

Sheren Si Wai LEE/PLAND

寄件者: WARREN WONG <[REDACTED]>
寄件日期: 2026年06月23日星期二 10:22
收件者: Sheren Si Wai LEE/PLAND
主旨: Re: Application No. A/NE-TKL/844
附件: 排水建議書.pdf

類別: Internet Email

Hi Sheren,

Please ignore the previous email that sent on 22 June 10:30 pm. And below highlight sentences were reply for your convenience.

1. Please clarify if there is any change to the use, layout and development parameters compared to the last approved application No. A/NE-TKL/762;

與上次核准的申請編號 A/NE-TKL/762 相比, 在用途、佈局和開發參數等均相同。

2. Please provide justification for not complying with the approval conditions under the last approved application No. A/NE-TKL/762; and

由於上次負責協助申請者的顧問公司在批准了編號 A/NE-TKL/762 的申請後，與申請者的溝通方面及跟進附帶條件實施時皆發生嚴重的誤解及跟進問題，導致在實施附帶條件階段時在內容及時間上皆脫離應該進度，最終令申請被撤回。

3. Please provide the accepted FSIs proposal under the last approved application No. A/NE-TKL/762 for the consideration of FSD (only if it is still applicable to the current application);

申請者不打算用編號 A/NE-TKL/762 的已接受消防裝置建議書。現正在三個消防承辦商之間甄選中，預計會於兩週內落實及馬上擬定和遞交建議書。不會等到開會批准後才做。

4. Please clarify if the submitted drainage proposal is the same as the one accepted by DSD under the last approved application No. A/NE-TKL/762, and provide the soft copy of the drainage proposal.

今次遞交的排水建議書與上次編號 A/NE-TKL/762 批准了的相同，並沒有更改。請參考附件 "排水建議書.pdf"

thanks a lot ~

Regards,
Warren

Proposed Temporary Warehouse and Open Storage
of Construction Material with Ancillary Facilities for
a Period of 3 Years and Associated Filling of Land at
Lot 207 in D.D. 84, Ta Kwu Ling, N.T.

Drainage Proposal

Appendix I

2026 JUNE

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1. Introduction

1.1 Background

- 1.1.1 With reference to the approval on planning application of A/NE-TKL/762, in which the application seeks planning permission for proposed temporary open storage and warehouse for storage of timber and wooden parts for a period of 3 years at the development site.
- 1.1.2 This Drainage Proposal aim to discharge/fulfil the planning approval condition (a) and to support the development in drainage aspect.

1.2 The Site

- 1.2.1 The Development Site was situated beside a village road at Ta Kwu Ling, North Distract. It has an area of about 1,649 m². The existing site is fully paved. The site location plan is shown in **Figure 1**.
- 1.2.2 The existing ground level of the site is approx. +11.6 mPD and it is intended to maintain the same level at the proposed development site.
- 1.2.3 There is an existing 400 mm width channel at perimeter of development site. At the north of the site, beside the local village road and unused agricultural land, there is an existing channel and stream with size upto approx.. 2.2m width at downstream. Existing Drainage Plan and Site Photo of existing channel/stream are shown in **Figure 2** for reference.

2. Development Proposal

2.1 The Proposed Development

2.1.1 The total site area is approximately 1,649 m². The indicative development schedule is summarized in **Table 1** below for technical assessment purpose. The catchment plan is shown in **Figure 4**.

Proposed Development	
Total Site Area (m ²)	1,649
Paved Area (m ²)	1,649
Assume all proposed site area as paved area for assessment purpose	

Table 1 - Key Development Parameters

3. Assessment Criteria

3.1.1 The Recommended Design Return Period based on Flood Level from SDM (Table 10) is adopted for this DIA. 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 village drainage system intended to collect runoff from the internal site. 1 in 10 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 North District Rainfall Zone. Therefore, for 10 years return period, the following values are adopted.

a	=	1157.7
b	=	19.04
c	=	0.597

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:

- Paved Area: C = 0.95
- 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:

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

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. Design Review of Existing Drainage System

