

寄件者: [REDACTED]
寄件日期: 2026年03月11日星期三 12:01
收件者: tpbpd/PLAND
副本: David Chi Chiu CHENG/PLAND; Ivan Sze Yuet FUNG/PLAND
主旨: Re: S. 16 Planning Application No. A/YL-KTN/1157 - Departmental Comments
附件: A-YL-KTN-1157 Drainage Proposal 11-3-2026.pdf
類別: Internet Email

Town Planning Board,

Please see the attachment for the further information on DSD. Please contact Mr. Tang via email [REDACTED] if you have any question regarding to the captioned application.

Yours faithfully,
Mr. Tang

Comments from Drainage Services Department
(Contact Person: Ms. Jessica KWAN; Tel.: 3965 8924)

Please find our comments on the revised drainage proposal for your information.

1. For the hydraulic calculation regarding the existing drainage facilities, the applicant should clarify rainfall intensity adopted for checking peak runoff 'Q'. Also, the applicant should review freeboard assumed in the submitted hydraulic calculation.

Calculation is revised. And 300mm freeboard is adopted.

2. The applicant should clarify the proposed site boundary shown in the marked-up sketch which indicates the proposed discharge path.

Site boundary is revised shown in the marked-up sketch which indicates the proposed discharge path.

3. Drawing (No.: D01 & D03): Peripheral surface channels shall be provided along the site boundary to collect the surface runoff accrued on the application site and to intercept the overland flow from the adjacent lands. It is noted that there is proposed land filling works for the development. Proper surface channels should be provided at the lower platform and wall toe to collect the overland flow to/ from adjacent areas. The applicant should clarify extent of land filling works, indicate the proposed and existing ground levels of the application site on the drainage plan and review design of the proposed drainage system such as cover levels and invert levels of the proposed drainage facilities.

An additional section is provided. Please note that the ground profile of the surrounding area is falling away from the site.

4. Please note that there is an existing watercourse at the east and south of the application site. The existing watercourse should not be disturbed or interfered with until any necessary diversion works, which have been accepted by this Division or the Town Planning Board, have been satisfactorily completed. Such agreed diversion works should be carried out by the applicant at the cost of his/her project. Moreover, the applicant should provide sufficient allowance for future maintenance of the existing watercourse.

Noted.

5. The proposed development should neither obstruct overland flow nor adversely affect any existing natural streams, village drains, ditches and the adjacent areas, etc.

Noted.

6. The existing watercourse, to which the applicant proposed to discharge the stormwater from the application site was not maintained by this office. The applicant should identify the owner of the existing watercourse and seek agreement from the owner prior to commencement of the proposed works. In the case that it is a local village drains, DO/YL should be consulted.

Noted.

7. The applicant is required to rectify the drainage system if they are found to be inadequate or ineffective during operation. The applicant shall also be liable for and shall indemnify claims and demands arising out of damage or nuisance caused by a failure of the drainage system.

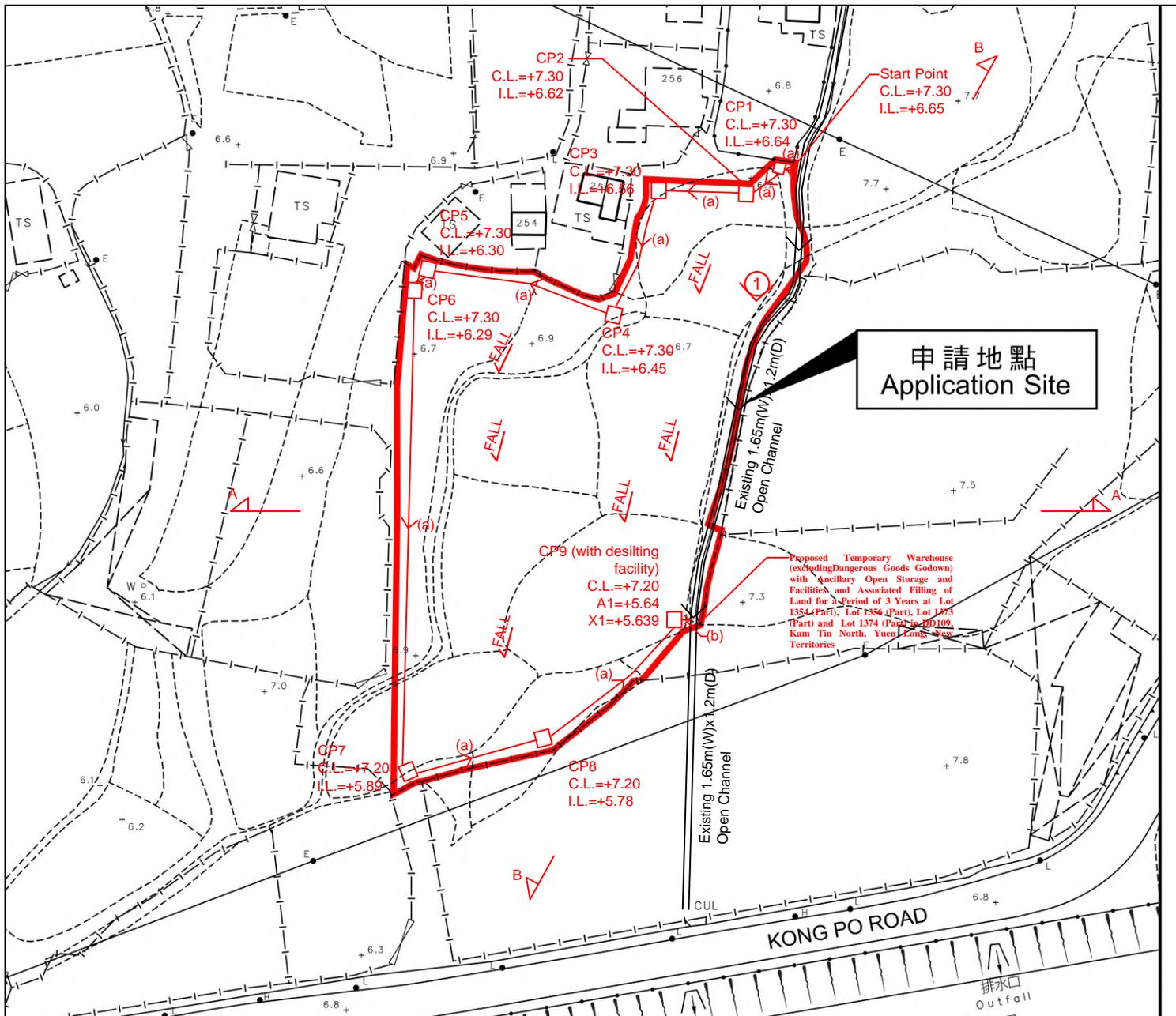
Noted.

8. The applicant should consult DLO/YL and seek consent from the relevant owners for any drainage works to be carried out outside his lot boundary before commencement of the drainage works.

Noted.

9. Connection of the proposed stormwater pipe to existing drainage facilities shall be designed and constructed such that there is no water leakage at the proposed connection.

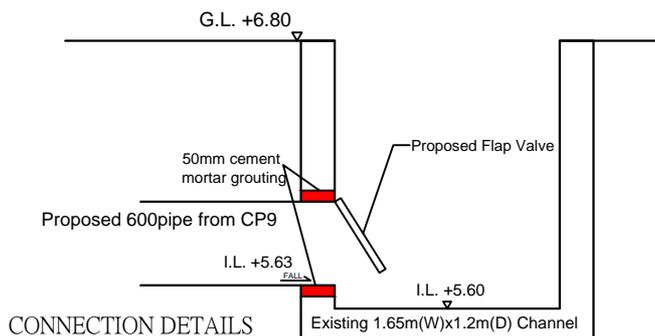
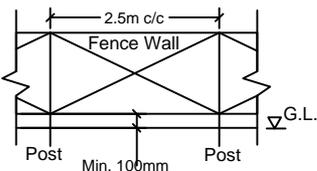
Noted.



申請地點
Application Site

- Note:**
- Catchpits (CP9) with desilting facility shall follow CEDD standard drawing No. C2406I.
 - Catchpit and UC shall follow CEDD standard drawing No.2405 and 2409J respectively.
 - Open-bottom type fence wall to be erected.
 - There is no site formation works. Filling works to be carried out to leveling the site.
 - The debris in the existing 1.65m(W)x1.2m(D) open channel shall be removed.

