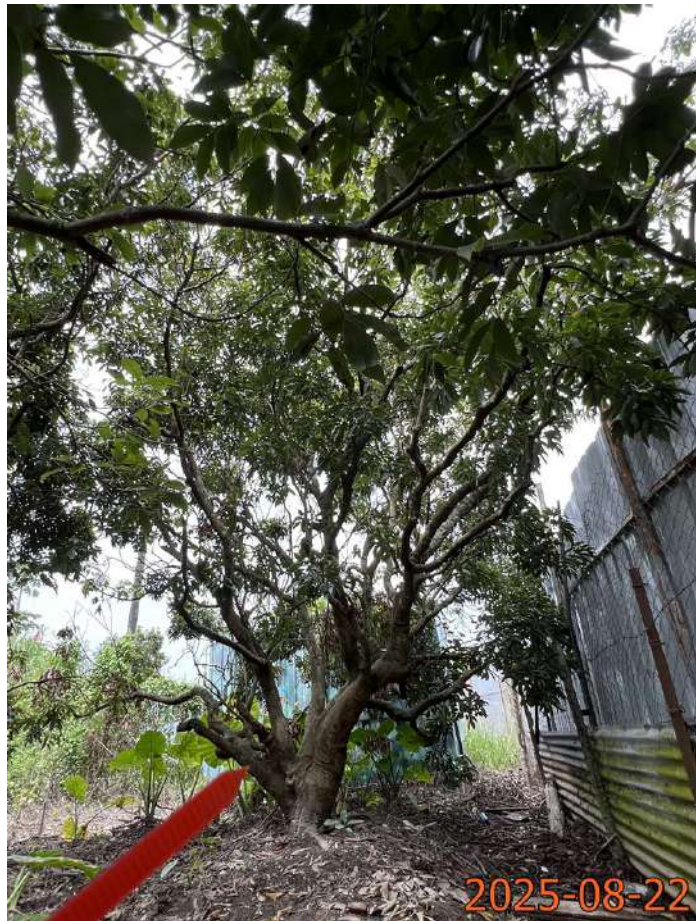


T10 (Overview)



T10 Multi-trunks

Photo Records



T11 (Overview)



T11 Multi-trunks



T12 (Overview)



T12 Broken trunk

Photo Records



T13 (Overview)



T13 Broken trunk



T13 Crooked trunk



T13 Multi-trunks

Photo Records



T14 (Overview) (Dieback)



T14 Dieback



T14 Multi-trunks

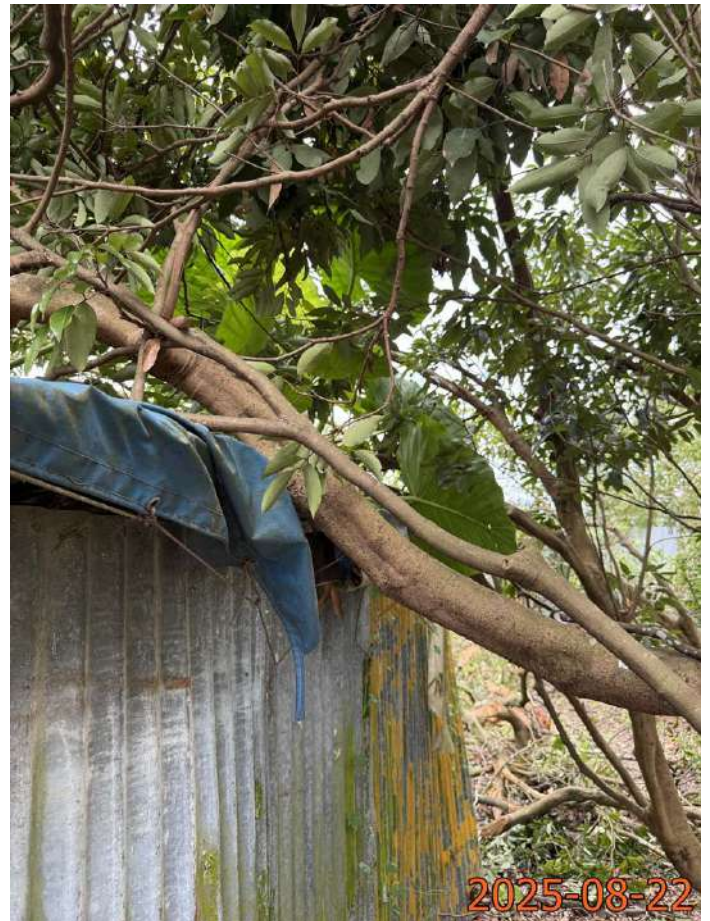


T15 (Overview)

