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1068b.pdf

[REDACTED]
有關 A/YL-PH/1068 渠務報告，附上附件

Best regards

Sunny tang

港昇發展有限公司

22/12/2025

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DRAINAGE PROPOSAL

(STORMWATER)

AT

**Lots 2813 (Part), 2878 (Part) and 2879 (Part) in
D.D. 111 and Adjoining Government Land,**

Pat Heung, Yuen Long,

New Territories

Date : Dec 2025

Revision : B

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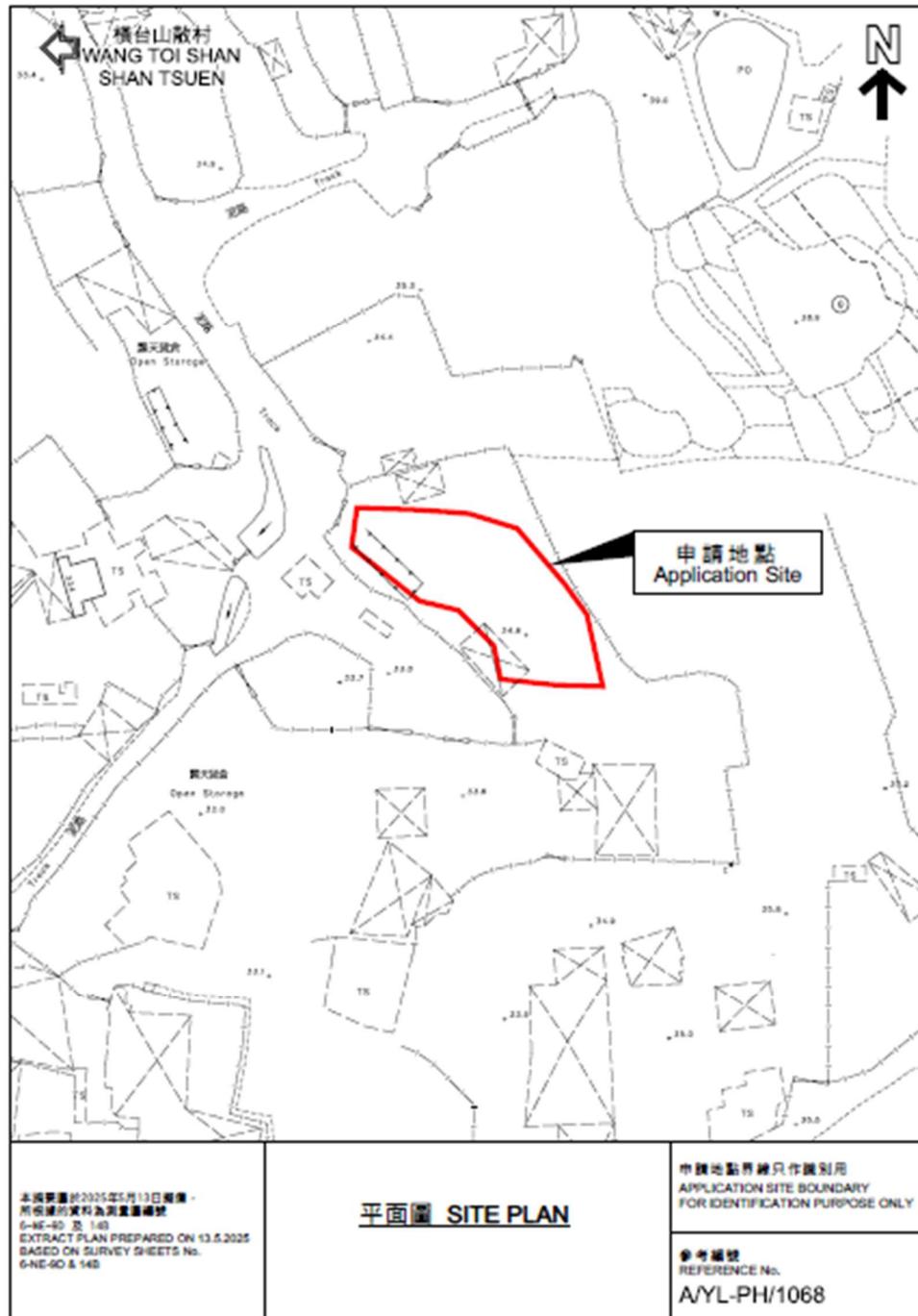
(C) Reference

