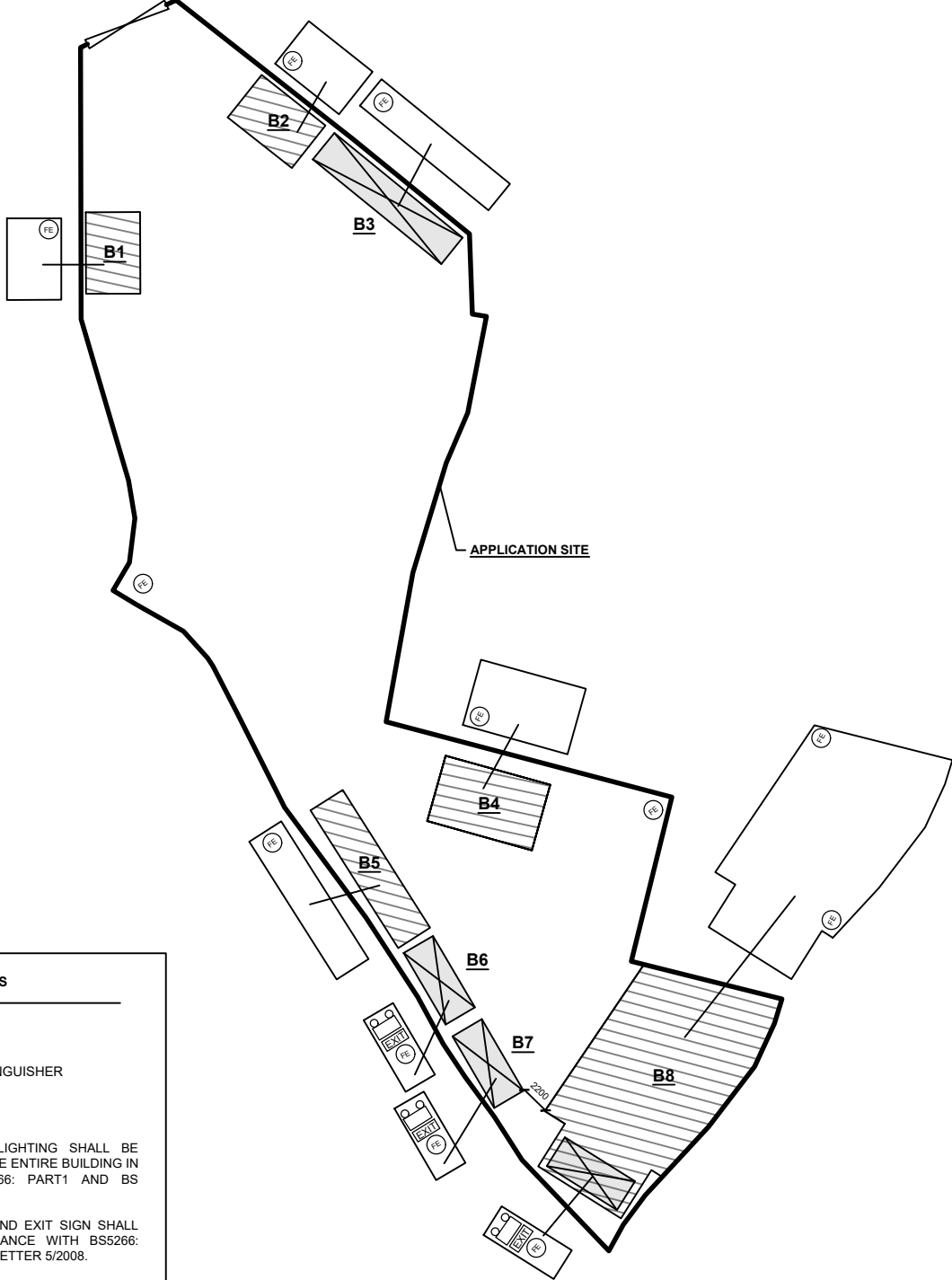


MAJOR DEVELOPMENT PARAMETERS




APPLICATION SITE AREA	: 1,837 m ²	(ABOUT)
COVERED AREA	: 363 m ²	(ABOUT)
UNCOVERED AREA	: 1,474 m ²	(ABOUT)
PLOT RATIO	: 0.2	(ABOUT)
SITE COVERAGE	: 20%	(ABOUT)
NO. OF STRUCTURE	: 9	
DOMESTIC GFA	: N/A	
NON-DOMESTIC GFA	: 393 m ²	(ABOUT)
TOTAL GFA	: 393 m ²	(ABOUT)
BUILDING HEIGHT	: 2.8 m - 6 m	(ABOUT)
NO. OF STOREY	: 1 - 2	

