寄件者: Tang Lok San [redacted]
寄件日期: 2026年11月13日星期五 16:41
收件者: tpbpd/PLAND
副本: Kevin Ting Hong LAM/PLAND
主旨: Further Information for Planning Application no. A/YL-TT/824
附件: AYL-TT 824 20261112.pdf

To whom may concern,

Please see the attachment for the further infomation and draft drainage proposal with site photos. Please contact Mr. Tang via email [redacted] if you have any question regarding to the captioned application.

Yours sincerely,
Mr. Tang

規劃署及城市規劃委員會:

有關規劃署對 A/YL-TT/824 的查詢

現場會存放車輛、小型機械及水電工程所包含的工程材料，例如排水管、水喉及電箱、升降台等。現場不會儲放沙或其他多塵的材料，亦不會存儲危險品。

現場會存放車輛類型為二手私家車及輕型貨車，總數不多於 25 輛。

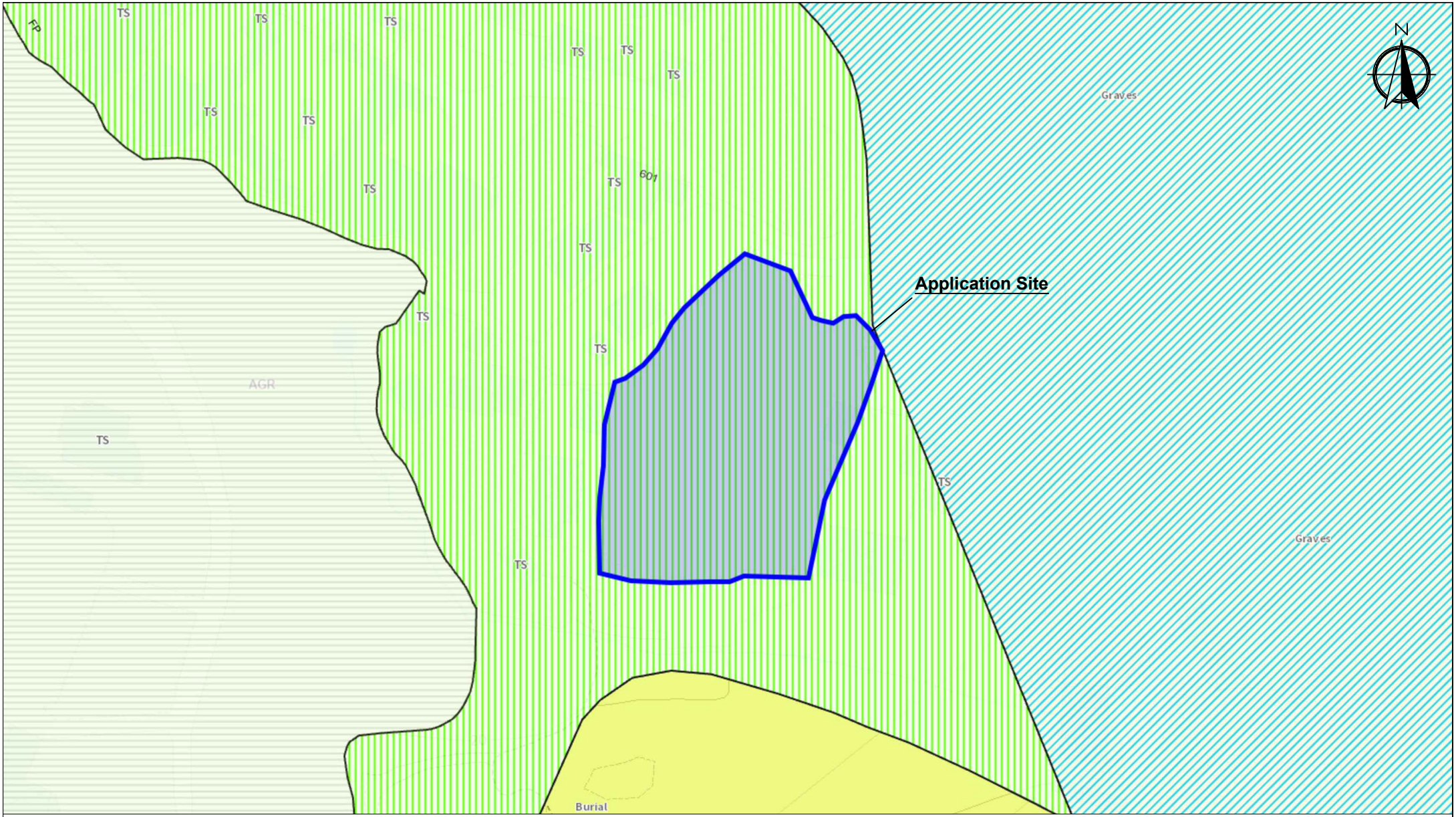
申請範圍已興建約 2.5 米高的金屬實心圍邊。

申請範圍內堆疊存放不超過 2.5 米高。

本申請只會用在存放用途，不會進行任何有關回收、清潔、修理、拆解或其他工場作業。

根據城市規劃委員會規劃指引編號 13G，本申請地點座落於第 2 類地區。第 2 類地區是適合用作露天貯物、港口後勤或其他類型棕地/臨時用途。因此，暫時批准當前的申請並不會妨礙長期規劃意圖，以及更好地利用新界寶貴的土地資源。

希望此附加文件能釋除　　貴署的隱憂，並支持本申請。



Appendix 7 TPB Guidelines No. 13G	Location: D.D. 117 Lot 1385 S.A (Part), 1385 RP, 1386 (Part), 1387 S.A and 1387 S.B OZP: S/YL-TT/20 District: Tai Tong Zoning: Agriculture	Project: Proposed Temporary Open Storage with Ancillary Facilities and Associated Filling of Land for a Period of 3 Years	Legend: Application Site Cat.2 of TPB Guidelines 13G Cat.3 of TPB Guidelines 13G Cat.4 of TPB Guidelines 13G	Drawing No.: 7 For Identification Only Date: 12/11/2026

本規劃申請會沿用規劃申請編號: A/YL-TT/691 的渠道設計。

渠務署及城市規劃委員會:

A/YL-TT/824 的擬議渠務建議詳細

申請地點範圍有約 1,615.2 平方米，位於錦田北的鄉郊範圍。目前為空置。

申請地點附近有大量的草地。水平為約+23.4 mPD (此水平已完成填土及平整)。

有一條渠道位於申請地點的西南面，並計劃將場內水流引導到該渠道。

申請地點的擬議佈局平面圖請參考 Appendix 2。

擬議發展	
申請地點範圍 (約 m^2)，以混凝土作地面材質	1,615.2
申請地點範圍外 (約 m^2)，以混凝土作地面材質	398.1
申請地點範圍外 (約 m^2)，以泥土作地面材質	185.8

根據 STORMWATER DRAINAGE MANUAL (SDM) - Table 10 – Recommended Design Return Periods based on Flood Levels

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 Systems	200 years
Urban Drainage Branch Systems	50 years

本報告將使用 Main Rural Catchment Drainage Channels, 1 in 50 years return period 作評估。

本渠道設計將參考由　貴署所編寫的 SDM 作基礎，以下為所採用的數據及計算方法。

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. 16% increases of the rainfall has been included.

$$i = 1.16\ \frac{a}{(t_d + b)^c}$$

The site is located within the HKO Headquarters Rainfall Zone. Therefore, for 50 years return period, the following values are adopted. (The latest figures are provided in Corrigendum No.1 2024 Stormwater Drainage Manual)

a = 505.5

b = 3.29

c = 0.355

2. The peak runoff is calculated by the Rational Method.

$$Q_p = 0.278\ C\ i\ A$$

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. According to Section 7.5.2(b) of the Stormwater Drainage Manual (SDM), Fifth Edition January 2018

Surface Characteristics	Runoff coefficient, C
Asphalt	0.70-0.95
Concrete	0.80-0.95
Brick	0.70-0.85
Grassland (heavy soil)	
Flat	0.13-0.25
Steep	0.25-0.35
Grassland (sandy soil)	
Flat	0.05-0.15
Steep	0.15-0.20

The run-off coefficient (C) of surface runoff area taken as follows:

- Concrete Area C = 0.95
- Grassland (heavy soil) with flat surface C = 0.25

4. Manning's Equation is used for calculation of velocity of flow inside the channels. It can be expressed by the following algebraic equation.

$$V = \frac{R^{1/6}}{n}\sqrt{RS_f}$$

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. It can be expressed by the following algebraic equation.

$$\bar{V} = -\sqrt{8gDS} \quad \log\left(\frac{k_s}{3.7D} + \frac{2.51v}{D\sqrt{2gDS}}\right)$$

where V = Velocity of the pipe flow (m/s)

g = gravitational acceleration (m/s^2)

k_s = hydraulic pipeline roughness (m)

v = kinematics viscosity of fluid (m^2/s)

D = internal pipe diameter (m)

s = hydraulic gradient (energy loss per unit length due to friction)

申請範圍主要平坦，並緩緩斜向南面，渠道設計請參考 Appendix 6.1。

渠道容量計算請參考 Appendix – Calculation。

根據本報告，本臨時發展不會對附近的渠道有重大影響。

Check The Capacity of Existing 1.45m (W) x 0.9 (D) Open Channel

Manning Equation is used in hydraulic design and analysis. The cross-sectional mean velocity is given in the following expression:

$$V = \frac{R^{1/6}}{n}\sqrt{RS_f}$$

Where R = hydraulic radius (m)
N = Manning coefficient (s/m1/3), refer Table 13 of SDM
Sf = friction gradient (dimensionless)

Using Manning's Equation

$V = R^{2/3} * S_f^{0.5}/n$

Where R = A/P = 0.402 m A = 1.305 m^2
P = 3.25 m
n = 0.05 $s/m^{1/3}$ (Table 13 of Stormwater Drainage Manual)
S_f = 0.02

Therefor V = $0.402^{2/3} * 0.21^{0.5}/0.05$
= 1.58 m/sec

Maximum Capacity (Qmax)
= 0.9 V*A
= 1.856 m^3/sec
= 1.856*60000
= 111,360 lit/min
> Q_{total}

The Existing Drainage has enough capacity.

