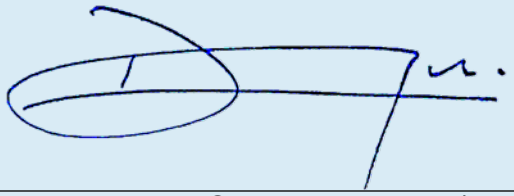
PROPOSED TEMPORARY MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR/TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS, VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES

Drainage Impact Assessment

Aug 2025



Prepared by: YU Cheuk Yin Derek (RP0735920)

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 Various Lots in D.D. 84, Ta Kwu Ling, New Territories (the Site) for 'Proposed Temporary Medium Goods Vehicles and Container Tractor/Trailer Park with Ancillary Facilities and Associated Filling of Land for a Period of 3 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 west of Ping Che Road. It has an area of approx. 16,115 m^2. The site location is shown in **Figure 1**.

1.2.2 The existing site is mostly unpaved paved. Existing levels are various from approximately +9.0 to +10.2 mPD. The site would be concreted for not more than 0.2m for formation of structure and maneuvering of vehicle. No major site formation of the Application Site is anticipated.

1.2.3 There is an existing approx.. 12m width watercourse and an approx.. 15m width Ping Yuen River at the west of the site. **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 16,115 m^2. The catchment plan is shown in **Figure 4**.

Proposed Development Area (Approx.)	
Total Site Area (m^2)	16,115
Paved Area after Development (m^2)	16,115

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 10 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 10 years return period, the following values are adopted.

a	=	454.9
b	=	3.44
c	=	0.412

(Corrigendum No.1/2024)

The development is proposed for temporary use for a period of 3 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 = 0.95
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 nearby Ping Yuen River. According to the checking of existing drains in **Appendix A**, it has enough capacity to carry the flow from existing catchment and proposed development.

4.1.2 The design calculations of proposed drains are shown in **Appendix A**. Checking of utilization of existing approx. 12m width nearby Ping Yuen River is also indicated in **Appendix A**. It is shown that the utilization is only about 9.6%.

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. Existing site photos are shown in **Appendix D**.

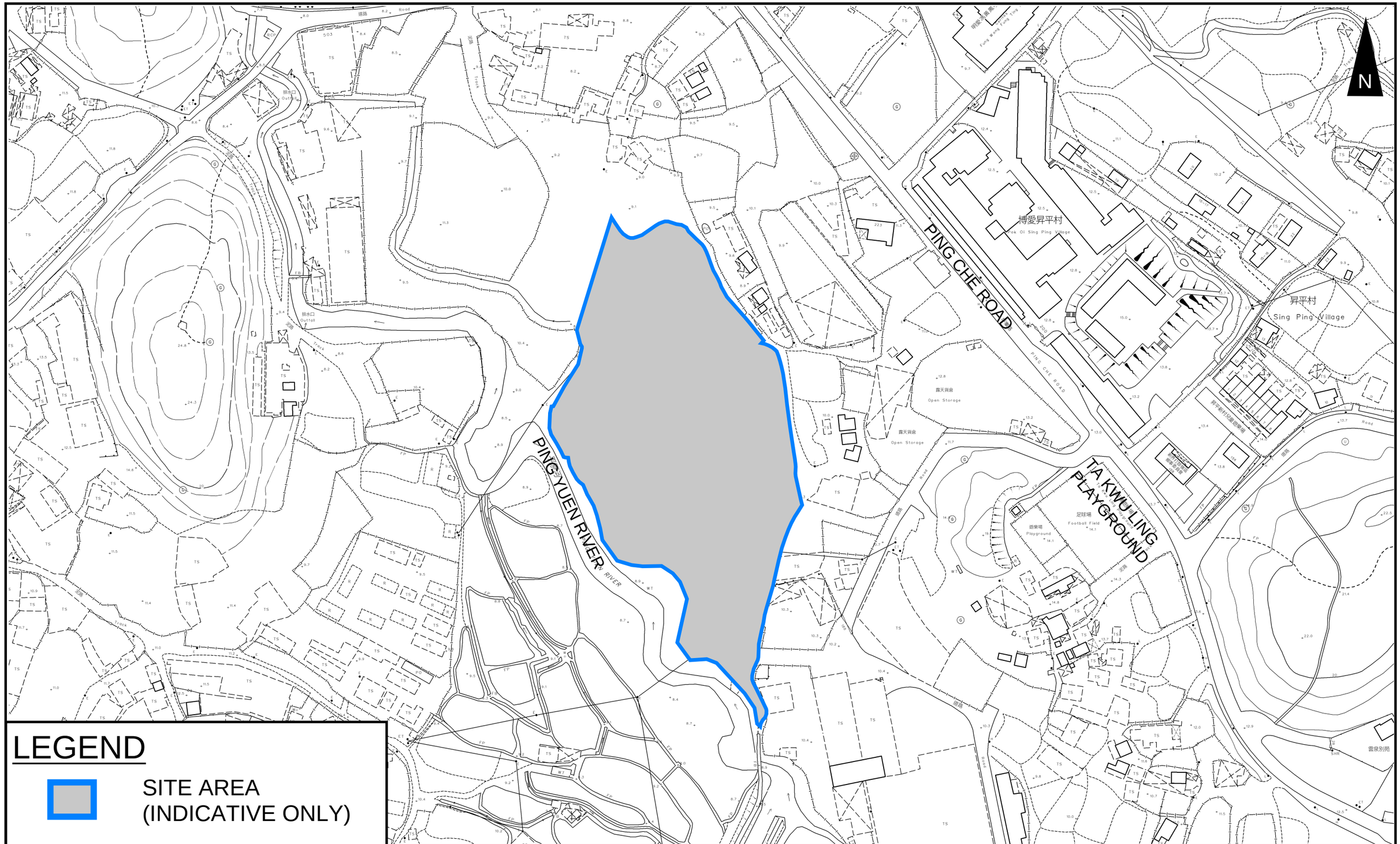
5 Conclusion

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 Ping Yuen River.

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

- End of Text -

FIGURES



LEGEND

SITE AREA
(INDICATIVE ONLY)

PROJECT:

PROPOSED TEMPORARY MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR/TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS

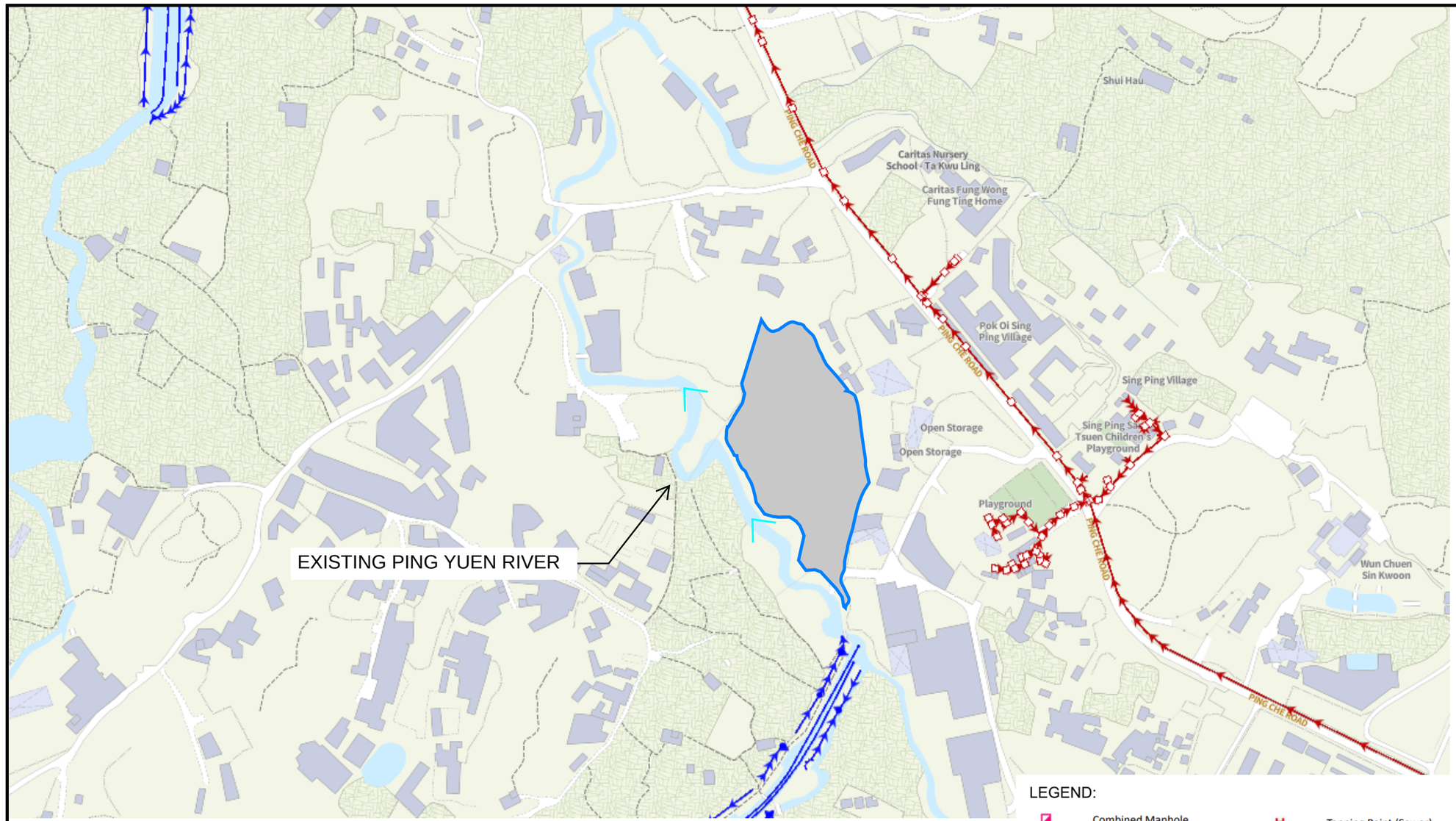
TITLE
SITE LOCATION PLAN

FIGURE NUMBER
FIGURE 1

LOCATION:

VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES

VER	DESCRIPTION	DATE



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	

LEGEND

SITE AREA
(INDICATIVE ONLY)

PROJECT:
PROPOSED TEMPORARY MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR/TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS

TITLE
EXISTING DRAINAGE PLAN

FIGURE NUMBER
FIGURE 2

LOCATION:
VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES

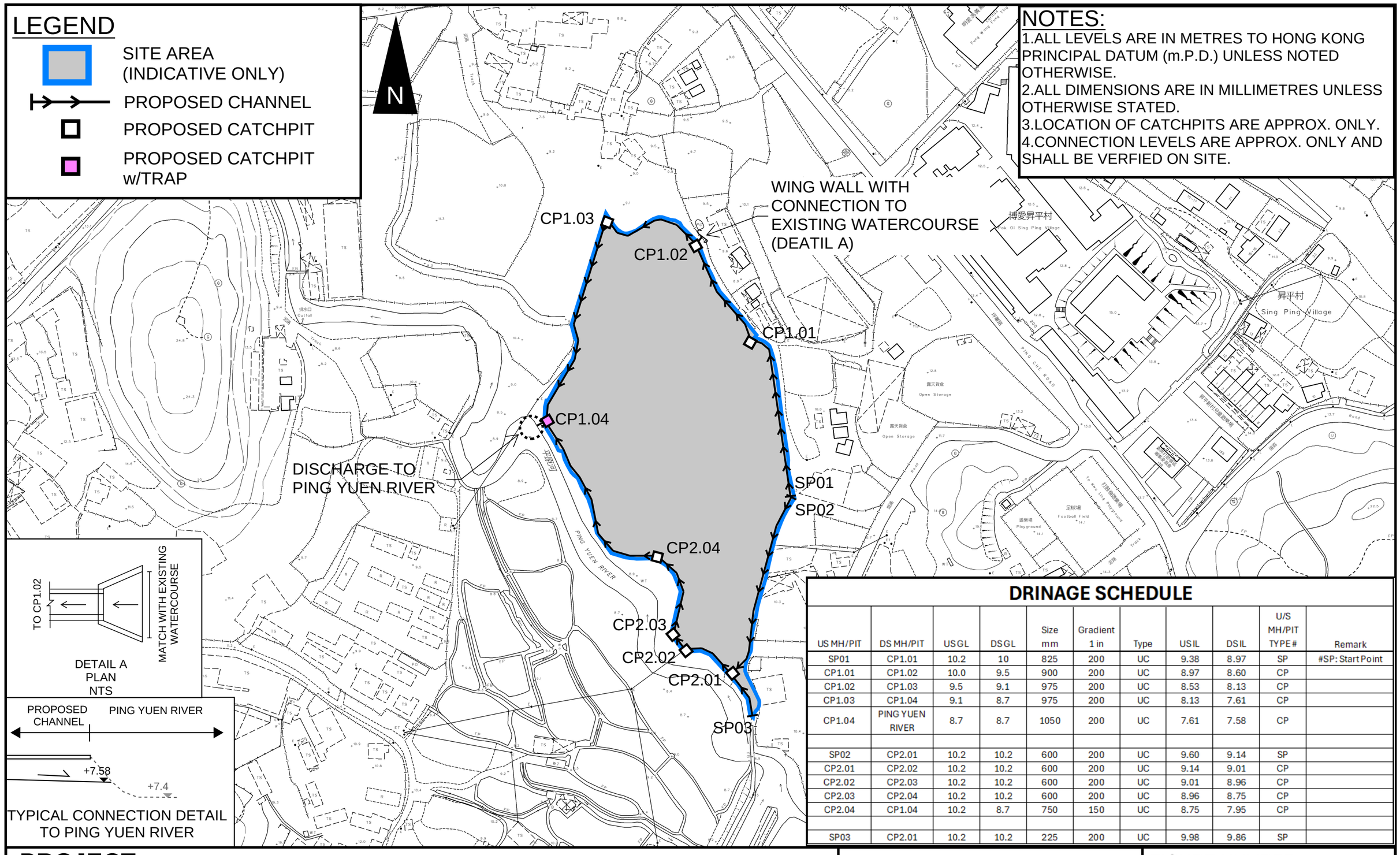
VER	DESCRIPTION	DATE

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.