STRUCTURE	USE	COVERED AREA	GFA	BUILDING HEIGHT
B1	COVERED STORAGE SPACE	24m ² (ABOUT)	24m ² (ABOUT)	3m (ABOUT)(1-STOREY)
B2	COVERED STORAGE SPACE	24m ² (ABOUT)	24m ² (ABOUT)	3m (ABOUT)(1-STOREY)
B3	STORAGE OF TOOLS	30m ² (ABOUT)	30m ² (ABOUT)	2.8m (ABOUT)(1-STOREY)
B4	COVERED STORAGE SPACE	40m ² (ABOUT)	40m ² (ABOUT)	3m (ABOUT)(1-STOREY)
B5	COVERED STORAGE SPACE	34m ² (ABOUT)	34m ² (ABOUT)	3m (ABOUT)(1-STOREY)
B6	STORAGE OF TOOLS	15m ² (ABOUT)	15m ² (ABOUT)	2.8m (ABOUT)(1-STOREY)
B7	PORTABLE TOILET	15m ² (ABOUT)	15m ² (ABOUT)	2.8m (ABOUT)(1-STOREY)
B8	COVERED PARKING SPACE	181m ² (ABOUT)	181m ² (ABOUT)	6m (ABOUT)(1-STOREY)
B9	SITE OFFICE	COVERED BY B8	30m ² (ABOUT)	5.6m (ABOUT)(2-STOREY)
TOTAL		363m² (ABOUT)	393m² (ABOUT)	

**INGRESS / EGRESS
6.5m (ABOUT)(W)**







FIRE SERVICE INSTALLATIONS


-  EXIT SIGN
-  EMERGENCY LIGHT
-  5 KG CO2 FIRE EXTINGUISHER

FS NOTES:

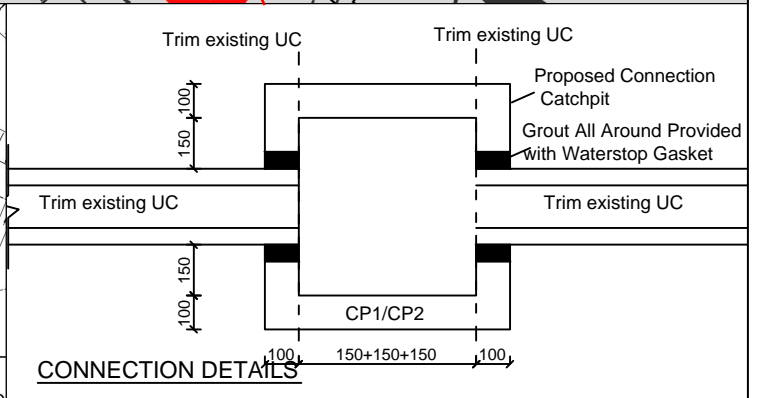
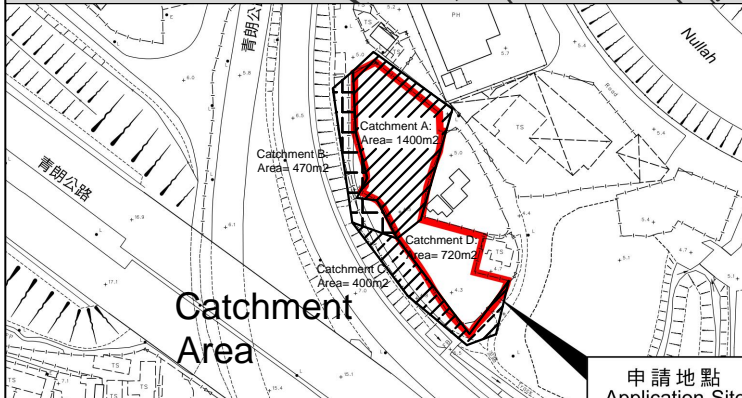
1. SUFFICIENT EMERGENCY LIGHTING SHALL BE PROVIDED THROUGHOUT THE ENTIRE BUILDING IN ACCORDANCE WITH BS5266: PART1 AND BS EN1838
2. SUFFICIENT DIRECTIONAL AND EXIT SIGN SHALL BE PROVIDED IN ACCORDANCE WITH BS5266: PART 1 AND FSD CIRCULAR LETTER 5/2008.
3. PORTABLE HAND-OPERATED APPROVED APPLIANCE SHALL BE PROVIDED AS REQUIRED BY OCCUPANCY.
4. ACCESS IS PROVIDED FOR EMERGENCY VEHICLE TO REACH 30m OF ALL PART OF STRUCTURES.