- LEGEND**
- CP Proposed CatchPit
 - (a) Proposed 600UC (1:200) with Cast Iron Cover
 - (b) Proposed 600mm dia. concrete pipe (1:100)
 - Existing 1.65m(W)x1.2m(D) Open Channel
 - 1 Photo Viewport

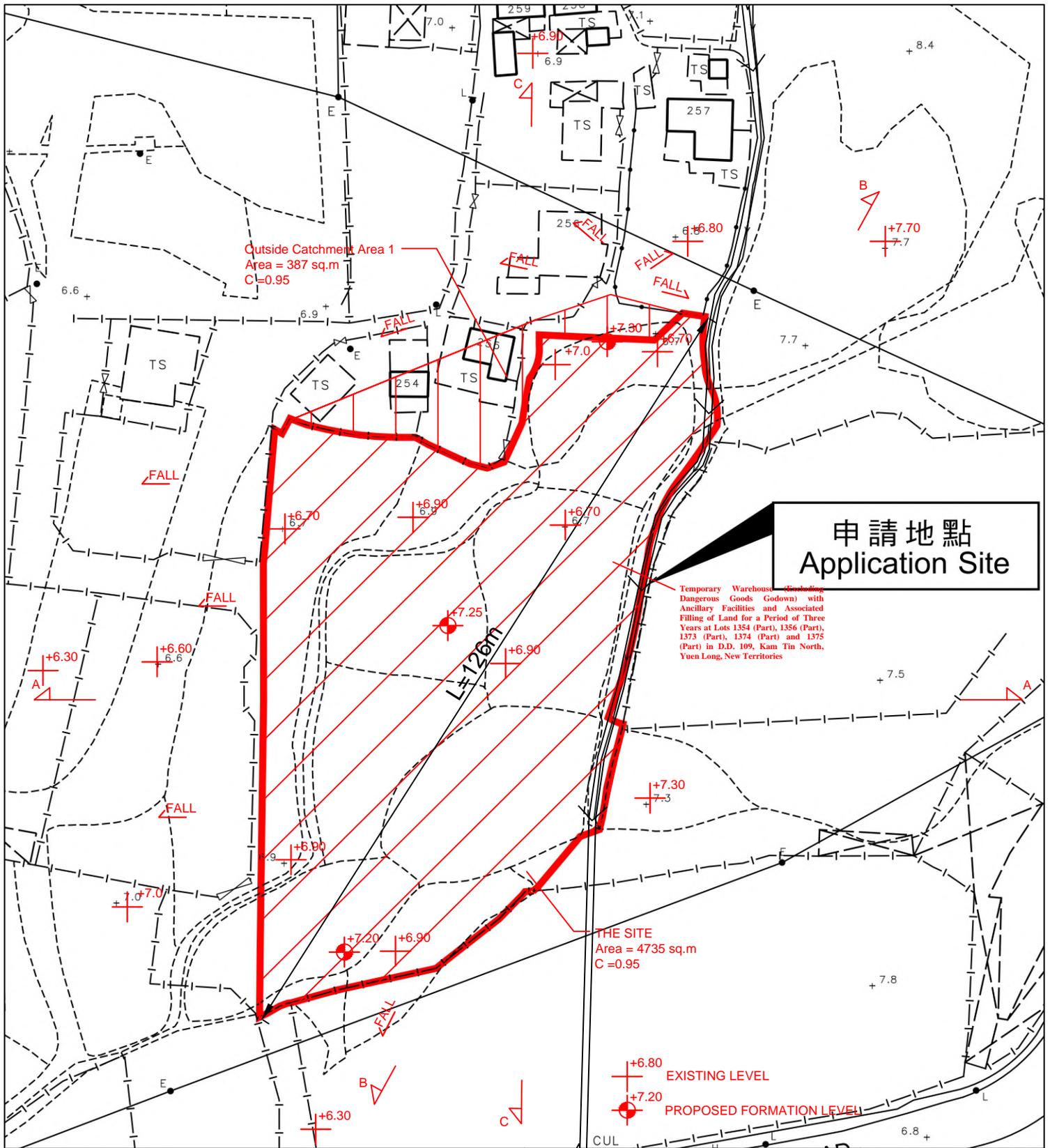


Title: Drainage Proposal - LAYOUT D01

Project
Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities and Associated Filling of Land for a Period of Three Years at Lots 1354 (Part), 1356 (Part), 1373 (Part), 1374 (Part) and 1375 (Part) in D.D. 109, Kam Tin North, Yuen Long, New Territories
 (Application Number: A/YL-KTN/1157)

Drawn by: DM Date: 11-3-2026

正宏工程顧問公司
 CHING WAN ENGINEERING CONSULTANT COMPANY



Project
 Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities and Associated Filling of Land for a Period of Three Years at Lots 1354 (Part), 1356 (Part), 1373 (Part), 1374 (Part) and 1375 (Part) in D.D. 109, Kam Tin North, Yuen Long, New Territories

(Application Number: A/YL-KTN/1157)

Title:

Catchment Area Plan

DO2

Drawn by:

DM

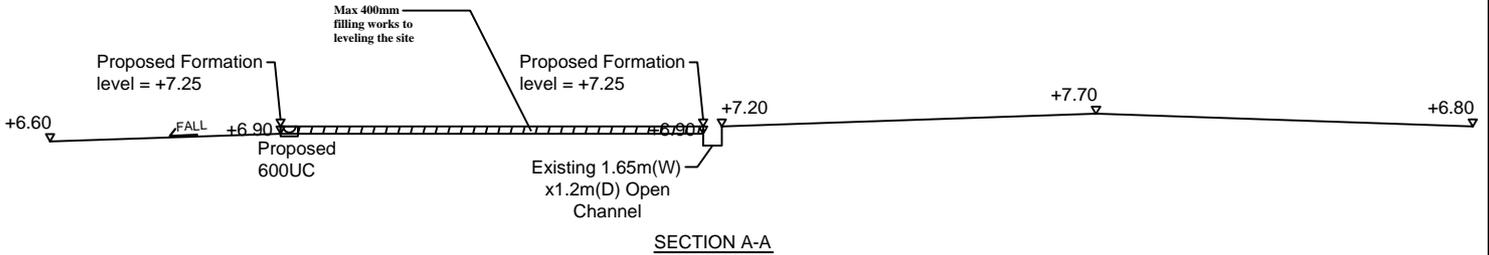
Date:

11-3-2026

正宏工程顧問公司

CHING WAN ENGINEERING CONSULTANT COMPANY

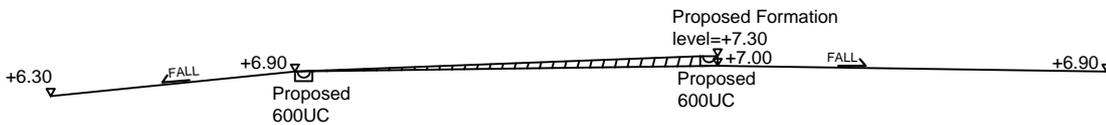
Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities and Associated Filling of Land for a Period of Three Years at Lots 1354 (Part), 1356 (Part), 1373 (Part), 1374 (Part) and 1375 (Part) in D.D. 109, Kam Tin North, Yuen Long, New Territories



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(Application Number: A/YL-KTN/1157)

Title:

SECTIONS

D03

Drawn by:

DM

Date:

11-3-2026

正宏工程顧問公司

CHING WAN ENGINEERING CONSULTANT COMPANY

Photo 1





Final discharge of Ex. 1.65m(W)x1.2D(W)

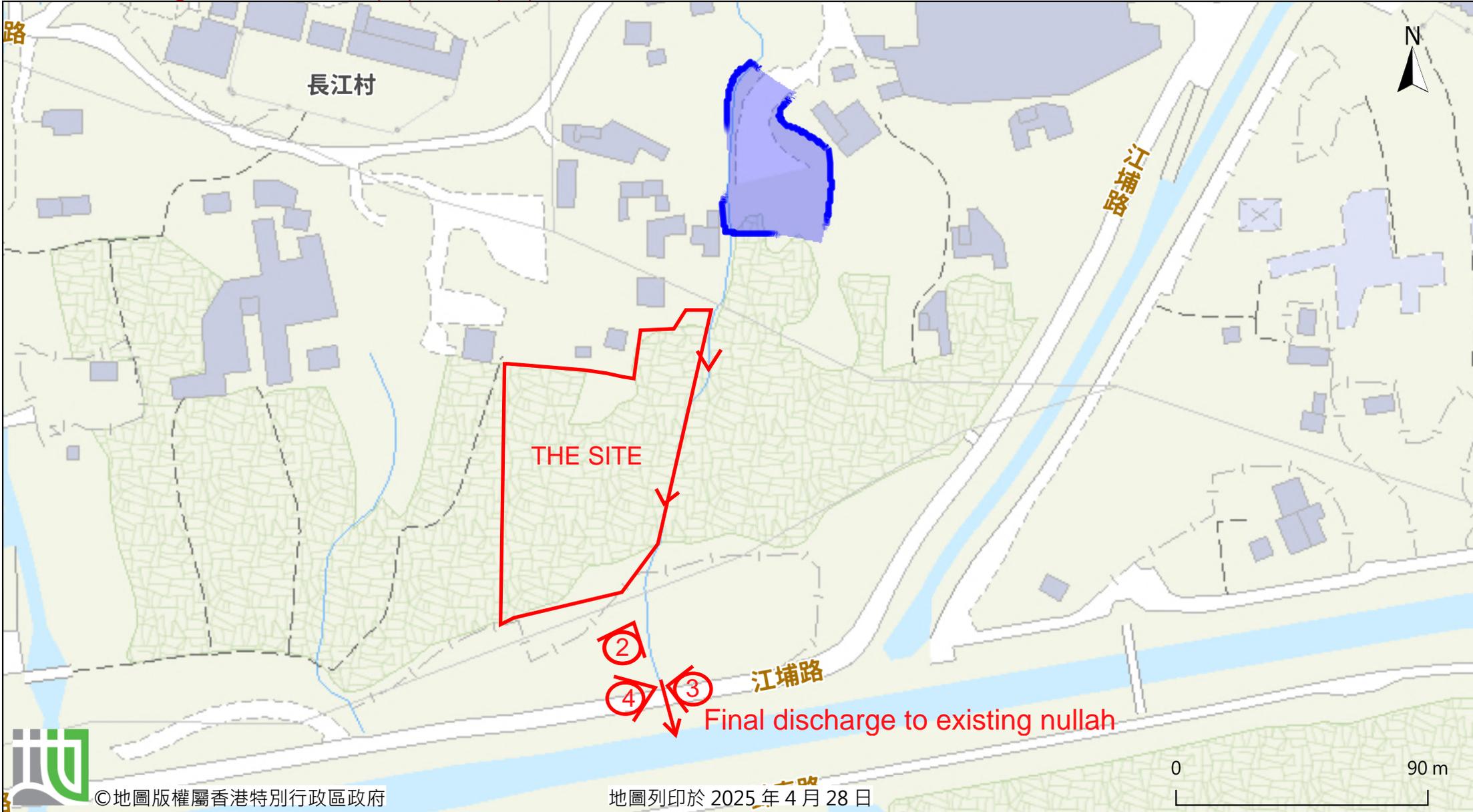


Photo 2



Photo 3



Photo 4



Outside Catchment Area 1, Area = 387 m² (C= 0.95)
 THE SITE, Area = 4735 m² (C= 0.95)