DETAIL A
PLAN
NTS

TYPICAL CONNECTION DETAIL TO PING YUEN RIVER

DRINAGE SCHEDULE

US MH/PIT	DS MH/PIT	USGL	DSGL	Size mm	Gradient 1 in	Type	USIL	DSIL	U/S MH/PIT TYPE #	Remark
SP01	CP1.01	10.2	10	825	200	UC	9.38	8.97	SP	#SP: Start Point
CP1.01	CP1.02	10.0	9.5	900	200	UC	8.97	8.60	CP	
CP1.02	CP1.03	9.5	9.1	975	200	UC	8.53	8.13	CP	
CP1.03	CP1.04	9.1	8.7	975	200	UC	8.13	7.61	CP	
CP1.04	PING YUEN RIVER	8.7	8.7	1050	200	UC	7.61	7.58	CP	
SP02	CP2.01	10.2	10.2	600	200	UC	9.60	9.14	SP	
CP2.01	CP2.02	10.2	10.2	600	200	UC	9.14	9.01	CP	
CP2.02	CP2.03	10.2	10.2	600	200	UC	9.01	8.96	CP	
CP2.03	CP2.04	10.2	10.2	600	200	UC	8.96	8.75	CP	
CP2.04	CP1.04	10.2	8.7	750	150	UC	8.75	7.95	CP	
SP03	CP2.01	10.2	10.2	225	200	UC	9.98	9.86	SP	

PROJECT:

PROPOSED TEMPORARY MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR/TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS

TITLE
PROPOSED DRAINAGE SYSTEM

FIGURE NUMBER
FIGURE 3

LOCATION:

VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES

VER	DESCRIPTION	DATE

LEGEND:

FALL

DEVELOPMENT WITH
OWN DRAINAGE SYSTEM

B4
70% Paved
4,326 m²

A3 Paved
2,416 m²

B3
70% Paved
6,523 m²

B5
10% Paved
1,001 m²

B2
70% Paved
7,666 m²

A2 Paved
10,839 m²

B1
70 % Paved
3,506 m²

A1 Paved
2,860 m²

A1a Paved
Sub-catchment of A1
140 m²

DEVELOPMENT WITH
OWN DRAINAGE SYSTEM

N

博愛昇平村
Pok Oi Sing Ping Village

昇平村
Sing Ping Village

PING CHE ROAD

PING YUEN RIVER

PROJECT:

PROPOSED TEMPORARY MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR/TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS

TITLE
CATCHMENT PLAN

FIGURE NUMBER
FIGURE 4

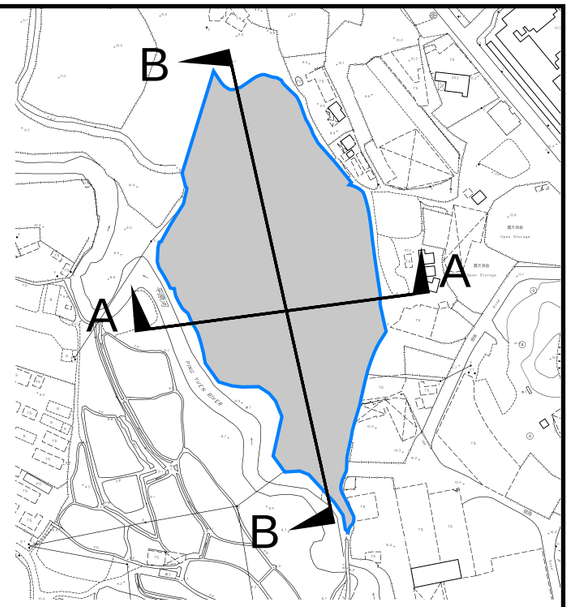
LOCATION:

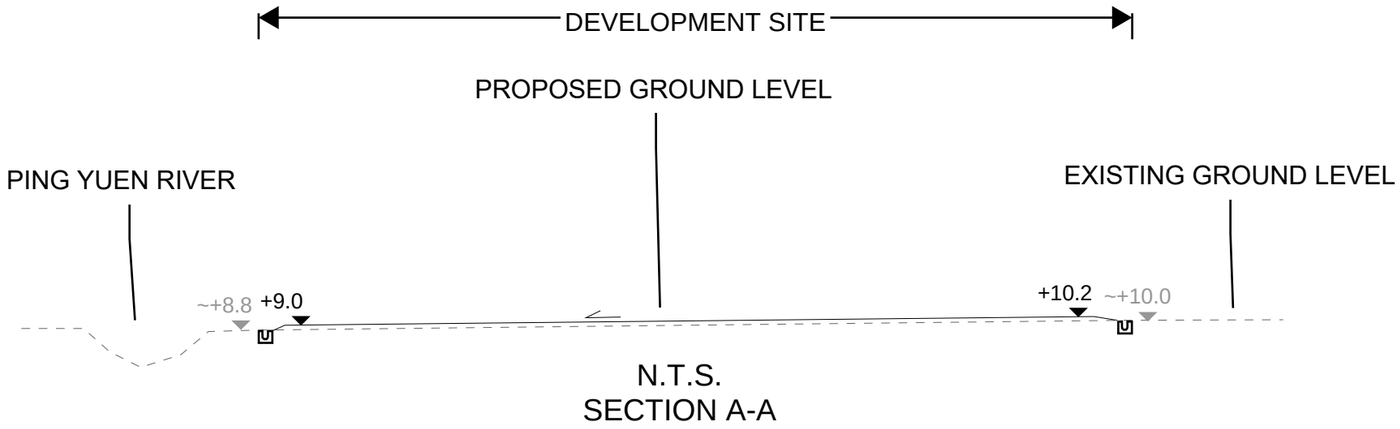
VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES

VER	DESCRIPTION	DATE

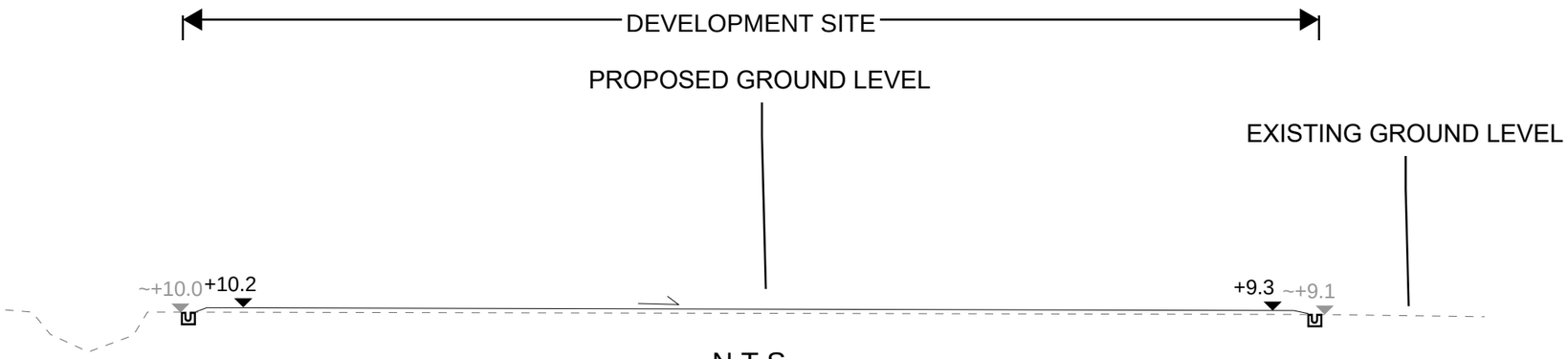
LEGEND

SITE AREA
(INDICATIVE ONLY)





N.T.S.
SECTION A-A



N.T.S.
SECTION B-B

PROJECT:	TITLE	FIGURE NUMBER
PROPOSED TEMPORARY MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR/TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS	SECTIONS	FIGURE 5
LOCATION: VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES		

VER	DESCRIPTION	DATE

APPENDIX

Appendix A: Design Calculation

Zone

North District

Return Period	1 in	10	years

n	0.014
Ks	0.15
Viscosity	0.000001

Storm Constant		
	North District a	454.9
	North District b	3.44
	North District c	0.412

Catchment Area Table (Area in m^2)

Catchment	A1	A1a	A2	A3	B1	B2	B3	B4	B5										
Total Area	2860	140	10839	2416	3506	7666	6523	4326	1001										
Hard Paved Area	2860	140	10839	2416	2454.2	5366.2	4566.1	3028.2	100.1										
Unpaved Area	0	0	0	0	1051.8	2299.8	1956.9	1297.8	900.9										
Equival. Area	2717	133	10297.05	2295.2	2699.62	5902.82	5022.71	3331.02	410.41										

