

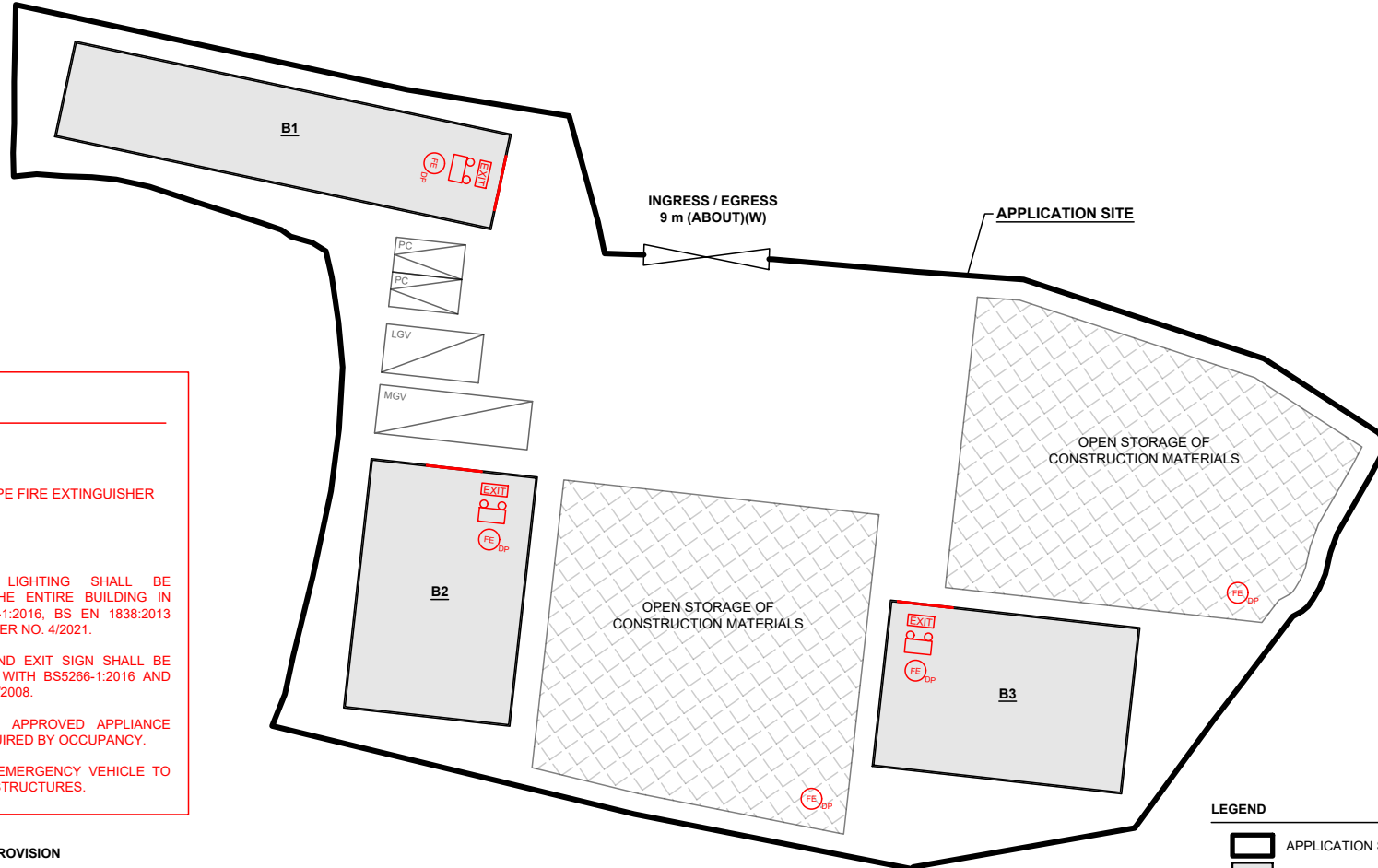
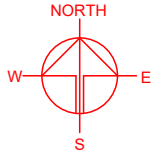
**Appendix I**

Fire Service Installations Proposal

**DEVELOPMENT PARAMETERS**

APPLICATION SITE AREA	: 3,158 m <sup>2</sup>	(ABOUT)
COVERED AREA	: 656 m <sup>2</sup>	(ABOUT)
UNCOVERED AREA	: 2,502 m <sup>2</sup>	(ABOUT)
PLOT RATIO	: 0.21	(ABOUT)
SITE COVERAGE	: 21 %	(ABOUT)
NO. OF STRUCTURE	: 3	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 656 m <sup>2</sup>	(ABOUT)
TOTAL GFA	: 656 m <sup>2</sup>	(ABOUT)
BUILDING HEIGHT	: 6 m	(ABOUT)
NO. OF STOREY	: 1	
AREA FOR OPEN STORAGE OF CONSTRUCTION MATERIALS	: 991 m <sup>2</sup>	(ABOUT)

STRUCTURE	USE	COVERED AREA	GFA	BUILDING HEIGHT
B1	WAREHOUSE (EXCLUDING D.G.G.) SITE OFFICE, WASHROOM	224 m <sup>2</sup> (ABOUT)	224 m <sup>2</sup> (ABOUT)	6 m (ABOUT)(1-STOREY)
B2	WAREHOUSE (EXCLUDING D.G.G.)	216 m <sup>2</sup> (ABOUT)	216 m <sup>2</sup> (ABOUT)	6 m (ABOUT)(1-STOREY)
B3	WAREHOUSE (EXCLUDING D.G.G.)	216 m <sup>2</sup> (ABOUT)	216 m <sup>2</sup> (ABOUT)	6 m (ABOUT)(1-STOREY)
<b>TOTAL</b>		<b>656 m<sup>2</sup> (ABOUT)</b>	<b>656 m<sup>2</sup> (ABOUT)</b>	



**FIRE SERVICE INSTALLATIONS**

- EXIT SIGN
- EMERGENCY LIGHT
- 4 KG DRY POWDER TYPE FIRE EXTINGUISHER

**FS NOTES:**

- 1) SUFFICIENT EMERGENCY LIGHTING SHALL BE PROVIDED THROUGHOUT THE ENTIRE BUILDING IN ACCORDANCE WITH BS5266-1:2016, BS EN 1838:2013 AND THE FSD CIRCULAR LETTER NO. 4/2021.
- 2) SUFFICIENT DIRECTIONAL AND EXIT SIGN SHALL BE PROVIDED IN ACCORDANCE WITH BS5266-1:2016 AND THE FSD CIRCULAR LETTER 5/2008.
- 3) PORTABLE HAND-OPERATED APPROVED APPLIANCE SHALL BE PROVIDED AS REQUIRED BY OCCUPANCY.
- 4) ACCESS IS PROVIDED FOR EMERGENCY VEHICLE TO REACH 30m OF ALL PART OF STRUCTURES.

**PARKING AND LOADING/UNLOADING PROVISION**

NO. OF PRIVATE CAR PARKING SPACE	: 2
DIMENSION OF PARKING SPACE	: 5 m (L) X 2.5 m (W)
NO. L/UL SPACE FOR LIGHT GOODS VEHICLE	: 1
DIMENSION OF LOADING/UNLOADING SPACE	: 7 m (L) X 3.5 m (W)
NO. L/UL SPACE FOR MEDIUM GOODS VEHICLE	: 1
DIMENSION OF LOADING/UNLOADING SPACE	: 11 m (L) X 3.5 m (W)

**LEGEND**

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

PLANNING CONSULTANT



PROJECT

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

SITE LOCATION

VARIOUS LOTS IN D.D. 107, FUNG KAT HEUNG, KAM TIN, YUEN LONG, NEW TERRITORIES

SCALE

1 : 500 @ A4

DRAWN BY

MN

DATE

17.4.2025

CHECKED BY

DATE

APPROVED BY

DATE

DWG. TITLE

FSIs PROPOSAL

DWG NO.

APPENDIX I

VER.

