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寄件者: sun wo wong <[redacted]>
寄件日期: 2026年04月06日星期一 16:54
收件者: tpbpd/PLAND; [redacted]
主旨: A/YL-PH/1085
附件: 回應渠務署的擬問01-04-2026.pdf

CC : [redacted]

回應渠務署的擬問

回應渠務署的擬問

A/YL-PH/1085

(i) The ground to the southeast of the application site is significantly higher. Since the overland flow from the adjacent lands shall be probably intercepted, external catchment shall be considered in the calculation. Please make reference to the latest Technical Note No. 1 issued by DSD for more details in preparing the drainage proposal. Please upgrade all drainage facilities size accordingly.

我等會在新一份設計圖內從新計算貴署提及的問題。

(ii) Peripheral surface channels shall be provided along the site boundary at the existing/original ground level (instead of the revised ground level) to collect the surface runoff accrued on the application site and to intercept the overland flow from the adjacent lands. Please review the alignment of the proposed peripheral surface channels between CP1 and CP2 accordingly.

我等會在新一份設計圖內從新計算貴署提及的問題。

(iii) Please advise if any site formation/levelling works to be carried out under this application. Cross sections showing the existing and proposed ground levels of the captioned site with respect to the adjacent areas should be given.

本次申請我等不會進行平整地盤的工序。

(iv) Please provide the connection details from the proposed catchpit with sand trap (CP9) to the existing 600mm u-channel for review. The relevant ground level and invert level at the proposed discharge point should be also given. Besides, please also advise and indicate the type, the size and the gradient of the connection drainage facility between CP9 and the discharge point on the drainage plan and the connection details for reference.

我等會在新一份設計圖內從新計算貴署提及的問題。

(v) Please confirm if any walls or hoarding are/to be erected or laid along the site boundary. If affirmative, adequate opening should be provided to intercept the existing overland flow passing through the site and please provide its details for comments.

我等不會在周邊設置圍板。

(vi) Please check and ensure the hydraulic capacity of the existing drainage facilities would not be adversely affected by the captioned development.

我等會在新一份設計圖內從新計算貴署提及的問題。

(vii) Please indicate clearly the full alignment of the discharge path from the application site all the way down to the ultimate discharge point (e.g. a well-established stream course/public drainage

system)

我等會在新一份設計圖內從新計算貴署提及的問題。

(viii) The existing 600mm u-channel, to which discharge the stormwater from the subject site was not maintained by DSD. Please resolve any conflict/disagreement arisen for discharging the runoff from the application site(s) to the proposed discharge point(s). Moreover, please ensure that this drainage system and the existing downstream drains/channels/streams have adequate capacity to convey the additional runoff from the application site(s). Regular maintenance should be carried out to avoid blockage of the system.

如獲批准我等會聯同鄰近土地的使用人共同負責有關渠道維修及保護工作及防止渠道阻塞。

(ix) Further to (viii) above, since there is no record of the said discharge path, please provide site photos at different locations and views to demonstrate its presence and existing condition.

我等會提交有關相片給貴署參考。

(x) The development should neither obstruct overland flow and nor adversely affect existing natural streams, village drains, ditches and the adjacent areas, etc.

我等絕對不會阻碍地表流徑亦不會對現有天然溪流`排水沟，沟渠及鄰近區域造又不利影響。

(xi) Please resolve any conflict/disagreement with relevant lot owner(s) and seek permission from DLO/YL for laying new drains/channels and/or modifying/upgrading existing ones in other private lots or on Government Land, where required, outside the application site(s).

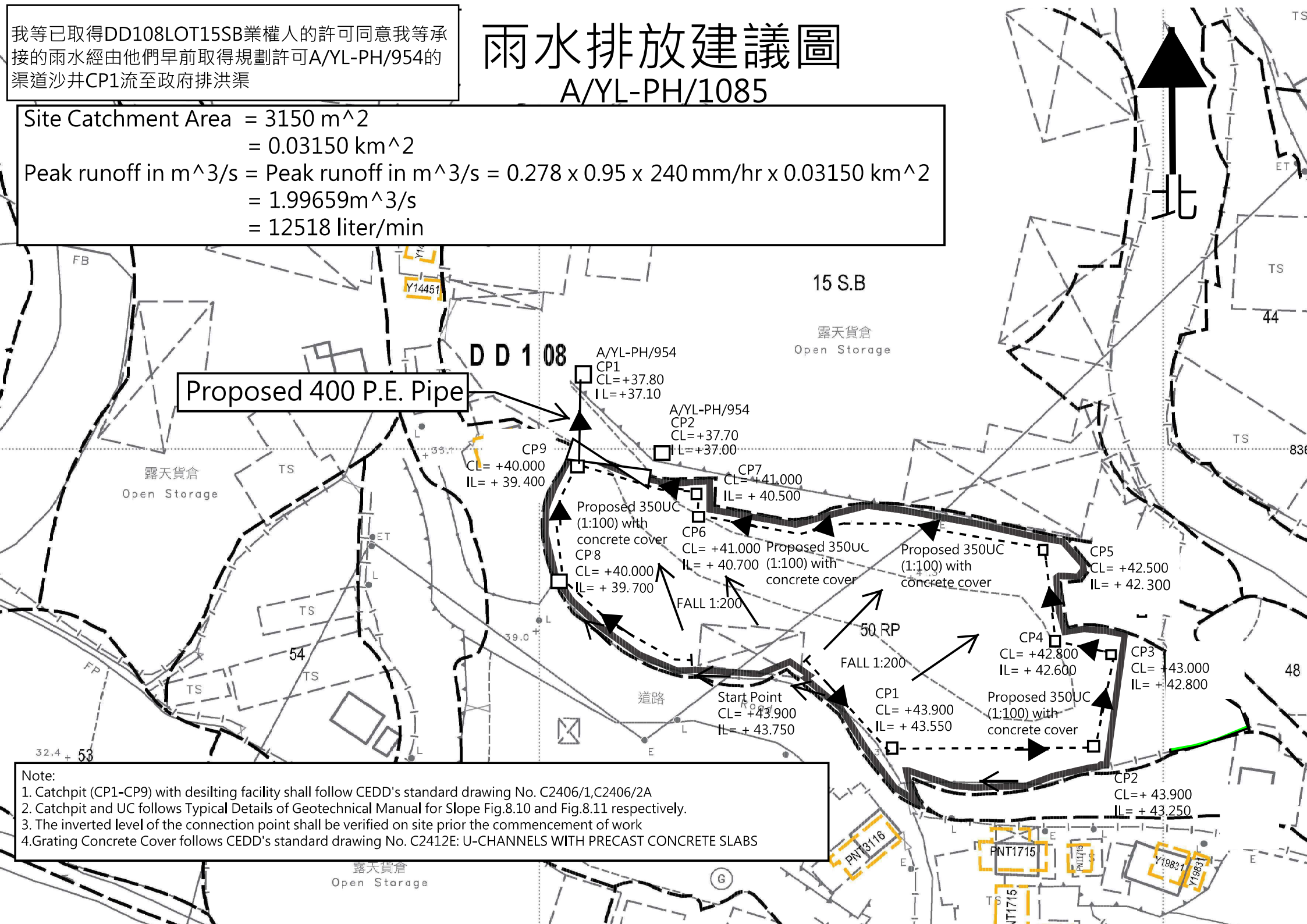
如需在政府土地上建設渠道時，我等會先向地政處作出申請，獲批准後我等才會進行有關工程，如在私人土地上我等會先向有關業權人取得同意才會施工。

上述的回應如有不足之處，我等懇請貴署臨時給與批准，待遵行履行附帶條件時再作提交經修訂的排水建議，而有關建議必須符合渠務署署長的要求。

我等已取得DD108LOT15SB業權人的許可同意我等承接的雨水經由他們早前取得規劃許可A/YL-PH/954的渠道沙井CP1流至政府排洪渠

雨水排放建議圖
A/YL-PH/1085

Site Catchment Area = 3150 m^2
= 0.03150 km^2
Peak runoff in m^3/s = Peak runoff in m^3/s = 0.278 x 0.95 x 240 mm/hr x 0.03150 km^2
= 1.99659m^3/s
= 12518 liter/min



Note:
1. Catchpit (CP1-CP9) with desilting facility shall follow CEDD's standard drawing No. C2406/1,C2406/2A
2. Catchpit and UC follows Typical Details of Geotechnical Manual for Slope Fig.8.10 and Fig.8.11 respectively.
3. The inverted level of the connection point shall be verified on site prior the commencement of work
4.Grating Concrete Cover follows CEDD's standard drawing No. C2412E: U-CHANNELS WITH PRECAST CONCRETE SLABS

Stormwater Drainage Manual

CORRIGENDUM No. 1/2024 (26 March 2024)

(a) Section 4.3.3 Intensity-Duration-Frequency (IDF) Relationship

Replace the Section with the following:

The rainfall statistics at HKO Headquarters* are recommended for general application (except Tai Mo Shan area, West Lantau area and North District area) because of its long-term and good quality records. The recommended IDF Relationship is based on the GEV distribution model, which is the best-fit model for different rainstorm durations on average and also adopted by HKO, in the frequency analysis of the annual maximum rainfall recorded at HKO Headquarters*.

