R-RICHES PLANNING LIMITED

盈卓規劃有限公司

Our Ref. : DD112 Lot 354
Your Ref. : TPB/A/YL-SK/433

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

By E-mail

1 December 2025

Dear Sir,

1st Further Information

Proposed Temporary Shop and Services and Public Vehicle Park (Excluding Container Vehicle) with Ancillary Facilities and Associated Filling of Land for a Period of 5 Years in "Village Type Development" Zone, Lot 354 in D.D. 112, Shui Lau Tin, Shek Kong, Yuen Long, New Territories

(S.16 Planning Application No. A/YL-SK/433)

We write to submit further information in response to departmental comments on the captioned application.

Should you require more information regarding the application, please contact our Mr. Danny NG at [redacted] / [redacted] or the undersigned at your convenience. Thank you for your kind attention.

Yours faithfully,

For and on behalf of
R-riches Planning Limited

Christian CHIM
Town Planner

cc DPO/FSYLE, PlanD (Attn.: Mr. Jason WONG email: jshwong@pland.gov.hk)
(Attn.: Ms. Anna TONG email: akytong@pland.gov.hk)
(Attn.: Mr. Thomas LAU email: thllau@pland.gov.hk)

[redacted] [redacted] [redacted]

Response-to-Comment (RtC)

Proposed Temporary Shop and Services and Public Vehicle Park (Excluding Container Vehicle) with Ancillary Facilities and Associated Filling of Land for a Period of 5 Years in "Village Type Development" Zone, Lot 354 in D.D. 112, Shui Lau Tin, Shek Kong, Yuen Long, New Territories

(S.16 Application No. A/YL-SK/433)

(i) A RtC table:

	Departmental Comments	Applicant's Responses
1.	**Comments of the Chief Engineer/Mainland North, Drainage Services Department (CE/MN, DSD)**	
(a)	We are unable to provide comment on drainage aspect of the application at this stage. Comment on drainage aspect will be provided when the drainage proposal as mentioned in paragraph 4.1 of the planning statement is received.	Please refer to the drainage proposal enclosed at **Annex 1**.
2.	**Comments of the Chief Heritage Executive (Antiquities & Monuments), Antiquities and Monuments Office (CHE(AM), AMO)**	
(a)	As the application site (the Site) falls within the Shui Lau Tin Site of Archaeological Interest (SAI), the applicant is required to confirm /clarify with AMO whether there is any ground excavation proposed for the development including but not limited to site formation works, drainage works, sewerage works, construction of septic tank etc. If affirmative, the applicant is required to provide details of the proposed works, e.g. the location, extent and depth of the proposed ground excavation for AMO's comment.	It is noted that the Site is located within the Shui Lau Tin SAI. Other than the proposed drainage work as enclosed at **Annex 1**, it is confirmed that no excavation will be carried out. Subject to approval of the Drainage Authority, peripheral drainage u-channels with catchpits will be proposed along the site boundary to collect the surface run-off, in order to minimise the potential adverse drainage impact to the surroundings. The proposed work will be carried out within the paved layer, which is considered minimal in scale and is intended to facilitate the required drainage facilities. The adverse impact to the concerned Site of Archaeological Interest is therefore not anticipated.

Annex 1

Drainage Proposal

Proposed Temporary Shop and Services and Public Vehicle Park (Excluding Container Vehicle) with Ancillary Facilities and Associated Filling of Land for a Period of 5 Years in "Village Type Development" Zone, Lot 354 in D.D. 112, Shui Lau Tin, Shek Kong, Yuen Long, New Territories

Drainage Proposal

Oct 2025

MARVELLOUS
CONSTRUCTION & DESIGN COMPANY LIMITED

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1 Introduction

1.1 Background

1.1.1 The applicant seeks planning permission from the Town Planning Board (the Board) to use Lot 354 in D.D. 112, Shui Lau Tin, Shek Kong, Yuen Long, New Territories (the Site) for 'Proposed Temporary Shop and Services and Public Vehicle Park (Excluding Container Vehicle) with Ancillary Facilities and Associated Filling of Land for a Period of 5 Years'.

1.1.2 This report aims to support the development in drainage aspect.

1.2 Application Site

1.2.1 The application site is located to the south of Shek Kong Airfield. It has an area of approx. 3,763 m^2. The site location is shown in **Figure 1**.

1.2.2 The existing site is mostly unpaved. Existing levels are various from approximately +18.7 to +19.2 mPD. The site would be paved not more than 200 mm for site formation of the proposed structures, and the provision of parking, loading/unloading (L/UL) and circulation space.

1.2.3 There is an approx. 12m width rectangular nullah by the north of the site. It would eventually discharge to Kam Tin River. **Figure 2** indicates the existing drainage system of the area.

2 Development Proposal

2.1 The Proposed Development

2.1.1 The total site area is approximately 3,763 m^2. The catchment plan is shown in **Figure 4**.

Proposed Development Area (Approx.)	
Total Site Area (m^2)	3,763
Paved Area after Development (m^2)	3,763

Table 1 – Site Development Area

3 Assessment Criteria

3.1.1 The Recommended Design Return Period based on Flood Level from SDM (Table 10) is adopted for this report. The recommendation is summarized in **Table 2** below.

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

Table 2– Design Return Periods under SDM

3.1.2 The proposed drainage system intended to collect runoff from internal site and external catchment. 1 in 50 years return period is adopted.

3.1.3 Stormwater drainage design will be carried out in accordance with the criteria set out in the Stormwater Drainage Manual published by DSD. The proposed design criteria to be adopted for design of this stormwater drainage system and factors which have been considered are summarised below.

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.

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

The site is located within the HKO Zone. Therefore, for 50 years return period, the following values are adopted.

a	=	505.5
b	=	3.29
c	=	0.355

(Corrigendum No.1/2024)

The development is proposed for temporary use for a period of 5 years. 11.1% rainfall increase due to climate change is considered as per table 28 of corrigendum no.1/2022.

2. The peak runoff is calculated by the Rational Method
   i.e. $Q_p = 0.278CiA$

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

   1. Paved Area: C = 0.95
   2. Unpaved Area: C = 0.35

4. Manning's Equation is used for calculation of velocity of flow inside the channels:

Manning's Equation: $v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$

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:

Colebrook-White Equation: $\underline{v} = -\sqrt{32gRS}\ log\ log\ (\frac{k_s}{14.8R} + \frac{1.255v}{R\sqrt{32gRS_f}})$

where,

V	=	velocity of the pipe flow (m/s)
S_f	=	hydraulic gradient
k_f	=	roughness value (m)
v	=	kinematics viscosity of fluid
D	=	pipe diameter (m)
R	=	hydraulic radius (m)

4 Proposed Drainage System

4.1. Proposed Channels

4.1.1 Proposed channels are designed for collection of runoff for application site. It is proposed to discharge to existing approx. 12m width rectangular nullah at the north. According to the checking of existing drains in **Appendix A**, they have enough capacity to carry the flow proposed development.