001

**Appendix II**

Revised Drainage Proposal

TEMPORARY OPEN STORAGE FOR CONSTRUCTION MATERIALS AND WAREHOUSE FOR A PERIOD OF 3 YEARS AND ASSOCIATED FILLING OF LAND LOTS 1139 (PART), 1140 (PART), 1141 (PART), 1142 (PART), 1143, 1144 (PART), 1145 (PART), 1147 (PART), 1148 (PART), 1149 (PART), 1152 (PART), 1153 S.A, 1153 RP, 1154 (PART) AND 1156 (PART) IN D.D. 107, FUNG KAT HEUNG, KAM TIN, YUEN LONG, NEW TERRITORIES

## Drainage Proposal

**Nov 2025**



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1.1	Background .....	1
1.2	Application Site .....	1
2	Development Proposal.....	2
2.1	The Proposed Development .....	2
3	Assessment Criteria.....	2
4	Proposed Drainage System .....	5
4.1.	Proposed Channels .....	5
5	Conclusion.....	5

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Figure 2 - Existing Drainage Plan
Figure 3– Proposed Drainage System
Figure 4 – Catchment Plan
Figure 5 - Sections

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Appendix A – Design Calculation
Appendix B - Development Layout Plan
Appendix C – Reference Drawings
<b>Appendix D - Site Photo</b>

# 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. 107, Fung Kat Heung, Kam Tin, Yuen Long, New Territories (the Site) for 'Proposed Temporary Warehouse and Open Storage of Construction Materials with Ancillary Facilities for a Period of 3 Years and Associated Filling of Land'.
- 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 Fung Kat Heung at the south of Fung Kat Heung Road. It has an area of approx. 3,158 m<sup>2</sup>. The site location is shown in **Figure 1**.
- 1.2.2 The existing site was fully paved. The existing site levels are various from +16.9 mPD to + 17.7 mPD. It is proposed to pave not more than 0.1m for formation of structures and circulation area.
- 1.2.3 There is an existing stream beside the site. **Figure 2** indicate the existing drainage system of the area.

## 2 Development Proposal

### 2.1 The Proposed Development

2.1.1 The total site area is approximately 3,158 m<sup>2</sup>. The existing development site was already fully paved. The catchment plan is shown in **Figure 4**.

Proposed Development	
Total Site Area (m <sup>2</sup> )	3,158
Paved Area after Development (m <sup>2</sup> )	3,158

**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 the 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<sub>f</sub> = 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:

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

where,

V	=	velocity of the pipe flow (m/s)
S <sub>f</sub>	=	hydraulic gradient
k <sub>f</sub>	=	roughness value (m)
ν	=	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 connect to stream in the east. The utilization of the existing stream due to the site is about 6.0% according to checking in **Appendix A**. As the site is already fully paved, there is no adverse drainage impact to the system.
- 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**.
- 4.1.5 Reference Drawings are shown in **Appendix C** for reference.

