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Michael Chi Kin SO/PLAND

寄件者: [REDACTED]
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收件者: tpbpd/PLAND
副本: Michael Chi Kin SO/PLAND
主旨: A/YL-KTS/1071 : 回應部門意見
附件: A_YL-KTS_1071_回應部門意見.pdf; 附件2 : Temporary Drainage Proposal for A_YL-KTS_1071 (Issue 2).pdf; 附件1 : A_YL-KTS_1071_Layout_Plan..pdf

類別: Internet Email

城規會/規劃處：

有關規劃申請：A/YL-KTS/1071，現附上回應部門的意見，請查收。

此電郵將取代 2025 年 6 月 10 日的電郵。

謝謝。

Ms Chong

[REDACTED]

Planning Application No. A/YL-KTS/1071

Table A: Responses to Departmental Comments

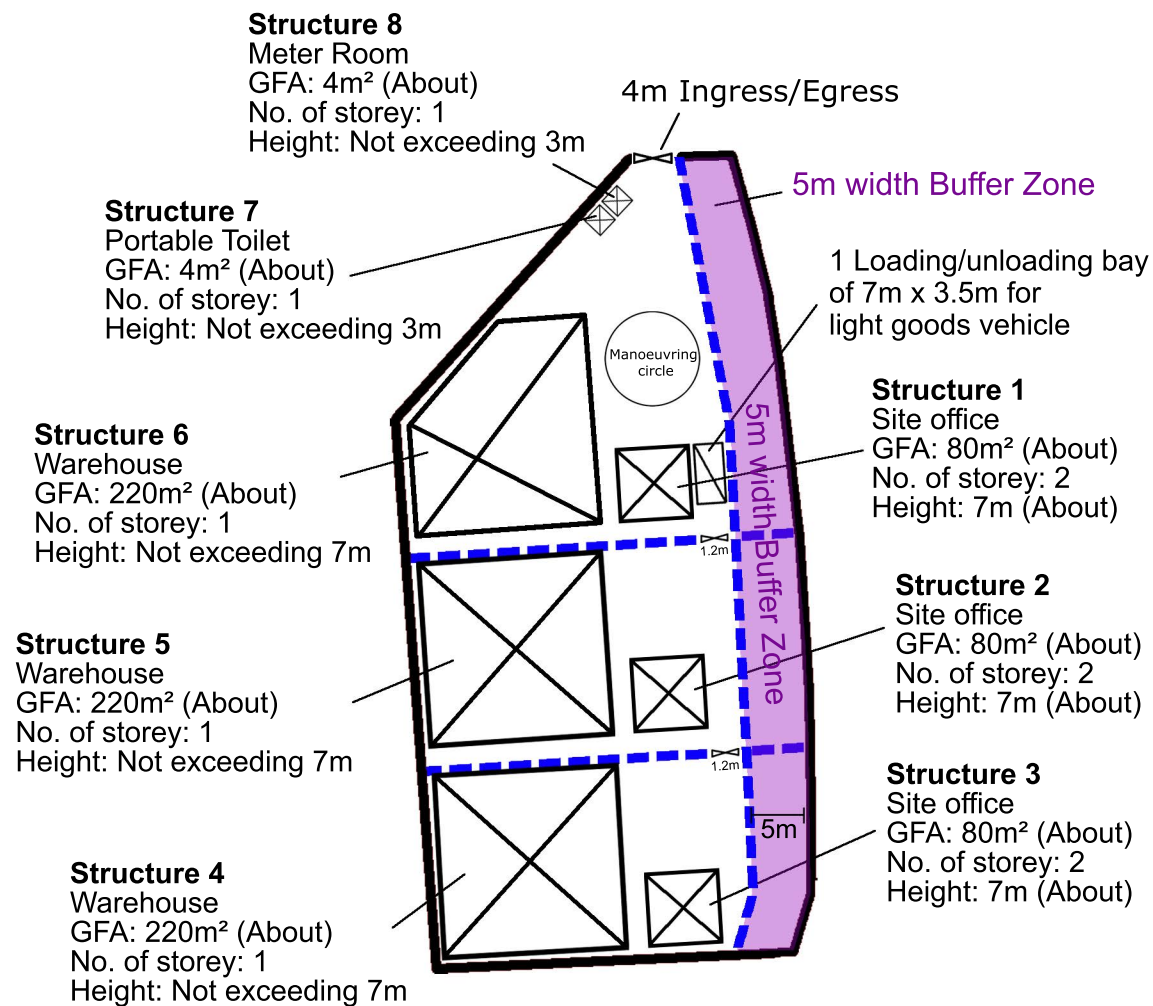
| | Departmental Comments | Responses |
|-----|--|--|
| | Agriculture, Fisheries and Conservation Department | |
| (a) | It is noted that current activities on the application site may have encroached on the abutting CA zone adjacent to the application site boundary. There is a concern that there will be a possible encroachment and disturbance on the nearby CA zone from the use. | <p>請查閱附件 1 的 Layout Plan，現時申請地點的活動並沒有在 CA 地區及緩衝區內進行，將來也不會擴展開去。申請人確保擬議申請的所有活動不會影響 CA 地區。</p> <p>附件 1：Layout Plan</p> |
| (b) | It is noted that there is a natural streamcourse to the west of the subject site. The applicant shall clarify whether any measure will be implemented to avoid disturbance to the watercourse nearby during land filling and operation. | 申請人已用坑板圍起申請地點，並已做好排水設施，擬議申請不會對西邊的天然河流造成負面影響。 |

| | Departmental Comments | Responses |
|-----|---|---|
| | Planning Department | |
| (a) | Please confirm that “no dangerous goods will be stored at the Site. No open storage, assembling, dismantling, maintenance and other workshop activities will be conducted within the Site”. | 申請人確認擬議申請的臨時貨倉並不會存放任何危險物品，也不會在現場進行露天存放、修理、組裝、拆卸或工場活動。 |
| | Please confirm that all activities would only be carried out within the application site. | 申請人確認所有活動只會在申請範圍內進行。（Layout Plan 上的黑色線範圍內） |
| | According to the site photos taken, it is noted that fences are erected along the boundary of the application site. Please advise that they should be clearly marked on the layout plan. | 請查看附件 1。 黑色粗線就是申請範圍的圍板位置。 |

| | Departmental Comments | Responses |
|-----|---|---|
| | Drainage Services Department | |
| (a) | The applicant should include a drainage proposal to support the application. | 申請人已做好排水建議書，請看附件 2。 附件 2：Temporary Drainage Proposal |
| (b) | The applicant is reminded to refer to DSD's Stormwater Drainage Manual and its corrigenda for preparation and submission of drainage assessment/proposal. | 申請人知悉。 |

補充說明

1. 申請地點只設一個大門給貨車和職員進出，緩衝區內 (Buffer Zone) 不會有任何卸貨活動或職員進出，確保達到緩衝效果。
2. 申請地點內 3 個貨倉是可以互通的，職員可透過中間的小門用手推車送貨。
3. 擬議申請的申請地點早前已獲批准做動物寄養所，但由於元朗廈村及洪水橋近期被政府徵收土地，大量貨倉被逼遷出和要找地方搬，貨倉需求大大提升，因此申請人將擬議申請用途轉成臨時貨倉，以應付貨倉需求急升和回應政府政策。



ISSUE 2

TEMPORARY DRAINAGE PROPOSAL

APPLICATION SITE OF THE PROPOSED
TEMPORARY WAREHOUSE (EXCLUDING
DANGEROUS GOODS GODOWN) WITH
ANCILLARY FACILITIES AND ASSOCIATED FILLING
OF LAND FOR A PERIOD OF 3 YEARS AT LOT
1595 (PART) IN D.D.113, MA ON KONG, KAM
TIN, YUEN LONG.

