Annex 1

Drainage proposal

Proposed Temporary Shop and Services for a Period of 5 Years in "Village Type Development" Zone, Lot 404 in D.D. 105, Shek Wu Wai, San Tin, Yuen Long, New Territories

Drainage Proposal

Nov 2026 r2

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 404 in D.D. 105, Shek Wu Wai, San Tin, Yuen Long, New Territories (the Site) for 'Proposed Temporary Shop and Services 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 at the east of Shek Wu Wai Road. It has an area of approx. 220 m^2. The site location is shown in **Figure 1**.

1.2.2 The existing site is mostly paved. Existing levels are approximately +4.9 to +5.2 mPD. The applicant intended to keep the existing site levels. No major site formation of the Application Site is anticipated.

1.2.3 There is existing 4m (W) nullah at the east of the site and the nullah would eventually discharge to 12m (W) nullah at the north of the area. **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 220 m^2. The catchment plan is shown in **Figure 4**.

Proposed Development Area (Approx.)	
Total Site Area (m^2)	220
Paved Area after Development (m^2)	220

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 North District Zone. Therefore, for 50 years return period, the following values are adopted.

a	=	474.6
b	=	2.9
c	=	0.371

(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.

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 = 0.9
2. Unpaved Area: C = 0.3

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

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. The design calculation of proposed drains are shown in **Appendix A**. The channels are proposed to be discharged to existing 1.5m (W) and 4m (W) channel at the northeast of the site which would eventually discharge to 12m(W) nullah at the north of the area. The checking of existing 1.5 (W) and 4m (W) channel against flow from development site is shown in **Appendix A** which utilization are only about 43.5% and 5.54% respectively.

4.1.2 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.

4.1.6 The proposed drains are proposed to be maintained by the development.

5 Drainage Action Plan

5.1.1 As the site falls within flood-prone area and is one of the flooding blackspots, The following drainage action plan is proposed to be implemented.

Weather Trigger	Action
Before Wet Season (April) every year	• Clear the channels and connection drains •Prepare enough sandbag and portable water pump for emergency conditions
Amber Rainstorm / Typhoon Signal No. 3	• Clear perimeter U-channels and connection drain. • Double-check there is enough emergency supply (sandbag and portable water pump)
Red Rainstorm / "Special Announcement on Flooding in Northern NT" /Typhoon Signal No.5 or above	• Deploy sandbag to prevent flooding to indoor area • Move ground-level goods/ items onto higher shelves. • Turn off non-essential floor-level power sockets. •Prepare portable water pumps if backflow begins.
Black Rainstorm /Typhoon Signal No.8 or above	• Stop outdoor operations entirely. • Prepare portable water pumps if backflow begins.

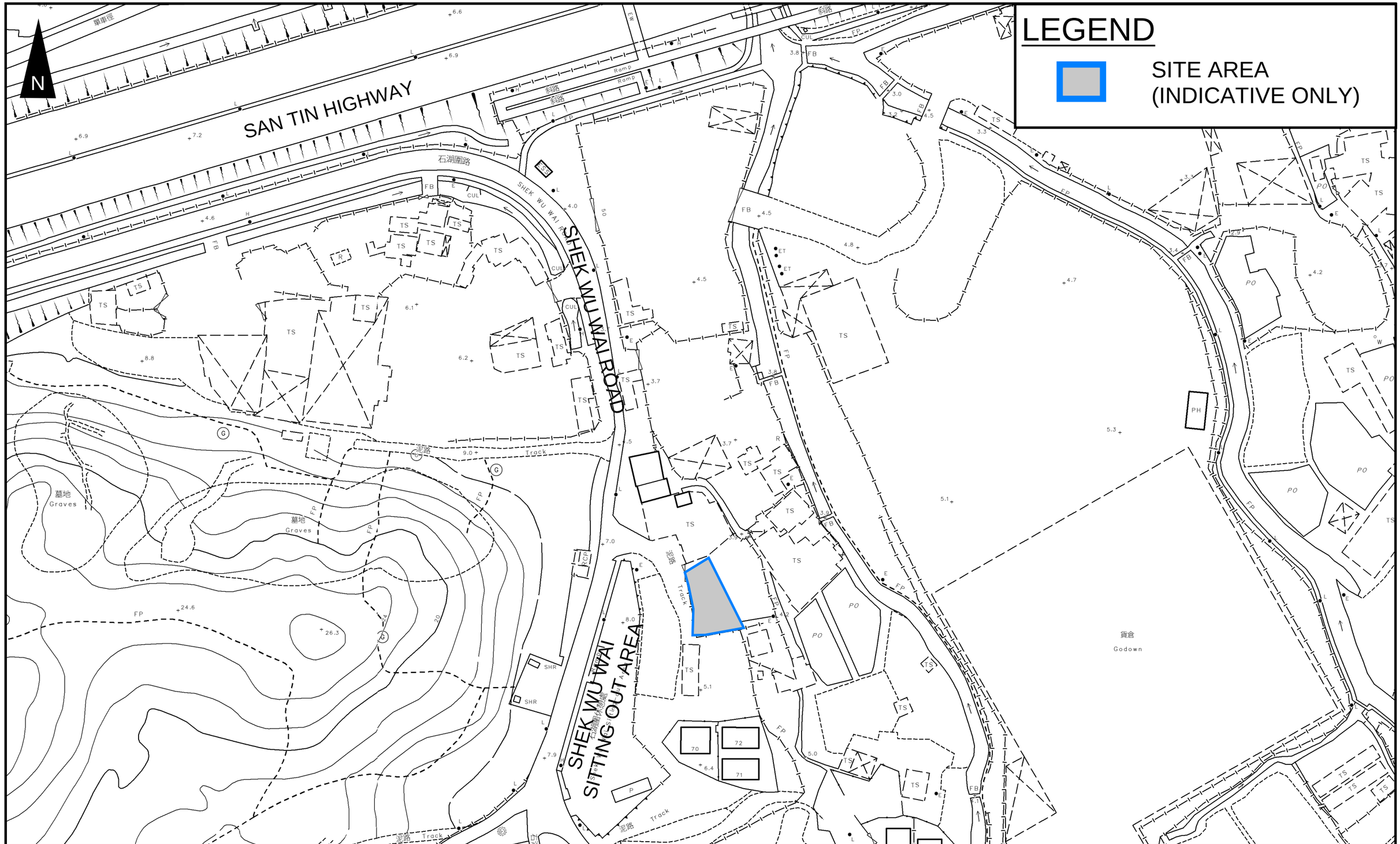
6 Conclusion

6.1.1 Drainage review has been conducted for the Proposed Development. The surface runoff will be collected by the proposed drains and discharge existing 4m (W) channel and eventually discharge to existing 12m (W) Nullah.