For Tai Mo Shan, West Lantau and North District areas, it is recommended to adopt the annual maximum rainfall for various durations recorded by the local rain gauges within the 3 areas in the statistical analysis. The distribution models which fit the respective durations the best are applied and regional frequency analysis of extreme rainfall has also been employed to develop the IDF Relationships.

Non-stationary extreme value analysis models accounting for climate change impacts on extreme rainfall[1] and consideration for stochastic nature of rainfall were taken into account when determining the IDF Relationships. These relationships are presented in Tables 2a, 2b, 2c and 2d and Figures 4a, 4b, 4c and 4d for various durations not exceeding 4 hours.

The IDF data can also be expressed by the following algebraic equation for easy application:

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

where i = extreme mean intensity in mm/hr,

t_d = duration in minutes ($t_d \leq 240$), and

a, b, c = storm constants given in Tables 3a, 3b, 3c and 3d.

* See Notes 2 & 3 of Table 2a

[1]IPCC AR6 Projection Reference Period (1995- 2014) is adopted as the reference period

For durations exceeding 4 hours, the rainfall depth instead of the mean intensity is normally used. The Depth-Duration-Frequency (DDF) Relationships for duration exceeding 4 hours are given in Tables 4a, 4b, 4c and 4d. The IDF data can be generated by dividing rainfall depth with duration.

(b) Table 2a, Table 2d, Table 3a, Table 3d, Table 4a, Table 4d, Table 5a, Table 5d

Replace the listed tables below with the following pages:

Table 2a – Intensity-Duration-Frequency (IDF) Relationship of HKO Headquarters for durations not exceeding 240 minutes

Table 2d – Intensity-Duration-Frequency (IDF) Relationship of North District Area for durations not exceeding 240 minutes

Table 3a – Storm Constants for Different Return Periods of HKO Headquarters

Table 3d – Storm Constants for Different Return Periods of North District Area

Table 4a – Depth-Duration-Frequency (DDF) Relationship of HKO Headquarters for durations of more than 4 hours

Table 4d – Depth-Duration-Frequency (DDF) Relationship of North District Area for durations of more than 4 hours

Table 5a – Design Rainstorm Profile Intensity-Duration-Frequency Relationships of HKO Headquarters

Table 5d – Design Rainstorm Profile Intensity-Duration-Frequency Relationships of North District Area

Table 2a – Intensity-Duration-Frequency (IDF) Relationship of HKO Headquarters
for durations not exceeding 240 minutes

Duration (min)	**Extreme Intensity (mm/h) for various Return Periods T (year)**								
	2	5	10	20	50	100	200	500	1000
240**	31.5	41.6	48.5	55.1	63.9	70.6	77.3	86.3	93.2
120++**	50.4	66.0	75.7	84.7	95.9	104	112	121	128
60++**	72.5	93.5	107	119	134	145	155	168	178
30++**	93.3	115	128	139	153	162	170	180	187
15++**	116	138	151	163	176	185	194	204	211
10*	131	155	169	181	195	204	212	222	229
5*	157	185	200	212	226	235	242	251	257
2*	191	223	239	252	265	273	280	287	291
1*	217	251	268	280	293	300	306	312	315
0.50*	242	279	296	309	320	327	332	337	339
0.25+++**	268	307	324	336	347	353	357	361	363

Notes:

1. non-stationary GEV distribution analysis by assuming the location and scale parameters changing linearly over time and shape parameter remaining unchanged has been incorporated in the frequency analysis.
2. ++ based on continuous rainfall recorded at HKO Headquarters (1947 – 2023).
3. +++ based on Jardi rate-of-rainfall records at King's Park (1952 – 2015), and the 1-min OTT data at King's Park (2016 – 2023) scaled into the rate-of-rainfall.
4. * distribution parameters are interpolated.
5. ** based on hourly rainfall records at HKO Headquarters (1884 – 1939; 1947 – 2023).

Table 2d – Intensity-Duration-Frequency (IDF) Relationship of North District Area
for durations not exceeding 240 minutes

Duration (min)	**Extreme Intensity (mm/h) for various Return Periods T (year)**						
	2	5	10	20	50	100	200
240	29.0	38.2	44.5	50.7	59.1	65.6	72.3
120	42.4	54.9	63.2	71.2	81.8	89.8	97.8
60	62.0	77.1	86.1	94.3	104	111	118
30	85.7	103	113	122	133	141	148
15	108	129	141	151	164	173	182
10	120	141	155	168	187	203	219
5	139	162	177	192	214	231	251

Notes:

1. based on continuous rainfall recorded at GEO rain gauges N05 (40 years), N34 (24 years), N46 (24 years), N33 (24 years), N35 (24 years), N36 (24 years), N45 (24 years) and HKO rain gauges EPC (31 years), SSH (20 years), TKL (38 years), R24 (40 years), R29 (39 years), R30_KAT (34 years), SEK (27 years) up to 2023.
2. rainfall IDF relationships are derived from regional frequency analysis of extreme rainfall of local rain gauges.
3. the trends of the extreme rainfalls observed at HKO Headquarters are used to infer the trends at other locations.

Table 3a – Storm Constants for Different Return Periods of HKO Headquarters

Return Period T (years)	2	5	10	20	50	100	200	500	1000
a	446.1	470.5	485.0	496.0	505.5	508.6	508.8	504.6	498.7
b	3.38	3.11	3.11	3.17	3.29	3.38	3.46	3.53	3.55
c	0.463	0.419	0.397	0.377	0.355	0.338	0.322	0.302	0.286

Table 3d – Storm Constants for Different Return Periods of North District Area

Return Period T (years)	2	5	10	20	50	100	200
a	439.1	448.1	454.9	462.3	474.6	486.6	501.4
b	4.10	3.67	3.44	3.21	2.90	2.67	2.45
c	0.484	0.437	0.412	0.392	0.371	0.358	0.348

Table 4a - Depth-Duration-Frequency (DDF) Relationship of HKO Headquarters

for durations of more than 4 hours

Duration	**Extreme Depth (mm) for various Return Periods T(year)**								
	2	5	10	20	50	100	200	500	1000
31 days	715	918	1047	1166	1314	1422	1525	1656	1752
15 days	515	675	775	866	979	1060	1138	1235	1306
7 days	386	515	601	683	788	867	*1022	*1141	*1231
5 days	333	461	550	638	756	*856	*975	*1101	*1199
4 days	332	460	549	637	756	849	944	1076	1179
3 days	310	424	501	576	673	748	823	923	1000
2 days	268	366	432	496	580	645	709	796	862
24 hours	225	304	360	417	495	558	623	714	787
18 hours	201	272	323	375	448	507	570	659	731
12 hours	175	237	282	330	397	453	514	601	674
8 hours	152	200	235	271	322	364	408	472	524
6 hours	141	185	216	248	291	326	362	413	453

Notes:

1. non-stationary GEV distribution analysis by assuming the location and scale parameters changing linearly over time and shape parameter remaining unchanged has been incorporated in the frequency analysis.
2. based on hourly records measured at HKO Headquarters (1884 – 1939; 1947 – 2023)
3. the Intensity-Duration-Frequency (IDF) data can be generated from the above by dividing depth with duration
4. * rainfall depths are interpolated to ensure a physically reasonable rainfall IDF/DDF relationships.

Table 4d - Depth-Duration-Frequency (DDF) Relationship of North District Area
for durations of more than 4 hours

Duration	Extreme Depth x (mm) for various Return Periods T(year)						
	2	5	10	20	50	100	200
31 days	668	897	1088	1314	1692	2062	2530
15 days	482	639	743	844	977	1082	1190
7 days	384	502	573	636	714	770	876
5 days	357	475	546	610	688	747	810
4 days	337	452	523	588	670	731	790
3 days	314	416	480	538	613	668	723
2 days	271	361	419	473	543	597	650
24 hours	210	275	321	368	431	483	536
18 hours	192	248	289	332	395	450	511
12 hours	168	221	258	296	347	389	432
8 hours	147	189	218	247	284	314	344
6 hours	133	173	200	227	264	293	323

Notes:

1. based on continuous rainfall recorded at GEO rain gauges N05 (40 years), N34 (24 years), N46 (24 years), N33 (24 years), N35 (24 years), N36 (24 years), N45 (24 years) and HKO rain gauges EPC (31 years), SSH (20 years), TKL (38 years), R24 (40 years), R29 (39 years), R30_KAT (34 years), SEK (27 years) up to 2023
2. rainfall IDF relationships are derived from regional frequency analysis of extreme rainfall of local rain gauges
3. the trends of the extreme rainfalls observed at HKO Headquarters are used to infer the trends at other locations.
4. * rainfall depths are interpolated to ensure a physically reasonable rainfall IDF/DDF relationships.