LEGEND

-  APPLICATION SITE
-  STRUCTURE (ENCLOSED)
-  STRUCTURE (CANOPY)
-  INGRESS / EGRESS

PLANNING CONSULTANT 	PROJECT PROPOSED TEMPORARY OPEN STORAGE OF VEHICLES FOR SALE (INCLUDING NEW/USED VEHICLES) FOR A PERIOD OF 3 YEARS	ADDRESS LOTS 512 RP (PART) AND 515 (PART) IN D.D. 103 AND ADJOINING GOVERNMENT LAND, KAM TIN, YUEN LONG, NEW TERRITORIES	SCALE 1 : 500 @ A4		TITLE FSIs PROPOSAL	
			DRAWN BY MN	DATE 18.10.2023	REVISED BY MN	DATE 21.2.2024



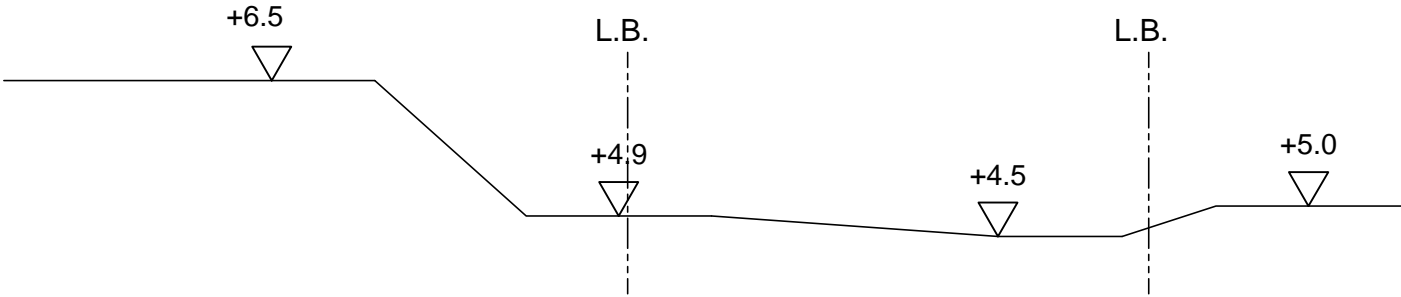


正宏工程顧問公司

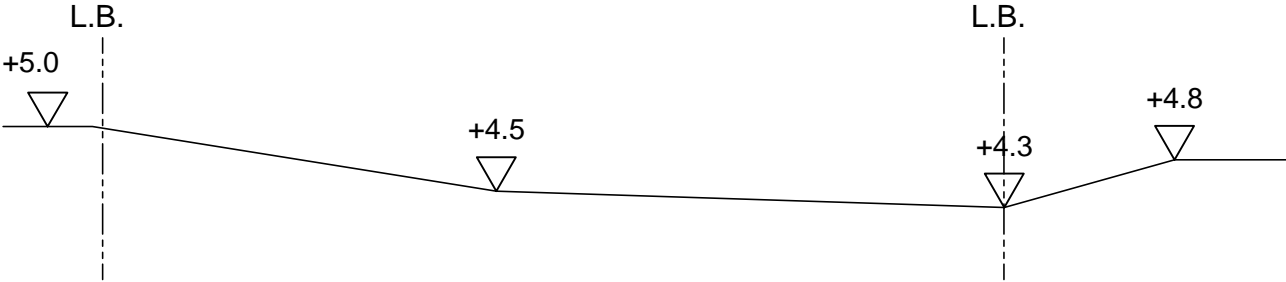
CHING WAN ENGINEERING CONSULTANTS CO.

