Total: 18 pages

Date: 18 July 2025

TPB Ref.: A/YL-PH/1045

By Email

Town Planning Board
15/F, North Point Government Offices
333, Java Road
North Point
Hong Kong
(Attn: The Secretary)

Dear Sir,

## Proposed Filling and Excavation of Land for Permitted Development of New Territories Exempted House (NTEH) at Lot 226 (Part) in D.D. 111, Pat Heung, Yuen Long, N.T.

Our response to the comments of the Fanling. Sheung Shui and Yuen Long East District Planning Office is found below:

| Fanling, Sheung Shui and Yuen Long East District Planning Office's comments | Applicant's resposne |
|---|---|
| 1. Please provide a drainage proposal support the proposed filling of land. | Noted and please see attachment. |
| 2. Please provide a detailed plan showing 1) the application site boundary, 2) the footprint of the proposed NTEH to be redeveloped, 3) the alignment pf the proposed drainage channel, 4) the boundary of the proposed land filling area and 5) the boundary of the proposed land excavation area. | Noted. Please see attached plans. |
| 3. Please provide detailed section plans showing the proposed level of filling of land. | Noted. Please see attached plan. |
| 4. Please advise the proposed fill materials for the proposed filling of land. | The filling materials for the proposed filling of land will be soil covered by concrete. |
| 5. Please clarify the purpose of the proposed land excavation works, whether it is solely for the provision | The proposed land excavation works will be only for the provision of surface channel to the satisfaction of Drainage |

| | |
|---|---|
| of drainage channel? | Services Department. |
| 6. It is noted that the lots adjoining the application site which belong to the applicant is subject to an active enforcement action for unauthorised storage use. Please advise how the applicant would deal with the active enforcement action. | The applicant would terminate the suspected unauthorized development. |
| 7. As the lots adjoining the applicant site belong to the applicant, please advise when these adjoining lots were filled up to the current site formation level. | The application site and adjoining land is low-lying area and subject to flooding. As such, the villagers has filled the land to avoid the occurrence of flooding. |

Should you have any enquiries, please feel free to contact our Mr. Patrick Tsui at [redacted] at your convenience.

Yours faithfully,


Patrick Tsui

c.c. Fanling, Sheung Shui and Yuen Long East District Planning Office [redacted]

# SUBMISSION REPORT
# FOR
# DRAINAGE PROPOSAL DESIGN
# FOR PROPOSED DEVELOPMENT
# ON
# LOT 226(PART) IN D.D.111

Date : July 2025

**TABLE OF CONTENTS**



**APPENDIX**



REFERENCES

1. Stormwater Drainage Manual, Planning Design and Management by DSD
2. Geotechnical Manual for Slopes by GEO
3. Standard Drawings by DSD

## 1. Introduction

This proposal is prepared for the proposed stormwater drainage works for the NTEH development at lot 226 (part) in D.D.111.

## 2. Existing Drainage Condition

A plan showing the existing catchments are enclosed in **Appendix B**. Currently, the surface runoff collected from the site is discharging to existing stream as shown in **Appendix A**. As per the existing site condition, additional peripheral U-channels area considered necessary for the proposed development. Drainage proposal is required to be carried out for the proposed development.

## 3. Design Parameters & Assumptions

The design criteria to be used for the modeling assessment are based on the standards set out in the Stormwater Drainage Manual, Third Edition (SDM). According to Section 6.6.1 of the SDM, the existing village drainage system in the vicinity of the development is classified as main rural catchment drainage system. Table 10 of the SDM recommends to be adopted a 50 year design return period storm event for the urban drainage branch system.

Stormwater Runoff (Q)

The rate of stormwater runoff used in this assessment report is estimated by the "Rational method" in which the peak runoff is calculated from the formula:

$$Q = K \times i \times A / 3600$$

where $Q$ = maximum runoff (L/s)

$i$ = design mean intensity of rainfall (mm/hr)

$A$ = area of catchment ($m^2$)

$K$ = runoff coefficient

Time of Concentration (tc)

The time of concentration is defined as the time required for stormwater runoff to flow from the most remote part of the catchment area to the point in the drainage system under consideration. Based on the assumptions adopted in the Rational Method, this is the time taken for the peak runoff to become established at the considered section.

The time of concentration comprises the time for water flowing within natural catchments and along the man-made drainage pipes/channels. For natural catchments, the time of concentration is estimated by the modified form of the Brandsby William's equation.

$$t_o = \frac{0.14465L}{H^{0.2} A^{0.1}}$$

Where $t_o$ = time of concentration of a natural catchment (min.)

A = catchment area ($m^2$)

H = average slope (m per 100m), measured along the line of natural flow, from the summit of the catchment to the point under consideration

L = distance (on plan) measured on the line of natural flow between the summit and the point under consideration (m)

Mean Rainfall Intensity (i)

Mean rainfall intensity-duration curves attached in this report are based on the Statistical analysis of long term rainfall records from the Hong Kong Observatory. A return period of 50 years is adopted.

Runoff Coefficient (K)

The value of K is taken as 1 for developed area. For vegetated ground, the value of K is taken as 0.3.

## 4. Proposed Stormwater Drainage

The proposed stormwater drainage works include surface U-channels at the peripheral of the site collecting the runoff from catchments within the site. The U-channels will connect and discharge the surface runoff to the existing stream. Catchpits with 300mm sump are proposed at the discharged points of proposed U-Channel to desilt the surface water before discharging to the drainage outside. The proposed stormwater drainage layout plan is shown in **Appendix A**.