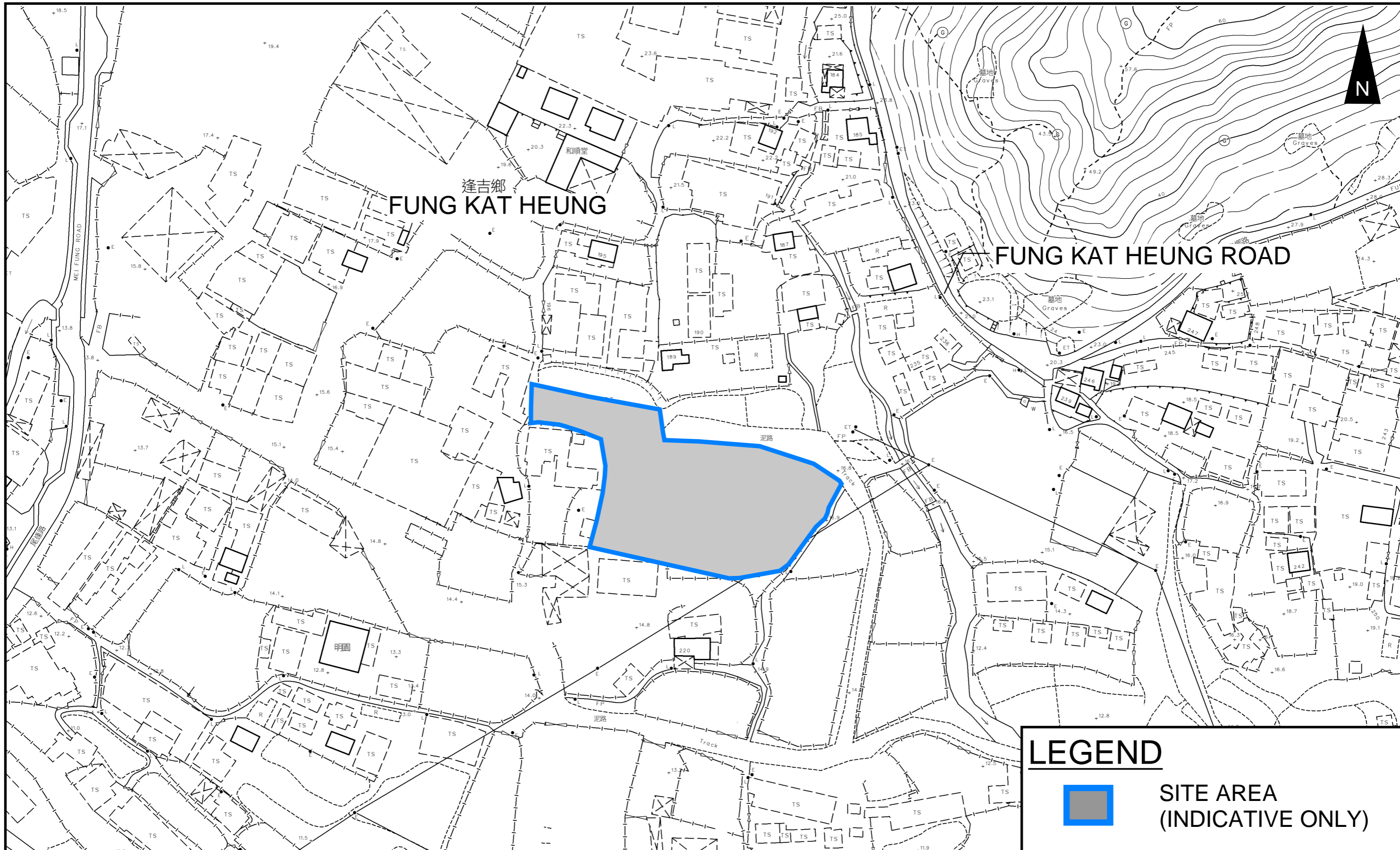
## 5 Conclusion

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

- End of Text -

# FIGURES

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**LEGEND**



**SITE AREA  
(INDICATIVE ONLY)**

**PROJECT:**

TEMPORARY OPEN STORAGE FOR CONSTRUCTION MATERIALS AND WAREHOUSE FOR A PERIOD OF 3 YEARS AND ASSOCIATED FILLING OF LAND

**TITLE**

**SITE LOCATION PLAN**

**FIGURE NUMBER**

**FIGURE 1**

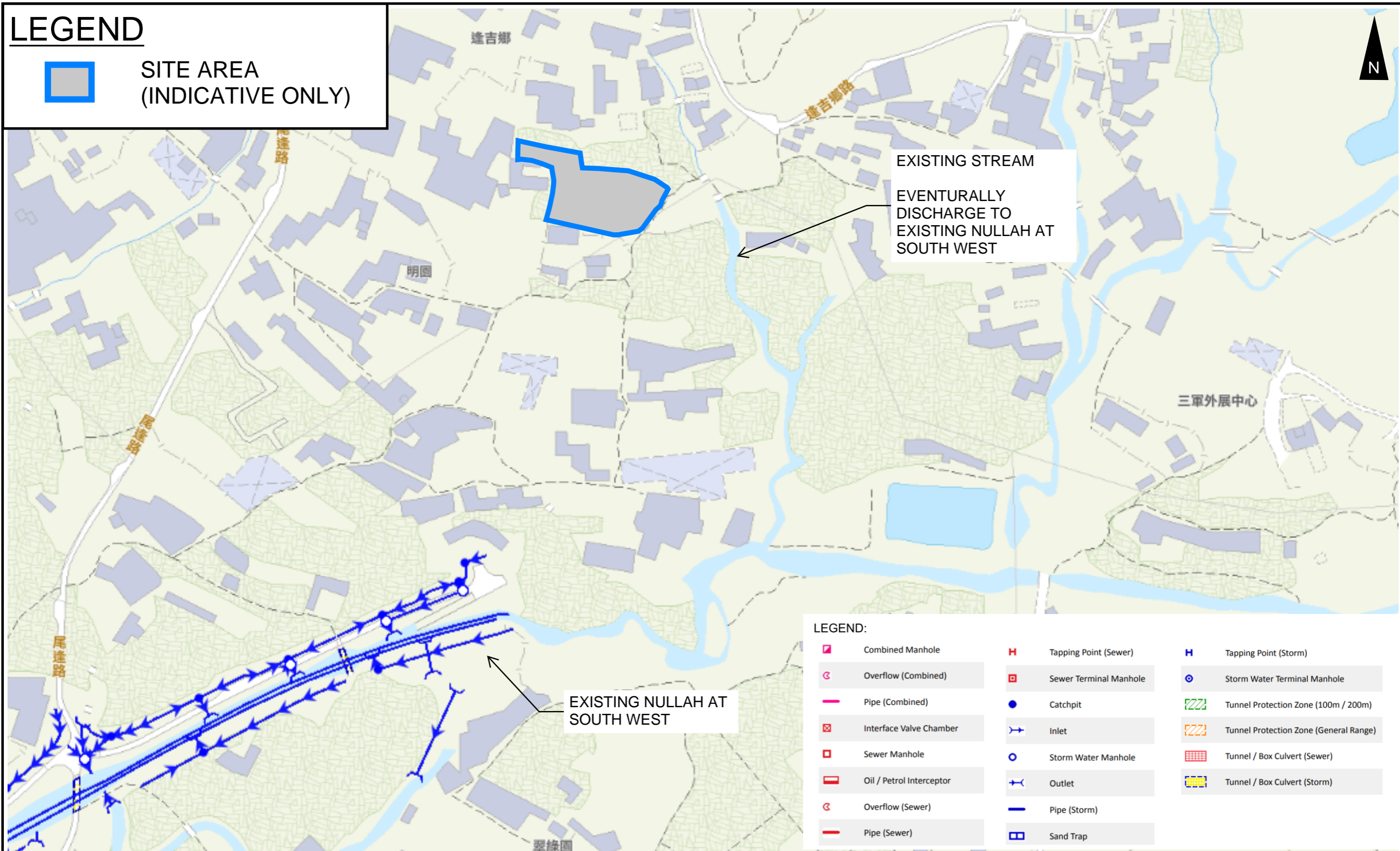
**LOCATION:**

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VER	DESCRIPTION	DATE

# 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:

TEMPORARY OPEN STORAGE FOR CONSTRUCTION MATERIALS AND WAREHOUSE FOR A PERIOD OF 3 YEARS AND ASSOCIATED FILLING OF LAND

## TITLE

EXISTING DRAINAGE PLAN

## FIGURE NUMBER


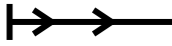


FIGURE 2


## LOCATION:

LOTS 1139 (PART), 1140 (PART), 1141 (PART), 1142 (PART), 1143, 1144 (PART), 1145 (PART), 1147 (PART), 1148 (PART), 1149 (PART), 1152 (PART), 1153 S.A, 1153 RP, 1154 (PART) AND 1156 (PART) IN D.D. 107, FUNG KAT HEUNG, KAM TIN, YUEN LONG, NEW TERRITORIES

VER	DESCRIPTION	DATE

### LEGEND

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

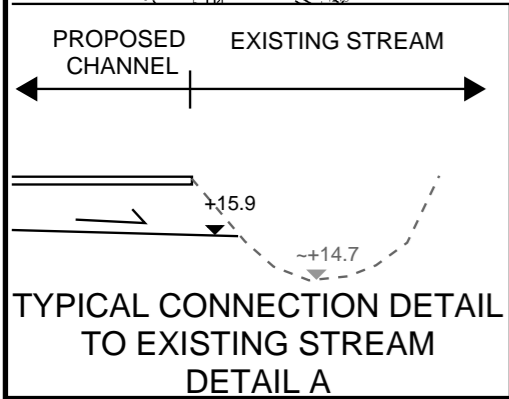
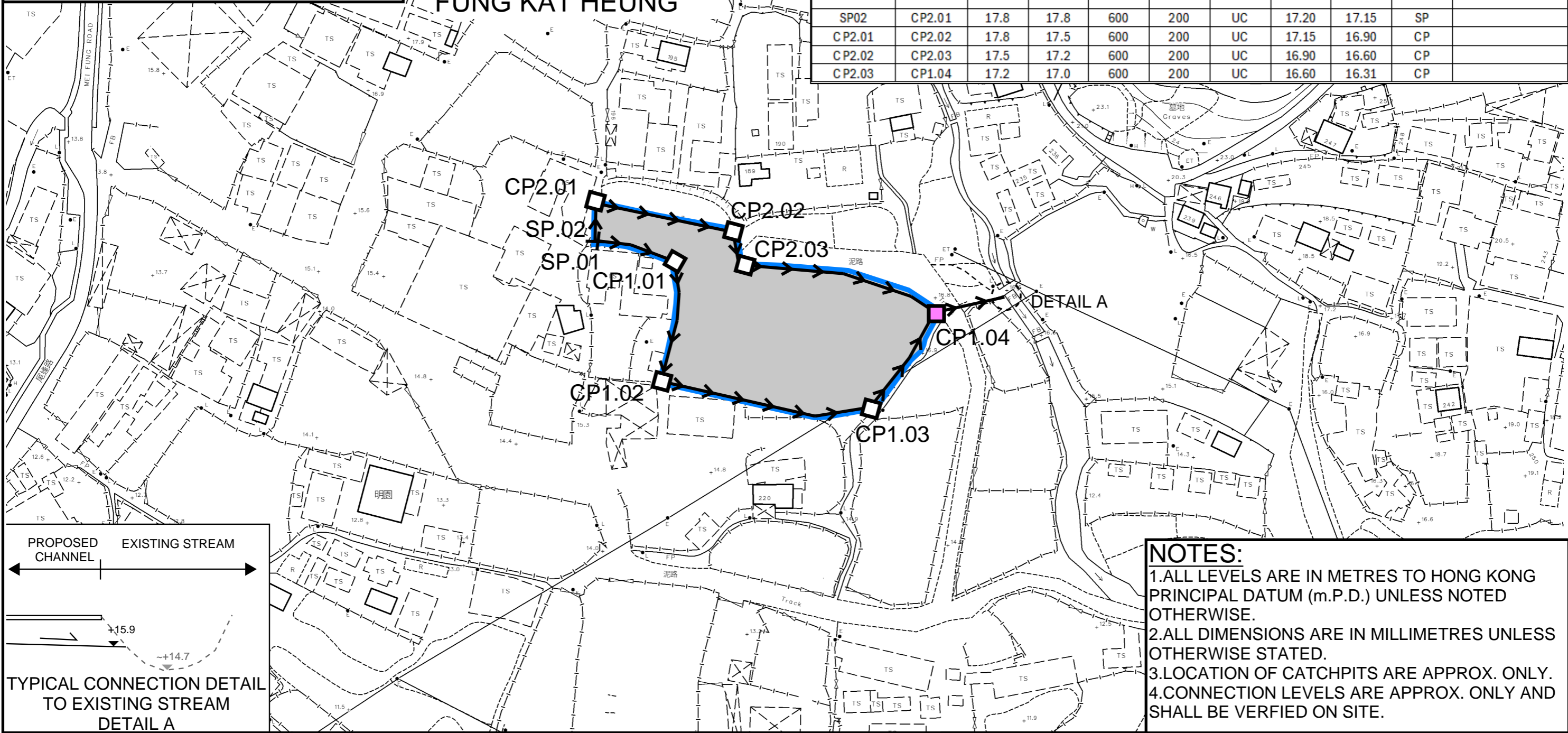


**FUNG KAT HEUNG**

逢吉鄉

### 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	17.8	17.2	525	200	UC	17.28	16.68	SP	#SP: Start Point
CP1.01	CP1.02	17.2	17.0	525	200	UC	16.68	16.48	CP	
CP1.02	CP1.03	17.0	17.0	525	200	UC	16.48	16.17	CP	
CP1.03	CP1.04	17.0	17.0	525	200	UC	16.17	16.01	CP	
CP1.04	Existing Stream	17.0	16.6	600	200	UC	16.01	15.91	CP	
SP02	CP2.01	17.8	17.8	600	200	UC	17.20	17.15	SP	
CP2.01	CP2.02	17.8	17.5	600	200	UC	17.15	16.90	CP	
CP2.02	CP2.03	17.5	17.2	600	200	UC	16.90	16.60	CP	
CP2.03	CP1.04	17.2	17.0	600	200	UC	16.60	16.31	CP	



**NOTES:**

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.