PROJECT NO. AGLA/TDM/026

PREPARED FOR

APPLICATION NO. A/YL-KTS/1071

9 JUNE 2025

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1 Introduction

1.1 Background

- 1.1.1 This report presents the Drainage Proposal for supporting the Proposed Temporary d Temporary Warehouse (excluding Dangerous Goods Godown) with Ancillary Facilities and Associated Filling of Land for a Period of 3 Years at Lot 1595 (Part) in D.D.113, Ma On Kong, Kam Tin, Yuen Long.
- 1.1.2 For the site location plan, please refer to the **Appendix A**.

1.2 Objectives of the Report

- 1.2.1 This report shall be prepared to include the following:
- Identify the potential drainage impact assessment from the proposed Application Site
 - recommend and implement all necessary measures to mitigate adverse drainage impacts arising from the application site

1.3 Report Structure

- 1.3.1 The report contains the following sections:
- Section 1 on Introduction;
 - Section 2 on Development Proposal;
 - Section 3 on Assessment Criteria;
 - Section 4 on Potential Drainage Impact; and
 - Section 5 on Conclusion.

2 Development Proposal

2.1 Location of the Application Site

- 2.1.1 The application Site is located within the Ma On Kong, Kam Tin, with an area of around 1,930m² and ground level varying between + 25.7mPD and + 23.7 mPD. The layout plan is provided in **Appendix B**.
- 2.1.2 This application site is "Agriculture" zoning, the type of application is the Temporary Use/Development in Rural Areas for a Period of 3 Years.

3 Assessment Criteria

3.1 Design Return Periods

- 3.1.1 The drainage system in the Application site is to collect surface flows and convey to downstream village drain. The recommended design return periods based on the flood levels for the various drainage systems depend on the drainage system, land use, hazard to public safety and community expectations. The recommended design return period is reproduced in Table 3-1 below:

Table 3-1 Recommended Design Return Periods based on Flood Levels

| 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 |

- 3.1.2 As per Storm Drainage Manuel (SDM) Section 6.6.2 Urban Drainage Branch and Urban Drainage Trunk Systems “An ‘Urban Drainage Branch System’ is defined as a group or network of connecting drains collecting runoff from the urban area and conveying stormwater to a trunk drain, river or sea. For a simple definition, the largest pipe size or the equivalent diameter in case of a box culvert in a branch system will normally be less than 1.8m.
- 3.1.3 An ‘Urban Drainage Trunk System’ collects stormwater from branch drains and/or river inlets, and conveys the flow to outfalls in river or sea. Pipes with size or diameter equal to or larger than 1.8m are normally considered as trunk drains.”
- 3.1.4 As per SDM, since the proposed U-channels are sized smaller than 1.8m, the drainage system would be defined as an urban drainage branch with recommended design return period of 50 years.
- 3.1.5 The 50 years design return period will be considered to ensure adequacy of the stormwater drainage system.

3.2 Calculation Methodology for Runoff

- 3.2.1 Peak instantaneous runoff values before and after the development were calculated based on the Rational Method and with recommended physical parameters including runoff coefficient (C) and storm constants for different return periods referred to the SDM, based on the following equation:

$$Q_p = 0.278 C i A$$

| | | | |
|-------|-------|---|---------------------------------|
| where | Q_p | = | Peak Runoff, m ³ /s |
| | C | = | Runoff Coefficient |
| | i | = | Rainfall Intensity, mm/hr |
| | A | = | Catchment Area, km ² |

- 3.2.2 The paved area of the site will account for 1,600 m². For conservative, the runoff coefficient of 1.0 is assumed, such that the all the run-off would be collected from the catchment area without any infiltration as the critical scenario.
- 3.2.3 Based on the storm constants for 50-year return period recommended in the SDM, the appropriate rainfall intensities (i) are calculated as detailed in **Appendix D**

3.3 Calculation Methodology for Pipe Capacity Checking

- 3.3.1 Because the catchment areas are less than 1ha, U-channels are recommended to be constructed to collect the stormwater runoff within the site. The collected stormwater should finally be diverted to the downstream via the proposed U-channel system.
- 3.3.2 For the worst-case scenario, bad condition of concrete pipe is assumed for the Manning's roughness coefficient (coefficient value is 0.016) for calculating capacities of concrete U-channel using Manning's Equation.
- 3.3.3 Manning's Equation for calculating the channel and pipe capacities is adopted.

4 Potential Drainage Impact

4.1 Existing Site Condition

- 4.1.1 The adjacent ground surface from southern direction are generally higher than the ground level of application site, external catchment m² shall be considered in the calculation, the application site with a projected area of 1,930 m² with external catchment of 320 m² and the adjacent hilly terrain with external catchment of 5,840 m² are considered as part of the catchment.

4.2 Changes in Drainage Characteristics

- 4.2.1 The characteristics of the sub-catchment areas are remained unchanged due to the temporary development for the application site, which are paved area.
- 4.2.2 The application site is fully covered by concrete surface currently. This application does not propose adding any additional concrete area, the difference in surface runoff that can be attributed to this application is negligible. The change in sub-catchment is summarized in Table 4-2.

Table 4-1 Sub-catchment within the site

| CATCHMENT | K | AREA (A) |
|-------------------------|------|----------|
| Application Site Area | 1.00 | 1930.0 |
| External Catchment Area | 0.30 | 5840.0 |
| External Catchment Area | 1.00 | 320.0 |
| Total Catchment Area | 1.00 | 4002.0 |

4.3 Potential Drainage Impact

- 4.3.1 The details of the proposed drainage works are illustrated in **Appendix C**.
- 4.3.2 To effectively convey stormwater away from the application site and minimize the potential impact to the drainage infrastructure of the village area, drainage works consists of U-channels, are proposed to convey the flow to the terminate catchpit with trap (TCP).
- 4.3.3 The runoff from the Application site is collected by U-channels along the boundary and discharged to the terminate catchpit with trap (TCP), which is connected to the further downstream leading to the discharge point of the 300mm Pipe at the western direction of the application site, and eventually lead to the existing village Nullah.
- 4.3.4 The 500mm U-channel receives stormwater from the surface and the upstream catchment. For Conservative, the critical scenario is considered for collecting all the flow leading to the 500mm U-channel. The design calculation of the proposed drainage is provided in **Appendix D**. The design calculation is summarized in Table 4-2.

