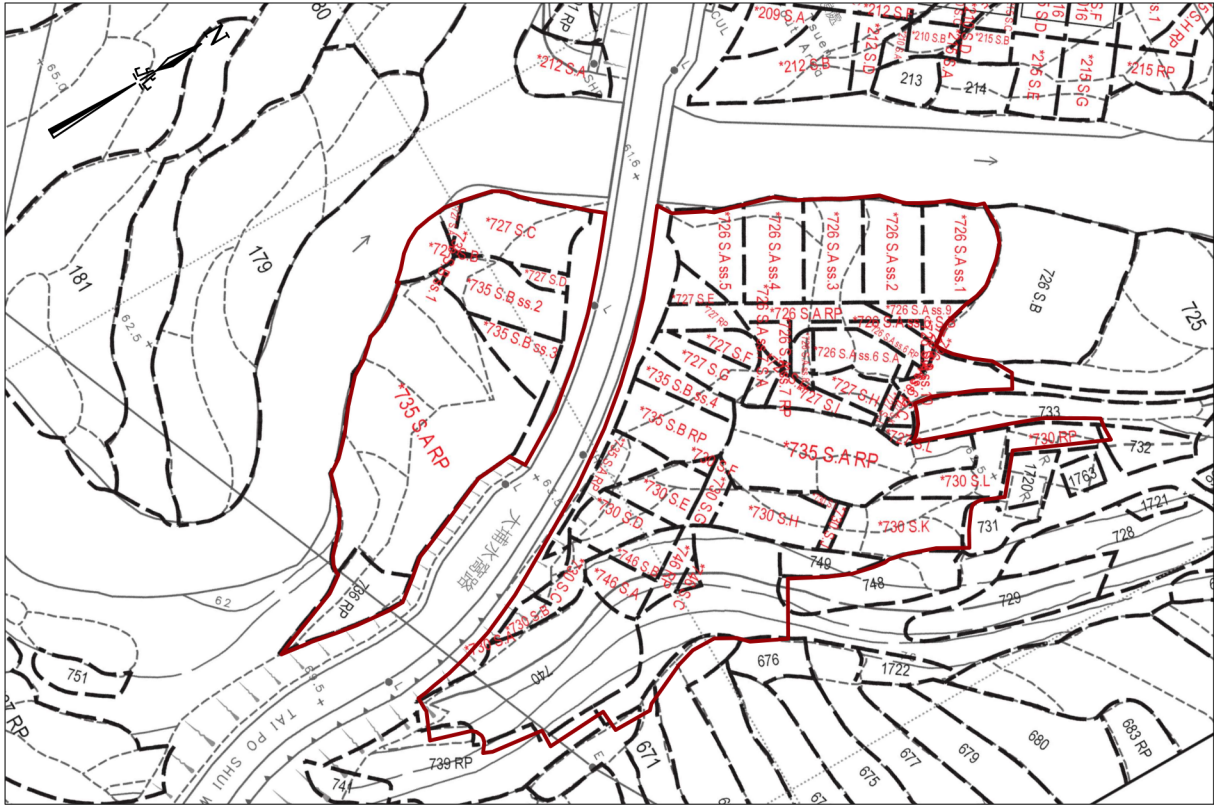


Appendix 10

Drainage Impact Assessment



BLOCK PLAN
(SCALE 1 : 1000)

LEGEND

- 225UC/300UC
PROPOSED STORMWATER U-Channel
- PROPOSED STORMWATER CATCHPIT
- EXISTING STORMWATER CATCHPIT
- LOT BOUNDARY
- BUILDING LINE
- SUBJECT BUILDING
- PLATFORM LEVEL IN mPD
- APPLICATION FOR STORMWATER DRAINAGE WORK and TO BE MAINTENANCE BY THE OWNER
- 01
SITE PHOTO VIEW

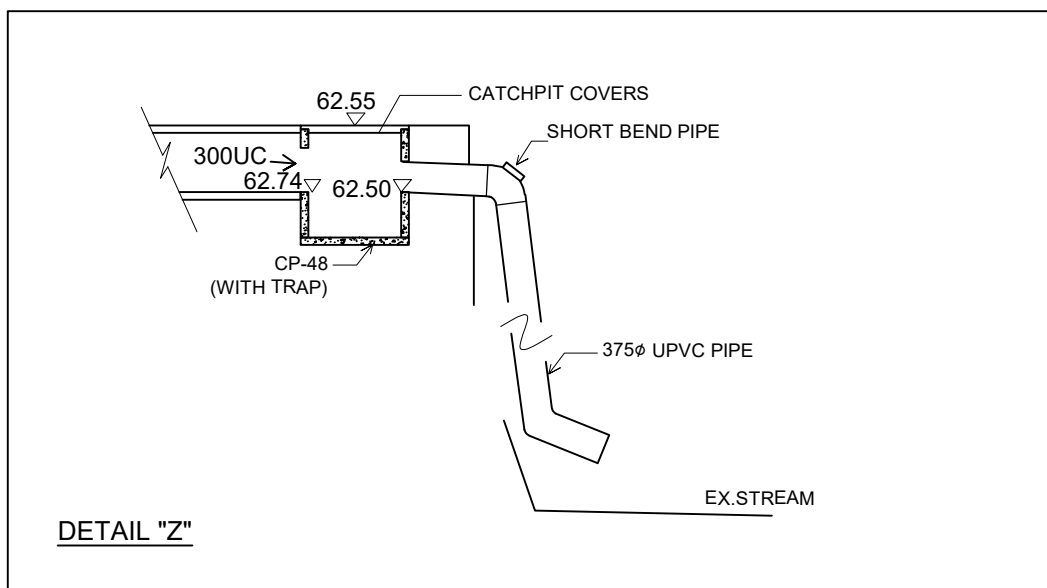
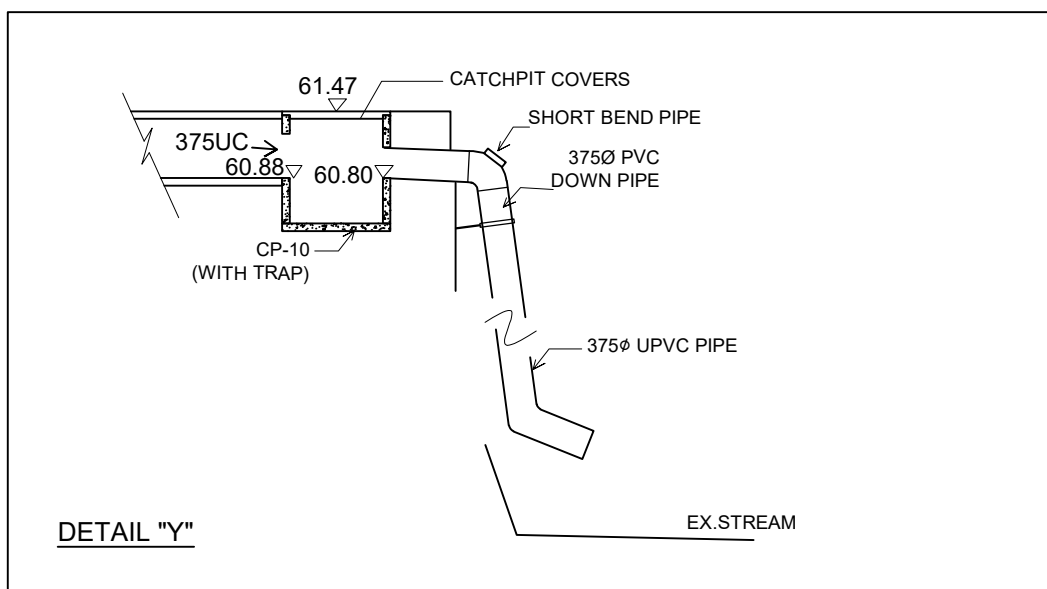
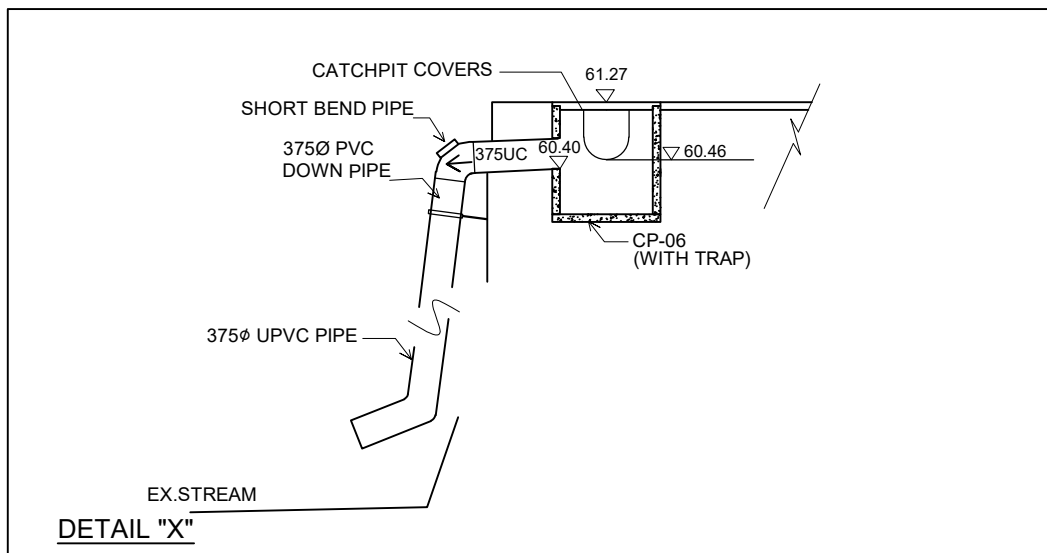
DRAINAGE WORK (STORMWATER) APPLICATION FOR STORMWATER DRAINAGE WORK