**PROJECT:**  
TEMPORARY OPEN STORAGE FOR CONSTRUCTION MATERIALS AND WAREHOUSE FOR A PERIOD OF 3 YEARS AND ASSOCIATED FILLING OF LAND

**TITLE**  
PROPOSED DRAINAGE SYSTEM

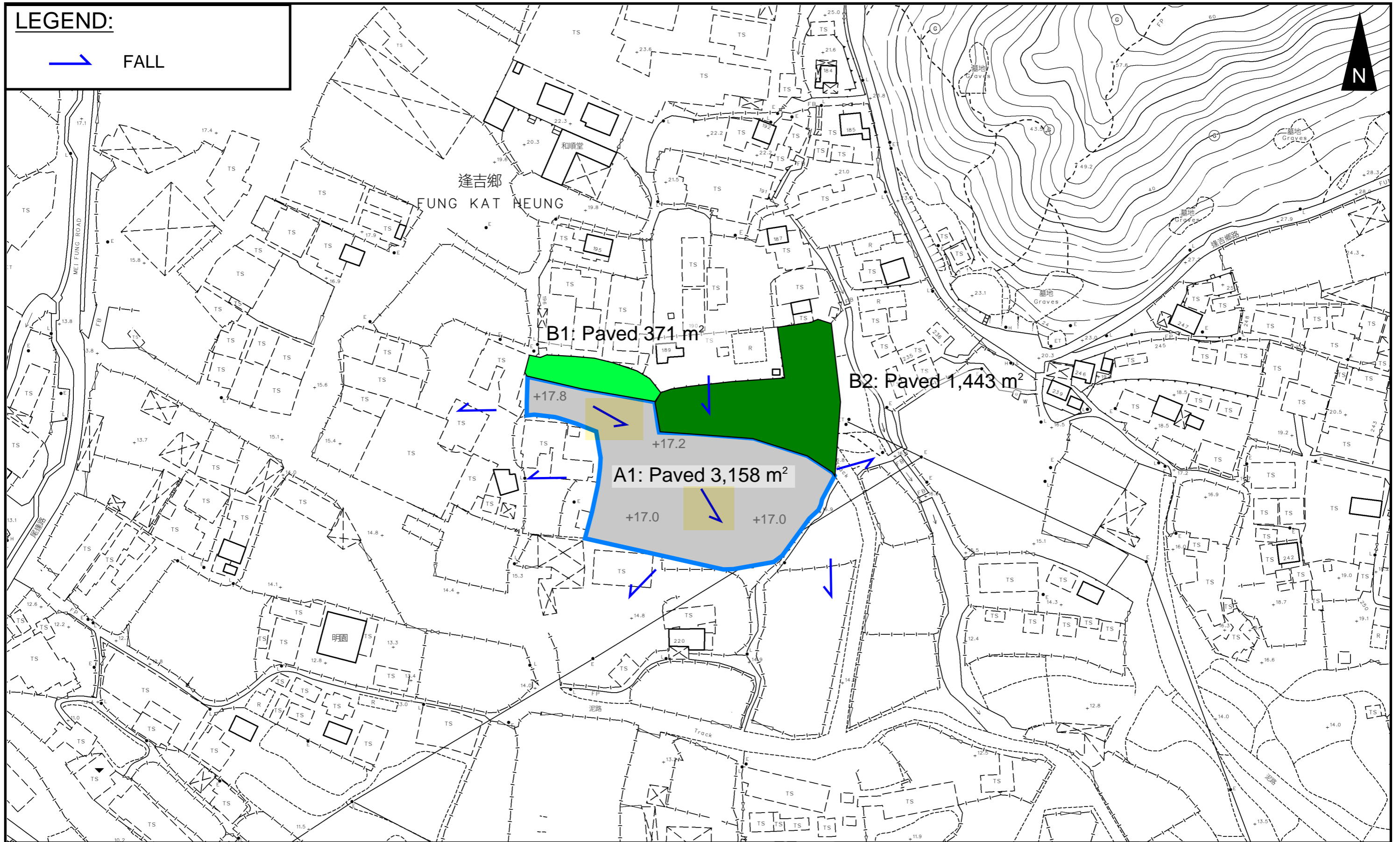
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FIGURE 3

**LOCATION:**  
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VER	DESCRIPTION	DATE

**LEGEND:**

 FALL



**PROJECT:**

TEMPORARY OPEN STORAGE FOR CONSTRUCTION MATERIALS AND WAREHOUSE FOR A PERIOD OF 3 YEARS AND ASSOCIATED FILLING OF LAND

**TITLE**

CATCHMENT PLAN

**FIGURE NUMBER**

FIGURE 4

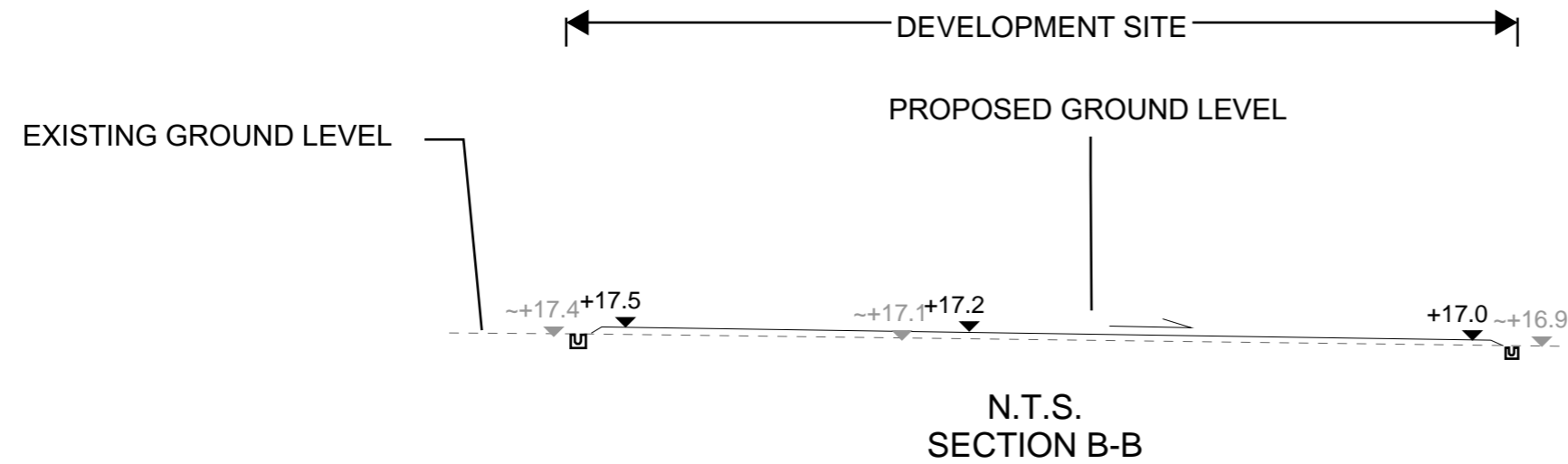
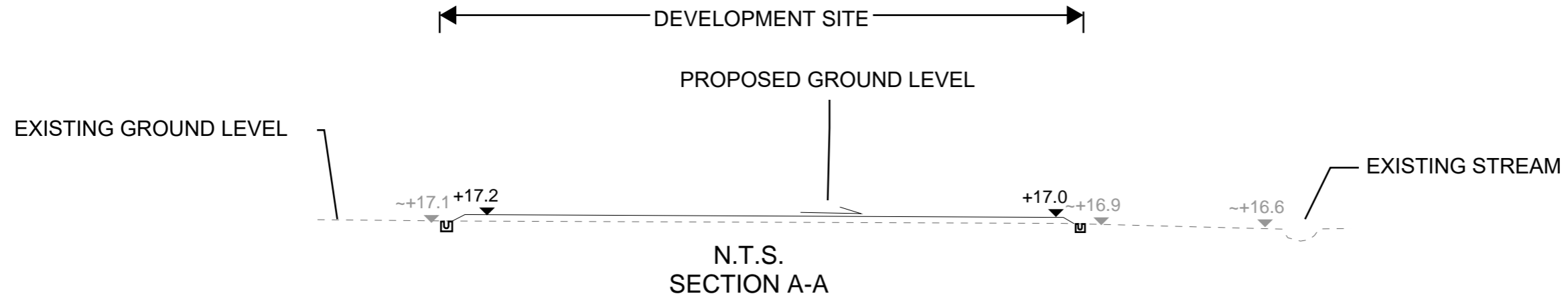
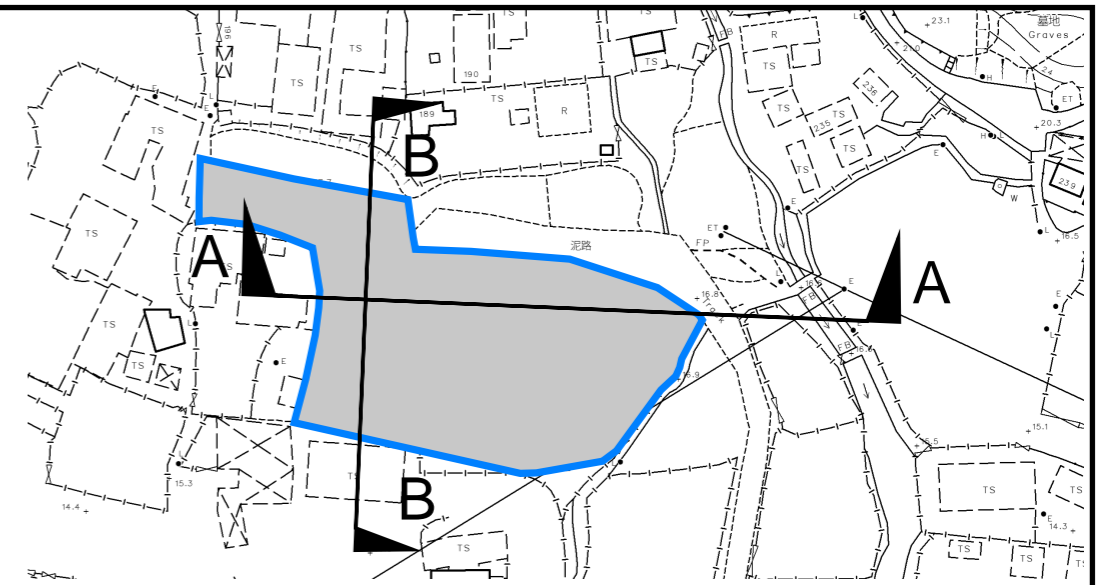
**LOCATION:**