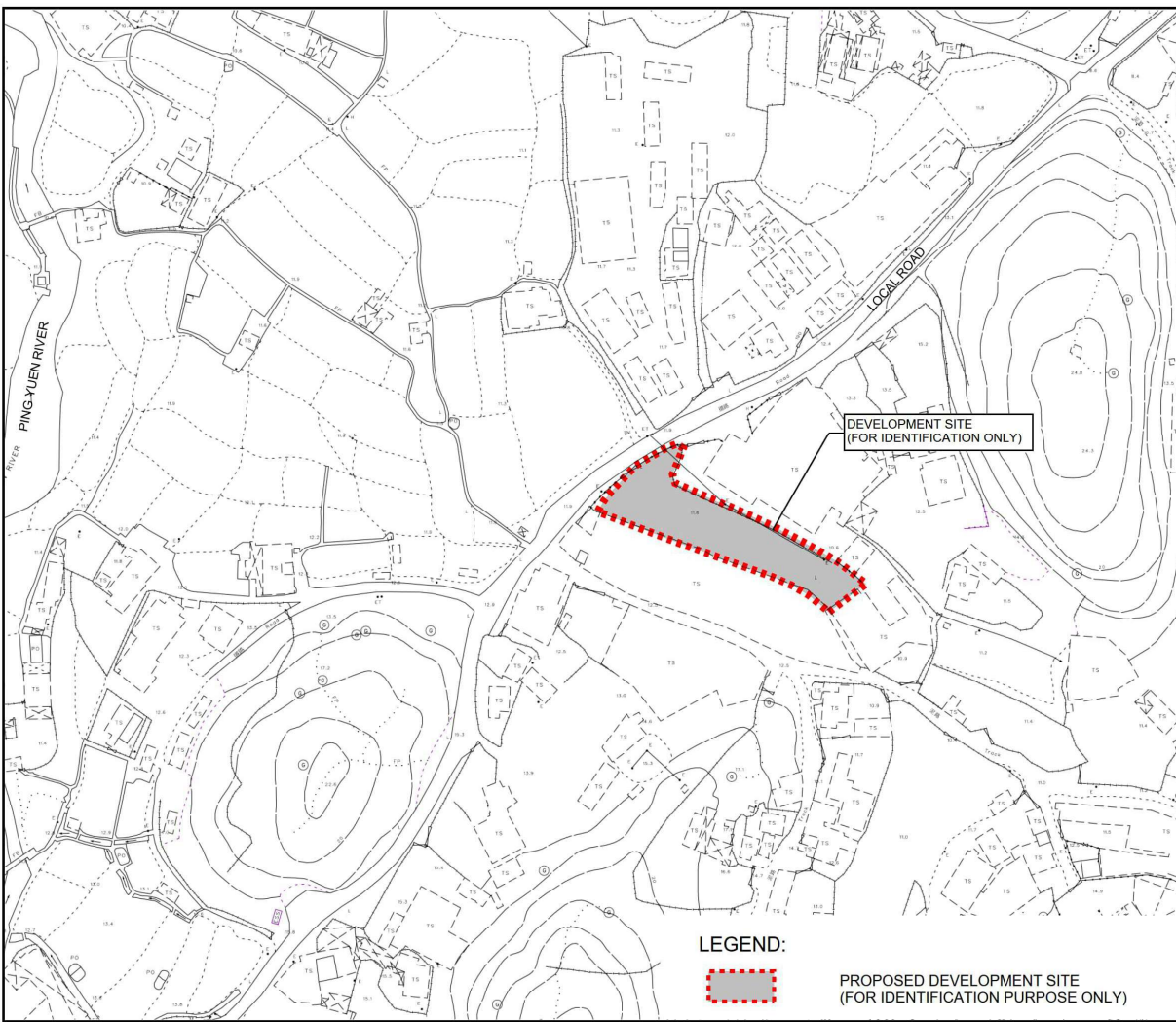
- 4.1.1 As the existing site area is fully paved, there is no additional runoff generated from the development site.
- 4.1.2 There is existing 400mm (W) (gradient 1 in 200) channels at the perimeter of the site as shown in **Figure 2**. The site runoff is discharging to an existing channel/stream (approx. 2.2m (W), gradient 1 in 150) at the north of the site.
- 4.1.3 The alignment, size and gradient of the existing drains are shown in **Figure 3**. The site and nearby area is generally flat. For capacity check of existing channel/stream, additional min. 15m area around the site (Zone E3 in Figure 4) was added to the catchment plan for assessment purpose. The catchment plan is shown in **Figure 4**.
- 4.1.4 The Design review of the existing 400mm channels are shown in **Appendix A**.

