☐Urgent ☐Return receipt ☐Expand Group ☐Restricted ☐Prevent Copy ☐Confidential

Charlotte Tsz Wing WUN/PLAND

寄件者: cheung fennie <[redacted]>
寄件日期: 2025年01月13日星期一 16:32
收件者: Charlotte Tsz Wing WUN/PLAND
主旨: 回覆: [A/NE-TK/800] - Comments from the Draiange Services Department
附件: stormwater proposal 2nd submission to TPB (A_NE-TK_800).pdf

類別: Internet Email

Dear Miss Wun,

現附上第二次渠務報告，請看附見，謝謝!

Best regards,
Fennie Cheung

寄件者: John Michael AUSTIN/PLAND <jmaustin@pland.gov.hk>
寄件日期: 2024年12月23日 16:34
收件者: cheung fennie[redacted]
副本: Charlotte Tsz Wing WUN/PLAND <ctwwun@pland.gov.hk>; Ching Hoi Ching NG/PLAND <chcng@pland.gov.hk>
主旨: Re: [A/NE-TK/800] - Comments from the Draiange Services Department

張小姐:

如電話所述，本署已收到你就規劃申請No. A/NE-TK/800提交的延期申請。如日後有任何有關題述規劃申請的疑問, 請與助理城市規劃師溫小姐 (電郵: ctwwun@pland.gov.hk ;電話: 2158 6018) 聯絡，謝謝。

祝好
沙田，大埔及北區規劃處
見習城市規劃師/大埔(2)
何曉暉

From: cheung fennie <[redacted]>
Sent: Thursday, December 19, 2024 3:52 PM
To: John Michael AUSTIN/PLAND <jmaustin@pland.gov.hk>
Subject: Re: [A/NE-TK/800] - Comments from the Draiange Services Department

Dear Mr.Ho

☐Urgent ☐Return receipt ☐Expand Group ☐Restricted ☐Prevent Copy ☐Confidential

我現申請延期兩個月，原因是為了回應渠務署的建議，謝謝

Best regards
Fennie Cheung

John Michael AUSTIN/PLAND <jmaustin@pland.gov.hk>於2024年12月5日 下午2:51寫道：

Dear Ms Cheung ,

please find the below comments from the Drainage Services Department for your follow up action please:
Comments from the CE/MN, DSD (Contact Person: Karen HO, Tel: 2300 1364)

<image001.jpg>

If you intend to make response to the comments or provide further information to supplement your application, please make reference to the Town Planning Board Guidelines (TPB PG-No. 32) which is available for public viewing at the website of the TPB (http://www.info.gov.hk/tpb/en/forms/Guidelines/TPB_PG_32.pdf).

- Should you have any questions related to the comments from DSD, please contact the relevant department, please feel free to contact the undersigned for other enquires.

Best regards,
John AUSTIN
Sha Tin, Tai Po & North District Planning Office
Planning Department
TPG/TP2
2158 6037