Table 5a – Design Rainstorm Profile Intensity-Duration-Frequency Relationships of HKO Headquarters

Duration Interval (min)	*Rate of Rainfall (mm/hr) for Return Periods T (years)				
	2	10	50	200	1000
-0.5 – 0.5	225	277	301	314	323
0.5 – 1.5	171	216	244	261	275
1.5 – 2.5	133	174	202	221	238
2.5 – 3.5	112	149	177	197	215
3.5 – 4.5	98	133	160	180	199
4.5 – 5.5	88	122	148	168	187
5.5 – 6.5	80	113	139	158	177
6.5 – 7.5	75	106	131	150	170
7.5 – 8.5	70	100	125	144	163
8.5 – 9.5	66	96	119	138	158
9.5 – 10.5	63	92	115	134	153
10.5 – 11.5	60	88	111	130	149
11.5 – 12.5	57	85	108	126	145
12.5 – 13.5	55	82	104	123	142
13.5 – 14.5	53	80	102	120	139
14.5 – 15.5	51	77	99	117	136
15.5 – 16.5	50	75	97	114	133
16.5 – 17.5	48	74	95	112	131
17.5 – 18.5	47	72	93	110	129
18.5 – 19.5	46	70	91	108	127
19.5 – 20.5	45	69	89	106	125
20.5 – 21.5	44	67	88	105	123
21.5 – 22.5	43	66	86	103	122
22.5 – 23.5	42	65	85	101	120
23.5 – 24.5	41	64	83	100	118
24.5 – 25.5	40	63	82	99	117
25.5 – 26.5	39	62	81	97	116
26.5 – 27.5	39	61	80	96	114
27.5 – 28.5	38	60	79	95	113
28.5 – 29.5	37	59	78	94	112
29.5 – 30.5	37	58	77	93	111
30.5 – 31.5	36	57	76	92	110
31.5 – 32.5	36	57	75	91	109
32.5 – 33.5	35	56	74	90	108
33.5 – 34.5	35	55	74	89	107
34.5 – 35.5	34	55	73	88	106
35.5 – 36.5	34	54	72	88	105
36.5 – 37.5	33	53	71	87	104
37.5 – 38.5	33	53	71	86	104
38.5 – 39.5	32	52	70	85	103
39.5 – 40.5	32	52	69	85	102
40.5 – 41.5	32	51	69	84	101
41.5 – 42.5	31	51	68	83	101
42.5 – 43.5	31	50	68	83	100
43.5 – 44.5	31	50	67	82	99
44.5 – 45.5	30	49	66	81	99
45.5 – 46.5	30	49	66	81	98
46.5 – 47.5	30	49	65	80	97
47.5 – 48.5	29	48	65	80	97
48.5 – 49.5	29	48	64	79	96
49.5 – 50.5	29	47	64	79	96
50.5 – 51.5	28	47	63	78	95
51.5 – 52.5	28	47	63	78	95
52.5 – 53.5	28	46	63	77	94
53.5 – 54.5	28	46	62	77	94
54.5 – 55.5	27	46	62	76	93
55.5 – 56.5	27	45	61	76	93
56.5 – 57.5	27	45	61	75	92
57.5 – 58.5	27	45	61	75	92
58.5 – 59.5	27	44	60	75	91
59.5 – 60.5	26	44	60	74	91

Duration Interval (min)	*Rate of Rainfall (mm/hr) for Return Periods T (years)				
	2	10	50	200	1000
60.5 – 61.5	26	44	60	74	90
61.5 – 62.5	26	43	59	73	90
62.5 – 63.5	26	43	59	73	90
63.5 – 64.5	26	43	59	73	89
64.5 – 65.5	25	43	58	72	89
65.5 – 66.5	25	42	58	72	88
66.5 – 67.5	25	42	58	72	88
67.5 – 68.5	25	42	57	71	88
68.5 – 69.5	25	42	57	71	87
69.5 – 70.5	25	41	57	71	87
70.5 – 71.5	24	41	56	70	87
71.5 – 72.5	24	41	56	70	86
72.5 – 73.5	24	41	56	70	86
73.5 – 74.5	24	40	56	69	86
74.5 – 75.5	24	40	55	69	85
75.5 – 76.5	24	40	55	69	85
76.5 – 77.5	23	40	55	68	85
77.5 – 78.5	23	40	55	68	84
78.5 – 79.5	23	39	54	68	84
79.5 – 80.5	23	39	54	68	84
80.5 – 81.5	23	39	54	67	83
81.5 – 82.5	23	39	54	67	83
82.5 – 83.5	23	39	53	67	83
83.5 – 84.5	23	38	53	66	82
84.5 – 85.5	22	38	53	66	82
85.5 – 86.5	22	38	53	66	82
86.5 – 87.5	22	38	52	66	82
87.5 – 88.5	22	38	52	65	81
88.5 – 89.5	22	38	52	65	81
89.5 – 90.5	22	37	52	65	81
90.5 – 91.5	22	37	52	65	81
91.5 – 92.5	22	37	51	65	80
92.5 – 93.5	21	37	51	64	80
93.5 – 94.5	21	37	51	64	80
94.5 – 95.5	21	37	51	64	80
95.5 – 96.5	21	36	51	64	79
96.5 – 97.5	21	36	50	63	79
97.5 – 98.5	21	36	50	63	79
98.5 – 99.5	21	36	50	63	79
99.5 – 100.5	21	36	50	63	78
100.5 – 101.5	21	36	50	63	78
101.5 – 102.5	21	36	50	62	78
102.5 – 103.5	20	35	49	62	78
103.5 – 104.5	20	35	49	62	78
104.5 – 105.5	20	35	49	62	77
105.5 – 106.5	20	35	49	62	77
106.5 – 107.5	20	35	49	61	77
107.5 – 108.5	20	35	49	61	77
108.5 – 109.5	20	35	48	61	76
109.5 – 110.5	20	34	48	61	76
110.5 – 111.5	20	34	48	61	76
111.5 – 112.5	20	34	48	61	76
112.5 – 113.5	20	34	48	60	76
113.5 – 114.5	20	34	48	60	75
114.5 – 115.5	19	34	47	60	75
115.5 – 116.5	19	34	47	60	75
116.5 – 117.5	19	34	47	60	75
117.5 – 118.5	19	34	47	60	75
118.5 – 119.5	19	33	47	59	75
119.5 – 120.5	19	33	47	59	74
120.5 – 121.5	19	33	47	59	74

Note: * Rate of Rainfall is the average value over consecutive time intervals

Table 5d – Design Rainstorm Profile Intensity-Duration-Frequency Relationships of North District Area