## 5. Effect on Drainage Characteristics and Potential Drainage Impact

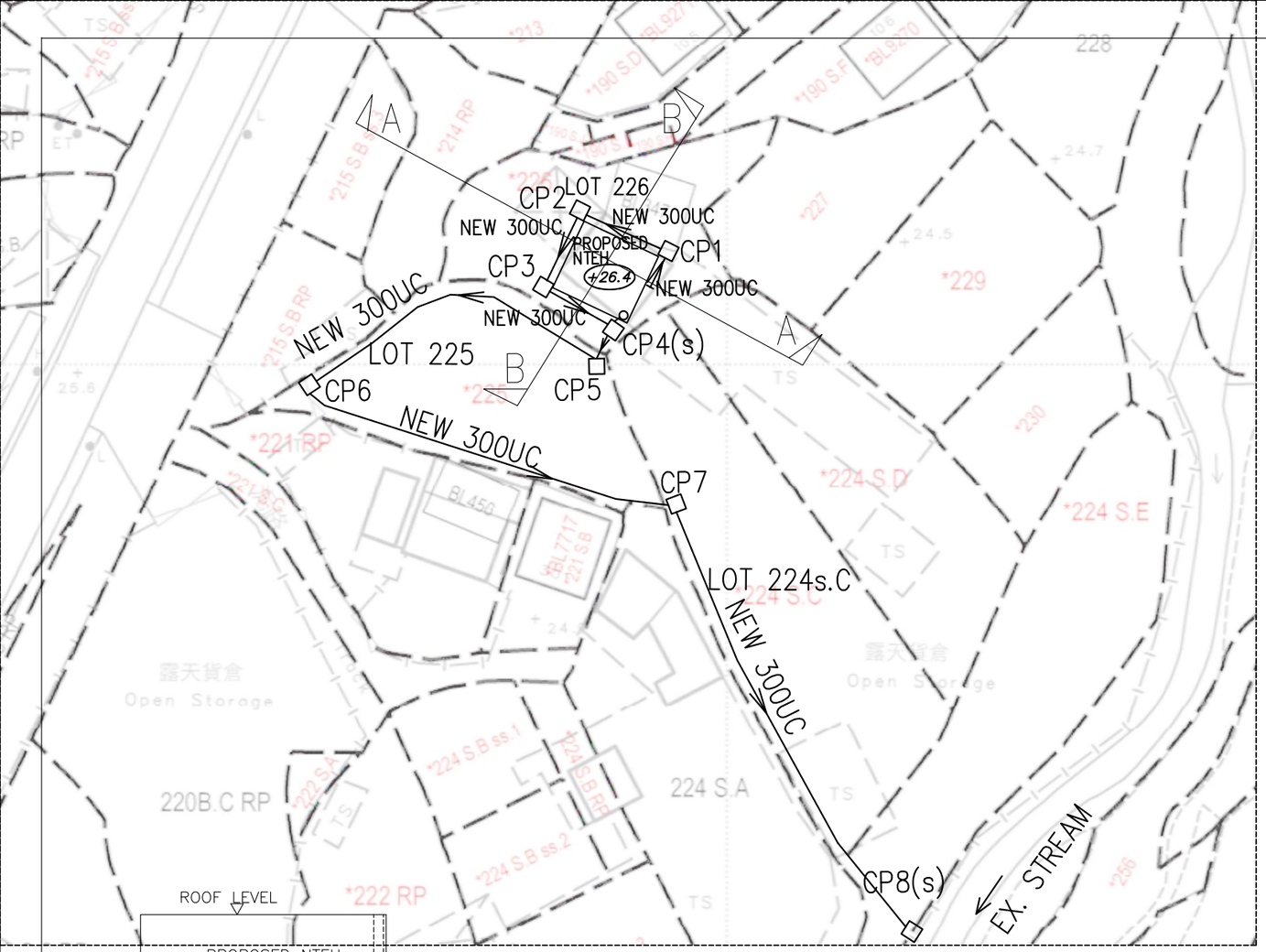
The drainage design of the proposed U-channel are presented in **Appendix B**.

## 6. Conclusion

Peripheral channels are to be provided along the site boundary where necessary to intercept runoff from crossing the site. The drainage conditions of adjacent areas will not be adversely affected.

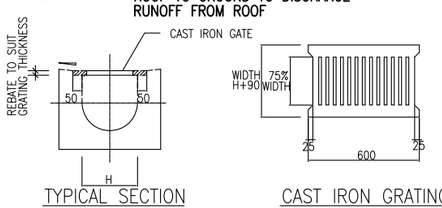
# Appendix A

# Stormwater Drainage Proposal Plan




## LEGEND:

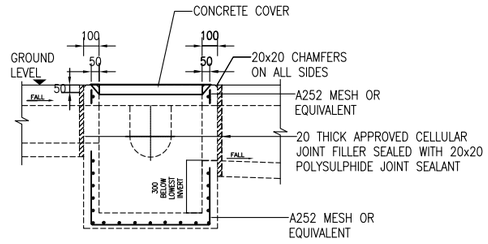
- HOUSE LOT BOUNDARY
- NEW 300UC — PROPOSED 300mm U-CHANNEL WITH GRATING AT FALL 1: 100 (MIN)
- CP8(s) — PROPOSED COVERED DESILTED CATCHPIT NO. CP8
- CP1 — PROPOSED COVERED CATCHPIT NO. CP1
- +26.4 — PROPOSED SITE FORMATION LEVEL
- ○ — 50mm DIA. PVC DOWNPIPE FROM ROOF TO GROUND TO DISCHARGE RUNOFF FROM ROOF




TYPICAL SECTION — CAST IRON GRATING

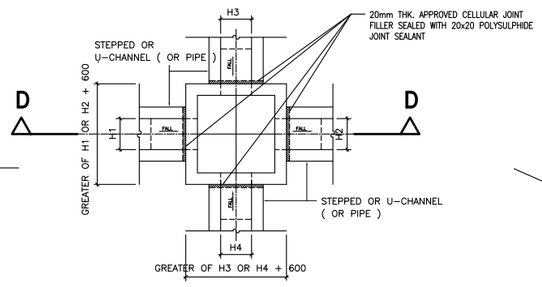
( DIMENSIONS ARE FOR GUIDANCE ONLY. CONTRACTOR MAY SUBMIT EQUIVALENT TYPE )

## U-CHANNEL WITH CAST IRON GRATING




## SECTION D – D WITH DESILTED TRAP

COMPLY WITH CEDD'S DRAWING NO. DS C2405 AND C2406I




PLAN

## GENERAL NOTE

1. THE PROPOSED DRAINAGE WORK, WHETHER WITHIN OR OUTSIDE THE LOT BOUNDARY, SHOULD BE CONSTRUCTED AND MAINTAINED BY THE LOT OWNER AT HIS OWN EXPENSE. FOR WORKS TO BE UNDERTAKEN OUTSIDE THE LOT BOUNDARY, PRIOR CONSENT AND AGREEMENT FROM DLO AND/OR RELEVANT PRIVATE LOT OWNER SHOULD BE SOUGHT.

## CONCRETE STRENGTH AND STEEL REINFORCEMENT SPECIFICATION FOR DRAINAGE DETAILS

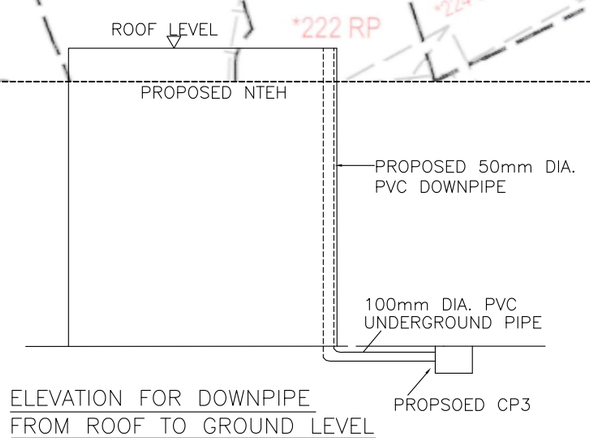
1. CONCRETE GRADE FOR CATCHPITS AND U-CHANNEL SHALL BE 30D DESIGN IN COMPLIANCE WITH CS1 : 2010
   FOR BLINDING LAYER SHALL BE 15D, DESIGN COMPLY WITH CS1-2010.
2. ALL MAIN BARS TO BE HOT ROLLED HIGH YIELD STEEL DEFORMED BAR COMPLM WITH CS2 : 2012
   Y – HIGH YIELD BAR 500 MPa
   M – MILD STEEL BAR 250 MPa
3. CONCRETE COVER TO MAIN REINFORCEMENT TO BE 50mm.
4. LAP LENGTH FOR ALL BARS TO BE 46x DIAMETER OF LARGER BAR TO BE LAPPED.
5. REACTIVE ALKALI CONTENT EXPRESSED IN SODIUM OXIDE PER CUBIC METER OF CONCRETE SHOULD NOT EXCEED 3KG AS PER PNAP APP-74.