CATCHPIT	C L	A 1	A 2	A3	X 1
SITE A AREA					
CP01 (CEDD DRAWING NO. C2405/1)	64.03	63.63	-----	-----	63.13
CP02 (CEDD DRAWING NO. C2405/1)	63.40	63.00	-----	-----	62.50
CP03 (CEDD DRAWING NO. C2405/1)	62.67	62.37	-----	-----	61.77
CP04 (CEDD DRAWING NO. C2405/1)	61.95	61.65	-----	-----	61.05
CP05 (CEDD DRAWING NO. C2405/1)	60.98	60.58	-----	-----	60.58
CP06 (CEDD DRAWING NO. C2406/1) (WITH TRAP)	61.27	60.46	60.97	-----	60.40
EX.CP-B (CEDD DRAWING NO. C2405/1)	65.15	64.91	-----	-----	64.89
CP07 (CEDD DRAWING NO. C2405/1)	62.69	62.39	-----	-----	61.74
CP08 (CEDD DRAWING NO. C2405/1)	62.32	61.66	-----	-----	61.42
CP09 (CEDD DRAWING NO. C2405/1)	61.75	61.23		-----	60.95
CP10 (CEDD DRAWING NO. C2406/1) (WITH TRAP)	61.47	60.88	-----	-----	60.80
SITE B AREA					
CP15 (CEDD DRAWING NO. C2405/1)	77.16	76.76	-----	-----	76.26
CP15A (CEDD DRAWING NO. C2405/1)	75.53	DOWN PIPE	-----	-----	74.63
CP16 (CEDD DRAWING NO. C2405/1)	75.11	74.51	-----	-----	74.21
CP17 (CEDD DRAWING NO. C2405/1)	74.13	73.73	-----	-----	73.23
CP18 (CEDD DRAWING NO. C2405/1)	73.53	73.13	-----	-----	72.63
CP19 (CEDD DRAWING NO. C2405/1)	72.98	72.59	-----	-----	72.09

CATCHPIT	C L	A 1	A 2	X 1
CP19A (CEDD DRAWING NO. C2405/1)	71.53	DOWN PIPE	-----	70.63
CP20 (CEDD DRAWING NO. C2405/1)	71.07	70.53	-----	70.17
CP20A (CEDD DRAWING NO. C2405/1)	70.07	DOWN PIPE	-----	69.17
CP21 (CEDD DRAWING NO. C2405/1)	69.53	69.13	-----	68.63
CP21A (CEDD DRAWING NO. C2405/1)	69.10	DOWN PIPE	-----	68.20
CP22 (CEDD DRAWING NO. C2405/1)	68.44	68.02	-----	67.54
CP23 (CEDD DRAWING NO. C2405/1)	67.76	67.36	-----	66.86
CP24 (CEDD DRAWING NO. C2405/1)	67.10	66.70	-----	66.20
CP24A (CEDD DRAWING NO. C2405/1)	64.35	63.95	DOWN PIPE	63.45
CP25 (CEDD DRAWING NO. C2405/1)	66.91	76.57	-----	75.48
CP26 (CEDD DRAWING NO. C2405/1)	75.72	75.32	-----	74.23
CP26A (CEDD DRAWING NO. C2405/1)	74.32	DOWN PIPE	-----	73.37
CP27 (CEDD DRAWING NO. C2405/1)	73.66	73.26	-----	72.76
CP27A (CEDD DRAWING NO. C2405/1)	72.36	DOWN PIPE	-----	71.46
CP28 (CEDD DRAWING NO. C2405/1)	71.82	71.42	-----	70.92
CP28A (CEDD DRAWING NO. C2405/1)	70.52	DOWN PIPE	-----	69.62
CP29 (CEDD DRAWING NO. C2405/1)	69.92	69.52	-----	69.02
CP29A (CEDD DRAWING NO. C2405/1)	68.62	68.22	-----	67.72
CP30 (CEDD DRAWING NO. C2405/1)	68.04	67.64	-----	67.14
CP30A (CEDD DRAWING NO. C2405/1)	66.74	66.34	-----	65.84

