

#### Photo 1



Photo 2

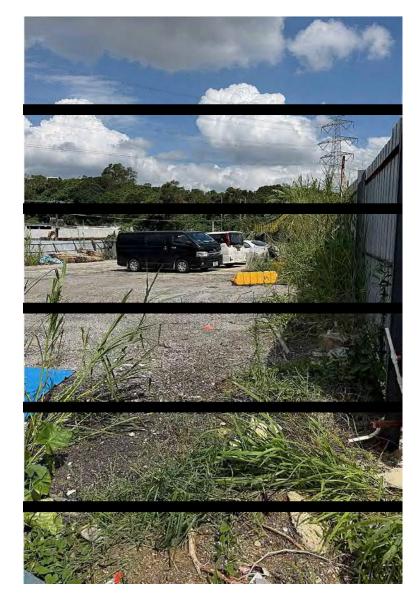
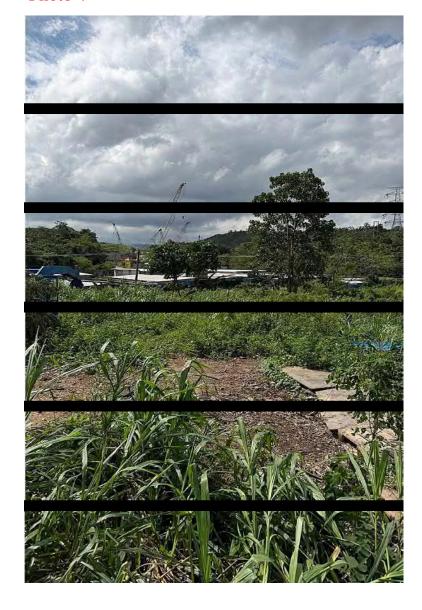