Photo Records



T15 Multi-trunks



T15 Trunk conflict with structure



T16 (Overview) (Multi-trunks)



T17 (Overview)

Photo Records



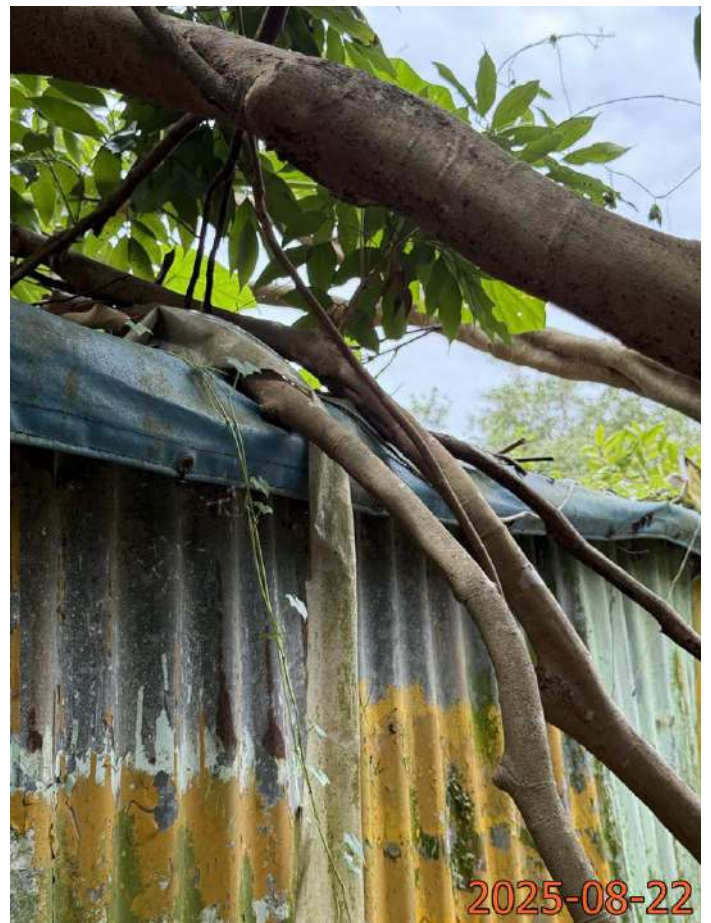
T18 (Overview)