4.1.2 The design calculations of proposed drains are shown in **Appendix A**. Checking of utilization of existing approx. 12m width trapezoidal channel is also indicated in **Appendix A**. It is shown that the utilization is only about 0.07%.

4.1.3 The alignment, size, gradient and details of the proposed drains are shown in **Figure 3**. The catchment plan is shown in **Figure 4**.

4.1.5 Reference Drawings are shown in **Appendix C** for reference.

5 Conclusion

5.1.1 Drainage review has been conducted for the Proposed Development. The surface runoff will be collected by the proposed drains and discharged to existing 12m width nullah.

5.1.2 With implementation of the above drainage system, no unacceptable drainage impact is anticipated.

- End of Text -

FIGURES

SHEK KONG AIRFIELD ROAD

SHEK KONG AIRFIELD ROAD

EXISTING 12m (W) RECTANGULAR NULLAH

PAT HEUNG CENTRAL PRIMARY SCHOOL

N

LEGEND

SITE AREA
(INDICATIVE ONLY)

PROJECT:

Proposed Temporary Shop and Services and Public Vehicle Park (Excluding Container Vehicle) with Ancillary Facilities and Associated Filling of Land for a Period of 5 Years in “Village Type Development” Zone

LOCATION:

Lot 354 in D.D. 112, Shui Lau Tin, Shek Kong, Yuen Long, New Territories

TITLE
SITE LOCATION PLAN

FIGURE NUMBER
FIGURE 1

VER	DESCRIPTION	DATE

LEGEND

SITE AREA
(INDICATIVE ONLY)

LEGEND:

Combined Manhole	Tapping Point (Sewer)	Tapping Point (Storm)
Overflow (Combined)	Sewer Terminal Manhole	Storm Water Terminal Manhole
Pipe (Combined)	Catchpit	Tunnel Protection Zone (100m / 200m)
Interface Valve Chamber	Inlet	Tunnel Protection Zone (General Range)
Sewer Manhole	Storm Water Manhole	Tunnel / Box Culvert (Sewer)
Oil / Petrol Interceptor	Outlet	Tunnel / Box Culvert (Storm)
Overflow (Sewer)	Pipe (Storm)	
Pipe (Sewer)	Sand Trap	

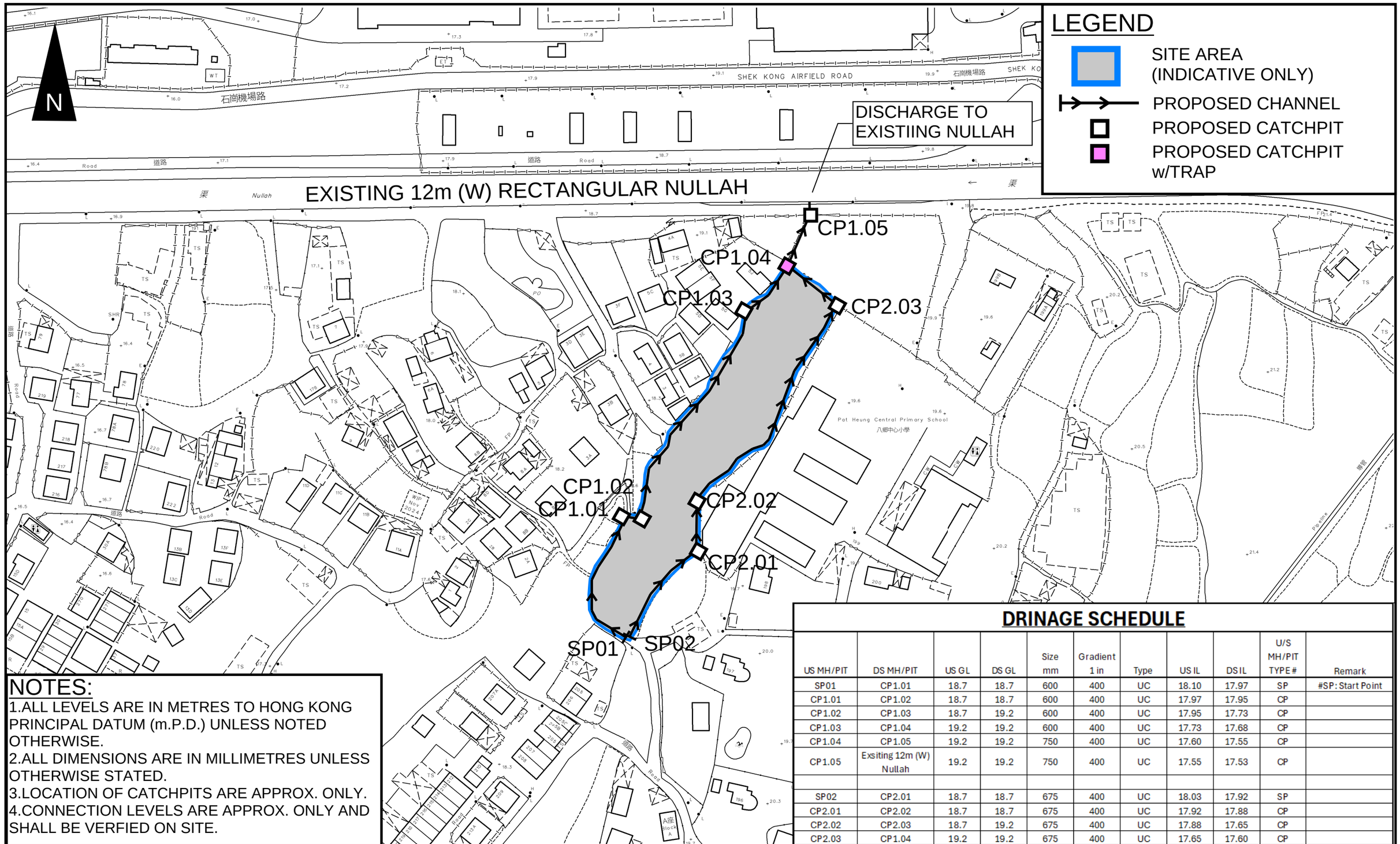
PROJECT:
Proposed Temporary Shop and Services and Public Vehicle Park (Excluding Container Vehicle) with Ancillary Facilities and Associated Filling of Land for a Period of 5 Years in “Village Type Development” Zone

TITLE
EXISTING DRAINAGE PLAN

FIGURE NUMBER
FIGURE 2

LOCATION:
Lot 354 in D.D. 112, Shui Lau Tin, Shek Kong, Yuen Long, New Territories

VER	DESCRIPTION	DATE



NOTES:

1.ALL LEVELS ARE IN METRES TO HONG KONG PRINCIPAL DATUM (m.P.D.) UNLESS NOTED OTHERWISE.
2.ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
3.LOCATION OF CATCHPITS ARE APPROX. ONLY.
4.CONNECTION LEVELS ARE APPROX. ONLY AND SHALL BE VERFIED ON SITE.