**Calculation of Design Runoff of the Proposed Development,
 For the design of drains inside the site, Catchment Area 1 + The Site**

$$\Sigma Q = \Sigma 0.278 C i A$$

$$\begin{aligned} A &= 387+4735 && \text{m}^2 \\ &= 5122 \\ &= 0.005122 && \text{km}^2 \end{aligned}$$

$$\begin{aligned} t &= 0.14465 L/H^{0.2}A^{0.1} \\ &= 0.14465*126/1^{0.2}*5122^{0.1} \\ &= 7.758 && \text{min} \end{aligned}$$

$$\begin{aligned} i &= 1.16*a/(t+b)^c && \text{(50 yrs return period, Table 3a, Corrigendum 2024, SDM) and (16% increase due to climate change)} \\ &= 1.16*505.5/(7.758+3.29)^{0.355} \\ &= 249.9 && \text{mm/hr} \end{aligned}$$

$$\begin{aligned} \text{Therefore, } Q &= 0.278*0.95*249.9*0.005122 \\ &= 0.3381 && \text{m}^3/\text{sec} \\ &= \underline{20285} && \text{lit/min} \end{aligned}$$

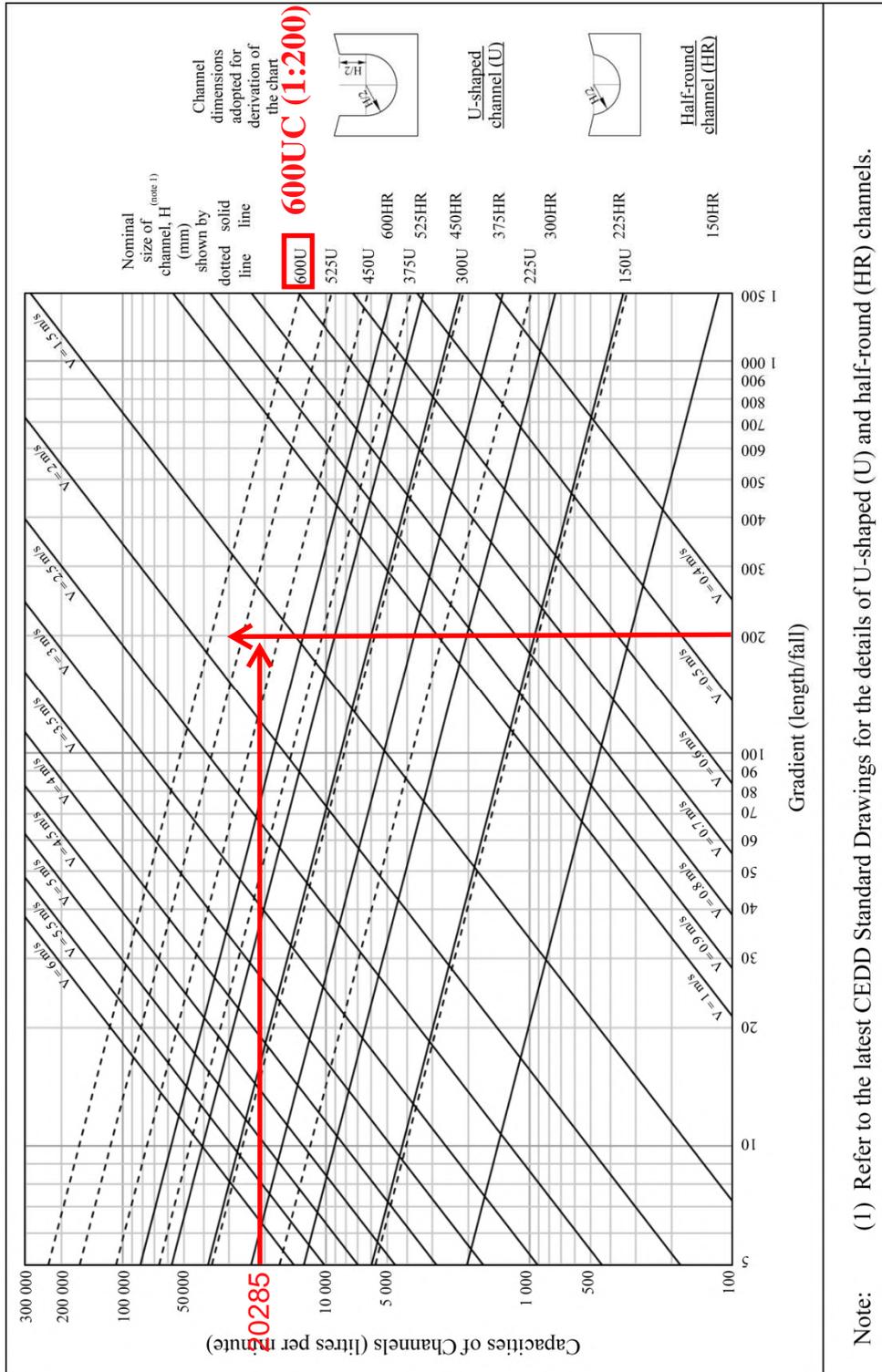
Provide 600UC (1:200) is OK

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

Issue No.: 1 Revision: - Date: 05.06.2014 Page: 3 of 3

Flow velocity (v), 1.5 < v < 2m/s

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.

Check 600mm dia. Pipes by Colebrook-White Equation

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

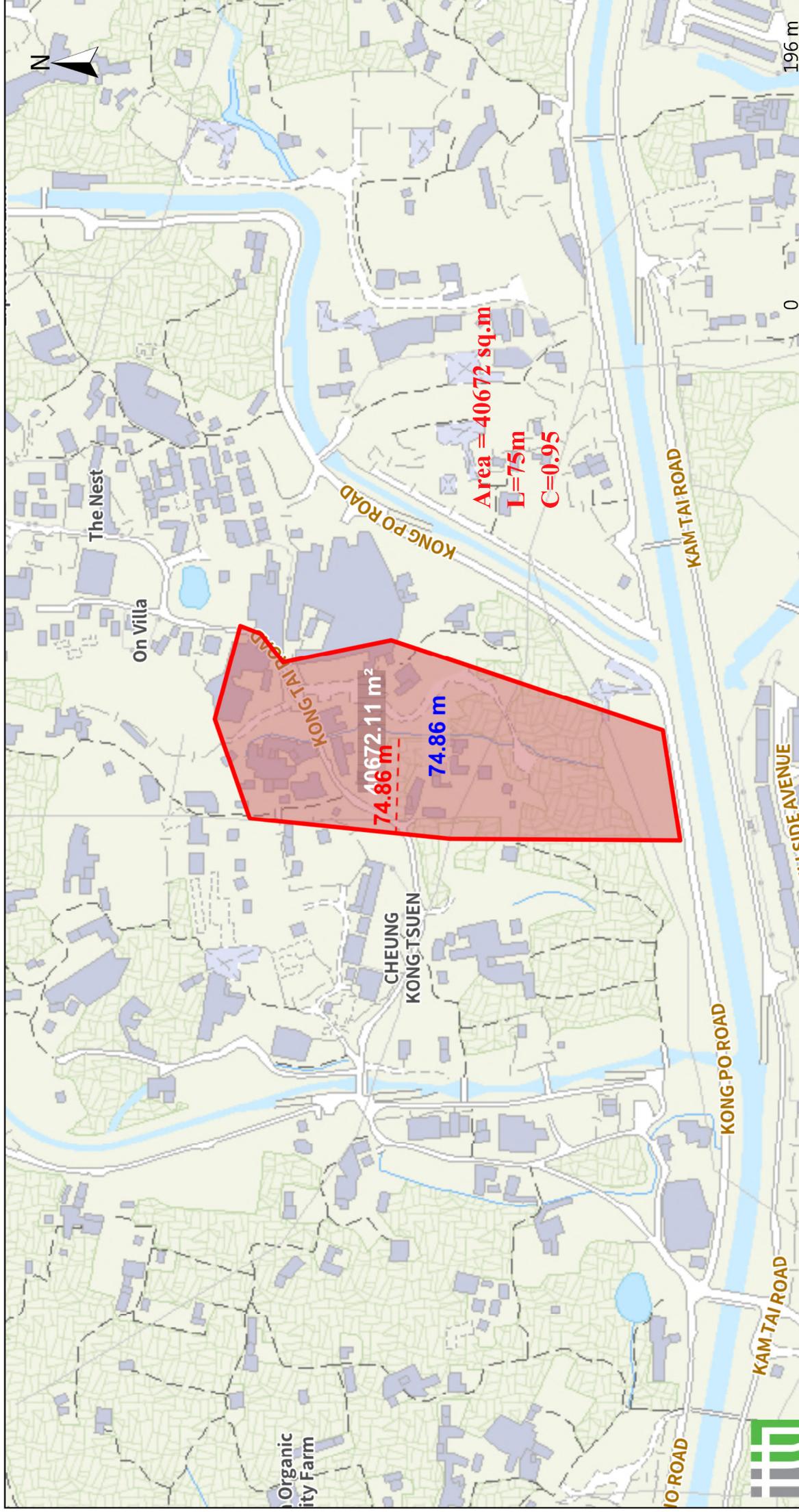
where :