Appendix – Calculation

Capacity Flows Estimation for Propose Catchments and Drainage System with 50 Year Return Period

Note:

Runoff is calculated in accordance with DSD's "Stormwater Drainage Manual – Planning, Design and Management" (SDM), fifth edition, January 2018.

Equation used: $t_c = \frac{0.14465L}{H^{0.2}A^{0.1}}$ $i = 1.16\ \frac{a}{(t_c+b)^c}$ $Q_p = 0.278\ C\ i\ A$ $V = \frac{R^{1/6}}{n}\sqrt{RS_f}$

1. Calculation of the runoff of Existing Drainage System

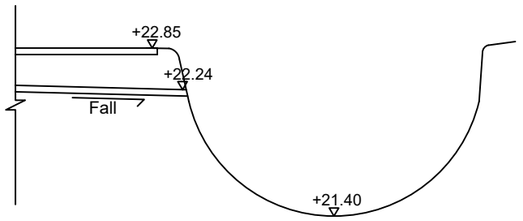
Surface Type	Catchment Area (A), m^2	Catchment Area (A), km^2	Average slope (H), m/100m	Flow path length (L), m	Time of Concentration (t_c), min	a (50 year return period)	b (50 year return period)	c (50 year return period)	Runoff intensity (i) mm/hr	Runoff coefficient (C)	C x A	Peak runoff (Q_p), m^3/s
25% Concrete + 75% Grassland (Heavy soil) with steep surface	67,858	0.067858	2.12	372	15.22	505.5	3.29	0.355	208	0.425	0.0288	1.665
											Total	1.665

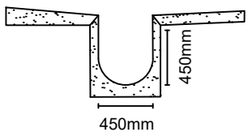
2. Adequacy Check for Existing Drainage System

Channel Type	Width, m	Depth, m	Slope	Length, m	Manning's Roughness Coefficient	Cross Section Area, m2	Wetted Perimeter, m	Hydraulic radius, m	Mean Velocity, m/s	Capacity flow, m3/s	Catchment Served, km^2	Runoff, m3/s	% of capacity flow	Sufficient Capacity (Y/N)
Natural-Stream (7)	1.45	0.9	0.02	372	0.05	1.305	3.25	0.402	1.58	1.856	0.068	1.665	89%	Y

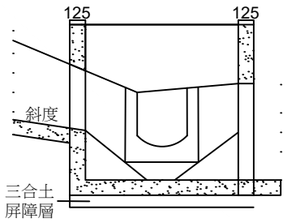
*Allowed 10% for siltation.

Connection Detail

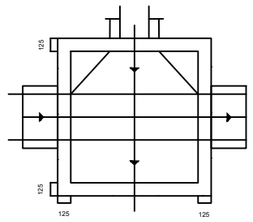




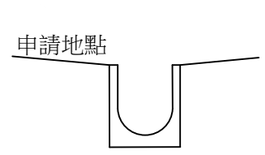
U型明渠切面圖



沙井切面圖

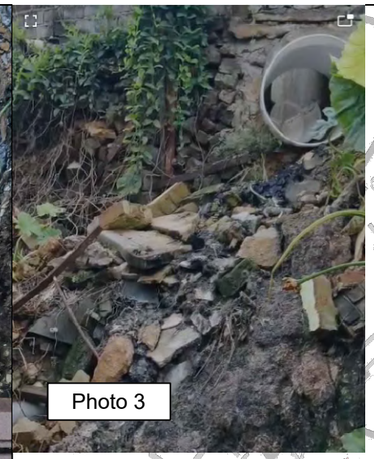


沙井俯視圖



U型明渠切面略圖









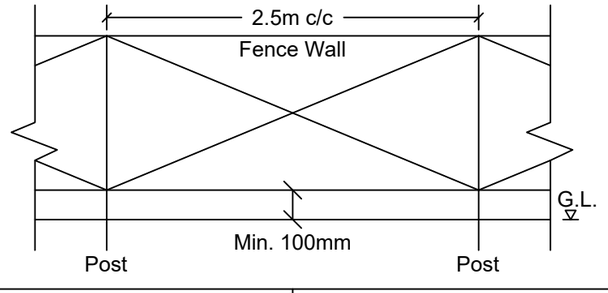


Note:

1. Adequate opening will be provided around the application site.
2. Catchpit design shall follow CEDD standard drawing No. C2406I.
3. All proposed U-channel and Catchpit must maintain in good shape (i.e. Inspection and maintenance regularly).
4. Grating Cover is provided on all proposed surface channel.
5. CP1 will build with destiling facility.

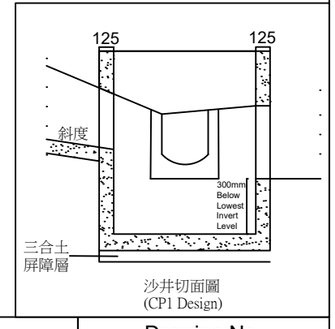
*Invert Level of Connection Point Should Be Verified On Site Before Construction.
*Cover Level Are Indicative Only Which Should Be Verified On Site.

TYPICAL DETAIL OF OPEN-BOTTOM TYPE FENCE WALL



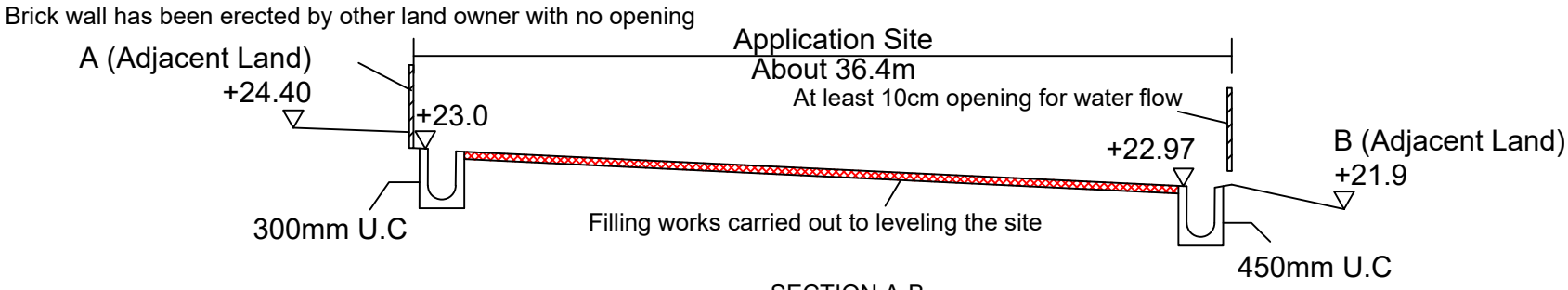
Legend:

- Proposed Catchpit
- Proposed U-Channel
- Water Flow
- Viewing Point

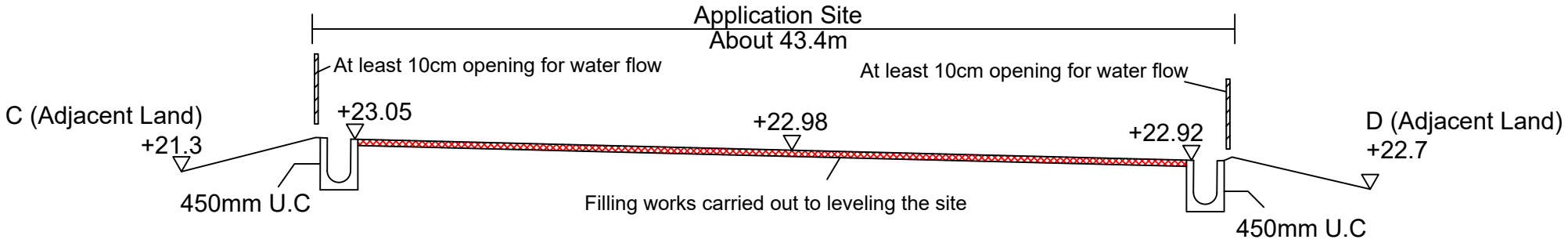


沙井切面圖
(CP1 Design)

Appendix 6.1	Location: DD 117 Lot 1385 S.A (Part), 1385 RP, 1386 (Part), 1387 S.A, 1387 S.B OZP: S/YL-TT/20 District: Tai Tong Zoning: Agriculture	Proposed Temporary Open Storage with Ancillary Facilities and Associated Filling of Land For a Period of 3 Years	Proposed Drainage Plan	Scale: 1:500 @A4	Drawing No. 6.1 For Identification Only Date: 30 Oct 2026