CATCHPIT	C L	A 1	A 2	X 1
CP31 (CEDD DRAWING NO. C2405/1)	66.23	65.83	65.81	65.33
CP32 (CEDD DRAWING NO. C2405/1)	65.57	65.17	-----	64.67
CP33 (CEDD DRAWING NO. C2405/1)	64.86	64.46	-----	64.11
CP34 (CEDD DRAWING NO. C2405/1)	63.94	63.40	63.54	62.99
CP35 (CEDD DRAWING NO. C2405/1)	62.70	62.20	-----	61.80
CP36 (CEDD DRAWING NO. C2405/1)	62.53	61.68	-----	61.68
CP37 (CEDD DRAWING NO. C2406/1) (WITH TRAP)	61.86	61.49	-----	61.49
EX.CP-A (SCH1025528)	61.99	61.32	-----	61.25
CP38 (CEDD DRAWING NO. C2405/1)	62.70	62.33	-----	62.33
CP39 (CEDD DRAWING NO. C2405/1)	62.70	62.29	-----	62.29
CP40 (CEDD DRAWING NO. C2405/1)	62.70	62.22	-----	62.22
CP41 (CEDD DRAWING NO. C2405/1)	62.70	62.06	62.30	62.06
CP42 (CEDD DRAWING NO. C2405/1)	62.70	62.17	-----	62.17
CP43 (CEDD DRAWING NO. C2405/1)	62.70	62.07	-----	62.07
CP44 (CEDD DRAWING NO. C2405/1)	62.70	62.22	61.94	61.94
CP45 (CEDD DRAWING NO. C2405/1)	62.70	61.91	-----	61.91
CP46 (CEDD DRAWING NO. C2405/1)	62.70	61.84	-----	61.84
CP47 (CEDD DRAWING NO. C2405/1)	62.70	61.71	-----	61.71
CP48 (CEDD DRAWING NO. C2406/1) (WITH TRAP)	62.55	61.71	61.70	61.50

APPLICATION SITE	DRAWING TITLE	DRAWING DATE	DRAWING NO.		
PROPOSED RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE) AND PERONS WITH DISABILITIES (RCHD) AT VARIOUS LOTS IN D.D.8 AND ADJOINING GOVERNMENT LAND , LAM TSUEN, TAI PO, N.T.	STORMWATER DRAINAGE WORK	8 Oct 2026	ST-2B		This drawings and all related information are property of Solar-Iil Design Consulting Limited, any use must be approved by the company.
Solar-Iil Design Consulting Limited					
景佑設計工程顧問有限公司					



APPLICATION SITE

PROPOSED RESIDENTIAL CARE HOME
FOR THE ELDERLY (RCHE) AND
PERONS WITH DISABILITIES (RCHD)
AT VARIOUS LOTS IN D.D.8
AND ADJOINING GOVERNMENT LAND ,
LAM TSUEN, TAI PO, N.T.

DRAWING TITLE

STORMWATER
DRAINAGE WORK

DRAWING NO.

ST-3B

DRAWING DATE

8 Oct 2026

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PHOTO - 01



PHOTO - 04



PHOTO - 02



PHOTO - 05



PHOTO - 03



PHOTO - 06

APPLICATION SITE

PROPOSED RESIDENTIAL CARE HOME
FOR THE ELDERLY (RCHE) AND
PERONS WITH DISABILITIES (RCHD)
AT VARIOUS LOTS IN D.D.8
AND ADJOINING GOVERNMENT LAND ,
LAM TSUEN, TAI PO, N.T.

DRAWING TITLE

STORMWATER
DRAINAGE WORK

DRAWING NO.

ST-5B

DRAWING DATE

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Application Site

Propose Residential Care Home for the Elderly(RCHE)
and Perons with Disabiuties (RCHD) at Various Lots in D.D.8 and Adjoining Government Land,
Lam Tsuen, Tai Po, N.T. (Site A)

Estimation of Runoff: (With Proposed Drainage for the Application Site)

Catchment Location	Catchment Area, A m ²	Longest Distance, L (m)	Average Fall, H _{avg} (m per 100)	Time of Concentration, t _c (min)	Runoff Coefficient, K	Rainfall Increase due to Climate Change	Rainfall Intensity, i (mm/hr)	Design Flow m ³ /s	Maximum runoff, Q (litre/min)
A	503.00	115.00	13.37	5.32	1.00	1.281	301.59	0.042	2528
B	67.00	160.00	0.28	19.61	1.00	1.281	213.09	0.004	238
C	420.00	95.00	13.61	4.46	1.00	1.281	313.08	0.037	2192
D	700.00	55.00	0.17	5.91	1.00	1.281	294.50	0.057	3436
E	145.00	71.00	2.11	5.38	1.00	1.281	300.85	0.012	727
Total:									9121

Legend:

- A = area of catchment (m²)
 L = distance in metres measured on the line of natural flow between the design section and that point of the catchment from which water would take the longest time to reach the design section
 H_{avg} = average fall (m per 100m) from the summit of catchment to the point of design
 t_c = time of concentration (min)

$$= 0.14465 \times \frac{L}{H^{0.2} \times A^{0.1}}$$

 i = design mean intensity of rainfall (mm/hr) which is dependent upon the time of concentration
 The return-period of design rainfall intensity is 1 in 50 years using algebraic equation in Accordance with Table 28 and 31.

$$= \frac{a}{(t_a + b)^c} \times (1+16.0\%+12.1\%)$$

Return Period, 50 Years
 Storm Constants(HKO Headquarters) a = 505.50 b = 3.29 c = 0.355
 K = runoff coefficient
 = 0.25 for lawn area, 0.95 for hard paved area & 1 for pond
 Q = maximum runoff (litre/min)

$$= \frac{K \ i \ A}{60}$$

2.2 Estimation of Surface Channel Capacity:

Channel Ref.	Area	Qtotal (litre/min)	Gradient	Size	Type	Velocity (m/s)	Design Flow m ³ /s	Capacity (litre/min)	
C1	A	2528	1 in 90	300	U	1.75	<4.0 O.K.	0.042	9433 O.K.
C2	B	238	1 in 100	225	U	1.37	<4.0 O.K.	0.004	4155 O.K.
C3	A+B	2766	1 in 70	375	pipe	2.79		0.73	18471.6 O.K.
C4	C	2192	1 in 70	250	U	1.75	<4.0 O.K.	0.037	6577 O.K.
C5	C+D+E	6354	1 in 100	375	U	1.92	<4.0 O.K.	0.106	16225 O.K.
C6	C+D+E	6354	1 in 70	375	pipe	2.79		0.73	18471.6 O.K.

Legends:

- n = Manning's coefficier (Table 13)
 = 0.013
 R = Hydraulic Radius

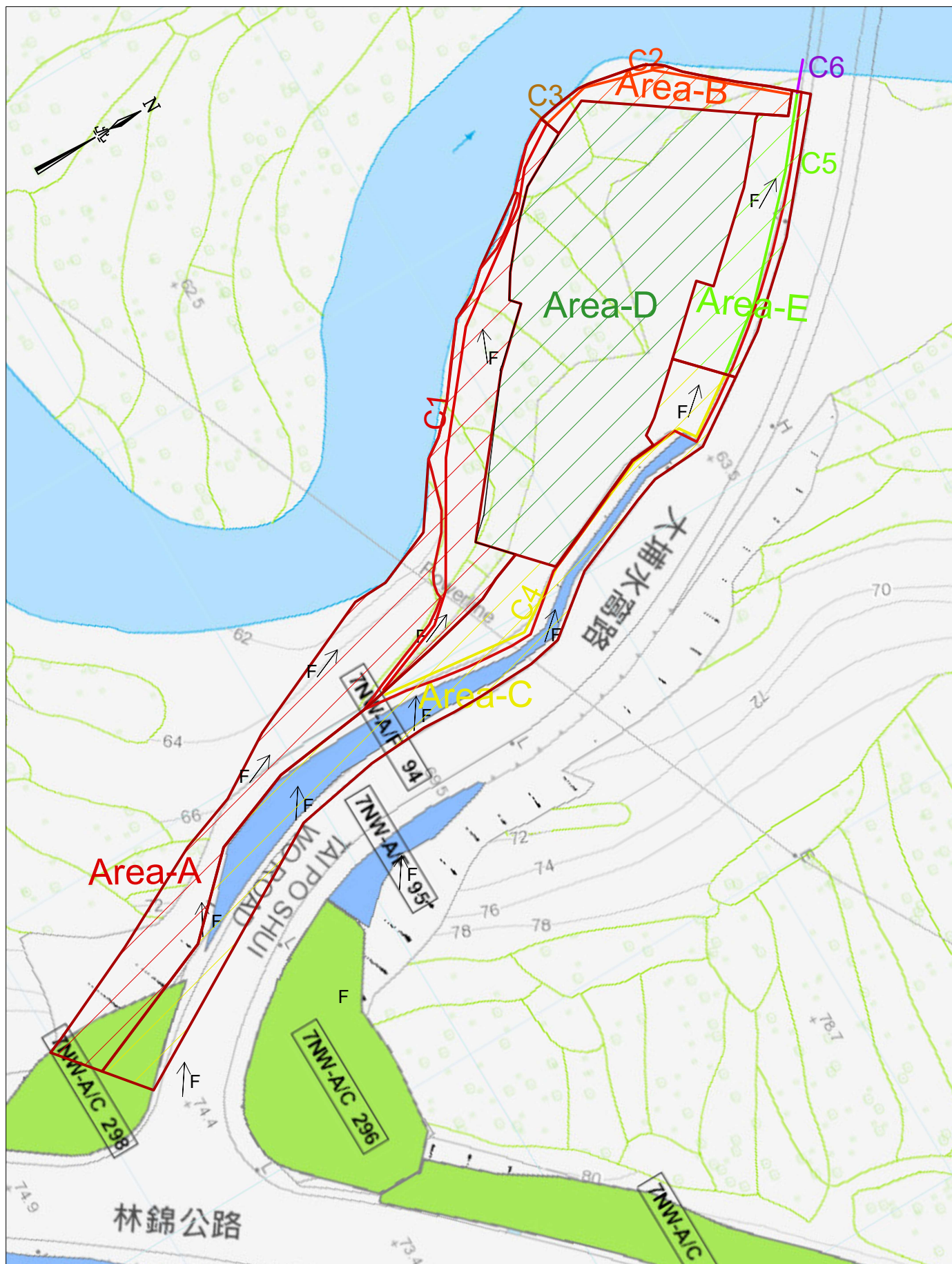
$$= \frac{A}{P}$$

 V = Manning 's flow velocity equation (m/sec)

$$= \frac{R^{0.67} \times S^{0.5}}{n}$$

 Q = Manning 's flow capacity equatio (litre/min)

$$= V \times A \times 1000 \times 60$$



STORMWATER DRAINAGE PLAN
(SCALE 1 : 500.)

APPLICATION SITE

PROPOSED RESIDENTIAL CARE HOME
FOR PERONS WITH DISABILITIES (RCHD)
AT VARIOUS LOTS IN D.D.8
AND ADJOINING GOVERNMENT LAND ,
LAM TSUEN, TAI PO, N.T.
(STIE A)

DRAWING TITLE

Design Statement Plan

DRAWING NO.

DS-1B

DRAWING DATE

2 Oct 2026

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Application Site

Propose Residential Care Home for the Elderly(RCHE)
and Perons with Disabiuties (RCHD) at Various Lots in D.D.8 and Adjoining Government Land,
Lam Tsuen, Tai Po, N.T. (Site B)

Estimation of Runoff: (With Proposed Drainage for the Application Site)

Catchment Location	Catchment Area, A m ²	Longest Distance, L (m)	Average Fall, H _{avg} (m per 100)	Time of Concentration, t _c (min)	Runoff Coefficient, K	Rainfall Increase due to Climate Change	Rainfall Intensity, i (mm/hr)	Design Flow m ³ /s	Maximum runoff, Q (litre/min)
A	1550.00	126.00	12.22	5.30	1.00	1.281	301.80	0.130	7797
B	3020.00	160.00	7.87	6.87	1.00	1.281	284.30	0.238	14310
C	870.00	95.00	18.46	3.90	1.00	1.281	321.50	0.078	4662
D	216.00	47.00	8.00	2.62	1.00	1.281	344.63	0.021	1241
E	640.00	80.00	1.72	5.44	1.00	1.281	300.07	0.053	3201
F	248.00	95.00	1.48	7.32	1.00	1.281	279.99	0.019	1157
G	670.00	64.00	0.21	6.61	1.00	1.281	286.97	0.053	3204
H	320.00	50.00	2.29	3.44	1.00	1.281	329.08	0.029	1755
Total:									37326

Legend:

- A = area of catchment (m²)
 L = distance in metres measured on the line of natural flow between the design section and that point of the catchment from which water would take the longest time to reach the design section
 H_{avg} = average fall (m per 100m) from the summit of catchment to the point of design
 t_c = time of concentration (min)

$$= 0.14465 \times \frac{L}{H^{0.2} \times A^{0.1}}$$

 i = design mean intensity of rainfall (mm/hr) which is dependent upon the time of concentration
 The return-period of design rainfall intensity is 1 in 50 years using algebraic equation in Accordance with Table 28 and 31.

$$= \frac{a}{(t_d + b)^c} \times (1+16.0\%+12.1\%)$$

Return Period, 50 Years
 Storm Constants(HKO Headquarters) a = 505.50 b = 3.29 c = 0.355
 K = runoff coefficient
 = 0.25 for lawn area, 0.95 for hard paved area & 1 for pond
 Q = maximum runoff (litre/min)

$$= \frac{K \ i \ A}{60}$$

2.2 Estimation of Surface Channel Capacity:

Channel Ref.	Area	Qtotal (litre/min)	Gradient	Size	Type	Velocity (m/s)	Design Flow m ³ /s	Capacity (litre/min)	
C1	A	7797	1 in 70	375	SC	2.30	<4.0 O.K.	0.130	19393 O.K.
C2	B	14310	1 in 70	375	U	2.30	<4.0 O.K.	0.368	19393 O.K.
C3a	A+C	26768	1 in 60	450	SC	2.80	<4.0 O.K.	0.316	34063 O.K.
C3b	B+C	20212	1 in 70	450	U	2.60	<4.0 O.K.	0.098	31536 O.K.
C4	A+B+C+D	28009	1 in 70	450	U	2.60	<4.0 O.K.	0.098	31536 O.K.
C5	E	3201	1 in 100	300	U	1.66	<4.0 O.K.	0.074	8949 O.K.
C6	F	1157	1 in 100	225	U	1.37	<4.0 O.K.	0.073	4155 O.K.
C7	E+F+G	7563	1 in 100	300	U	1.66	<4.0 O.K.	0.074	8949 O.K.
C8	H	1755	1 in 100	225	U	1.37	<4.0 O.K.	0.073	4155 O.K.
C9	E+F+G+H	9318	1 in 70	375	pipe	2.79		5.12	18471.6 O.K.