(h) Storm Water Drainage Manual

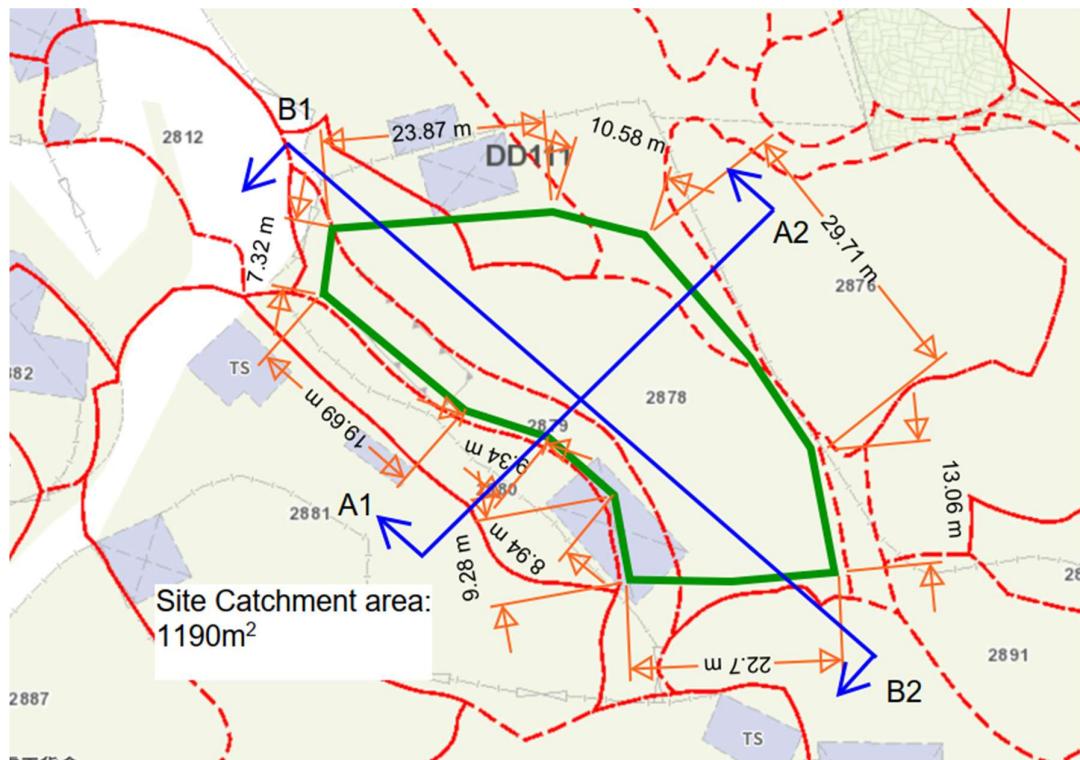
(i) Hydraulic Research Paper 8th Edition Table A16

(A) Drainage Proposal

(a) Site Plan - Lots 2813 (Part), 2878 (Part) and 2879 (Part) in D.D. 111 and Adjoining Government Land, Pat Heung, Yuen Long.