Photo 3



Photo 4



#### Photo 5



#### Photo 6



#### Photo 7



#### Photo 8



Photo 9



Photo 10



Photo 11



Photo 12



Photo 13



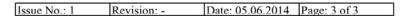
Photo 14

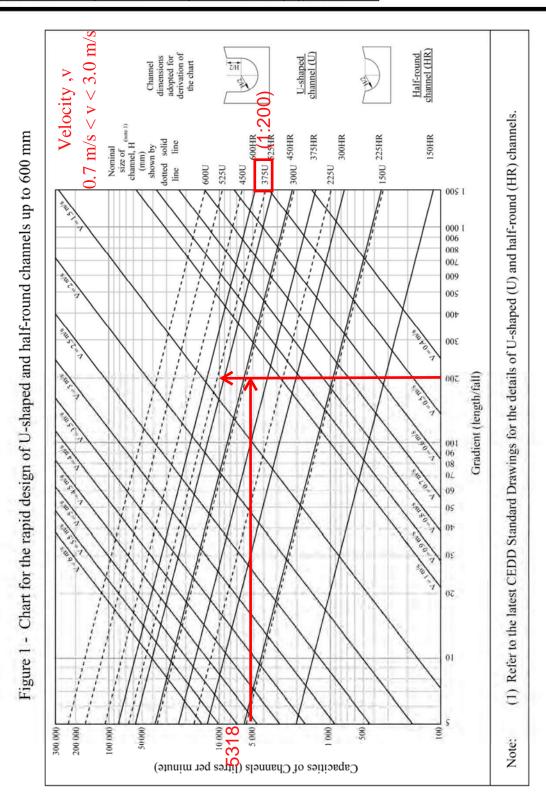


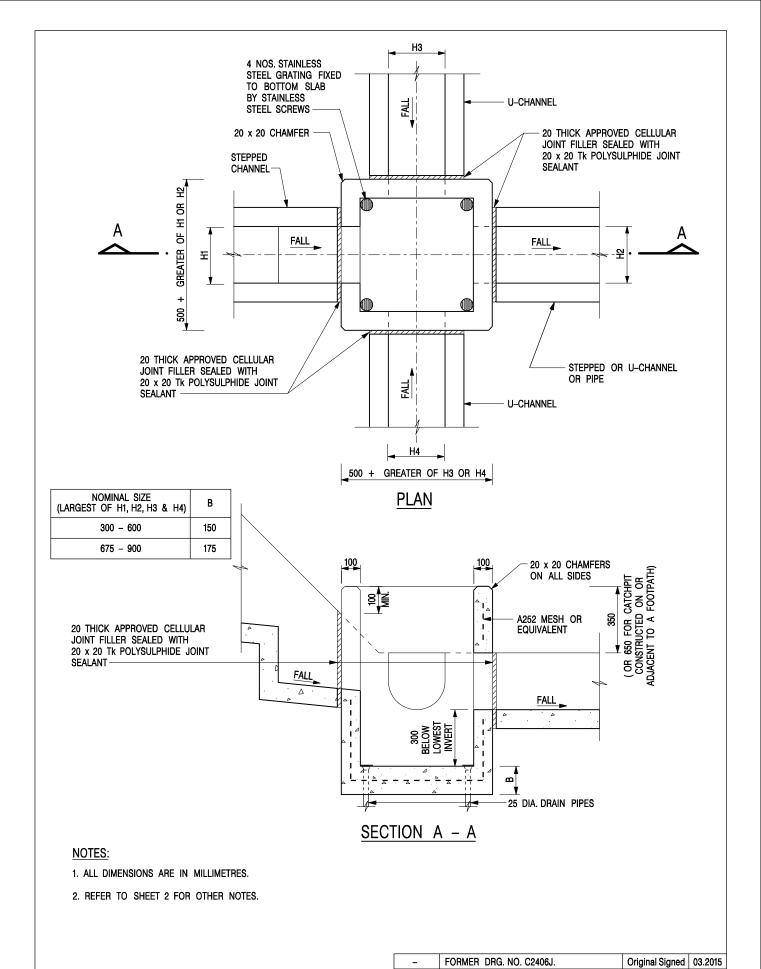
THE SITE , Area  $m^2$ = 1070 (C= 0.95 ) L= 23 Calculation of Design Runoff of the Proposed Development, For the design of drains inside the site.  $\Sigma Q = \Sigma 0.278 C i A$  $m^2$ = 1070= 1070 = 0.00107  $km^2$  $= 0.14465 L1/H^{0.2}A^{0.1}$  $= 0.14465*23/1^{0.2}*1070^{0.1}$ = 1.656 min (50 yrs return period, Table 3d, Corrigendum 2024,  $= 1.16*a/(t+b)^{c}$ SDM) and (16% increase due to climate change)  $= 1.16*474.6/(1.656+2.90)^{0.371}$ = 313.6 mm/hr Therefore, = 0.278\*0.95\*313.6\*0.00107 = 0.0886m<sup>3</sup>/sec = <u>5318</u> lit/min Provide 375UC (1:200) is OK

#### Geotechnical Engineering Office, Civil Engineering and Development Department The Government of the Hong Kong Special Administrative Region

#### GEO Technical Guidance Note No. 43 (TGN 43) Guidelines on Hydraulic Design of U-shaped and Half-round Channels on Slopes







# CATCHPIT WITH TRAP (SHEET 1 OF 2)

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1:20 DRAWING NO.

REVISION

**DATE** JAN 1991

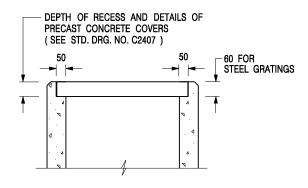
REF.

C2406 /1

SIGNATURE DATE

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## 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.
- 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.
- 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 ℃ STAGGERED SHALL BE PROVIDED. THICKNESS OF CATCHPIT WALL FOR INSTALLATION OF STEP IRONS SHALL BE INCREASED TO 150 mm.
- FOR RETROFITTING AN EXISTING CATCHPIT WITH STEEL GRATING, SEE DETAIL 'G' ON STD. DRG. NO. C2405 /4.
- 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
Α	MINOR AMENDMENT.	Original Signed	04.2016

CATCHPIT WITH TRAP (SHEET 2 OF 2)