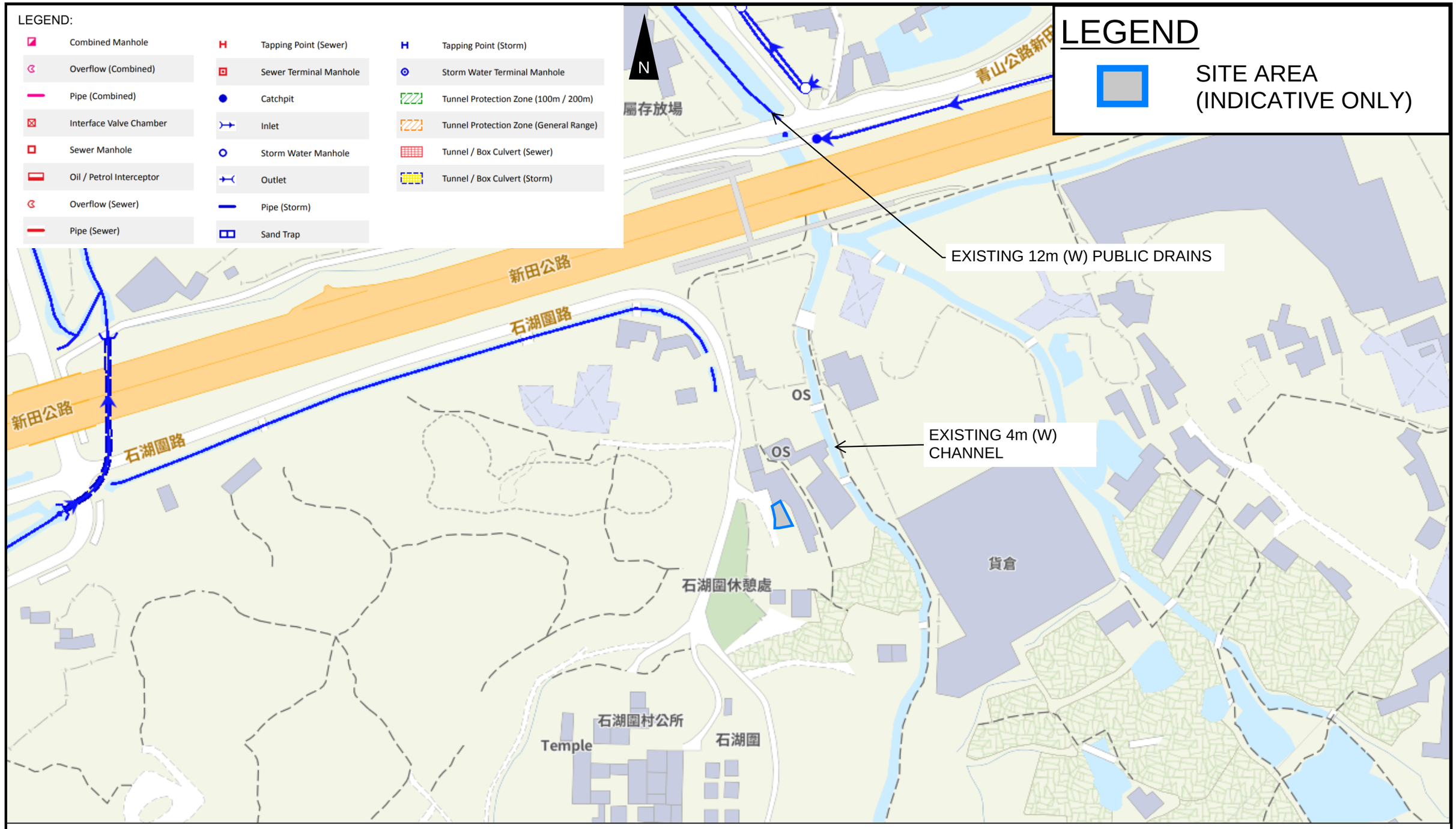
6.1.1 With implementation of the above drainage system, no unacceptable drainage impact is anticipated.

- End of Text -

FIGURES



PROJECT: Proposed Temporary Shop and Services for a Period of 5 Years	TITLE SITE LOCATION PLAN	FIGURE NUMBER FIGURE 1
LOCATION: Lot 404 in D.D. 105, Shek Wu Wai, San Tin, Yuen Long, New Territories		VER / DESCRIPTION / DATE



PROJECT: Proposed Temporary Shop and Services for a Period of 5 Years	TITLE EXISTING DRAINAGE PLAN	FIGURE NUMBER FIGURE 2
LOCATION: Lot 404 in D.D. 105, Shek Wu Wai, San Tin, Yuen Long, New Territories		

VER	DESCRIPTION	DATE

LEGEND

- SITE AREA (INDICATIVE ONLY)
- PROPOSED CHANNEL
- PROPOSED CATCHPIT
- PROPOSED CATCHPIT w/TRAP

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.