Pavement Type	Hard Paved	Unpaved
Runoff Coefficient	0.95	0.35

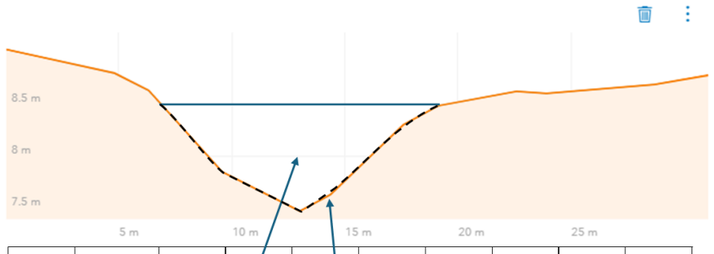
Calculation Table of Drainage System

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	10.20	10.00	825	200	UC	9.38	8.97	SP	81.3	2.19	1.33	A2,B2	16199.87	3.00	235	1.06	79.2%	
CP1.01	CP1.02	10.00	9.50	900	200	UC	8.97	8.60	CP	53.8	2.33	1.68	A2,B2,B3	21222.58	3.62	226	1.33	79.3%	
CP1.02	CP1.03	9.50	9.10	975	200	UC	8.53	8.13	CP	52.2	2.45	2.08	A2,A3,B2,B3,B4	26848.80	4.00	221	1.65	79.2%	
CP1.03	CP1.04	9.10	8.70	975	200	UC	8.13	7.61	CP	103.3	2.45	2.08	A2,A3,B2,B3,B4,B5	27259.21	4.36	217	1.64	78.9%	
CP1.04	PING YUEN RIVER	8.70	8.70	1050	200	UC	7.61	7.58	CP	5.2	2.58	2.54	A1,A2,A3,B1,B2,B3,B4,B5	32675.83	5.25	207	1.88	74.3%	
SP02	CP2.01	10.20	10.20	600	200	UC	9.60	9.14	SP	91.3	1.78	0.57	A1,B1	5416.62	3.00	235	0.35	61.9%	
CP2.01	CP2.02	10.20	10.20	600	200	UC	9.14	9.01	CP	27.4	1.78	0.57	A1,B1	5416.62	3.86	223	0.34	58.8%	
CP2.02	CP2.03	10.20	10.20	600	200	UC	9.01	8.96	CP	8.9	1.78	0.57	A1,B1	5416.62	4.11	220	0.33	58.0%	
CP2.03	CP2.04	10.20	10.20	600	200	UC	8.96	8.75	CP	42.8	1.78	0.57	A1,B1	5416.62	4.20	219	0.33	57.7%	
CP2.04	CP1.04	10.20	8.70	750	150	UC	8.75	7.95	CP	92.1	2.38	1.19	A1,A2,B1	15713.67	4.60	214	0.94	78.3%	
SP03	CP2.01	10.20	10.20	225	200	UC	9.98	9.86	SP	22.5	0.92	0.04	A1a	133.00	3.00	235	0.01	20.8%	
Flow from Development													A1,A2,A3	15309.25	5.25	207	0.88		

#SP: Start Point

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

Capacity Checking of Ping Yuen River against Flow from Development



Assumed Water Depth	Base Width	Width of Water Surface	Flow Area	Wetted Perimeter	Hydralic Radius	Manning's Roughness	Gradient	Velocity	Capacity
m	m	m	m2	m	m		1 in	m/s	m3/s
1.00	-	12.80	6.76	12.96	0.52	0.035	200	1.31	8.85

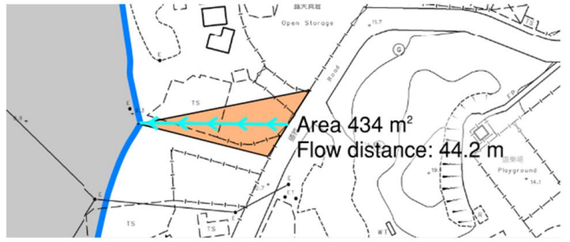
Total Flow from Site = 0.85 m^3/s

Utilization Rate = 9.6%

Total flow from Development Site only occupy 9.6% of nearby Ping Yuen River.

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)
434	44.2	11.2	10.2	2.262	3.0	3.0

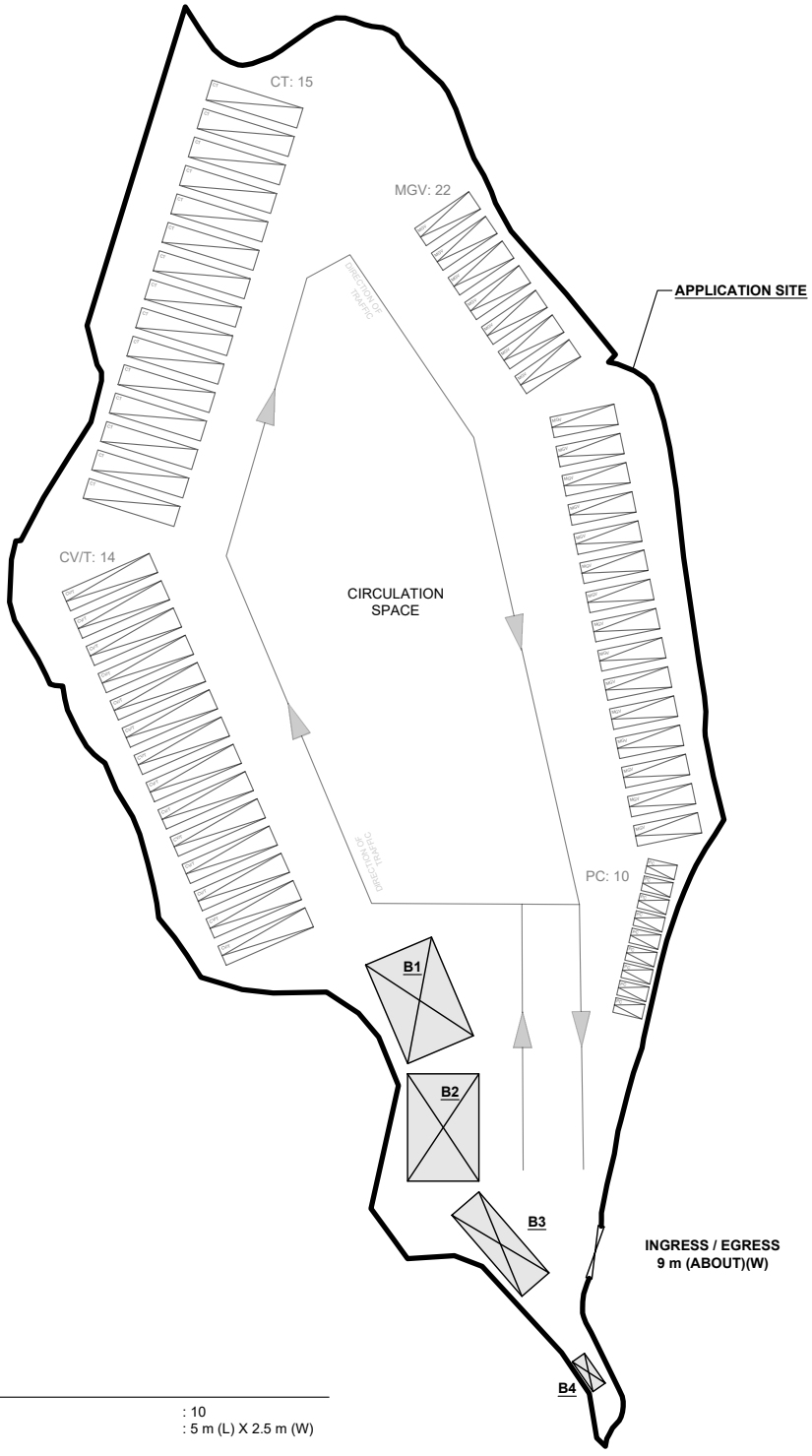


APPENDIX B - PROPOSED SITE LAYOUT PLAN

DEVELOPMENT PARAMETERS

APPLICATION SITE AREA	: 16,115 m^2	(ABOUT)
COVERED AREA	: 555 m^2	(ABOUT)
UNCOVERED AREA	: 15,560 m^2	(ABOUT)
PLOT RATIO	: 0.03	(ABOUT)
SITE COVERAGE	: 3 %	(ABOUT)
NO. OF STRUCTURE	: 4	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 555 m^2	(ABOUT)
TOTAL GFA	: 555 m^2	(ABOUT)
BUILDING HEIGHT	: 2.8 m - 4 m	(ABOUT)
NO. OF STOREY	: 1	