## HALF ROUND, U, AND STEPPED – CHANNELS

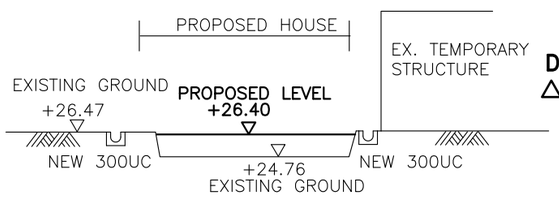
1 ALL DIMENSIONS ARE IN MILLIMETERS
2 CONCRETE SURFACE FINISHING SHALL BE CLASS U2 OR F2 AS APPROPRIATE
3 FOR HALF ROUND AND U – CHANNEL, SPACING OF EXPANSION JOINT IN CHANNELS, BERMS AND APRON TO BE 10m MAXIMUN. FOR STEPPED CHANNELS, EXPANSION JOINTS TO BE PROVIDED AT A MAXIMUN SPACING OF 10m.
4 DIMENSIONS FOR HALF ROUND AND U-CHANNELS SEE TABLE 1.
5 THE COVER FOR U-CHANNELS AND CATCHPIT SHALL COMPLY WITH CEDD'S STANDARD DRAWINGS NO. C2405 TO C2407 AND C2412.
6 ALL PROPOSED U-CHANNELS SHALL BE COVERED WITH GRATING

TABLE 1 : DIMENSION OF U-CHANNEL AND HALF-ROUND CHANNEL

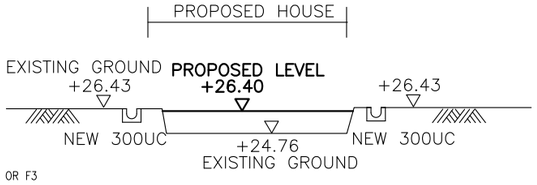
| NORMAL SIZE H | T | B | REINFORCING |
|---|---|---|---|
| <300 | 100 | 100 | NIL |
| 375 – 675 | 150 | 150 | NIL |
| 750 – 900 | 175 | 175 | A252 MESH PLACED CENTRALLY |



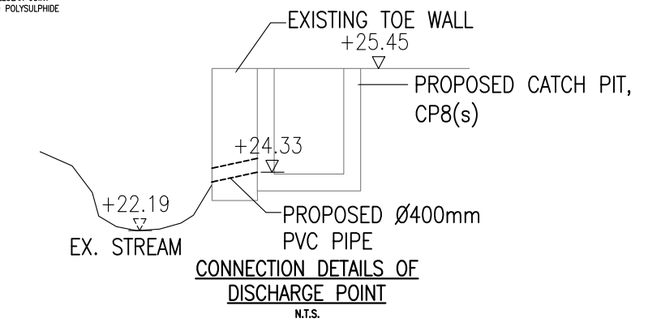

ELEVATION FOR DOWNPIPE FROM ROOF TO GROUND LEVEL




SECTION A–A

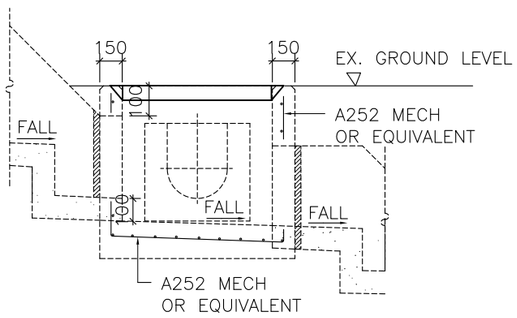



SECTION B–B




CONNECTION DETAILS OF DISCHARGE POINT

N.T.S.




SECTION D–D

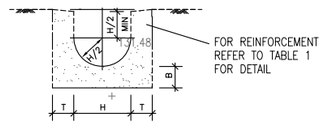
N.T.S.

CATCHPITS

1 ALL DIMENSIONS ARE IN MILLIMETRES
2 CONCERTE SURFACE FINISH SHALL BE CLASS U2 OR F3 AS APPROPRIATE

## PROPOSED CATCHPIT SCHEDULE

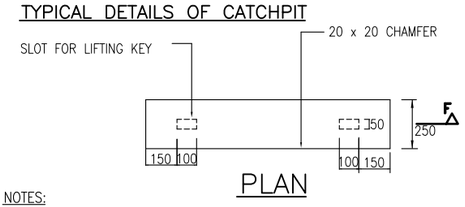
| CATCHPIT NO. | C.L. (mPD) | I.L. (mPD) |
|---|---|---|
| CP1 | 26.40 | 26.0 |
| CP2 | 26.40 | 25.90 |
| CP3 | 26.40 | 25.80 |
| CP4(s) | 26.40 | 25.72 |
| CP5 | 26.43 | 25.67 |
| CP6 | 26.44 | 25.32 |
| CP7 | 26.35 | 24.90 |
| CP8(s) | 25.45 | 24.33 |




U-CHANNEL

COMPLY WITH FIG 8.11 OF GEOTECHNICAL MANUAL FOR SLOPES

## TYPICAL DETAILS OF CATCHPIT

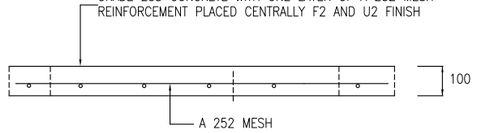



PLAN

NOTES:

1. H = NOMINAL CHANNEL SIZE.

N.T.S.




## PRECAST CONCRETE COVERS FOR CATCHPIT

N.T.S.

| REV | DESCRIPTION | CHECKED | APPROVED | DWN | DATE |
|---|---|---|---|---|---|
| | DLO SUBMIT | RC | AY | RY | JULY 25 |

PROJECT TITLE:

STORMWATER DRAINAGE PROPOSAL
LOT 226(PART) IN D.D. 111

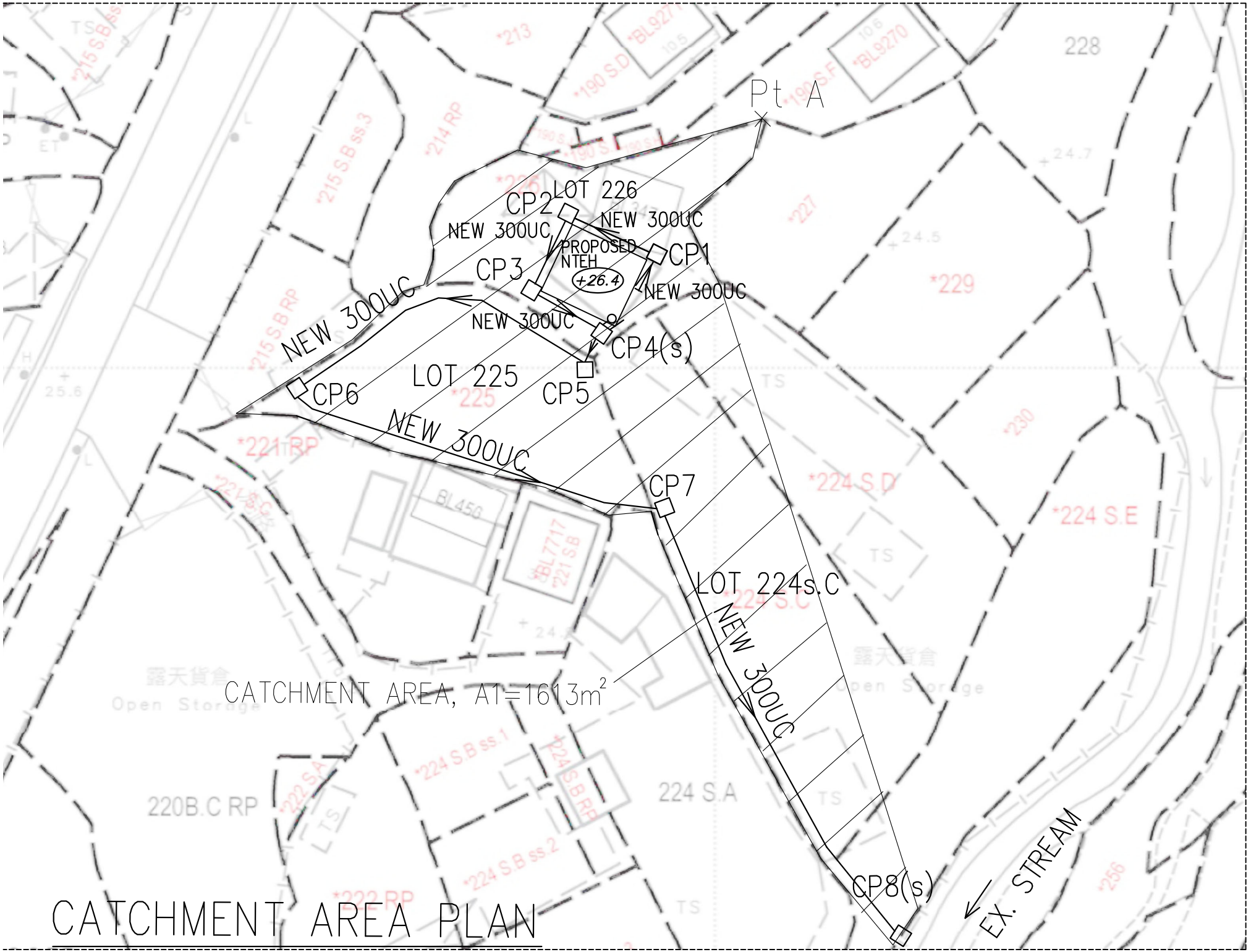
DRAWING TITLE:

DRAINAGE PROPOSAL PLAN AND TYPICAL DETAILS

| | | | |
|---|---|---|---|
| SCALE : | N.T.S. | | CAD FILE: CAD_REF |
| DRAWN | RY | | DRAWING NO. |
| S.D | RY | | SDP001 |
| DESIGNED | RC | | |
| CHECKED | AY | | |
| | | | B.D. REF. NO.: |

# Appendix B

# Surface Drainage Design




# CATCHMENT AREA PLAN

**Drainage Design** Page no.

Project No.: Drainage Design at lot 226 D.D.111 Date: 18-Jul-25
Prepared by: Ray Cheng

Check for the drainage capactiy of proposed 300UC

Catchment area, A1 = 1613 $m^2$ Assume k = 1.0 for paved surface

Use Rational Method from Geo-Manual

$Q = kiA/3600$ where, Q = Maximum runoff (lit/sec)
k = Runoff coefficient
i = Design mean intensity of rainfall (mm/hr)
A = Total catchment area ($m^2$)

Longest distance from summit point to outlet, CP7(s) (Ld) = 180.00 m
Shortest distance from summit point to outlet, CP7(s) (Ls) = 85.00 m

Elevation of remote point (Pt A) = 26.40 mPD
Elevation of outlet point (CP7(s)) = 24.50 mPD

Average fall, H = $(z_1-z_2)/L_s$ x 100
= 2.24 m per 100m

$T_c$ = $0.14465 \times L_d / (H^{0.2} \times A^{0.1})$
= 10.59 min

Assume a 1 in 50 year design rainfall return period for rural area
From SDM Corrigendum No. 1/2024

i = 185 mm/hr
Q = kiA/60 x 1.16
5769 lit/min

From TGN 43A1
For proposed 300 UC with 1 in 100 gradient

| | | | | | | |
|---|---|---|---|---|---|---|
| Maximum capacity = | 8000 | lit/min | > | 5769 | o.k. |
| The corresponding velocity = | 1.70 | m/s | < | 4 | o.k. |