DRINAGE SCHEDULE

US MH/PIT	DS MH/PIT	US GL	DS GL	Size mm	Gradient 1 in	Type	US IL	DS IL	U/S MH/PIT TYPE #	Remark
SP01	CP1.01	18.7	18.7	600	400	UC	18.10	17.97	SP	#SP: Start Point
CP1.01	CP1.02	18.7	18.7	600	400	UC	17.97	17.95	CP	
CP1.02	CP1.03	18.7	19.2	600	400	UC	17.95	17.73	CP	
CP1.03	CP1.04	19.2	19.2	600	400	UC	17.73	17.68	CP	
CP1.04	CP1.05	19.2	19.2	750	400	UC	17.60	17.55	CP	
CP1.05	Exsiting 12m (W) Nullah	19.2	19.2	750	400	UC	17.55	17.53	CP	
SP02	CP2.01	18.7	18.7	675	400	UC	18.03	17.92	SP	
CP2.01	CP2.02	18.7	18.7	675	400	UC	17.92	17.88	CP	
CP2.02	CP2.03	18.7	19.2	675	400	UC	17.88	17.65	CP	
CP2.03	CP1.04	19.2	19.2	675	400	UC	17.65	17.60	CP	

PROJECT:

Proposed Temporary Shop and Services and Public Vehicle Park (Excluding Container Vehicle) with Ancillary Facilities and Associated Filling of Land for a Period of 5 Years in “Village Type Development” Zone

TITLE
PROPOSED DRAINAGE SYSTEM

FIGURE NUMBER
FIGURE 3

LOCATION:

Lot 354 in D.D. 112, Shui Lau Tin, Shek Kong, Yuen Long, New Territories

VER	DESCRIPTION	DATE

LEGEND:

FALL

B2: Paved
2,102 m²

A1: Paved
3,763 m²

B1: Paved
1,032 m²

DEVELOPMENT WITH OWN DRAINAGE SYSTEM

+19.2
+18.1
+18.2
+18.0
+18.7
+17.6
+20.0
+18.3
+19.5

SHEK KONG AIRFIELD ROAD
石崗機場路
Road
道路
渠 Nullah
水流田
SHUI LAU TIN
Central Primary School
八鄉中心小學

N

PROJECT:

Proposed Temporary Shop and Services and Public Vehicle Park (Excluding Container Vehicle) with Ancillary Facilities and Associated Filling of Land for a Period of 5 Years in “Village Type Development” Zone

TITLE
CATCHMENT PLAN

FIGURE NUMBER
FIGURE 4

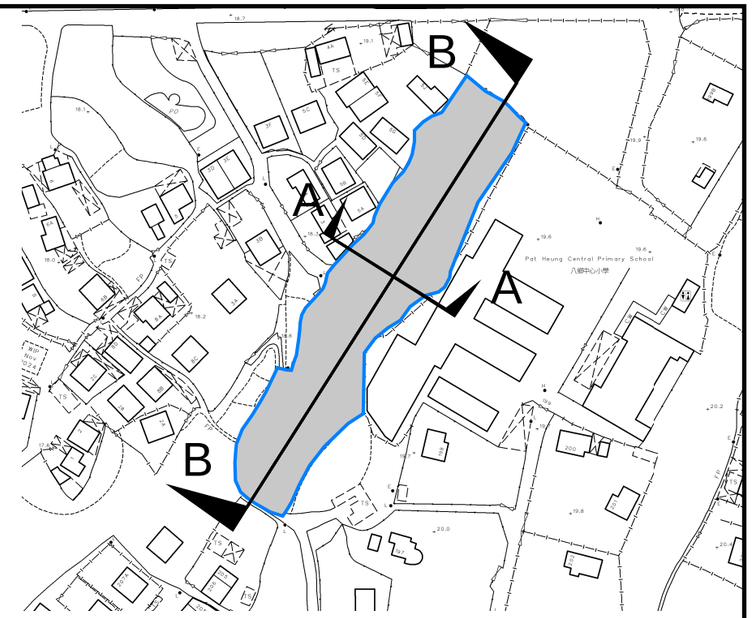
LOCATION:

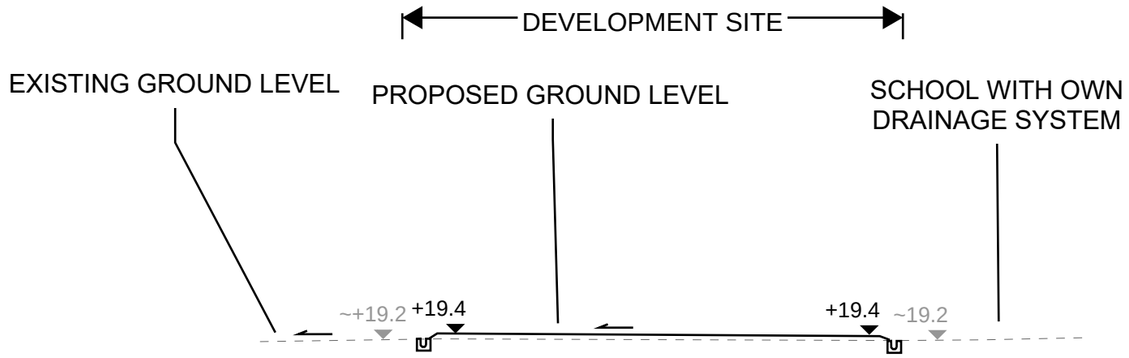
Lot 354 in D.D. 112, Shui Lau Tin, Shek Kong, Yuen Long, New Territories

VER	DESCRIPTION	DATE

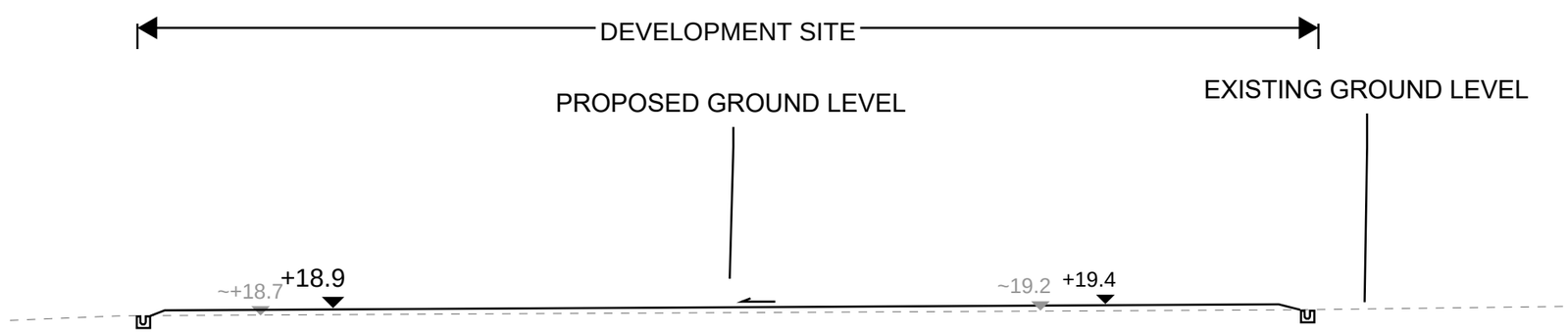
LEGEND

SITE AREA
(INDICATIVE ONLY)





