

Your Ref.: A/YL-KTS/1090

Our Ref.: P25040/TL25411

2 December 2025

The Secretary
Town Planning Board
15/F., North Point Government Offices
333 Java Road, North Point, Hong Kong

By Post and E-mail
tpbpd@pland.gov.hk

Dear Sir,

Submission of Further Information (FI)

**Proposed Temporary Private Vehicle Park (Private Cars Only)
for a Period of 3 Years in "Village Type Development" Zone,
Lot 343 (Part) in D.D. 113, Kam Tin, Yuen Long, New Territories
(Application No. A/YL-KTS/1090)**

We write to submit FI in response to departmental comment(s) conveyed by the Planning Department for the captioned application.

Yours faithfully,
For and on behalf of
Goldrich Planners & Surveyors Ltd.



Francis LAU

Encl.

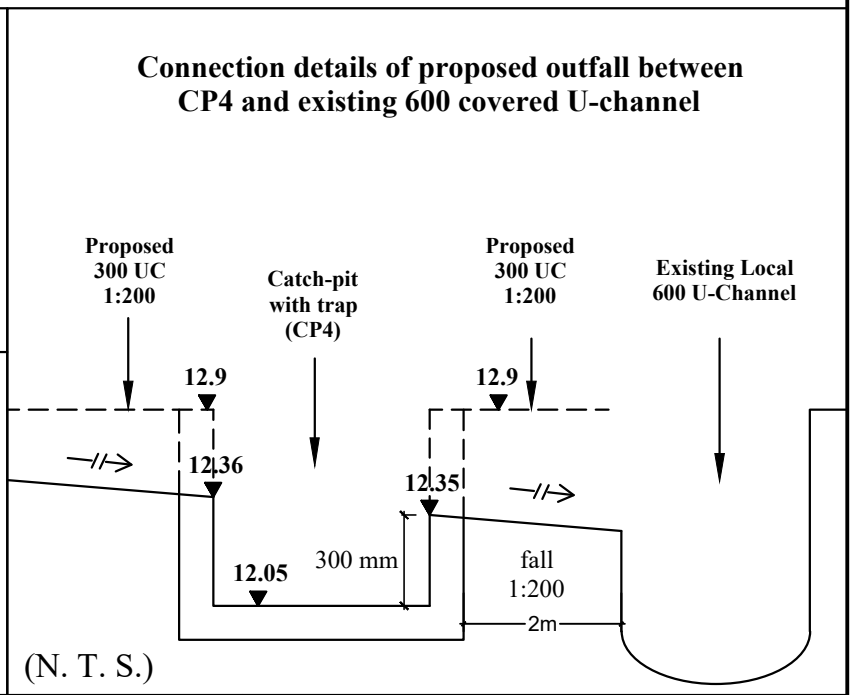
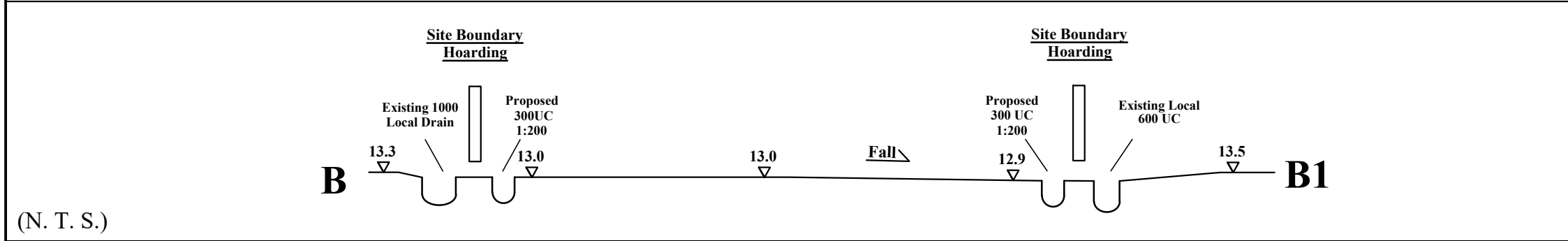
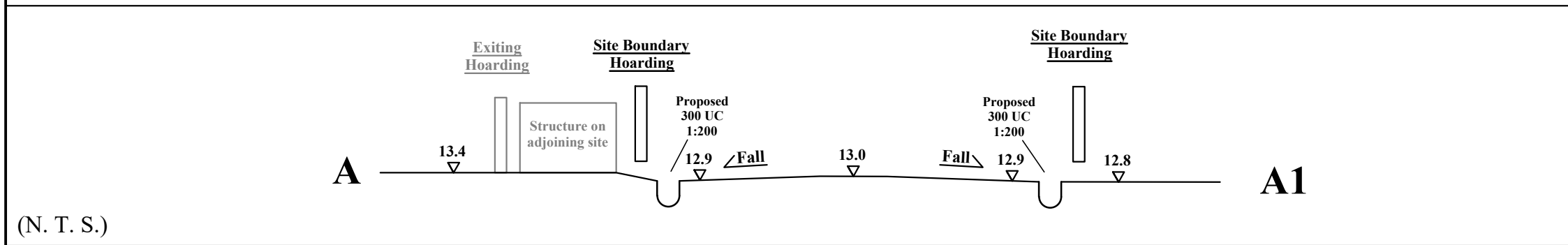
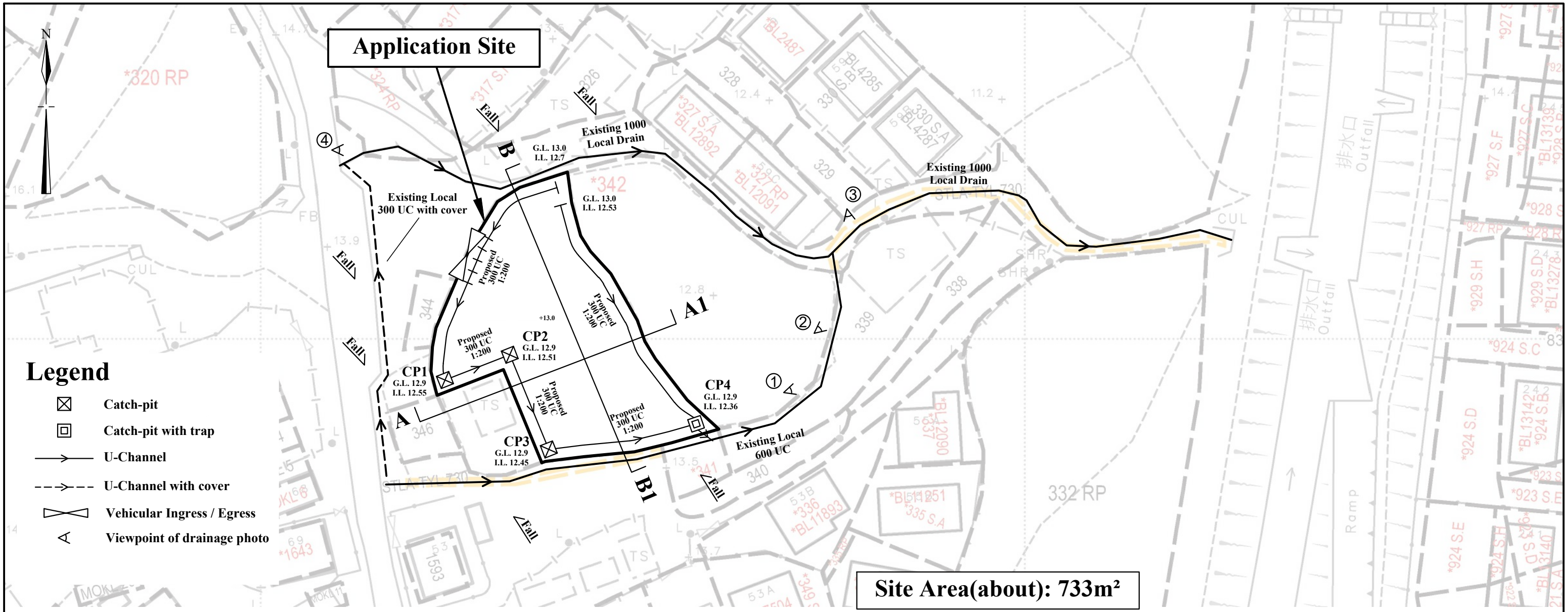
c.c.
DPO/FS&YLE, PlanD (Attn.: Ms. Anna TONG) *By E-mail only*

Further Information for Planning Application No. A/YL-KTS/1090**Response-to-Comments****Comments from the Drainage Services Department**