Table 4-2 Design calculation of the proposed drainage work

| DRAINAGE SYSTEM | ESTIMATED FLOW (M ³ /S) | CAPACITY (M ³ /S) | RESERVE CAPACITY |
|-----------------|------------------------------------|------------------------------|------------------|
| 500mm UC | 0.263 | 0.434 | 39% |

Note:

[1] Rainfall increase due to climate change at the end of 21st century is considered according to stormwater drainage manual Table 28.

[2] The reserve capacity is calculated by assuming that the 400mm U-channel reach its full capacity for conservative.

- 4.3.5 The design runoff arise from the proposed Application Site is to be discharged into the proposed 500mm UC with the runoff anticipated to be 0.263m³/s, which is within the drainage capacity of the proposed 500mm u-channel of 0.434m³/s with gradient 1:100.
- 4.3.6 Since there are no changes in Drainage Characteristics, it is considered that the drainage discharge from the Application Site will not cause adverse impact to the entire downstream drainage system.
- 4.3.7 All u-channels & catch pits will be constructed according to the CEDD's standard drawings, please refer to the **Appendix E**.

5 Construction Stage

5.1 Temporary Drainage Arrangements

- 5.1.1 Proper measures shall be taken to maintain the existing drainage characteristics of the catchment areas and to minimize drainage impacts associated with the construction works. The principal drainage impacts which are associated with construction of the works have been identified as follows:
- (a) Erosion of ground materials;
 - (b) Sediment transportation to existing downstream drainage system; and
 - (c) Obstruction to drainage systems.
- 5.1.2 Regular inspections shall be carried out to ensure integrity of the works. These inspections shall cover works under construction as well as recently completed areas.

- 5.1.3 To ensure proper operation of the site drainage channels and desilting facilities, inspection of the perimeter drains shall be carried out on a weekly basis and the desilting facilities shall be cleaned on a daily basis.
- 5.1.4 If excavated materials are not possible to transport away the excavated material within the same day, the material should be covered by tarpaulin/impervious sheets. Stockpiles of construction materials (for examples aggregate, fill materials) of more than 50 m³ in an open area shall also be covered with tarpaulin or similar fabric during rainstorms.
- 5.1.5 All runoff discharged into the existing drainage system will be settled in a silt trap to ensure no sediment will be discharged into the channel. Silt traps will normally be provided along the site drainage immediately upstream of the proposed discharge point to the existing Site. The silt traps will be inspected daily and immediately after each rainstorm.
- 5.1.6 Liaison will be carried out with relevant parties regarding temporary drainage arrangements to ensure that the drainage system is functioning adequately.

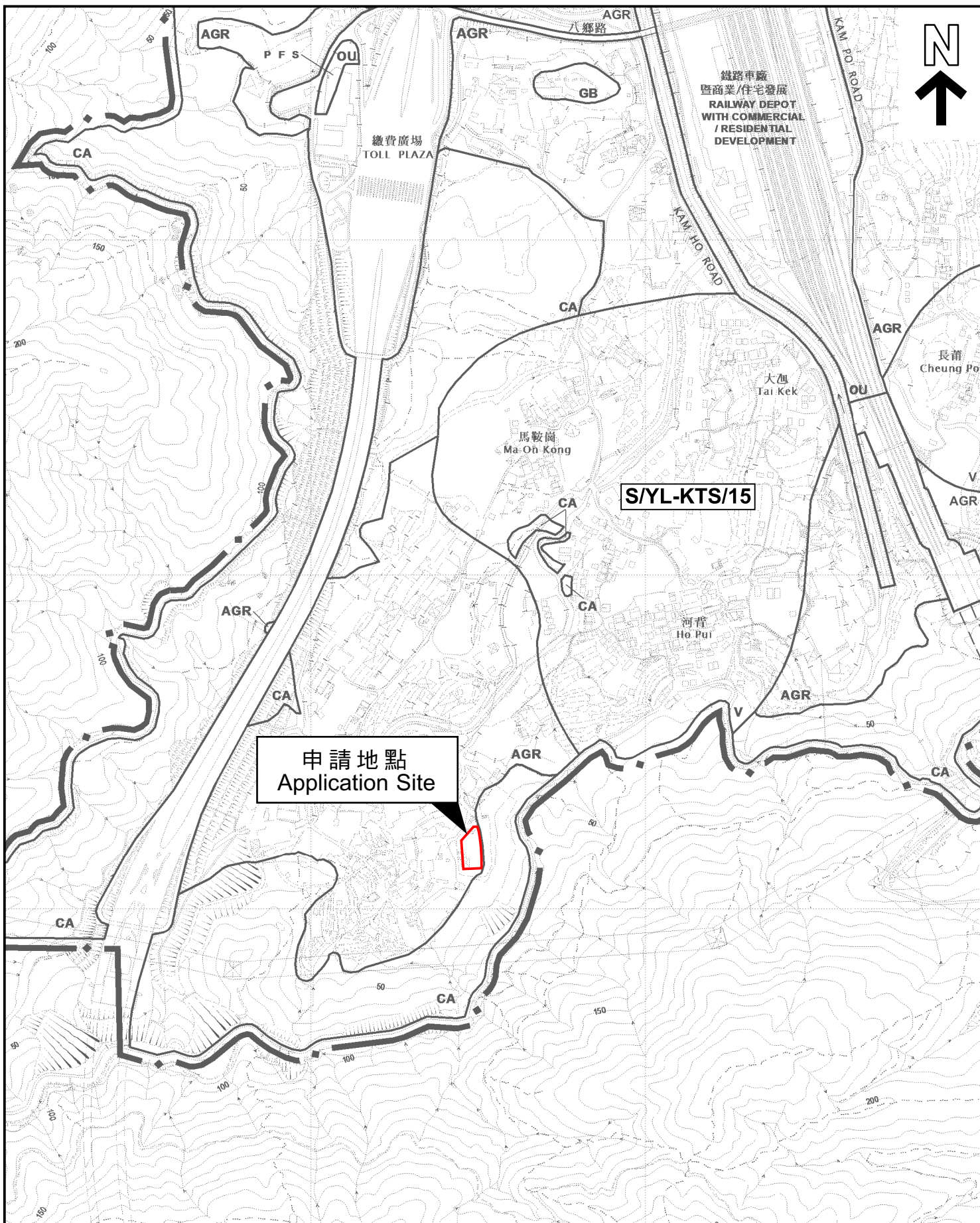
6 Conclusions

6.1 Conclusion

- 6.1.1 The analysed catchment area of 4,002 m² consists of the site area of the proposed Application Site and the adjacent catchment area.
- 6.1.2 U-channels are proposed to convey runoff from the application site for collection. The proposed U-channels are located along the site boundary which is subject to change to suit the building layout.
- 6.1.3 The assessment reviews the drainage pipe have the sufficient capacity to cater for the drainage flow from the Application Site.
- 6.1.4 Mitigation measures are proposed during the application site proposed Application Site and to ensure that the existing drainage system within the site will not be affected during the construction stage.