N.T.S.
SECTION A-A



N.T.S.
SECTION B-B

PROJECT: Proposed Temporary Shop and Services and Public Vehicle Park (Excluding Container Vehicle) with Ancillary Facilities and Associated Filling of Land for a Period of 5 Years in “Village Type Development” Zone	TITLE SECTIONS	FIGURE NUMBER FIGURE 5
LOCATION: Lot 354 in D.D. 112, Shui Lau Tin, Shek Kong, Yuen Long, New Territories		

VER	DESCRIPTION	DATE

APPENDIX

Appendix A: Design Calculation

Zone

HKO

Return Period	1 in	50	years

n	0.014
Ks	0.15
Viscosity	0.000001

Storm Constant		
	HKO a	505.5
	HKO b	3.29
	HKO c	0.355

Catchment Area Table (Area in m^2)

Catchment	A1	B1	B2																
Total Area	3763	1032	2102																
Hard Paved Area	3763	1032	2102																
Unpaved Area	0	0	0																
Equival. Area	3574.85	980.4	1996.9																

Pavement Type	Hard Paved	Unpaved
Runoff Coefficient	0.95	0.35

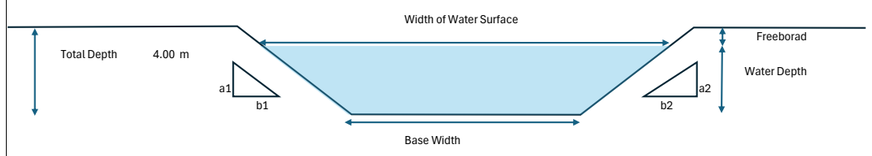
Calculation Table of Drainage System

US MH/PIT	DS MH/PIT	US GL	DS GL	Size mm	Gradient 1 in	Type	US IL	DS IL	U/S MH/PIT TYPE #	Length m	V m/s ##	Capacity m^3/s	Catchments	Total Equivalent Area m^2	ToC min	Intensity mm/hr ##	Total Discharge m^3/s	Utilitization	Remark
SP01	CP1.01	18.70	18.70	600	400	UC	18.10	17.97	SP	53.7	1.26	0.40	A1	3574.85	2.30	305	0.30	75.1%	
CP1.01	CP1.02	18.70	18.70	600	400	UC	17.97	17.95	CP	4.9	1.26	0.40	A1	3574.85	3.01	292	0.29	72.0%	
CP1.02	CP1.03	18.70	19.20	600	400	UC	17.95	17.73	CP	87.7	1.26	0.40	A1	3574.85	3.08	291	0.29	71.7%	
CP1.03	CP1.04	19.20	19.20	600	400	UC	17.73	17.68	CP	22.8	1.26	0.40	A1	3574.85	4.24	274	0.27	67.6%	
CP1.04	CP1.05	19.20	19.20	750	400	UC	17.60	17.55	CP	20.2	1.46	0.73	A1,B1,B2	6552.15	4.55	270	0.49	67.3%	
CP1.05	Exsiting 12m (W) Nullah	19.20	19.20	750	400	UC	17.55	17.53	CP	4.6	1.46	0.73	A1,B1,B2	6552.15	4.78	268	0.49	66.7%	
SP02	CP2.01	18.70	18.70	675	400	UC	18.03	17.92	SP	40.4	1.36	0.55	A1,B1	4555.25	2.30	305	0.39	69.9%	
CP2.01	CP2.02	18.70	18.70	675	400	UC	17.92	17.88	CP	18.9	1.36	0.55	A1,B1	4555.25	2.80	296	0.37	67.8%	
CP2.02	CP2.03	18.70	19.20	675	400	UC	17.88	17.65	CP	90.3	1.36	0.55	A1,B1	4555.25	3.03	292	0.37	66.9%	
CP2.03	CP1.04	19.20	19.20	675	400	UC	17.65	17.60	CP	22.1	1.36	0.55	A1,B1	4555.25	4.14	276	0.35	63.2%	
Flow From Proposed Development													A1	3574.85	4.78	268	0.27		

#SP: Start Point

: With 11.1% rainfall increase as per Table 28 of SDM Corrigendum No. 1/2022.

Capacity Checking of Existing 12m (W) Rectangular Channel for flow from Proposed Development Area



a1	1	
b1	0.0	
a2	1	
b2	0.0	
Total Depth	4.00	m
Base Width	12.00	m
Assumed Water Depth	3.70	m
Freeboard	0.30	m

Assumed Water Depth	Freeboard	Base Width	Width of Water Surface	Flow Area	Wetted Perimeter	Hydralic Radius	Manning's Roughness	Gradient	Velocity	Capacity
m	m	m	m	m^2	m	m		1 in	m/s	m^3/s
3.70	0.30	12.00	12.00	44.40	19.40	2.29	0.014	200	8.77	389.46

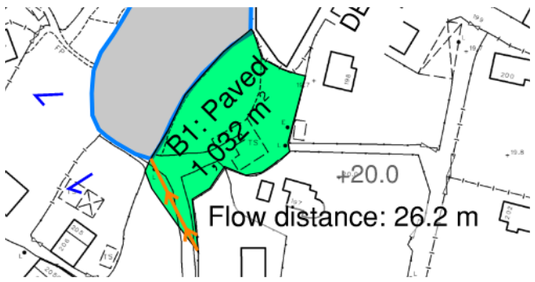
Total Flow due to the application = 0.27 m^3/s

Utilization Rate = 0.07%

Total flow due to the Application Site only occupy 0.07% of the existing Channel/ Watercourse.