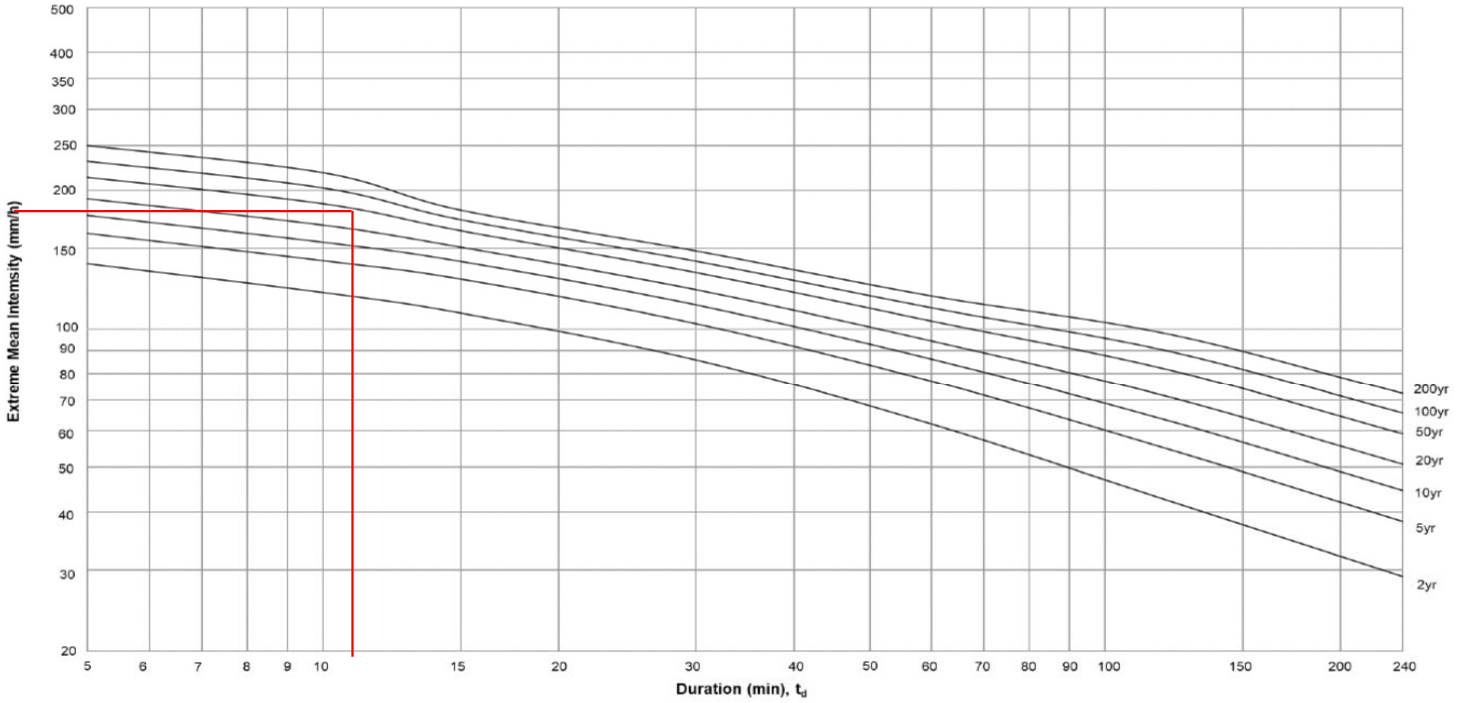
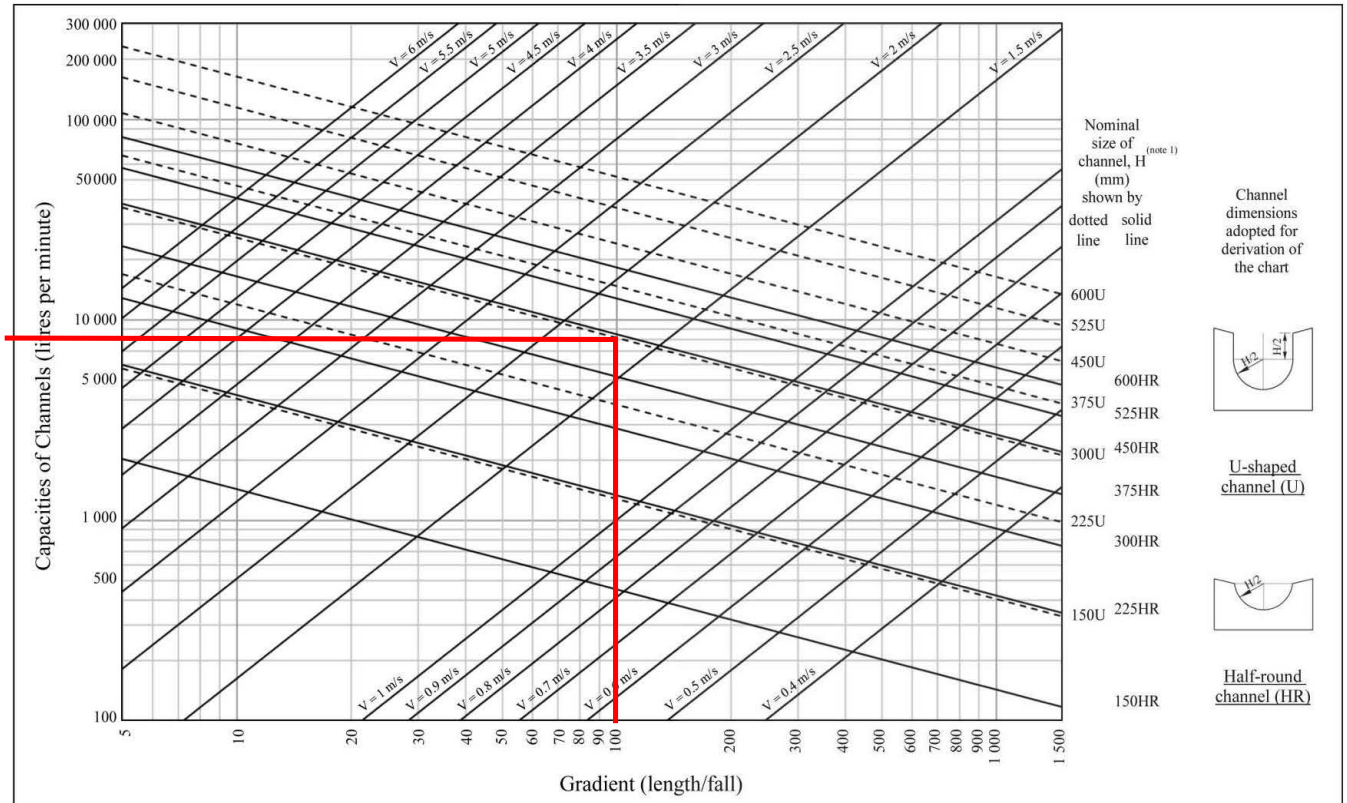



Figure 4d – Intensity-Duration-Frequency Curves of North District Area
(for durations not exceeding 4 hours)

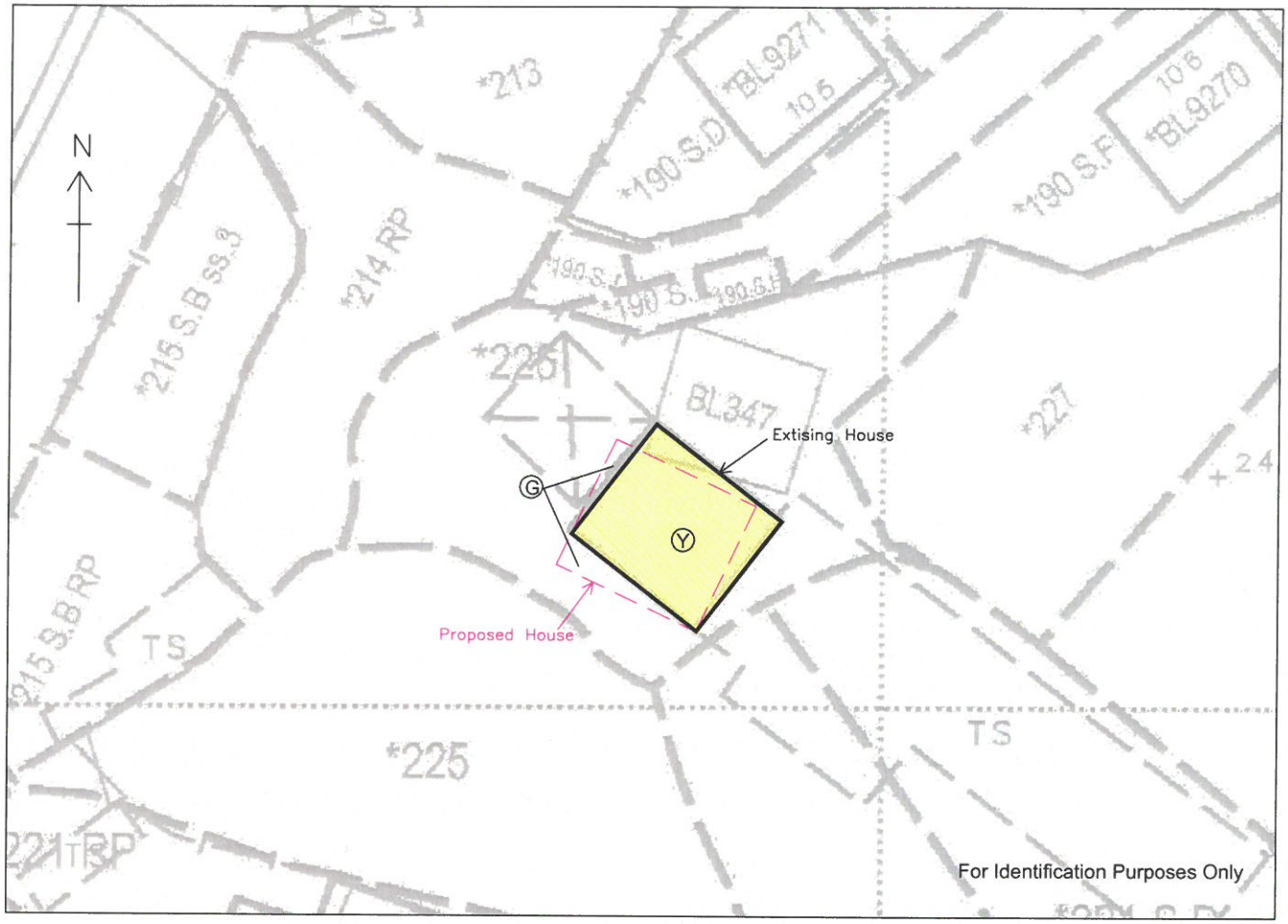
Figure 1 - Chart for the rapid design of U-shaped and half-round channels up to 600 mm