TO EXISTING 12m (W) NULLAH

EXISTING 1.5m (W) CHANNEL

TO EXISTING 4m (W) CHANNEL

TO EXISTING 1.5m (W) CHANNEL

CP1.01

CP1.02

CP1.03

SP01

SP02

CP2.01

石湖圍路 SHEK WU WAI ROAD

N

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	5.2	5.2	375	200	UC	4.78	4.69	SP	#SP: Start Point
CP1.01	CP1.02	5.2	4.9	375	200	UC	4.69	4.48	CP	
CP1.02	CP1.03	4.9	4.8	525	200	UC	4.29	4.23	CP	
CP1.03	Existing 1.5m Channel	4.8	4.7	525	200	UC	4.23	4.13	CP	
SP02	CP2.01	5.2	4.9	375	200	UC	4.78	4.48	SP	

PROPOSED CHANNEL — EXISTING 1.5m (W) CHANNEL

+4.13

~+3.82

TYPICAL CONNECTION DETAIL TO EXISTING CHANNEL

PROJECT:
Proposed Temporary Shop and Services for a Period of 5 Years

TITLE
PROPOSED DRAINAGE SYSTEM

FIGURE NUMBER
FIGURE 3

LOCATION:
Lot 404 in D.D. 105, Shek Wu Wai, San Tin, Yuen Long, New Territories

VER	DESCRIPTION	DATE

LEGEND:

FALL

B4 PAVED
2,566 m²

B1 PAVED
87 m²

B2 PAVED
285 m²

B3 PAVED
121 m²

A1 PAVED
220 m²

+7.0
+4.0
+5.0
+4.2
+5.1
+6.4

N

石湖圍路

SHEK WU WAI ROAD

石湖圍休憩處
Shek Wu Wai Sitting-out Area

墓地
Graves

泥路
Track

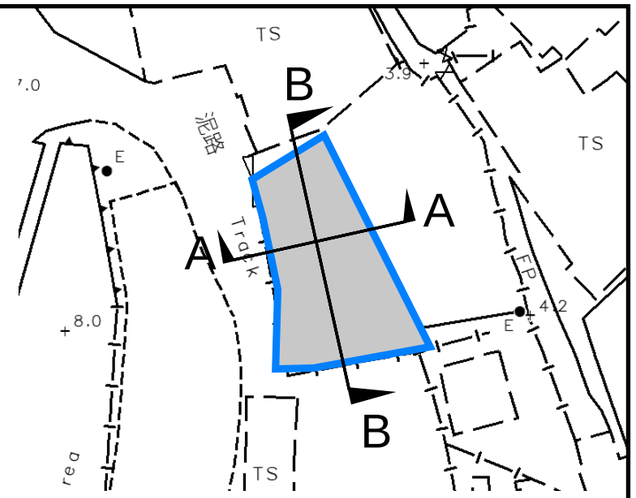
貨倉
Godown

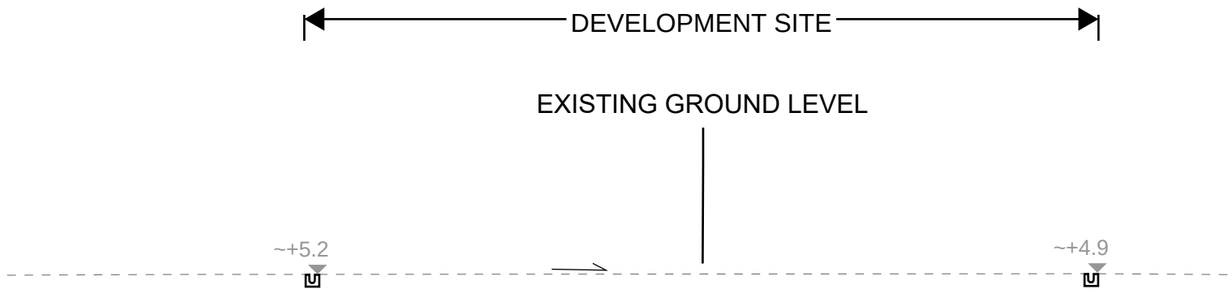
PROJECT: Proposed Temporary Shop and Services for a Period of 5 Years	TITLE CATCHMENT PLAN	FIGURE NUMBER FIGURE 4
LOCATION: Lot 404 in D.D. 105, Shek Wu Wai, San Tin, Yuen Long, New Territories		

VER	DESCRIPTION	DATE

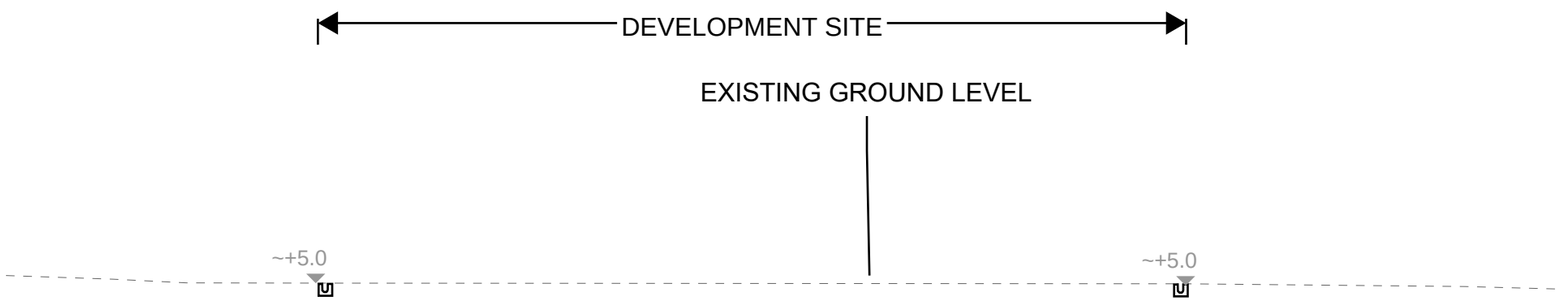
LEGEND

SITE AREA
(INDICATIVE ONLY)





N.T.S.
SECTION A-A



N.T.S.
SECTION B-B

PROJECT: Proposed Temporary Shop and Services for a Period of 5 Years	TITLE SECTIONS	FIGURE NUMBER FIGURE 5
LOCATION: Lot 404 in D.D. 105, Shek Wu Wai, San Tin, Yuen Long, New Territories		