STRUCTURE	USE	COVERED AREA	GROSS FLOOR AREA	BUILDING HEIGHT
B1	SITE OFFICE AND WASHROOM	216 m^2 (ABOUT)	216 m^2 (ABOUT)	4 m (ABOUT)(1-STOREY)
B2	STAFF REST ROOM, WASHROOM AND GUARDROOM	216 m^2 (ABOUT)	216 m^2 (ABOUT)	4 m (ABOUT)(1-STOREY)
B3	SITE OFFICE AND WASHROOM	108 m^2 (ABOUT)	108 m^2 (ABOUT)	4 m (ABOUT)(1-STOREY)
B4	METER ROOM	15 m^2 (ABOUT)	15 m^2 (ABOUT)	2.8 m (ABOUT)(1-STOREY)
	TOTAL	**555 m^2 (ABOUT)**	**555 m^2 (ABOUT)**	



PARKING PROVISIONS

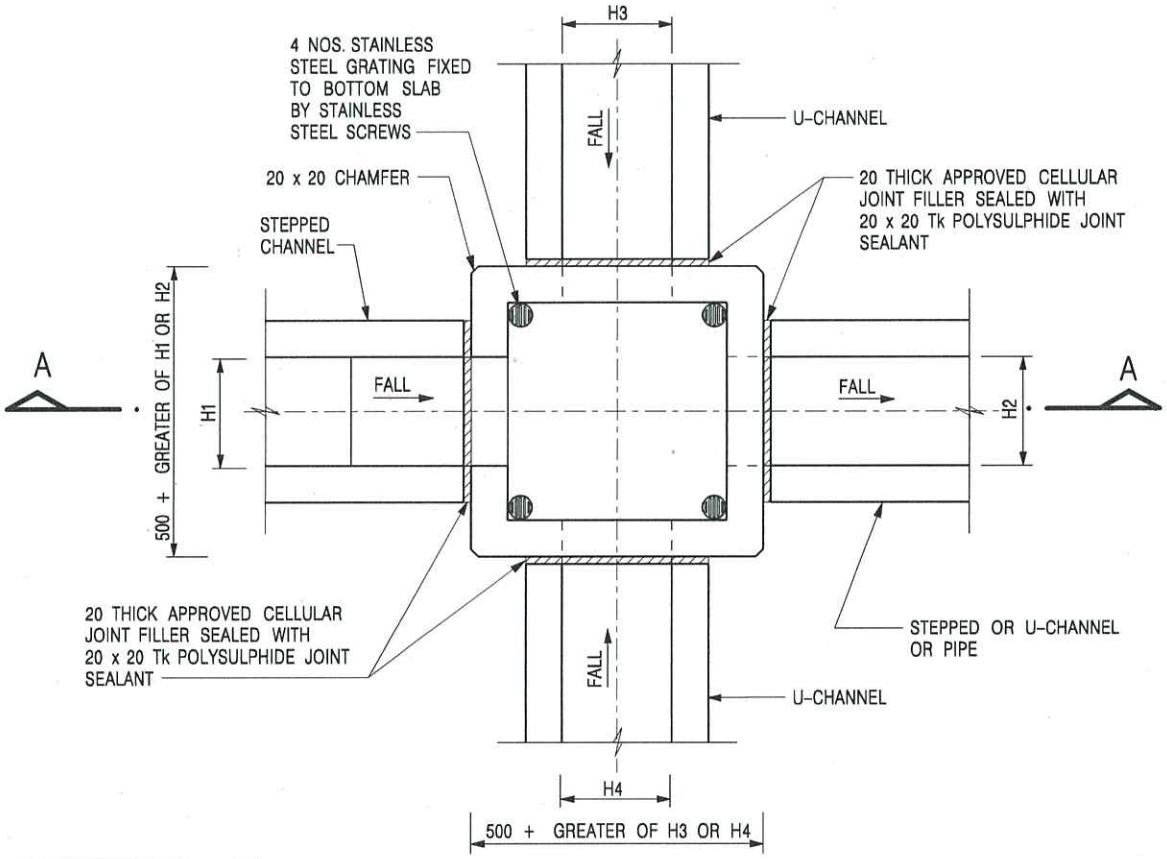
NO. OF PRIVATE CAR PARKING SPACE	: 10
DIMENSION OF PARKING SPACE	: 5 m (L) X 2.5 m (W)
NO. OF MEDIUM GOODS VEHICLE (MGV) PARKING SPACE	: 22
DIMENSION OF PARKING SPACE	: 11 m (L) X 2.5 m (W)
NO. OF CONTAINER VEHICLE / TRACTOR (CV/T) PARKING SPACE	: 14
DIMENSION OF PARKING SPACE	: 16 m (L) X 2.5 m (W)
NO. OF CONTAINER TRAILER (CT) PARKING SPACE	: 15
DIMENSION OF PARKING SPACE	: 16 m (L) X 2.5 m (W)

LEGEND

- APPLICATION SITE
- STRUCTURE
- PARKING SPACE (PC)
- PARKING SPACE (MGV)
- PARKING SPACE (CV/T)
- PARKING SPACE (CT)
- INGRESS / EGRESS

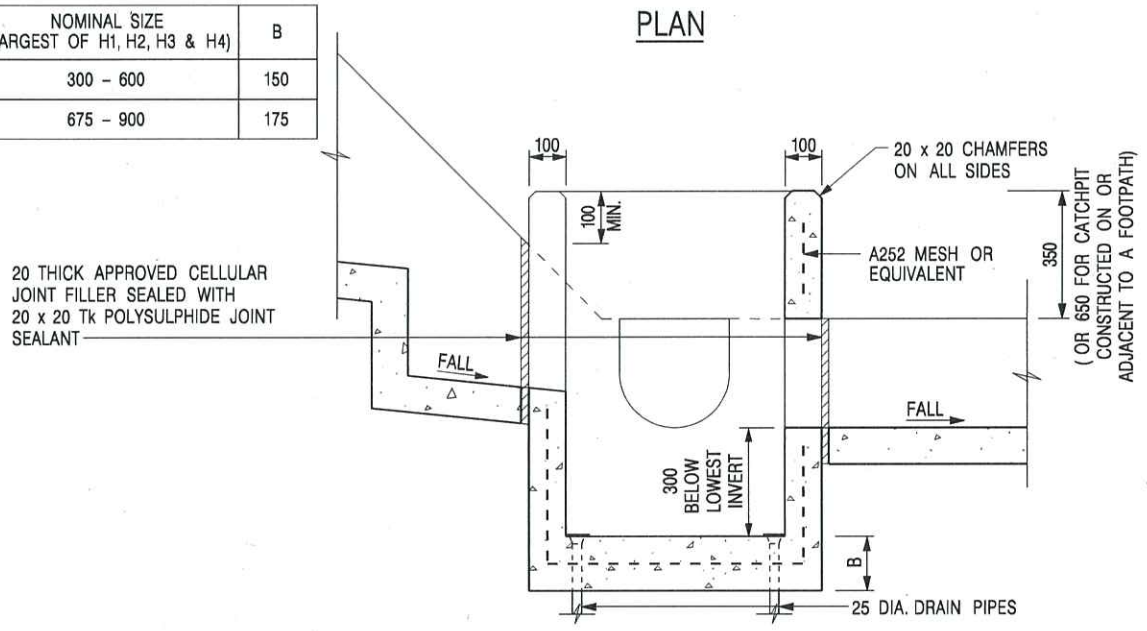
PLANNING CONSULTANT: R-RICHES PLANNING LIMITED	PROJECT: PROPOSED TEMPORARY MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR/TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS	ADDRESS: VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES	SCALE: 1 : 1250 @ A4	TITLE: LAYOUT PLAN
			DRAWN BY: MN / DATE: 20.8.2025	NORTH
			REVISED BY / DATE	DWG NO.: PLAN 5 / VER.: 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)