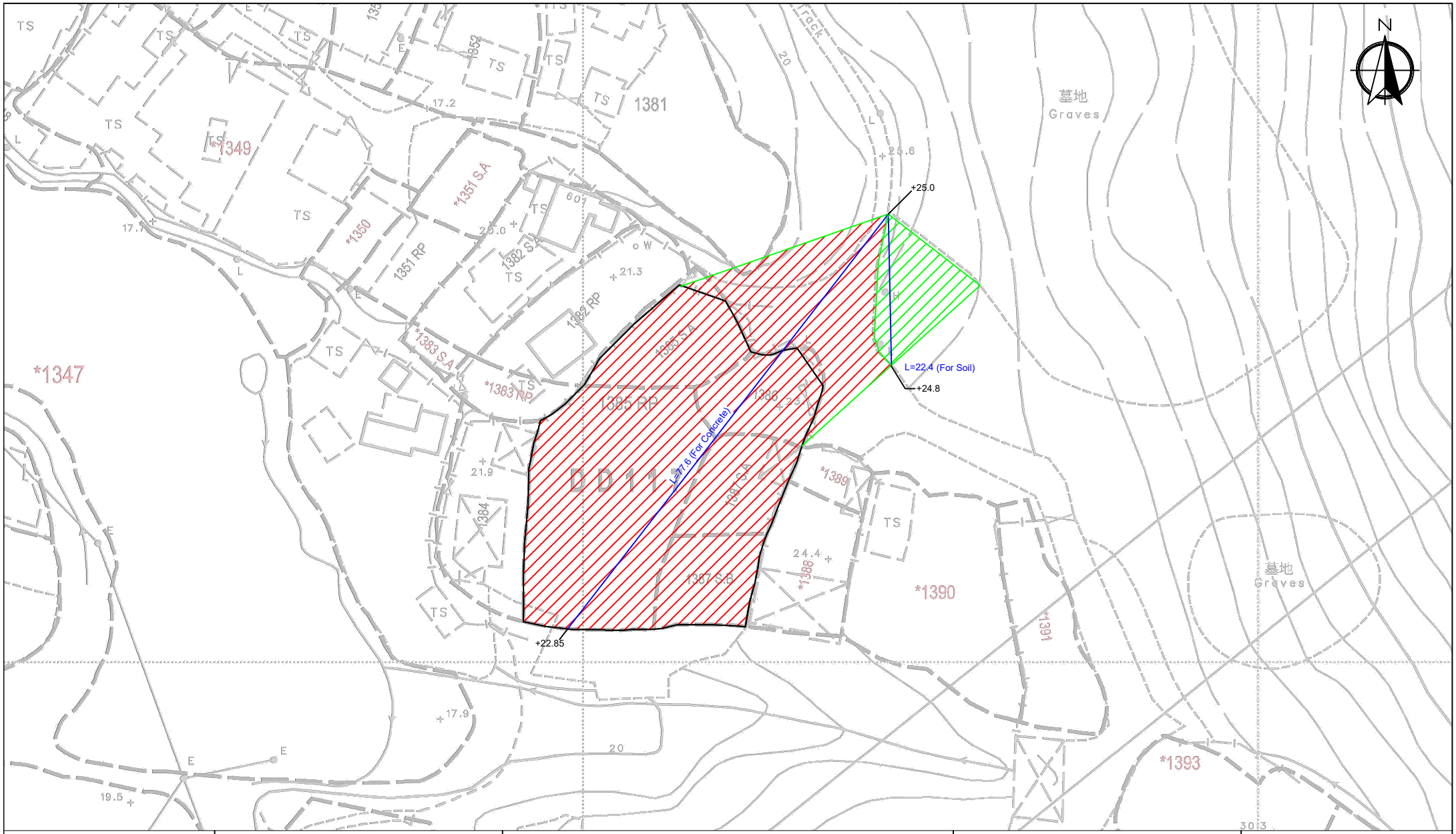


SECTION A-B

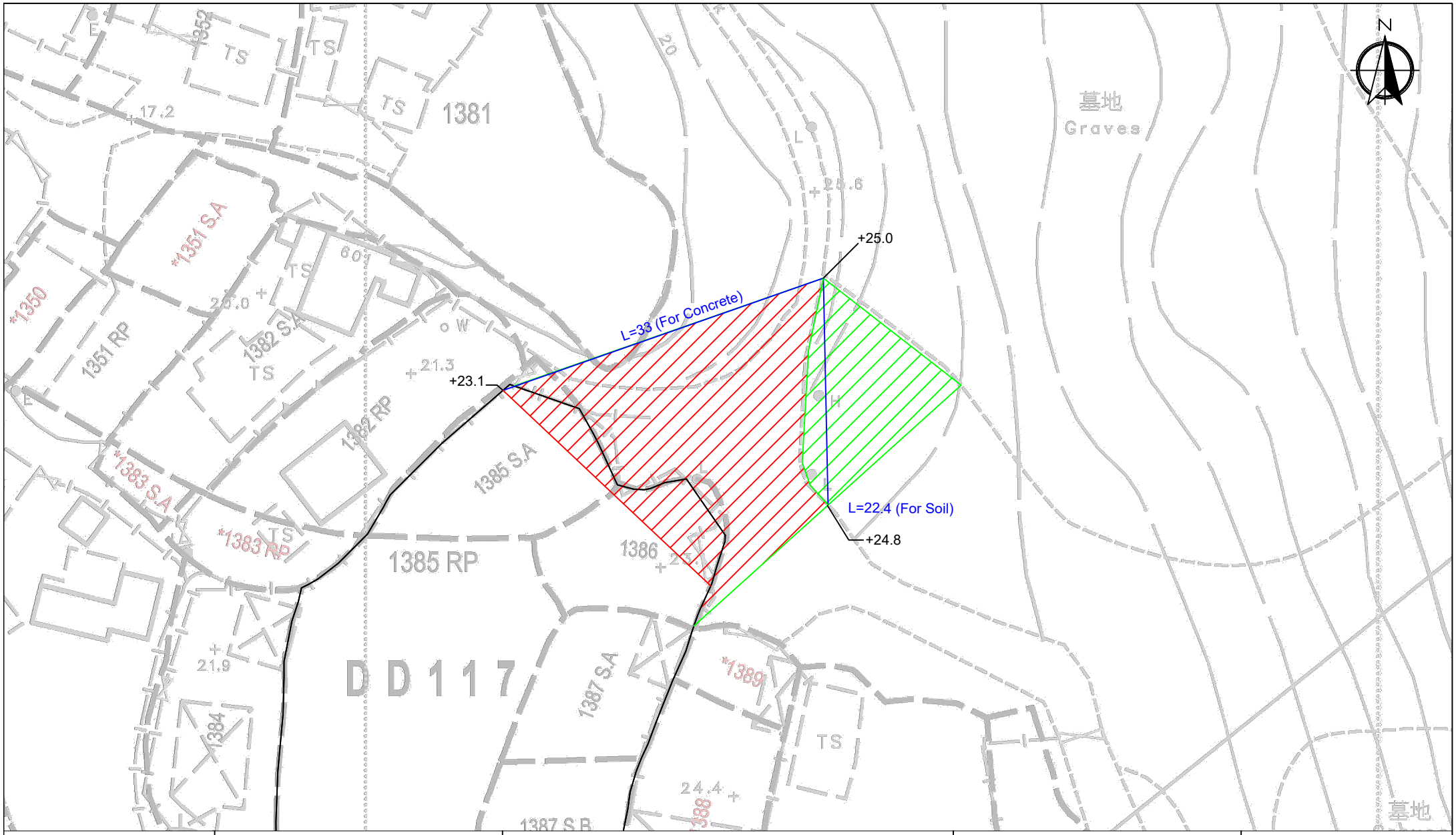


SECTION C-D

Appendix 6.2 Cross Section A-B C-D	Location: DD 117 Lot 1385 S.A (Part) 1385 RP, 1386 (Part), 1387 S.A, 1387 S.B OZP: S/YL-TT/20 District: Tai Tong Zoning: Agriculture	擬議臨時露天存放連附屬設施 及相關填土工程(為期3年) Proposed Temporary Open Storage with Ancillary Facilities and Associated Filling of Land For a Period of 3 Years		Drawing No.: 6.2 For Identification Only Date: 21/07/2026



Appendix 6.3 Catchment Area (Application Site)	Location: DD 117 Lot 1385 S.A (Part), 1385 RP, 1386 (Part), 1387 S.A, 1387 S.B OZP: S/YL-TT/20 District: Tai Tong Zoning: Agriculture	擬議臨時露天存放連附屬設施及相關填土工程(為期3年) Proposed Temporary Open Storage with Ancillary Facilities and Associated Filling of Land For a Period of 3 Years	Around 2,199.1 m^2 Scale: 1:750 @A4	Drawing No.: 6.3 For Identification Only Date: 16/05/2026



Appendix 6.3-2 Catchment Area (225mm UC)	Location: DD 117 Lot 1385 S.A (Part), 1385 RP, 1386 (Part), 1387 S.A, 1387 S.B OZP: S/YL-TT/20 District: Tai Tong Zoning: Agriculture	擬議臨時露天存放連附屬設施 及相關填土工程(為期3年) Proposed Temporary Open Storage with Ancillary Facilities and Associated Filling of Land For a Period of 3 Years	Around 720.8 m^2 Scale: 1:500 @A4	Drawing No.: 6.3-2 For Identification Only Date: 21/07/2026