VER	DESCRIPTION	DATE

APPENDIX

Appendix A: Design Calculation

Zone

North District

Return Period	1 in	50	years

n	0.014
Ks	0.15
Viscosity	0.000001

Storm Constant	North District a	474.6
	North District b	2.9
	North District c	0.371

Catchment Area Table (Area in m^2)

Catchment	A1	B1	B2	B3	B4														
Total Area	220	87	285	121	2566														
Hard Paved Area	220	87	285	121	2566														
Unpaved Area	0	0	0	0	0														
Equival. Area	198	78.3	256.5	108.9	2309.4														

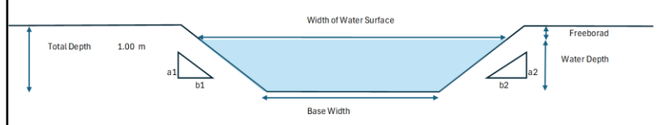
Pavement Type	Hard Paved	Unpaved
Runoff Coefficient	0.9	0.3

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	Utilization	Remark
SP01	CP1.01	5.20	5.20	375	200	UC	4.78	4.69	SP	18	1.21	0.14	A1,B2	454.50	1.00	318	0.04	29.4%	
CP1.01	CP1.02	5.20	4.90	375	200	UC	4.69	4.48	CP	7.1	1.21	0.14	A1,B1,B2	532.80	1.25	311	0.05	33.7%	
CP1.02	CP1.03	4.90	4.80	525	200	UC	4.29	4.23	CP	12.6	1.51	0.34	A1,B1,B2,B3,B4	2951.10	1.71	299	0.25	73.2%	
CP1.03	Existing 1.5m Channel	4.80	4.70	525	200	UC	4.23	4.13	CP	15.3	1.51	0.34	A1,B1,B2,B3,B4	2951.10	1.85	296	0.24	72.4%	
SP02	CP2.01	5.20	4.90	375	200	UC	4.78	4.48	SP	14.8	1.21	0.14	A1,B3	306.90	1.00	318	0.03	19.9%	
CP2.01	CP1.02	4.90	4.90	375	200	UC	4.48	4.29	CP	36.5	1.21	0.14	A1,B3	306.90	1.20	312	0.03	19.5%	
Checking of 1.5m (W) and 4m (W) Channel													A1,B1,B2,B3,B4	2951.10	1.85	296	0.24		

#SP: Start Point
: With 11.1% rainfall increase as per Table 28 of SDM Corrigendum No. 1/2022.
###: 10% reduction of Area as per SDM section 9.3

Capacity Checking of Existing 1.5m (W) Channel

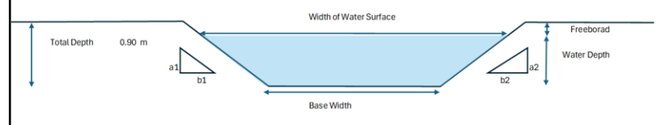


a1	1	
b1	0.5	
a2	1	
b2	0.5	
Total Depth	1.00	m
Base Width	0.50	m
Assumed Water Depth	0.80	m
Freeboard	0.20	m

Assumed Water Depth	Freeboard	Base Width*	Width of Water Surface	Flow Area (10% reduction)	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
0.80	0.20	0.50	1.30	0.65	2.29	0.28	0.035	200	0.87	0.56

Total Flow from The Application Site = 0.25 m^3/s
Utilization Rate = 43.5%

Capacity Checking of existing 4m (W) Trapezoidal Channel for flow from Proposed Development Area



a1	1	
b1	1.0	
a2	1	
b2	1.0	
Total Depth	0.90	m
Base Width	2.00	m
Assumed Water Depth	0.60	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
0.60	0.30	2.00	3.20	1.56	3.70	0.42	0.014	200	2.84	4.43

Total Flow due to the application = 0.25 m^3/s
Utilization Rate = 5.54%
Total flow due to the Application Site only occupy 5.54% 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)
42.6	17	7.9	5.2	15.882	1.0	1.0