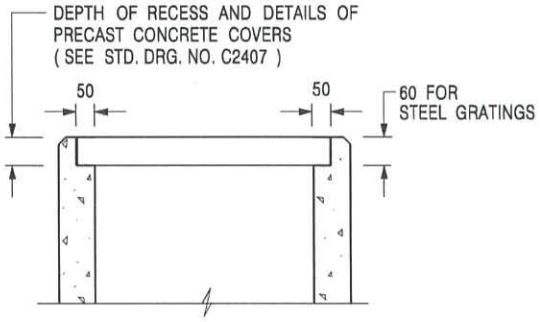
CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

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

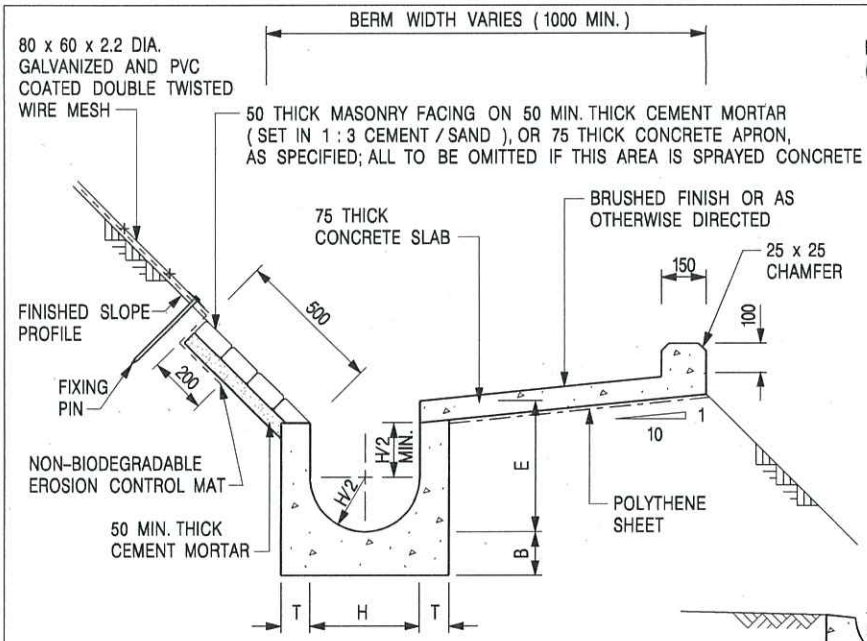
CATCHPIT WITH TRAP (SHEET 2 OF 2)