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

ANNEX TGN

# Plan of Lot No. 226 in D.D.111




SCALE 1 : 400

Legend

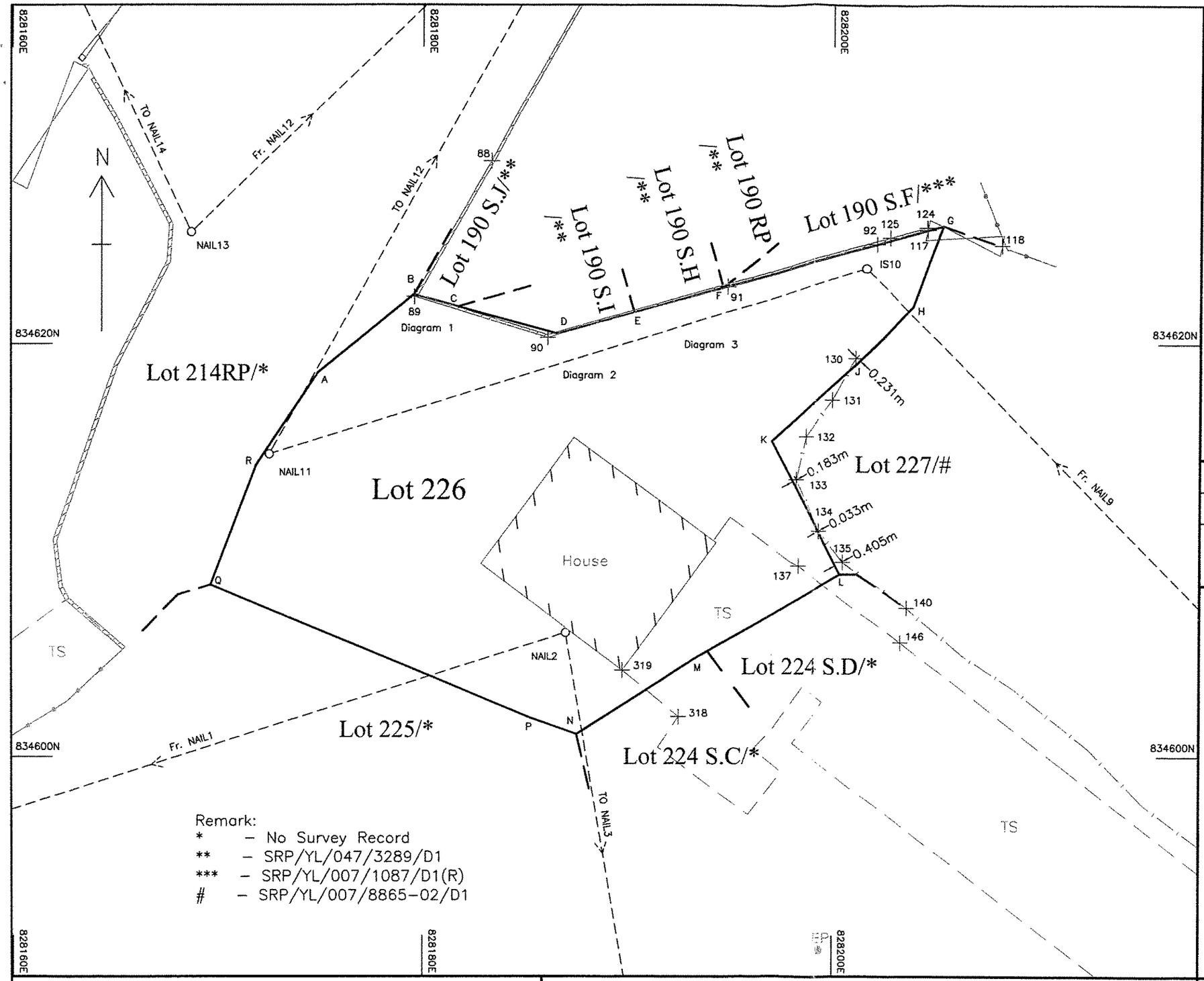
- Extising House
- Proposed House
- Ⓨ Yellow — Proposed land filling area (Coloured Yellow )

| | |
|---|---|
| Survey District: Yuen Long | Survey Sheet No.: 6-NE-9B |
| Date: 12-06-2025 | Plan No.: YL/4224/D1 |


Winner Surveying Consultants Co.
O/B CHEUNG KWONG MING DEVELOPMENT LIMITED
Room 1203, Yuen Long Centre, 55 Sau Fu Street, Yuen Long, N.T.
TEL: 8226 2082 FAX: 8229 2082

本圖則的資料應該由專業土地測量師闡釋。
The information shown on this plan SHOULD BE interpreted by professional land surveyor.

SHEET 1 OF 2




Remark:
* – No Survey Record
** – SRP/YL/047/3289/D1
*** – SRP/YL/007/1087/D1(R)
\# – SRP/YL/007/8865-02/D1



| TABLE OF LOT | |
|---|---|
| LOT | AREA |
| 226 | 483.7m² (About)<br>Including Building Licence 347<br>Area 700ft² |

I,Tang Wing Lun, an Authorized Land Surveyor registered under the Land Survey Ordinance ( Cap. 473 ), hereby certify that this survey record plan has been prepared from land boundary surveys that were carried out by me, or under my direct supervision, in conformity with the Code of Practice approved by the Land Survey Authority under the above Ordinance, and that this plan correctly represents that survey completed on the 20th day of November 2017.

Dated this 21st day of December 2017

Tang Wing Lun, FHKIS, FRICS, RPS(LS)
Authorized Land Surveyor

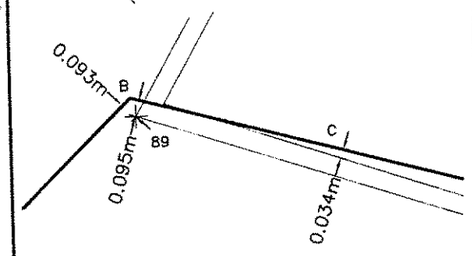
Survey District : Yuen Long
Date of survey : November 2017
Scale 1:200(A3) Field Bk: LSC/YL4184
Survey Sheet No. : 6-NE-9B
Reference SRP's : See Remarks