V	=		mean velocity (m/s)	
g	=	9.81	m/s ² gravitational acceleration (m/s ²)	
D	=	0.6	m internal pipe diameter (m)	
ks	=	0.00015	m hydraulic pipeline roughness (m)	(Table14, from DSD SDM 2018, concrete pipe)
v	=	1.14E-06	m ² /s kinematic viscosity of fluid (m ² /s)	
s	=	0.01	hydraulic gradient	

Therefore, design V of pipe capacity = 2.8059 m/s

Q= 0.8VA		(0.8 factor for sedimentation)
= 0.635	m ³ /s	
= 38081	lit/min	
> 20285	lit/min	Ok

Catchment Area Plan for Existing 1.65m(W)x1.2m(D) Open Channel



Catchment Area = 40672 m² (C= 0.95)

Calculation of Design Runoff

For checking the existing 1.65m(W)x1.2m(D) Open Channel

$$\Sigma Q = \Sigma 0.278 C i A$$

$$A = 40672 \text{ m}^2$$

$$= 40672$$

$$= 0.040672 \text{ km}^2$$

$$t = 0.14465 L / H^{0.2} A^{0.1}$$

$$= 0.14465 * 75 / 1^{0.2} * 40672^{0.1}$$

$$= 3.754 \text{ min}$$

$$i = 1.16 * a / (t + b)^c \quad (50 \text{ yrs return period, Table 3a, Corrigendum 2024, SDM) and (16\% increase due to climate change)$$

$$= 1.16 * 505.5 / (3.754 + 3.29)^{0.355}$$

$$= 293.2 \text{ mm/hr}$$

Therefore, $Q = 0.278 * 0.95 * 293.2 * 0.040672$

$$= 3.1497 \text{ m}^3/\text{sec}$$

$$= \underline{188985} \text{ lit/min}$$

Calculation Maximum Capacity of Existing 1.65m(W)x1.2m(D) Open Channel

Manning Equation $V = R^{2/3} * S_f^{0.5} / n$

where $R = WD / (W + 2D)$ $W = 1.65 \text{ m}$
 $= 0.4304 \text{ m}$ $D = 0.9 \text{ m}$ (200mm freeboard considered)
 $\text{Area} = WD = 1.485 \text{ m}^2$

$n = 0.016 \text{ s/m}^{1/3}$ (Table 13 of Stormwater Drainage Manual)

$S_f = 0.004$

Therefore, $V = 0.4521^{2/3} * 0.003^{0.5} / 0.016$

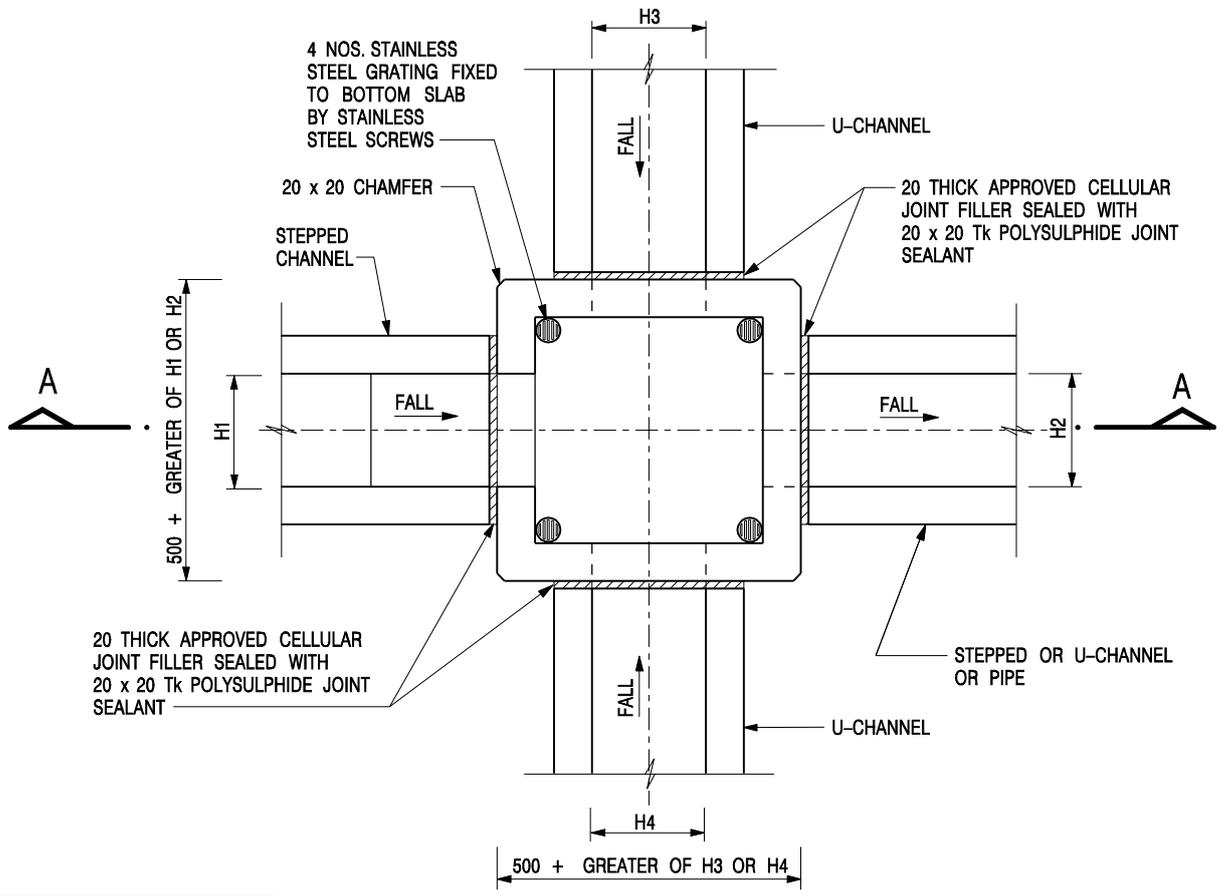
$$= 2.15 \text{ m/sec}$$

Maximum Capacity (Q_{max}) = $V * A$

$$= 3.19 \text{ m}^3/\text{sec}$$

$$= 191439 \text{ lit/min}$$

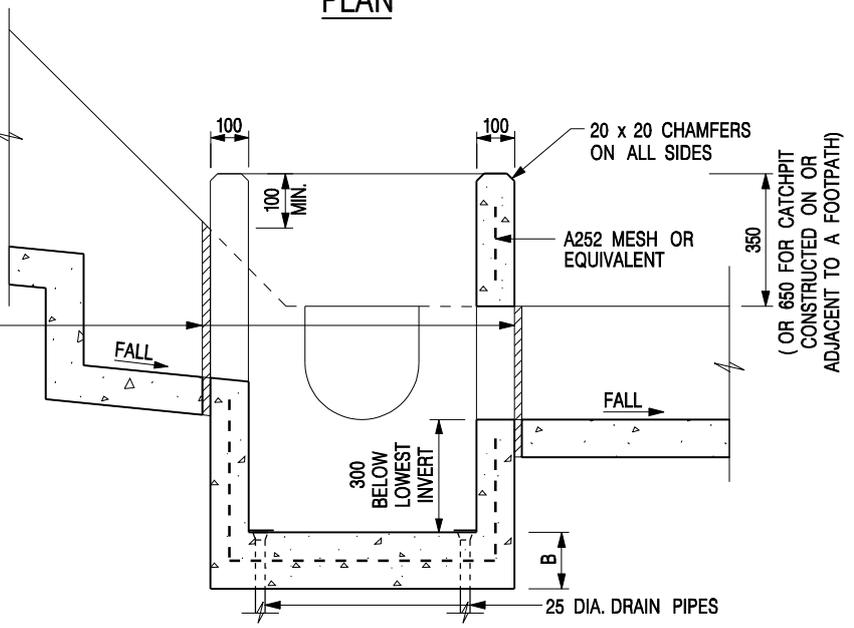
$$> 188985 \text{ lit/min} \quad \text{OK}$$



PLAN

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



SECTION A - A

NOTES:

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

**CATCHPIT WITH TRAP
(SHEET 1 OF 2)**

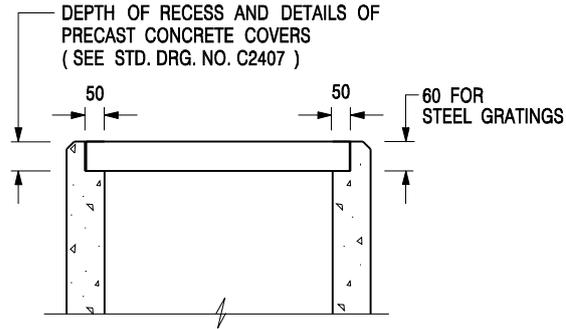
-	FORMER DRG. NO. C2406J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE



CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20
DATE JAN 1991

DRAWING NO.
C2406 /1



**ALTERNATIVE TOP SECTION
FOR PRECAST CONCRETE COVERS / GRATINGS**

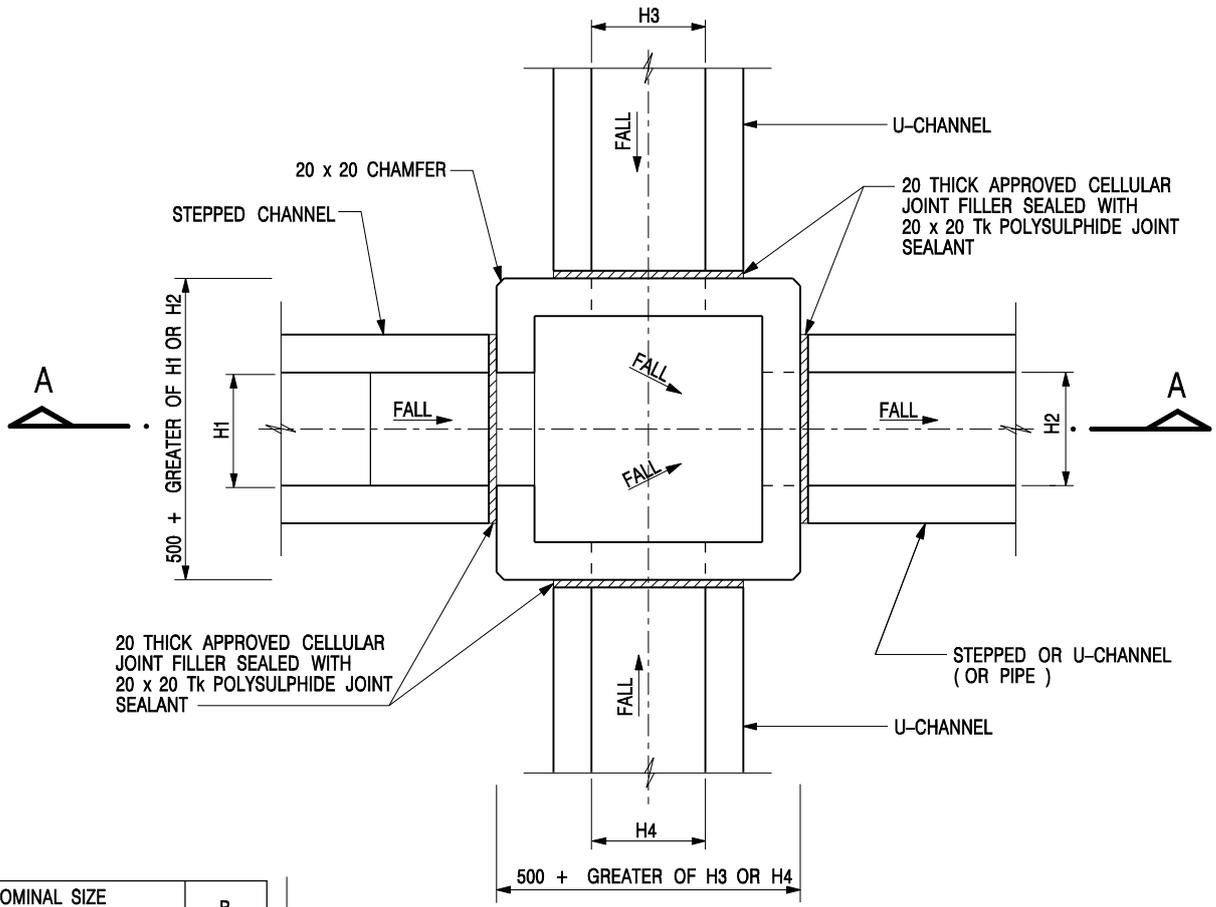
NOTES:

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

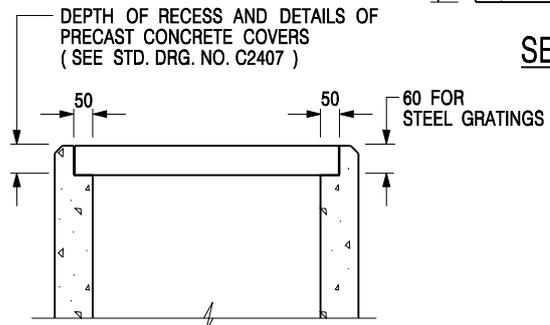
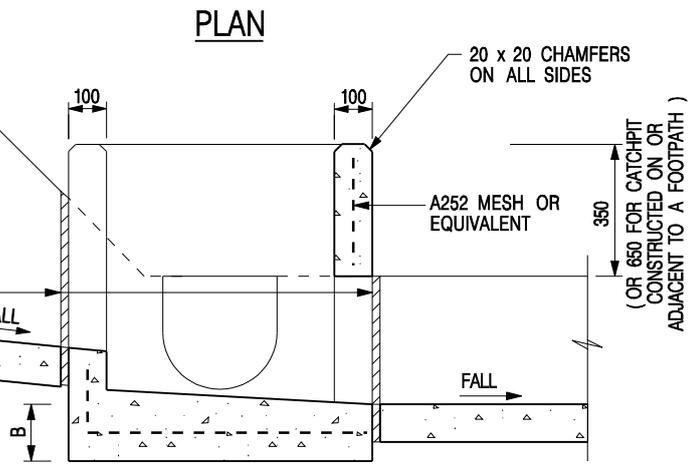
**CATCHPIT WITH TRAP
(SHEET 2 OF 2)**

 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT	
SCALE 1 : 20	DRAWING NO. C2406 /2A
DATE JAN 1991	



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

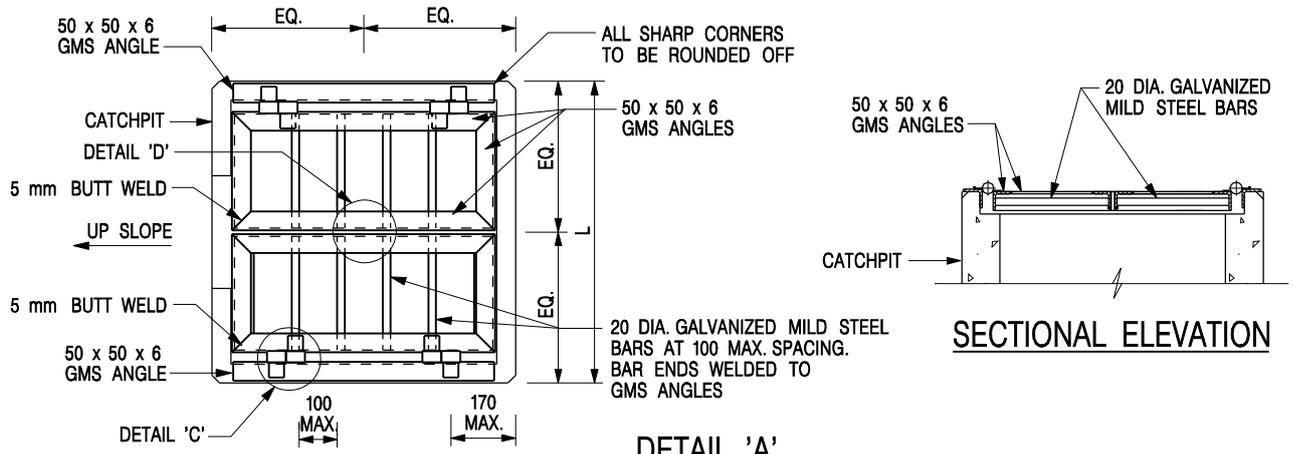


- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. REFER TO SHEET 5 FOR OTHER NOTES.