LOTS 1139 (PART), 1140 (PART), 1141 (PART), 1142 (PART), 1143, 1144 (PART), 1145 (PART), 1147 (PART), 1148 (PART), 1149 (PART), 1152 (PART), 1153 S.A, 1153 RP, 1154 (PART) AND 1156 (PART) IN D.D. 107, FUNG KAT HEUNG, KAM TIN, YUEN LONG, NEW TERRITORIES

VER	DESCRIPTION	DATE

**LEGEND**

 SITE AREA (INDICATIVE ONLY)



**PROJECT:**  
 TEMPORARY OPEN STORAGE FOR CONSTRUCTION MATERIALS AND WAREHOUSE FOR A PERIOD OF 3 YEARS AND ASSOCIATED FILLING OF LAND

**TITLE SECTIONS**

**FIGURE NUMBER**  
 FIGURE 5

**LOCATION:**  
 LOTS 1139 (PART), 1140 (PART), 1141 (PART), 1142 (PART), 1143, 1144 (PART), 1145 (PART), 1147 (PART), 1148 (PART), 1149 (PART), 1152 (PART), 1153 S.A, 1153 RP, 1154 (PART) AND 1156 (PART) IN D.D. 107, FUNG KAT HEUNG, KAM TIN, YUEN LONG, NEW TERRITORIES

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VER	DESCRIPTION	DATE

# APPENDIX

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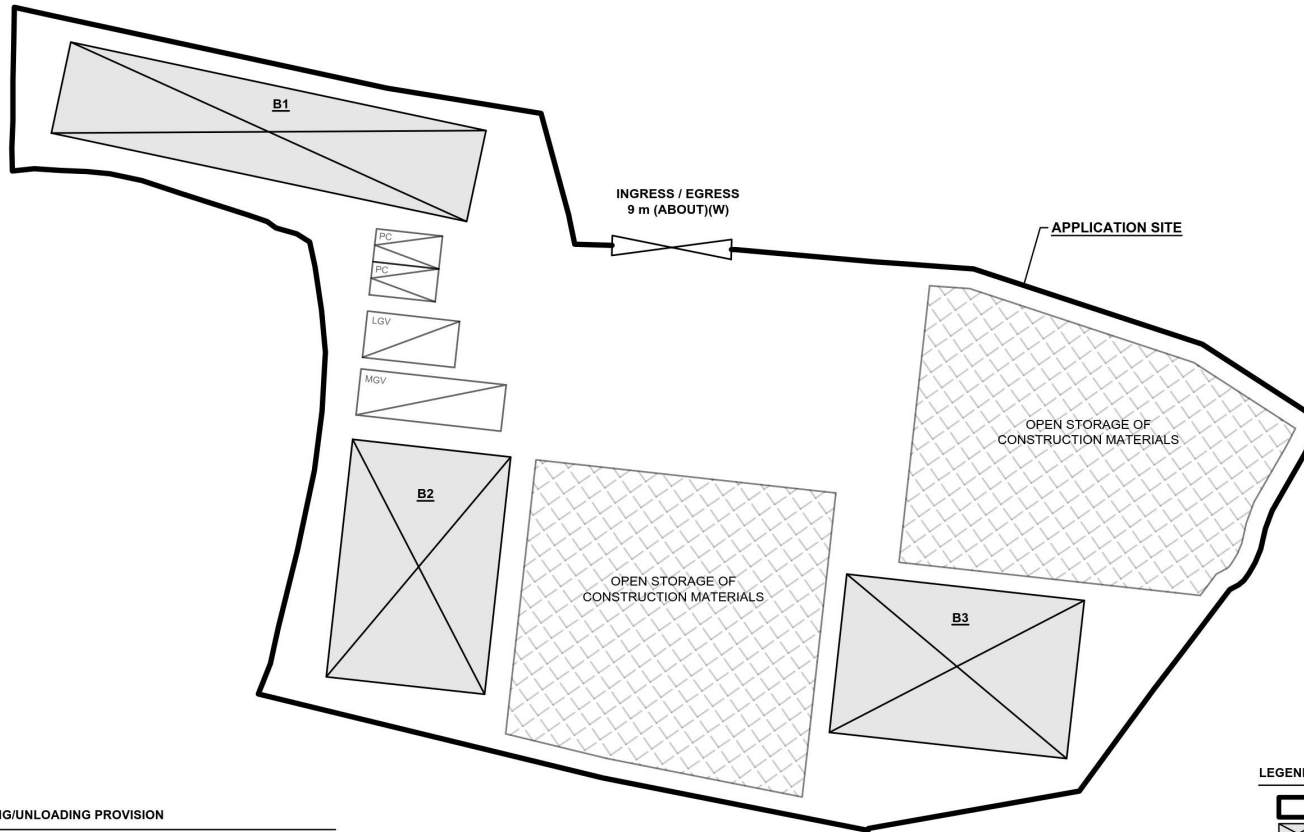
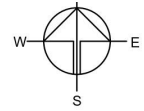


# APPENDIX B - PROPOSED SITE LAYOUT PLAN

## DEVELOPMENT PARAMETERS

APPLICATION SITE AREA	: 3,158 m <sup>2</sup>	(ABOUT)
COVERED AREA	: 656 m <sup>2</sup>	(ABOUT)
UNCOVERED AREA	: 2,502 m <sup>2</sup>	(ABOUT)
PLOT RATIO	: 0.21	(ABOUT)
SITE COVERAGE	: 21 %	(ABOUT)
NO. OF STRUCTURE	: 3	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 656 m <sup>2</sup>	(ABOUT)
TOTAL GFA	: 656 m <sup>2</sup>	(ABOUT)
BUILDING HEIGHT	: 6 m	(ABOUT)
NO. OF STOREY	: 1	
AREA FOR OPEN STORAGE OF CONSTRUCTION MATERIALS	: 991 m <sup>2</sup>	(ABOUT)

		AREA	HEIGHT
B1	WAREHOUSE (EXCLUDING D.G.G.) SITE OFFICE, WASHROOM	224 m <sup>2</sup> (ABOUT)	224 m <sup>2</sup> (ABOUT) 6 m (ABOUT)(1-STOREY)
B2	WAREHOUSE (EXCLUDING D.G.G.)	216 m <sup>2</sup> (ABOUT)	216 m <sup>2</sup> (ABOUT) 6 m (ABOUT)(1-STOREY)
B3	WAREHOUSE (EXCLUDING D.G.G.)	216 m <sup>2</sup> (ABOUT)	216 m <sup>2</sup> (ABOUT) 6 m (ABOUT)(1-STOREY)
<b>TOTAL</b>		<b>656 m<sup>2</sup> (ABOUT)</b>	<b>656 m<sup>2</sup> (ABOUT)</b>



## PARKING AND LOADING/UNLOADING PROVISION

NO. OF PRIVATE CAR PARKING SPACE	: 2
DIMENSION OF PARKING SPACE	: 5 m (L) X 2.5 m (W)
NO. L/UL SPACE FOR LIGHT GOODS VEHICLE	: 1
DIMENSION OF LOADING/UNLOADING SPACE	: 7 m (L) X 3.5 m (W)
NO. L/UL SPACE FOR MEDIUM GOODS VEHICLE	: 1
DIMENSION OF LOADING/UNLOADING SPACE	: 11 m (L) X 3.5 m (W)