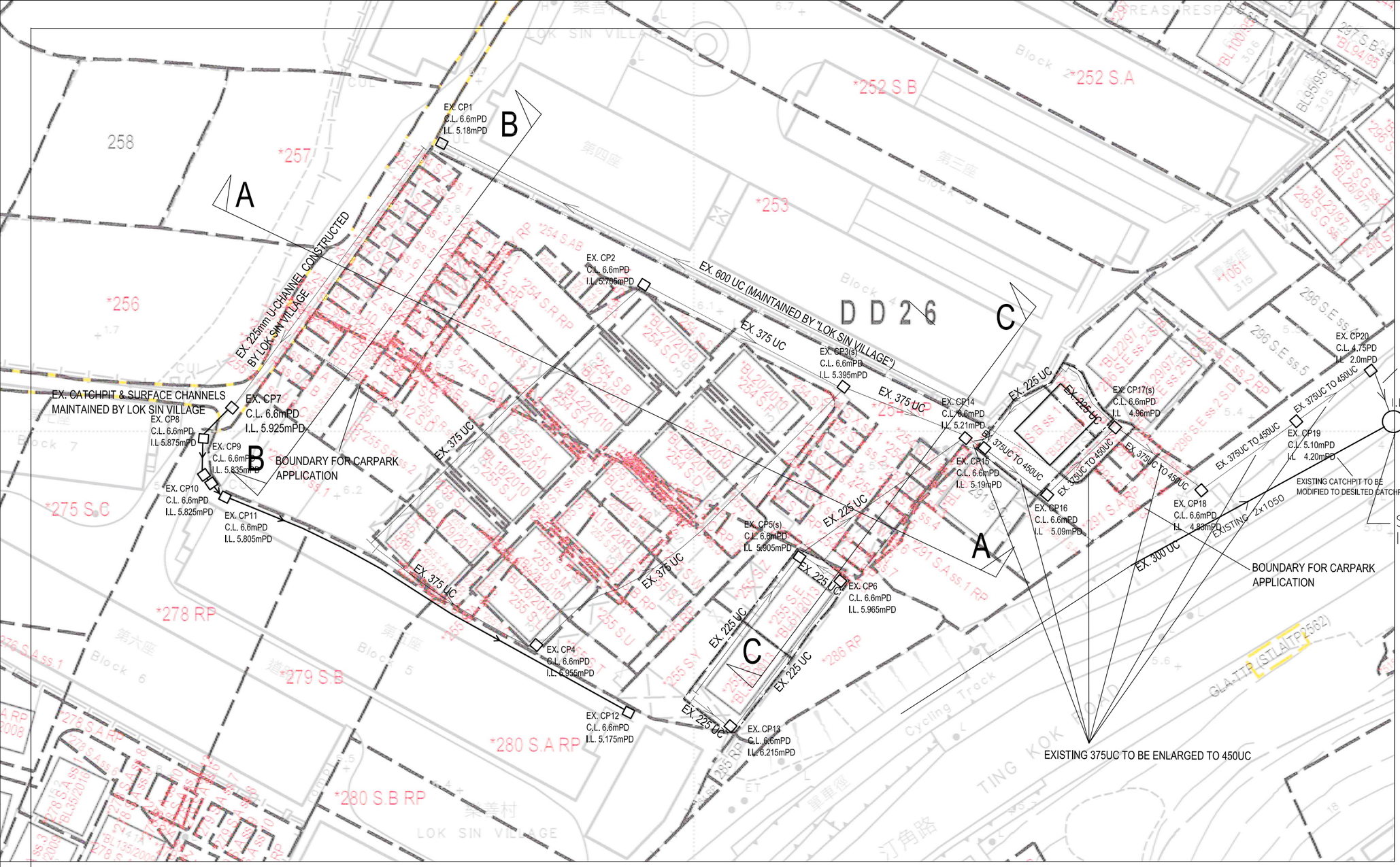
From: cheung fennie[redacted]
Sent: Wednesday, November 13, 2024 3:18 PM
To: John Michael AUSTIN/PLAND <jmaustin@pland.gov.hk>
Subject: Re: 回覆: [A/NE-TK/800] - Comments from the Draiange Services Department

Dear Mr. Ho

現在申請範圍大約是1512平方米，填土共845平方米。

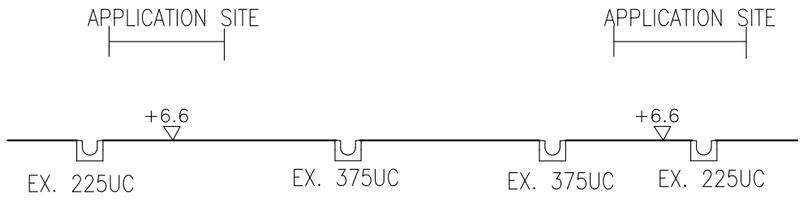
謝謝 ！

Best regards,
Fennié Cheung

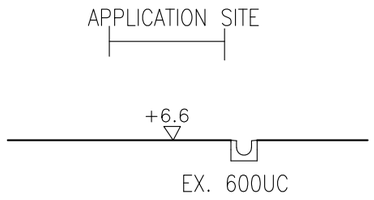


LEGEND:

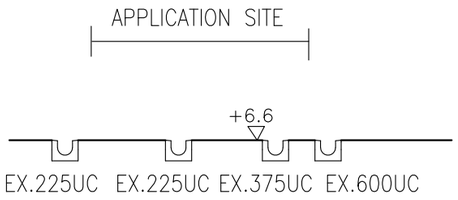
- EX. 225UC — EXISTING 225mm U-CHANNEL
- EX. 375UC — EXISTING 375mm U-CHANNEL
- EX. CP — EXISTING CATCHPIT
- EX. CP3(s) — EXISTING DESILTED CATCHPIT



SECTION A–A
(NO FILLING AND EXCAVATION WORKS IS PROPOSED)



SECTION B–B
(NO FILLING AND EXCAVATION WORKS IS PROPOSED)



SECTION C–C
(NO FILLING AND EXCAVATION WORKS IS PROPOSED)

REV	DESCRIPTION	CHECKED	APPROVED	DWN	DATE
A	DSD's COMMENT	RC	AY	RY	DEC 24
	DLO SUBMIT	RC	AY	RY	NOV 24

ENGINEERING CONSULTANT

RATIO ARCHITECTURE & CONSTRUCTION COMPANY
2/F, NO.73 KWONG FUK ROAD, TAI PO, N.T.

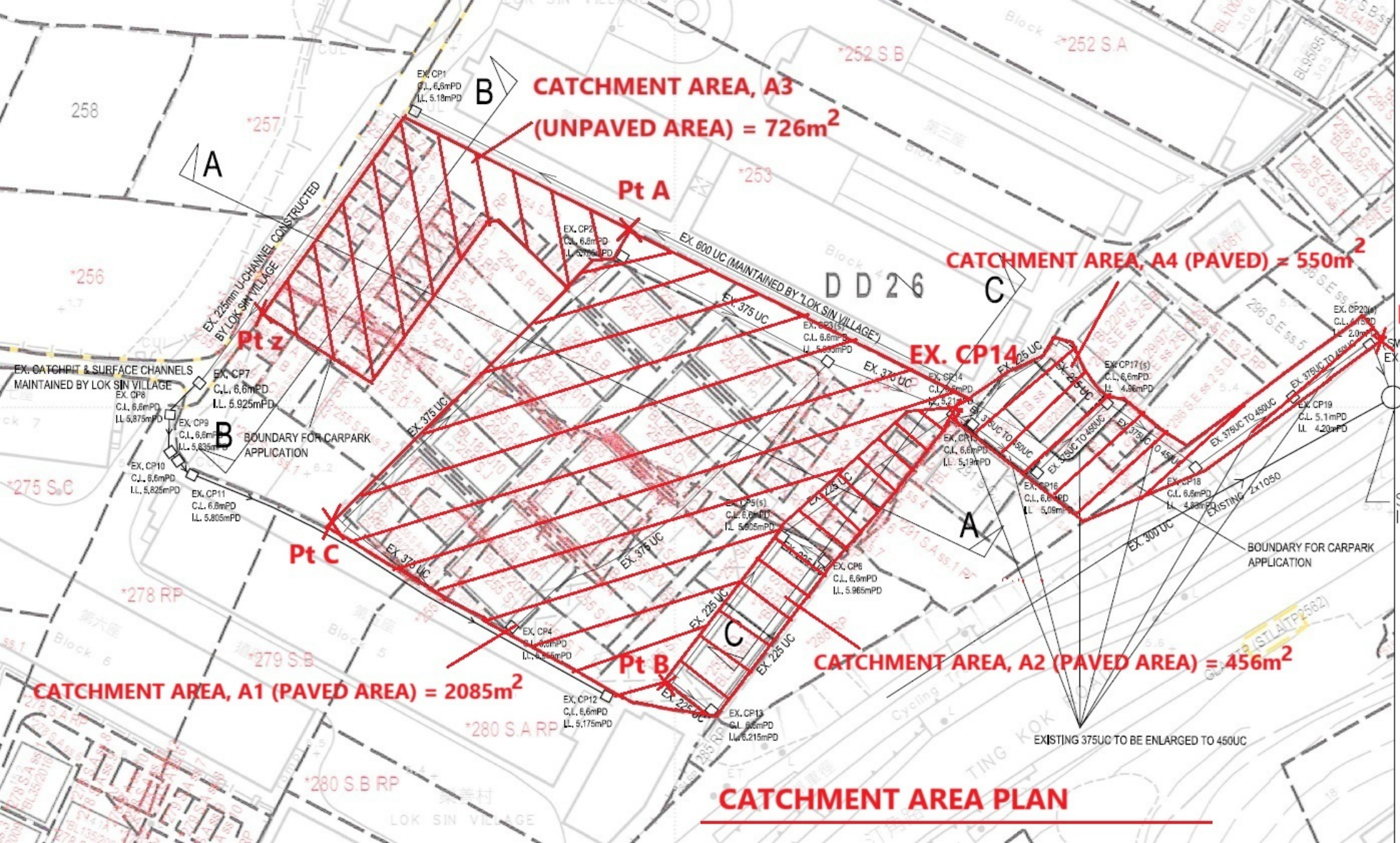
PROJECT TITLE:

STORMWATER DRAINAGE PROPOSAL FOR TEMPORARY PRIVATE VEHICLE PARK (PRIVATE CARS AND LIGHT GOODS VEHICLES ONLY) FOR A PERIOD OF 3 YEARS AT VARIOUS LOT IN D.D. 26 AT SHUEN WAN CHIM UK, TAI PO

DRAWING TITLE:

DRAINAGE PROPOSAL PLAN
AND TYPICAL DETAILS

SCALE :	N.T.S.		CAD FILE: CAD_REF
DRAWN	RY		DRAWING NO.
S.D	RY		SDP001A
DESIGNED	RC		
CHECKED	AY		
			B.D. REF. NO.:



CATCHMENT AREA PLAN

Drainage Design Page no.

Project No.: Drainage Design at Chim Uk,Tai Po Date: 14-Dec-24
Prepared by: Ray Cheng

Check for the drainage capactiy of existing 375UC

Catchment area, A1 = 2085 m^2 Assume k = 0.95 for paved surface

Total Catchment Area, A = A1 x 0.95 = **1980.75** m^2

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, Ex. CP14 (Ld) = 102.00 m
Shortest distance from summit point to outlet, Ex. CP14 (Ls) = 84.00 m

Elevation of remote point (Pt C) = 6.60 mPD
Elevation of outlet point, Ex. CP14 = 4.80 mPD

Average fall, H = $(z_1-z_2)/L_s$ x 100
= 2.14 m per 100m

From TGN30

T_c = 0.14465 x L_d / ($H^{0.2}$ x $A^{0.1}$)
= 5.93 min

Assume a 1 in 50 year design rainfall return period for rural area
From Geo-Manual (Fig 8.2)

i = 310 mm/hr
Q = kiA/60 x 1.16
11871 lit/min

From TGN 43A1
For existing 375 UC with 1 in 100 gradient

Maximum capacity	=	13500	lit/min	>	11871	o.k.
The corresponding velocity	=	2.00	m/s	<	4	o.k.

Drainage Design Page no.

Project No.: Drainage Design at Chim Uk,Tai Po Date: 14-Dec-24
Prepared by: Ray Cheng

Check for the drainage capactiy of existing 375UC

Catchment area, A1 = 2085 m^2 Assume k = 0.95 for paved surface

Total Catchment Area, A = A1 x 0.95 = **1980.75** m^2

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, Ex. CP14 (Ld) = 102.00 m
Shortest distance from summit point to outlet, Ex. CP14 (Ls) = 84.00 m

Elevation of remote point (Pt C) = 6.60 mPD
Elevation of outlet point, Ex. CP14 = 4.80 mPD

Average fall, H = $(z_1-z_2)/L_s$ x 100
= 2.14 m per 100m

From TGN30

T_c = 0.14465 x L_d / ($H^{0.2}$ x $A^{0.1}$)
= 5.93 min

Assume a 1 in 50 year design rainfall return period for rural area
From Geo-Manual (Fig 8.2)

i = 310 mm/hr
Q = kiA/60 x 1.16
11871 lit/min

From TGN 43A1
For existing 375 UC with 1 in 100 gradient

Maximum capacity	=	13500	lit/min	>	11871	o.k.
The corresponding velocity	=	2.00	m/s	<	4	o.k.