Time of Concentration Checking

Catchment	Flow Distance	Highest Level	Lowest Level	Gradient (per 100m) = (H1-H2)/L x 100	to (min) = 0.14465L/ ($H^{0.2}A^{0.1}$)	tc = to + tf
A	L	H1	H2			
(m2)	(m)	(mPD)	(mPD)		(min)	(min)
1032	26.2	19	18.9	0.382	2.3	2.3



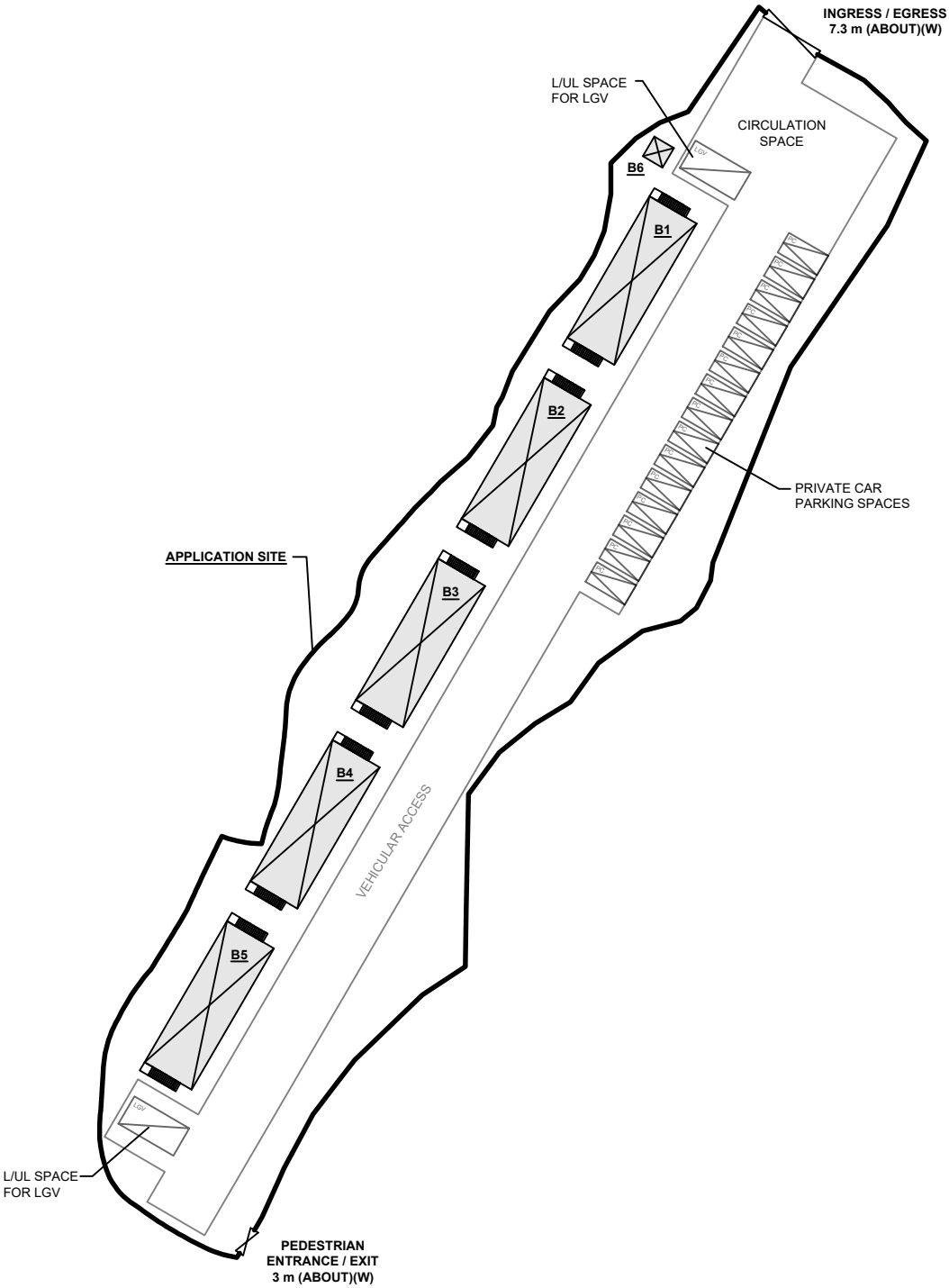
APPENDIX B - PROPOSED SITE LAYOUT PLAN

DEVELOPMENT PARAMETERS

APPLICATION SITE AREA	: 3,763 m^2	(ABOUT)
COVERED AREA	: 597 m^2	(ABOUT)
UNCOVERED AREA	: 3,166 m^2	(ABOUT)
PLOT RATIO	: 0.3	(ABOUT)
SITE COVERAGE	: 16 %	(ABOUT)
NO. OF STRUCTURE	: 6	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 1,137 m^2	(ABOUT)
TOTAL GFA	: 1,137 m^2	(ABOUT)
BUILDING HEIGHT	: 3 m - 8 m	(ABOUT)
NO. OF STOREY	: 1 - 2	

STRUCTURE	USE	COVERED AREA	GROSS FLOOR AREA	BUILDING HEIGHT
B1	S&S, OFFICE AND WASHROOM	118 m^2 (ABOUT)*	226 m^2 (ABOUT)#	8 m (ABOUT)(2-STOREY)
B2	S&S, OFFICE AND WASHROOM	118 m^2 (ABOUT)*	226 m^2 (ABOUT)#	8 m (ABOUT)(2-STOREY)
B3	S&S, OFFICE AND WASHROOM	118 m^2 (ABOUT)*	226 m^2 (ABOUT)#	8 m (ABOUT)(2-STOREY)
B4	S&S, OFFICE AND WASHROOM	118 m^2 (ABOUT)*	226 m^2 (ABOUT)#	8 m (ABOUT)(2-STOREY)
B5	S&S, OFFICE AND WASHROOM	118 m^2 (ABOUT)*	226 m^2 (ABOUT)#	8 m (ABOUT)(2-STOREY)
B6	METER ROOM	7 m^2 (ABOUT)	7 m^2 (ABOUT)#	3 m (ABOUT)(1-STOREY)
	TOTAL	**597 m^2 (ABOUT)**	**1,137 m^2 (ABOUT)**	

* *COVERED AREA OF STRUCTURE: 108 m^2(ENCLOSED) +10 m^2 (STAIRCASES) = 118 m^2 (ABOUT)*
\# *GFA OF STRUCTURE: 108 m^2 (G/F) + 108 m^2 (1/F) + 10 m^2 (STAIRCASES) = 226 m^2 (ABOUT)*
S&S SHOP AND SERVICES