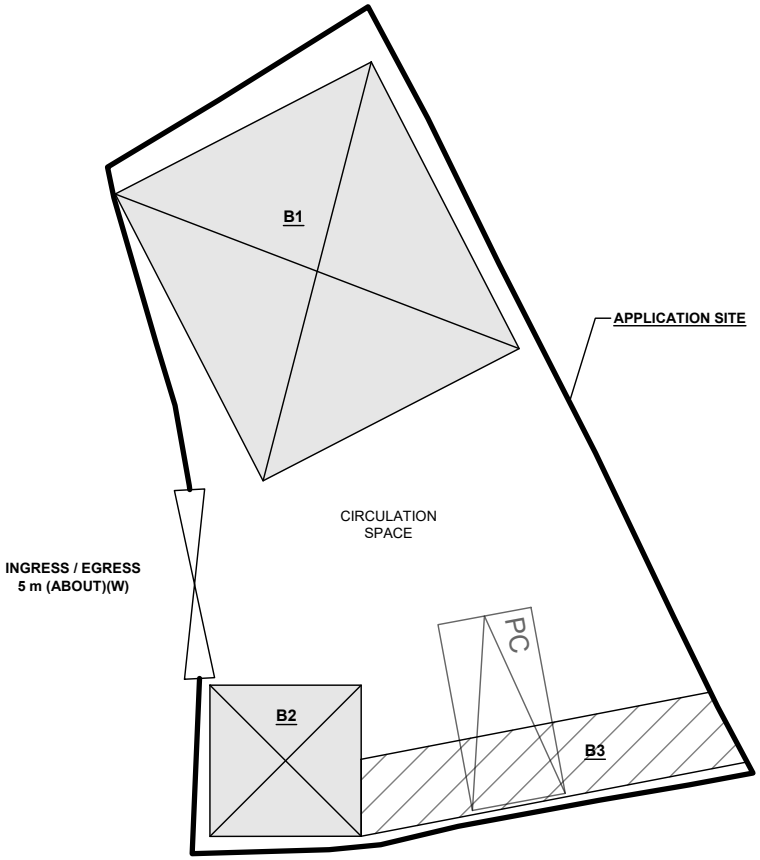


APPENDIX B - PROPOSED SITE LAYOUT PLAN

DEVELOPMENT PARAMETERS

APPLICATION SITE AREA	: 220 m^2	(ABOUT)
COVERED AREA	: 101 m^2	(ABOUT)
UNCOVERED AREA	: 119 m^2	(ABOUT)
PLOT RATIO	: 0.46	(ABOUT)
SITE COVERAGE	: 46 %	(ABOUT)
NO. OF STRUCTURE	: 3	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 101 m^2	(ABOUT)
TOTAL GFA	: 101 m^2	(ABOUT)
BUILDING HEIGHT	: 3.5 m - 4 m	(ABOUT)
NO. OF STOREY	: 1	

STRUCTURE	USE	COVERED AREA	GROSS FLOOR AREA	BUILDING HEIGHT
B1	SHOP AND SERVICES AND OFFICE	65 m^2 (ABOUT)	65 m^2 (ABOUT)	4 m (ABOUT)(1-STOREY)
B2	MEETING ROOM AND WASHROOM	16 m^2 (ABOUT)	16 m^2 (ABOUT)	3.5 m (ABOUT)(1-STOREY)
B3	RAIN SHELTER	20 m^2 (ABOUT)	20 m^2 (ABOUT)	3.5 m (ABOUT)(1-STOREY)
	TOTAL	**101 m^2 (ABOUT)**	**101 m^2 (ABOUT)**	



PARKING AND LOADING / UNLOADING (L/UL) PROVISIONS

NO. OF PRIVATE CAR PARKING SPACE	: 1
DIMENSIONS OF PARKING SPACE	: 5 m (L) X 2.5 m (W)

SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY.

LEGEND

- APPLICATION SITE
- STRUCTURE (ENCLOSED)
- STRUCTURE (CANOPY)
- PARKING SPACE (PRIVATE CAR)
- INGRESS / EGRESS

NORTH
W E
S

PLANNING CONSULTANT
R-RICHES PLANNING LIMITED

PROJECT
PROPOSED TEMPORARY SHOP AND SERVICES FOR A PERIOD OF 5 YEARS

SITE LOCATION
LOT 404 IN D.D. 105, SHEK WU WAI, SAN TIN, YUEN LONG, NEW TERRITORIES

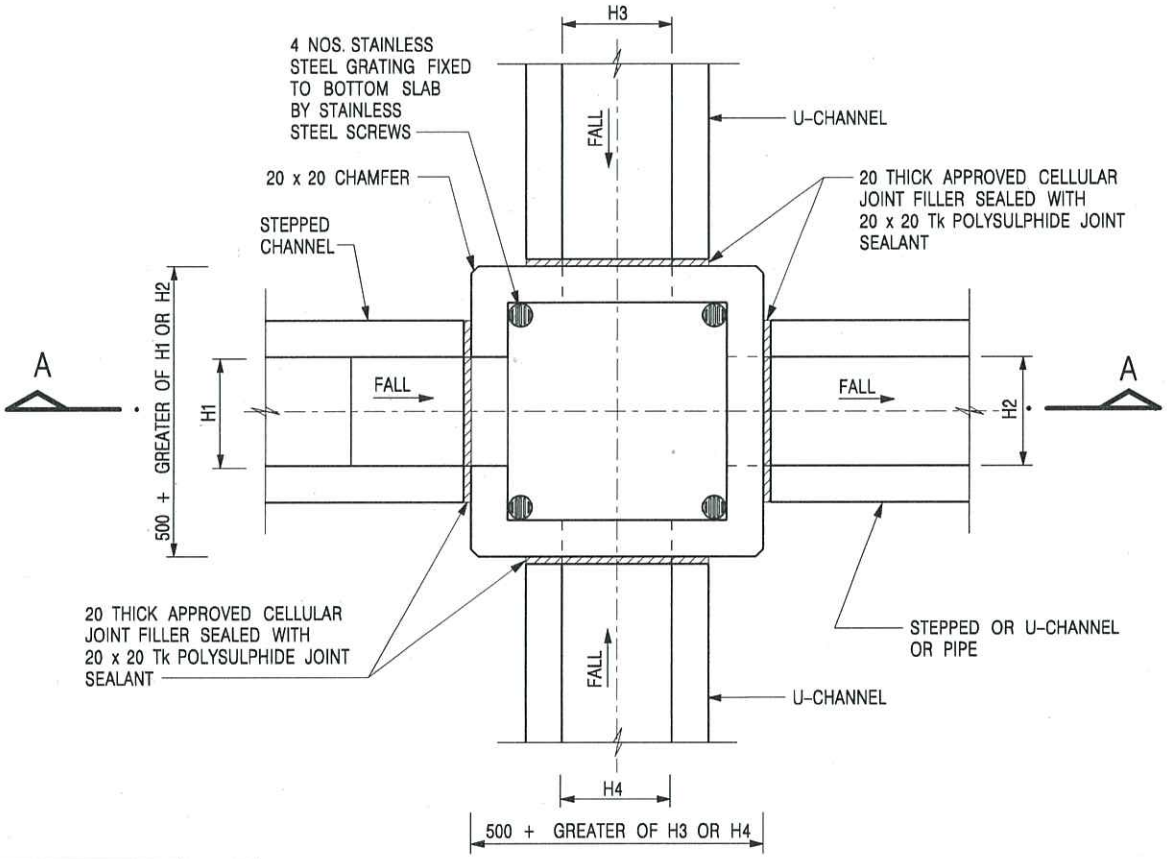
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MN	23.6.2026
CHECKED BY	DATE
APPROVED BY	DATE