Project No.: Drainage Design at Chim Uk, Tai Po Date: 14-Dec-24
Prepared by: Ray Cheng

Check for the drainage capactiy of existing 225UC

Catchment area,	A2	=	456	m^2	Assume k = 0.95 for paved surface
Total Catchment, A=	A2 x 0.95	=	433.2	m^3	

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, Pt Y	(Ld) =	70.00	m
Shortest distance from summit point to outlet, Pt Y	(Ls) =	53.00	m

Elevation of remote point (Pt B)	=	6.60	mPD
Elevation of outlet point, Pt Y	=	4.35	mPD
Average fall, H	=	$(z_1-z_2)/L_s$ x 100	
	=	4.25	m per 100m

From TGN30

T_c = $0.14465 \times L_d / (H^{0.2} \times A^{0.1})$
= 4.13 min

Assume a 1 in 50 year design rainfall return period for rural area
From Geo-Manual (Fig 8.2)

i	=	340	mm/hr
Q	=	kiA/60	x 1.16
		2848	lit/min

From TGN 43A1
For existing 225 UC with 1 in 100 gradient

Maximum capacity	=	3510	lit/min	>	2848	o.k.
The corresponding velocity	=	1.40	m/s	<	4	o.k.

Drainage Design Page no.

Project No.: Drainage Design at Chim Uk, Tai Po Date: 14-Dec-24
Prepared by: Ray Cheng

Check for the drainage capactiy of existing 225UC

Catchment area,	A3	=	726	m^2	Assume k = 0.3 for unpaved surface
		=	726 x 0.3	m^2	
		=	217.8	m^2	

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, Pt Z	(Ld) =	69.00	m
Shortest distance from summit point to outlet, Pt Z	(Ls) =	55.00	m

Elevation of remote point (Pt A)	=	6.60	mPD
Elevation of outlet point, Pt Z	=	5.92	mPD
Average fall, H	=	$(z_1-z_2)/L_s$ x 100	
	=	1.24	m per 100m

From TGN30

T_c = $0.14465 \times L_d / (H^{0.2} \times A^{0.1})$
= 5.58 min

Assume a 1 in 50 year design rainfall return period for rural area
From Geo-Manual (Fig 8.2)

i	=	315	mm/hr
Q	=	kiA/60	x 1.16
		1326	lit/min

From TGN 43A1
For existing 225 UC with 1 in 100 gradient

Maximum capacity	=	3510	lit/min	>	1326	o.k.
The corresponding velocity	=	1.40	m/s	<	4	o.k.

Drainage Design Page no.

Project No.: Drainage Design at Chim Uk,Tai Po Date: 16-Dec-24
Prepared by: Ray Cheng

Check for the drainage capactiy of proposed 450UC

Catchment area,	A1	=	2085	m^2	Assume k = 0.95 for paved surface
	A2	=	456	m^2	
	A4	=	550	m^2	
Total Catchment Area, A = (A1+A2+A4) x 0.95 =			**2936.45**	m^2	

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, Pt W (Ld) = 161.00 m
Shortest distance from summit point to outlet, Pt W (Ls) = 140.00 m

Elevation of remote point (Pt C) = 6.60 mPD
Elevation of outlet point, Pt W = 4.20 mPD

Average fall, H = $(z_1-z_2)/L_s$ x 100
= 1.71 m per 100m

From TGN30

T_c = 0.14465 x L_d / ($H^{0.2}$ x $A^{0.1}$)
= 9.41 min

Assume a 1 in 50 year design rainfall return period for rural area
From Geo-Manual (Fig 8.2)

i = 270 mm/hr
Q = kiA/60 x 1.16
15038 lit/min

From TGN 43A1
For proposed 450 UC with 1 in 100 gradient

Maximum capacity	=	22500	lit/min	>	15038	o.k.
The corresponding velocity	=	2.00	m/s	<	4	o.k.

The capacity of the existing 375mm dia. Underground pipe = 28,728 lit/min > 15038liy/miin O.K.