PARKING PROVISIONS

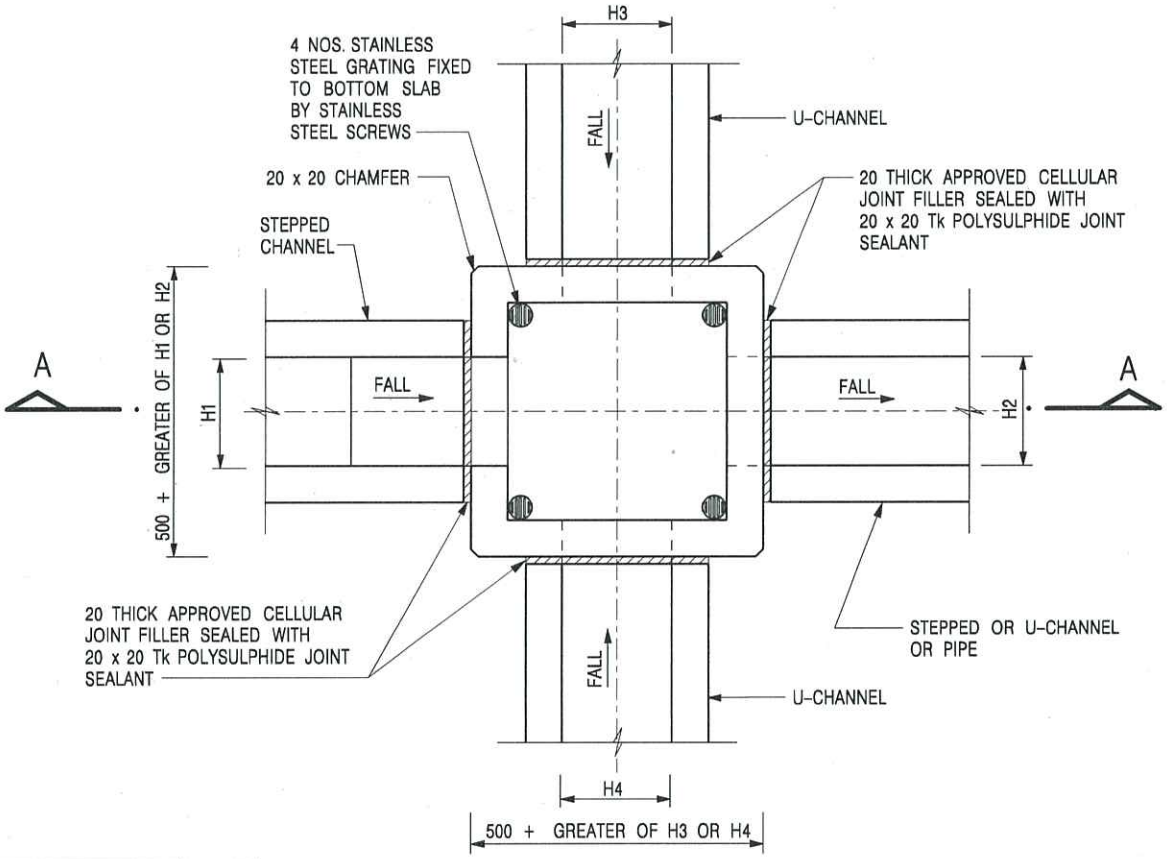
NO. OF PRIVATE CAR PARKING SPACE	: 15
DIMENSION OF PARKING SPACE	: 5 m (L) X 2.5 m (W)
NO. OF L/UL SPACE FOR LIGHT GOODS VEHICLE	: 2
DIMENSION OF PARKING SPACE	: 7 m (L) X 3.5 m (W)

LEGEND

- APPLICATION SITE
- STRUCTURE
- PARKING SPACE (PC)
- L/UL SPACE (LGV)
- INGRESS / EGRESS

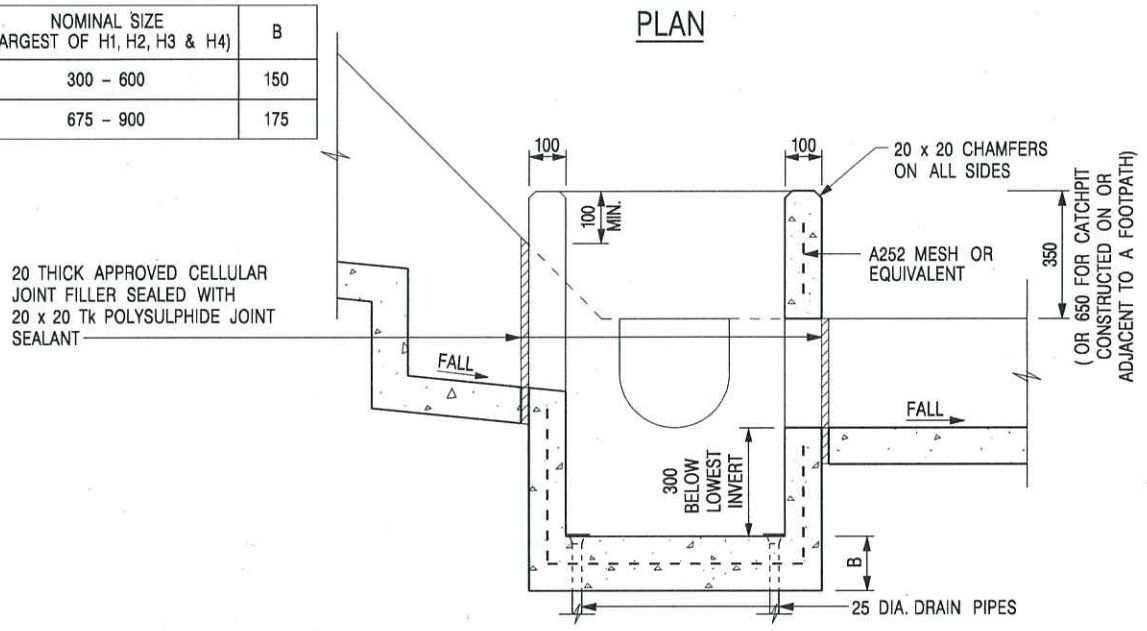
PLANNING CONSULTANT: R-RICHES PLANNING LIMITED	PROJECT: PROPOSED TEMPORARY SHOP AND SERVICES AND PUBLIC VEHICLE PARK (EXCLUDING CONTAINER VEHICLE) WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 5 YEARS	ADDRESS: LOT 354 IN D.D. 112, SHUI LAU TIN, SHEK KONG, YUEN LONG, NEW TERRITORIES	SCALE: 1 : 750 @ A4 DRAWN BY: MN DATE: 18.8.2025 REVISED BY: DATE: TITLE: LAYOUT PLAN DWG NO.: PLAN 4 VER.: 001 NORTH / W / E / S

Appendix C - Reference Drawings



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)

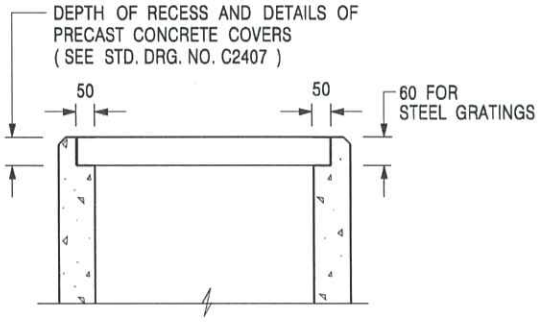
CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2406 /1

卓越工程 建設香港 We Engineer Hong Kong's Development



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.