DWG. TITLE
LAYOUT PLAN

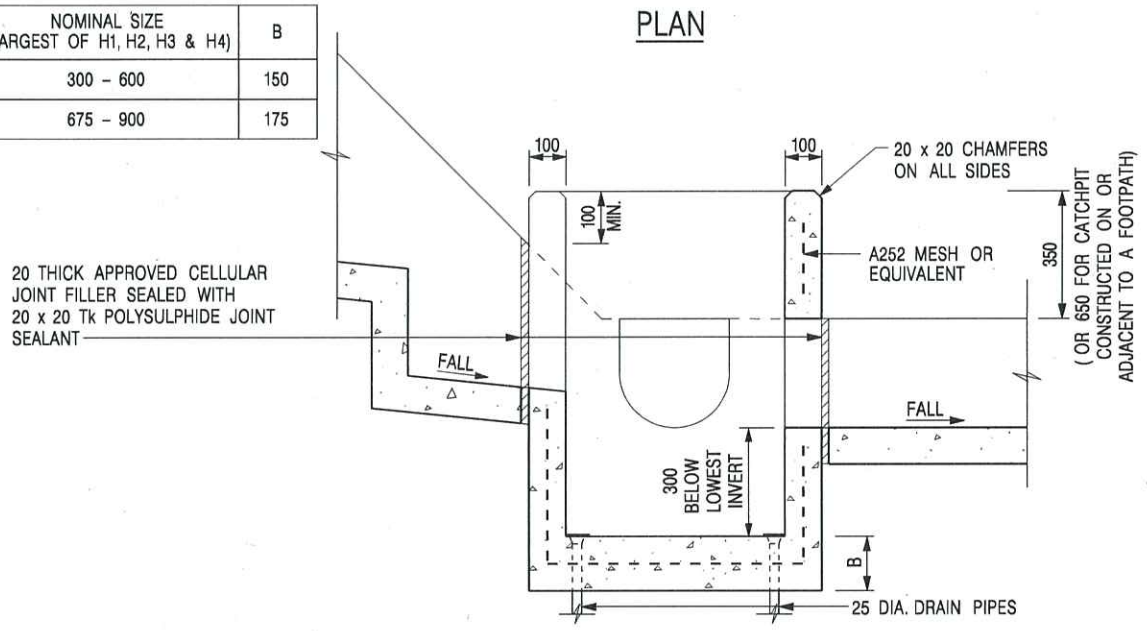
DWG NO.	VER.
PLAN 4	001

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)

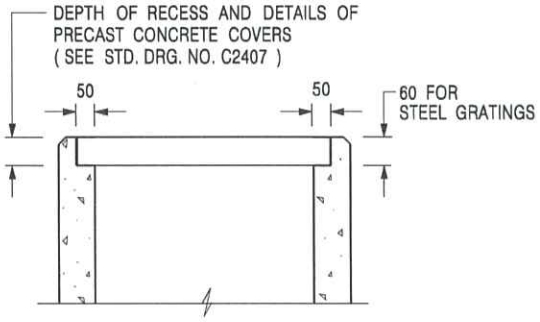
CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

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

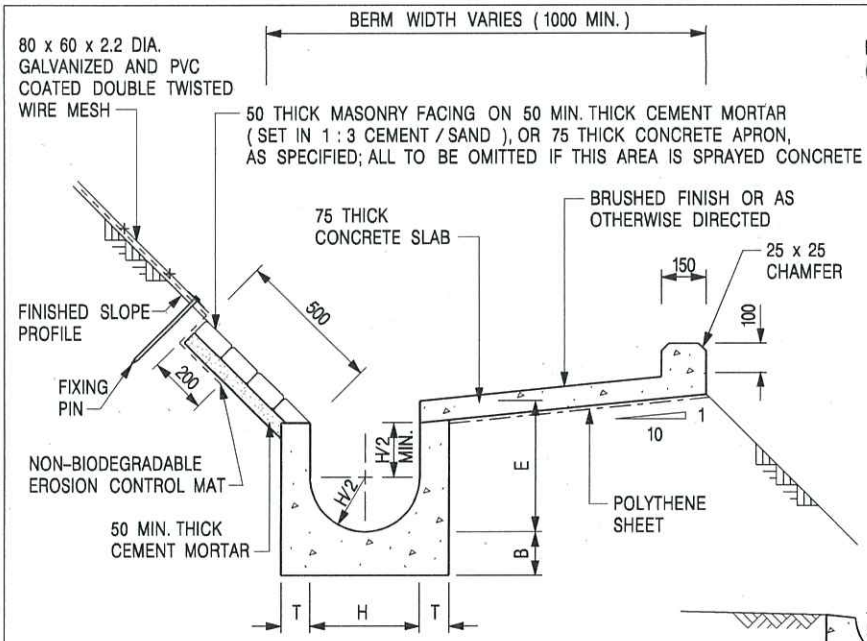
CATCHPIT WITH TRAP
(SHEET 2 OF 2)