Legends:

- n = Manning's coefficient (Table 13)
 = 0.013
 R = Hydraulic Radius

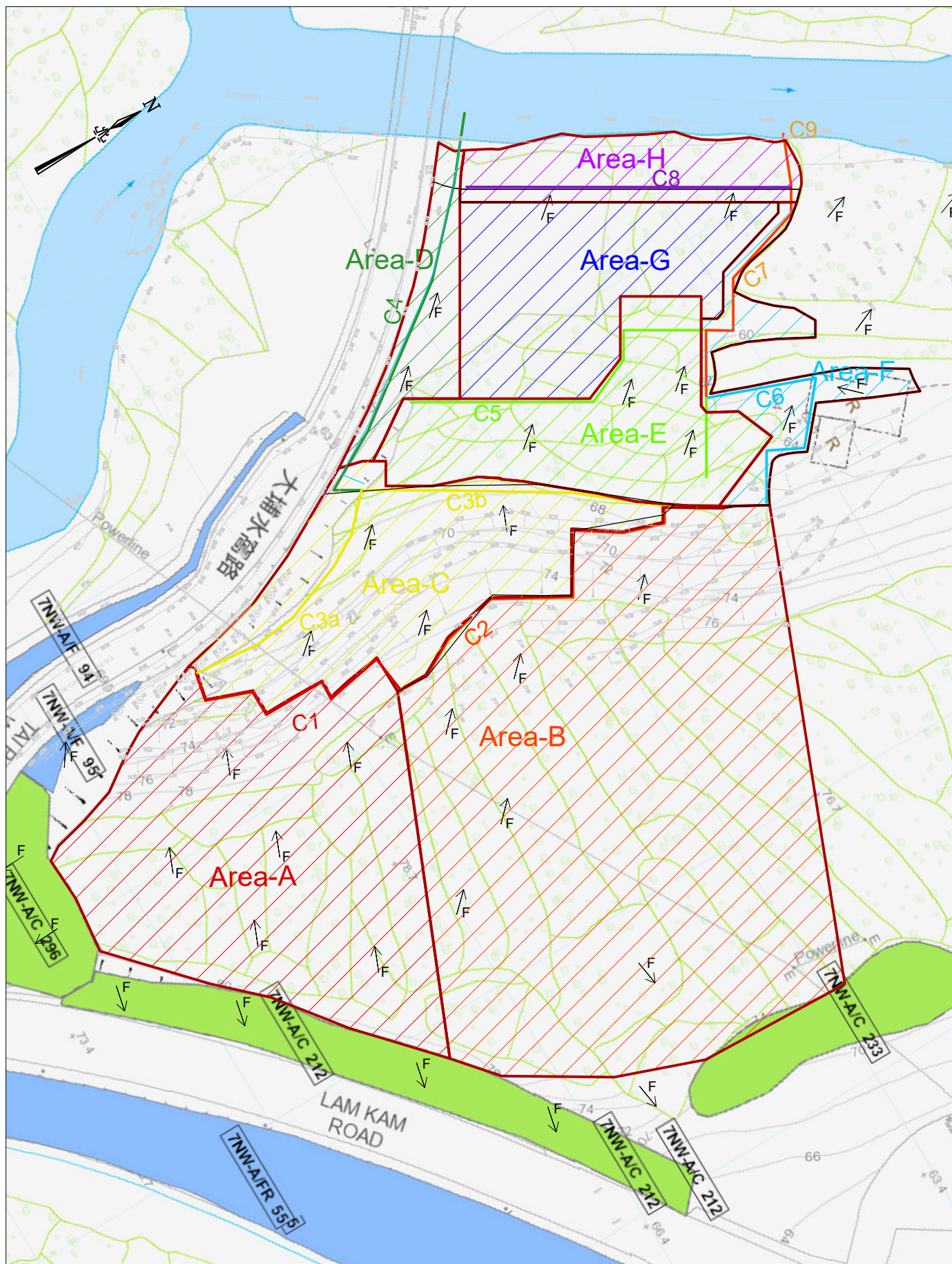
$$= \frac{A}{P}$$

 V = Manning's flow velocity equation (m/sec)

$$= \frac{R^{0.67} \times S^{0.5}}{n}$$

 Q = Manning's flow capacity equation (litre/min)

$$= V \times A \times 1000 \times 60$$



STORMWATER PLAN
(SCALE 1 : 650)

APPLICATION SITE

PROPOSED RESIDENTIAL CARE HOME
FOR THE ELDERLY (RCHE)
AT VARIOUS LOTS IN D.D.8
AND ADJOINING GOVERNMENT LAND ,
LAM TSUEN, TAI PO, N.T.
(SITE B)

DRAWING TITLE

Design Statement Plan

DRAWING NO.

DS-2B

DRAWING DATE

2 Oct 2026

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A14

(p.3 of 4)

$K_s = 0.030 \text{ mm}$
 $S = 0.00400 \text{ to } 0.02000$

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

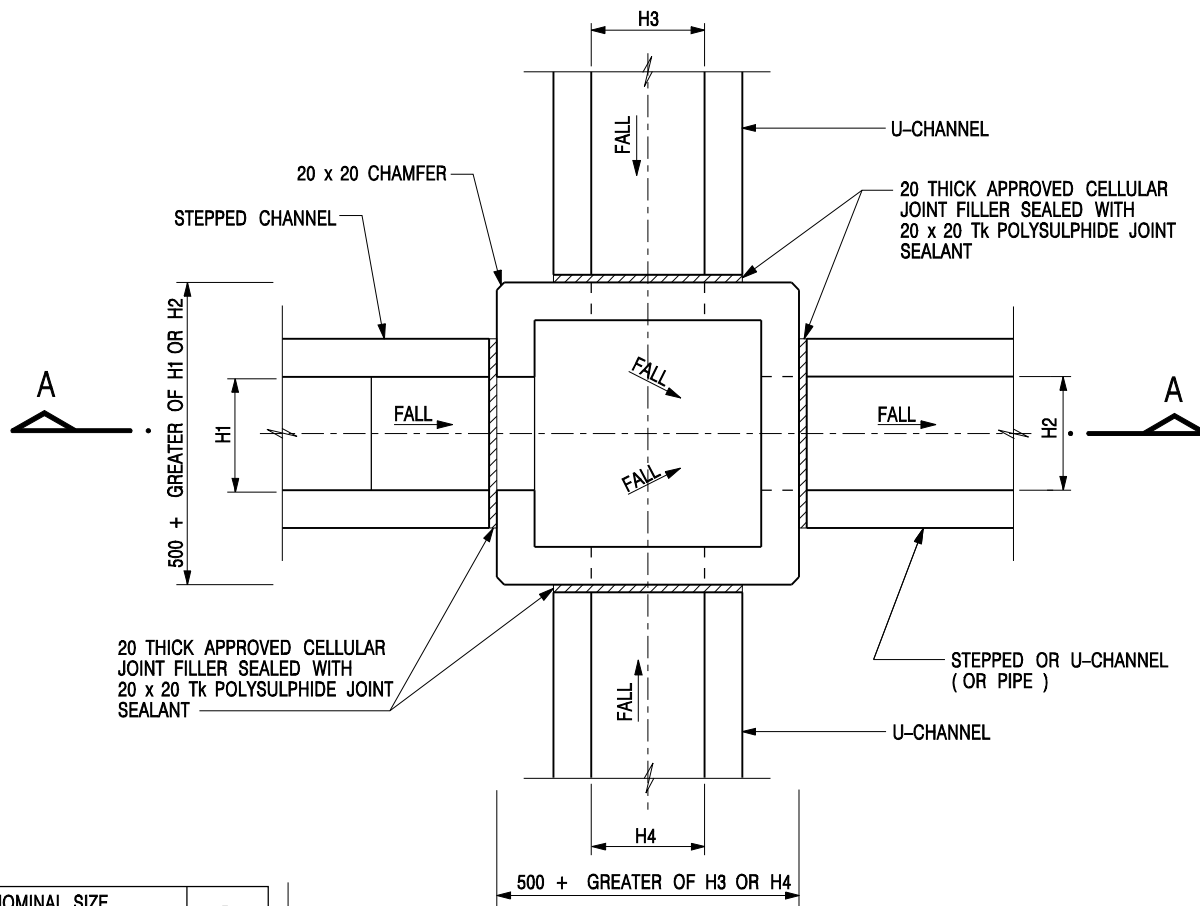
ie hydraulic gradient =
 1 in 250 to 1 in 50