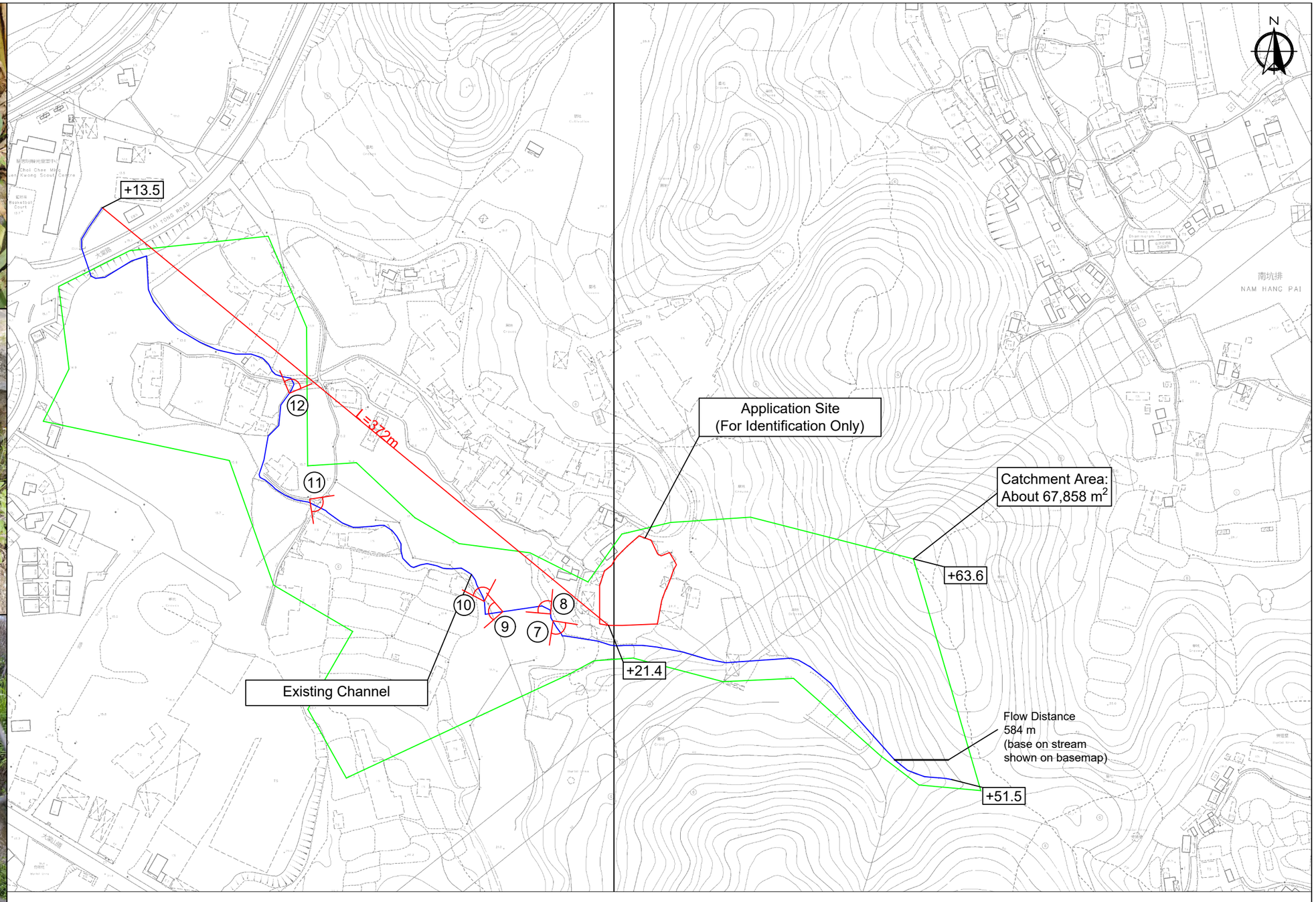










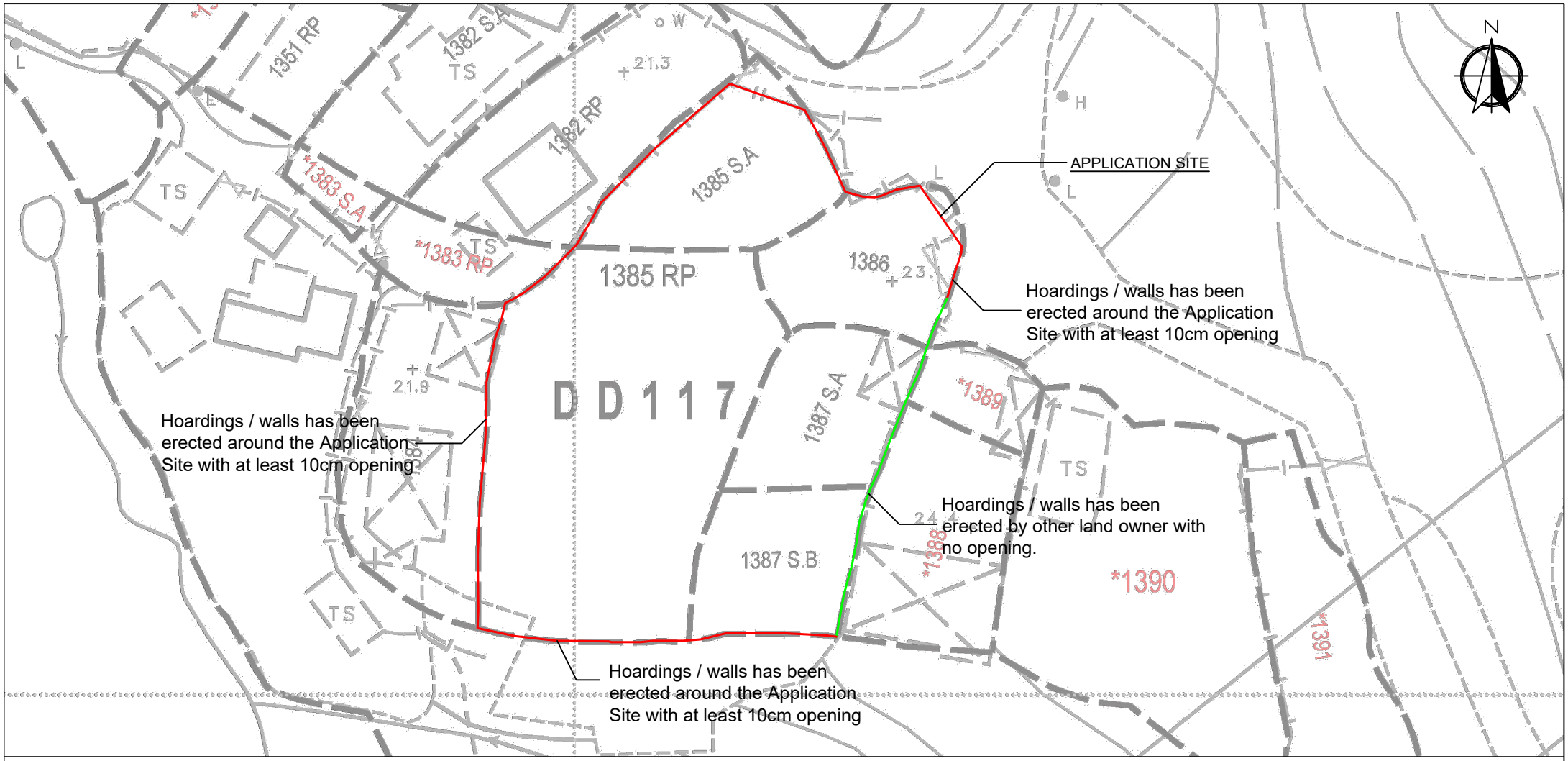


Legend:

- Catchment Area
- Existing Channel (About 1.45m (W) x 0.9m (D))
- Application Site

Captured from hkmapservices iB1000 6-NW-24B and iB1000 6-NW-25A on 19th September 2025

Appendix 6.4	Location: DD 117 Lot 1385 S.A (Part), 1385 RP, 1386 (Part), 1387 S.A, 1387 S.B OZP: S/YL-TT/20 District: Tai Tong Zoning: Agriculture	Proposed Temporary Open Storage with Ancillary Facilities and Associated Filling of Land For a Period of 3 Years	Existing Drainage Channel Catchment Area	Scale: Undefined @A4	Drawing No. 6.4 For Identification Only Date: 4 June 2026



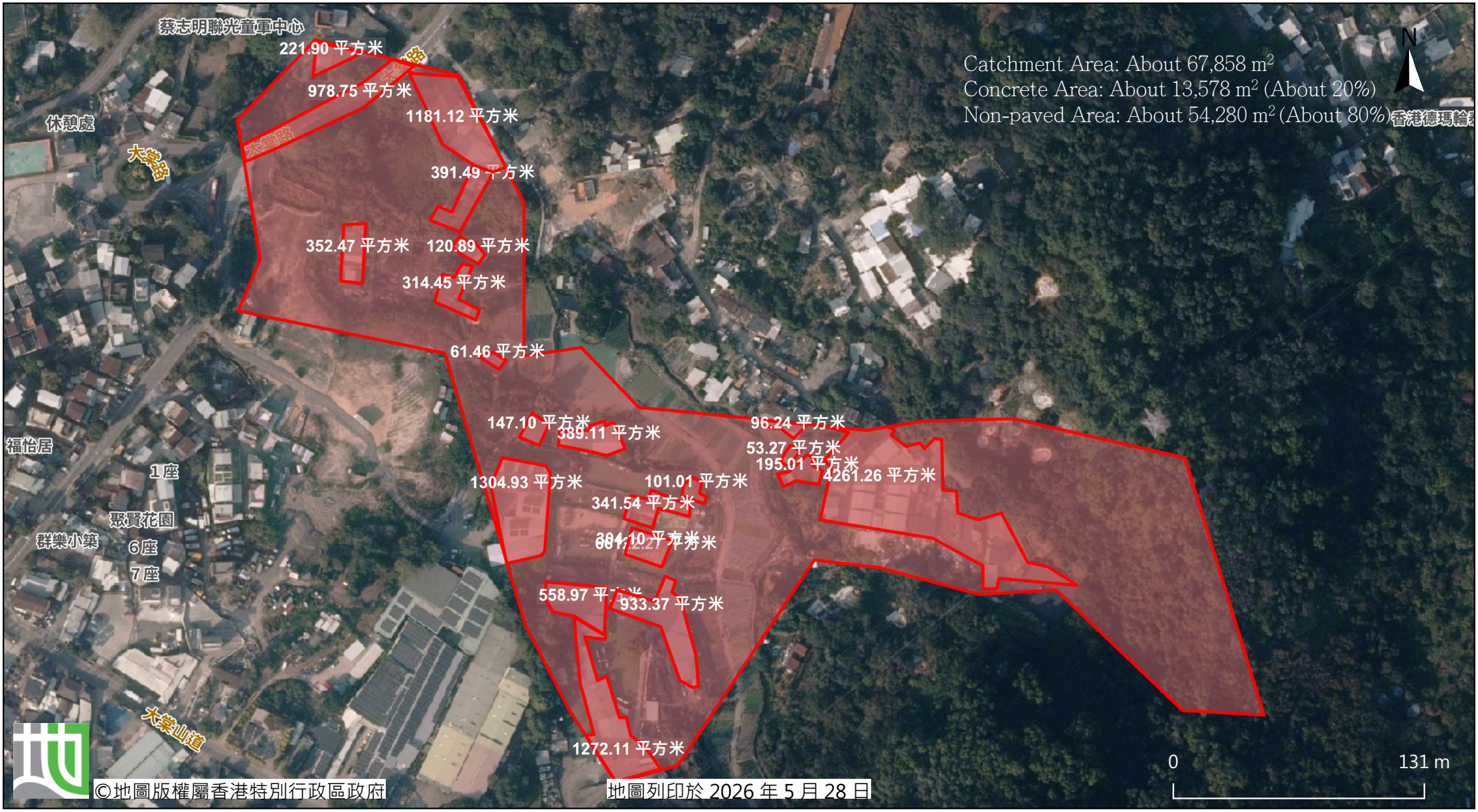
Legend:

- Hoarding with at least 10cm opening at the toe of the hoardings
- Walls erected by other land owner

Appendix 6.5 Walls / Hoardings location (Application Site)	Location: DD 117 Lot 1385 S.A (Part), 1385 RP, 1386 (Part), 1387 S.A, 1387 S.B OZP: S/YL-TT/20 District: Tai Tong Zoning: Agriculture	擬議臨時露天存放連附屬設施及相關填土工程(為期3年) Proposed Temporary Open Storage with Ancillary Facilities and Associated Filling of Land For a Period of 3 Years	Scale: 1:500 @A4	Drawing No.: 6.5 For Identification Only Date: 16/05/2026

GEOINFO MAP
地理資訊地圖

前往地圖: https://www.map.gov.hk/gm/geo:22.4170,114.0280?z=2257



由「地理資訊地圖」網站提供: https://www.map.gov.hk

注意: 使用此地圖受「地理資訊地圖」的使用條款及條件以及知識產權告示約束。

Outside Catchment Area (A)	=	185.8 m^2	(About)	C:	0.25 (Covered with Grassland (heavy soil)
	=	398.1 m^2	(About)	C:	0.95 (Covered with Concrete)
	=	583.9 m^2	(About)		
The Application Site (B)	=	1615.2 m^2	(About)	C:	0.95 (Covered with Concrete)

Calculation of Desgin Runoff of the Proposed Development,
For the design of drains inside the site, For Concrete (including (A) and (B))

$Q_p = 0.278C\ I\ A$

$A = 1{,}615.2 + 398.1\ m^2$
$= 2{,}013.3\ m^2$
$= 0.0020133\ km^2$

$t = 0.14465L/H^{0.2}A^{0.1}$
$= 0.14465*77.6/2.77^{0.2}*2013.3^{0.1}$
$= 5.849$ min

$i = 1.16*a/(t+b)^c$
$= 1.16*505.5/(5.849+3.29)^{0.355}$
$= 267.33456$

(50 years return period, Table 3a, Corrigendum 2024, SDM) and (16% increase due to climate change)

$Q = 0.278*0.95*268*2170.1/1000000$
$= 0.1421451\ m^3/sec$
$= 8529$ lit/min

Outside Catchment Area (A)	=	185.8 m^2	(About)	C:	0.25 (Covered with Grassland (heavy soil)
	=	398.1 m^2	(About)	C:	0.95 (Covered with Concrete)
	=	583.9 m^2	(About)		
The Application Site (B)	=	1615.2 m^2	(About)	C:	0.95 (Covered with Concrete)

Calculation of Desgin Runoff of the Proposed Development,
For the design of drains inside the site, For Grassland (Heavy Soil)

$Q_p = 0.278C\ I\ A$

$A = 185.8\ m^2$
$= 185.8\ m^2$
$= 0.0001858\ km^2$

$t = 0.14465L/H^{0.2}A^{0.1}$
$= 0.14465*22.4/0.89^{0.2}*185.8^{0.1}$
$= 2.143$ min

$i = 1.16*a/(t+b)^c$ (50 years return period, Table 3a,
$= 1.16*505.5/(2.143+3.29)^{0.355}$ Corrigendum 2024, SDM) and
$= 321.54849$ (16% increase due to climate change)

$Q = 0.278*0.25*322*185.8/1000000$
$= 0.0041522\ m^3/sec$
$= 249$ lit/min

Total Rainfall lit/min	=	8529	+	249	lit/min
Catchment	=	8778			lit/min

Provide 450UC (1:200) has enough capacity to accomend the runoff of the whole Catchment area

225mm UC Catchment Area	=	185.8 m^2	(About)	C:	0.25 (Covered with Grassland (heavy soil)
	=	535.0 m^2	(About)	C:	0.95 (Covered with Concrete)
	=	720.8 m^2	(About)		

Calculation of Desgin Runoff of the Proposed Development,
For the design of drains inside the site, For Concrete (225mm UC)

$Q_p = 0.278C\ I\ A$

$A = 535.0\ m^2$
$= 535.0\ m^2$
$= 0.0005350\ km^2$

$t = 0.14465L/H^{0.2}A^{0.1}$
$= 0.14465*77.6/2.77^{0.2}*2013.3^{0.1}$
$= 2.840$ min

$i = 1.16*a/(t+b)^c$
$= 1.16*505.5/(2.84+3.29)^{0.355}$
$= 308.05753$

(50 years return period, Table 3a, Corrigendum 2024, SDM) and (16% increase due to climate change)

$Q = 0.278*0.95*308*535/1000000$
$= 0.0435265\ m^3/sec$
$= 2612$ lit/min

Outside Catchment Area (A)	=	185.8 m^2	(About)	C:	0.25 (Covered with Grassland (heavy soil)
	=	398.1 m^2	(About)	C:	0.95 (Covered with Concrete)
	=	583.9 m^2	(About)		
The Application Site (B)	=	1615.2 m^2	(About)	C:	0.95 (Covered with Concrete)

Calculation of Desgin Runoff of the Proposed Development,
For the design of drains inside the site, For Grassland (Heavy Soil) (225mm UC)

$Q_p = 0.278C\ I\ A$

$A = 185.8\ m^2$
$= 185.8\ m^2$
$= 0.0001858\ km^2$

$t = 0.14465L/H^{0.2}A^{0.1}$
$= 0.14465*22.4/0.89^{0.2}*185.8^{0.1}$
$= 2.143$ min

$i = 1.16*a/(t+b)^c$ (50 years return period, Table 3a,
$= 1.16*505.5/(2.143+3.29)^{0.355}$ Corrigendum 2024, SDM) and
$= 321.54849$ (16% increase due to climate change)

$Q = 0.278*0.25*322*185.8/1000000$
$= 0.0041522\ m^3/sec$
$= 249$ lit/min

Total Rainfall lit/min	=	2612	+	249	lit/min
Catchment	=	2861			lit/min

Provide 225UC (1:200) has enough capacity to accomend the runoff of the whole Catchment area

Check 225mm U-channel by Colebrook-White Equation

By Colebrook White Equation

$$V = -\sqrt{(8gDs)}\log\left(\frac{k_s}{3.7D} + \frac{2.51\nu}{D\sqrt{(2gDs)}}\right)$$

where:	V	=	mean velocity (m/s)	
	g	=	gravitational acceleration (m/s²)	
	D	=	u channel diameter (m)	
	Rh	=	Hydraulic Radius (m)	
	k_s	=	hydraulic pipeline roughness (m)	(Table 14, from DSD SDM 2018, concrete pipe)
	v	=	kinematic viscosity of fluid (m²/s)	(Transitional flow and water at 15 degree celcius)
	s	=	hydraulic gradient (energy loss per unit length due to friction)	

g	=	9.81	m/s²
D	=	0.225	m
Rh	=	0.075	m
k_s	=	0.00015	m
v	=	1.14E-06	m/s²
s	=	0.01	

Therefore, design V of UC c = 1.520549 m/s

Q = 0.8VA (0.8 factor for sedimentation)

= 0.061582 m^3/s

= 3694.934 lit/min

> 2861 lit/min

Provide 225UC (1:100) has enough capacity to accomend the runoff

Check 450mm dia. Pipes by Colebrook-White Equation

By Colebrook White Equation

$$V = -\sqrt{(8gDs)}\log\left(\frac{k_s}{3.7D} + \frac{2.51v}{D\sqrt{(2gDs)}}\right)$$

where:

V	=	mean velocity (m/s)	
g	=	gravitational acceleration (m/s^2)	
D	=	internal pipe diameter (m)	
k_s	=	hydraulic pipeline roughness (m)	(Table 14, from DSD SDM 2018, concrete pipe)
v	=	kinematic viscosity of fluid (m^2/s)	(Transitional flow and water at 15 degree celcius)
s	=	hydraulic gradient (energy loss per unit length due to friction)	

g	=	9.81	m/s^2
D	=	0.45	m
k_s	=	0.00015	m
v	=	1.14E-06	m/s^2
s	=	0.005	

Therefore, design V of pipe capacit = 1.647046 m/s

Q	=	0.8VA	(0.8 factor for sedimentation)
	=	0.238191	m^3/s
	=	14291.48	lit/min
	>	8778	lit/min

Provide 450 dia. pipe (1:200) has enough capacity to accomend the runoff of the proposed development

GEO Technical Guidance Note No. 43 (TGN 43)
Guidelines on Hydraulic Design of U-shaped and Half-round Channels on Slopes