END OF TEXT

APPENDIX A
SITE LAYOUT PLAN



本摘要圖於2025年5月6日擬備，
所根據的資料為於2018年12月11日
核准的分區計劃大綱圖編號 S/YL-KTS/15
EXTRACT PLAN PREPARED ON 6.5.2025
BASED ON OUTLINE ZONING PLAN No.
S/YL-KTS/15 APPROVED ON 11.12.2018

位置圖 LOCATION PLAN

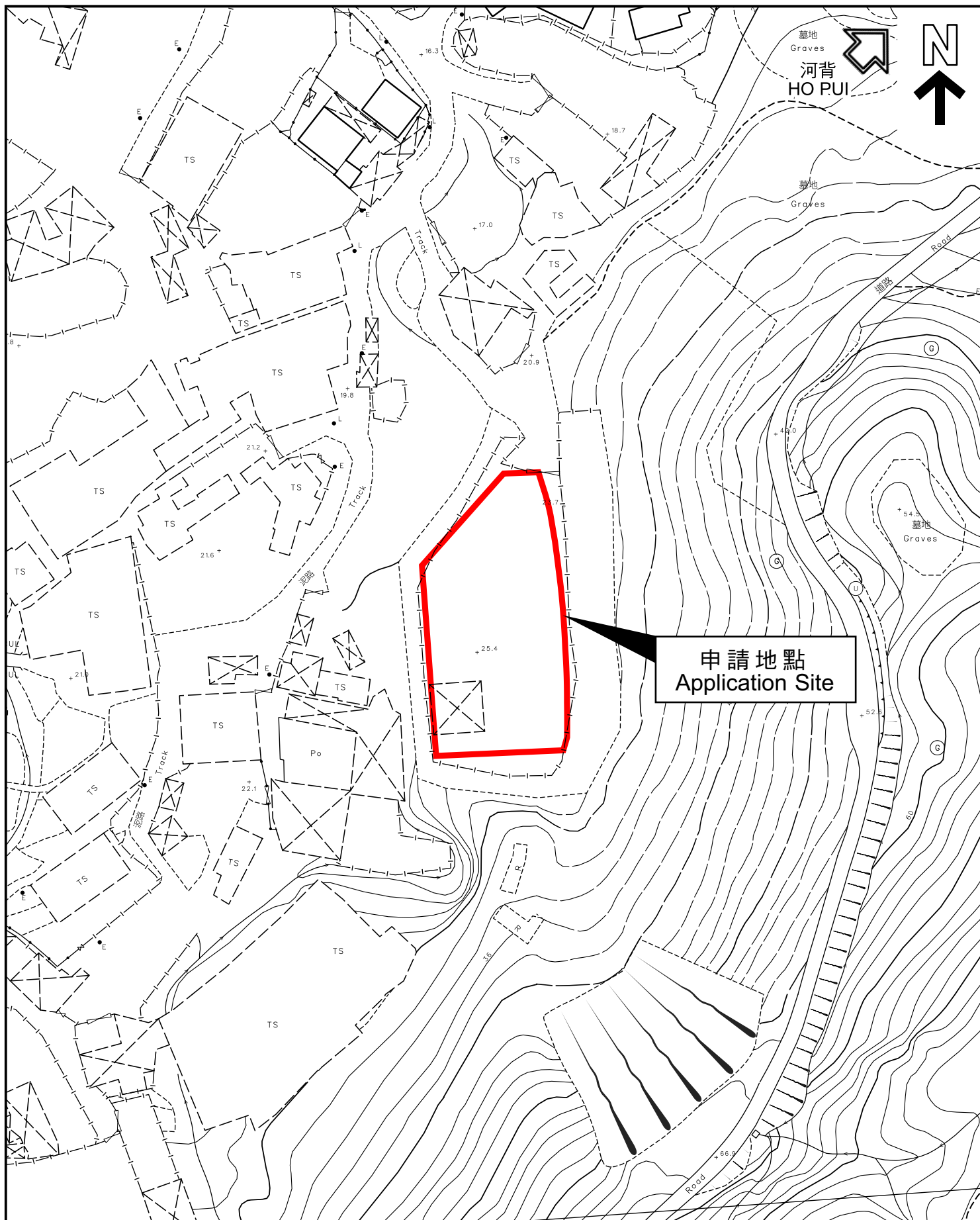
SCALE 1 : 7 500 比例尺
米 100 0 100 200 300 米
METRES

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.

A/YL-KTS/1071

APPENDIX B
LAYOUT PLAN



本摘要圖於2025年5月6日擬備，
 所根據的資料為測量圖編號
 6-NE-22C 及 22D 和 6-SE-2A 及 2B
 EXTRACT PLAN PREPARED ON 6.5.2025
 BASED ON SURVEY SHEETS No.
 6-NE-22C & 22D AND 6-SE-2A & 2B

平面圖 SITE PLAN

申請地點界線只作識別用
 APPLICATION SITE BOUNDARY
 FOR IDENTIFICATION PURPOSE ONLY

參考編號
 REFERENCE No.