Duration Interval (min)	*Rate of Rainfall (mm/hr) for Return Periods T (years)			
	2	10	50	200
-0.5 – 0.5	200	246	286	326
0.5 – 1.5	155	194	225	254
1.5 – 2.5	122	156	183	206
2.5 – 3.5	102	133	158	180
3.5 – 4.5	89	119	143	163
4.5 – 5.5	80	108	131	150
5.5 – 6.5	73	100	122	141
6.5 – 7.5	68	94	115	133
7.5 – 8.5	63	89	109	127
8.5 – 9.5	59	84	105	122
9.5 – 10.5	56	80	100	117
10.5 – 11.5	54	77	97	113
11.5 – 12.5	51	74	94	110
12.5 – 13.5	49	72	91	107
13.5 – 14.5	47	70	88	104
14.5 – 15.5	46	68	86	101
15.5 – 16.5	44	66	84	99
16.5 – 17.5	43	64	82	97
17.5 – 18.5	42	62	80	95
18.5 – 19.5	40	61	78	93
19.5 – 20.5	39	60	77	91
20.5 – 21.5	38	58	76	90
21.5 – 22.5	38	57	74	88
22.5 – 23.5	37	56	73	87
23.5 – 24.5	36	55	72	86
24.5 – 25.5	35	54	71	84
25.5 – 26.5	34	53	70	83
26.5 – 27.5	34	53	69	82
27.5 – 28.5	33	52	68	81
28.5 – 29.5	33	51	67	80
29.5 – 30.5	32	50	66	79
30.5 – 31.5	32	50	65	78
31.5 – 32.5	31	49	64	77
32.5 – 33.5	31	48	64	77
33.5 – 34.5	30	48	63	76
34.5 – 35.5	30	47	62	75
35.5 – 36.5	29	46	62	74
36.5 – 37.5	29	46	61	74
37.5 – 38.5	28	45	60	73
38.5 – 39.5	28	45	60	72
39.5 – 40.5	28	44	59	72
40.5 – 41.5	27	44	59	71
41.5 – 42.5	27	44	58	70
42.5 – 43.5	27	43	58	70
43.5 – 44.5	26	43	57	69
44.5 – 45.5	26	42	57	69
45.5 – 46.5	26	42	56	68
46.5 – 47.5	26	42	56	68
47.5 – 48.5	25	41	55	67
48.5 – 49.5	25	41	55	67
49.5 – 50.5	25	40	54	66
50.5 – 51.5	25	40	54	66
51.5 – 52.5	24	40	54	65
52.5 – 53.5	24	39	53	65
53.5 – 54.5	24	39	53	64
54.5 – 55.5	24	39	52	64
55.5 – 56.5	23	39	52	64
56.5 – 57.5	23	38	52	63
57.5 – 58.5	23	38	51	63
58.5 – 59.5	23	38	51	62
59.5 – 60.5	23	37	51	62

Duration Interval (min)	*Rate of Rainfall (mm/hr) for Return Periods T (years)			
	2	10	50	200
60.5 – 61.5	22	37	50	62
61.5 – 62.5	22	37	50	61
62.5 – 63.5	22	37	50	61
63.5 – 64.5	22	36	50	61
64.5 – 65.5	22	36	49	60
65.5 – 66.5	22	36	49	60
66.5 – 67.5	21	36	49	60
67.5 – 68.5	21	36	48	59
68.5 – 69.5	21	35	48	59
69.5 – 70.5	21	35	48	59
70.5 – 71.5	21	35	48	58
71.5 – 72.5	21	35	47	58
72.5 – 73.5	21	35	47	58
73.5 – 74.5	20	34	47	58
74.5 – 75.5	20	34	47	57
75.5 – 76.5	20	34	46	57
76.5 – 77.5	20	34	46	57
77.5 – 78.5	20	34	46	57
78.5 – 79.5	20	33	46	56
79.5 – 80.5	20	33	46	56
80.5 – 81.5	20	33	45	56
81.5 – 82.5	19	33	45	56
82.5 – 83.5	19	33	45	55
83.5 – 84.5	19	33	45	55
84.5 – 85.5	19	32	45	55
85.5 – 86.5	19	32	44	55
86.5 – 87.5	19	32	44	54
87.5 – 88.5	19	32	44	54
88.5 – 89.5	19	32	44	54
89.5 – 90.5	19	32	44	54
90.5 – 91.5	18	32	43	54
91.5 – 92.5	18	31	43	53
92.5 – 93.5	18	31	43	53
93.5 – 94.5	18	31	43	53
94.5 – 95.5	18	31	43	53
95.5 – 96.5	18	31	43	53
96.5 – 97.5	18	31	42	52
97.5 – 98.5	18	31	42	52
98.5 – 99.5	18	30	42	52
99.5 – 100.5	18	30	42	52
100.5 – 101.5	18	30	42	52
101.5 – 102.5	17	30	42	51
102.5 – 103.5	17	30	41	51
103.5 – 104.5	17	30	41	51
104.5 – 105.5	17	30	41	51
105.5 – 106.5	17	30	41	51
106.5 – 107.5	17	29	41	51
107.5 – 108.5	17	29	41	50
108.5 – 109.5	17	29	41	50
109.5 – 110.5	17	29	40	50
110.5 – 111.5	17	29	40	50
111.5 – 112.5	17	29	40	50
112.5 – 113.5	17	29	40	50
113.5 – 114.5	16	29	40	50
114.5 – 115.5	16	29	40	49
115.5 – 116.5	16	28	40	49
116.5 – 117.5	16	28	40	49
117.5 – 118.5	16	28	39	49
118.5 – 119.5	16	28	39	49
119.5 – 120.5	16	28	39	49
120.5 – 121.5	16	28	39	48

Note: * Rate of Rainfall is the average value over consecutive time intervals

(c)	Table 2b Intensity-Duration-Frequency (IDF) Relationship of Tai Mo Shan Area for durations not exceeding 240 minutes	**Replace the following notes:** 1. based on continuous rainfall recorded at GEO rain gauges N14 (40 years), N36 (24 years), N37 (24 years) & N40 (24 years) up to 2023
(d)	Table 2c Intensity-Duration-Frequency (IDF) Relationship of West Lantau Area for durations not exceeding 240 minutes	**Replace the following notes:** 1. based on continuous rainfall recorded at GEO rain gauges N17 (33 years), N19 (24 years) & N21 (24 years) up to 2023
(e)	Table 4b Depth-Duration-Frequency (DDF) Relationship of Tai Mo Shan Area for durations of more than 4 hours	**Replace the following notes:** 1. based on continuous rainfall recorded at GEO rain gauges N14 (40 years), N36 (24 years), N37 (24 years) & N40 (24 years) up to 2023

(f)	Table 4c Depth-Duration-Frequency (DDF) Relationship of West Lantau Area for durations of more than 4 hours	**Replace the following notes:** 1. based on continuous rainfall recorded at GEO rain gauges N17 (33 years), N19 (24 years) & N21 (24 years) up to 2023
(g)	Figure 4a, Figure 4d, Figure 5a, Figure 5d	**Replace the listed figures below with the following pages:** Figure 4a – Intensity-Duration-Frequency Curves of HKO Headquarters (for durations not exceeding 4 hours) Figure 4d – Intensity-Duration-Frequency Curves of North District Area (for durations not exceeding 4 hours) Figure 5a – Synthetic Rainstorm Profiles of HKO Headquarters Figure 5d – Synthetic Rainstorm Profiles of North District Area