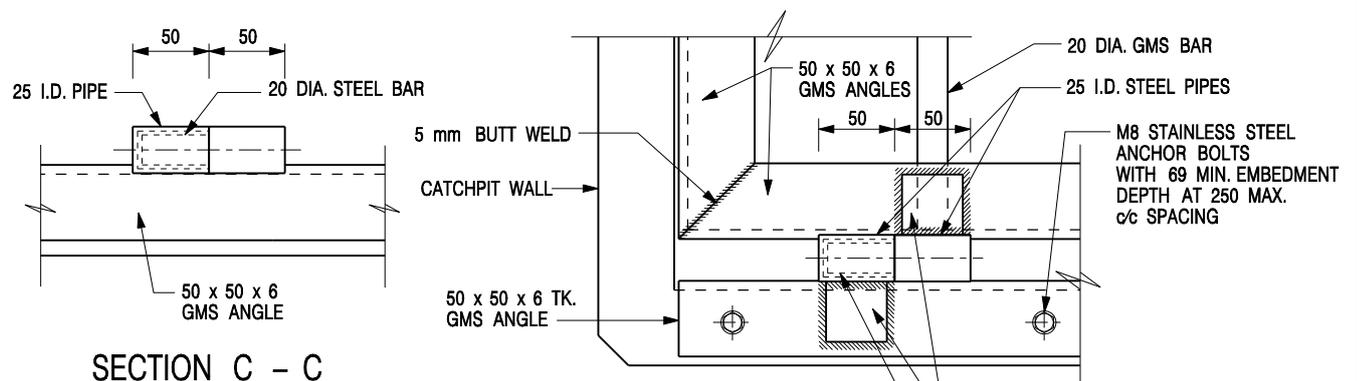
**ALTERNATIVE TOP SECTION FOR
PRECAST CONCRETE COVERS / GRATINGS**

**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.	
DATE JAN 1991		C2405 / 1	

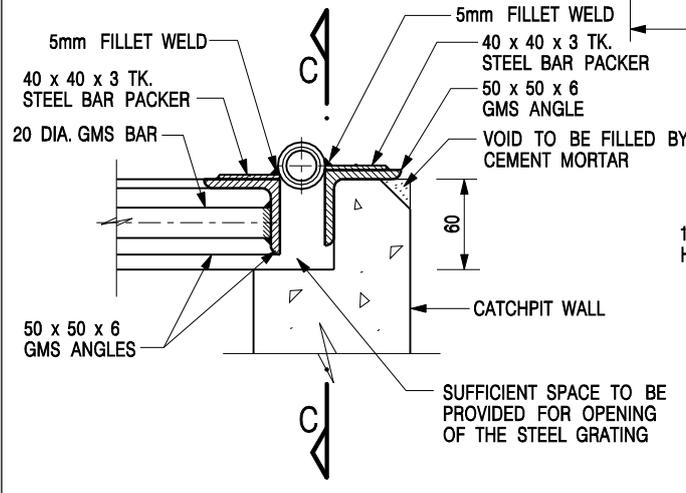


DETAIL 'A'
 (DETAILS OF DOUBLE SIDE OPENING STEEL GRATING FOR L > 900mm)
 SCALE 1 : 20

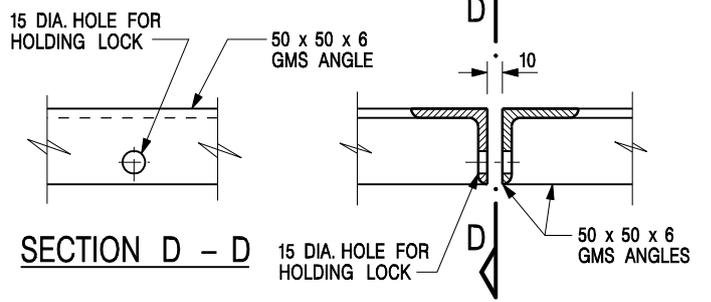


SECTION C - C

DETAIL 'C'
 (DETAILS OF HINGE)
 SCALE 1 : 5



SECTIONAL ELEVATION
 (DETAIL 'C')



SECTION D - D

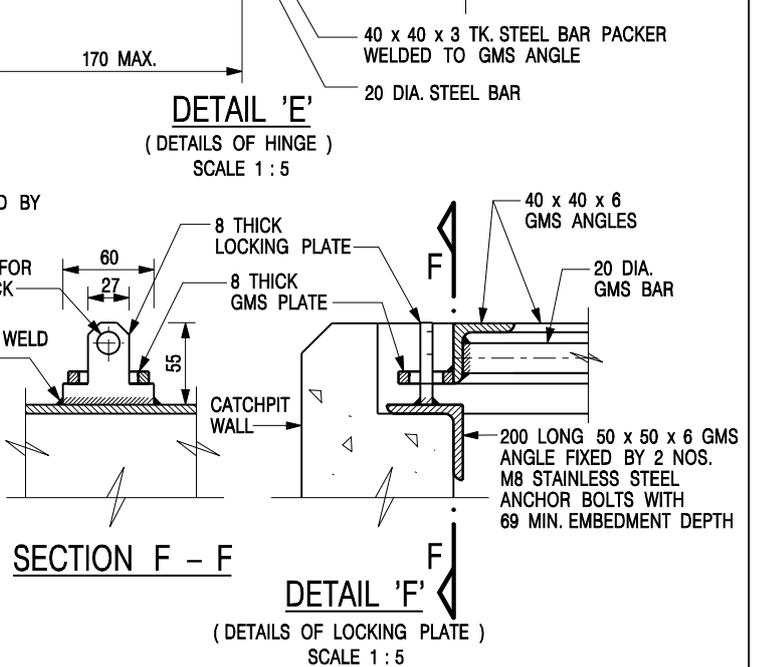
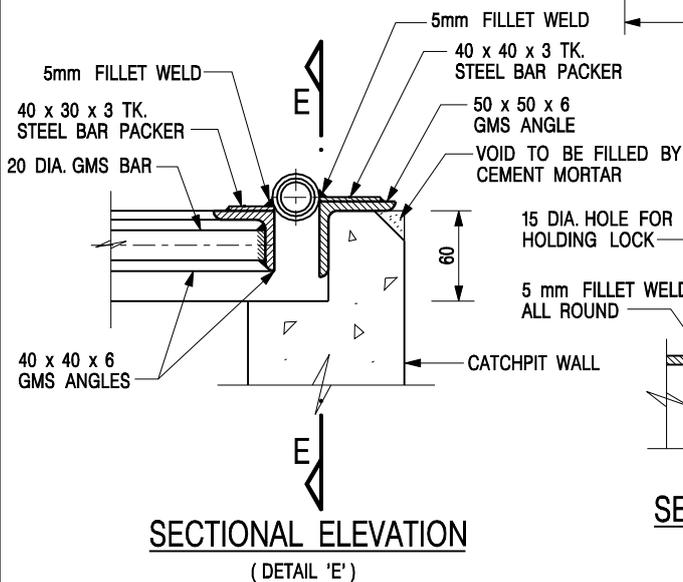
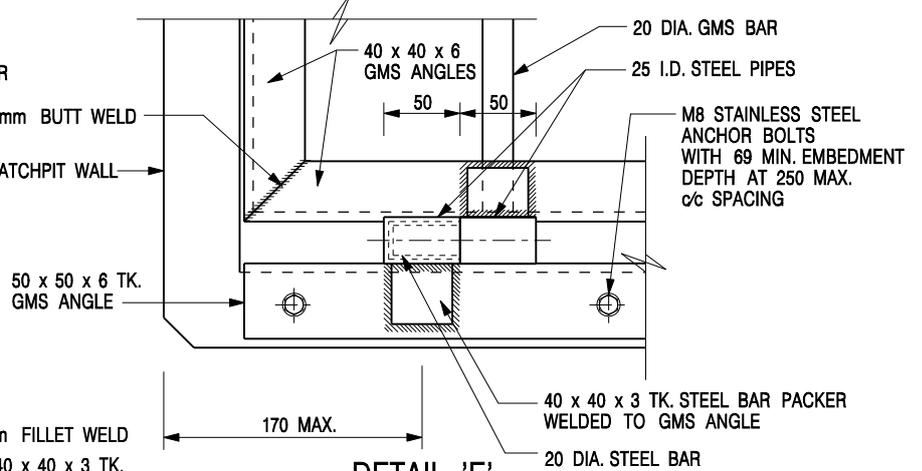
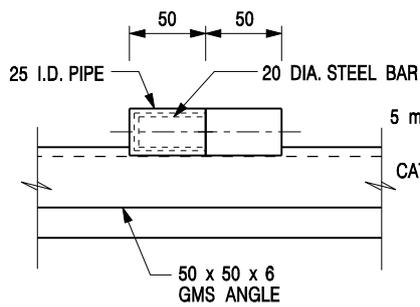
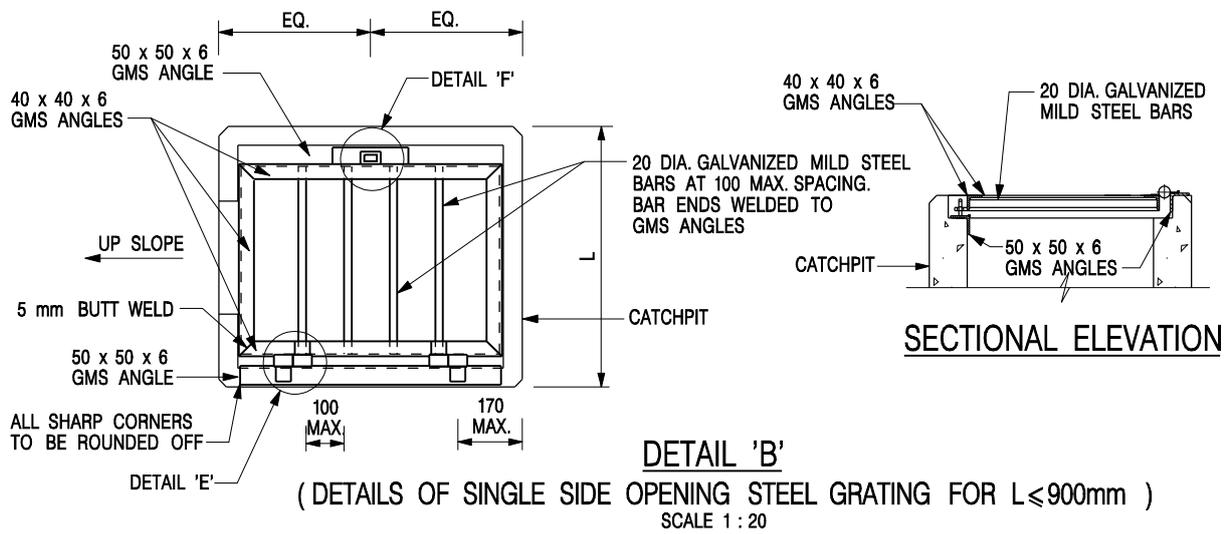
DETAIL 'D'
 (DETAILS OF HOLE FOR LOCK)
 SCALE 1 : 5

NOTES:

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

STANDARD CATCHPIT DETAILS
 (SHEET 2 OF 5)

-	FORMER DRG. NO. C2405J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE
 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT			
SCALE AS SHOWN		DRAWING NO.	
DATE JAN 1991		C2405 / 2	