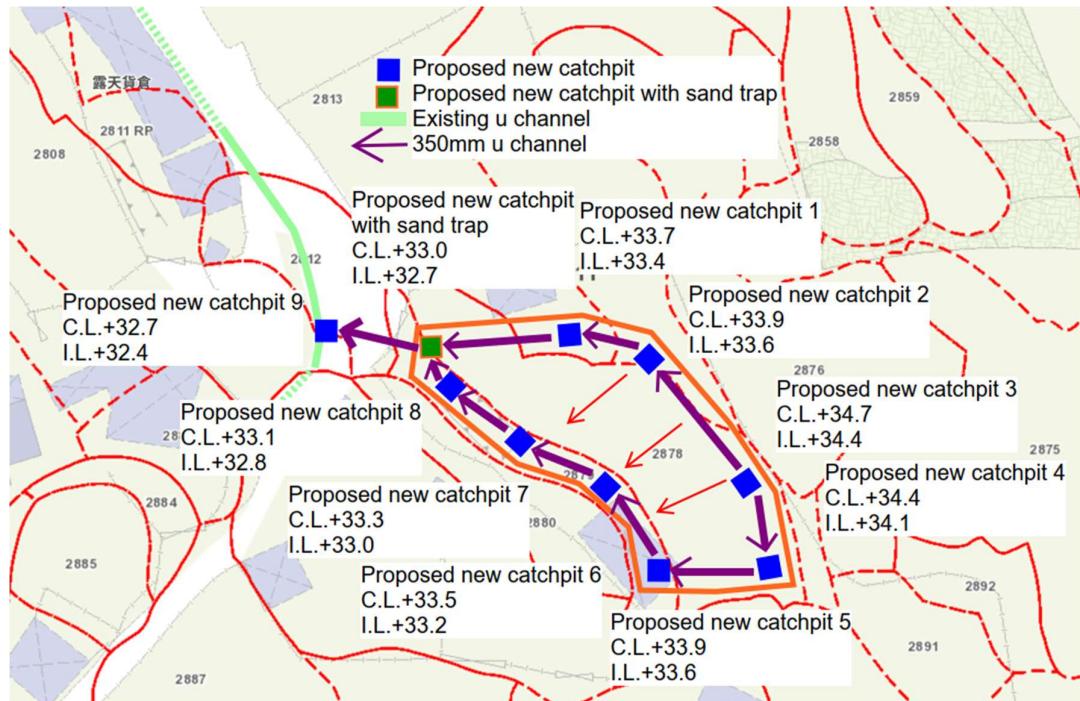


Layout Plan



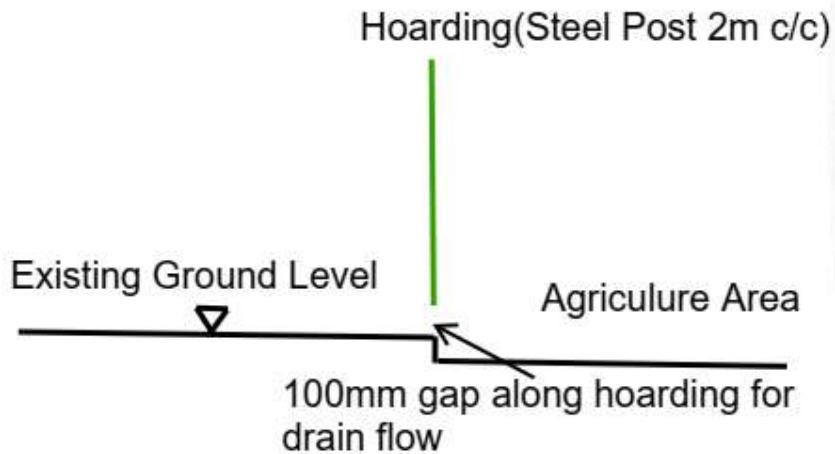
Part Plan

(b) Proposed Drainage Plan

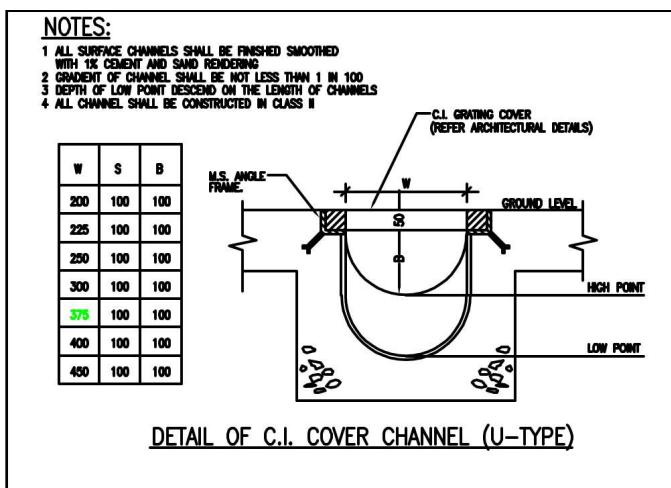


(c) Standard Details for catchpit and hoarding opening