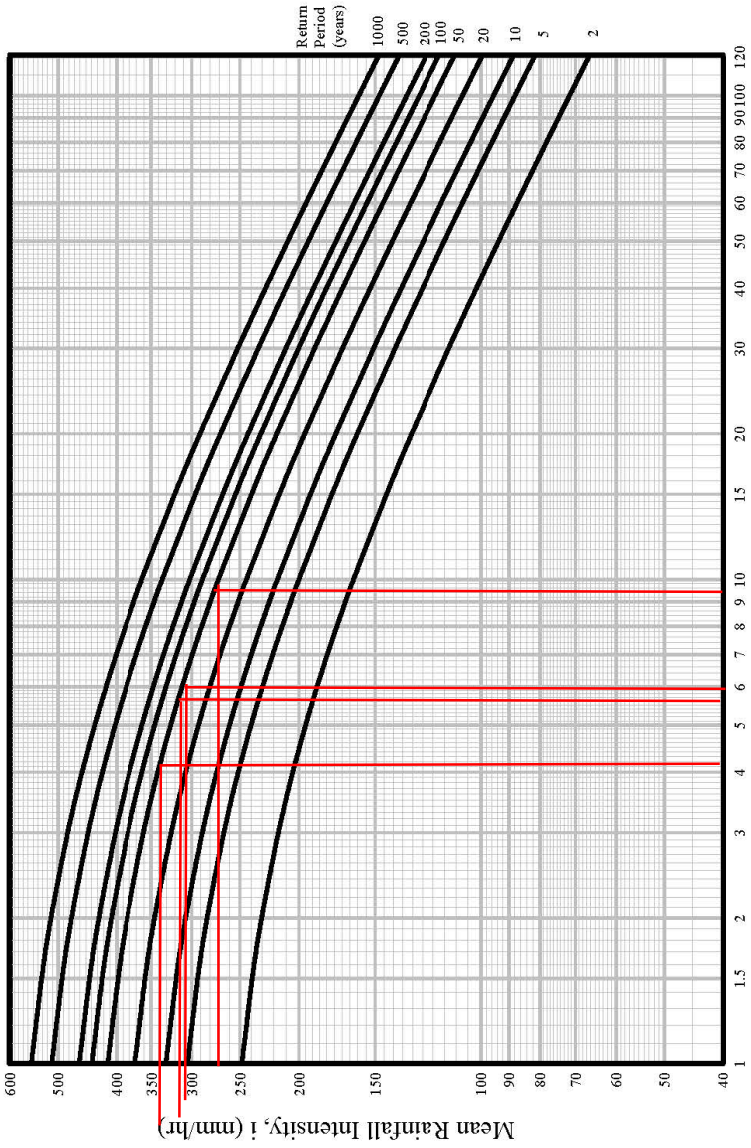


Figure 1 – Updated Intensity-Duration-Frequency Curves

Notes:
1. These IDF curves are to supersede those given in Figure 8.2 of the Geotechnical Manual for Slopes (GCO, 1984).
2. These IDF curves have not incorporated any projected climate change effects. Except for temporary slope drainage design, the mean rainfall intensity given by these IDF curves shall be increased by 13.8% for incorporating climate change effects.
3. The mathematical formulae of these IDF curves are shown in Table 1 of Annex TGN 30 A1.