5. Conclusion

- 5.1.1 A drainage review has been conducted for the Proposed Development. As the existing site area is fully paved, there is no additional runoff generated from/drainage impact due to the development site.
- 5.1.2 The surface runoff from the Development Site will be collected by the existing drains and discharged to the existing channel/stream beside local road. The design review in Appendix A demonstrated that the utilization of existing drains is less than 70%.
- 5.1.2 With the existing drainage system, it is anticipated that there will be no significant drainage impact to the area after the implementation of the development.

- End of Text -

FIGURES



PROJECT:
 Proposed Temporary
 Warehouse and Open Storage
 of Construction Material with
 Ancillary Facilities for a Period
 of 3 Years and Associated Filling
 of Land at Lot 207 in D.D. 84, Ta
 Kwu Ling, N.T.

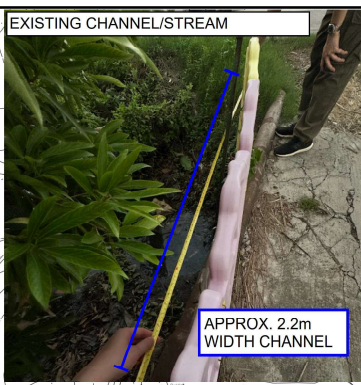
REV	DESCRIPTION	DATE

DRAWING TITLE
 SITE LOCATION PLAN

DRAWING NUMBER
 FIGURE 1

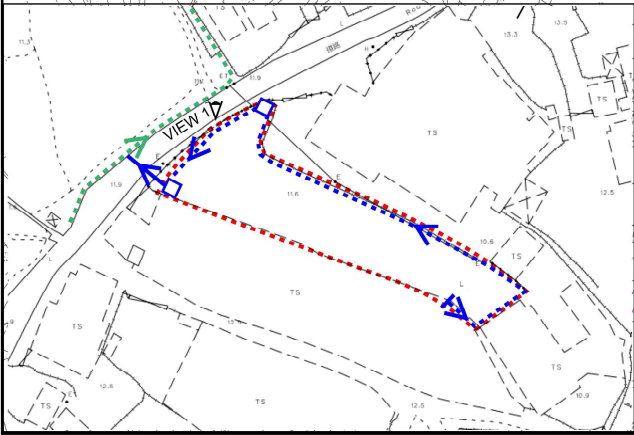
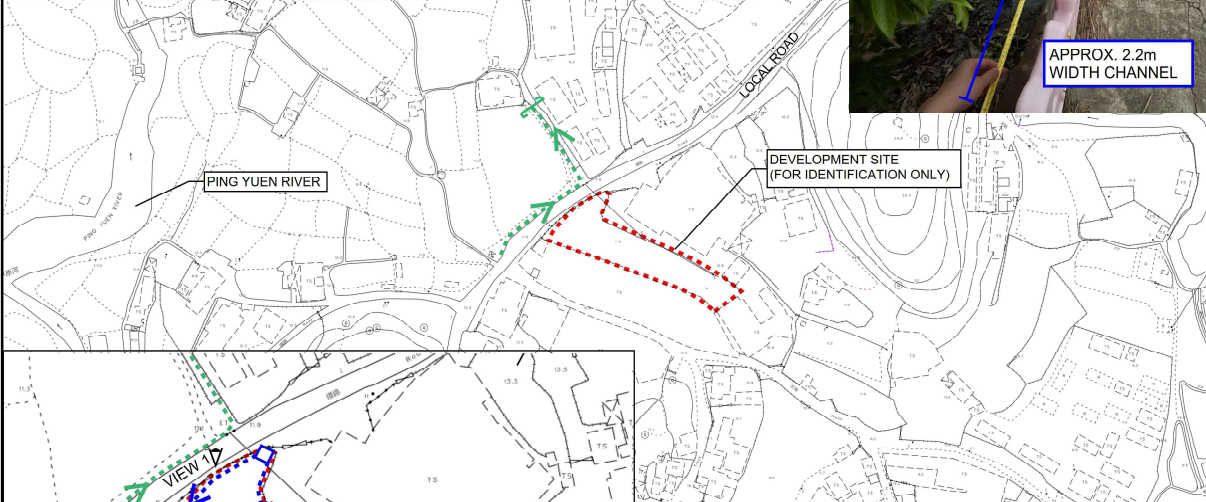


VIEW 1 - EXISTING CHANNEL/STREAM



EXISTING CHANNEL/STREAM

APPROX. 2.2m WIDTH CHANNEL



LEGEND:

- PROPOSED DEVELOPMENT SITE (FOR IDENTIFICATION PURPOSE ONLY)
- EXISTING PIT
- EXISTING U CHANNEL WITHIN DEVELOPMENT SITE (400mm, 1 in 200 FALL)
- EXISTING DRAINING PIPE (400mm, 1 in 200 FALL)
- EXISTING CHANNEL / STREAM (APPROX. 2.2m, 1 in 150 FALL)

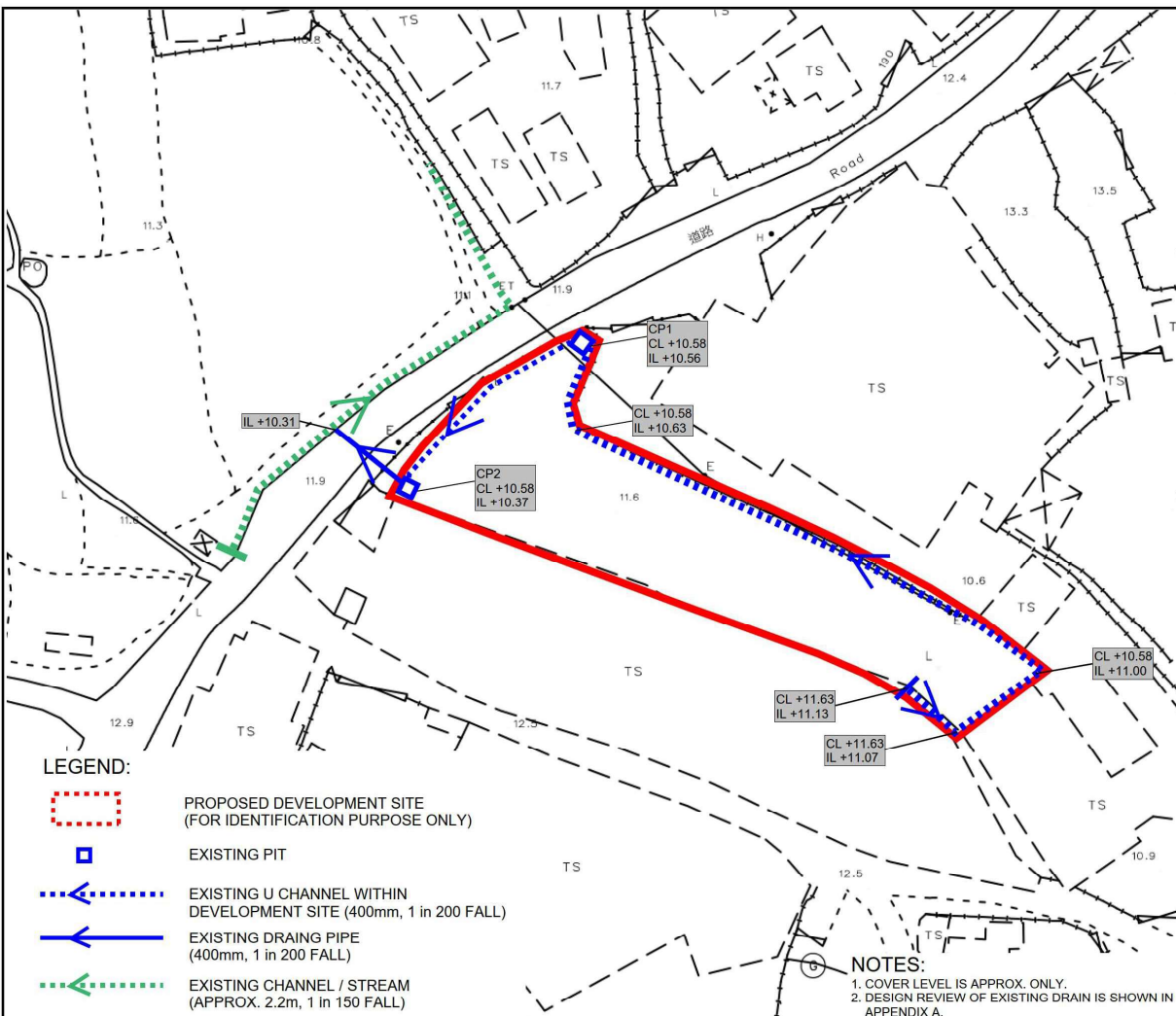
PROJECT:
 Proposed Temporary Warehouse and Open Storage of Construction Material with Ancillary Facilities for a Period of 3 Years and Associated Filling of Land at Lot 207 in D.D. 84, Ta Kwu Ling, N.T.