# PLAN OF LOT No. 226 IN D.D.111

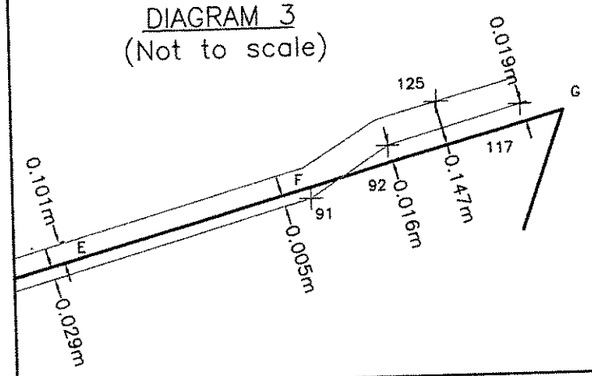
FOR OFFICIAL USE

Survey Record Plan No.: SRP/YL/053/4184/D1

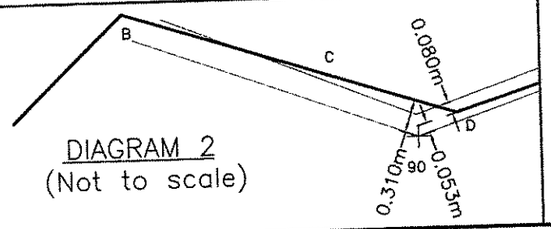
## DIAGRAM 1
(Not to scale)



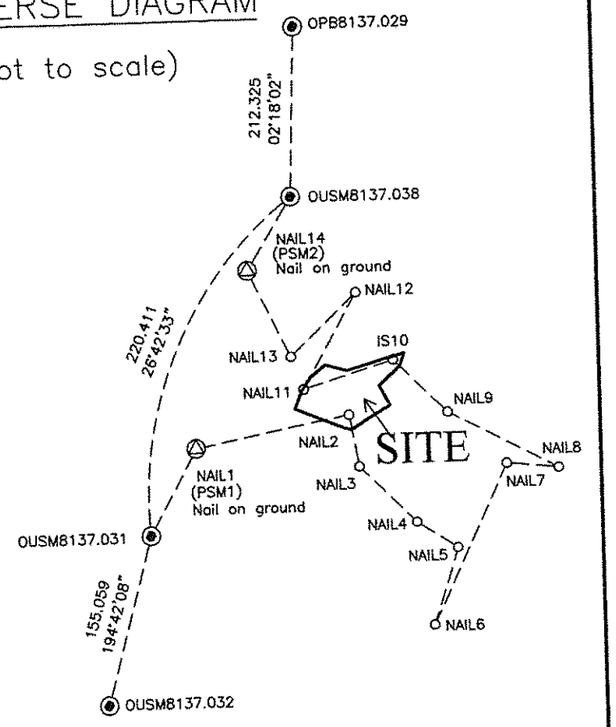

## DIAGRAM 3
(Not to scale)




## DIAGRAM 2
(Not to scale)




## TRAVERSE DIAGRAM
(Not to scale)




Notes:

### SUBJECT LOT COORDINATES & DIMENSIONS:

| Boundary Point | Bearing ° ' " | Distance (m) | Northing (m) | Easting (m) |
|---|---|---|---|---|
| Lot 226 (Area 483.7 sq.m About) | | | | |
| A | | | 834618.624 | 828174.941 |
| B | 50 55 54 | 5.953 | 834622.376 | 828179.563 |
| C | 105 08 04 | 2.227 | 834621.795 | 828181.713 |
| D | 105 08 04 | 5.040 | 834620.479 | 828186.578 |
| E | 74 28 23 | 3.860 | 834621.512 | 828190.297 |
| F | 74 28 23 | 4.500 | 834622.717 | 828194.633 |
| G | 74 28 23 | 11.090 | 834625.685 | 828205.318 |
| H | 199 48 42 | 4.090 | 834621.838 | 828203.932 |
| J | 224 06 01 | 3.795 | 834619.113 | 828201.291 |
| K | 228 47 20 | 5.757 | 834615.320 | 828196.961 |
| L | 152 08 27 | 7.309 | 834608.858 | 828200.376 |
| M | 240 00 47 | 8.293 | 834604.713 | 828193.193 |
| N | 237 15 03 | 6.701 | 834601.088 | 828187.557 |
| P | 289 14 23 | 2.324 | 834601.854 | 828185.363 |
| Q | 292 29 04 | 16.966 | 834608.342 | 828169.687 |
| R | 21 03 27 | 6.228 | 834614.154 | 828171.924 |
| A | 34 0 47 | 5.393 | 834618.624 | 828174.941 |

### TRAVERSE:

| Station | Bearing ° ' " | Distance (m) | Northing (m) | Easting (m) |
|---|---|---|---|---|
| | | | 834492.908 | 828078.460 |
| OUSM8137.031 | | | | |
| Nail1 | 29 21 52 | 109.925 | 834588.710 | 828132.363 |
| Nail2 | 72 25 36 | 57.317 | 834606.015 | 828187.005 |
| Nail3 | 170 19 32 | 17.161 | 834589.098 | 828189.889 |
| Nail4 | 135 28 56 | 26.085 | 834570.499 | 828208.178 |
| Nail5 | 123 41 28 | 15.615 | 834561.837 | 828221.170 |
| Nail6 | 198 05 59 | 26.280 | 834536.858 | 828213.006 |
| Nail7 | 25 31 07 | 57.658 | 834588.891 | 828237.845 |
| Nail8 | 96 06 15 | 17.166 | 834587.065 | 828254.913 |
| Nail9 | 297 56 05 | 40.720 | 834606.141 | 828218.938 |
| IS10 | 315 21 44 | 24.601 | 834623.647 | 828201.653 |
| Nail11 | 252 50 30 | 30.442 | 834614.666 | 828172.566 |
| Nail12 | 29 22 01 | 35.808 | 834645.872 | 828190.126 |
| Nail13 | 226 14 34 | 29.622 | 834625.386 | 828168.731 |
| Nail14 | 334 17 32 | 31.358 | 834653.640 | 828155.128 |
| OUSM8137.038 | 31 46 26 | 42.536 | 834689.801 | 828177.526 |

### PSM RADIATIONS:

| Surveyed point | Northing (m) | Easting (m) |
|---|---|---|
| Nail1 (Adopted as PSM1) | 834588.710 | 828132.363 |
| Nail14 (Adopted as PSM2) | 834653.640 | 828155.128 |

This plan received under voluntary submission is kept by District Survey Office (DSO) for sharing with others only. DSO has not administered any form of scrutiny, approval, endorsement, registration or acceptance for this plan. This plan does not have any legal or official status as far as DSO understands it. DSO is not responsible for the correctness and accuracy of any of the data and information shown on this plan.

本圖則的資料應該由專業土地測量師闡釋。
The information shown on this plan SHOULD BE interpreted by professional land surveyor.