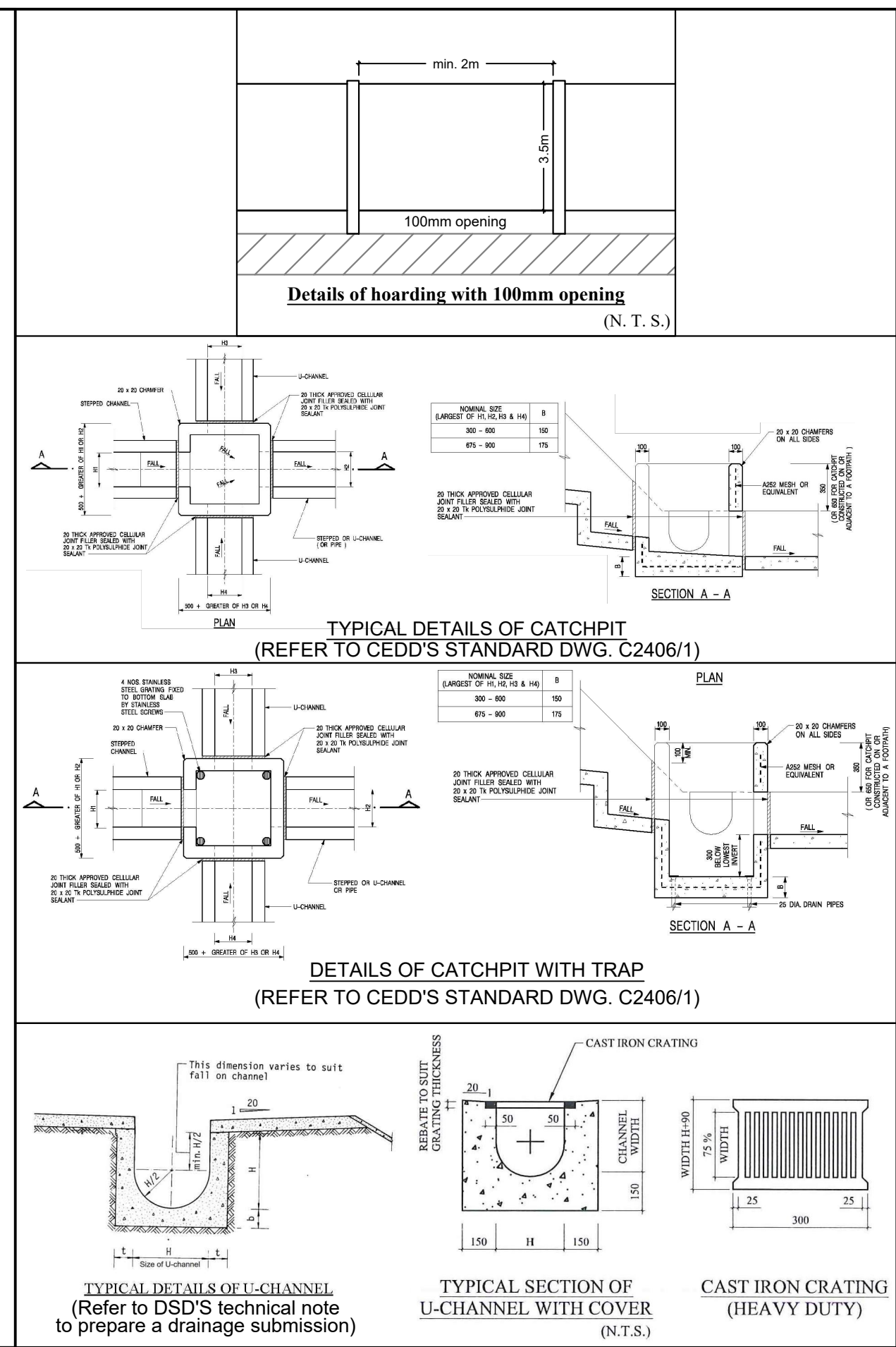
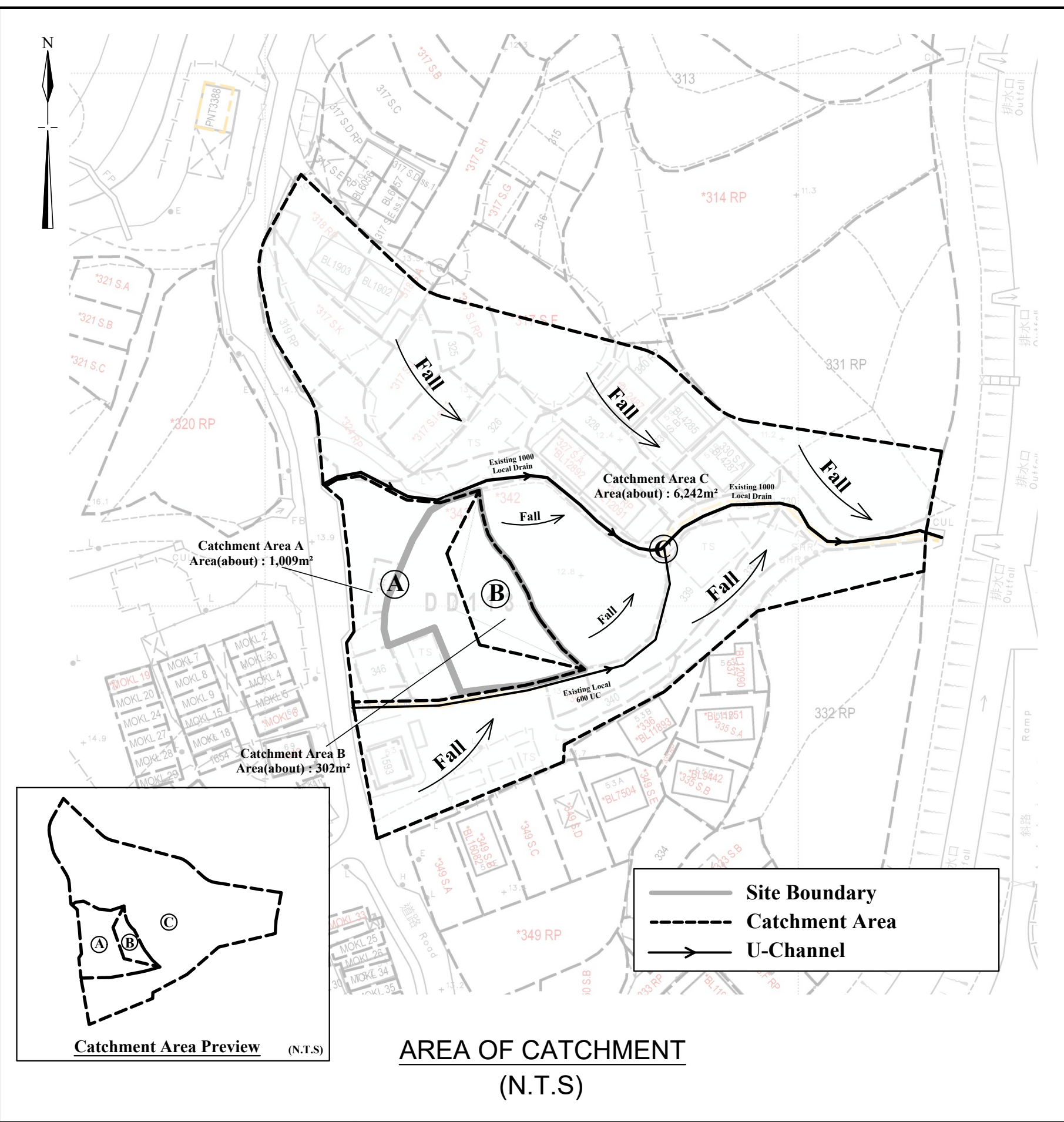
Contact person: Mr. CHAN Yue Lap (Tel.: 2300 1259)