velocities in ms^{-1}
 discharges in litres/sec

Gradient	(Equivalent) Pipe diameters in mm														
	150	200	225	250	275	300	350	375	400	450	500	525	600	630	
0.00400	0.789	0.955	1.031	1.104	1.175	1.243	1.372	1.434	1.494	1.610	1.721	1.775	1.931	1.991	
1/ 250	13.950	29.989	40.996	54.207	69.771	87.832	132.00	158.37	187.76	256.12	338.01	384.31	545.97	620.64	
0.00420	0.811	0.980	1.059	1.134	1.206	1.276	1.408	1.472	1.534	1.653	1.767	1.822	1.982	2.043	
1/ 238	14.326	30.793	42.092	55.652	71.627	90.165	135.49	162.55	192.72	262.87	346.90	394.41	560.27	636.89	
0.00440	0.832	1.005	1.086	1.163	1.236	1.308	1.444	1.509	1.572	1.694	1.811	1.868	2.031	2.094	
1/ 227	14.694	31.579	43.163	57.065	73.442	92.445	138.91	166.65	197.57	269.46	355.58	404.27	574.25	652.76	
0.00460	0.852	1.030	1.112	1.191	1.266	1.339	1.479	1.545	1.610	1.735	1.854	1.912	2.079	2.144	
1/ 217	15.054	32.348	44.211	58.448	75.218	94.677	142.25	170.65	202.31	275.91	364.08	413.93	587.93	668.30	
0.00480	0.872	1.054	1.138	1.218	1.296	1.370	1.513	1.581	1.647	1.775	1.897	1.956	2.127	2.193	
1/ 208	15.407	33.101	45.238	59.802	76.958	96.863	145.53	174.57	206.95	282.23	372.40	423.38	601.32	683.50	
0.00500	0.891	1.077	1.163	1.245	1.324	1.401	1.546	1.615	1.683	1.813	1.938	1.999	2.173	2.240	
1/ 200	15.753	33.839	46.245	61.130	78.663	99.005	148.73	178.42	211.50	288.42	380.55	432.64	614.45	698.41	
0.00550	0.939	1.134	1.224	1.311	1.394	1.474	1.627	1.700	1.771	1.908	2.039	2.102	2.285	2.356	
1/ 182	16.591	35.627	48.682	64.343	82.790	104.19	156.50	187.72	222.51	303.40	400.28	455.05	646.19	734.45	
0.00600	0.984	1.189	1.283	1.373	1.460	1.544	1.704	1.780	1.855	1.998	2.135	2.201	2.393	2.467	
1/ 167	17.394	37.339	51.015	67.420	86.741	109.15	163.93	196.62	233.05	317.74	419.16	476.49	676.56	768.94	
0.00650	1.028	1.241	1.339	1.434	1.524	1.612	1.778	1.858	1.935	2.084	2.227	2.296	2.496	2.573	
1/ 154	18.165	38.985	53.257	70.377	90.537	113.92	171.07	205.17	243.17	331.51	437.29	497.08	705.72	802.06	
0.00700	1.070	1.291	1.394	1.492	1.586	1.677	1.850	1.932	2.013	2.168	2.316	2.388	2.595	2.675	
1/ 143	18.909	40.571	55.419	73.227	94.196	118.52	177.95	213.41	252.93	344.78	454.75	518.91	733.82	833.96	
0.00750	1.111	1.340	1.446	1.548	1.645	1.740	1.919	2.004	2.088	2.248	2.402	2.476	2.691	2.774	
1/ 133	19.629	42.105	57.508	75.982	97.732	122.96	184.60	221.37	262.35	357.59	471.62	536.07	760.95	864.78	
0.00800	1.150	1.388	1.497	1.602	1.703	1.800	1.986	2.074	2.160	2.326	2.485	2.562	2.784	2.870	
1/ 125	20.326	43.590	59.532	78.649	101.16	127.26	191.03	229.08	271.48	370.00	487.96	554.62	787.22	894.60	
0.00850	1.189	1.433	1.547	1.655	1.759	1.859	2.050	2.142	2.231	2.402	2.566	2.645	2.874	2.963	
1/ 118	21.003	45.032	61.496	81.238	104.48	131.43	197.28	236.56	280.33	382.04	503.80	572.62	812.70	923.54	
0.00900	1.226	1.478	1.595	1.706	1.813	1.917	2.114	2.208	2.299	2.476	2.644	2.726	2.962	3.053	
1/ 111	21.661	46.433	63.405	83.755	107.71	135.49	203.35	243.83	288.93	393.74	519.20	590.10	837.46	951.65	
0.00950	1.262	1.521	1.641	1.756	1.866	1.973	2.175	2.272	2.366	2.547	2.721	2.805	3.047	3.141	
1/ 105	22.301	47.798	65.264	86.205	110.86	139.44	209.26	250.91	297.31	405.13	534.19	607.12	861.56	979.01	
0.01000	1.297	1.564	1.687	1.805	1.918	2.027	2.235	2.334	2.431	2.617	2.795	2.881	3.130	3.226	
1/ 100	22.926	49.130	67.077	88.594	113.92	143.29	215.02	257.80	305.47	416.23	548.80	623.71	885.05	1005.7	
0.01100	1.366	1.646	1.775	1.899	2.018	2.132	2.350	2.455	2.556	2.752	2.939	3.029	3.290	3.391	
1/ 91	24.133	51.699	70.577	93.206	119.84	150.72	226.14	271.12	321.22	437.65	576.99	655.72	930.36	1057.1	
0.01200	1.431	1.724	1.859	1.989	2.113	2.233	2.461	2.570	2.676	2.881	3.076	3.170	3.444	3.549	
1/ 83	25.289	54.159	73.926	97.620	125.50	157.83	236.77	283.85	336.30	458.14	603.95	686.34	973.70	1106.3	
0.01300	1.494	1.799	1.940	2.075	2.205	2.329	2.567	2.681	2.791	3.004	3.208	3.306	3.591	3.701	
1/ 77	26.400	56.522	77.144	101.86	130.94	164.66	246.99	296.08	350.77	477.81	629.83	715.73	1015.3	1153.6	
0.01400	1.554	1.872	2.018	2.158	2.293	2.423	2.669	2.787	2.902	3.123	3.335	3.437	3.733	3.846	
1/ 71	27.470	58.800	80.244	105.94	136.19	171.24	256.83	307.86	364.71	496.76	654.77	744.04	1055.4	1199.0	
0.01500	1.613	1.942	2.094	2.239	2.378	2.512	2.768	2.890	3.009	3.238	3.457	3.563	3.869	3.987	
1/ 67	28.505	61.000	83.240	109.89	141.25	177.59	266.33	319.24	378.17	515.06	678.84	771.37	1094.1	1243.0	
0.01600	1.670	2.010	2.166	2.317	2.461	2.599	2.864	2.990	3.113	3.350	3.576	3.686	4.002	4.124	
1/ 63	29.506	63.130	86.140	113.71	146.15	183.75	275.53	330.25	391.20	532.77	702.14	797.82	1131.5	1285.5	
0.01700	1.725	2.075	2.237	2.392	2.541	2.684	2.957	3.087	3.214	3.458	3.691	3.804	4.130	4.256	
1/ 59	30.479	65.198	88.954	117.42	150.91	189.72	284.46	340.94	403.84	549.95	724.74	823.48	1167.8	1326.7	
0.01800	1.778	2.139	2.306	2.465	2.618	2.766	3.047	3.181	3.311	3.563	3.803	3.919	4.255	4.384	
1/ 56	31.424	67.207	91.688	121.02	155.53	195.52	293.13	351.32	416.12	566.84	746.69	848.41	1203.1	1366.7	
0.01900	1.830	2.202	2.373	2.537	2.694	2.846	3.134	3.272	3.407	3.665	3.912	4.031	4.376	4.509	
1/ 53	32.344	69.163	94.351	124.53	160.02	201.16	301.57	361.42	428.07	582.88	768.06	872.66	1237.4	1405.7	
0.02000	1.881	2.262	2.438	2.606	2.768	2.924	3.220	3.361	3.499	3.764	4.018	4.140	4.495	4.631	
1/ 50	33.241	71.070	96.946	127.94	164.41	206.66	309.79	371.26	439.72	598.71	788.88	896.30	1270.8	1443.6	
	110	140	160	180	200	220	250	270	290	320	360	380	430	450	
	θ _{medial} for part-full circular pipes.														