### RADIATIONS:

| Surveyed point | Bearing ° ' " | Distance (m) | Northing (m) | Easting (m) |
|---|---|---|---|---|
| | | | 834614.666 | 828172.566 |
| Fr. Nail11 | | | | |
| To 89 | 42 41 36 | 10.348 | 834622.272 | 828179.583 |
| To 90 | 67 25 35 | 14.648 | 834620.289 | 828186.092 |
| To 91 | 70 00 28 | 23.703 | 834622.770 | 828194.841 |
| To 92 | 71 03 01 | 31.256 | 834624.816 | 828202.128 |
| | | | 834623.647 | 828201.653 |
| Fr. IS10 | | | | |
| To 117 | 57 46 24 | 3.486 | 834625.506 | 828204.602 |
| To 118 | 80?X26' 45" | 6.657 | 834624.752 | 828208.218 |
| To 124 | 55 58 20 | 3.529 | 834625.622 | 828204.578 |
| To 125 | 36 38 01 | 1.842 | 834625.125 | 828202.752 |
| To 130 | 186 30 30 | 4.367 | 834619.308 | 828201.158 |
| To 131 | 194 40 39 | 6.567 | 834617.294 | 828199.989 |
| To 132 | 200 13 11 | 8.671 | 834615.510 | 828198.656 |
| To 133 | 198 52 24 | 10.789 | 834613.438 | 828198.163 |
| To 134 | 190 28 09 | 12.911 | 834610.951 | 828199.307 |
| To 135 | 184 32 25 | 14.250 | 834609.442 | 828200.525 |
| To 137 | 193 10 41 | 14.786 | 834609.250 | 828198.282 |
| | | | 834606.141 | 828218.938 |
| Fr. Nail9 | | | | |
| To 140 | 274 01 19 | 15.370 | 834607.219 | 828203.606 |
| To 146 | 267 49 05 | 15.653 | 834605.545 | 828203.296 |
| | | | 834589.098 | 828189.889 |
| Fr. Nail3 | | | | |
| To 318 | 11 28 31 | 13.109 | 834601.945 | 828192.497 |
| To 319 | 359 30 52 | 15.101 | 834604.198 | 828189.761 |

SHEET 2 OF 2

I,Tang Wing Lun, an Authorized Land Surveyor registered under the Land Survey Ordinance ( Cap. 473 ), hereby certify that this survey record plan has been prepared from land boundary surveys that were carried out by me, or under my direct supervision, in conformity with the Code of Practice approved by the Land Survey Authority under the above Ordinance, and that this plan correctly represents that survey completed on the 20th day of November 2017.

Dated this 21st day of December 2017

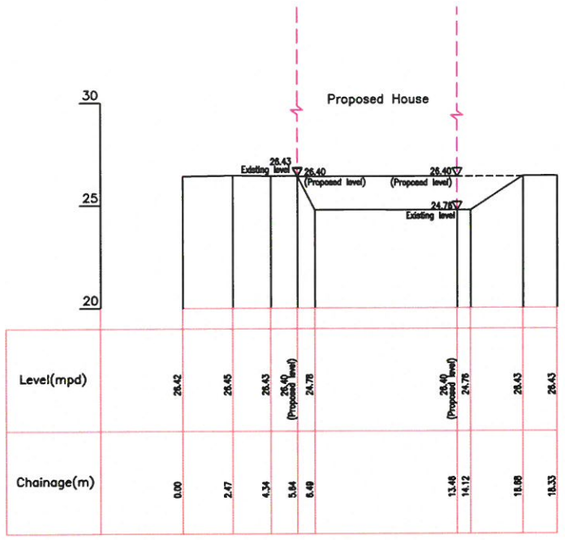
Tang Wing Lun, FHKIS, FRICS, RPS(LS)
Authorized Land Surveyor

Survey District : Yuen Long
Date of survey : November 2017
Scale 1:200(A3) Field Bk: LSC/YL4184
Survey Sheet No. : 6-NE-9B
Reference SRP's : See Remarks

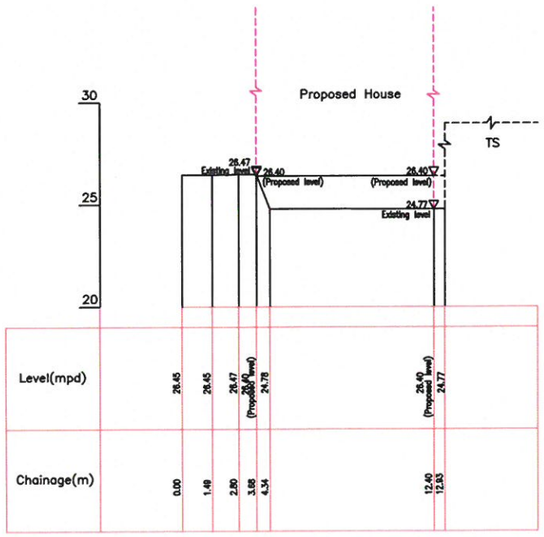
# PLAN OF LOT No. 226 IN D.D.111

FOR OFFICIAL USE

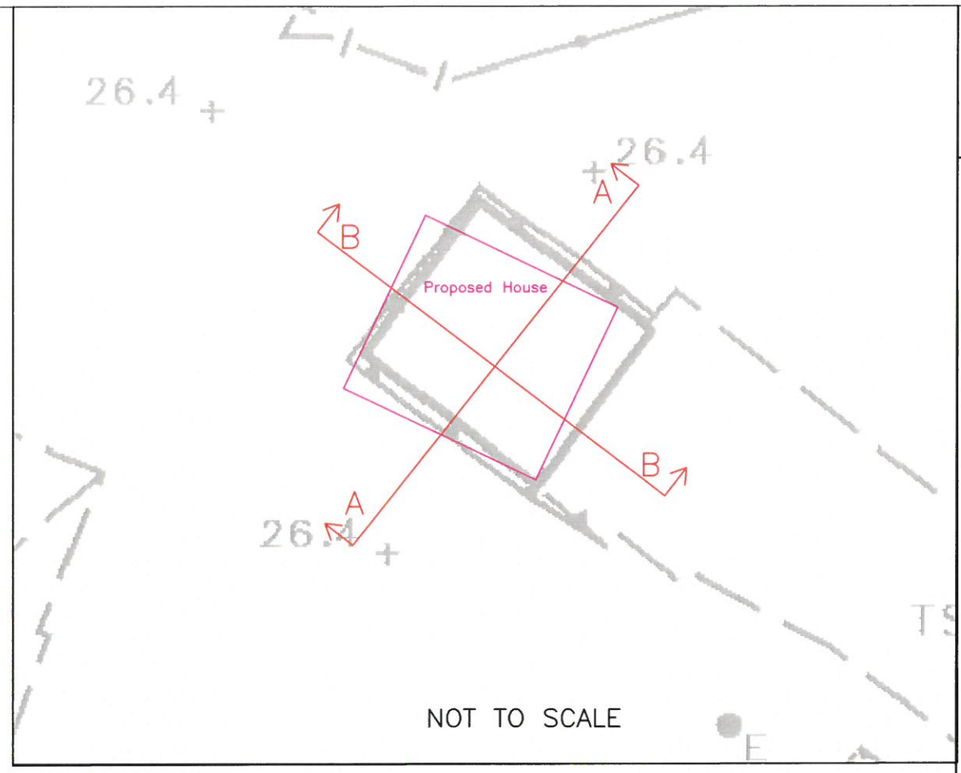
Survey Record Plan No.: SRP/YL/053/4184/D1




Section A–A
South to North




Section B–B
West to East




## Note

1. All levels are in meters above P.D.
2. Grid lines are in H.K. 1980 Metric Grid.

## Legend

- 39.50 — Spot Level
- Proposed House
- Fence
- TS — Temporary Structure
- E — Electric Pole

**Plan Title**

Sectional Plan of Lot 226 in D.D.111
D.D.111, Yuen Long

| | | |
|---|---|---|
| Plan No. | Survey Date | N/A |
| Sections/DD111/226/01 | Scale | 1:300 (A3) |
| Rev 00 | Survey Sheet No. | 6-NE-9B |

C K Lau Surveyors Limited

Certified by:

C. K. LAU
MSc. FHKIS FRICS R.P.S(LS)(PFM) ALS
Authorized Land Surveyor
Date: 10th January 2024