## LEGEND

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

PLANNING CONSULTANT



PROJECT

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

SITE LOCATION

VARIOUS LOTS IN D.D. 107, FUNG KAT HEUNG, KAM TIN, YUEN LONG, NEW TERRITORIES

SCALE

1:500 @ A4

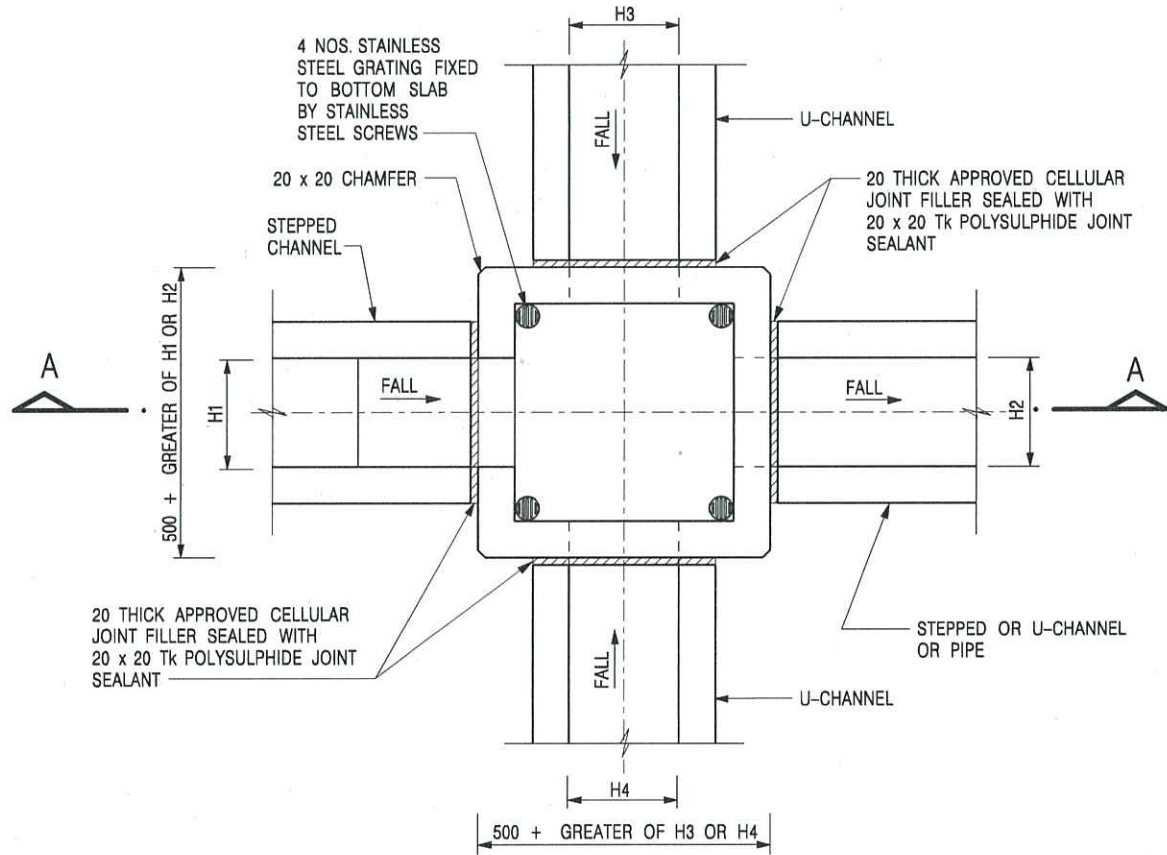
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MN	5.7.2024
CHECKED BY	DATE
APPROVED BY	DATE
DWG. TITLE	
LAYOUT PLAN	
DWG. NO.	VER.
PLAN 1	001

(摘錄自申請人於 7. 8. 2024 呈交的補充規劃書)  
(Extract from Applicant's Supplementary Planning Statement of 7.8.2024)

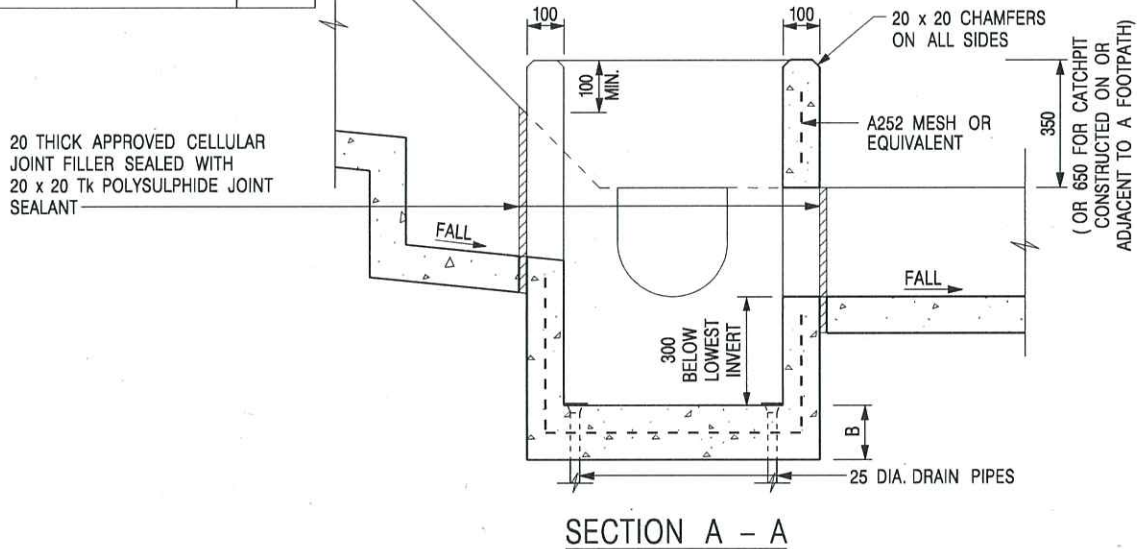
參考編號  
REFERENCE No.  
A/YL-KTN/1040

繪圖  
DRAWING  
A - 1

# Appendix C - Reference Drawings



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



**NOTES:**

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

CATCHPIT WITH TRAP  
(SHEET 1 OF 2)

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



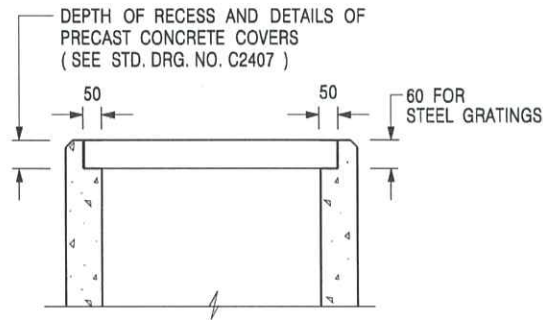
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DRAWING NO.

DATE JAN 1991

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
<b>REF.</b>	<b>REVISION</b>	<b>SIGNATURE</b>	<b>DATE</b>

CATCHPIT WITH TRAP  
(SHEET 2 OF 2)