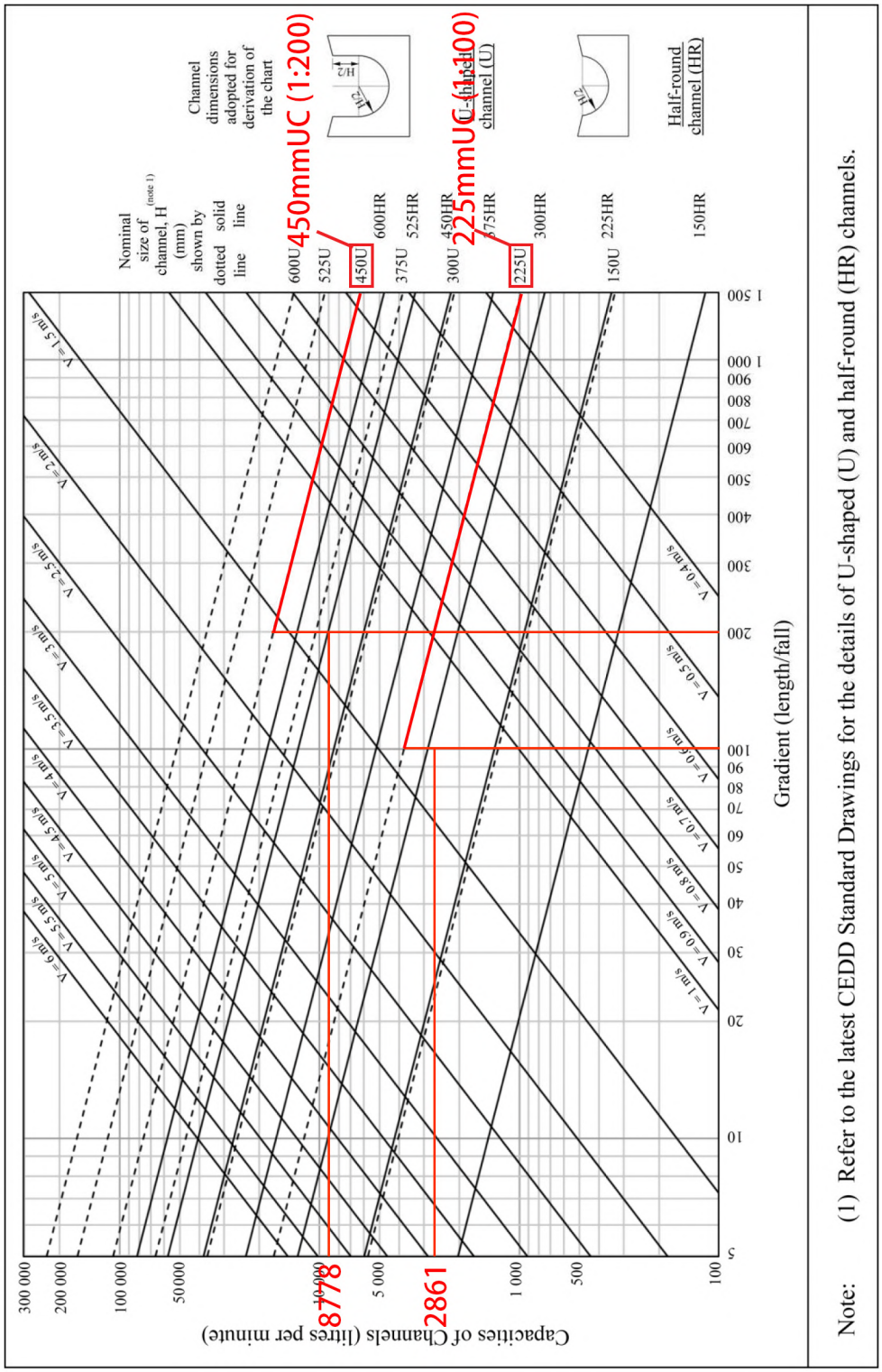
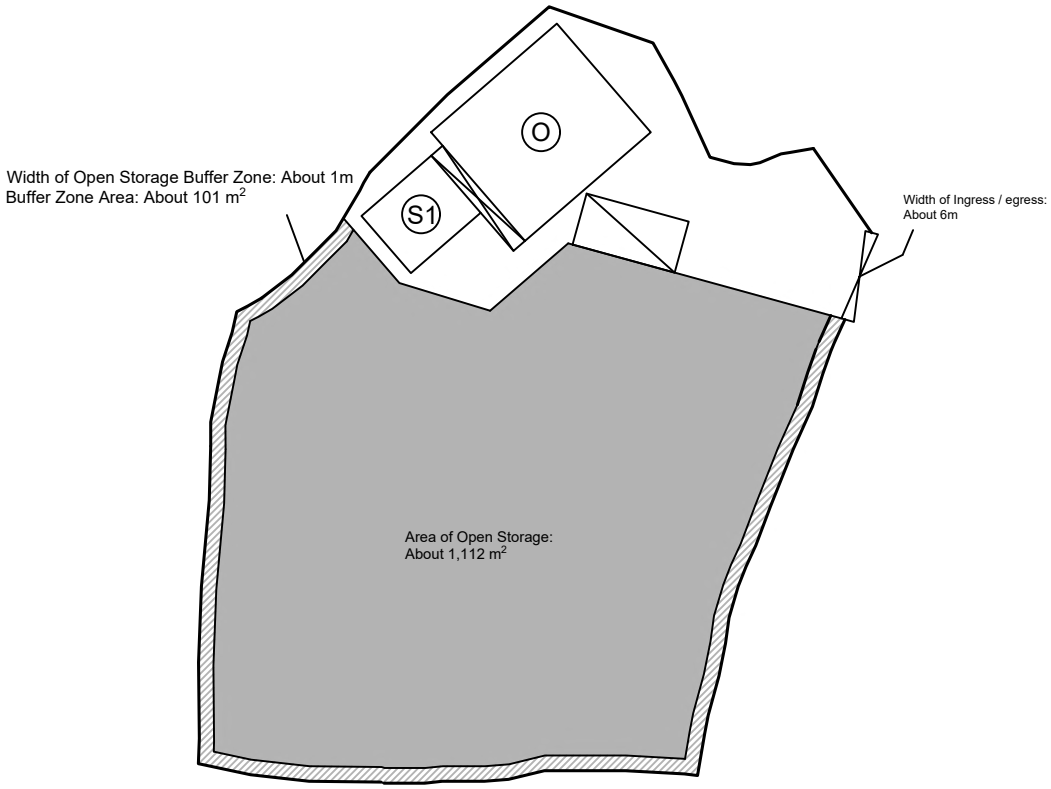


Figure 1 - Chart for the rapid design of U-shaped and half-round channels up to 600 mm

Note: (1) Refer to the latest CEDD Standard Drawings for the details of U-shaped (U) and half-round (HR) channels.

Proposed Structures Details

	Structures	Gross Floor Area (GFA)	Height (Not Exceeding)	No. of Storey	Unit(s)
O	Ancillary Office	About 11m x 9.5m = 104.5 m^2	3.5m	1	1
S1	Ancillary Storage (S1)	About 5m x 6.1m = 30.5 m^2	3.5m	1	1
	Open Shed (Between S1 and O)	About 1m x 8.3m = 8.3 m^2	3.5m		1
	Total Non-Domestic GFA	About 143.3 m^2			
	LGV L/UL Space	7m x 3.5m			1



Legend:

- Ingress/egress (Width: About 6m)
- Open Storage (OS) Area
- Buffer Zone for OS Area
- Proposed Structures
- Open Shed
- LGV L/UL Space

Total Area: 1,615.2 m^2 (About)
Covered Area: 143.3 m^2 (About)
Uncovered Area: 1,471.9 m^2 (About)
Non-Domestic GFA: 143.3 m^2 (About)
Nos. of Proposed Structures: 3

Appendix 2

Location: DD 117 Lot 1385 S.A (Part)
1385 RP, 1386 (Part),
1387 S.A, 1387 S.B

OZP: S/YL-TT/20
District: Tai Tong
Zoning: Agriculture

Date: 4 November 2026

Proposed Layout Plan
擬議佈局平面圖

擬議臨時露天存放連附屬設施
及相關填土工程(為期3年)

Proposed Temporary Open Storage with Ancillary Facilities and Associated Filling of Land For a Period of 3 Years

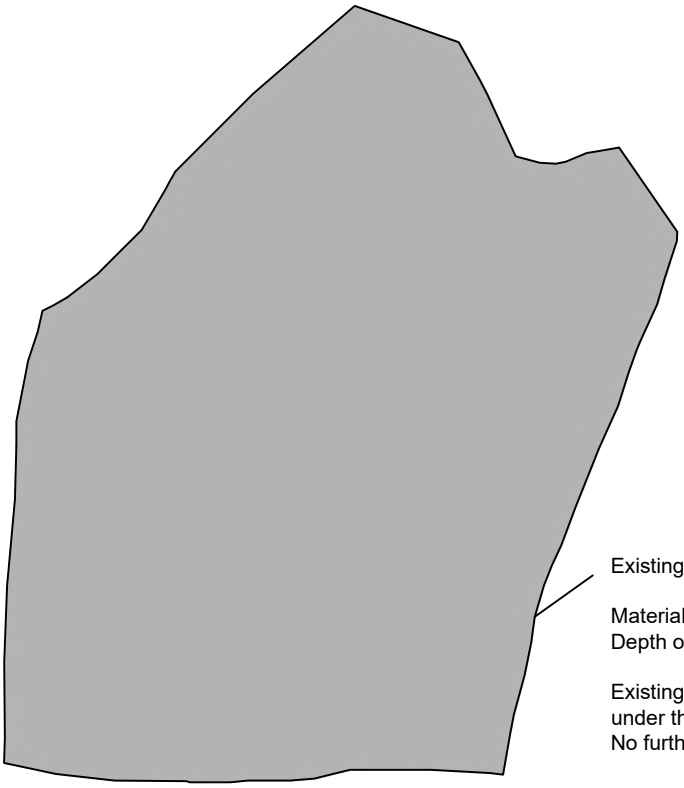
SCALE

1:500

@A4

For Identification Only

Drawing No.: 2



Existing Site Level: +23.4 mPD (About)

Material of Filling: Concrete
Depth of Filling: 0.3 m (About)

Existing Filling of Land has been completed
under the Planning Application No. A/YL-TT/691.
No further filling of land under this planning application.