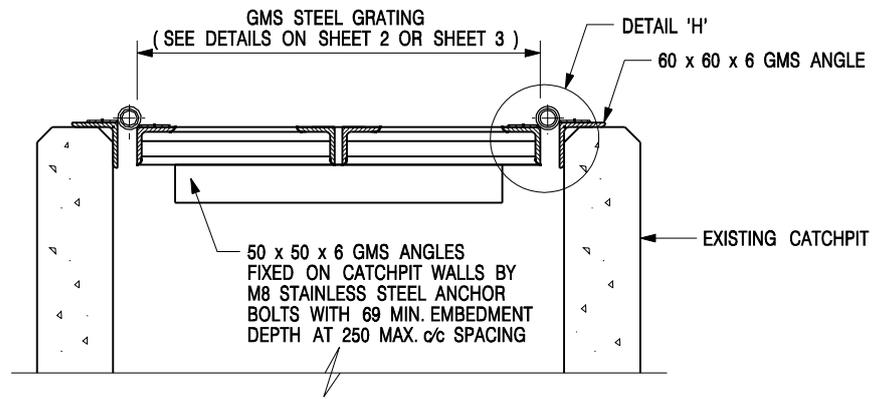


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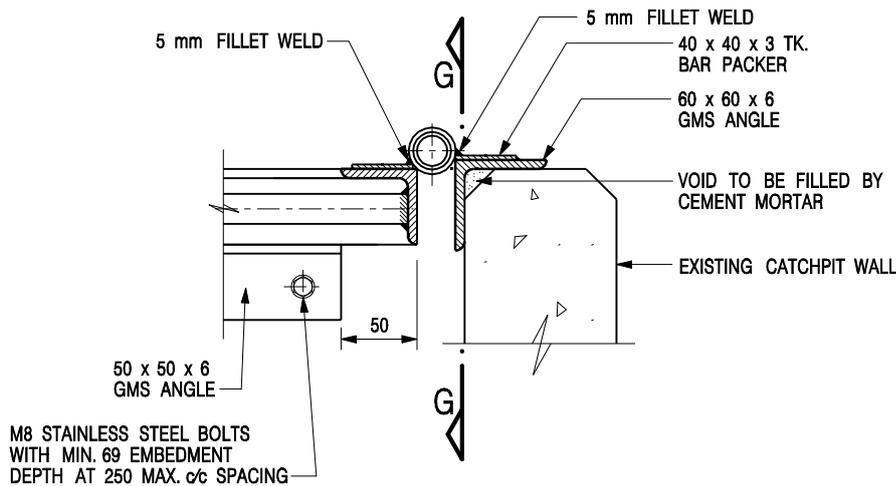
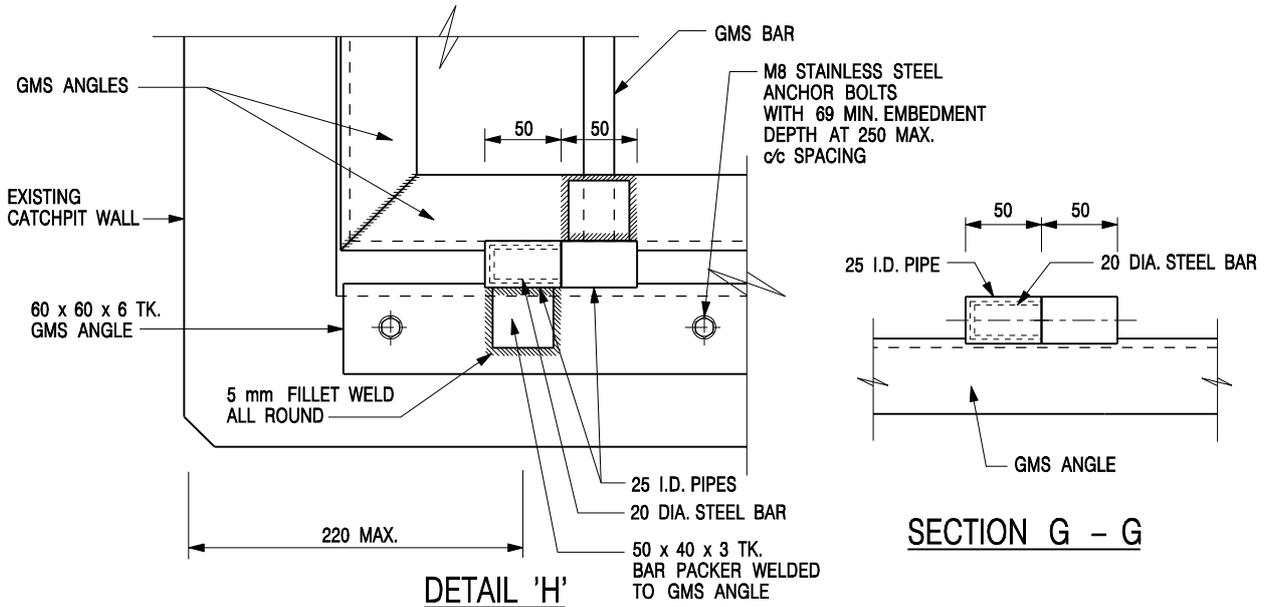
STANDARD CATCHPIT DETAILS
(SHEET 3 OF 5)

-	FORMER DRG. NO. C2405J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE
 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT		SCALE AS SHOWN	
		DRAWING NO. C2405 /3	
DATE JAN 1991			



**DETAIL 'G' - DETAILS OF STEEL GRATING
CONSTRUCTED ON EXISTING CATCHPIT**

SCALE 1 : 10



SECTIONAL ELEVATION

(DETAIL 'H')

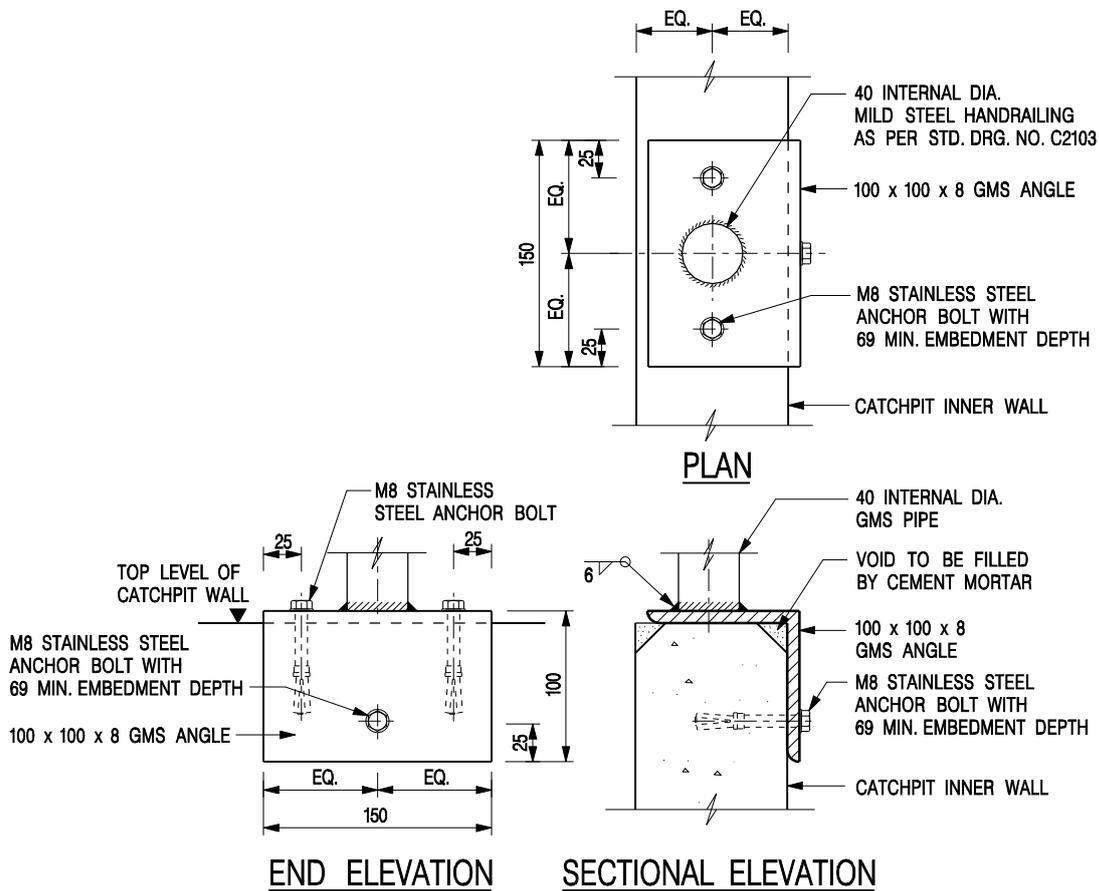
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
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STANDARD CATCHPIT DETAILS
(SHEET 4 OF 5)

-	FORMER DRG. NO. C2405J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE

 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT	
SCALE AS SHOWN	DRAWING NO.
DATE JAN 1991	C2405 / 4