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

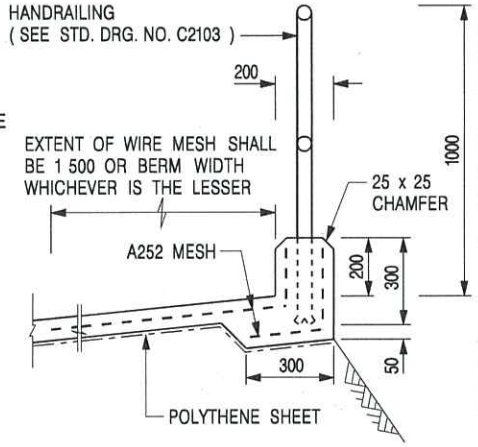
SCALE 1 : 20

DATE JAN 1991

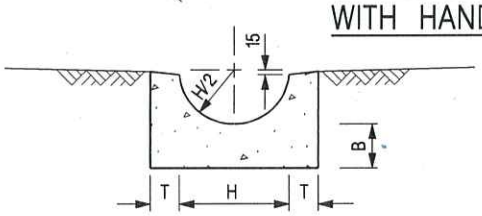
DRAWING NO. C2406 /2A



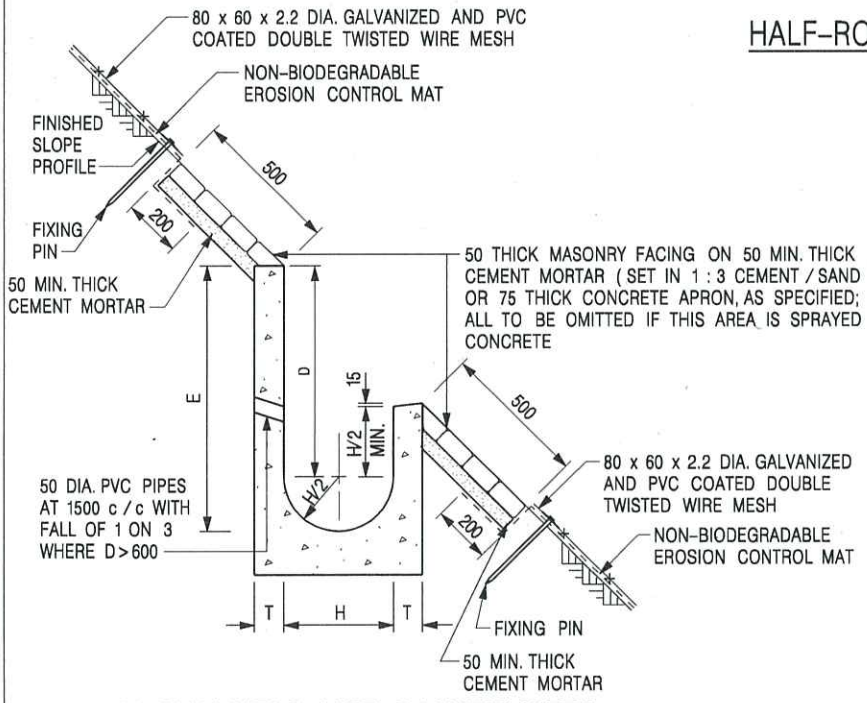
U-CHANNELS CONSTRUCTED ON BERM



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**

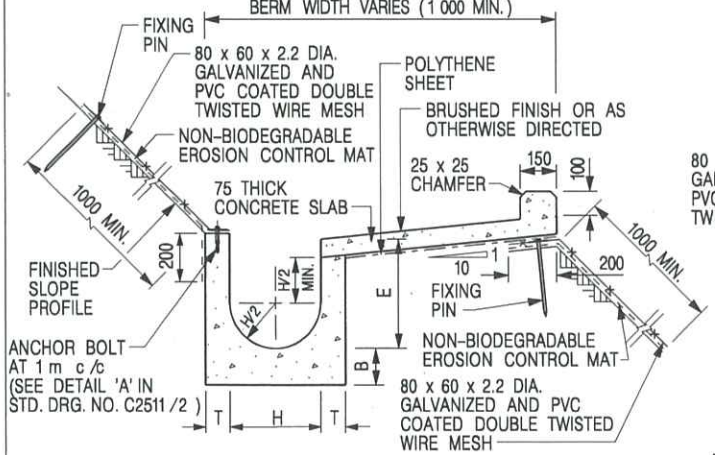
SCALE 1 : 25

DATE JAN 1991

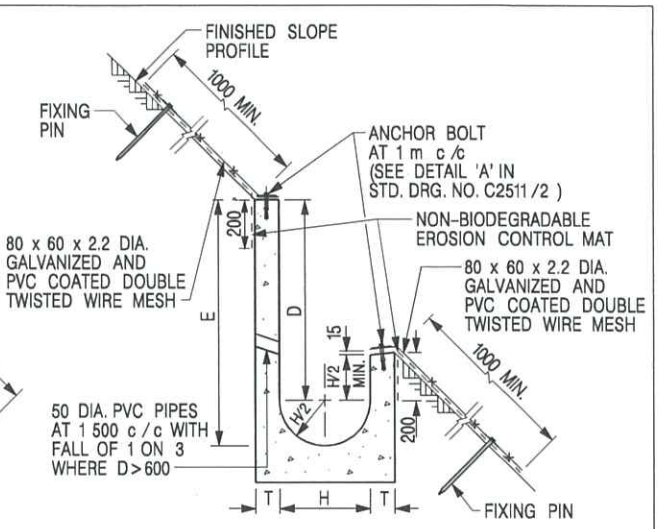
DRAWING NO. C2409I

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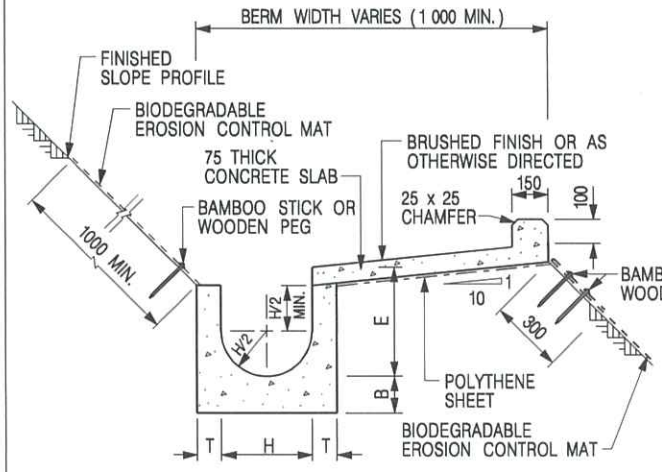
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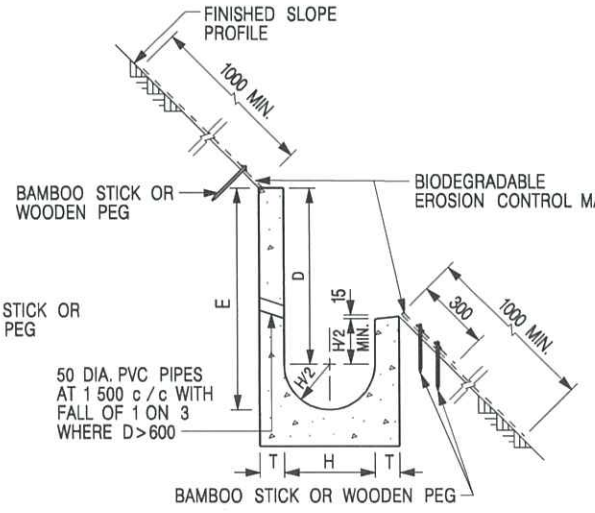
U-CHANNELS CONSTRUCTED ON BERM WITH NON-BIODEGRADABLE EROSION CONTROL MAT