REF.	REVISION	SIGNATURE	DATE
A	MINOR AMENDMENT.	Original Signed	04.2016
–	FORMER DRG. NO. C2406J.	Original Signed	03.2015

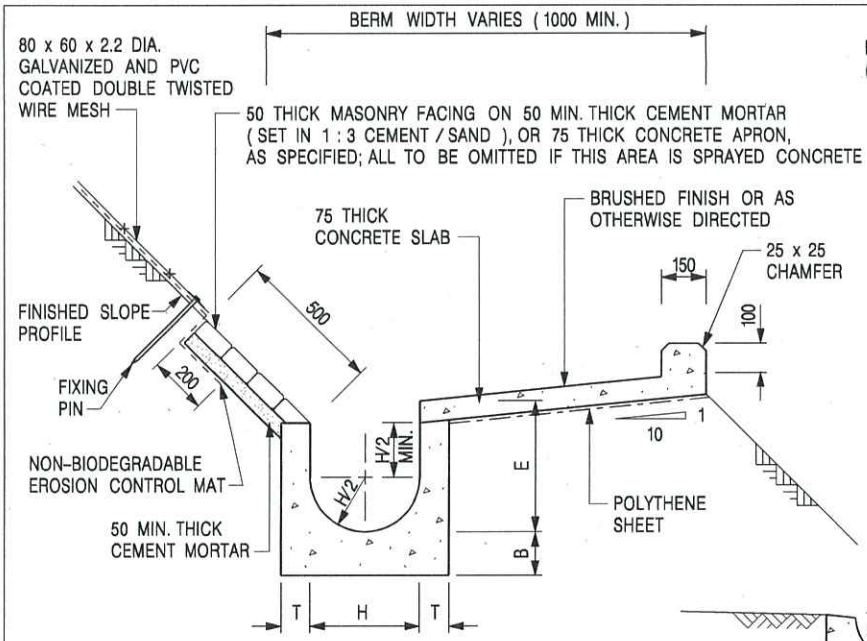
CATCHPIT WITH TRAP
(SHEET 2 OF 2)

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

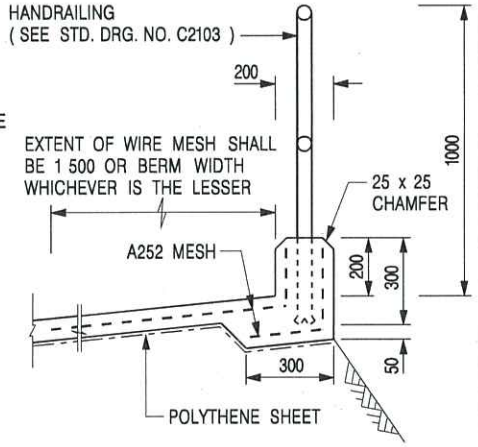
SCALE 1 : 20

DATE JAN 1991

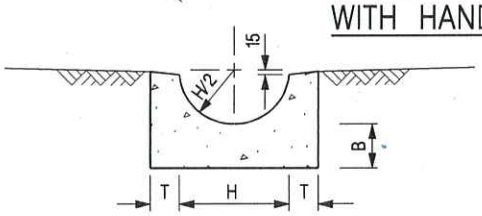
DRAWING NO. C2406 /2A



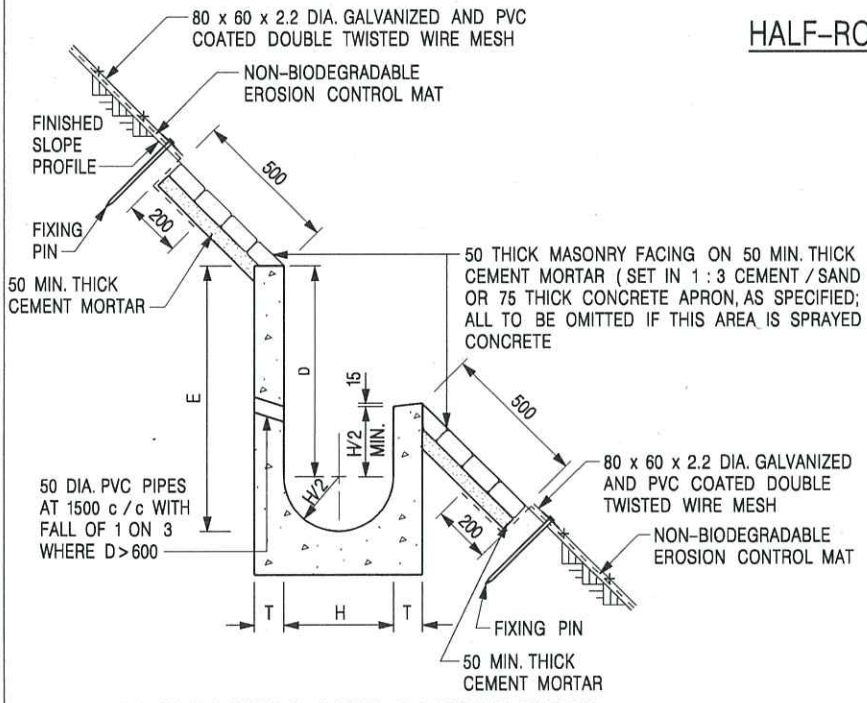
U-CHANNELS CONSTRUCTED ON BERM



DETAILS OF BERM WITH HANDRAILING



HALF-ROUND CHANNEL



U-CHANNELS NOT CONSTRUCTED ON BERM

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. C2511/1E.
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. C2511/1E)

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

REF.	REVISION	SIGNATURE	DATE
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

DETAILS OF HALF-ROUND AND U-CHANNELS (TYPE A - WITH MASONRY APRON)