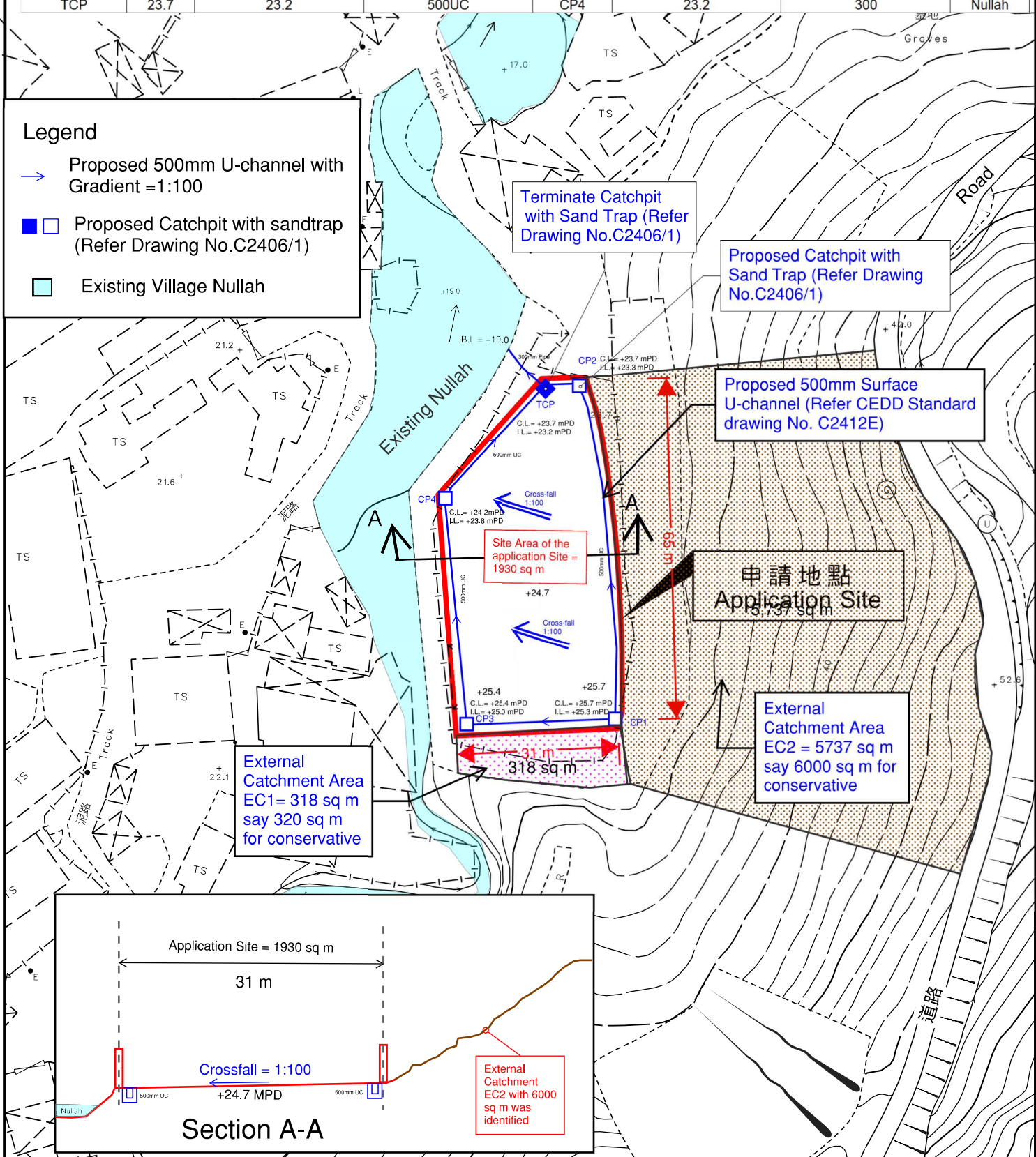
A/YL-KTS/1071

APPENDIX C
PROPOSED DRAINAGE PLAN

| CATCHPIT No. | COVER LEVEL | INLET | | | OUTLET | | |
|--------------|-------------|----------------------|----------------|------|----------------------|----------------|--------|
| | | INVERTED LEVEL (mPD) | SIZE (ID) (mm) | FROM | INVERTED LEVEL (mPD) | SIZE (ID) (mm) | TO |
| CP1 | 25.7 | 25.3 | -- | -- | 25.3 | 500UC | CP2 |
| CP2 | 23.7 | 23.3 | 500UC | CP1 | 23.3 | 500UC | TCP |
| CP3 | 25.4 | 25 | 500UC | CP1 | 25 | 500UC | CP4 |
| CP4 | 24.2 | 23.8 | 500UC | CP3 | 23.8 | 500UC | TCP |
| TCP | 23.7 | 23.2 | 500UC | CP4 | 23.2 | 300 | Nullah |

Legend

- Proposed 500mm U-channel with Gradient = 1:100
- □ Proposed Catchpit with sandtrap (Refer Drawing No.C2406/1)
- Existing Village Nullah



本摘要圖於2024年1月31日擬備，
所根據的資料為測量圖編號
6-NE-22C及D 和 6-SE-2A及B
EXTRACT PLAN PREPARED ON 31.1.2024
BASED ON SURVEY SHEETS No.
6-NE-22C&D and 6-SE-2A&B

Appendix C - Drainage Plan

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.
A_YL-KTS_1071

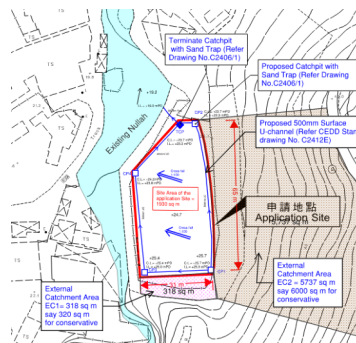
APPENDIX D
DESIGN CALCULATION OF THE PROPOSED DRAINAGE

Design Data

1. Design follows the Rational Method in accordance with Stormwater Drainage Manual 2018 (DSD)
2. For conservative, Runoff coefficient for paved / unpaved land is 1.
3. Design return period is 50 years.
4. For manning's equation coefficient n is 0.016.

Check for Hydraulic Capacity:

| Catchment | K | Area (A) |
|-------------------------|------|-----------------------|
| Application Site Area | 1.00 | 1930.0 m ² |
| External Catchment Area | 0.30 | 5840.0 m ² |
| External Catchment Area | 1.00 | 320.0 m ² |
| Total Catchment Area | 1.00 | 4002.0 m ² |

**Runoff estimation**

Average slope, H

$$= 1 / 100\text{m}$$

Catchment area, A

$$= 4002 \text{ m}^2$$

Distance between summit and point under consideration, L

$$= 30 \text{ m}$$

SDM 7.5.2

Time of concentration of natural catchment, t_o

$$= 0.14465 \times L / (H^{0.2} \times A^{0.1})$$

$$= 1.89 \text{ min.}$$

Length of drain, L_j

$$= 65 \text{ m}$$

SDM 7.5.2

Velocity, V_j

$$= 1.945 \text{ m/s}$$

Flow time, t_f

$$= \Sigma (L_j / V_j)$$

$$= 0.55694265 \text{ min.}$$

Time of concentration, t_c

$$= t_o + t_f$$

$$= 2.45 \text{ min.}$$

SDM Table 3

Storm constants for 50-year return period:

$$a = 451.3$$

$$b = 2.46$$

$$c = 0.337$$

SDM 4.3.2

Extreme mean intensity, $i_{50_{yr}}$

$$= a / (t_d + b)^c$$

$$= 236.502098 \text{ mm/hr}$$

GMS Fig 8.2

Design flow, Q

$$< 405.000 \text{ mm/hr}$$

SDM 7.5.2

$$= 0.278 i \Sigma K A$$

$$= 0.263 \text{ m}^3/\text{s}$$

500mm u-channel capacity

Diameter

$$= 500 \text{ mm}$$

Cross-sectional area of 500mm U-channel $= (\pi \times R^2 / 2) + R \times R / 2 =$

$$= 0.2232 \text{ m}^2$$

Gradient

$$= 0.01$$

Manning's Eq.

flow velocity

$$= 1.945 \text{ m/s}$$

Design Capacity

$$= 0.434 \text{ m}^3/\text{s}$$

$$> 0.263 \text{ m}^3/\text{s}$$

OK

Reserve capacity

$$= 39\%$$

For conservative, all the U-channel along the site boundary shall be 500mm.