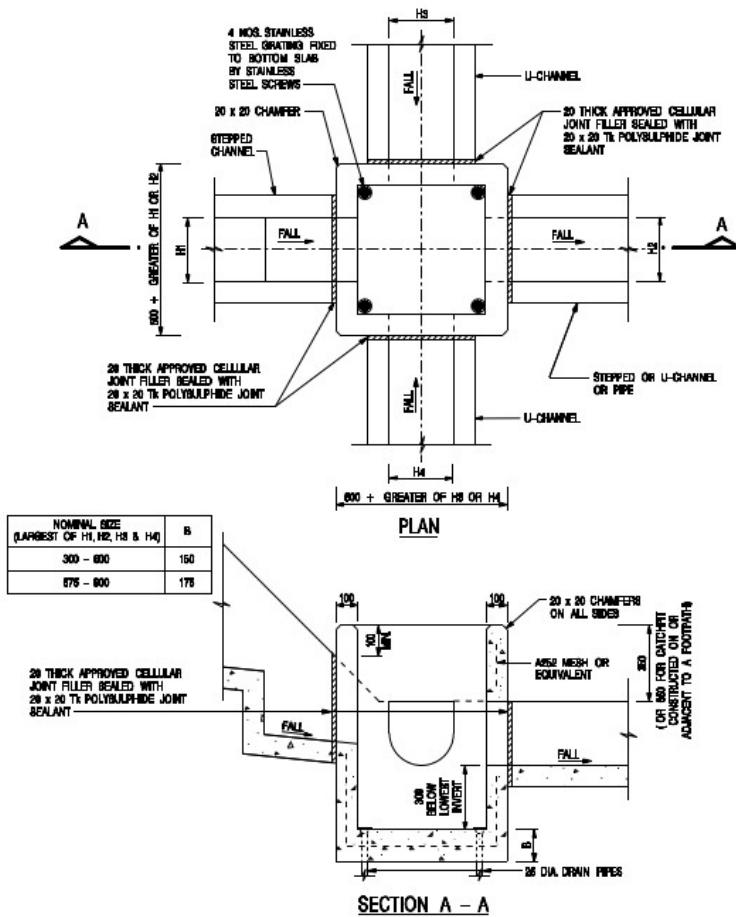
Typical details for along hoarding



Standard Details for Proposed U channel



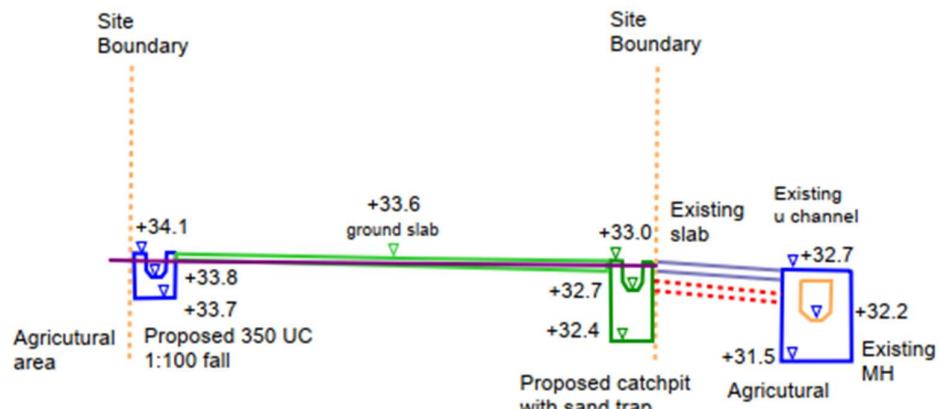
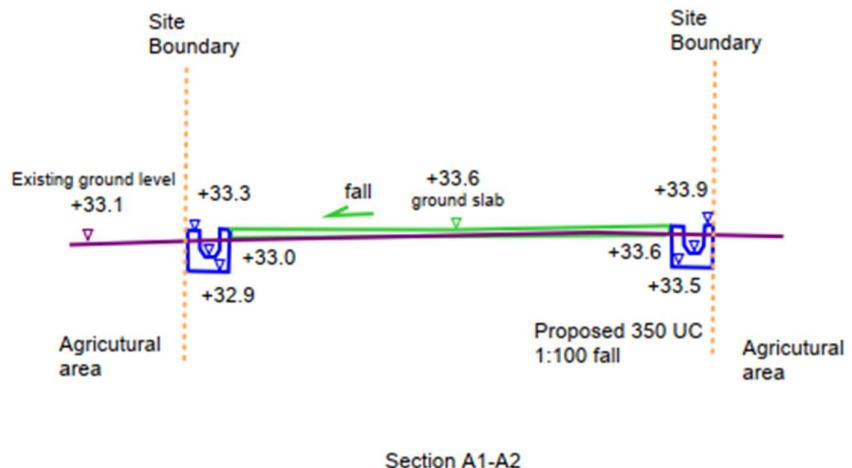
Standard Details for Catch Pit with Sand Trap