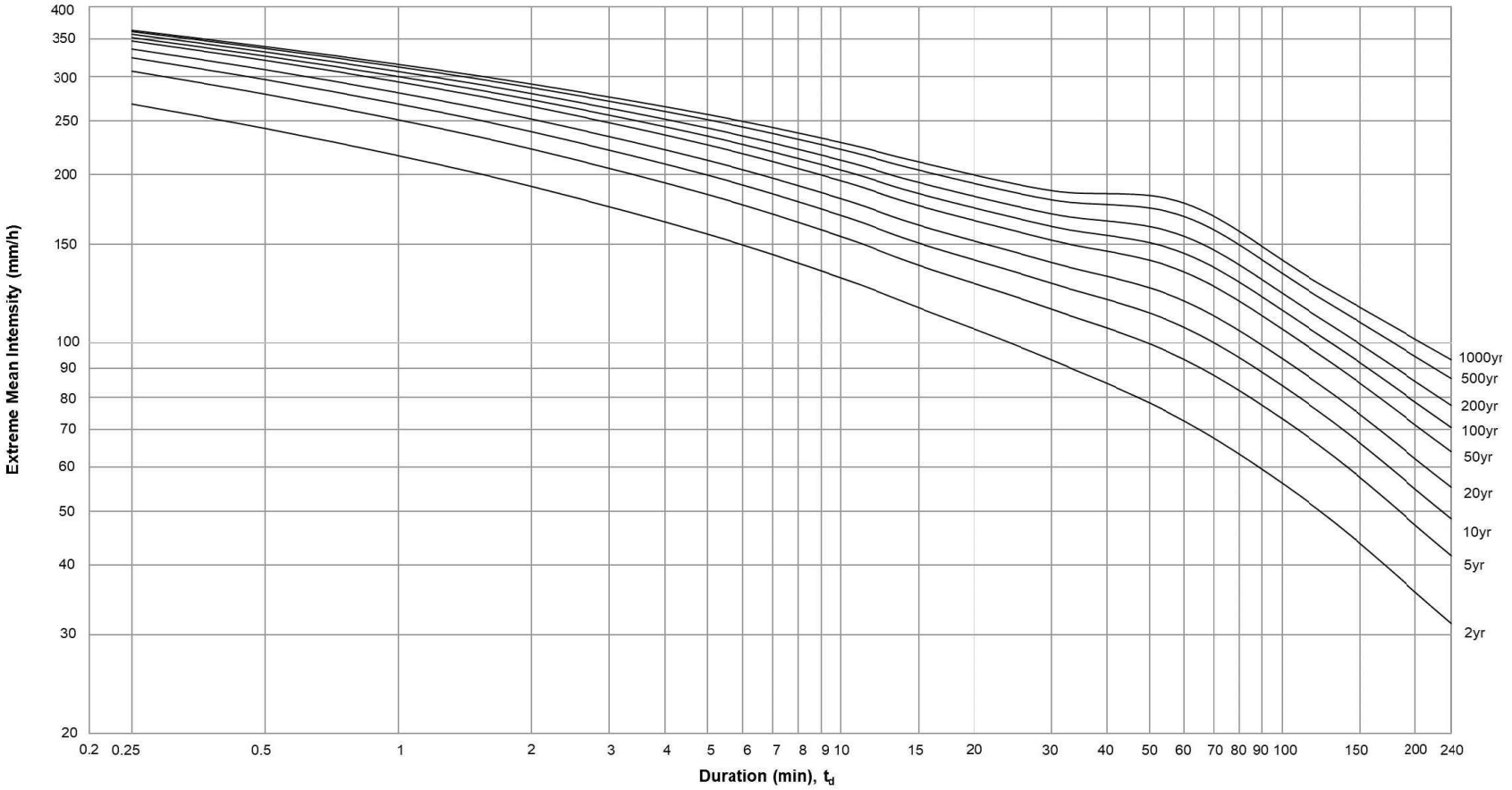


Figure 4a – Intensity-Duration-Frequency Curves of HKO Headquarters
(for durations not exceeding 4 hours)

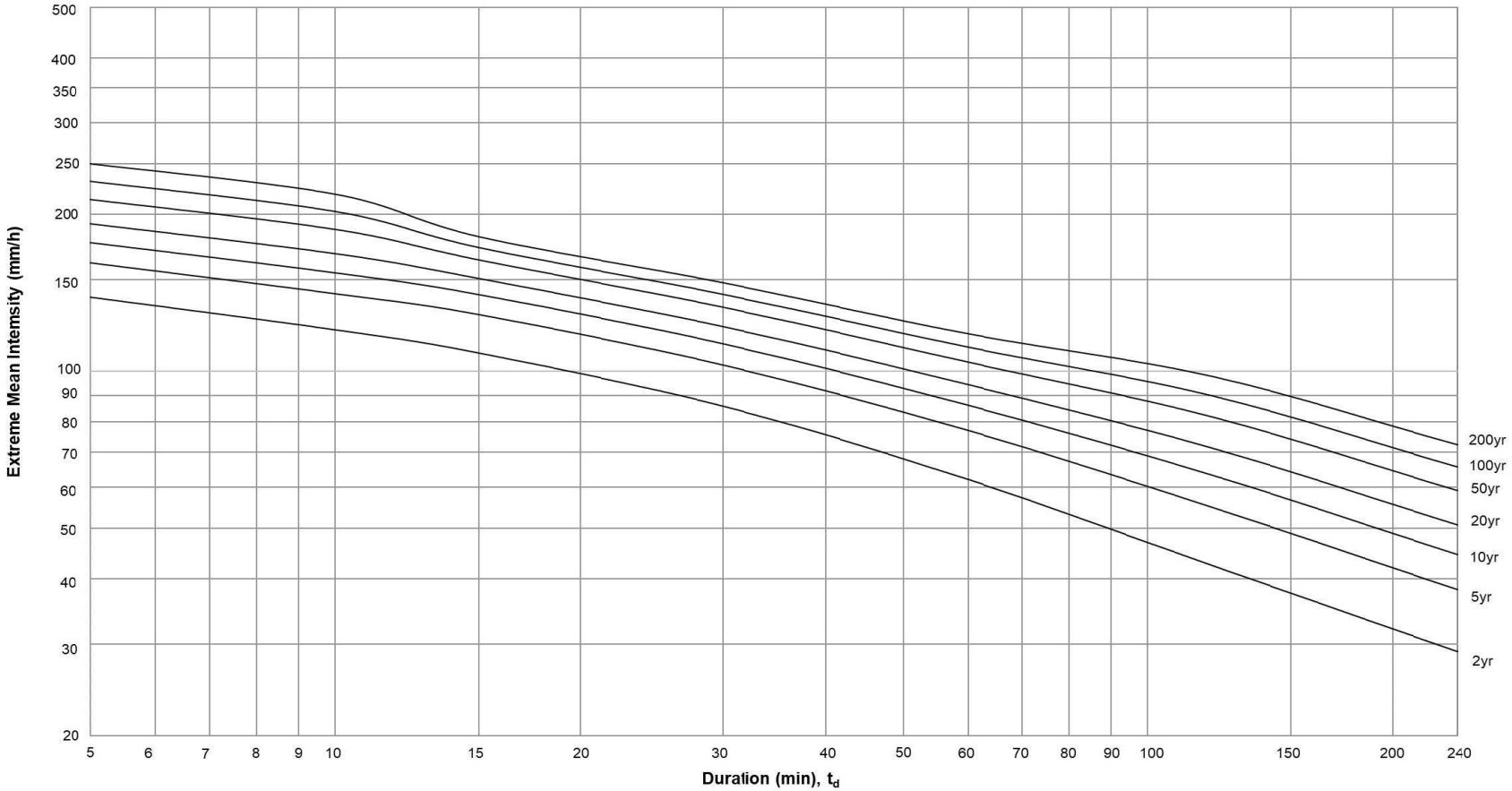


Figure 4d – Intensity-Duration-Frequency Curves of North District Area
(for durations not exceeding 4 hours)