300mm pipe capacity

Diameter

$$= 300 \text{ mm}$$

Cross-sectional area of 300mm pipe $= (\pi \times R^2) =$

$$= 0.0707 \text{ m}^2$$

Gradient

$$= 0.10$$

Manning's Eq.

flow velocity

$$= 4.376 \text{ m/s} < 6 \text{ OK}$$

Design Capacity

$$= 0.309 \text{ m}^3/\text{s}$$

$$> 0.263 \text{ m}^3/\text{s}$$

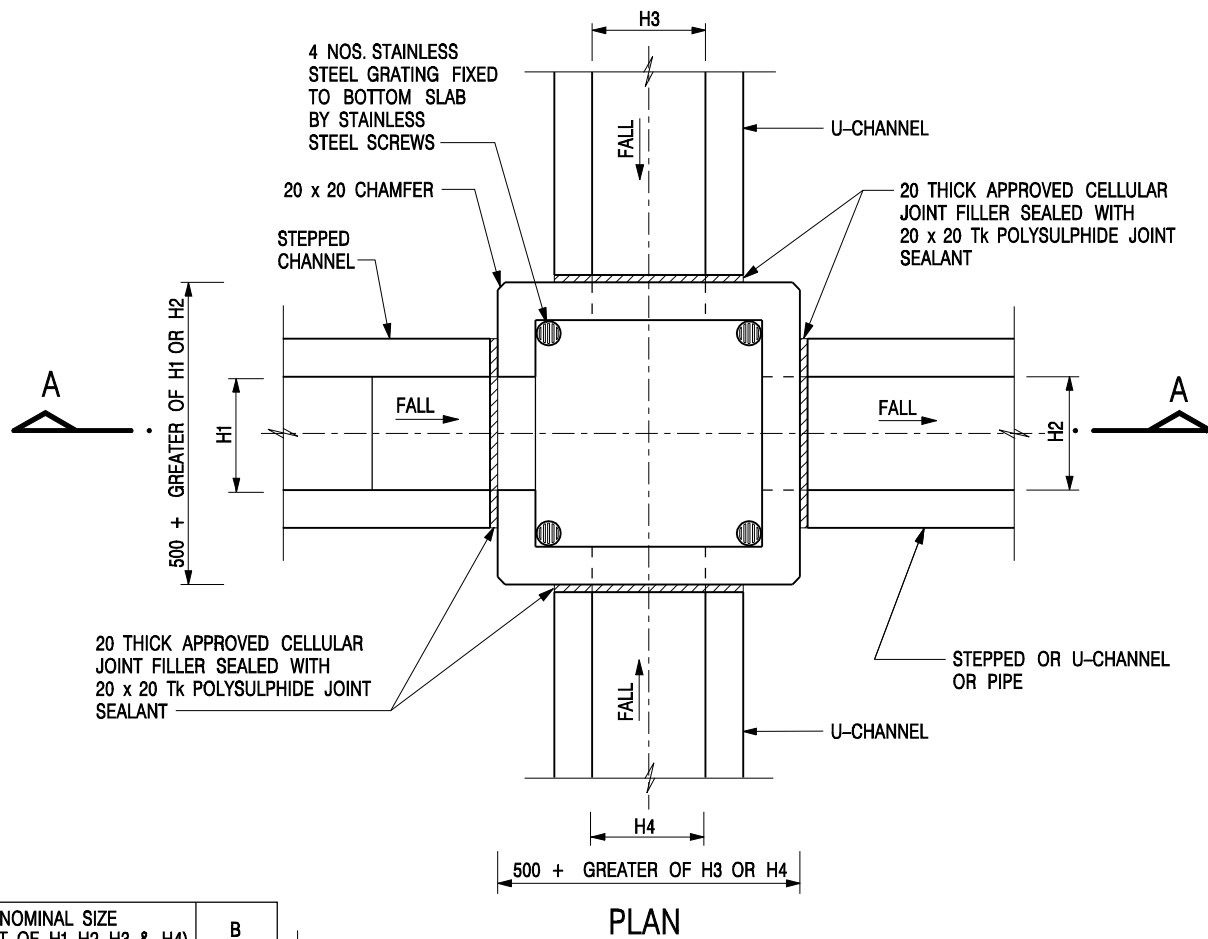
OK

Reserve capacity

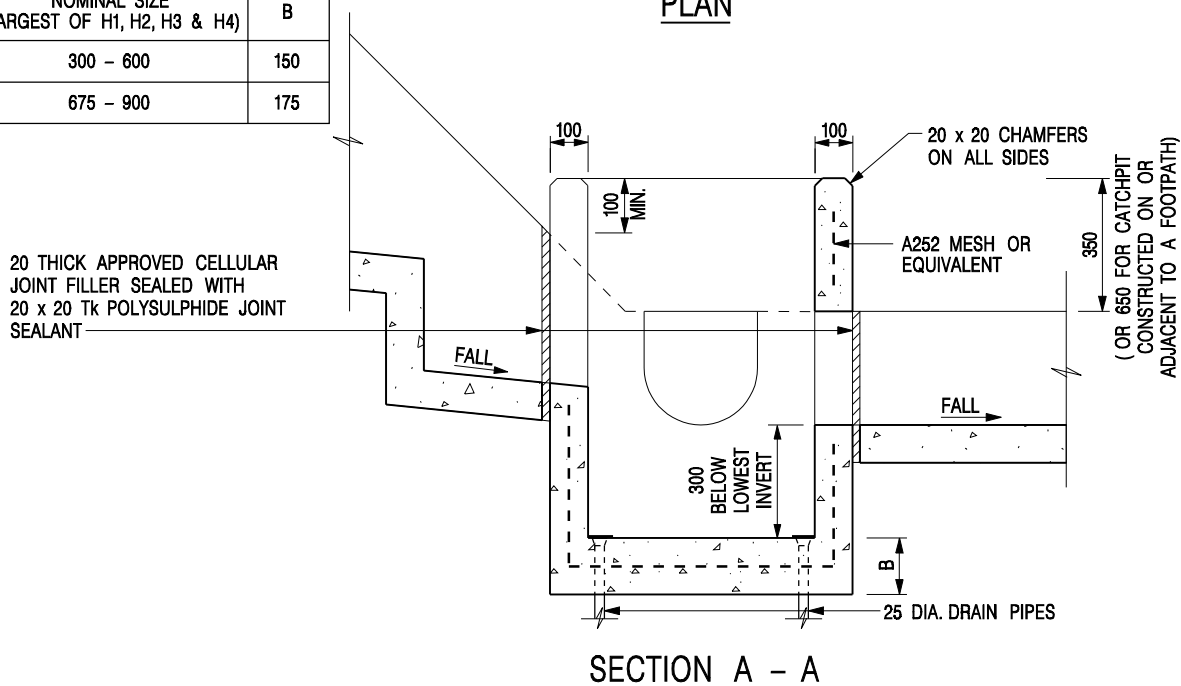
$$= 15\%$$

APPENDIX E

**TYPICAL STANDARD DRAWINGS OF U-CHANNEL AND CATCHPIT
(EXTRACTED FROM CEDD, FOR REFERENCE ONLY)**