Paved Area: About 1,615.2 m^2

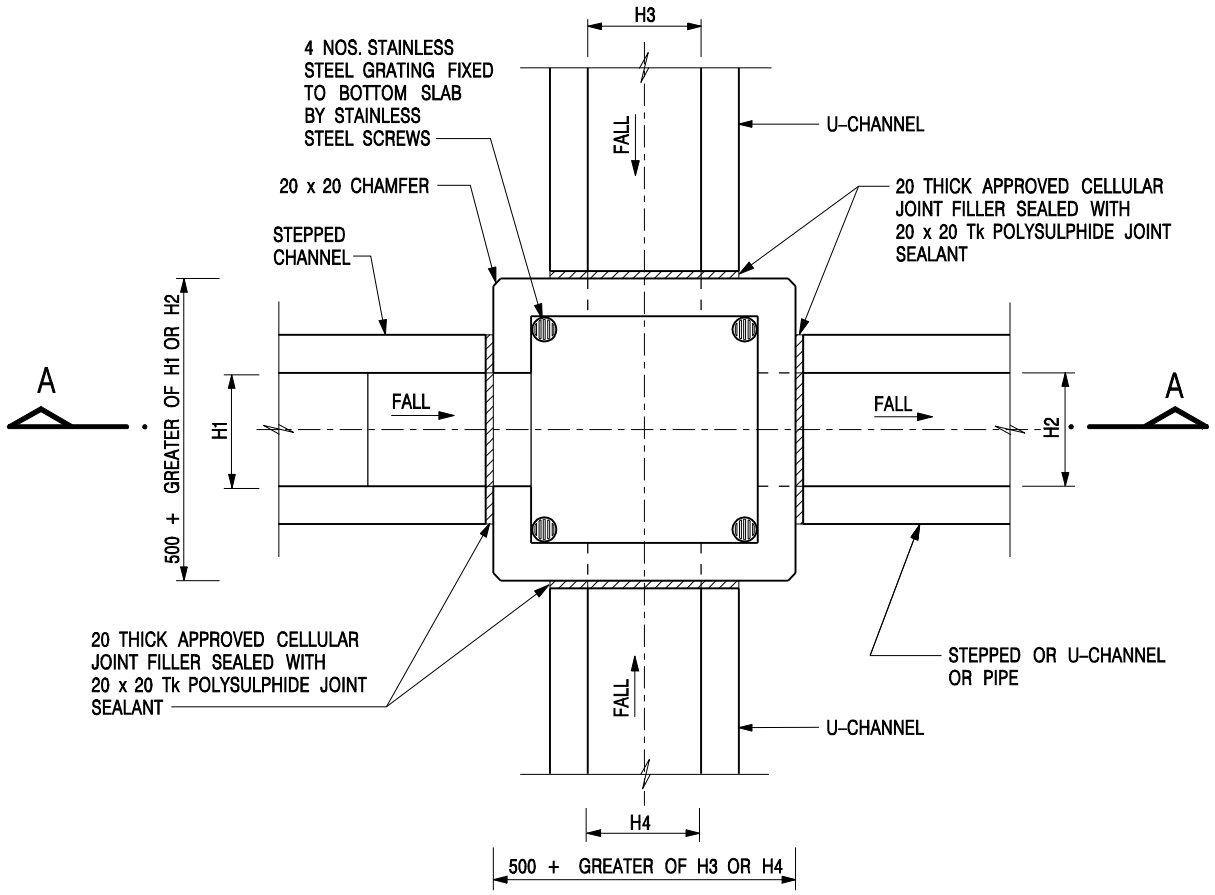
Legend:

Paved Area 已平整範圍

Appendix 4 Location: DD 117 Lot 1385 S.A (Part) 1385 RP, 1386 (Part), 1387 S.A, 1387 S.B OZP: S/YL-TT/20 District: Tai Tong Zoning: Agriculture Date: 14 October 2026	Paved Area 已平整位置圖 擬議臨時露天存放連附屬設施 及相關填土工程(為期3年) Proposed Temporary Open Storage with Ancillary Facilities and Associated Filling of Land For a Period of 3 Years	SCALE 1:500 @A4 For Identification Only Drawing No.: 4-01

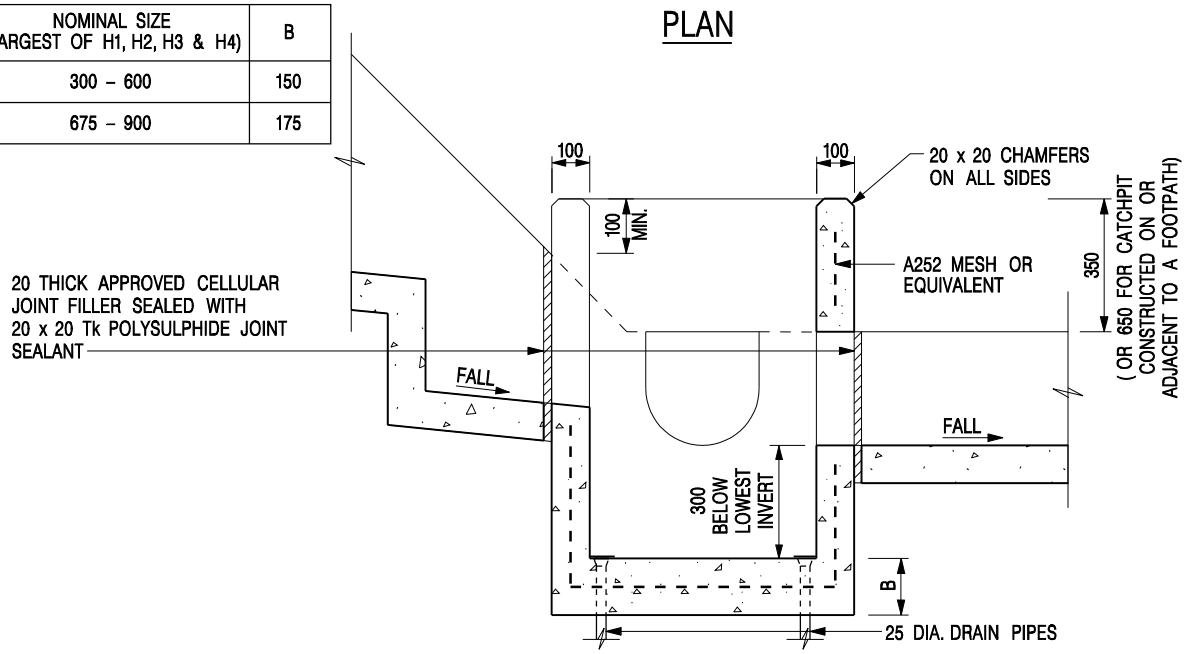

3
A solid boundary with no opening on the East site of the application site is erected by other owner.


5
Water Flow



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.

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

CATCHPIT WITH TRAP

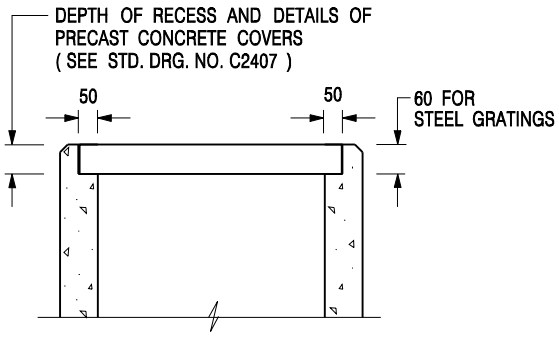
(SHEET 1 OF 2)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2406 /1



ALTERNATIVE TOP SECTION
FOR PRECAST CONCRETE COVERS / GRATINGS

NOTES:

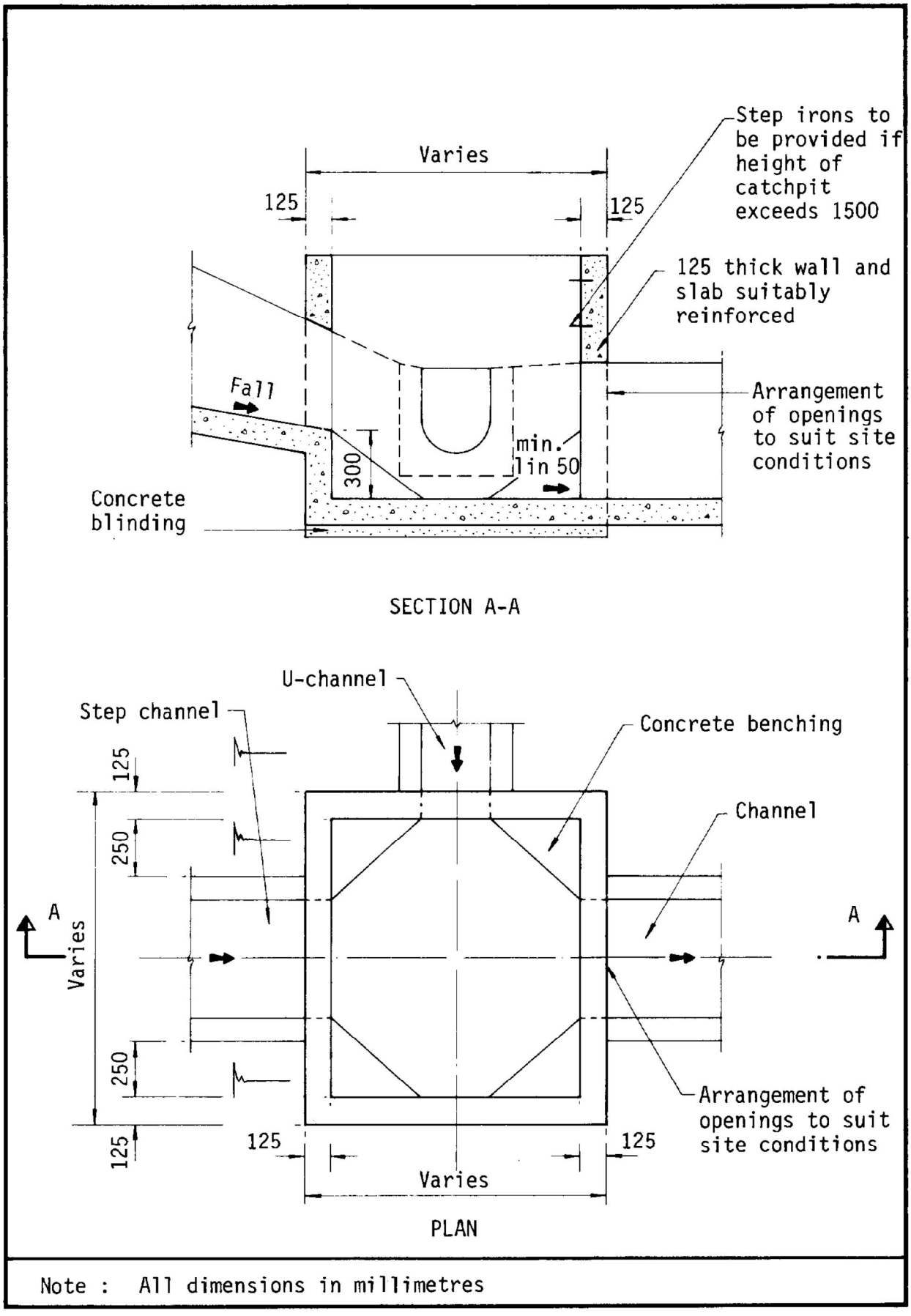
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CONCRETE SHALL BE GRADE 20 /20.
3. CONCRETE SURFACE FINISH SHALL BE CLASS U2 OR F2 AS APPROPRIATE.
4. FOR DETAILS OF JOINT, REFER TO STD. DRG. NO. C2413.
5. CONCRETE TO BE COLOURED AS SPECIFIED.
6. UNLESS REQUESTED BY THE MAINTENANCE PARTY AND AS DIRECTED 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) 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 'G' ON STD. DRG. NO. C2405; 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 'F' ON STD. DRG. NO. C2405.
12. SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

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

CATCHPIT WITH TRAP
(SHEET 2 OF 2)

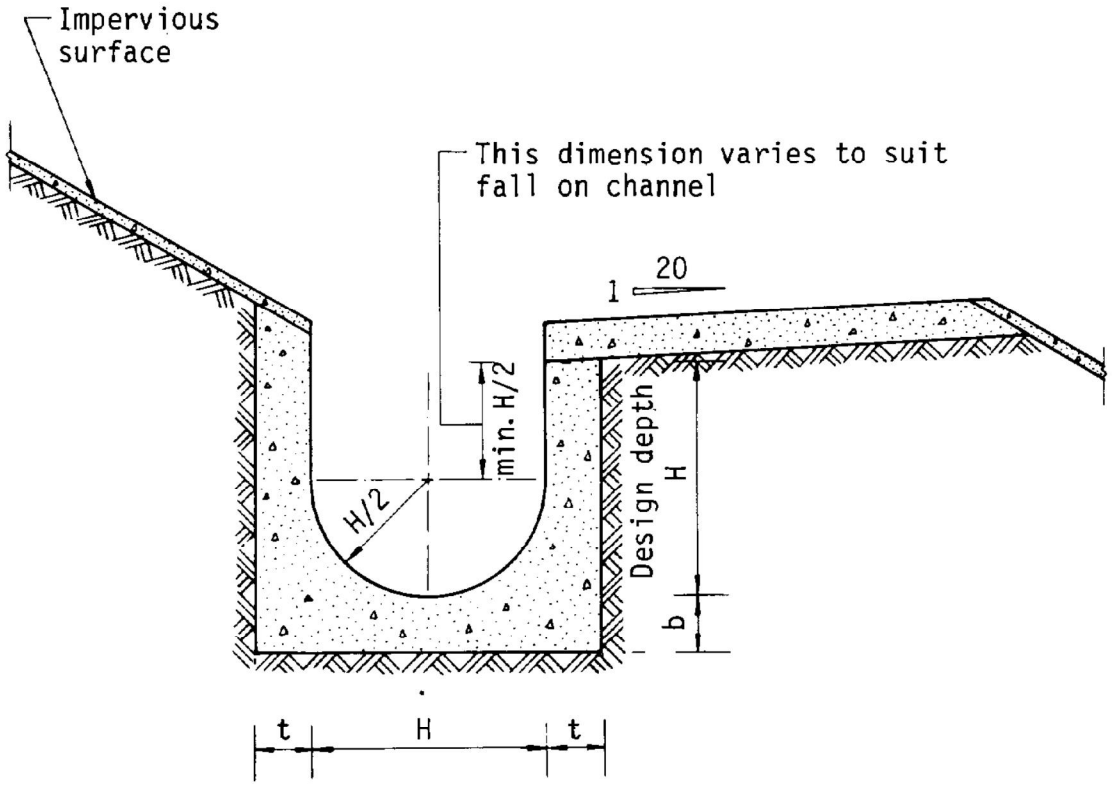
CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20	DRAWING NO. C2406 /2
DATE JAN 1991	



Note : All dimensions in millimetres

Figure 8.10 - Typical Details of Catchpits



Dimensions of U - channel		
Nominal size of channel H (mm)	Thickness t (mm)	Thickness b (mm)
225 to 600	150	150
675 to 1200	175	225

Figure 8.11 - Typical U-channel Details

Table 3a – Storm Constants for Different Return Periods of HKO Headquarters

Return Period T (years)	2	5	10	20	50	100	200	500	1000
a	446.1	470.5	485.0	496.0	505.5	508.6	508.8	504.6	498.7
b	3.38	3.11	3.11	3.17	3.29	3.38	3.46	3.53	3.55
c	0.463	0.419	0.397	0.377	0.355	0.338	0.322	0.302	0.286

Table 3d – Storm Constants for Different Return Periods of North District Area

Return Period T (years)	2	5	10	20	50	100	200
a	439.1	448.1	454.9	462.3	474.6	486.6	501.4
b	4.10	3.67	3.44	3.21	2.90	2.67	2.45
c	0.484	0.437	0.412	0.392	0.371	0.358	0.348

Table 13 - Values of n to be used with the Manning equation

Source: Brater, E.F. & King, H.W. (1976)

Surface	**Best**	**Good**	**Fair**	**Bad**
Uncoated cast-iron pipe	0.012	0.013	0.014	0.015
Coated cast-iron pipe	0.011	0.012*	0.013*	
Commercial wrought-iron pipe, black	0.012	0.013	0.014	0.015
Commercial wrought-iron pipe, galvanized	0.013	0.014	0.015	0.017
Smooth brass and glass pipe	0.009	0.010	0.011	0.013
Smooth lockbar and welded “OD” pipe	0.010	0.011*	0.013*	
Riveted and spiral steel pipe	0.013	0.015*	0.017*	
Vitrified sewer pipe	0.010	0.013*	0.015	0.017
Common clay drainage tile	0.011	0.012*	0.014*	0.017
Glazed brickwork	0.011	0.012	0.013*	0.015
Brick in cement mortar; brick sewers	0.012	0.013	0.015*	0.017
Neat cement surfaces	0.010	0.011	0.012	0.013
Cement mortar surfaces	0.011	0.012	0.013*	0.015
Concrete pipe	0.012	0.013	0.015*	0.016
Wood stave pipe	0.010	0.011	0.012	0.013
Plank flumes - Planed	0.010	0.012*	0.013	0.014
- Unplaned	0.011	0.013*	0.014	0.015
- With battens	0.012	0.015*	0.016	
Concrete-lined channels	0.012	0.014*	0.016*	0.018
Cement-rubble surface	0.017	0.020	0.025	0.030
Dry-rubble surface	0.025	0.030	0.033	0.035
Dressed-ashlar surface	0.013	0.014	0.015	0.017
Semicircular metal flumes, smooth	0.011	0.012	0.013	0.015
Semicircular metal flumes, corrugated	0.0225	0.025	0.0275	0.030
Canals and ditches				
1. Earth, straight and uniform	0.017	0.020	0.0225*	0.025
2. Rock cuts, smooth and uniform	0.025	0.030	0.033*	0.035
3. Rock cuts, jagged and irregular	0.035	0.040	0.045	
4. Winding sluggish canals	0.0225	0.025*	0.0275	0.030
5. Dredged-earth channels	0.025	0.0275*	0.030	0.033
6. Canals with rough stony beds, weeds on earth banks	0.025	0.030	0.035*	0.040
7. Earth bottom, rubble sides	0.028	0.030*	0.033*	0.035
Natural-stream channels				
1. Clean, straight bank, full stage, no rifts or deep pools	0.025	0.0275	0.030	0.033
2. Same as (1) but some weeds and stones	0.030	0.033	0.035	0.040
3. Winding some pools and shoals, clean	0.033	0.035	0.040	0.045
4. Same as (3), lower stages, more ineffective slope and sections	0.040	0.045	0.050	0.055

Table 13 (Cont'd)

Surface	Best	Good	Fair	Bad
5. Same as (3) some weeds and stones	0.035	0.040	0.045	0.050
6. Same as (4) stony sections	0.045	0.050	0.055	0.060
7. Sluggish river reach, rather weedy or with very deep pools	0.050	0.060	0.070	0.080
8. Very weedy reaches	0.075	0.100	0.125	0.150

Notes: *Values commonly used for design.