Figure 5a – Synthetic Rainstorm Profiles of HKO Headquarters

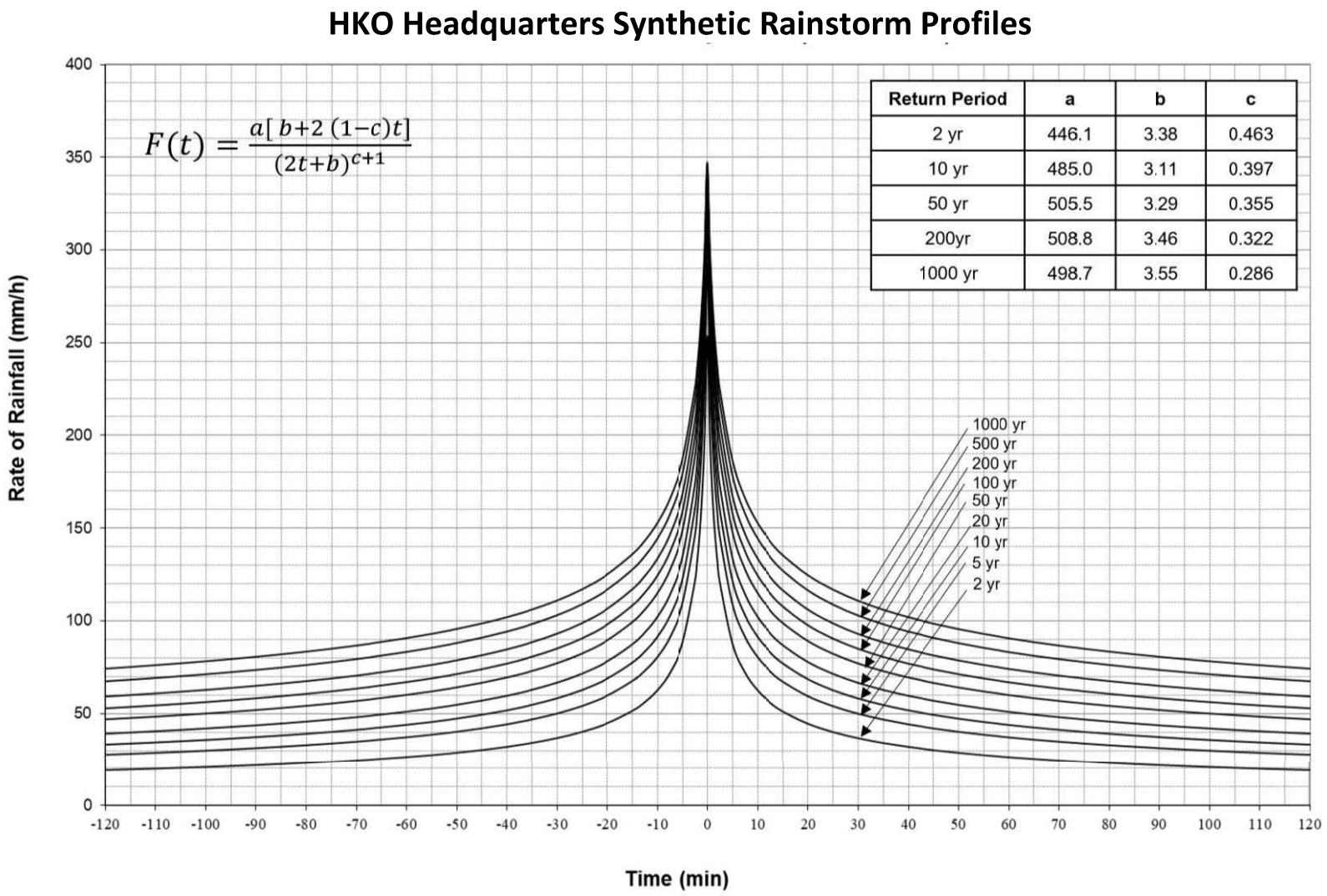
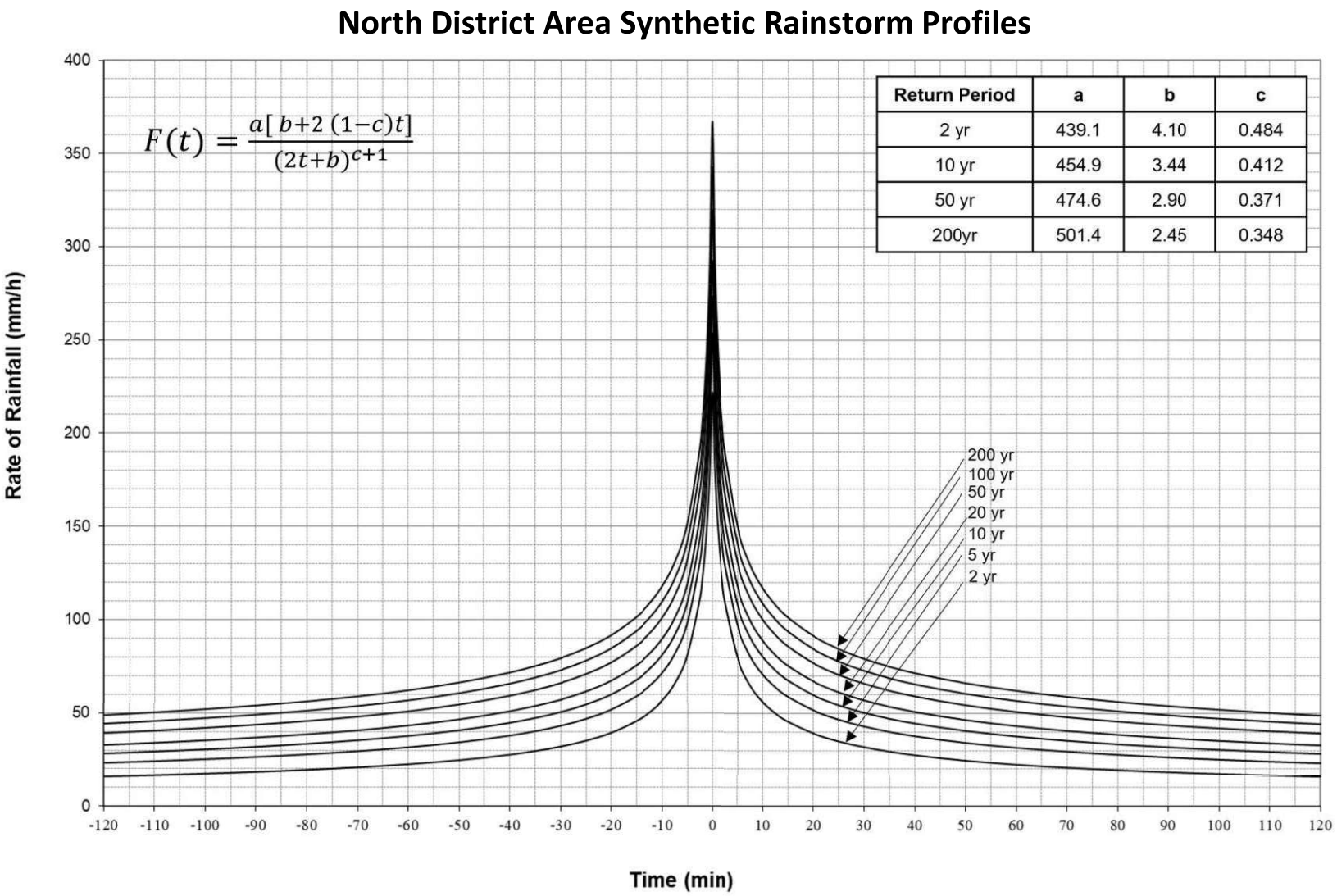


Figure 5d – Synthetic Rainstorm Profiles of North District Area



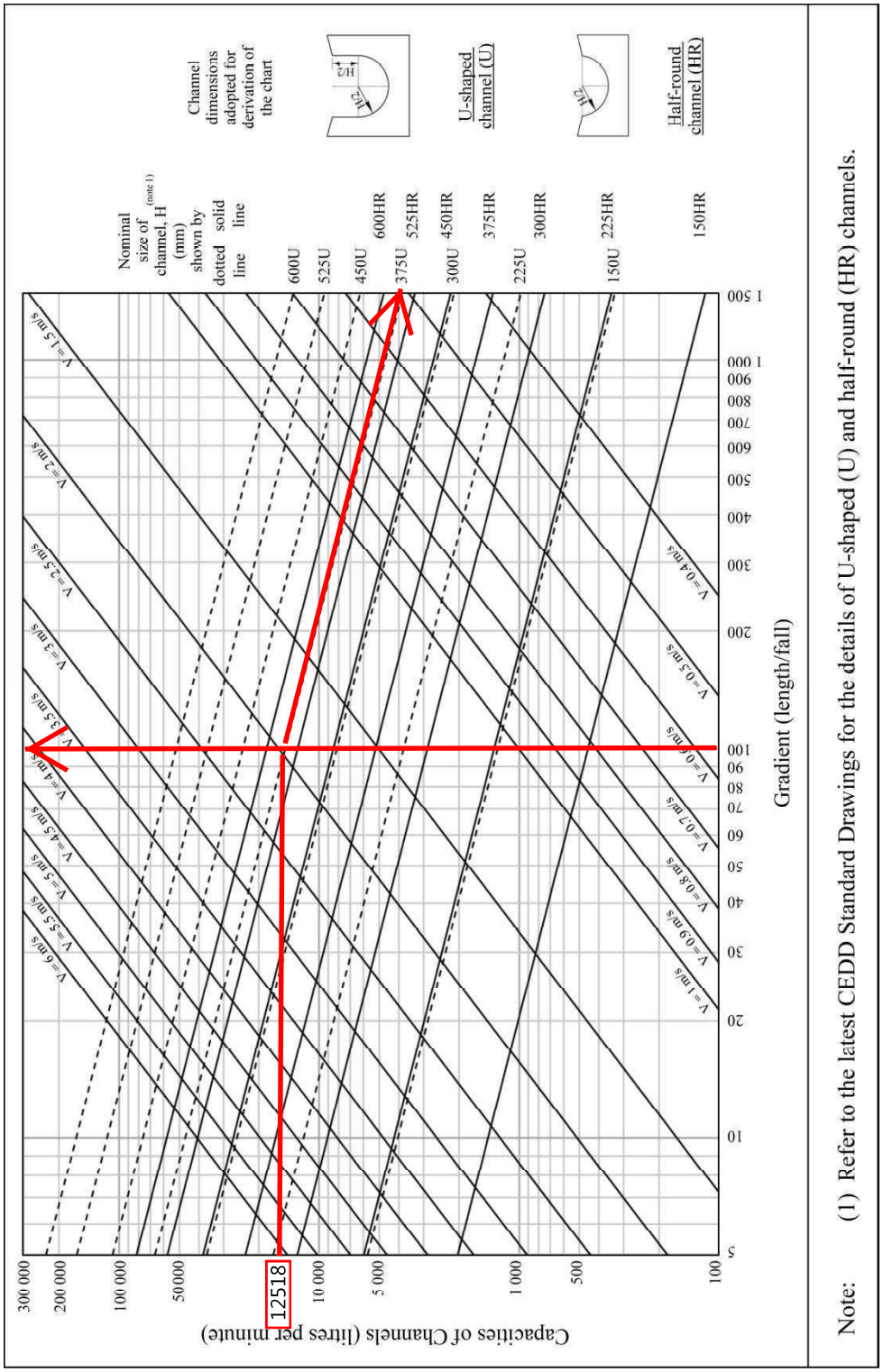
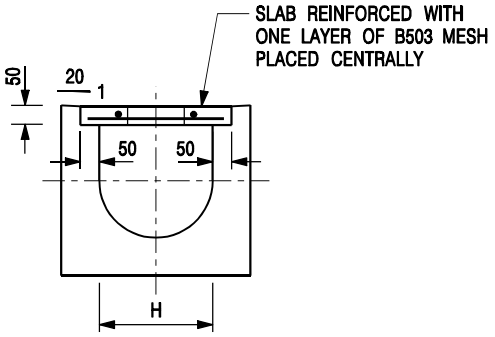
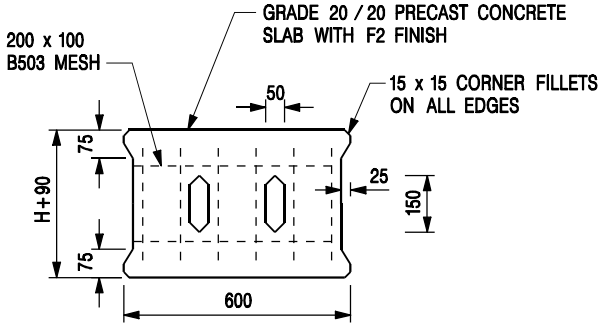