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

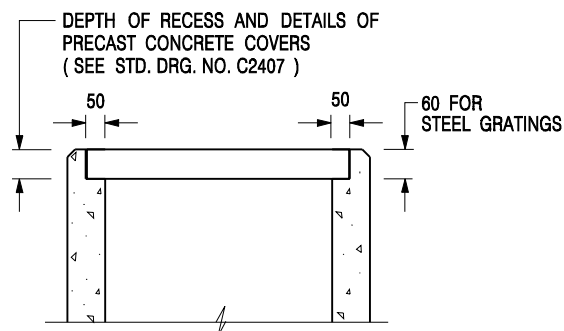


NOTES:

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

CATCHPIT WITH TRAP
(SHEET 1 OF 2)

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

**CATCHPIT WITH TRAP
(SHEET 2 OF 2)**



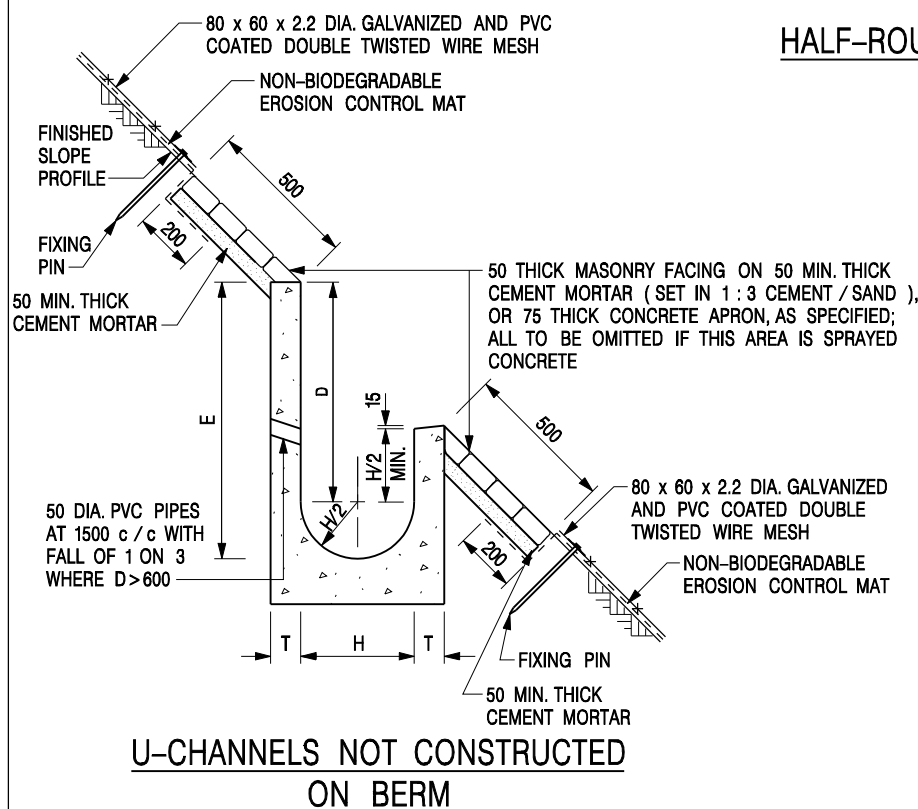
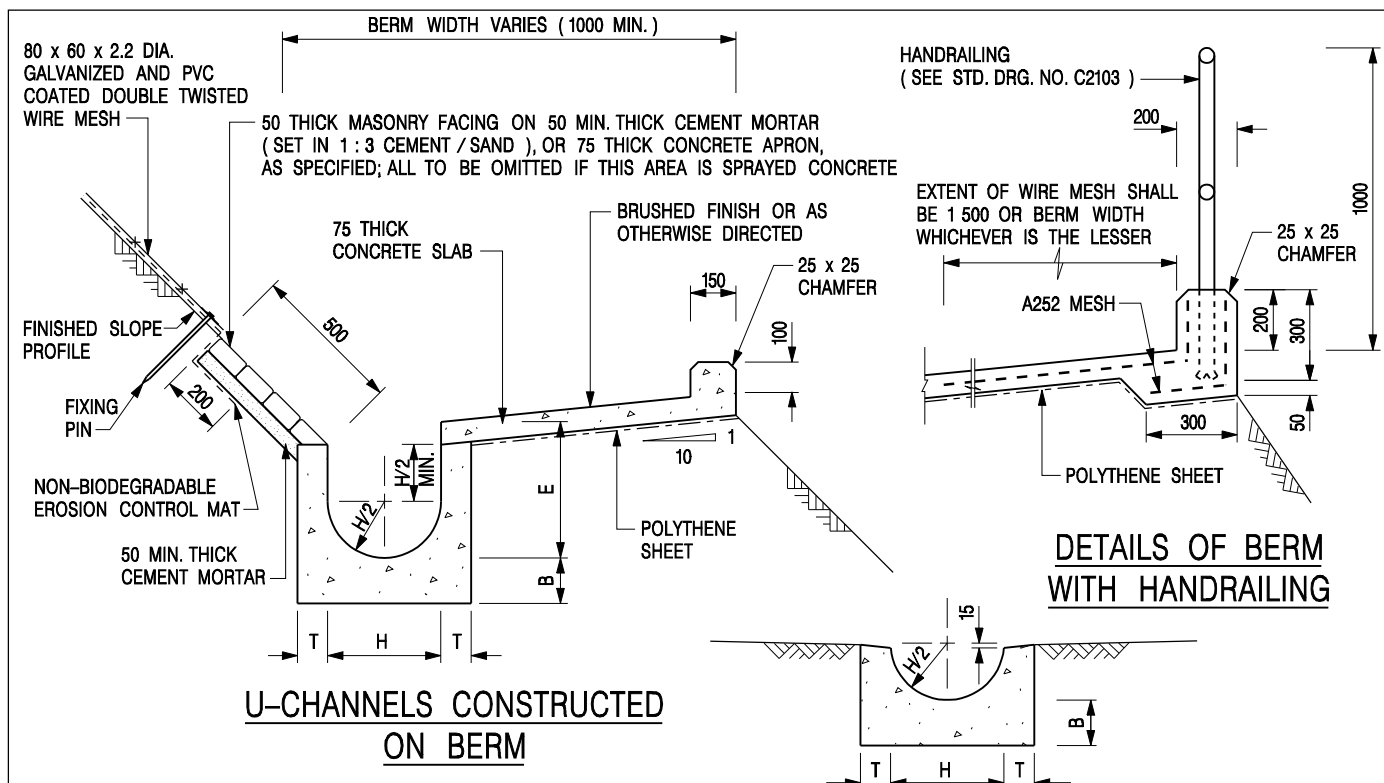
**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

SCALE 1 : 20

DATE JAN 1991

DRAWING NO.