Project:
Proposed Temporary Open Storage of Vehicles for Sale (including New and Used Vehicles) for a Period of 3 Years at Lots 512 RP (Part) and 515 (Part) in D.D. 103 and Adjoining Government Land, Kam Tin, Yuen Long, New Territories

Title:		Drainage Proposal	D01
Drawn by:	DM	Date:	10th Jan 2022
Check by:	DM	Scale:	---



Section A-A



Section B-B

Company:

Project :

Date: 9/1/2022

Calculation for channels:

Catchment Area of site

$$\begin{aligned} \text{Catchment Area A} &= 1100 \text{ m}^2 \\ &= 0.0011 \text{ km}^2 \end{aligned}$$

$$\begin{aligned} \text{Peak runoff in m}^3/\text{s} &= 0.278 \times 0.95 \times 250 \text{ mm/hr} \times 0.0011 \text{ km}^2 \\ &= 0.072628 \text{ m}^3/\text{s} \\ &= 4358 \text{ liter/min} \end{aligned}$$

According to (Figure 8.7 - Chart for the Rapid Design of Channels),
For gradient 1:100, existing 250UC will be suitable.

$$\begin{aligned} \text{Catchment Area B+C} &= 470 \text{ m}^2 + 400 \text{ m}^2 \\ &= 0.00087 \text{ km}^2 \end{aligned}$$

$$\begin{aligned} \text{Peak runoff in m}^3/\text{s} &= 0.278 \times 0.95 \times 250 \text{ mm/hr} \times 0.00087 \text{ km}^2 \\ &= 0.057442 \text{ m}^3/\text{s} \\ &= 3447 \text{ liter/min} \end{aligned}$$

According to (Figure 8.7 - Chart for the Rapid Design of Channels),
For gradient 1:100, existing 250UC will be suitable.

$$\begin{aligned} \text{Catchment Area A+B+C+D} &= 1100 \text{ m}^2 + 470 \text{ m}^2 + 400 \text{ m}^2 + 720 \text{ m}^2 \\ &= 0.00269 \text{ km}^2 \end{aligned}$$

$$\begin{aligned} \text{Peak runoff in m}^3/\text{s} &= 0.278 \times 0.95 \times 250 \text{ mm/hr} \times 0.00269 \text{ km}^2 \\ &= 0.177607 \text{ m}^3/\text{s} \\ &= 10656 \text{ liter/min} \end{aligned}$$

According to (Figure 8.7 - Chart for the Rapid Design of Channels),
For gradient 1:100, existing 375UC will be suitable.