Figure 1 - Chart for the rapid design of U-shaped and half-round channels up to 600 mm

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



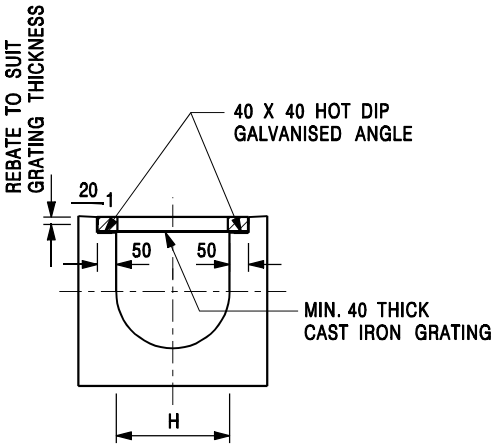
TYPICAL SECTION



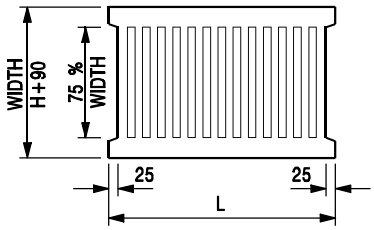
PLAN OF SLAB

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

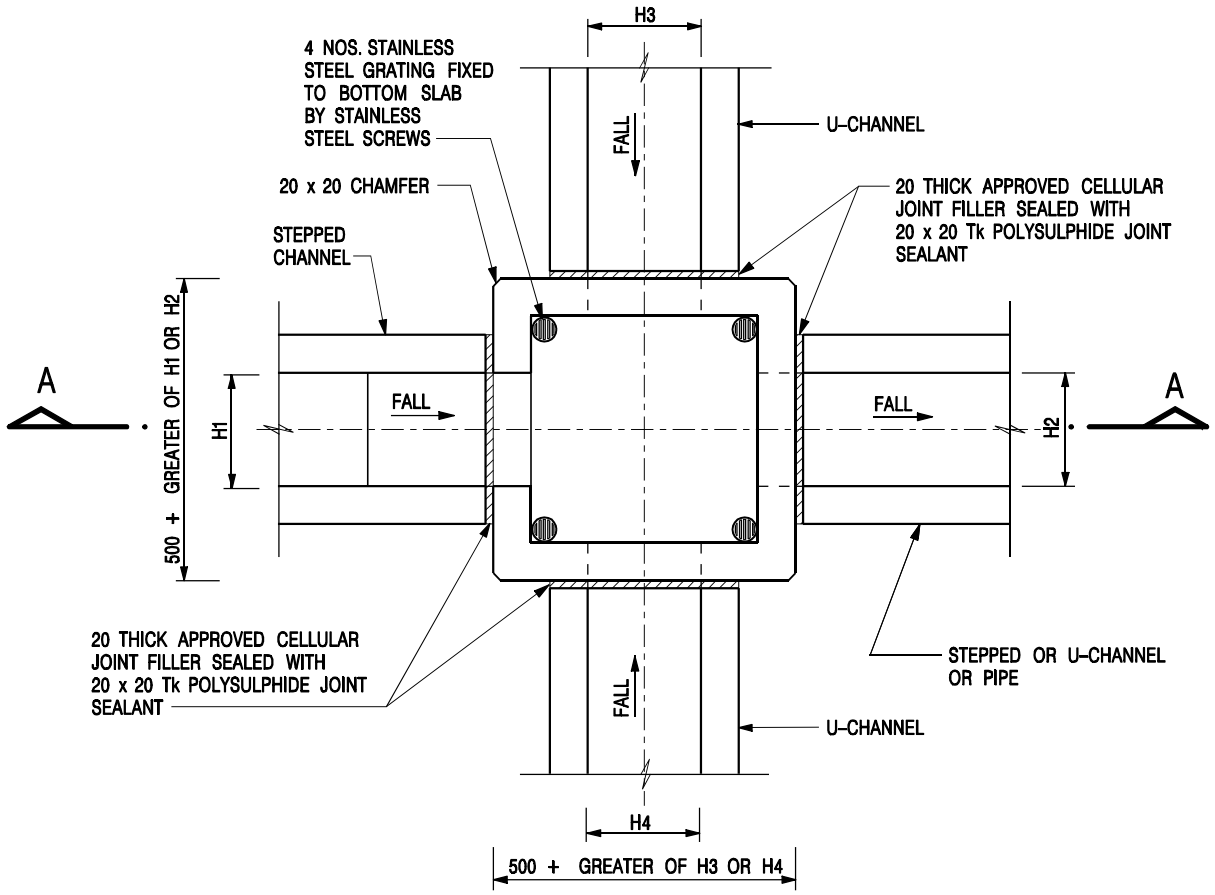
COVER SLAB AND CAST IRON GRATING FOR CHANNELS

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

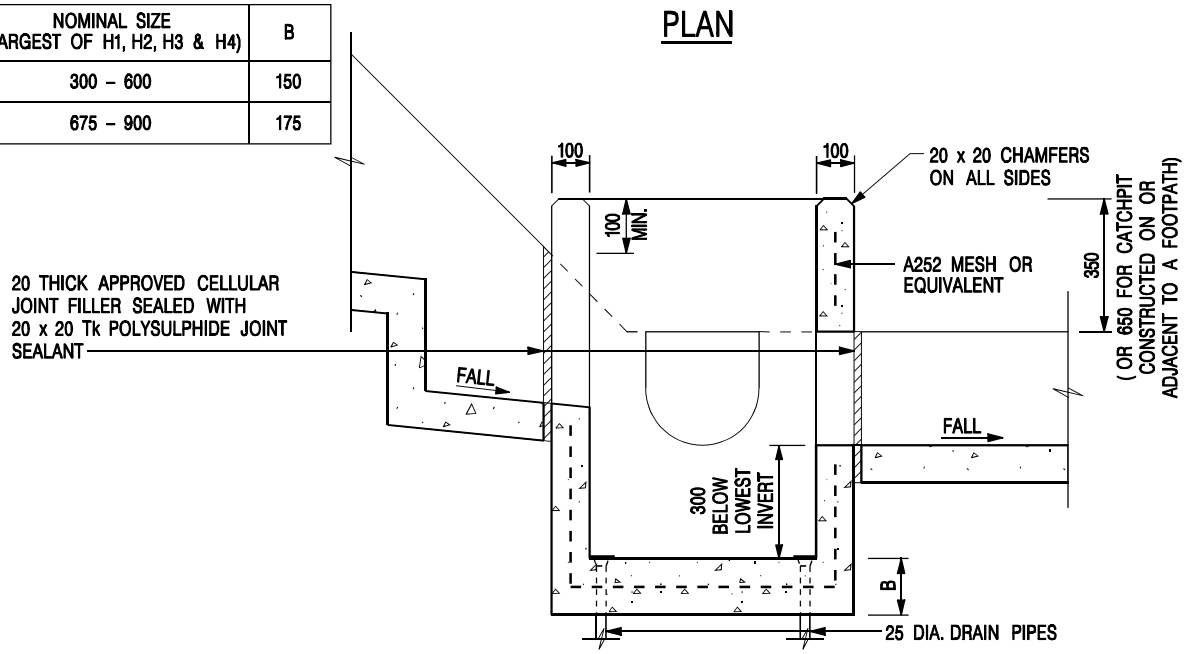
DATE JAN 1991

DRAWING NO. C2412E



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.