I.	Comments	Responses
1.	Please take into account the 16% rainfall increase due to climate change as stated in the Stormwater Drainage Manual Corrigendum No. 1/2022 for the design calculation.	Noted. Please refer to the revised hydraulic calculations.
2.	The application site is in the vicinity of existing channels. The applicant shall be required to place all the proposed works 3m away from the top of the bank of the channel. All the proposed works in the vicinity of the channel should not create any adverse drainage impacts, both during and after construction.	Noted. The applicant will place all the proposed works 3m away from the top of the bank of the channel.
3.	Calculation to demonstrate the downstream drainage system receiving the discharge from the development has adequate spare capacity to accommodate the runoff is required.	Noted. Please refer to the revised hydraulic calculations.
4.	Colour photos to indicate the current conditions of the existing drainage facilities i.e. the existing 350UC should be included in the submission. The photos taken locations and angles should be shown on the layout plan.	We revisited the site. The width of the existing drainage facilities is updated. Please refer to Plan 5.1a and viewpoint photos.
5.	Adequate opening should be provided to walls/hoardings erected/laid along the site boundary for intercepting the existing overland flow passing through the site.	Hoardings with 100mm opening will be provided along the site boundary.
6.	The existing 350UC of the proposed discharge point is not maintained by this Department, consent from the concerned departments/maintenance parties/owners should be obtained for the proposed connections to their drainage systems.	Noted.
7.	The applicant shall resolve any conflict/disagreement with relevant lot owner(s) and seek LandsD's permission for laying new drains/channels and/or modifying/upgrading existing ones in other private lots or on Government land outside the application site.	Noted.