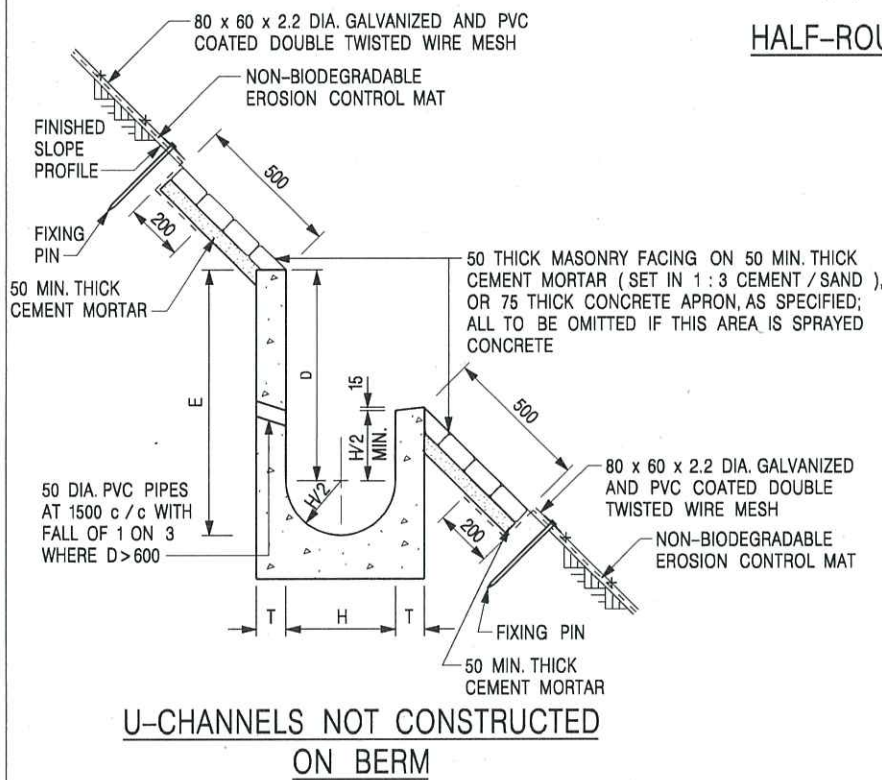
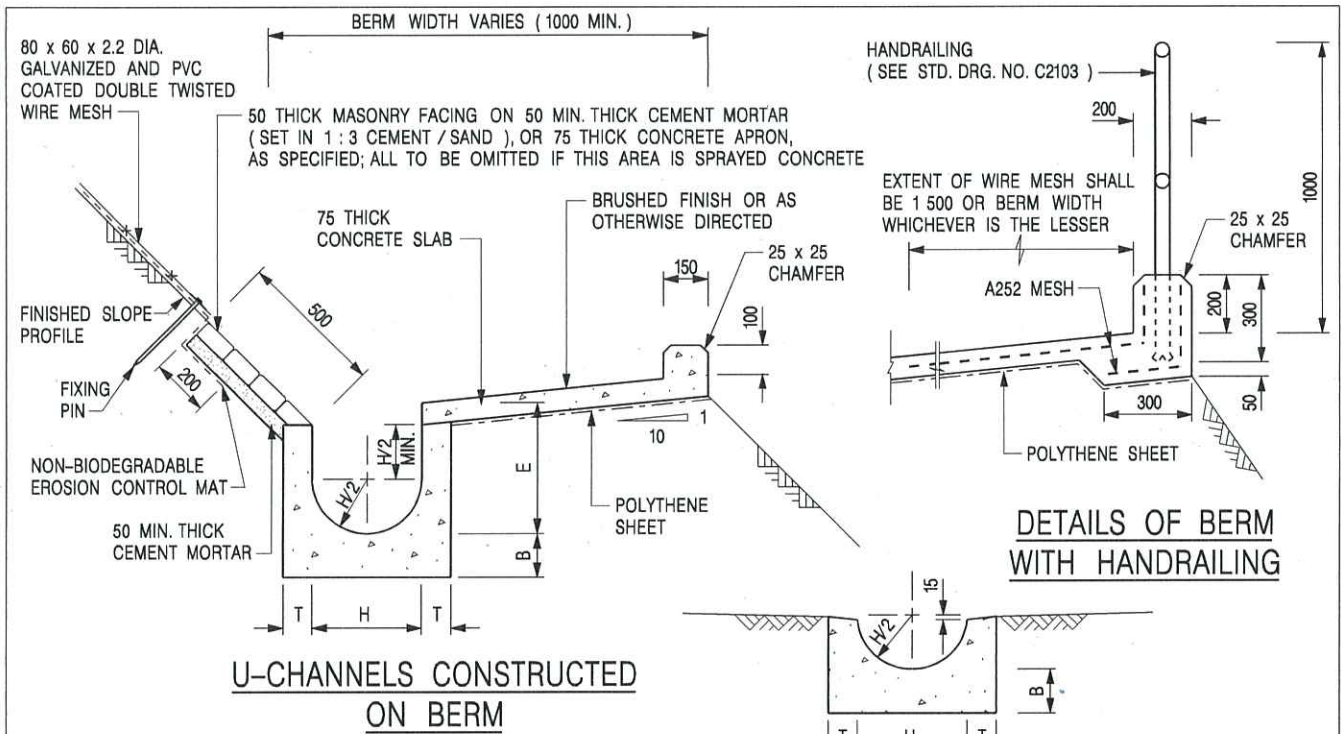
**CIVIL ENGINEERING AND  
DEVELOPMENT DEPARTMENT**

**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)



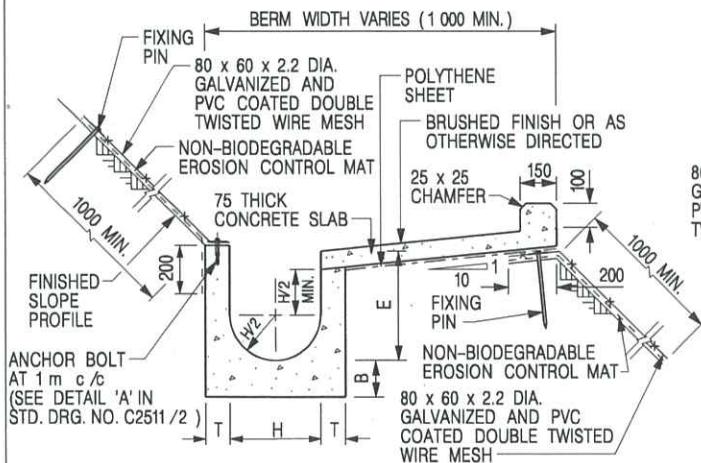
**CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT**

SCALE 1 : 25

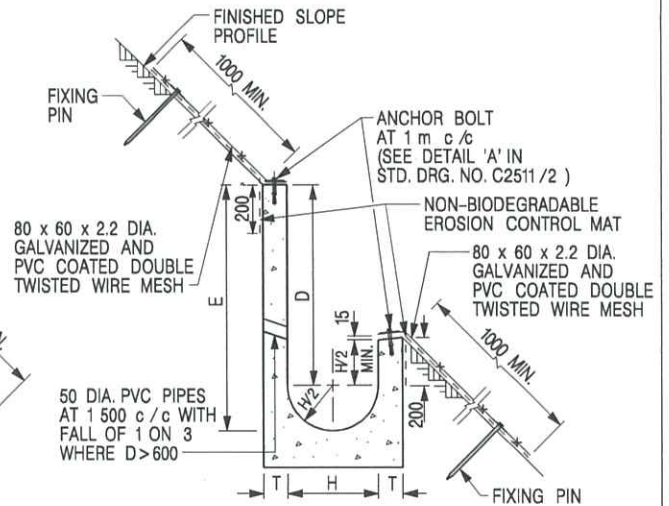
DRAWING NO.

DATE JAN 1991

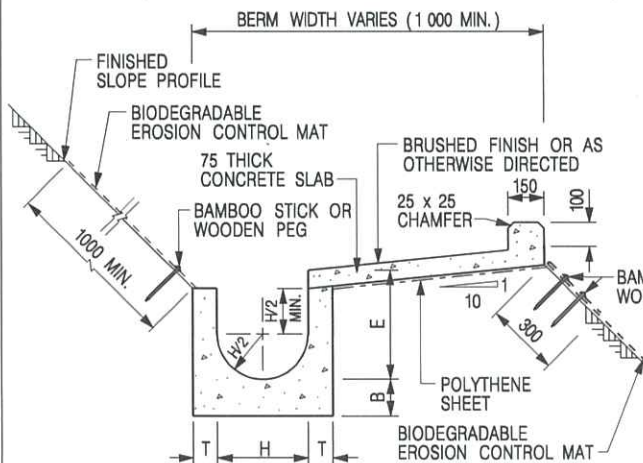
C24091



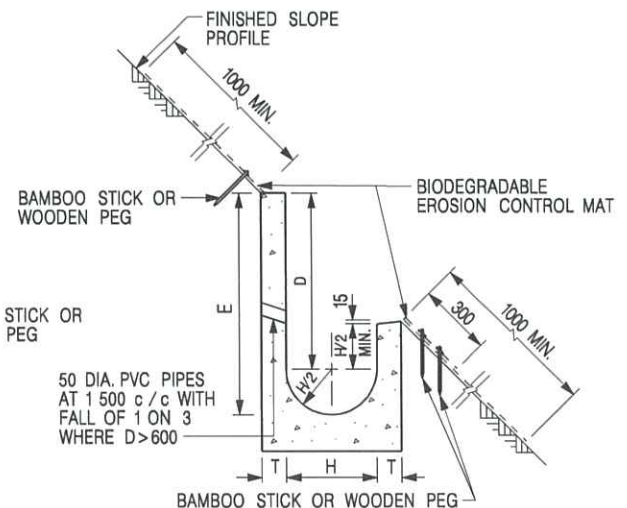
**U-CHANNELS CONSTRUCTED ON BERM WITH NON-BIODEGRADABLE EROSION CONTROL MAT**



**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)**



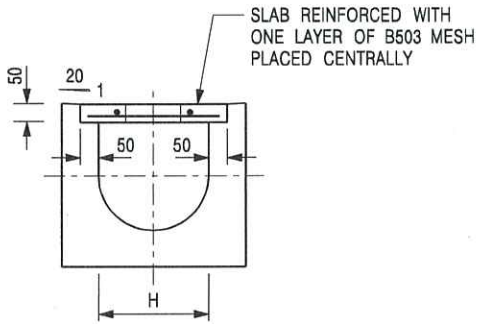
**CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT**