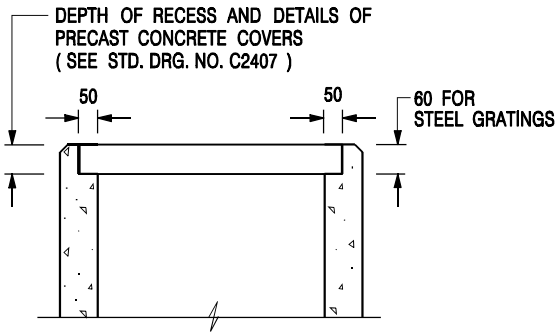
REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2406J.	Original Signed	03.2015

CATCHPIT WITH TRAP

(SHEET 1 OF 2)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20	DRAWING NO. C2406 /1
DATE JAN 1991	



ALTERNATIVE TOP SECTION
FOR PRECAST CONCRETE COVERS / GRATINGS

NOTES:

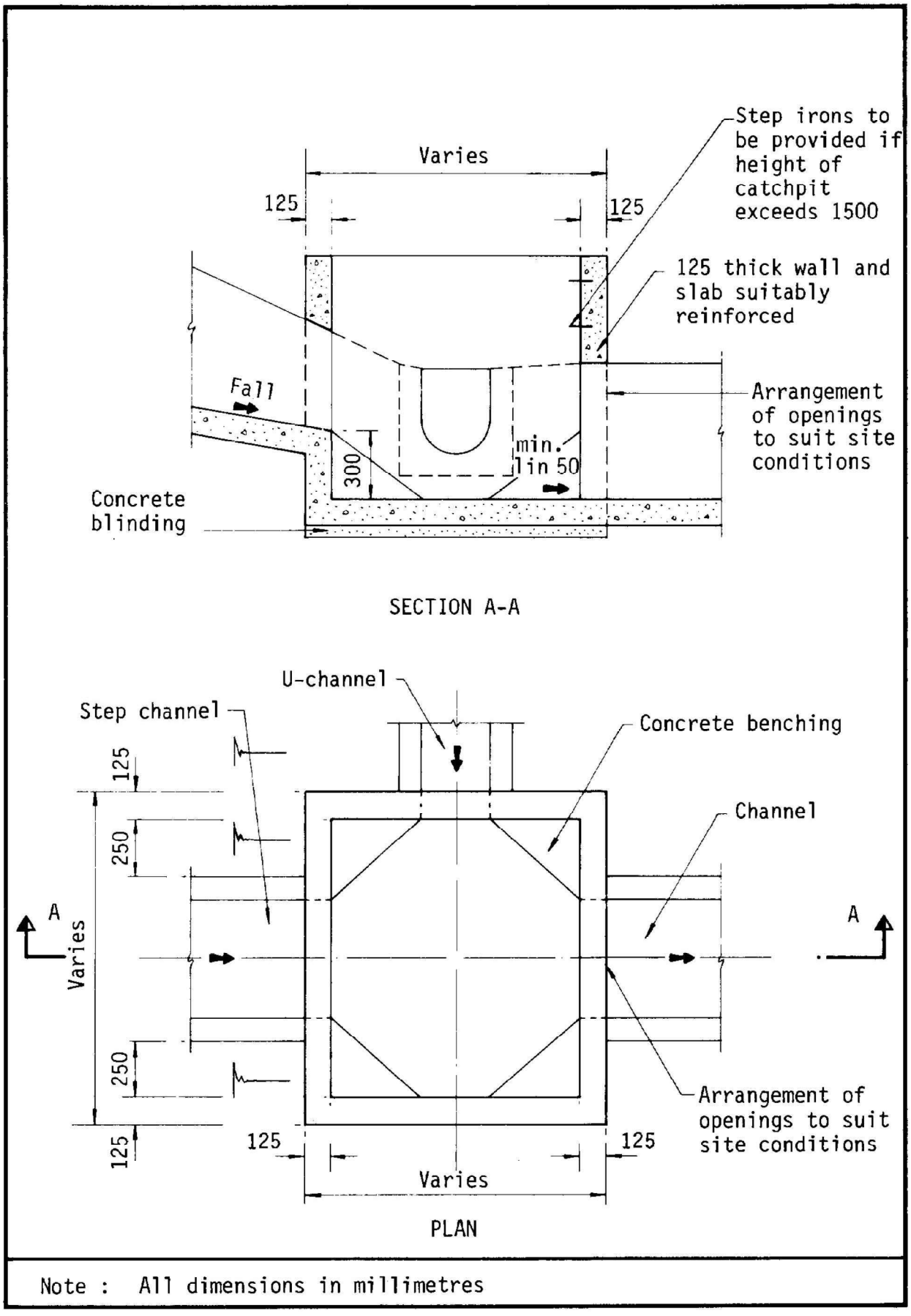
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CONCRETE SHALL BE GRADE 20 /20.
3. CONCRETE SURFACE FINISH SHALL BE CLASS U2 OR F2 AS APPROPRIATE.
4. FOR DETAILS OF JOINT, REFER TO STD. DRG. NO. C2413.
5. CONCRETE TO BE COLOURED AS SPECIFIED.
6. UNLESS REQUESTED BY THE MAINTENANCE PARTY AND AS DIRECTED 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) 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 'G' ON STD. DRG. NO. C2405; 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 'F' ON STD. DRG. NO. C2405.
12. SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2406J.	Original Signed	03.2015

CATCHPIT WITH TRAP
(SHEET 2 OF 2)

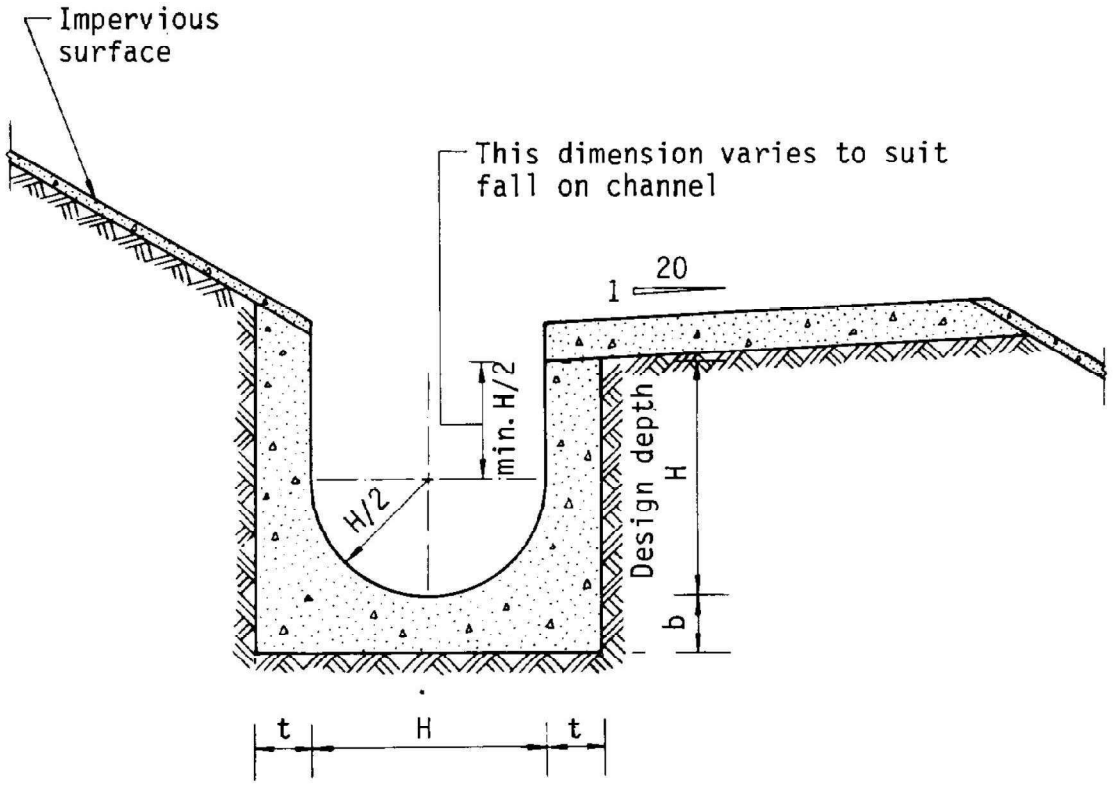
CEDD **CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT**

SCALE 1 : 20	**DRAWING NO.** C2406 /2
DATE JAN 1991	



Note : All dimensions in millimetres

Figure 8.10 - Typical Details of Catchpits



Dimensions of U - channel

Nominal size of channel H (mm)	Thickness t (mm)	Thickness b (mm)
225 to 600	150	150
675 to 1200	175	225

Figure 8.11 - Typical U-channel Details