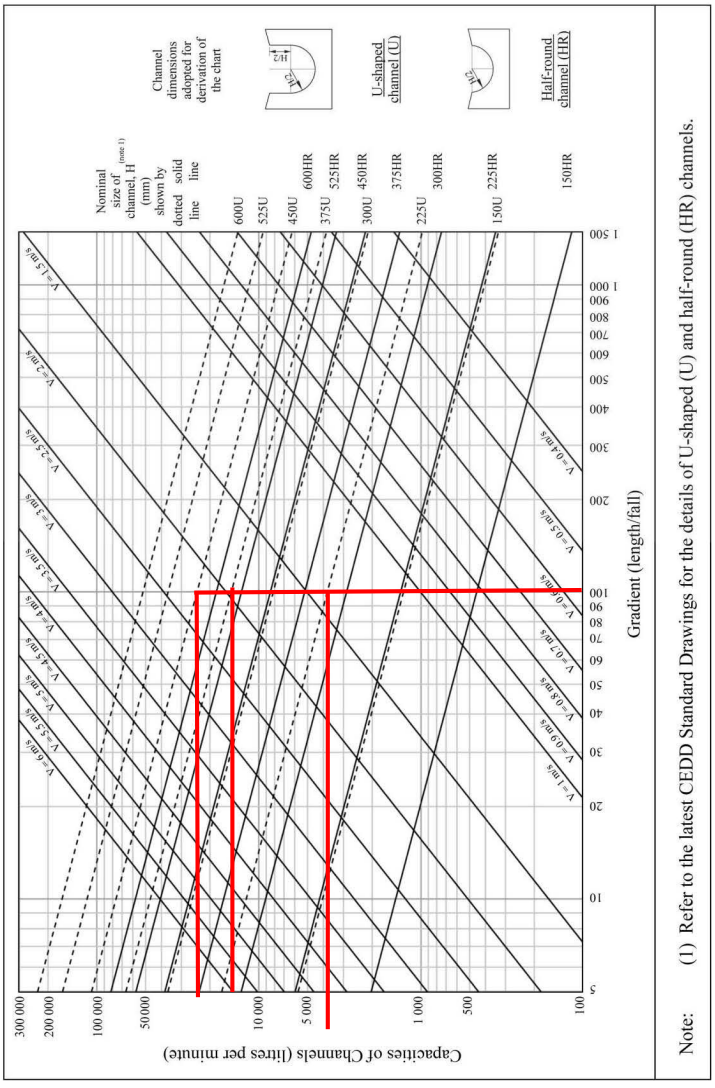


Figure 1 - Chart for the rapid design of U-shaped and half-round channels up to 600 mm

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

Since 10% reduction would be considered for deposition of sediment, the capacity of the proposed
225UC should be 3,900 x 0.9 = 3,510lit/min,
375UC should be 15,000 x 0.9 = 13,500lit/min,
450UC should be 25,000 x 0.9 = 22,500lit/min

Upstream level of SWD1043960 is +2.0mPD

Downstream level of SWD1043960 is +1.6mPD

Length of SWD1043960 is 5.4m

Gradient of SWD1043960 = 5.4/(2-1.6) = 1:13.5

ks = 0·600mm
i = 0·004 to 0·1
ie hydraulic gradient = 1 in 250 to 1 in 10

Water (or sewage) at 15° C full bore conditions.

velocities in m/s
discharges in m^3/s

The Capacity of SWD1043960 = 0.532 x 1000 x 60 x 0.9 = 28,728 l/min > 15,038 l/min