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**

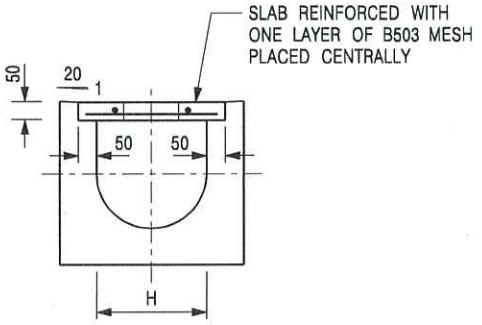
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DATE JAN 1991

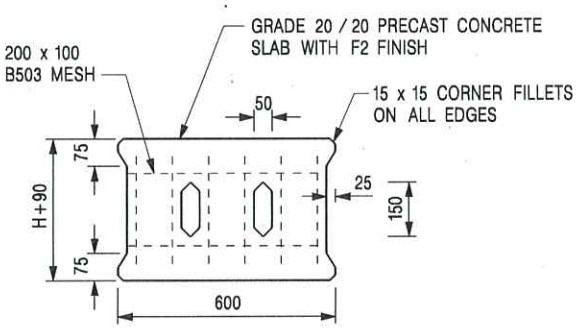
DRAWING NO. C2410I

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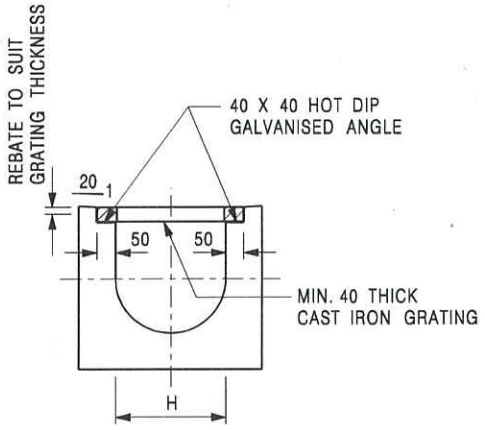
TYPICAL SECTION



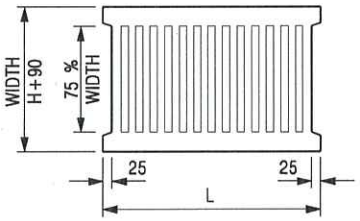
PLAN OF SLAB

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

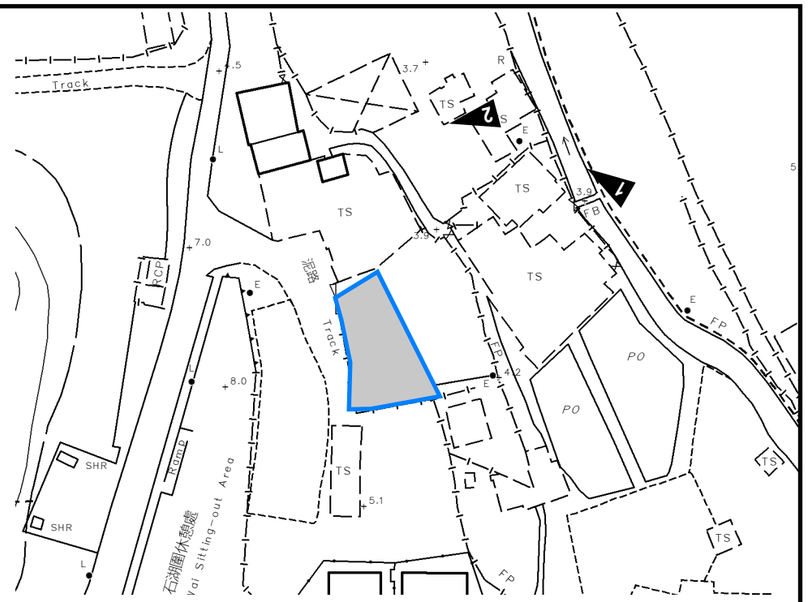
CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2412E









1.5m (W), 1m (D)



PROJECT: Proposed Temporary Shop and Services for a Period of 5 Years	SITE PHOTOS	APPENDIX D
LOCATION: Lot 404 in D.D. 105, Shek Wu Wai, San Tin, Yuen Long, New Territories		VER / DESCRIPTION / DATE

Annex 2

Authorisation letter from adjoining land owners

授權書

丈量約份第 105 約地段第 403 號餘段

本公司為上述地段的土地擁有人，現授權規劃申請（編號：A/STT/36）的申請人，於上述地段進行建造排水渠的渠務工程。

公司名稱 : 添運（香港）有限公司 Team Lucky (H.K.) Limited

公司註冊證明書號碼 : [redacted]

公司蓋章及簽署 : [redacted]

日期 : 09 NOV 2026

授權書

丈量約份第 105 約地段第 403 號 A 分段

本人為上述地段的土地擁有人，現授權規劃申請（編號：A/STT/36）的申請人，於上述地段進行建造排水渠的渠務工程。

土地擁有人姓名 : 文志光 MAN Chi Kwong

香港身份證號碼 : [redacted]

土地擁有人簽署 : [redacted]

日期 : 09 NOV 2026