T18 Dead branch



T18 Multi-trunks

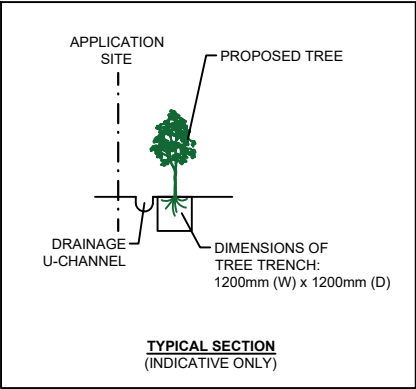
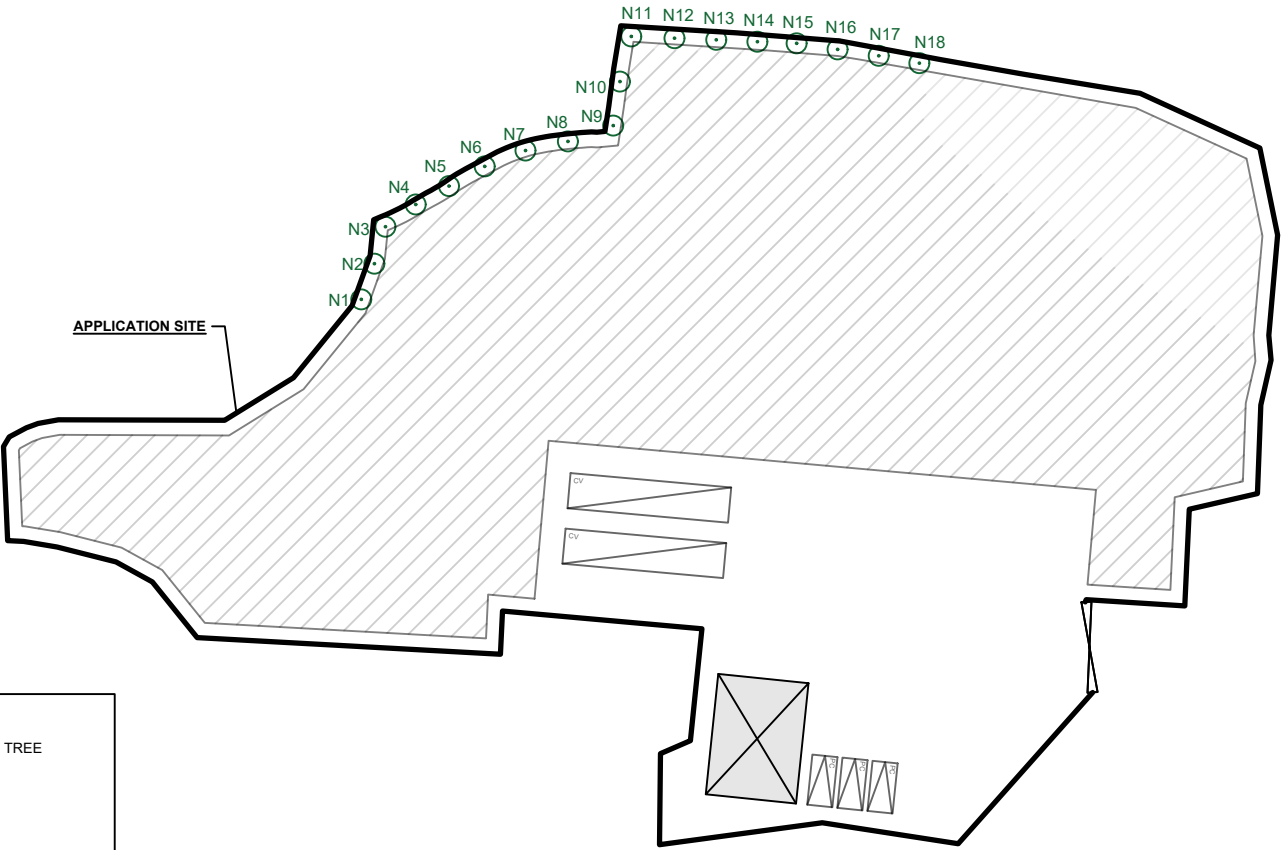
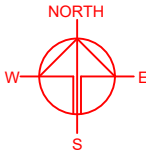


T18 Trunk conflict with structure

Appendix V
Landscape plan

LANDSCAPE PLAN

APPLICATION SITE AREA	: 6,087 m ²	(ABOUT)
NO. OF TREES TO BE PLANTED	: 18	(T1 TO T18)
SPECIES OF NEW TREES	: ELAEOCARPUS CHINENSIS	
HEIGHT OF NEW TREES	: NOT LESS THAN 2.75 m	
SPACING OF NEW TREES	: NOT LESS THAN 4 m	
DIMENSION OF TREE PITS	: 1.2 m (W) X 1.2 m (L) X 1.2 m (D)	



- NOTES:**
- 1) THE APPLICANT WILL MAINTAIN TREES IN GOOD CONDITION DURING THE PLANNING APPROVAL PERIOD.
 - 2) THE APPLICANT WILL REPLACE TREES WHICH ARE DYING OR DEAD DURING THE PLANNING APPROVAL PERIOD.
 - 3) THE APPLICANT WILL PROVIDE ADEQUATE IRRIGATION FOR TREES.

LEGEND	
	APPLICATION SITE
	STRUCTURE
	OPEN STORAGE AREA
	PARKING SPACE (PC)
	LUL SPACE (CV)
	INGRESS / EGRESS
	PROPOSED TREES

*SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY.



PROJECT
PROPOSED TEMPORARY OPEN STORAGE OF CONSTRUCTION MATERIALS AND MACHINERY WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND AND POND FOR A PERIOD OF 3 YEARS

SITE LOCATION
VARIOUS LOTS IN D.D. 109 AND ADJOINING GOVERNMENT LAND, KAM TIN, YUEN LONG, NEW TERRITORIES

SCALE 1 : 750 @ A4	
DRAWN BY MN	DATE 13.10.2025
REVISED BY	DATE
APPROVED BY	DATE
DWG. TITLE LANDSCAPE PLAN	
DWG NO. APPENDIX V	VER. 001