CEDD **CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT**

SCALE 1 : 25

DATE JAN 1991

DRAWING NO. C2409I

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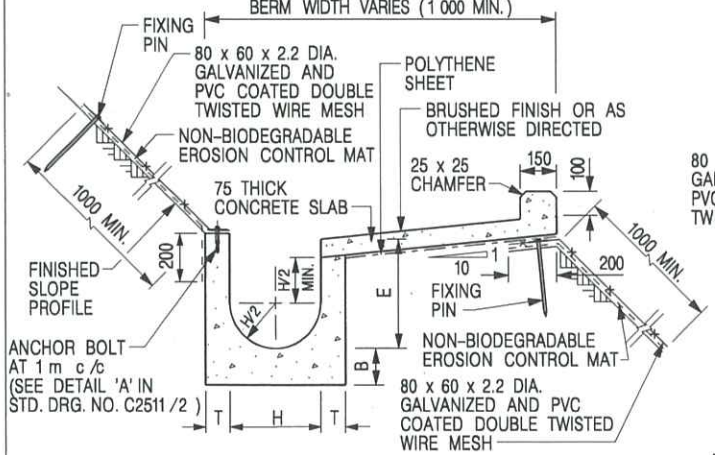
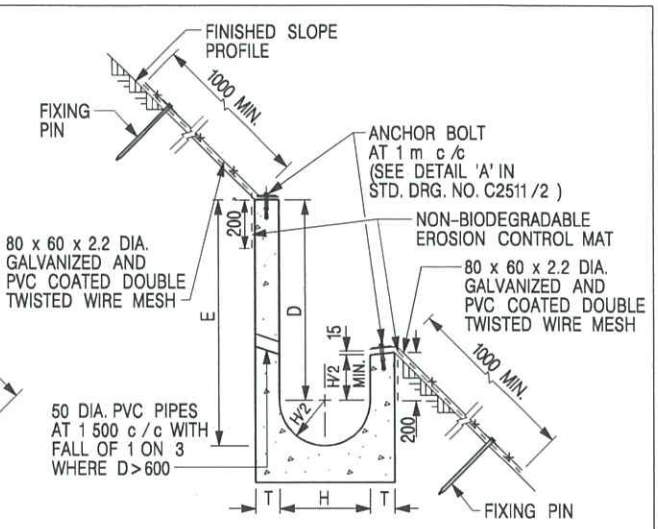
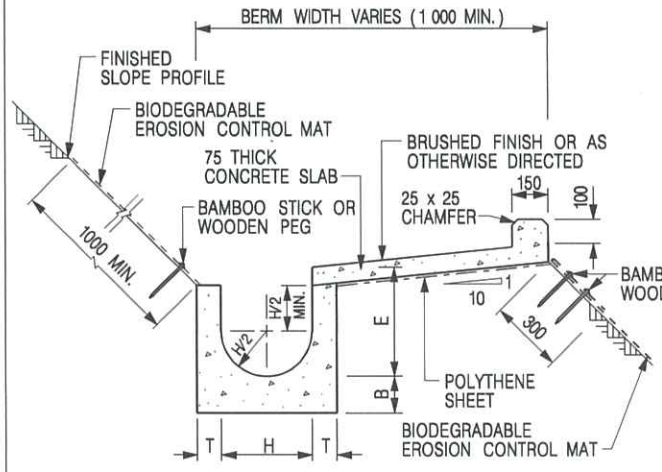


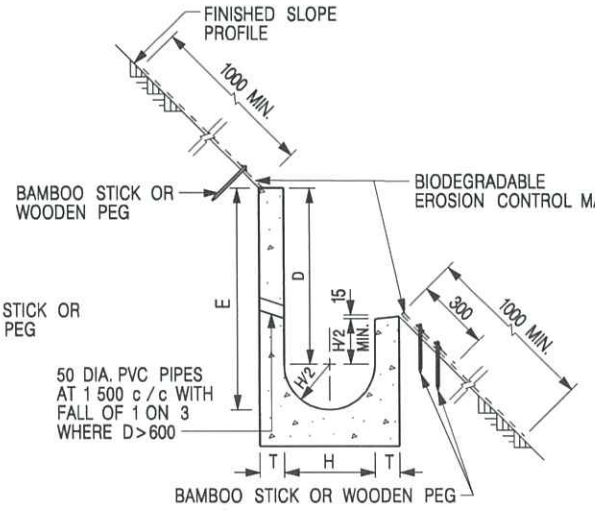
U-CHANNELS CONSTRUCTED ON BERM WITH NON-BIODEGRADABLE EROSION CONTROL MAT



U-CHANNELS NOT CONSTRUCTED ON BERM WITH NON-BIODEGRADABLE EROSION CONTROL MAT



U-CHANNELS CONSTRUCTED ON BERM WITH BIODEGRADABLE EROSION CONTROL MAT



U-CHANNELS NOT CONSTRUCTED ON BERM WITH BIODEGRADABLE EROSION CONTROL MAT

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. FOR TYPICAL FIXING PIN DETAILS, SEE STD. DRG. NO. C2511/2.
8. MINIMUM SIZE OF 25 x 50 x 300mm SHALL BE PROVIDED FOR WOODEN PEG.
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. C2511/1.

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

REF.	REVISION	SIGNATURE	DATE
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

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

CEDD **CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT**

SCALE DIAGRAMMATIC

DATE JAN 1991

DRAWING NO. C2410I

卓越工程 建設香港

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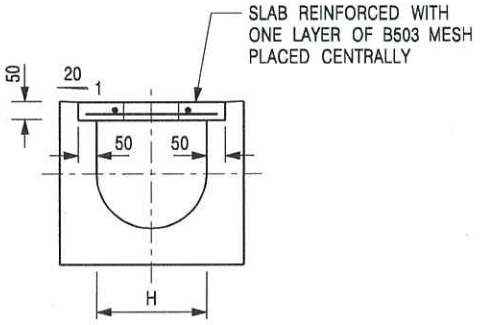
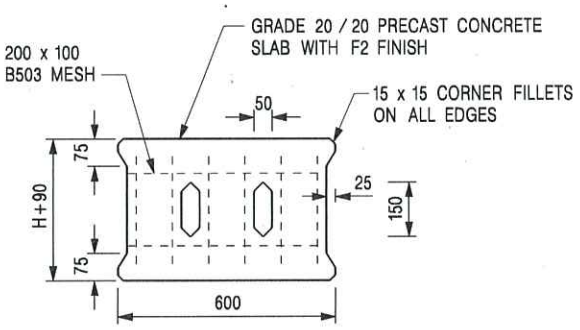


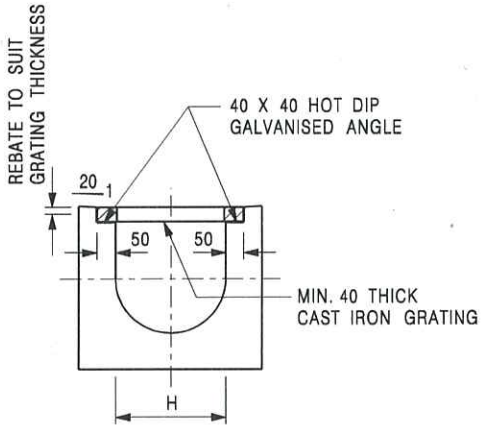
TYPICAL SECTION



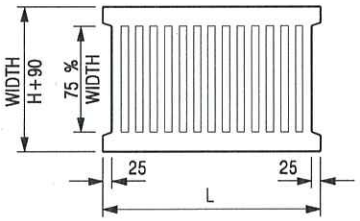
PLAN OF SLAB

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:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. H = NOMINAL CHANNEL SIZE.
3. ALL CAST IRON FOR GRATINGS SHALL BE GRADE EN-GJL-150 COMPLYING WITH BS EN 1561.
4. 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.

REF.	REVISION	SIGNATURE	DATE
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

COVER SLAB AND CAST IRON GRATING FOR CHANNELS

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2412E