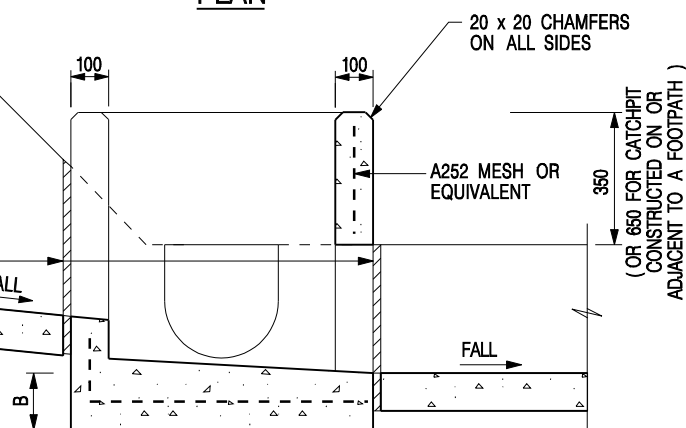
θ_{medial} for part-full circular pipes.

$K_s = 0.030 \text{ mm}$ $S = 0.00400 \text{ to } 0.02000$

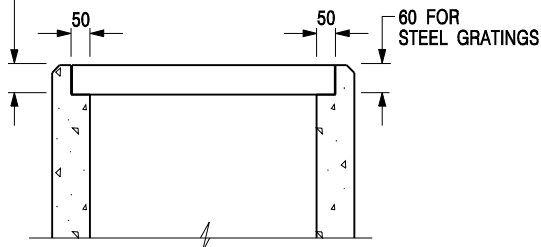


NOMINAL SIZE (LARGEST OF H1, H2, H3 & H4)	B
300 - 600	150
675 - 900	175

20 THICK APPROVED CELLULAR JOINT FILLER SEALED WITH 20 x 20 Tk POLYSULPHIDE JOINT SEALANT



DEPTH OF RECESS AND DETAILS OF PRECAST CONCRETE COVERS (SEE STD. DRG. NO. C2407)



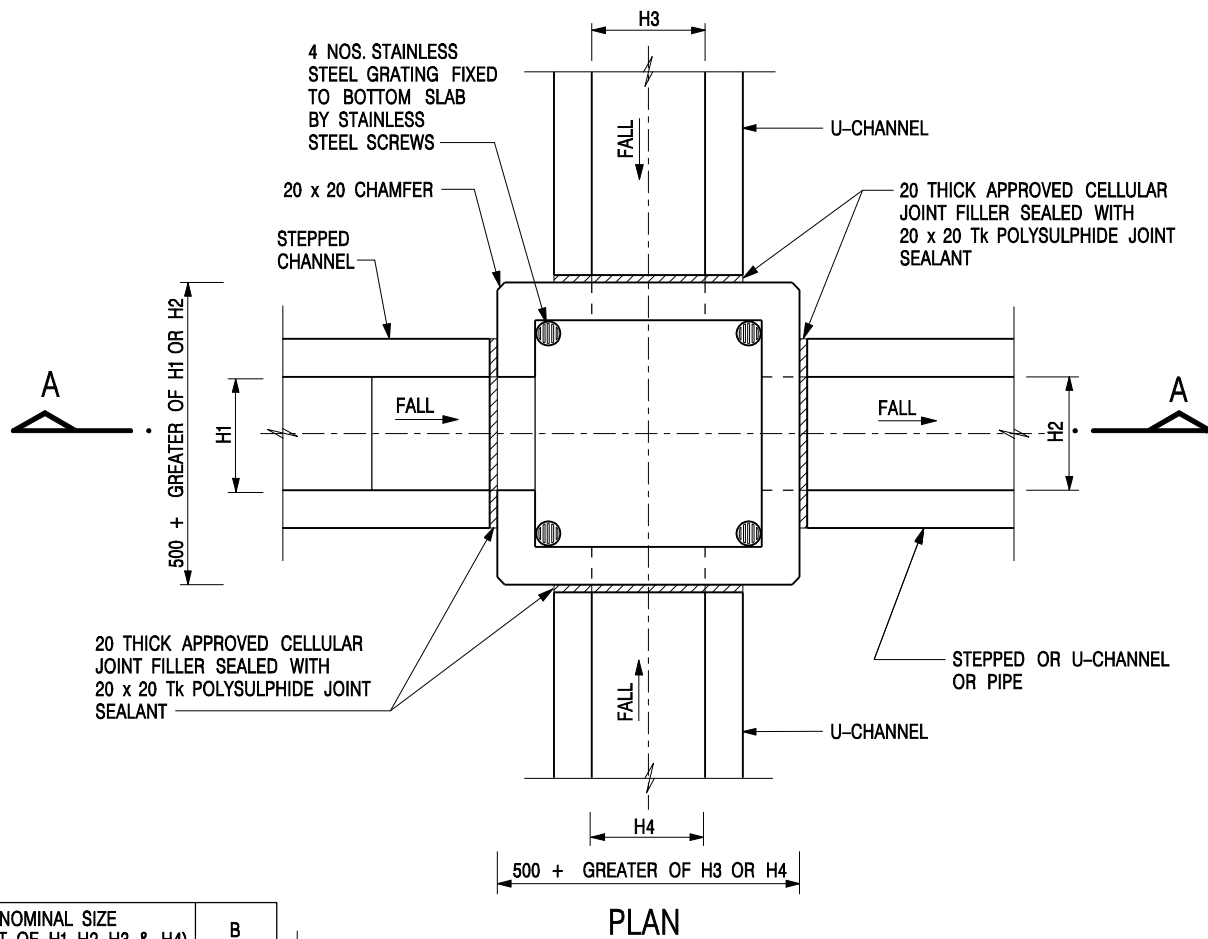
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFER TO SHEET 5 FOR OTHER NOTES.