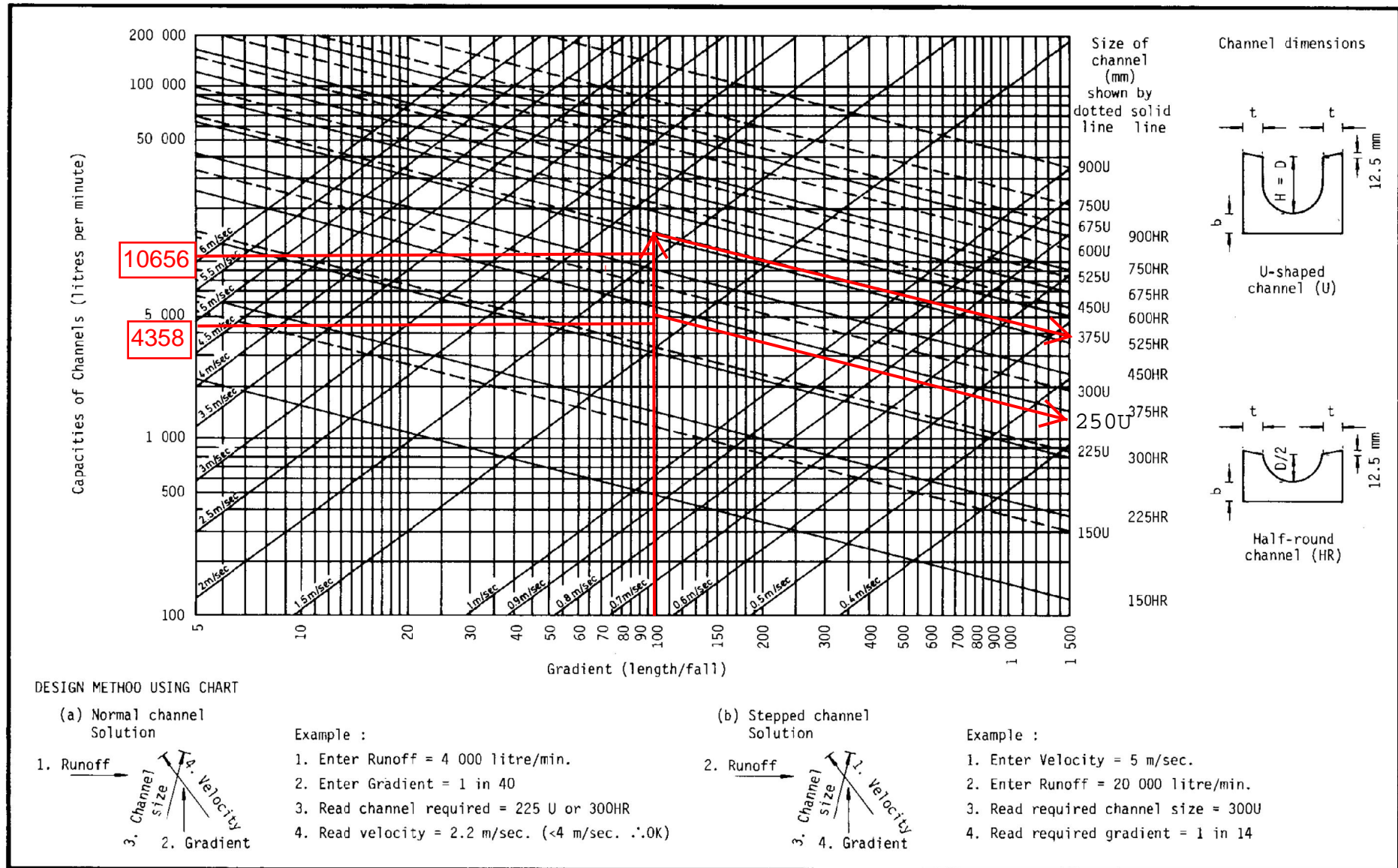


Figure 8.7 - Chart for the Rapid Design of Channels

Check existing 450mm dia. Pipes (1:100) by Colebrook-White Equation

$$V = -\sqrt{(8gDs)} \log\left(\frac{ks}{3.7D} + \frac{2.51v}{D\sqrt{(2gDs)}}\right)$$

where :

V	=			mean velocity (m/s)	
g	=	9.81	m/s ²	gravitational acceleration (m/s ²)	
D	=	0.45	m	internal pipe diameter (m)	
ks	=	0.00015	m	hydraulic pipeline roughness (m)	(Table 5, from DSD Sewerage Manual, concrete pipe)
v	=	1.14E-06	m ² /s	kinematic viscosity of fluid (m ² /s)	
s	=	0.005		hydraulic gradient	
Area A	=	0.159043	m ²		
Therefore, design V of pipe	=	1.6470	m/s	>	Design velocity from catchment area = 0.1776 m ³ /s / 1.116724 m/s = 0.159043128 m/s ==>O.K.

Therefore, 450mm dia. pipe (1:100) will be adopted for connection between site and final discharge