**DETAIL 'J' – FIXING DETAILS FOR HANDRAILING
ON TOP OF CATCHPIT WALL**

SCALE 1 : 5

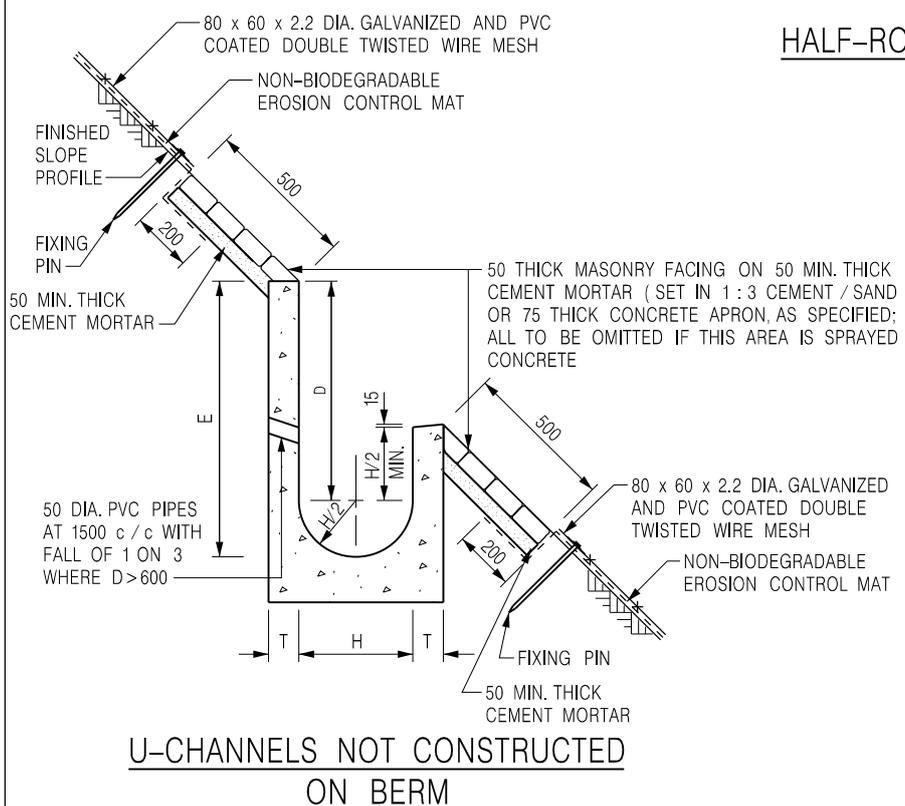
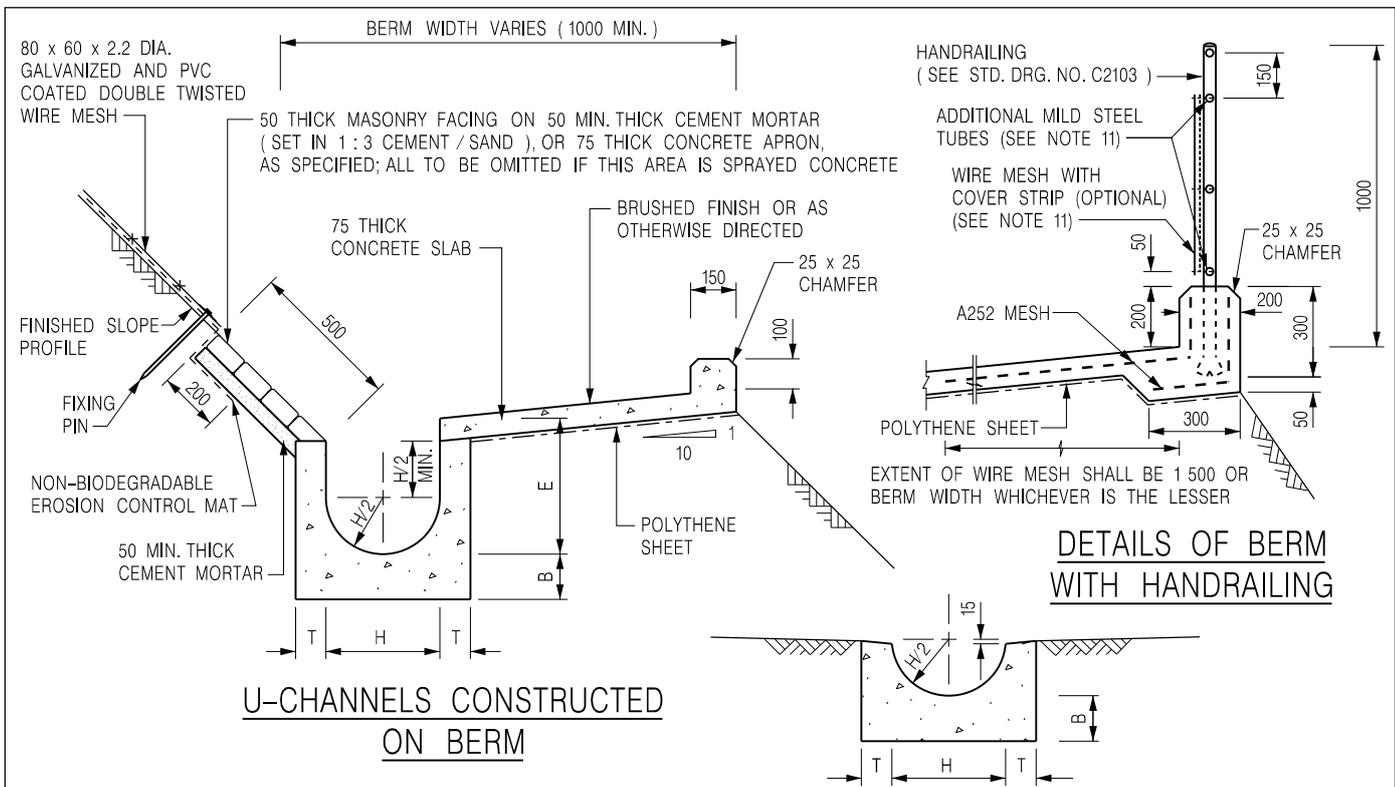
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3. CONCRETE SURFACE FINISH SHALL BE CLASS U2 OR F2 AS APPROPRIATE.
4. FOR DETAILS OF JOINT, REFER TO STD. DRG. NO. C2413.
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6. FOR CATCHPITS CONSTRUCTED ON OR ADJACENT TO A FOOTPATH, STEEL GRATINGS (SEE DETAILS ON SHEET 2 OR SHEET 3) OR CONCRETE COVERS (SEE STD. DRG. NO. C2407) SHALL BE PROVIDED AS DIRECTED BY THE ENGINEER.
7. IF INSTRUCTED BY THE ENGINEER, HANDRAILING (SEE DETAIL 'J' ON SHEET 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.
8. 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 mm ϕ c STAGGERED SHALL BE PROVIDED. THICKNESS OF CATCHPIT WALL FOR INSTALLATION OF STEP IRONS SHALL BE INCREASED TO 150 mm.
9. FOR RETROFITTING AN EXISTING CATCHPIT WITH STEEL GRATING, SEE DETAIL 'G' ON SHEET 4.
10. ALL STEEL ANGLES SHALL COMPLY WITH BS EN 10025 AND BS EN 10056.
11. UNLESS OTHERWISE SPECIFIED, ALL WELDS SHALL BE 5 mm CONTINUOUS FILLET WELDS.
12. ALL WELDS SHALL BE CHIPPED, GROUND SMOOTH, BRUSHED TO REMOVE SLAG PRIOR TO HOT-DIP GALVANIZATION.
13. ALL STEELWORK SHALL BE HOT-DIP GALVANIZED TO BS EN ISO 1461. ALL EXPOSED STEELWORK SURFACES SHALL BE TREATED AND PAINTED IN ACCORDANCE WITH THE GENERAL SPECIFICATION.
14. SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

-	FORMER DRG. NO. C2405J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE

**STANDARD CATCHPIT DETAILS
(SHEET 5 OF 5)**

 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT	
SCALE AS SHOWN	DRAWING NO.
DATE JAN 1991	C2405 /5



- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. ALL CONCRETE TO BE GRADE 20 / 20.
 3. CONCRETE SURFACE FINISH SHALL BE CLASS U2, F2 OR BRUSHED FINISH AS DIRECTED.
 4. SPACING OF EXPANSION JOINT IN CHANNELS, BERM SLABS AND APRONS TO BE 10 METRES MAXIMUM, SEE STD. DRG. NO. C2413 FOR DETAILS.
 5. JOINTS FOR CHANNELS, BERM SLABS, APRONS AND WALLS, ETC. TO BE ON THE SAME ALIGNMENT.
 6. FOR DIMENSIONS T, H, & B, SEE TABLE BELOW.
 7. BIODEGRADABLE EROSION CONTROL MAT IF REQUIRED, SEE STD. DRG. NO. C2511/E.
 8. CONCRETE TO BE COLOURED AS SPECIFIED.
 9. CONCRETE U-CHANNEL CAN BE CAST IN-SITU OR PRECAST CONCRETE SUBJECT TO THE ENGINEER'S AGREEMENT ON THE DETAILS.
 10. DETAILS OF EROSION CONTROL MAT AND WESH MESH ON BERM. (SEE STD DRG. NO. C2511/E)
 11. THE WIRE MESH ON HANDRAILING IS OPTIONAL. THE COVER STRIP AND ADDITIONAL MILD STEEL TUBES ARE NEEDED ONLY IF WIRE MESH IS PROVIDED. (SEE STD. DRG. NO. C2103)

NOMINAL SIZE H	T	B	REINFORCEMENT
300	80	100	A252 MESH PLACED CENTRALLY AND T=100 WHEN E>650
375 - 600	100	150	
675 - 900	125	175	A252 MESH PLACED CENTRALLY

REF.	REVISION	SIGNATURE	DATE
J	DETAILS OF HANDRAILING AMENDED.	Original Signed	08.2024
I	MINOR AMENDMENT.	Original Signed	07.2018
H	THICKNESS OF MASONRY FACING AMENDED.	Original Signed	01.2005
G	MINOR AMENDMENT.	Original Signed	01.2004
F	GENERAL REVISION.	Original Signed	12.2002

DETAILS OF HALF-ROUND AND U-CHANNELS (TYPE A - WITH MASONRY APRON)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 25 DRAWING NO. C2409J

DATE JAN 1991