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. C251/1E.
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. C251/1E)

| 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)**

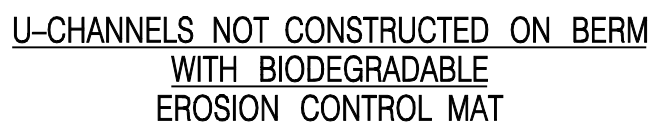


**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

SCALE 1 : 25

DATE JAN 1991

DRAWING NO.
C2409I



| | |
|--|--|
| 1. ALL DIMENSIONS ARE IN MILLIMETRES. | 6. FOR DIMENSIONS T, H, & B, SEE TABLE BELOW. |
| 2. ALL CONCRETE TO BE GRADE 20 /20. | 7. FOR TYPICAL FIXING PIN DETAILS, SEE STD. DRG. NO. C251/2. |
| 3. CONCRETE SURFACE FINISH SHALL BE CLASS U2, F2 OR BRUSHED FINISH AS DIRECTED. | 8. MINIMUM SIZE OF 25 x 50 x 300mm SHALL BE PROVIDED FOR WOODEN PEG. |
| 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. | |

9. MINIMUM SIZE OF 10mm DIAMETER WITH 200mm LONG SHALL BE PROVIDED FOR BAMBOO STICK.

10. THE FIXING DETAILS OF NON-BIODEGRADABLE AND BIODEGRADABLE EROSION CONTROL MATS ON EXISTING BERM SHALL REFER TO STD. DRG. NO. C2511.

| | | | |
|-------------|--|------------------|-------------|
| 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 |
| REF. | REVISION | SIGNATURE | DATE |

DETAILS OF HALF-ROUND AND U-CHANNELS (TYPE B – WITH EROSION CONTROL MAT APRON)

卓越工程 建設香港



**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

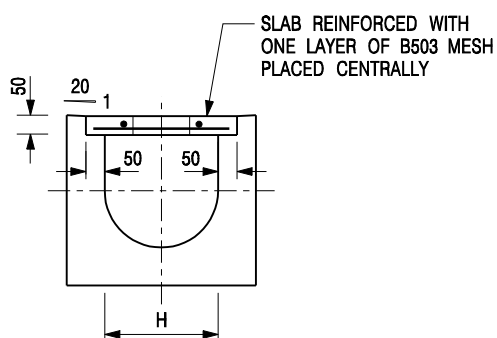
SCALE DIAGRAMMATIC

DATE JAN 1991

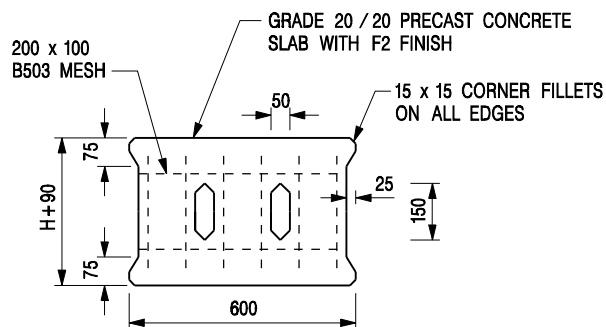
DRAWING NO.

C24101

We Engineer Hong Kong's Development



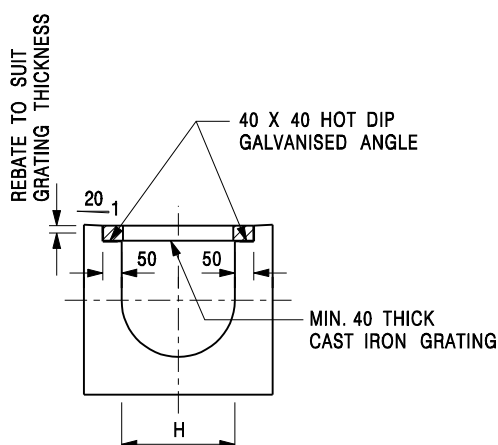
TYPICAL SECTION



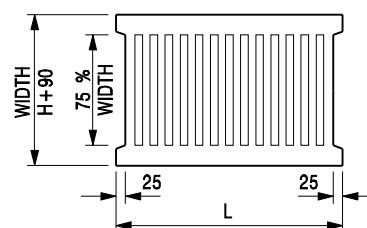
PLAN OF SLAB

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:

- ALL DIMENSIONS ARE IN MILLIMETRES.
- H=NOMINAL CHANNEL SIZE.
- ALL CAST IRON FOR GRATINGS SHALL BE GRADE EN-GJL-150 COMPLYING WITH BS EN 1561.
- 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

DATE JAN 1991

DRAWING NO.
C2412E

APPENDIX F
RESPONSE TO COMMENTS

Response to Comments on Temporary Drainage Proposal (Issue 1)

1. Comments from DSD/YL2

1. Comments from DSD/MN

| No. | Comments | Response |
|------------|---|--|
| 1. | Please include the connection details, including the C.L., I.L. and B.L., at discharge point in the submission. | Please refer to the revised Appendix C – Drainage Plan. |
| 2. | For ease of reference, please include a drainage schedule in the submission | Please refer to the revised Appendix C – Drainage Plan. |
| 3. | Cross sections at longitude direction showing the existing and proposed ground levels of the captioned site with respect to the adjacent areas should be given. | Noted and provided. Please refer to the revised Appendix C – Drainage Plan. |
| 4. | Please revise the catchment area and take into account the overland flow from the adjacent hilly terrain in the drainage proposal assessment. | The overland flow from the adjacent hilly terrain is incorporated as the external catchment. Please refer to the revised Appendix C – Drainage Plan. |
| 5. | Storm constants for different return period of HKO Headquarters should be adopted for the design calculations. | Noted and revised. |
| 6. | Cross section A-A revealed that the proposed channel cannot intercept the overland flow from the adjacent lands, please review the C.L. of the proposed channels. | Cross section A-A is provided. Please refer to the revised Appendix C – Drainage Plan. |
| 7. | 400mm peripheral u-channel is proposed for the application site. However, the size of the proposed downpipe is 200mm. Please review and include the design calculation of the proposed downpipe in the submission. The velocity of proposed downpipe should be checked. | Noted and revised. Please refer to the revised Appendix C – Drainage Plan and the Appendix D- Design Calculation. |