REV	DESCRIPTION	DATE

DRAWING TITLE
 EXISTING DRAINAGE PLAN

DRAWING NUMBER
 FIGURE 2

PROJECT:
 Proposed Temporary
 Warehouse and Open Storage
 of Construction Material with
 Ancillary Facilities for a Period
 of 3 Years and Associated Filling
 of Land at Lot 207 in D.D. 84, Ta
 Kwu Ling, N.T.



LEGEND:

- PROPOSED DEVELOPMENT SITE (FOR IDENTIFICATION PURPOSE ONLY)
- EXISTING PIT
- EXISTING U CHANNEL WITHIN DEVELOPMENT SITE (400mm, 1 in 200 FALL)
- EXISTING DRAING PIPE (400mm, 1 in 200 FALL)
- EXISTING CHANNEL / STREAM (APPROX. 2.2m, 1 in 150 FALL)

NOTES:

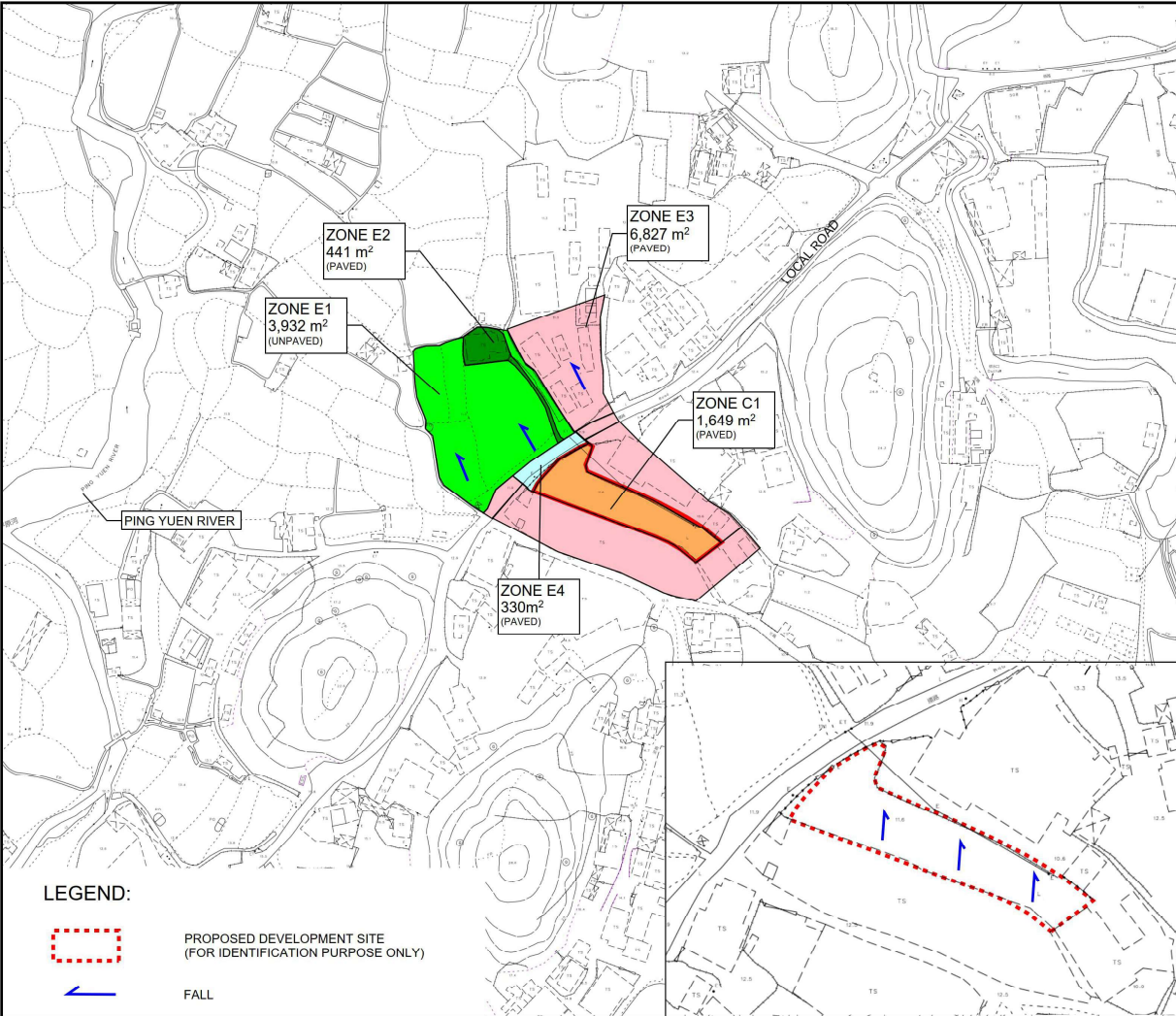
1. COVER LEVEL IS APPROX. ONLY.
2. DESIGN REVIEW OF EXISTING DRAIN IS SHOWN IN APPENDIX A.