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

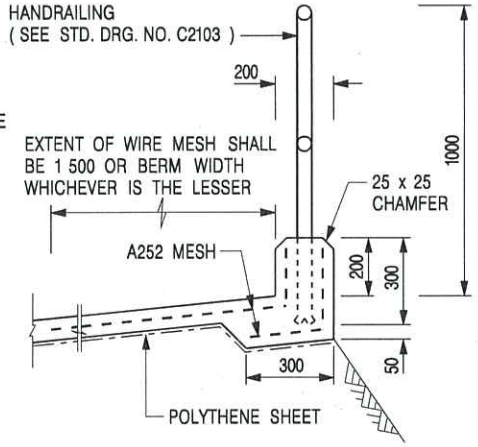
SCALE 1 : 20

DATE JAN 1991

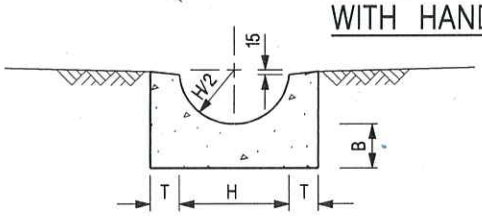
DRAWING NO. C2406 /2A



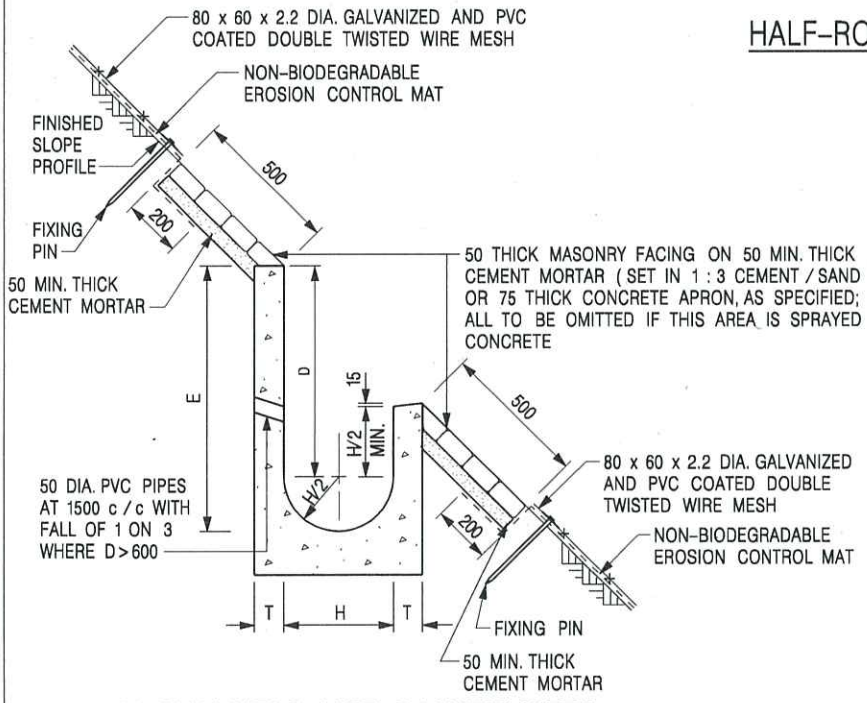
U-CHANNELS CONSTRUCTED ON BERM



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**

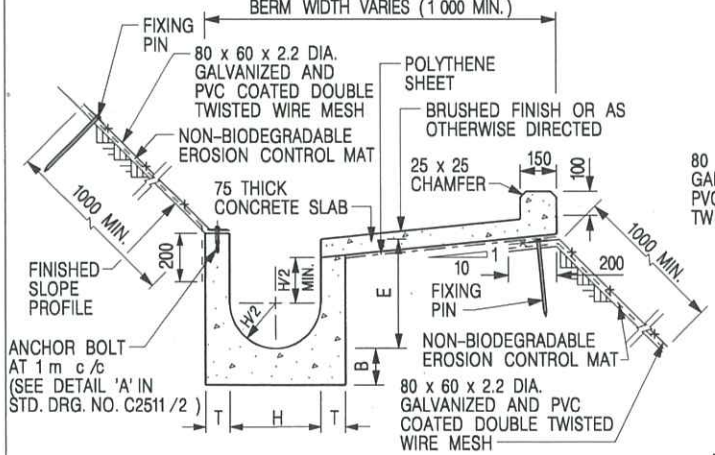
SCALE 1 : 25

DATE JAN 1991

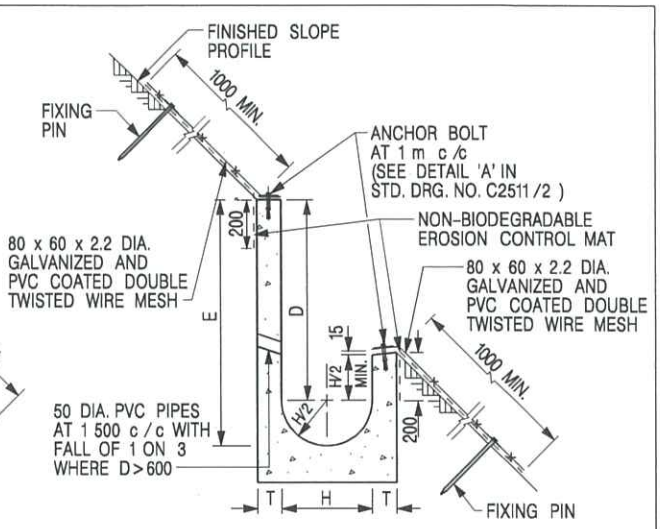
DRAWING NO. C2409I

卓越工程 建設香港

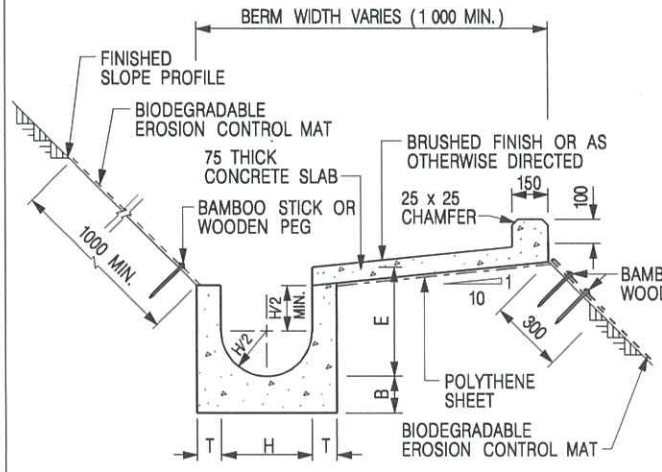
We Engineer Hong Kong's Development



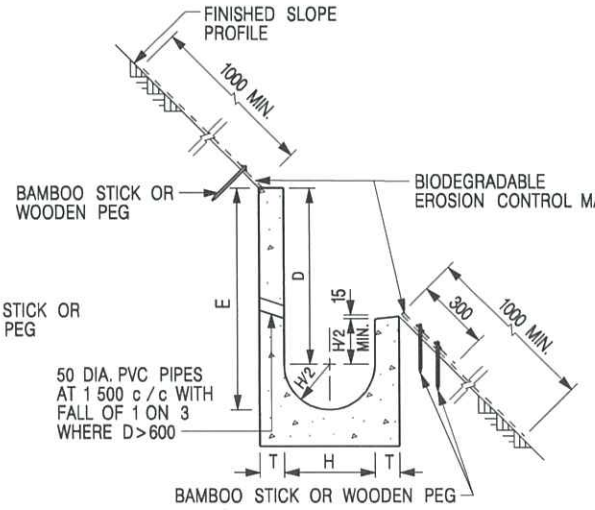
U-CHANNELS CONSTRUCTED ON BERM WITH NON-BIODEGRADABLE EROSION CONTROL MAT



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)

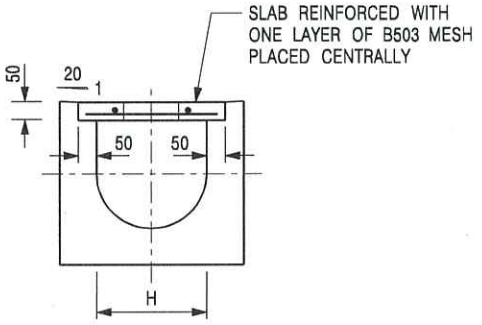
CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE DIAGRAMMATIC

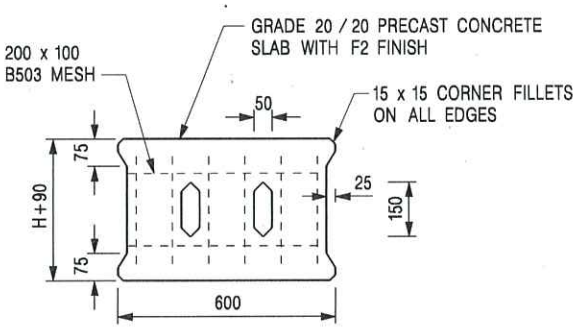
DATE JAN 1991

DRAWING NO. C2410I

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



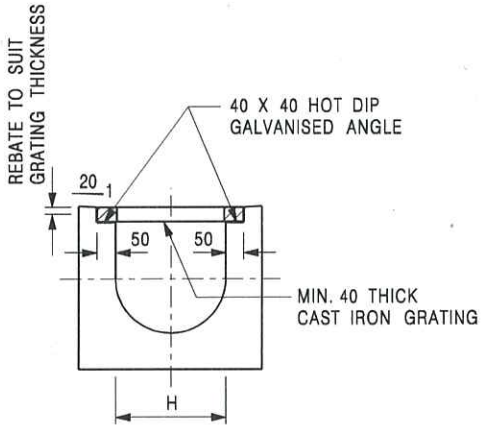
TYPICAL SECTION



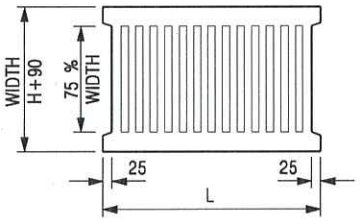
PLAN OF SLAB

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:

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

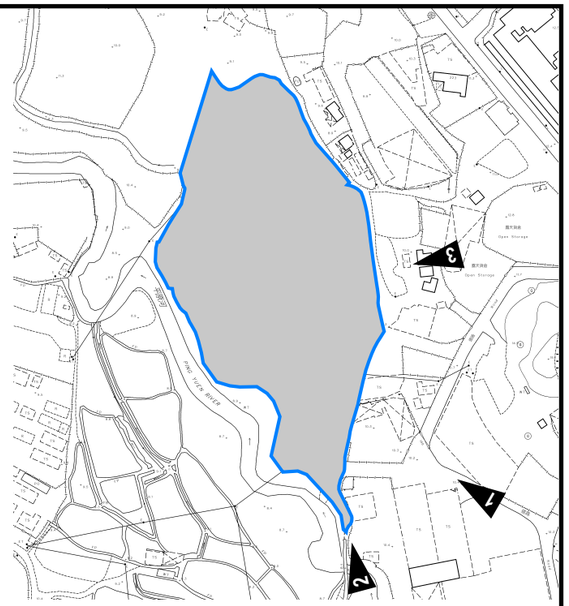
COVER SLAB AND CAST IRON GRATING FOR CHANNELS

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2412E



PROJECT:
PROPOSED TEMPORARY MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR/TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS

SITE PHOTOS

APPENDIX D

LOCATION:
VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES

VER	DESCRIPTION	DATE

DEVELOPMENT PARAMETERS

APPLICATION SITE AREA	: 16,115 m^2	(ABOUT)
COVERED AREA	: 555 m^2	(ABOUT)
UNCOVERED AREA	: 15,560 m^2	(ABOUT)
PLOT RATIO	: 0.03	(ABOUT)
SITE COVERAGE	: 3 %	(ABOUT)
NO. OF STRUCTURE	: 4	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 555 m^2	(ABOUT)
TOTAL GFA	: 555 m^2	(ABOUT)
BUILDING HEIGHT	: 2.8 m - 4 m	(ABOUT)
NO. OF STOREY	: 1	