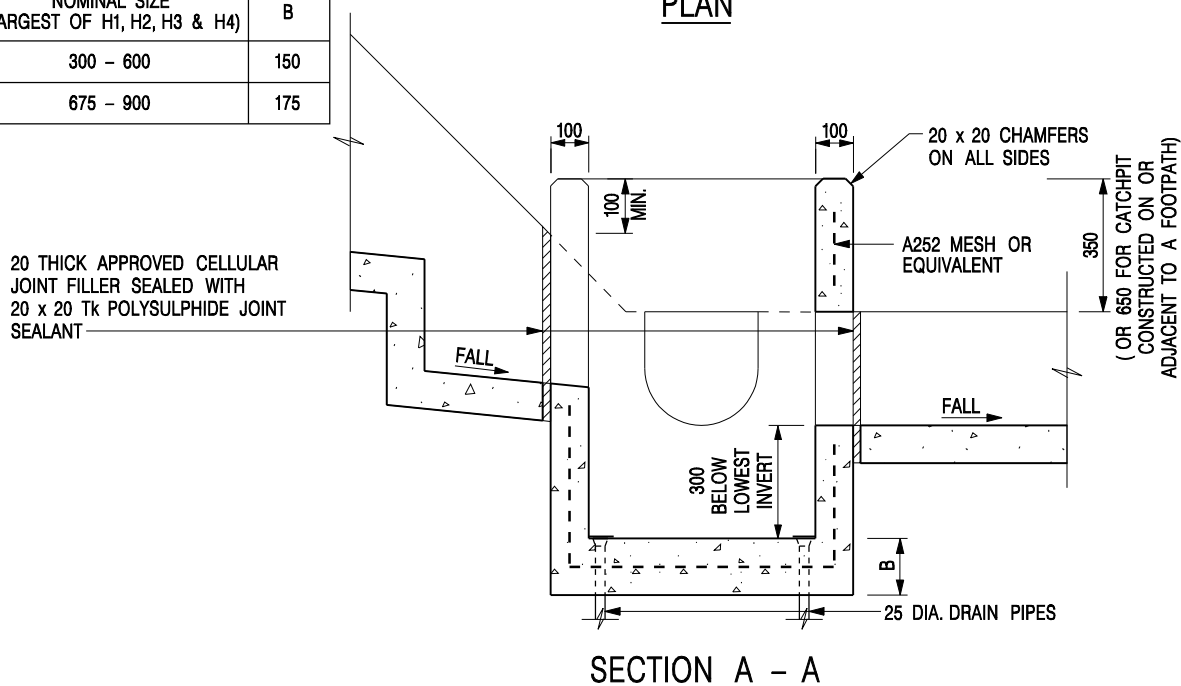
ALTERNATIVE TOP SECTION FOR PRECAST CONCRETE COVERS / GRATINGS

STANDARD CATCHPIT DETAILS (SHEET 1 OF 5)

-	FORMER DRG. NO. C2405J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE
 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT			
SCALE 1 : 20		DRAWING NO. C2405 /1	
DATE JAN 1991			



NOMINAL SIZE (LARGEST OF H1, H2, H3 & H4)	B
300 - 600	150
675 - 900	175

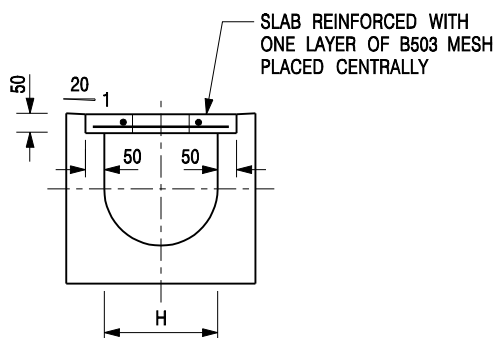


NOTES:

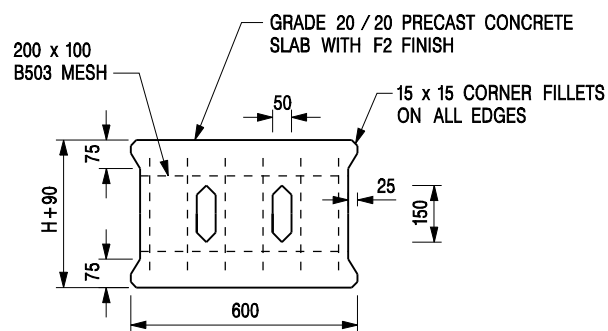
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFER TO SHEET 2 FOR OTHER NOTES.

CATCHPIT WITH TRAP
(SHEET 1 OF 2)

-	FORMER DRG. NO. C2406J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE
 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT		SCALE 1 : 20	
		DATE JAN 1991	
		DRAWING NO. C2406 /1	



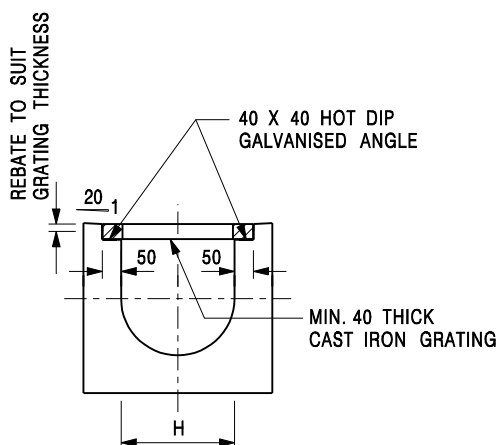
TYPICAL SECTION



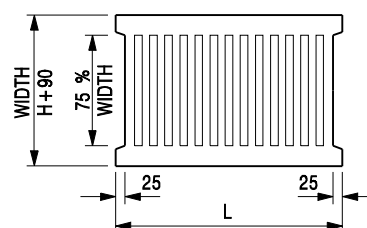
PLAN OF SLAB

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:

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

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
REF.	REVISION	SIGNATURE	DATE

**COVER SLAB AND CAST IRON
GRATING FOR CHANNELS**

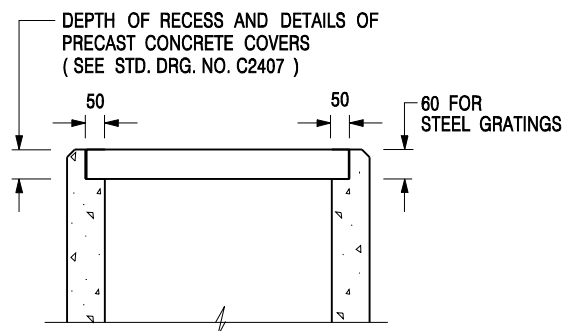


**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

SCALE 1 : 20

DATE JAN 1991

DRAWING NO.
C2412E



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.

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

**CATCHPIT WITH TRAP
(SHEET 2 OF 2)**



**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

SCALE 1 : 20

DATE JAN 1991

DRAWING NO.

C2406 /2A