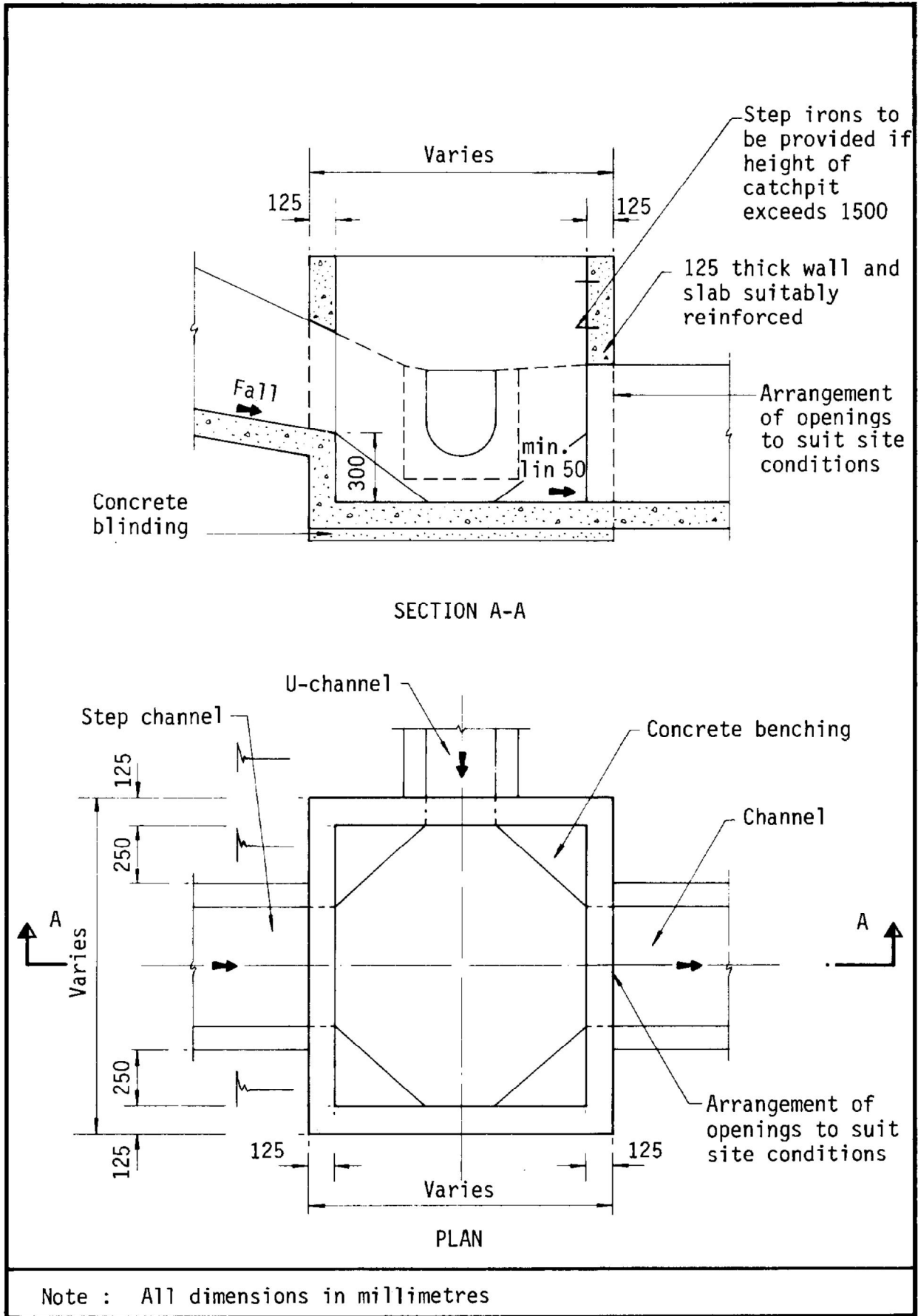


Figure 8.10 - Typical Details of Catchpits

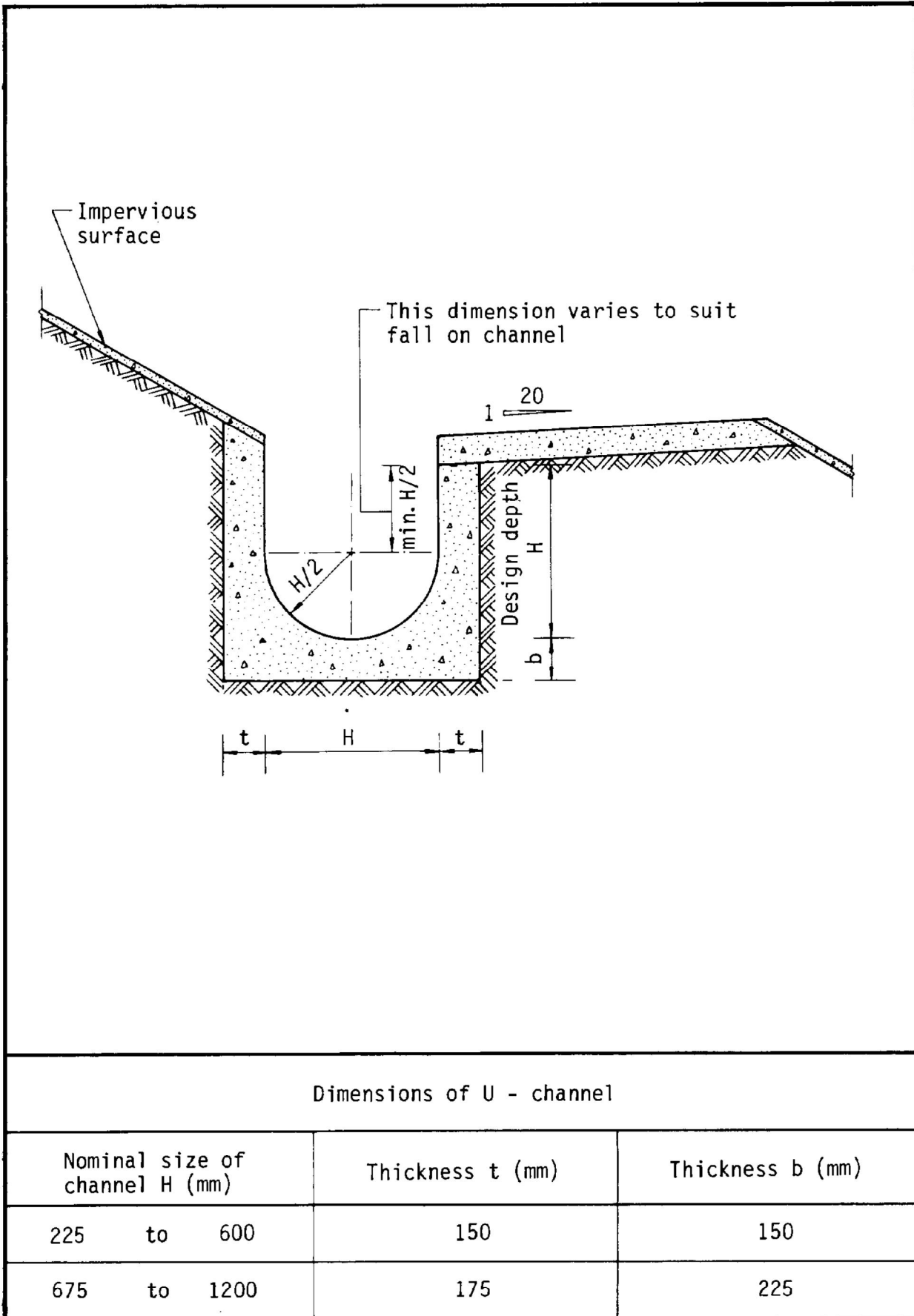
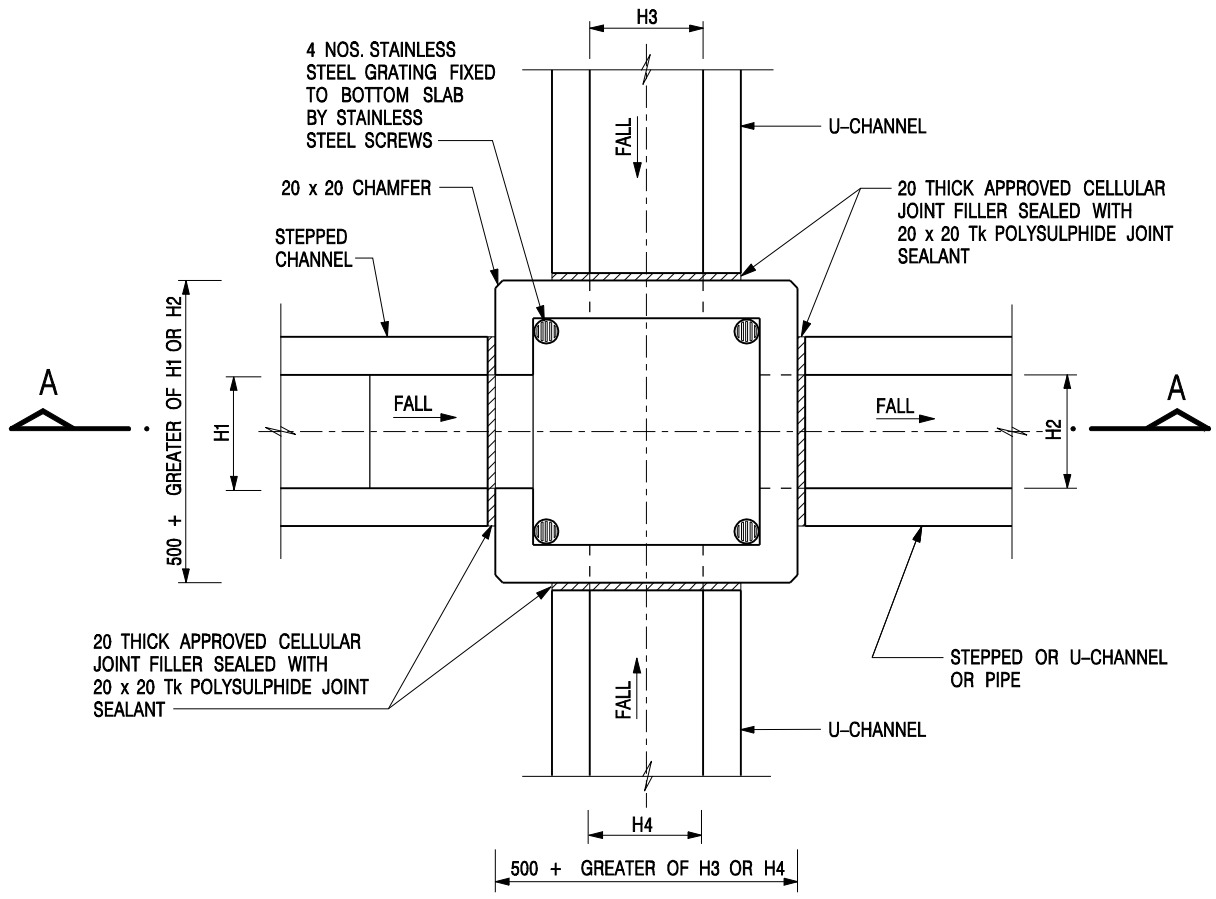
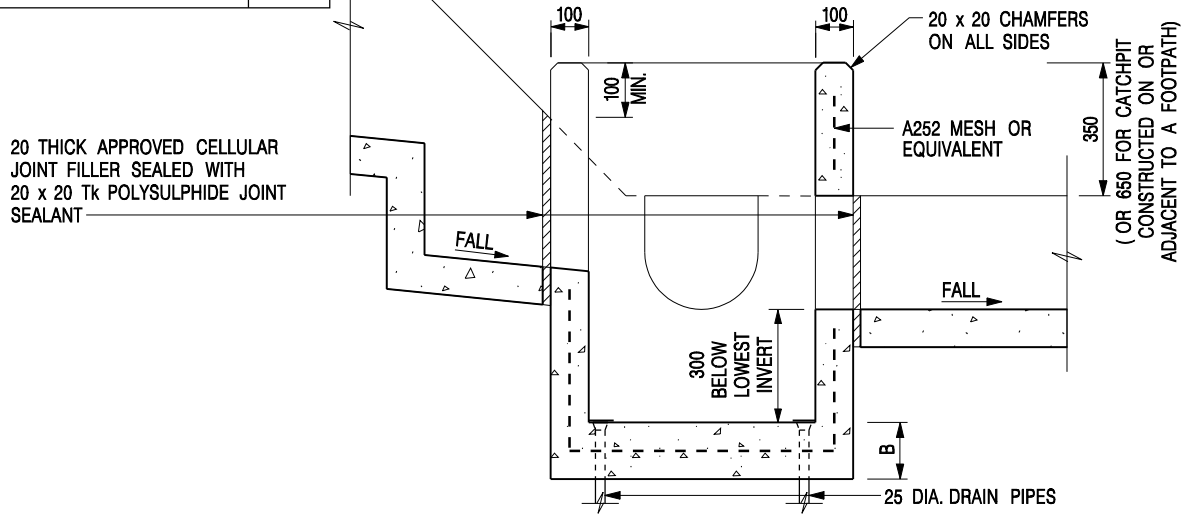


Figure 8.11 - Typical U-channel Details



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



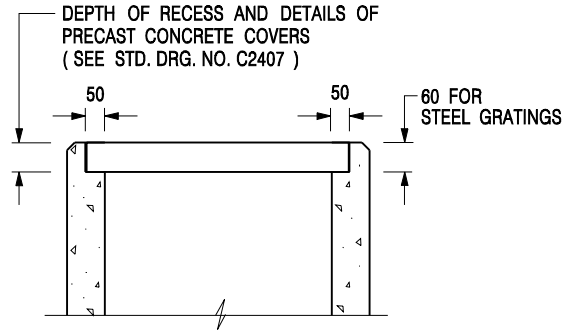
- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. REFER TO SHEET 2 FOR OTHER NOTES.

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

CATCHPIT WITH TRAP
(SHEET 1 OF 2)

CEDD **CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT**

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




**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.

-	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	DRAWING NO.
DATE JAN 1991	C2406 /2