FIRE SERVICE INSTALLATIONS

STAND-ALONE FIRE DETECTOR

4 KG DRY POWDER TYPE FIRE EXTINGUISHER

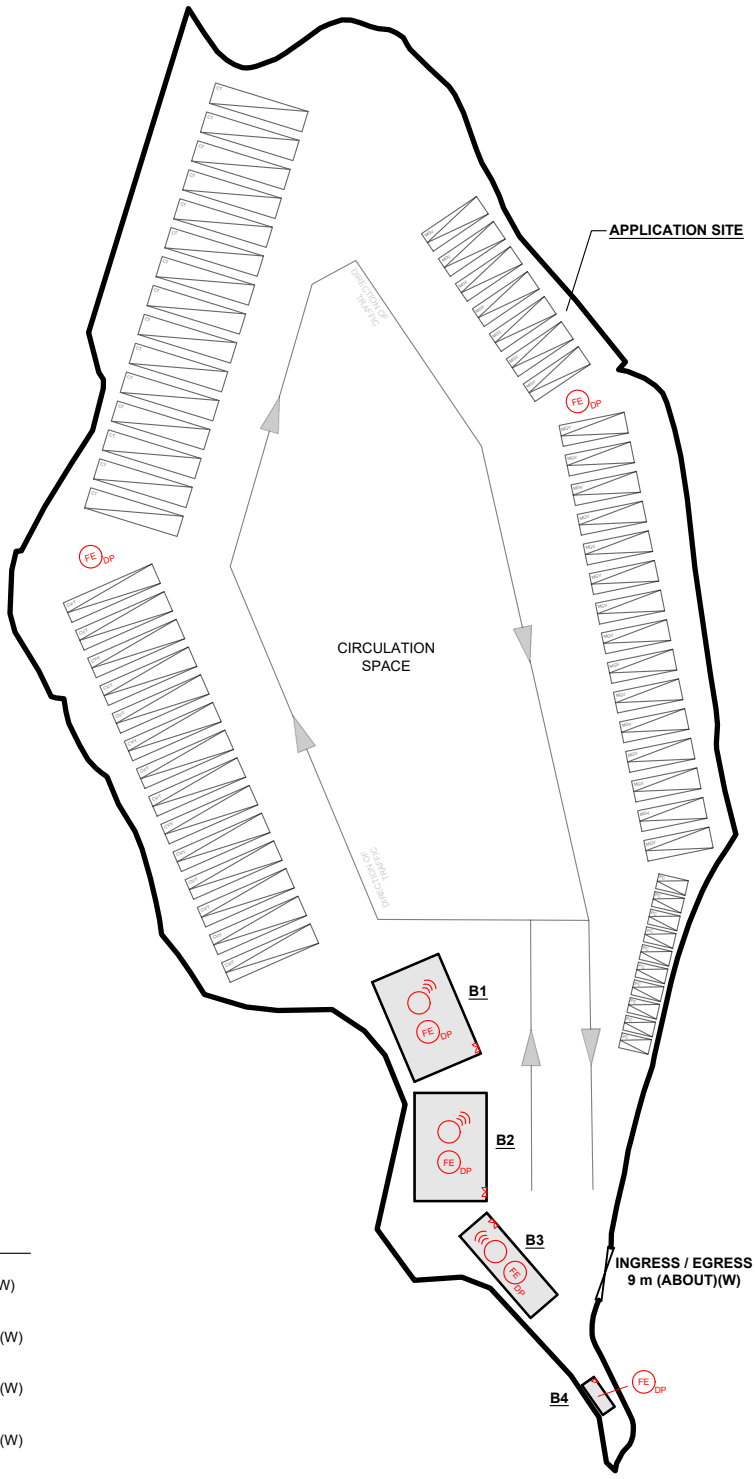
FS NOTES:

1) SUFFICIENT STAND-ALONE FIRE DETECTOR SHALL BE PROVIDED THROUGHOUT THE ENTIRE BUILDING IN ACCORDANCE WITH "STAND-ALONE FIRE DETECTOR GENERAL GUIDELINES ON PURCHASE, INSTALLATION & MAINTENANCE [SEP 2021]".

2) IN RELATION TO 1) ABOVE, WHERE TWO OR MORE STAND-ALONE FIRE DETECTORS ARE INSTALLED IN AN ENCLOSED STRUCTURE, ALL STAND-ALONE DETECTORS SHALL BE INTERCONNECTED (EITHER WIRED OR WIRELESSLY) SUCH THAT WHEN ONE OF THE STAND-ALONE FIRE DETECTOR IS TRIGGERED, ALL CONNECTED STAND-ALONE FIRE DETECTORS SHALL SOUND AN ALARM SIMULTANEOUSLY.

3) PORTABLE HAND-OPERATED APPROVED APPLIANCE SHALL BE PROVIDED AS REQUIRED BY OCCUPANCY.

4) ACCESS IS PROVIDED FOR EMERGENCY VEHICLE TO REACH 30m OF ALL PART OF STRUCTURES.



PARKING PROVISIONS

NO. OF PRIVATE CAR PARKING SPACE	: 10
DIMENSION OF PARKING SPACE	: 5 m (L) X 2.5 m (W)
NO. OF MEDIUM GOODS VEHICLE (MGV) PARKING SPACE	: 22
DIMENSION OF PARKING SPACE	: 11 m (L) X 2.5 m (W)
NO. OF CONTAINER VEHICLE / TRACTOR (CV/T) PARKING SPACE	: 14
DIMENSION OF PARKING SPACE	: 16 m (L) X 2.5 m (W)
NO. OF CONTAINER TRAILER (CT) PARKING SPACE	: 15
DIMENSION OF PARKING SPACE	: 16 m (L) X 2.5 m (W)

STRUCTURE	USE	COVERED AREA	GROSS FLOOR AREA	BUILDING HEIGHT
B1	SITE OFFICE AND WASHROOM	216 m^2 (ABOUT)	216 m^2 (ABOUT)	4 m (ABOUT)(1-STOREY)
B2	STAFF REST ROOM, WASHROOM AND GUARDROOM	216 m^2 (ABOUT)	216 m^2 (ABOUT)	4 m (ABOUT)(1-STOREY)
B3	SITE OFFICE AND WASHROOM	108 m^2 (ABOUT)	108 m^2 (ABOUT)	4 m (ABOUT)(1-STOREY)
B4	METER ROOM	15 m^2 (ABOUT)	15 m^2 (ABOUT)	2.8 m (ABOUT)(1-STOREY)
	TOTAL	**555 m^2 (ABOUT)**	**555 m^2 (ABOUT)**	

LEGEND

- APPLICATION SITE
- STRUCTURE
- PARKING SPACE (PC)
- PARKING SPACE (MGV)
- PARKING SPACE (CV/T)
- PARKING SPACE (CT)
- INGRESS / EGRESS

**SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY.*

PLANNING CONSULTANT: R-RICHES PLANNING LIMITED	PROJECT: PROPOSED TEMPORARY MEDIUM GOODS VEHICLES AND CONTAINER TRACTOR/TRAILER PARK WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS	ADDRESS: VARIOUS LOTS IN D.D. 84 AND ADJOINING GOVERNMENT LAND, TA KWU LING, NEW TERRITORIES	SCALE: 1 : 1250 @ A4 DRAWN BY: MN DATE: 20.8.2025 REVISED BY: DATE:	TITLE: FSIs PROPOSAL DWG NO.: APP II VER.: 001

NORTH / W / E / S