Gradient	Pipe diameters in mm: 350	375	400	450	500	525	600	675	700	750	800	825
0.02000	2.456	2.566	2.673	2.879	3.076	3.171	3.448	3.710	3.795	3.962	4.123	4.203
1/ 50	0.236	0.283	0.336	0.458	0.604	0.687	0.975	1.328	1.461	1.750	2.073	2.247
0.02200	2.577	2.692	2.804	3.020	3.227	3.327	3.617	3.892	3.981	4.156	4.325	4.409
1/ 45	0.248	0.297	0.352	0.480	0.634	0.720	1.023	1.393	1.532	1.836	2.174	2.357
0.02400	2.692	2.812	2.929	3.155	3.371	3.476	3.778	4.066	4.159	4.341	4.518	4.605
1/ 42	0.259	0.311	0.368	0.502	0.662	0.752	1.068	1.455	1.601	1.918	2.271	2.462
0.02600	2.803	2.928	3.050	3.284	3.509	3.618	3.933	4.233	4.329	4.519	4.703	4.794
1/ 38	0.270	0.323	0.383	0.522	0.689	0.783	1.112	1.515	1.666	1.996	2.364	2.563
0.02800	2.909	3.039	3.165	3.409	3.642	3.755	4.082	4.393	4.493	4.690	4.882	4.975
1/ 36	0.280	0.336	0.398	0.542	0.715	0.813	1.154	1.572	1.729	2.072	2.454	2.660
0.03000	3.012	3.146	3.277	3.529	3.770	3.888	4.226	4.548	4.652	4.855	5.053	5.151
1/ 33	0.290	0.347	0.412	0.561	0.740	0.842	1.195	1.627	1.790	2.145	2.540	2.753
0.03200	3.111	3.250	3.385	3.645	3.895	4.015	4.365	4.697	4.805	5.015	5.220	5.320
1/ 31	0.299	0.359	0.425	0.580	0.765	0.869	1.234	1.681	1.849	2.216	2.624	2.844
0.03400	3.207	3.350	3.489	3.758	4.015	4.140	4.500	4.842	4.953	5.170	5.381	5.484
1/ 29	0.309	0.370	0.438	0.598	0.788	0.896	1.272	1.733	1.906	2.284	2.705	2.932
0.03600	3.300	3.448	3.591	3.867	4.132	4.260	4.631	4.983	5.097	5.320	5.537	5.644
1/ 28	0.318	0.381	0.451	0.615	0.811	0.922	1.309	1.783	1.962	2.350	2.783	3.017
0.03800	3.391	3.542	3.690	3.974	4.245	4.377	4.758	5.120	5.237	5.466	5.689	5.799
1/ 26	0.326	0.391	0.464	0.632	0.834	0.948	1.345	1.832	2.015	2.415	2.860	3.100
0.04000	3.480	3.635	3.786	4.077	4.356	4.491	4.882	5.253	5.374	5.609	5.837	5.950
1/ 25	0.335	0.401	0.476	0.648	0.855	0.972	1.380	1.880	2.068	2.478	2.934	3.180
0.04200	3.566	3.725	3.880	4.178	4.464	4.602	5.003	5.384	5.507	5.747	5.982	6.097
1/ 24	0.343	0.411	0.488	0.665	0.877	0.996	1.415	1.926	2.119	2.539	3.007	3.259
0.04400	3.650	3.813	3.972	4.277	4.569	4.711	5.121	5.511	5.637	5.883	6.123	6.241
1/ 23	0.351	0.421	0.499	0.680	0.897	1.020	1.448	1.972	2.169	2.599	3.078	3.336
0.04600	3.733	3.899	4.061	4.374	4.672	4.817	5.236	5.635	5.764	6.016	6.261	6.381
1/ 22	0.359	0.431	0.510	0.696	0.917	1.043	1.481	2.016	2.218	2.658	3.147	3.411
0.04800	3.813	3.983	4.149	4.468	4.773	4.921	5.349	5.756	5.888	6.145	6.396	6.519
1/ 21	0.367	0.440	0.521	0.711	0.937	1.065	1.512	2.060	2.266	2.715	3.215	3.485
0.05000	3.892	4.066	4.235	4.560	4.872	5.023	5.460	5.875	6.010	6.272	6.528	6.654
1/ 20	0.374	0.449	0.532	0.725	0.957	1.087	1.544	2.102	2.313	2.771	3.281	3.557
0.05500	4.083	4.265	4.442	4.784	5.111	5.269	5.727	6.163	6.304	6.579	6.848	6.979
1/ 18	0.393	0.471	0.558	0.761	1.003	1.141	1.619	2.205	2.426	2.907	3.442	3.731
0.06000	4.265	4.455	4.640	4.997	5.338	5.504	5.982	6.437	6.585	6.872	7.153	7.290
1/ 17	0.410	0.492	0.583	0.795	1.048	1.191	1.692	2.304	2.534	3.036	3.595	3.897
0.06500	4.440	4.638	4.830	5.202	5.557	5.729	6.227	6.701	6.854	7.154	7.445	7.589
1/ 15	0.427	0.512	0.607	0.827	1.091	1.240	1.761	2.398	2.638	3.160	3.742	4.057
0.07000	4.608	4.813	5.013	5.399	5.767	5.946	6.463	6.954	7.113	7.424	7.727	7.876
1/ 14	0.443	0.532	0.630	0.859	1.132	1.287	1.827	2.489	2.738	3.280	3.884	4.210
0.07500	4.770	4.983	5.190	5.589	5.970	6.155	6.690	7.199	7.364	7.685	7.999	8.153
1/ 13	0.459	0.550	0.652	0.889	1.172	1.332	1.892	2.576	2.834	3.395	4.021	4.358
0.08000	4.927	5.147	5.360	5.772	6.167	6.358	6.910	7.436	7.606	7.938	8.262	8.420
1/ 13	0.474	0.568	0.674	0.918	1.211	1.376	1.954	2.661	2.927	3.507	4.153	4.501
0.08500	5.079	5.306	5.526	5.951	6.357	6.554	7.123	7.665	7.840	8.183	8.516	8.680
1/ 12	0.489	0.586	0.694	0.946	1.248	1.419	2.014	2.743	3.017	3.615	4.281	4.640