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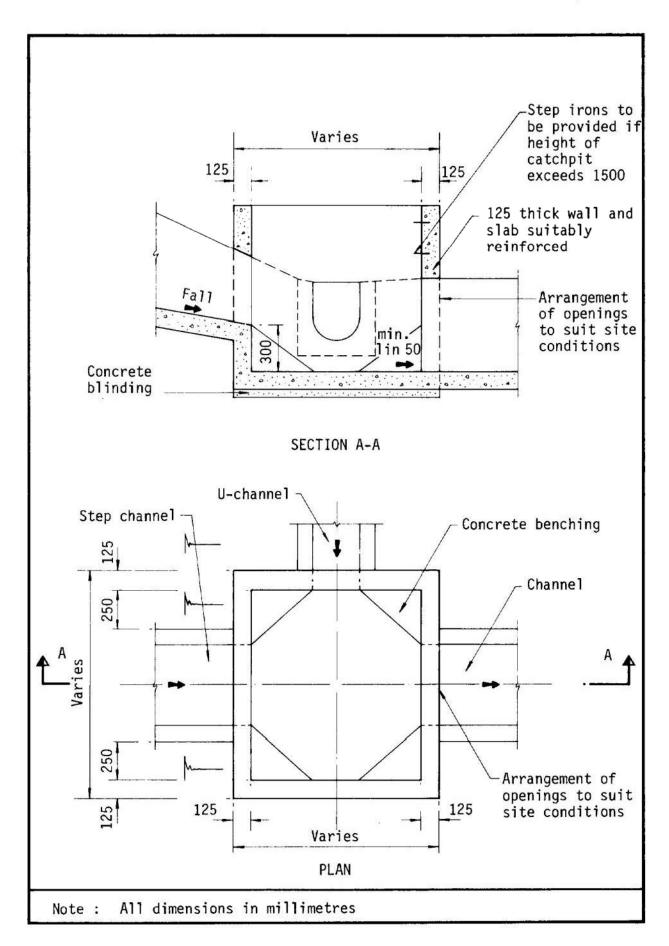


Figure 8.10 - Typical Details of Catchpits

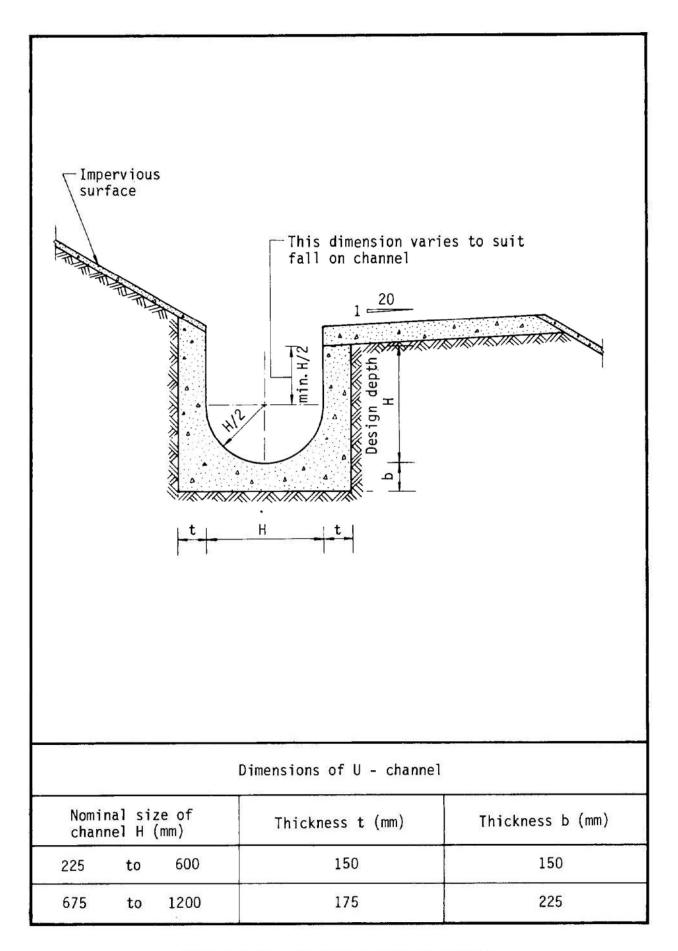


Figure 8.11 - Typical U-channel Details