**SCALE** DIAGRAMMATIC

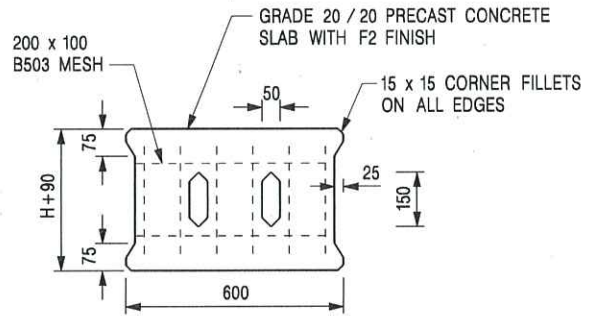
**DRAWING NO.**

**DATE** JAN 1991

**C24101**



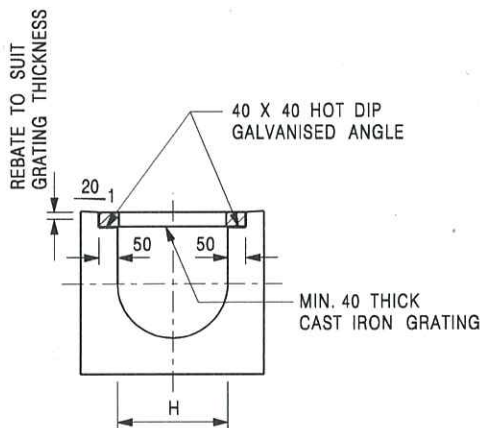
TYPICAL SECTION



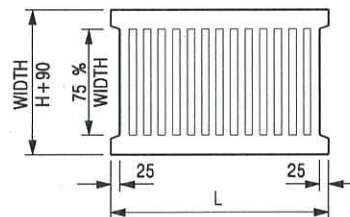
PLAN OF SLAB

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

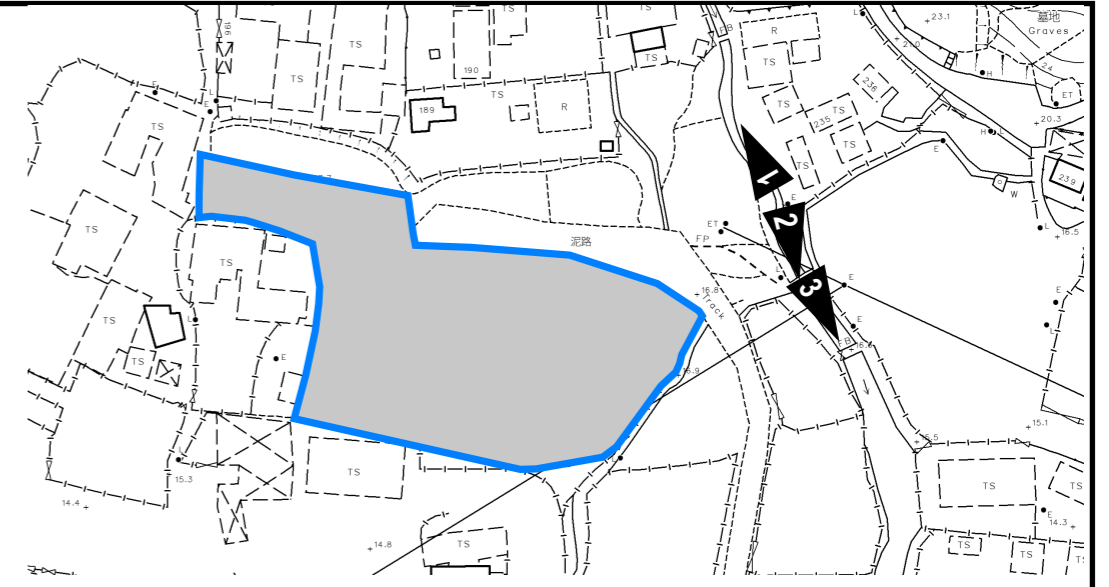
SCALE 1 : 20

DRAWING NO.

DATE JAN 1991

C2412E

PHOTO 1



EXISTING WATERCOURSE

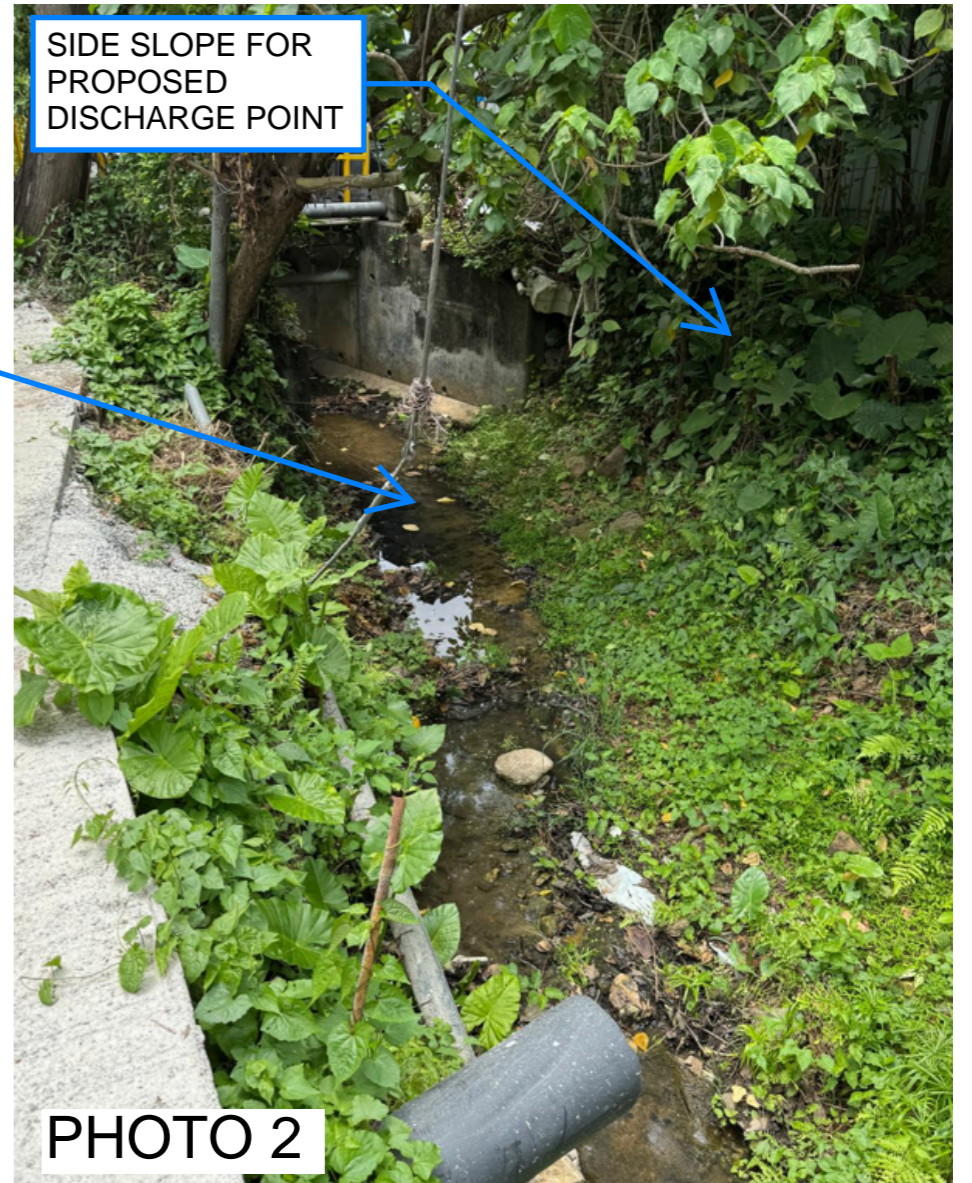


PHOTO 2

PHOTO 3



**PROJECT:**  
TEMPORARY OPEN STORAGE FOR CONSTRUCTION MATERIALS AND WAREHOUSE FOR A PERIOD OF 3 YEARS AND ASSOCIATED FILLING OF LAND

**SITE PHOTOS**

**APPENDIX D**

**LOCATION:**  
LOTS 1139 (PART), 1140 (PART), 1141 (PART), 1142 (PART), 1143, 1144 (PART), 1145 (PART), 1147 (PART), 1148 (PART), 1149 (PART), 1152 (PART), 1153 S.A, 1153 RP, 1154 (PART) AND 1156 (PART) IN D.D. 107, FUNG KAT HEUNG, KAM TIN, YUEN LONG, NEW TERRITORIES

VER	DESCRIPTION	DATE