- END -



1:500 (A3)	Drainage Proposal Lot 343(Part) in D.D. 113	Goldrich Planners & Surveyors Ltd.
November 2025		Plan 5.1a (P 25040)



Viewpoint 1



Existing Local 600 UC

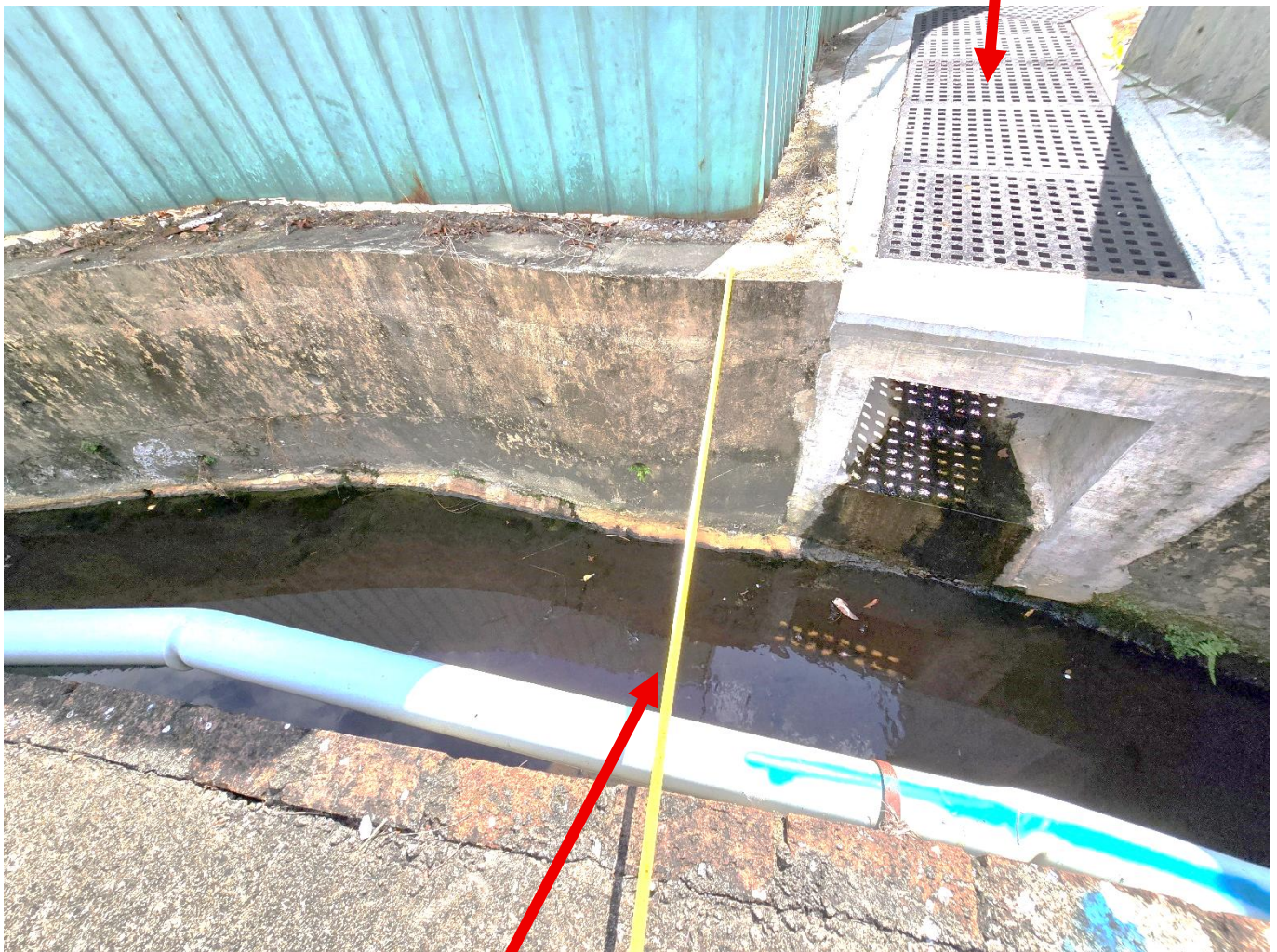
Viewpoint 2



Existing Local 600 UC

Viewpoint 3

Existing Local 600 UC



Existing 1000 Local Drain

Viewpoint 4



1 For Catchment Area A

Area, A = 1009 m²
 Average slope, H = 0.1 m per 100m
 Distance on the line of natural flow, L = 18 m

$$\text{Time of concentration, } t_o = 0.14465L / (H^{0.2}A^{0.1}) = 0.14465 (18) / (0.1^{0.2} \times 1009^{0.1}) = 2.1 \text{ min}$$