REV	DESCRIPTION	DATE

DRAWING TITLE
EXISTING DRAINAGE SYSTEM

DRAWING NUMBER
FIGURE 3

PROJECT:
 Proposed Temporary
 Warehouse and Open Storage
 of Construction Material with
 Ancillary Facilities for a Period
 of 3 Years and Associated Filling
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 Kwu Ling, N.T.



REV	DESCRIPTION	DATE

DRAWING TITLE
CATCHMENT PLAN

DRAWING NUMBER
FIGURE 4

APPENDIX

Appendix A - Design Review of Existing Drainage System

Existing U Channel 1 (Zone C1 + E4)

Runoff Estimation

Design Return Period		1 in	10	years
Paved Area	330 + 1649 =		1979	(m ²)
Unpaved Area			0	(m ²)
Total Equivalent Area	1979 x 0.95 + 0 x 0.35 =		1880	(m ²)
Rainfall Intensity, I *			173	mm/hr
Design Discharge Rate, Q	0.278 x 1880 x 173 / 1000000 =		0.091	m ³ /s

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

U Channel

Channel Size		1 in	400	(mm)
Gradient			200	
Velocity			1.35	m/s
Capacity			0.193	m ³ /s

Utilization = 0.091 / 0.193 = **46.85** % OK (less than 90%, for 10% siltation allowance)

Existing Channel/ Stream (Zone C1 + E1 + E2 + E3 + E4)

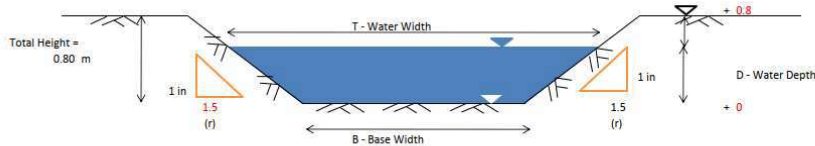
Runoff Estimation

Design Return Period		1 in	10	years
Paved Area	8806 =		8806	(m ²)
Unpaved Area	3932 =		3932	(m ²)
Total Equivalent Area	8806 x 0.95 + 3932 x 0.35 =		9742	(m ²)
Rainfall Intensity, I *			173	mm/hr
Design Discharge Rate, Q	0.278 x 3932 x 173 / 1000000 =		0.470	m ³ /s

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

Manning's to estimate Capacity

Checking of Capacity of Trapezoidal Channel



Scenario & Case	Assumed Water Depth (m)	Water Width (m)	Base Width (m)	Area (m ²)	Wetted Perimeter (m)	Hydraulic Radius (m)	Manning's Roughness n	Friction Slope S _f (1 in)	Velocity (m/s)	Capacity
A	D ₁	T	B	A ₁	P ₁	R ₁	n	S _f	V ₁	Q ₁
	0.50	2.10	0.6	0.68	2.40	0.28	0.085	150	1.0006	0.675
	Utilization =		0.47 / 0.675		69.55	%	OK			(less than 90%, for 10% siltation allowance)

Design Review of Existing 400mm Pipe

Runoff Estimation

Design Return Period		1 in	10	years
Paved Area*			1979	m ²
Unpaved Area*			0	m ²
Total Equivalent Area			1880	m ²
Rainfall Intensity			173	mm/hr
Design Discharge Rate			0.091	m ³ /s

Pipe Design

Pipe Size		1 in	400	mm
Gradient			200	
Velocity			1.54	m/s
Capacity			0.193	m ³ /s

Utilization = 0.091 / 0.193 = **46.97** % OK (less than 90%, for 10% siltation allowance)