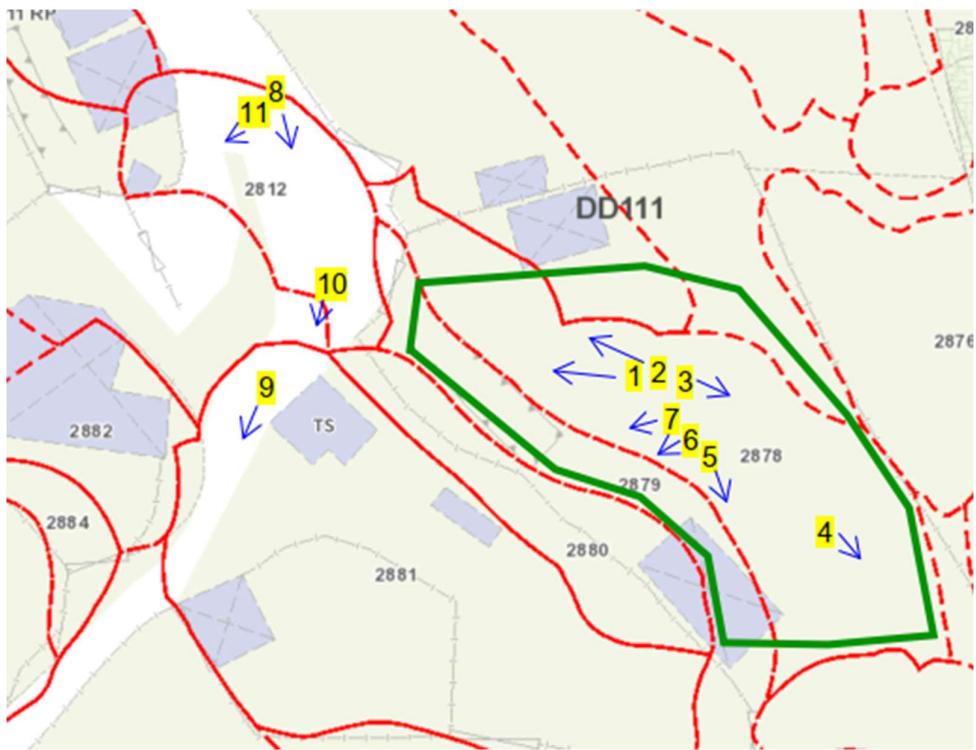
NOTES:

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

(d) Cross section of existing and proposed ground levels



(e) Existing Site Photo



Location plan





2)



3)



4)



5)



6)



7)



8)



9)



10)



11)

(f)R to C table

Lot No. 2813 (Part), 2878 (Part), 2879 (Part) in DD 111, Yuen Long

Submission of Drainage Proposal

<u>Comments from Drainage Sewerage Department</u>	
<u>Comment</u>	<u>Responses</u>
(a) Please demonstrate the existing u-channels at discharge point is able to cater for the surface runoff discharged from the entire application site and overflow flow from the adjacent sites.	Noted and Revised
(b) Please indicate C.L., I.L and B.L. of all existing and proposed channel(s)/catchpit(s) in the section B1-B2.	Noted and Revised
(c) Colour photos to indicate the current conditions of the existing u-channels at discharge point and the proposed 350mm u-channel outside the application site should be included in the submission. The photos taken locations and angles should be shown on the layout plan.	Noted and Revised
(d) 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 and Revised

(B)Stormwater Drain Calculation

(g)Stormwater Discharge Calculation

(i) Design Date

Return year : 1 in 50 years

Run off coefficient : $C = 1.0$

Approximate Catchment = 1190m²

Duration : 5 min

The Rational Method

Estimation of Storm water run-off, $Q=0.278 \times C \times i \times A$

Where Q = Peak run-off in m³/s

C = Run-off coefficient

i = Rainfall intensity in mm/hr

A = Area of catchment in m²

(ii) Rainfall Intensity

Referring to Stormwater Drainage Manual (SDM) :

The delineation of Rainfall zones = HKO Headquarters

(Refer to SDM, Figure 3)

The rainfall intensity = 218 mm/h (Refer to SDM, Table 2a)

Rainfall Increase due to Climate Change.

The rainfall increase = End of 21st Century = 16% (Refer to SDM, Table 28)

Rainfall Increase due to Design Allowance.

The rainfall increase = End of 21st Century = 12.1% (Refer to SDM, Table 31)

Therefore, the rainfall increase = $218\text{mm/h} \times (16\%+12.1\%)$

$$= 61.258\text{mm/h}$$

$$= 218\text{mm/h} + 61.258\text{mm/h}$$

$$= 279.258\text{mm/h}$$

(iii) Maximum run-off from the discharge point

For Domestic structure:

$$Q_p = 0.278 \times 1 \times 279.258 \times 1190 \times 10^{-6}$$

$$= 0.0924 \text{ m}^3/\text{s}$$

$$= 92.4 \text{ L/s.}$$

350 mm U channel with gradient 1 in 100 at velocity

at 2.009 m/s, can accommodate for 193.26 L/s (Please refer

Appendix b).

Drainage Capacity

193.26 L/s > 92.4 L/s (47.8% Capacity Occupied)

(with over 10% reduction in flow area)