2 For Proposed UC in Catchment Area A

	From	To
Ground level (mPD)	13.00	12.90
Invert level (mPD)	12.70	12.36

Width of u-channel, w = 300 mm
 Length of u-channel, L_c = 67.6 m
 Depth of vertical part of u-channel, d = 390 mm
 Gradient of u-channel, S_f = (12.7-12.36)/67.6 = 0.005

$$\begin{aligned} \text{Cross-Section Area, } a &= 0.5 \pi r^2 + w d = 0.5 \times 3.14 \times 150^2 + 300 \times 390 \\ &= 0.152 \text{ m}^2 \\ \text{Wetted Perimeter, } p &= \pi r + 2 d = 3.14 \times 150 + 2 \times 390 \\ &= 1.251 \text{ m} \\ \text{Hydraulic radius, } R &= a / p \\ &= 0.122 \text{ m} \end{aligned}$$

3 Use Manning Equation for estimating velocity of stormwater

Take n = 0.016 for concrete lined channels:-
 Allowable velocity, v = $R^{1/6} \times (RS_f)^{1/2} / n = (0.122)^{1/6} \times (0.122 \times 0.005)^{1/2} / 0.016$
 = 1.09 m/s
 Time of flow, t_f = 1.0 min

4 Use "Rational Method" for calculation of design flow

$$\begin{aligned} \text{Design intensity, } i &= a / (t_o + t_f + b)^c \\ &= 505.5 / (2.1 + 1 + 3.29)^{0.355} \text{ for return period } T = 50 \text{ years} \\ &= 262 \end{aligned}$$

Type of surface	Runoff Coefficient C	Catchment Area A (m ²)	C x A
Flat Grassland (heavy soil)	0.25	0.0	0.0
Concrete Paving	0.95	1009.0	958.6
SUM =			958.6

$$\text{Upstream flow, } Q_u = 0 \text{ m}^3/\text{s}$$

$$\begin{aligned} \text{Design flow, } Q_d &= 1.16 \times 0.278i \sum C_j A_j + Q_u \text{ where } A_j \text{ is in km}^2 \\ &= 1.16 \times 0.278 \times 262 \times 958.55 / 1000000 + 0 \\ &= 0.081 \text{ m}^3/\text{s} \end{aligned}$$

$$\begin{aligned} \text{Allowable flow, } Q_a &= a \times v \\ &= 0.152 \times 1.09 \\ &= 0.166 \text{ m}^3/\text{s} \end{aligned}$$

$$> Q_d \text{ (O.K.)}$$

Reference was made to Stormwater Drainage Manual (SDM) by DSD

Ref.

SDM 7.5.2 (d)

SDM 8.2.1

SDM Table 13
SDM Table 12

SDM 4.3.2
Corrigendum 1/2024
SDM Table 3a

SDM 7.5.2 (b)

SDM 7.5.2 (a)
Corrigendum 1/2022

Scale: NA

October 2025

Hydraulic Calculation

Lot 343 (Part) in D.D. 113, Kam Tin, Yuen Long, New Territories

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1 For Catchment Area B

Area, A = 302 m²
 Average slope, H = 0.1 m per 100m
 Distance on the line of natural flow, L = 10 m

$$\text{Time of concentration, } t_o = 0.14465L / (H^{0.2}A^{0.1}) = 0.14465 (10) / (0.1^{0.2} \times 302^{0.1}) = 1.3 \text{ min}$$

SDM 7.5.2 (d)

2 For Proposed UC in Catchment Area B

	From	To
Ground level (mPD)	13.00	12.90
Invert level (mPD)	12.53	12.36

Width of u-channel, w = 300 mm
 Length of u-channel, L_c = 33.4 m
 Depth of vertical part of u-channel, d = 390 mm
 Gradient of u-channel, S_f = (12.53-12.36)/33.4 = 0.005

$$\begin{aligned} \text{Cross-Section Area, } a &= 0.5 \pi r^2 + w d = 0.5 \times 3.14 \times 150^2 + 300 \times 390 \\ &= 0.152 \text{ m}^2 \\ \text{Wetted Perimeter, } p &= \pi r + 2 d = 3.14 \times 150 + 2 \times 390 \\ &= 1.251 \text{ m} \\ \text{Hydraulic radius, } R &= a / p \\ &= 0.122 \text{ m} \end{aligned}$$

SDM 8.2.1

3 Use Manning Equation for estimating velocity of stormwater

Take n = 0.016 for concrete lined channels:-
 Allowable velocity, v = $R^{1/6} \times (RS_f)^{1/2} / n = (0.122)^{1/6} \times (0.122 \times 0.005)^{1/2} / 0.016$
 = 1.10 m/s
 Time of flow, t_f = 0.5 min

SDM Table 13
 SDM Table 12

4 Use "Rational Method" for calculation of design flow

$$\begin{aligned} \text{Design intensity, } i &= a / (t_o + t_f + b)^c \\ &= 505.5 / (1.3 + 0.5 + 3.29)^{0.355} \text{ for return period } T = 50 \text{ years} \\ &= 284 \end{aligned}$$

SDM 4.3.2
 Corrigendum 1/2024
 SDM Table 3a

Type of surface	Runoff Coefficient C	Catchment Area A (m ²)	C x A
Flat Grassland (heavy soil)	0.25	0.0	0.0
Concrete Paving	0.95	302.0	286.9
SUM =			286.9

SDM 7.5.2 (b)

$$\text{Upstream flow, } Q_u = 0 \text{ m}^3/\text{s}$$

$$\begin{aligned} \text{Design flow, } Q_d &= 1.16 \times 0.278 i \sum C_i A_i + Q_u \text{ where } A_i \text{ is in km}^2 \\ &= 1.16 \times 0.278 \times 284 \times 286.9 / 1000000 + 0 \\ &= 0.026 \text{ m}^3/\text{s} \end{aligned}$$

SDM 7.5.2 (a)
 Corrigendum 1/2022

$$\begin{aligned} \text{Allowable flow, } Q_a &= a \times v \\ &= 0.152 \times 1.1 \\ &= 0.167 \text{ m}^3/\text{s} \end{aligned}$$

$$> Q_d \text{ (O.K.)}$$

Reference was made to Stormwater Drainage Manual (SDM) by DSD

Scale: NA

Hydraulic Calculation

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Lot 343 (Part) in D.D. 113, Kam Tin, Yuen Long, New Territories

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1 For Connection between CP4 and Existing Local 600 UC with C.I. Cover

Area, A = 0 m²
 Average slope, H = 0.1 m per 100m
 Distance on the line of natural flow, L = 0 m

Time of concentration, $t_0 = 0.14465L / (H^{0.2}A^{0.1}) = 0.14465 (0) / (0.1^{0.2} \times 0^{0.1})$
 = 0.0 min

Ref.

SDM 7.5.2 (d)

2 For Proposed UC in Connection between CP4 and Existing Local 600 UC with C.I. Cover

	From	To
Ground level (mPD)	12.90	12.90
Invert level (mPD)	12.36	12.35

Width of u-channel, w = 300 mm
 Length of u-channel, $L_c = 2$ m
 Depth of vertical part of u-channel, d = 400 mm
 Gradient of u-channel, $S_f = (12.36 - 12.35) / 2 = 0.005$

Cross-Section Area, a = $0.5 \pi r^2 + w d = 0.5 \times 3.14 \times 150^2 + 300 \times 400$
 = 0.155 m²
 Wetted Perimeter, p = $\pi r + 2 d = 3.14 \times 150 + 2 \times 400$
 = 1.271 m
 Hydraulic radius, R = a / p
 = 0.122 m

SDM 8.2.1

3 Use Manning Equation for estimating velocity of stormwater

Take n = 0.016 for concrete lined channels:-
 Allowable velocity, v = $R^{1/6} \times (RS_f)^{1/2} / n = (0.122)^{1/6} \times (0.122 \times 0.005)^{1/2} / 0.016$
 = 1.09 m/s
 Time of flow, $t_f = 0.0$ min

SDM Table 13

SDM Table 12

4 Use "Rational Method" for calculation of design flow

Design intensity, i = $a / (t_0 + t_f + b)^c$
 = $505.5 / (0 + 0 + 3.29)^{0.355} = 330$ for return period T = 50 years

SDM 4.3.2

Corrigendum 1/2024

SDM Table 3a

Type of surface	Runoff Coefficient C	Catchment Area A (m ²)	C x A
Flat Grassland (heavy soil)	0.25	0.0	0.0
Concrete Paving	0.95	0.0	0.0
SUM =			0.0

SDM 7.5.2 (b)

Upstream flow, $Q_u = 0.107$ m³/s

Design flow, $Q_d = 1.16 \times 0.278 i \sum C_j A_j + Q_u$ where A_j is in km²
 = $1.16 \times 0.278 \times 330 \times 0 / 1000000 + 0.107$
 = 0.107 m³/s

SDM 7.5.2 (a)

Corrigendum 1/2022

Allowable flow, $Q_a = a \times v$
 = 0.155×1.09
 = 0.169 m³/s

> Q_d (O.K.)

Reference was made to Stormwater Drainage Manual (SDM) by DSD

Scale: NA

Hydraulic Calculation

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1 For Catchment Area C

Area, A = 6242 m²
 Average slope, H = 0.1 m per 100m
 Distance on the line of natural flow, L = 60 m

$$\text{Time of concentration, } t_o = 0.14465L / (H^{0.2}A^{0.1}) = 0.14465 (60) / (0.1^{0.2} \times 6242^{0.1}) = 5.7 \text{ min}$$

2 For Existing 1000 Local Drain in Catchment Area C

	From	To
Ground level (mPD)	12.00	11.50
Invert level (mPD)	11.00	10.71

Width of u-channel, w = 1000 mm
 Length of u-channel, L_c = 58 m
 Depth of vertical part of u-channel, d = 290 mm
 Gradient of u-channel, S_f = (11-10.71)/58 = 0.005

$$\begin{aligned} \text{Cross-Section Area, } a &= 0.5 \pi r^2 + w d = 0.5 \times 3.14 \times 500^2 + 1000 \times 290 \\ &= 0.683 \text{ m}^2 \\ \text{Wetted Perimeter, } p &= \pi r + 2 d = 3.14 \times 500 + 2 \times 290 \\ &= 2.151 \text{ m} \\ \text{Hydraulic radius, } R &= a / p \\ &= 0.317 \text{ m} \end{aligned}$$

3 Use Manning Equation for estimating velocity of stormwater

Take n = 0.016 for concrete lined channels:-
 Allowable velocity, v = $R^{1/6} \times (RS_f)^{1/2} / n = (0.317)^{1/6} \times (0.317 \times 0.005)^{1/2} / 0.016$
 = 2.06 m/s
 Time of flow, t_f = 0.5 min

4 Use "Rational Method" for calculation of design flow

$$\begin{aligned} \text{Design intensity, } i &= a / (t_o + t_f + b)^c \\ &= 505.5 / (5.7 + 0.5 + 3.29)^{0.355} \text{ for return period } T = 50 \text{ years} \\ &= 227 \end{aligned}$$

Type of surface	Runoff Coefficient C	Catchment Area A (m ²)	C x A
Flat Glassland(heavy soil)	0.25	0.0	0.0
Concrete Paving	0.95	6242.0	5929.9
SUM =			5929.9

$$\text{Upstream flow, } Q_u = 0.107 \text{ m}^3/\text{s}$$

$$\begin{aligned} \text{Design flow, } Q_d &= 1.16 \times 0.278i \Sigma C_j A_j + Q_u \text{ where } A_j \text{ is in km}^2 \\ &= 1.16 \times 0.278 \times 227 \times 5929.9 / 1000000 + 0.107 \\ &= 0.542 \text{ m}^3/\text{s} \end{aligned}$$

$$\begin{aligned} \text{Allowable flow, } Q_a &= a \times v \\ &= 0.683 \times 2.06 \\ &= 1.404 \text{ m}^3/\text{s} \\ &> Q_d \text{ (O.K.)} \end{aligned}$$

Reference was made to Stormwater Drainage Manual (SDM) by DSD

Ref.

SDM 7.5.2 (d)

SDM 8.2.1

SDM Table 13
SDM Table 12

SDM 4.3.2
Corrigendum 1/2024
SDM Table 3a

SDM 7.5.2 (b)

SDM 7.5.2 (a)
Corrigendum 1/2022

Scale: NA

October 2025

Hydraulic Calculation

Lot 343 (Part) in D.D. 113, Kam Tin, Yuen Long, New Territories

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