Appendix B - Proposed Development Layout Plan

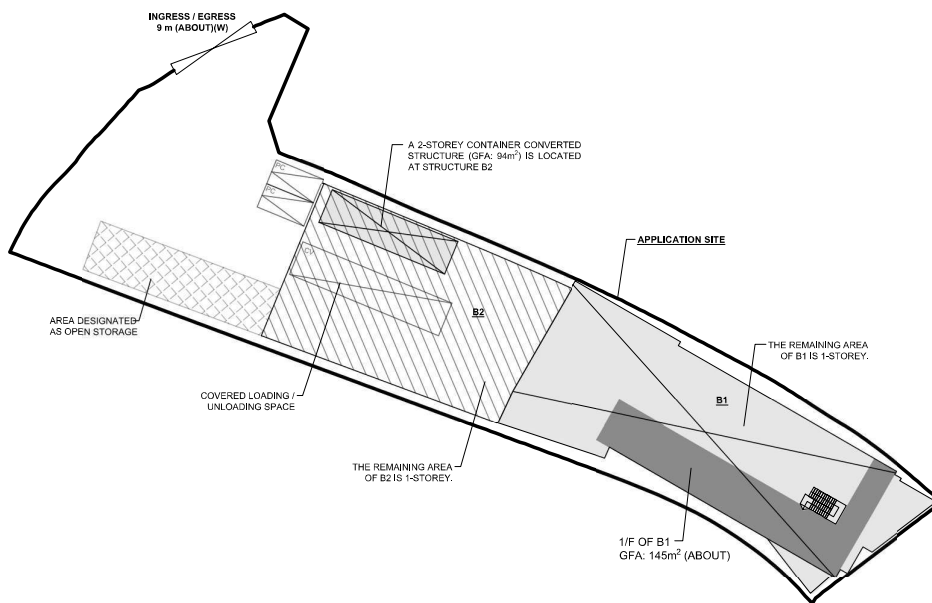
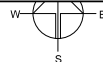
DEVELOPMENT PARAMETERS

APPLICATION SITE AREA	: 1,649 m ²	(ABOUT)
COVERED AREA	: 929 m ²	(ABOUT)
UNCOVERED AREA	: 720 m ²	(ABOUT)
PLOT RATIO	: 0.68	(ABOUT)
SITE COVERAGE	: 56 %	(ABOUT)
NO. OF STRUCTURE	: 2	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 1,121 m ²	(ABOUT)
TOTAL GFA	: 1,121 m ²	(ABOUT)
BUILDING HEIGHT	: NOT EXCEEDING 8 m	
NO. OF STOREY	: 2	

STRUC

B1	WAREHOUSE FOR STORAGE OF CONSTRUCTION MATERIALS	520 m ² (ABOUT)	665 m ² (ABOUT)	NOT EXCEEDING 8 m (*2-STOREY)
B2	WAREHOUSE FOR STORAGE OF CONSTRUCTION MATERIALS, COVERED LULI AREA, SITE OFFICE AND WASHROOM	409 m ² (ABOUT)	456 m ² (ABOUT)	NOT EXCEEDING 8 m (*2-STOREY)
TOTAL		929 m² (ABOUT)	1,121 m² (ABOUT)	

*ONLY PORTIONS OF STRUCTURES B1 AND B2 ARE 2-STOREY. THE REMAINING AREA OF STRUCTURES B1 AND B2 ARE 1-STOREY.



PARKING AND LOADING / UNLOADING PROVISIONS

NO. OF PRIVATE CAR PARKING SPACE	: 2
DIMENSION OF PARKING SPACE	: 5 m (L) x 2.5 m (W)
NO. OF LULI SPACE FOR CONTAINER VEHICLE	: 1
DIMENSION OF LULI SPACE	: 16 m (L) x 3.5 m (W)

LEGEND

	APPLICATION SITE
	OPEN STORAGE AREA
	STRUCTURE (SHED)
	STRUCTURE (ENCLOSED)
	PARKING SPACE (PC)
	LOADING / UNLOADING SPACE (CV)
	INGRESS / EGRESS

PLANNING CONSULTANT



PROJECT

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

REVISIONS

LOT 207 IN D.D. 84, PING CHE, TA KWU LING, NEW TERRITORIES

SCALE

1 : 500 @ A4

DRAWN BY: MN DATE: 14.5.2024

REVIEWED BY: DATE:

APPROVED BY: DATE:

DATE:

DATE:

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DATE:

DATE:

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DATE: