Drainage Submission in support of

S16 Planning Application

for Proposed Crane Vehicles Park
for a Period of 3 Years in "Agricultural" zone

at Lot 768 and 769 in DD78, Chuk Yuen Village, Ta Kwu Ling,
New Territories

(HT25059)

August 2025

Drainage Consultant:

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED
[redacted]

Prepared & approved by	LEE Kwok Cheung *RPE(Civil)*	

1. Background

1.1 With respect to a S16 Planning Application for a Proposed Crane Vehicles Park for a Period of 3 Years in "Agricultural" zone at Lot 768 and 769 in DD78, Chuk Yuen Village, Ta Kwu Ling, New Territories, Messrs. Ho Tin & Associates Consulting Engineers Limited was appointed to prepare a drainage submission.

2. Approach to Prepare this Proposal

2.1 This Drainage Submission is prepared in line with the "Technical Note to prepare a Drainage Submission (Relating to applications for temporary change of land use such as temporary storage areas, car parks, workshops, small factories … etc. under S.16 of the Town Planning Ordinance)" issued by Drainage Services Department in December 2024.

3. The Subject Site and Proposed Development

3.1 The subject site with a total site area of about 1,725m^2 comprises of Lot 768 and 769 in DD78, Chuk Yuen Village, Ta Kwu Ling, New Territories. It is located at about 300m to the northeast of Chuk Yuen Village and between a local road running along the southeast side and an existing watercourse running along the northwest side. Site Location Plan and Site Plan is shown in **Figure D1** and **D2** respectively.

3.2 The proposed development consists of two numbers of parking area of which each area can accommodate three lorry cranes under a 7m high shelter (225m^2 area) and two additional parking spaces for staff/visitors. A plan showing the proposed site layout is at **Figure D3**.

4. Existing Drainage Conditions of the Subject Site

4.1 The subject site was formerly a chicken farm and is vacant at present. It consists of several small platforms at different levels to accommodate the pre-existing farm structures. In general, the existing ground of the subject site slope from the east to the west, and the existing subject site levels vary at about +20.5mPD on the south to about +22.5mPD on the north.

4.2 There is no prominent engineering channels within the subject site. Surface runoff of the concerned area including the subject site would flow westward due to gravity into the existing watercourse running near the northwest side of the subject site. The watercourse runs toward the northwest direction further until reaching an existing nullah near Lin Ma Hang Road. The existing watercourses in the vicinity of the subject site are shown in **Figure D4**.

4.3 Current conditions of the subject site and its surrounding areas are shown in the following photos (photo taking locations are shown on **Figure D2**):

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>Plate 1 – Existing entrance of the subject site</td><td>Plate 2</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Plate 3</td><td>Plate 4</td></tr>
</table>

Plate 5

Plate 6

Plate 7 – Existing pond outside the western corner of the subject site

Plate 8 – Viewing toward the existing entrance within the subject site

Plate 9

Plate 10

Plate 11

Plate 12

Plate 13 – Existing sloping ground to the east of the subject site

Plate 14 – Viewing toward the south of the subject site

Plate 15 – Viewing toward the west of the subject site

Plate 16 – Viewing toward the north of the subject site

5. Drainage Assessment and Proposal

5.1 The subject site is a simple small site with a total site area of about 1,725m^2. Taking into consideration of the upper catchment area (= 2,003 m^2) of the subject site, the concerned total area receiving surface runoff is about 3,728m^2 which is less than 5,000m^2 in size. The existing subject site levels are proposed to be graded to form a gently sloping platform to accommodate the proposed crane vehicles park use. The Proposed Land Filling Plan and Site Sections is as shown in **Figure SF1** and **SF2** respectively. There is no change in the flowing directions nor obstruction of the existing flows of the concerned area.

5.2 With respect to the "Technical Note to prepare a Drainage Submission" (the "TN") published by Drainage Services Department, for the subject site area plus its upper catchment area = 3,728m^2 $\leq$ 5,000m^2, peripheral 525mm U channel at 1 in 200 gradient would be appropriate. It is therefore proposed to construct new peripheral 525mm U channel at 1 in 200 gradient for the subject development. A new catchpit with trap will be constructed at the end of the proposed 525 U channels near the northwest corner of the subject site and from which the collected flow is to be discharged into the existing watercourse to the northwest. A Proposed Stormwater Drainage Layout Plan is shown in **Figure D5**.

5.3 The Applicant is committed to obtain consents from owners of adjacent relevant land/lots prior to commencement of the proposed drainage works outside the subject site and to maintain regularly to avoid blockage of the drainage system to the satisfaction of relevant Government departments.

5.4 Details of proposed drainage provisions shall follow relevant details shown in Government departments' Standard Drawings as follows:

Proposed Drainage Provisions	*Standard Drawings*	*Drawing No. & Title*
Catchpit	CEDD Standard Drawings	C 2405/1 to /5 – Standard Catchpit Details
Catchpit with trap		C 2406/1 to /2A – Catchpit with Trap

Proposed Drainage Provisions	*Standard Drawings*	*Drawing No. & Title*
Catchpit precast concrete cover	CEDD Standard Drawings	C 2407B – Precast Concrete Covers for Catchpit and Sand Trap
U-channel		C 2409J – Details of Half-round and U-channels
Channel cover		C 2412E – Cover Slab and Cast Iron Grating for Channels

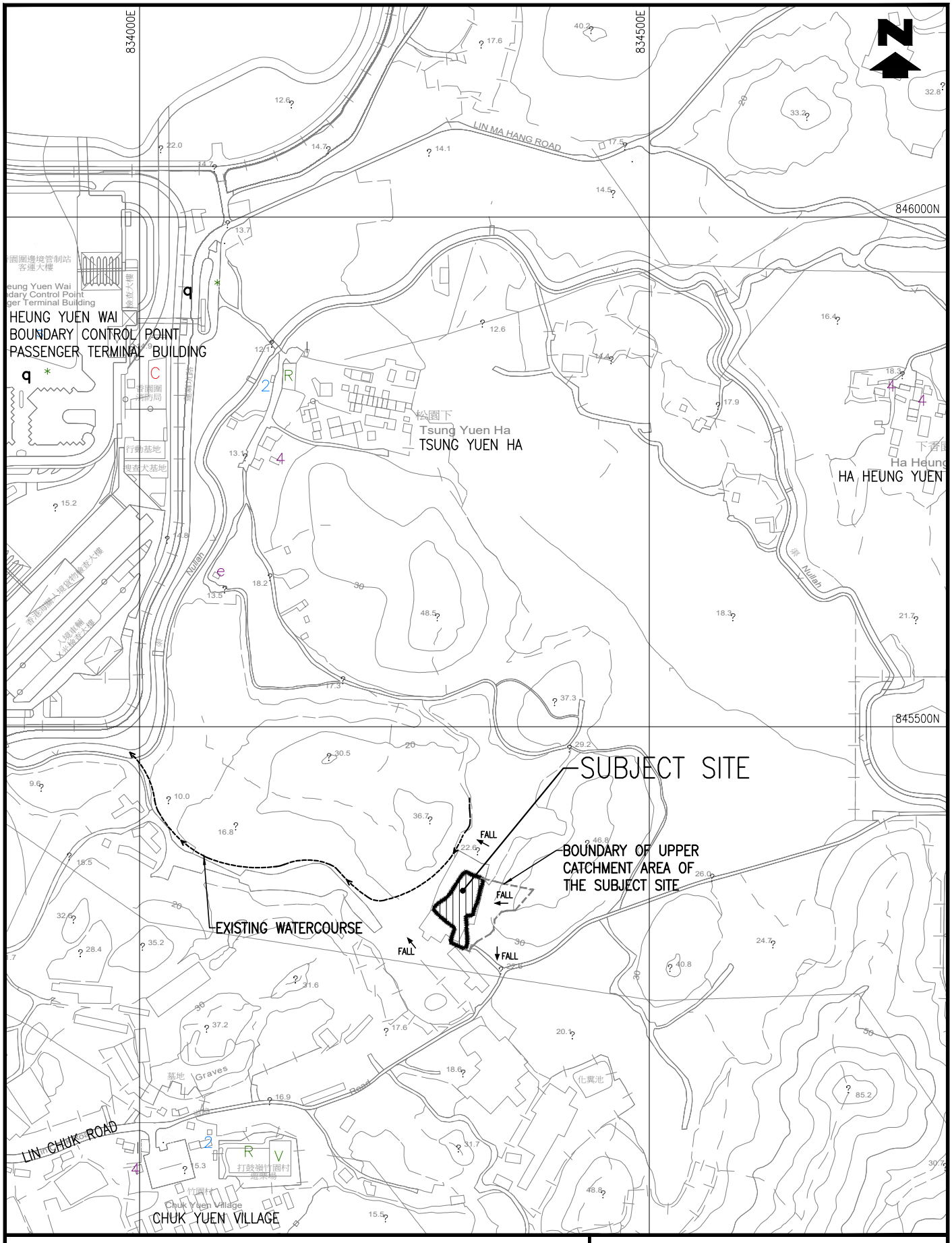
6. Conclusion and Recommendations

6.1 The subject development as Crane Vehicles Park in "Agricultural" zone will be for temporary use for a period of 3 years. The existing site levels would be graded to form a gently sloping platform to accommodate the proposed crane vehicles park use.

6.2 There is no engineering channels serving the subject site at present. 525mm U channel at 1 in 200 gradient will be constructed at the peripheral of the subject site to intercept all crossing surface runoff. 100mm high gap will be formed at the bottom of the security hoarding/fence along the subject site boundary to ensure no surface runoff from the adjacent, due to any unexpected incidents, to be obstructed. A new catchpit with trap will be constructed at the ends of the 525mm U channel before discharging into the existing watercourse to the northwest.

6.3 The Applicant is committed to obtain consents from owners of adjacent relevant land/lots prior to commencement of the proposed drainage works outside the subject site and to maintain regularly to avoid blockage of the system to the satisfaction of relevant Government departments.

6.4 The subject development would not alter the existing drainage conditions and pattern of the area and the proposed drainage system would be maintained with appropriate drainage clearance and repair works, i.e. debris clearance and damage repair. Therefore, in conclusion, the subject development would not cause any adverse drainage impact onto the area.



TITLE

SITE LOCATION PLAN

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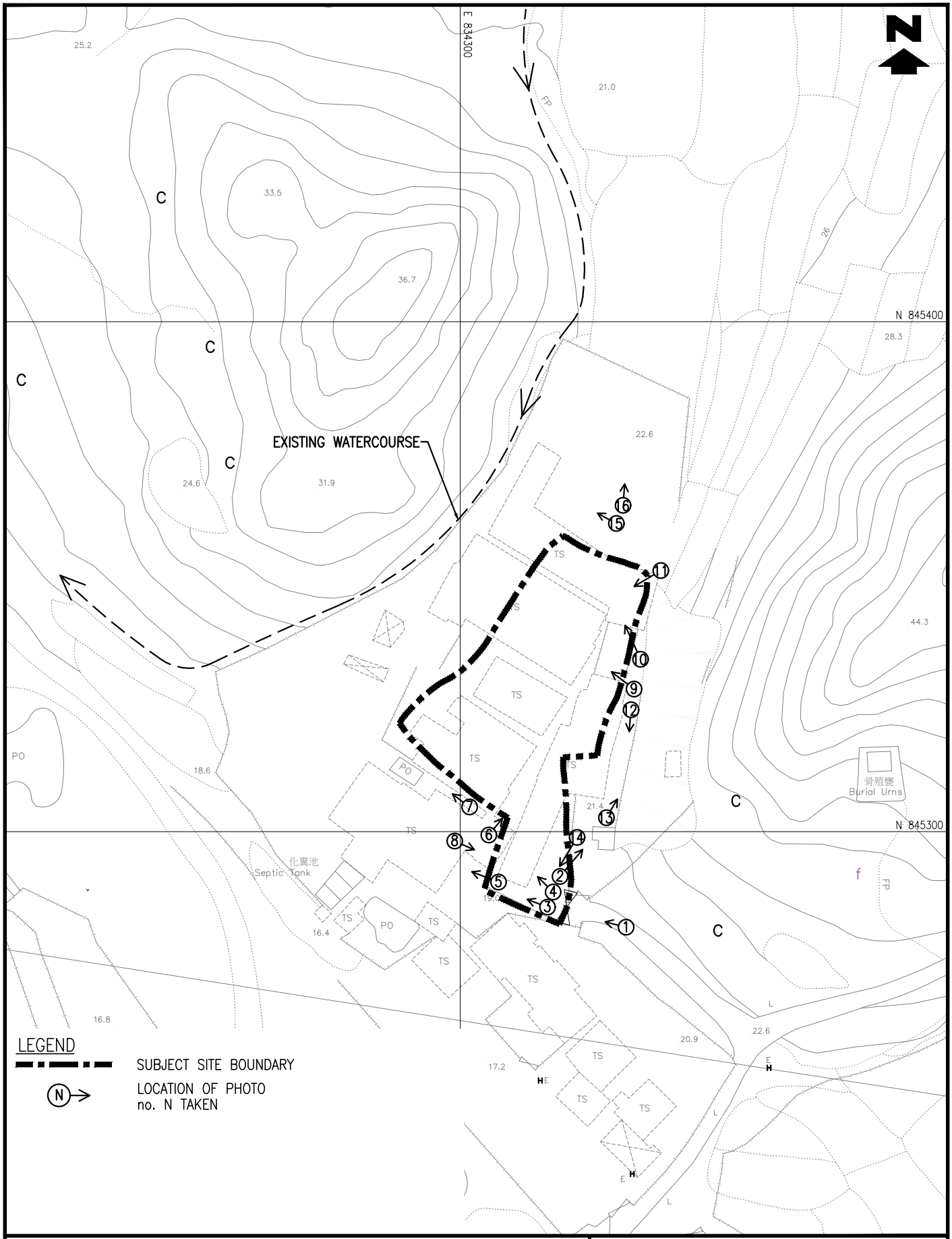
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

SCALE
1 : 5000 – A4

DRAWING No.
FIGURE D1

H:\25059_ChukYuenVillage\DRAWING\25059_FIGD1_00.dwg, 2/6/2025 15:38:15



TITLE

EXISTING DRAINAGE AND LOCATIONS OF PHOTO TAKEN

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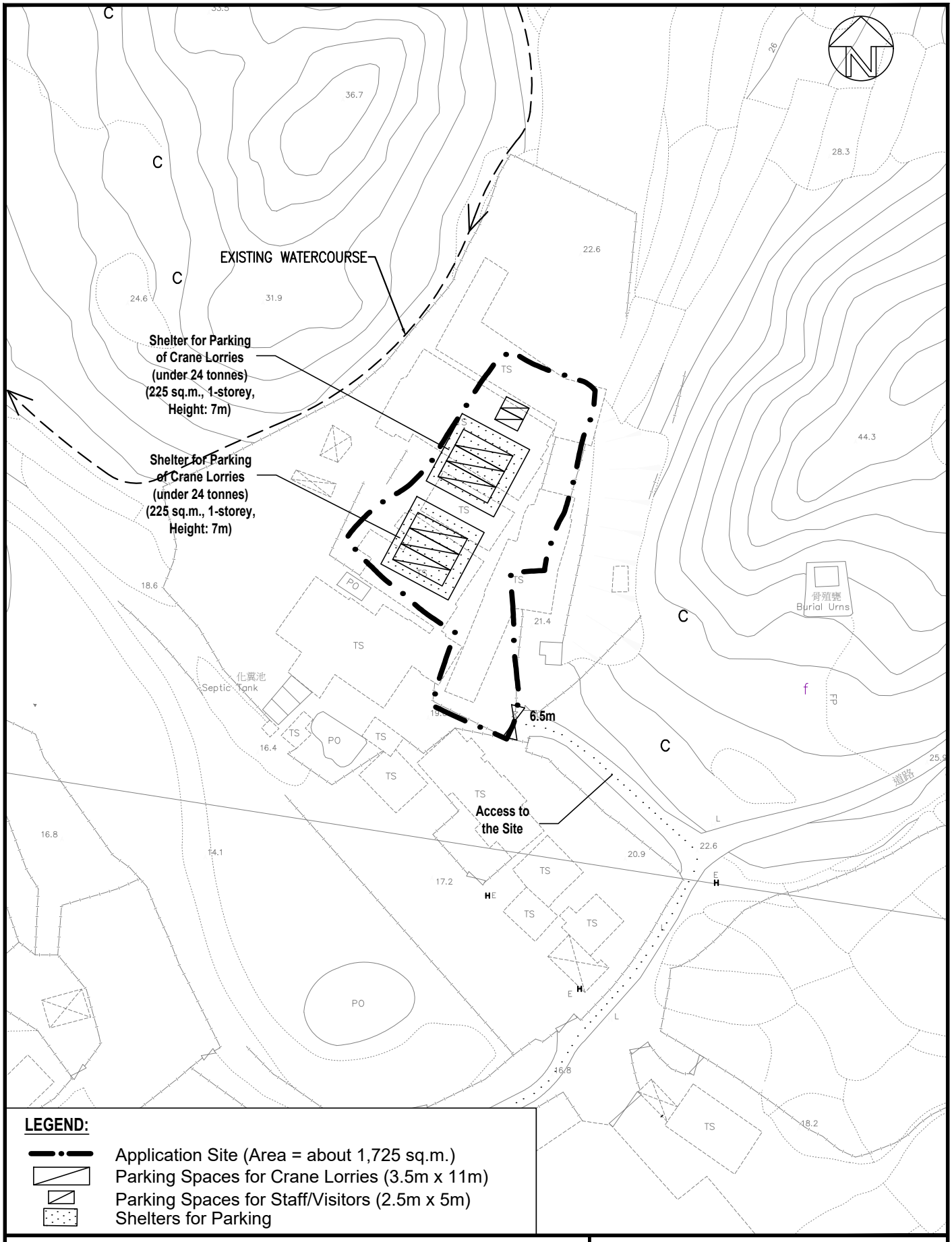
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

SCALE
1 : 1000 – A4

DRAWING No.
FIGURE D2



LEGEND:

- Application Site (Area = about 1,725 sq.m.)
- Parking Spaces for Crane Lorries (3.5m x 11m)
- Parking Spaces for Staff/Visitors (2.5m x 5m)
- Shelters for Parking

TITLE

LAYOUT PLAN

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HO TIN & ASSOCIATES CONSULTING ENGINEERS LIMITED

SCALE

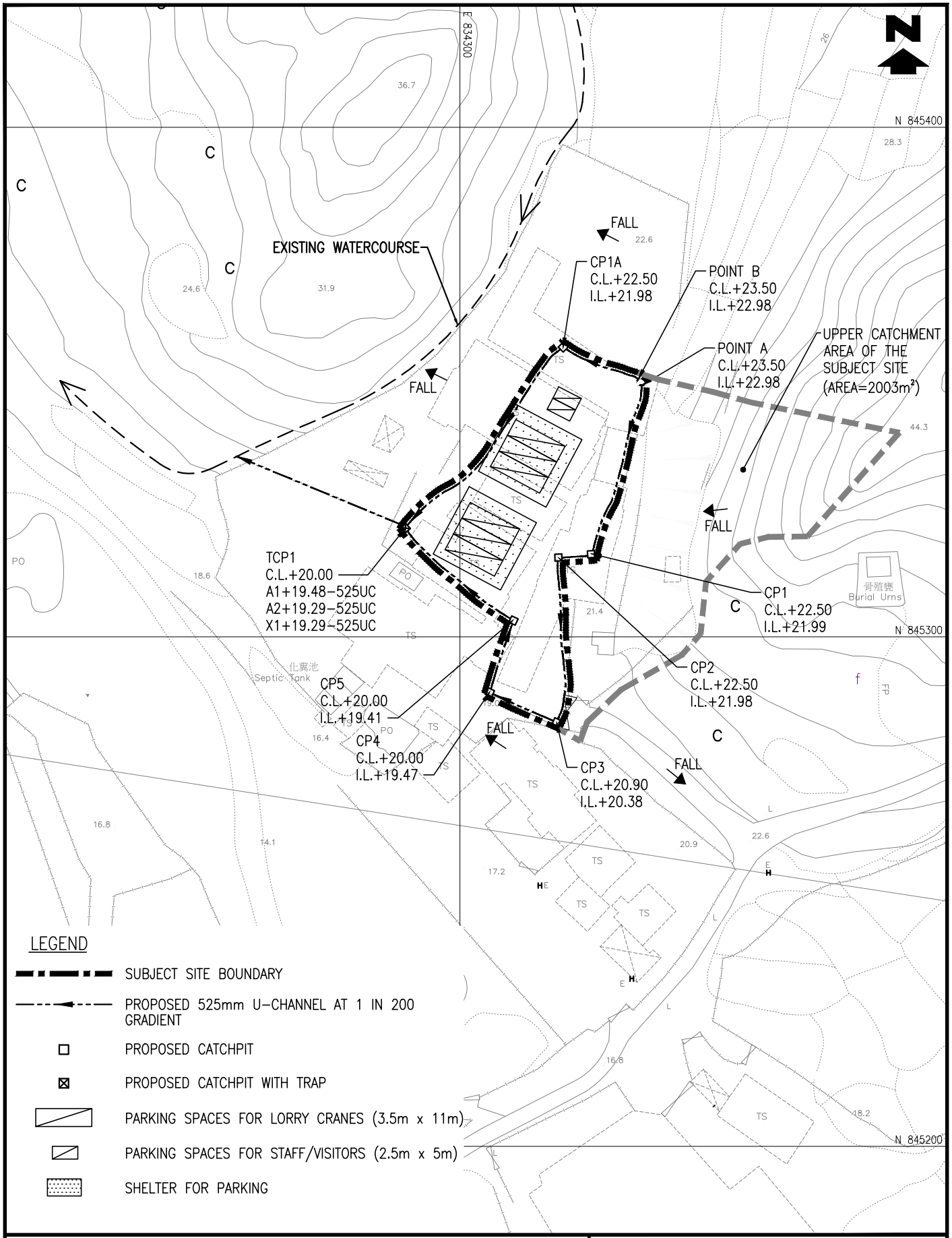
1 : 1000 – A4

DRAWING No.

FIGURE D3

H:\25059_ChukYuenVillage\DRAWING\25059_FIGD2_00 FIGD3_01 FIGD4_00 & FIGD5_01.dwg, 15/8/2025 16:43:16

	PROJECT	何田顧問工程師有限公司 HO TIN & ASSOCIATES CONSULTING ENGINEERS LIMITED	
	TITLE EXISTING WATERCOURSES IN THE VICINITY OF THE SUBJECT SITE	SCALE N.T.S.	DRAWING No. FIGURE D4



TITLE

PROPOSED STORMWATER DRAINAGE LAYOUT PLAN

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SCALE
1 : 1000 – A4

DRAWING No.
FIGURE D5

H:\25059_ChukYuenVillage\DRAWING\25059_FIGD2_00 FIGD3_01 FIGD4_00 & FIGD5_01.dwg, 15/8/2025 16:16:06

EXISTING WATERCOURSE

CP1A
C.L.+22.50
I.L.+21.98

FALL

POINT B
C.L.+23.50
I.L.+22.98

POINT A
C.L.+23.50
I.L.+22.98

CP1
C.L.+22.50
I.L.+21.99

CP2
C.L.+22.50
I.L.+21.98

TCP1
C.L.+20.00
A1+19.48-525UC
A2+19.29-525UC
X1+19.29-525UC

CP5
C.L.+20.00
I.L.+19.41

CP4
C.L.+20.00
I.L.+19.47

CP3
C.L.+20.90
I.L.+20.38

Pond

Septic tank

E 834300

E 834350

N 845350

N 845300

834300E

834330E

TS

EP

T1 T2 T3 T4 T5 T6 T7 T8 T9 T10 T11 T13 T14 T15 T16 T17 T18 T19

LEGEND

- PROPOSED LAND FILLING BOUNDARY
- SUBJECT SITE BOUNDARY
- 20.9 PROPOSED FINISHED LEVEL
- PROPOSED 525mm U-CHANNEL AT 1 IN 200 GRADIENT
- PROPOSED CATCHPIT
- PROPOSED CATCHPIT WITH TRAP
- 19.90 EXISTING GROUND LEVEL

PROJECT

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

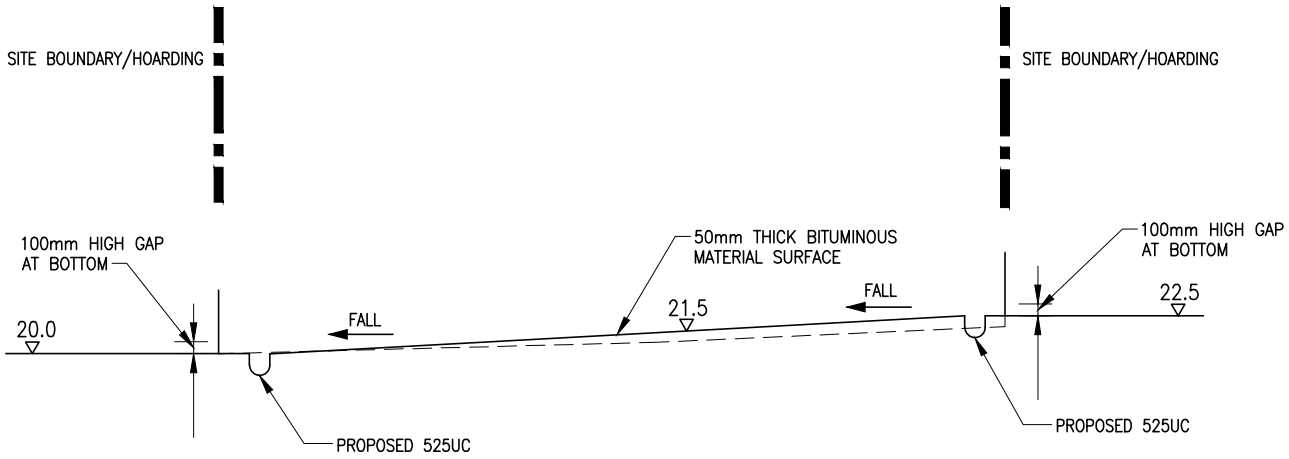
TITLE

PROPOSED LAND FILLING PLAN

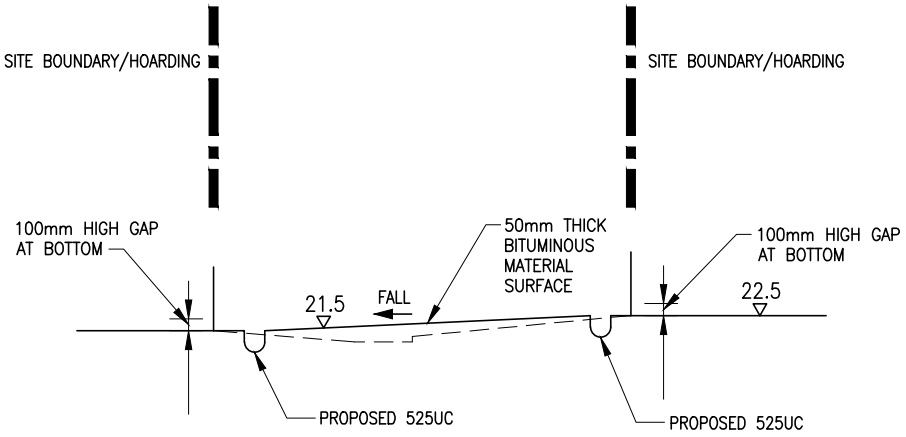
SCALE
1 : 300 - A3

DRAWING No.
FIGURE SF1

H:\25059_ChukYuenVillage\DRAWING\25059_FIGSF1_01 & FIGSF2_00.dwg, 18/8/2025 9:38:58



SECTION 'X'–'X'

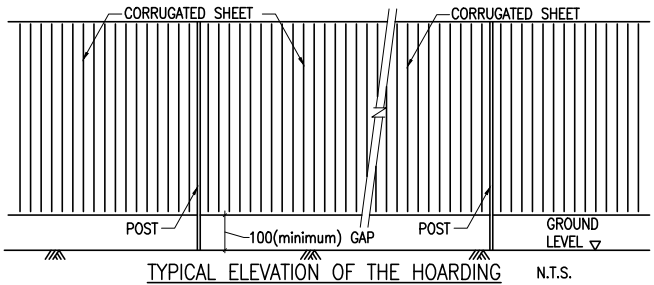


SECTION 'Y'–'Y'

LEGEND

PROPOSED FINISHED LEVEL

EXISTING LEVEL



TYPICAL ELEVATION OF THE HOARDING WITH 100mm HIGH GAP AT BOTTOM N.T.S.

TITLE

SITE SECTIONS

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CONSULTING ENGINEERS LIMITED

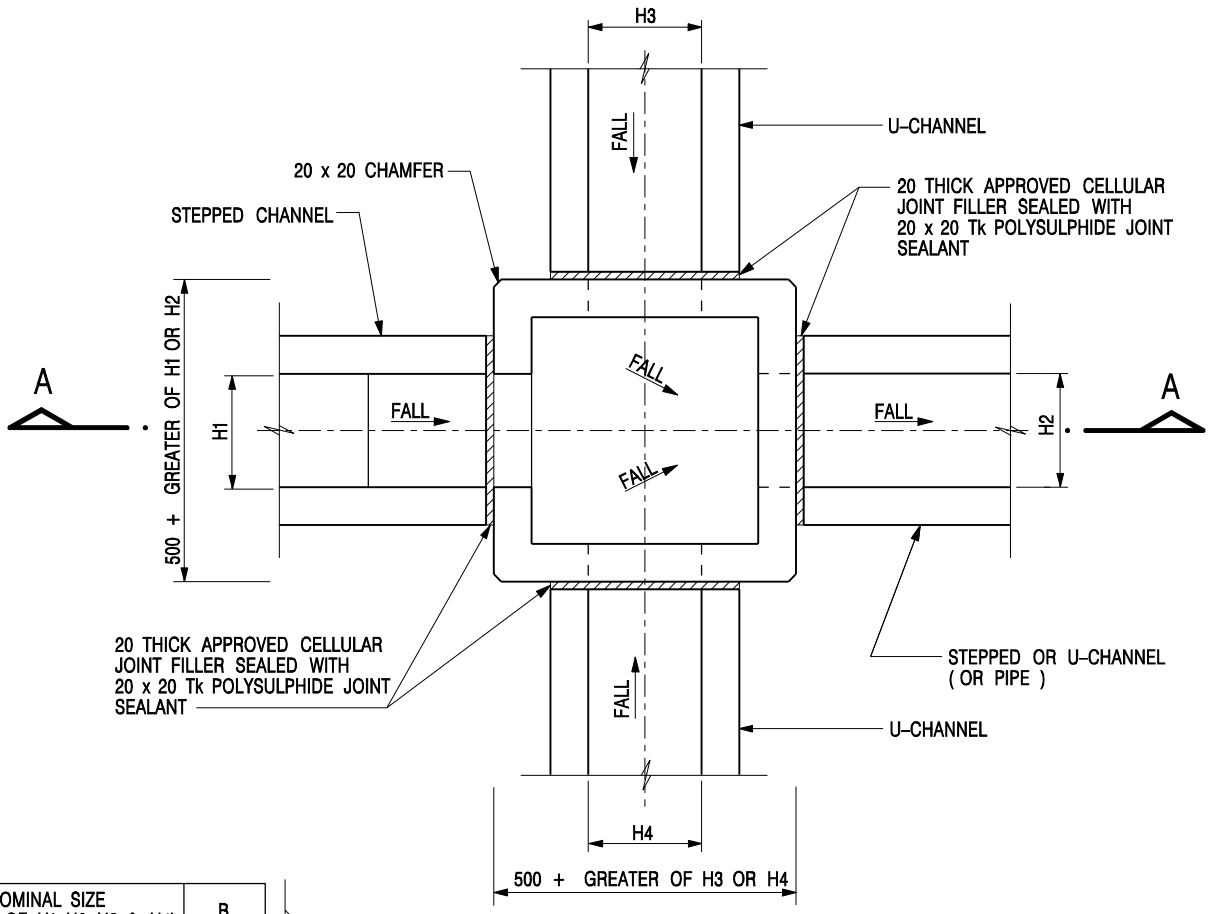
SCALE

1 : 500 – A4

DRAWING No.

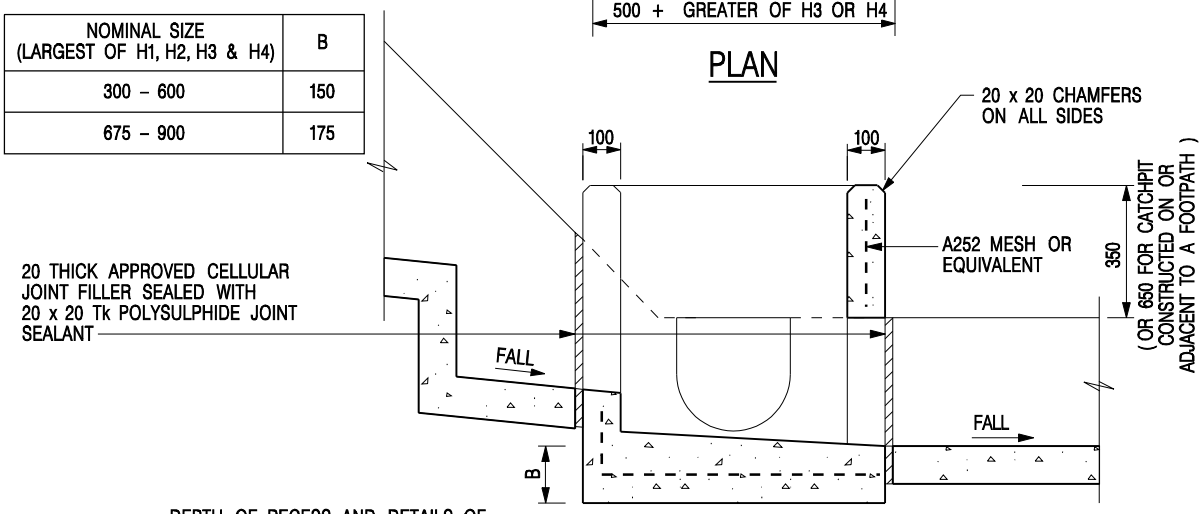
FIGURE SF2

H:\25059_ChukYuenVillage\DRAWING\25059_FIGSF1_00 & FIGSF2_00.dwg, 4/6/2025 10:45:12

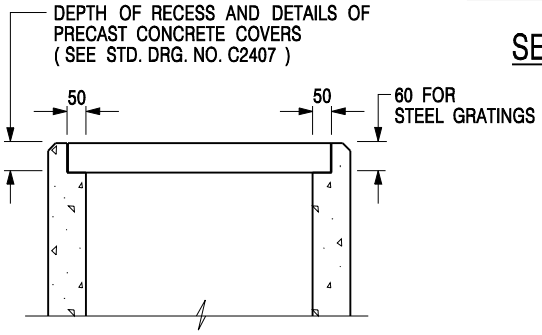


PLAN

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 5 FOR OTHER NOTES.

ALTERNATIVE TOP SECTION FOR PRECAST CONCRETE COVERS / GRATINGS

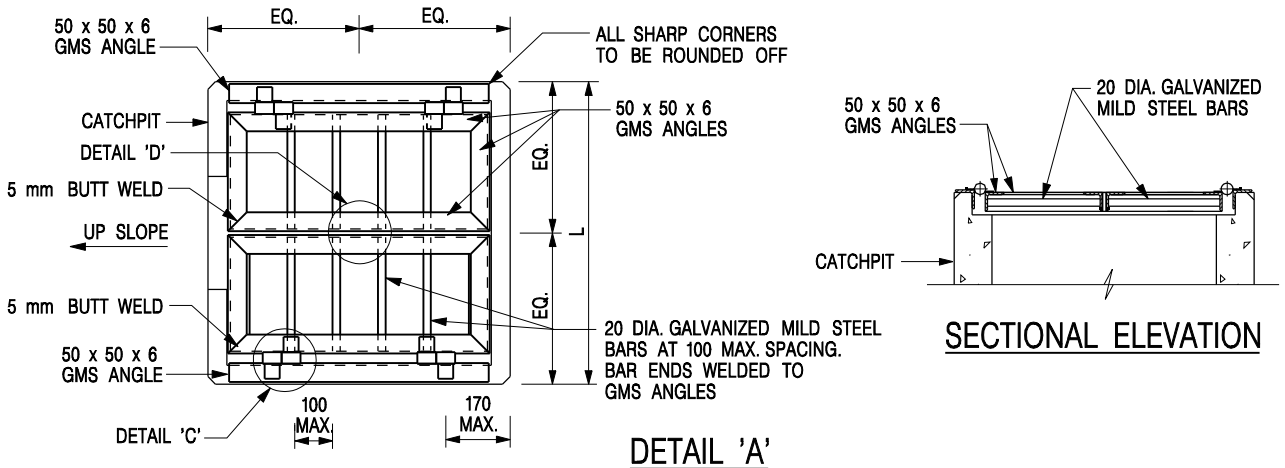
REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2405J.	Original Signed	03.2015

STANDARD CATCHPIT DETAILS

(SHEET 1 OF 5)

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

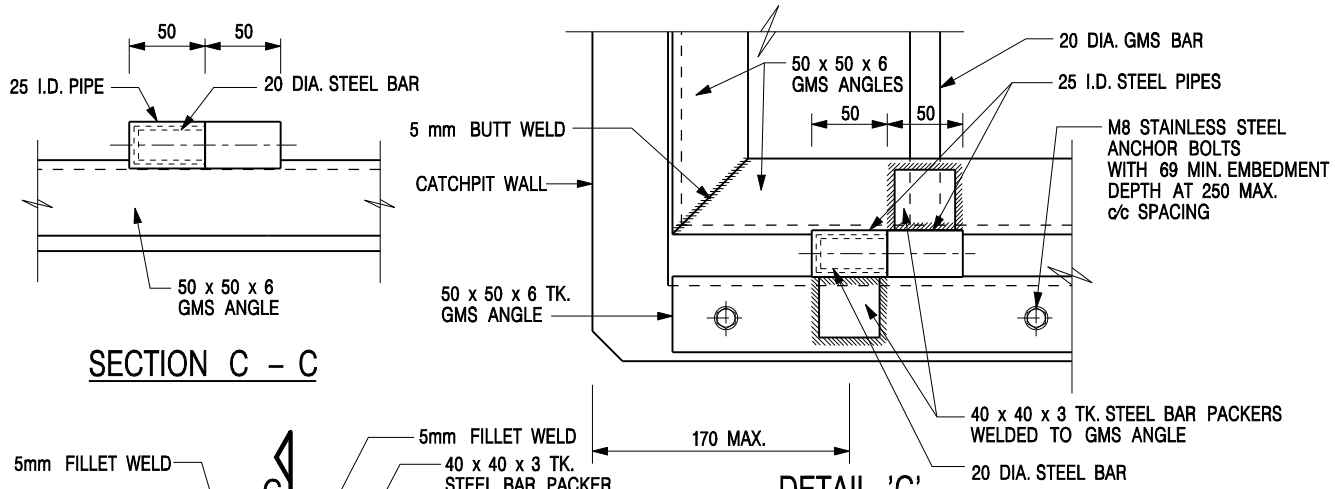
SCALE	1 : 20	DRAWING NO.
DATE	JAN 1991	C2405 /1



DETAIL 'A'

(DETAILS OF DOUBLE SIDE OPENING STEEL GRATING FOR L>900mm)

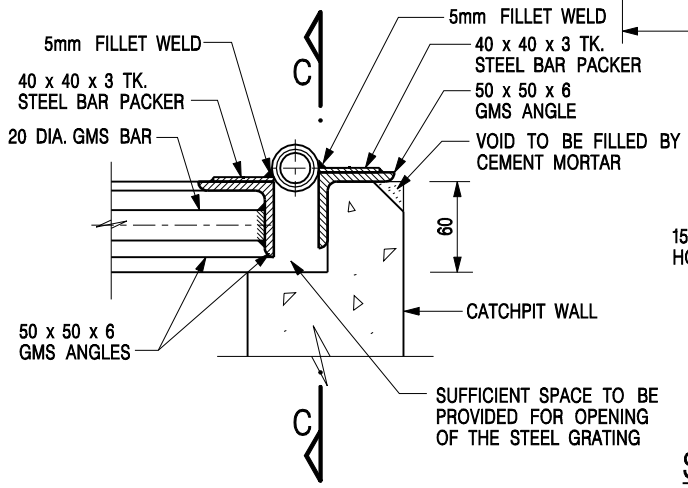
SCALE 1 : 20



DETAIL 'C'

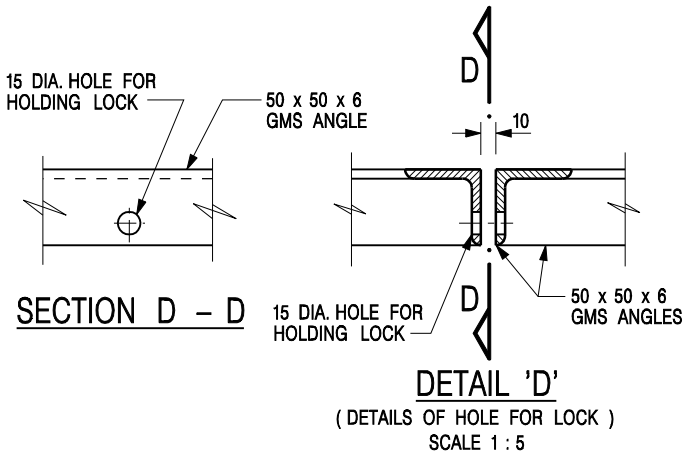
(DETAILS OF HINGE)

SCALE 1 : 5



SECTIONAL ELEVATION

(DETAIL 'C')



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.

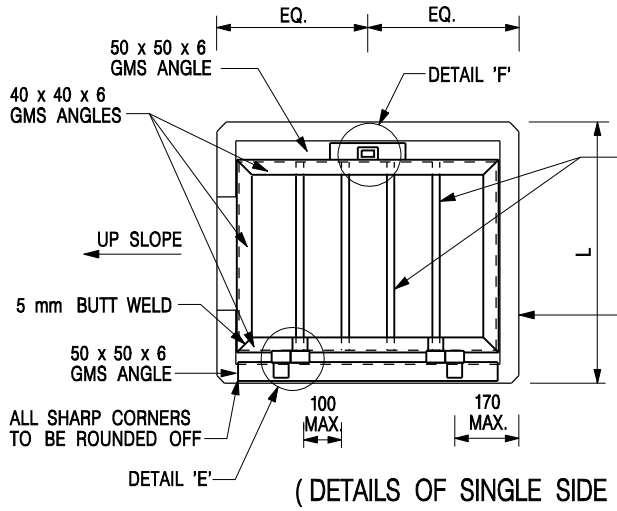
REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2405J.	Original Signed	03.2015

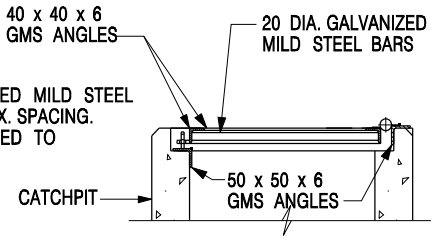
STANDARD CATCHPIT DETAILS

(SHEET 2 OF 5)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE	AS SHOWN	DRAWING NO.
DATE	JAN 1991	C2405 /2



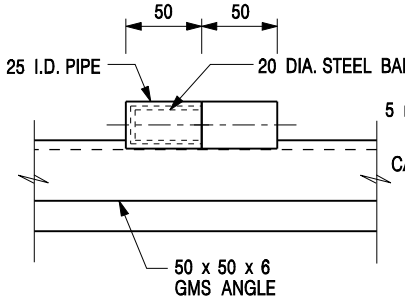


SECTIONAL ELEVATION

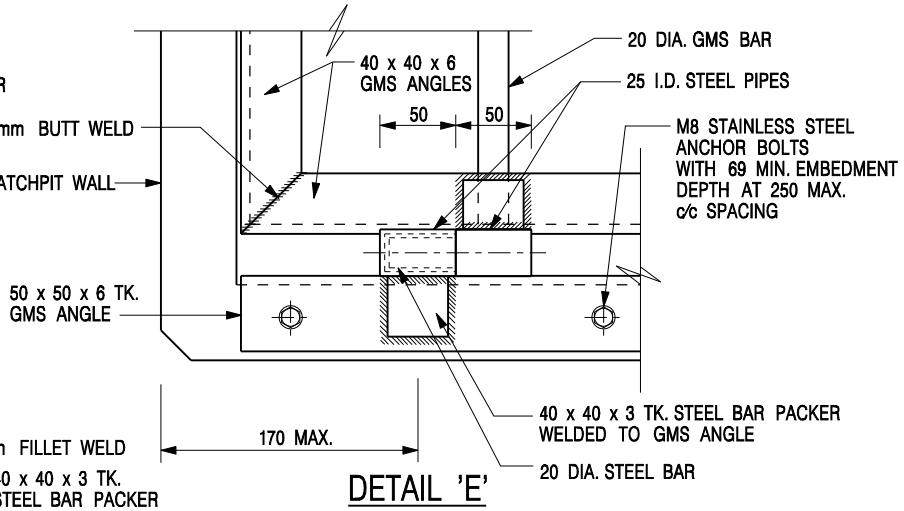
DETAIL 'B'

(DETAILS OF SINGLE SIDE OPENING STEEL GRATING FOR L≤900mm)

SCALE 1 : 20



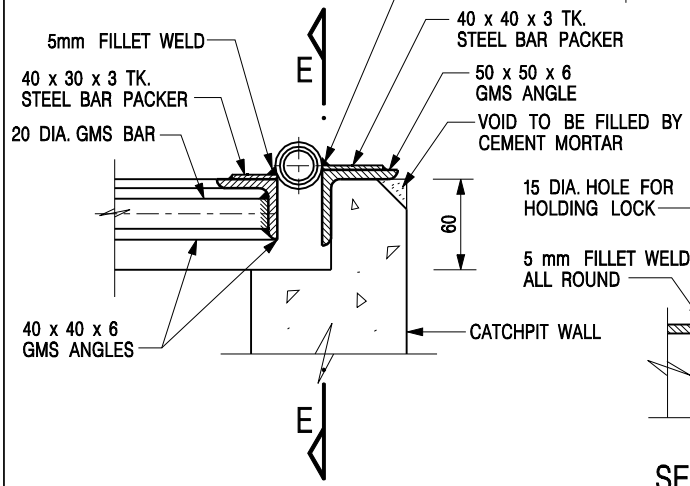
SECTION E – E



DETAIL 'E'

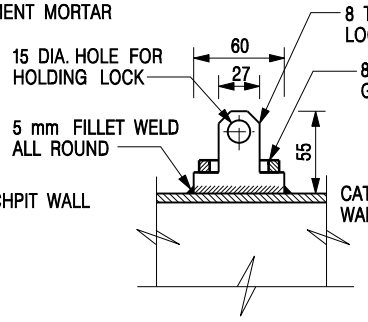
(DETAILS OF HINGE)

SCALE 1 : 5

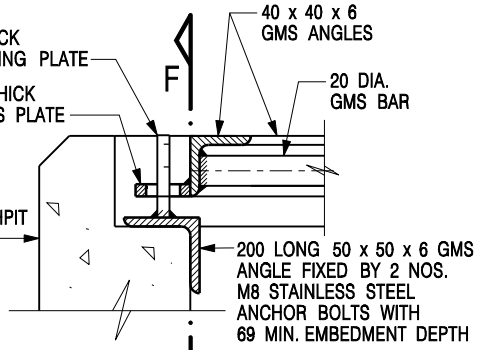


SECTIONAL ELEVATION

(DETAIL 'E')



SECTION F – F



DETAIL 'F'

(DETAILS OF LOCKING PLATE)

SCALE 1 : 5

NOTES:

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

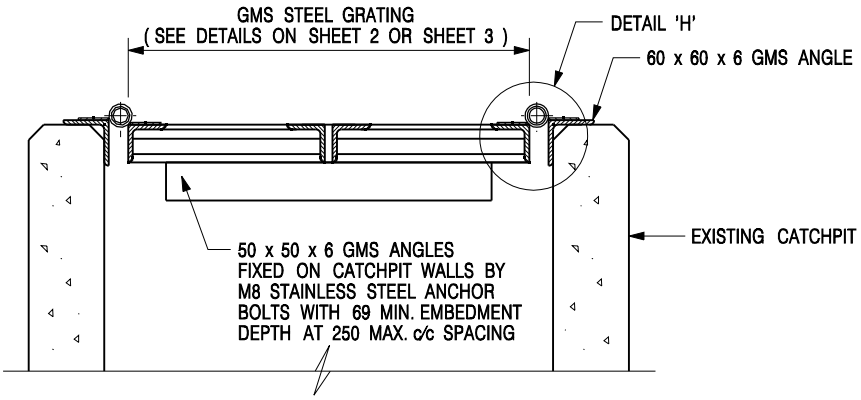
REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2405J.	Original Signed	03.2015

STANDARD CATCHPIT DETAILS

(SHEET 3 OF 5)

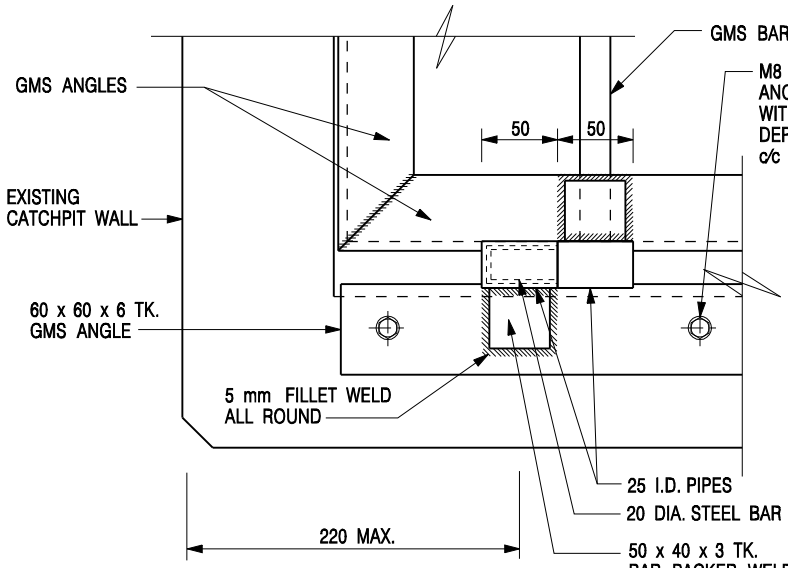
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE AS SHOWN	DRAWING NO. C2405 /3
DATE JAN 1991	



DETAIL 'G' – DETAILS OF STEEL GRATING CONSTRUCTED ON EXISTING CATCHPIT

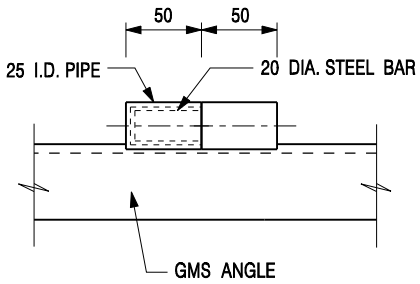
SCALE 1 : 10



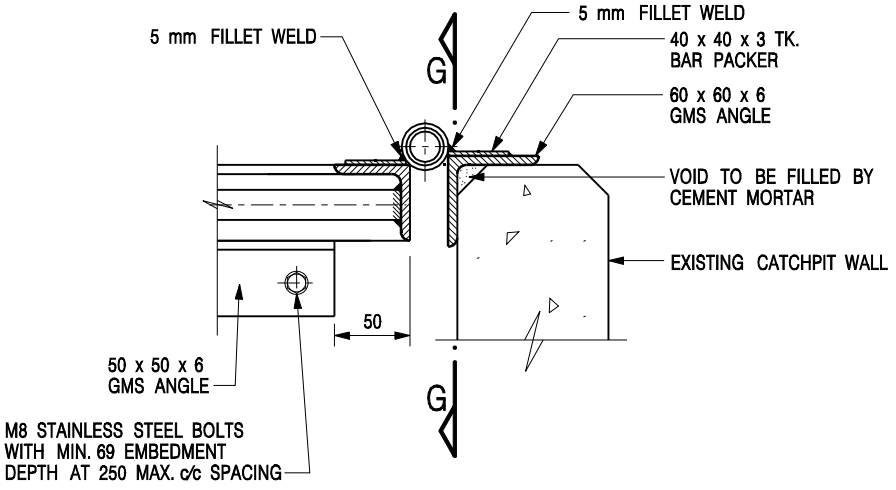
DETAIL 'H'

(DETAILS OF HINGE)

SCALE 1 : 5



SECTION G – G



SECTIONAL ELEVATION

(DETAIL 'H')

NOTES:

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

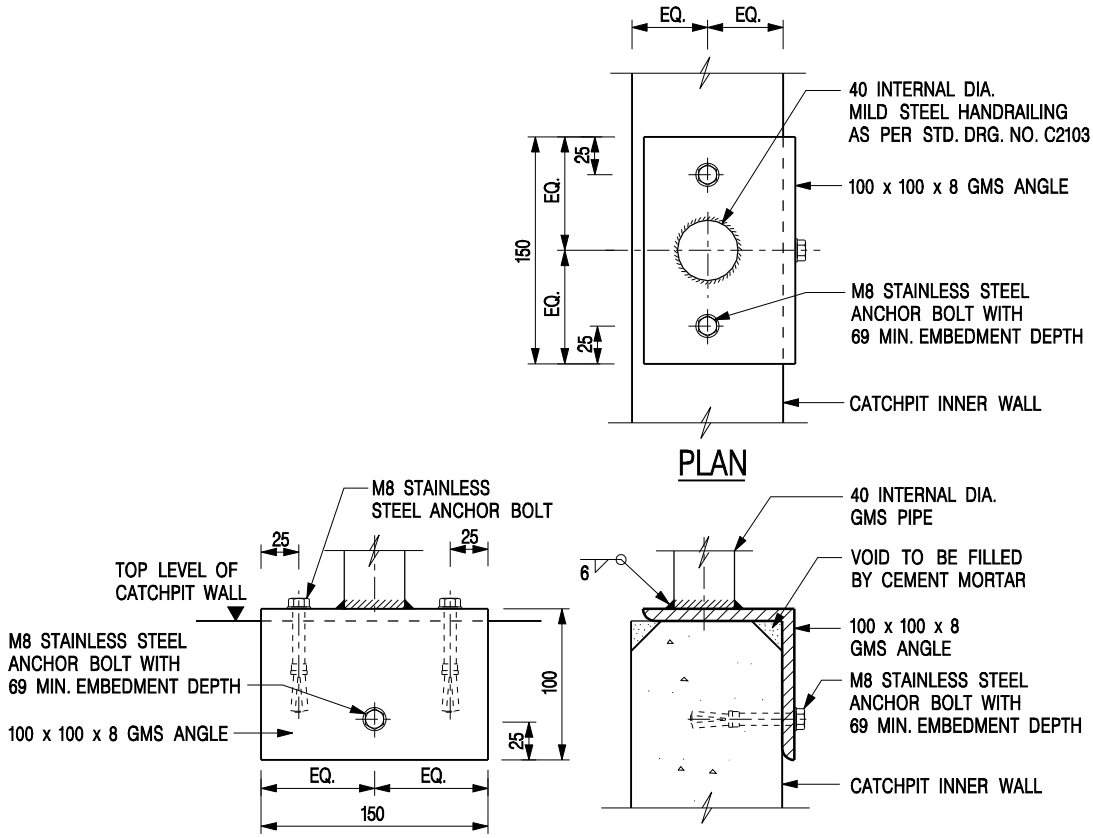
REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2405J.	Original Signed	03.2015

STANDARD CATCHPIT DETAILS

(SHEET 4 OF 5)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE AS SHOWN	DRAWING NO. C2405 /4
DATE JAN 1991	



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

SCALE 1 : 5

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. 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 c/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.

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

STANDARD CATCHPIT DETAILS

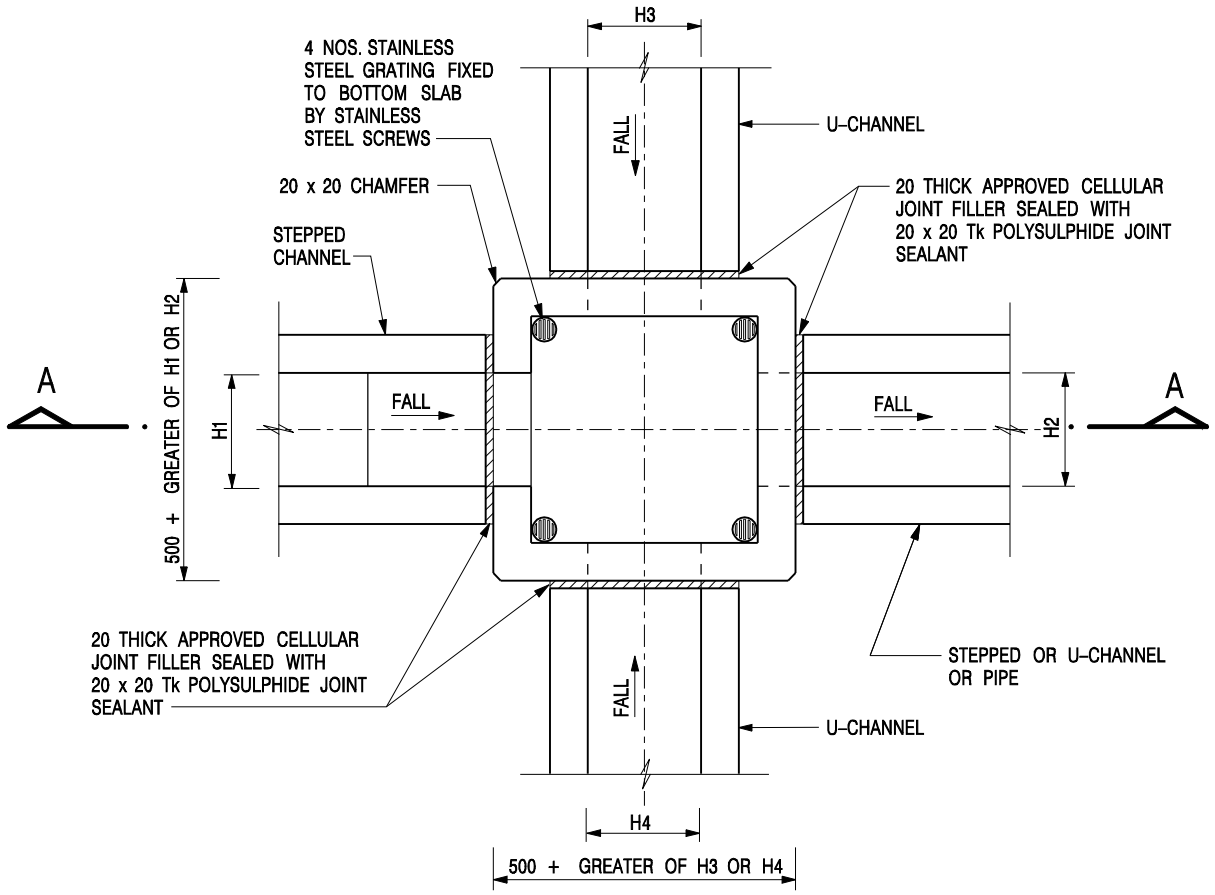
(SHEET 5 OF 5)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE AS SHOWN

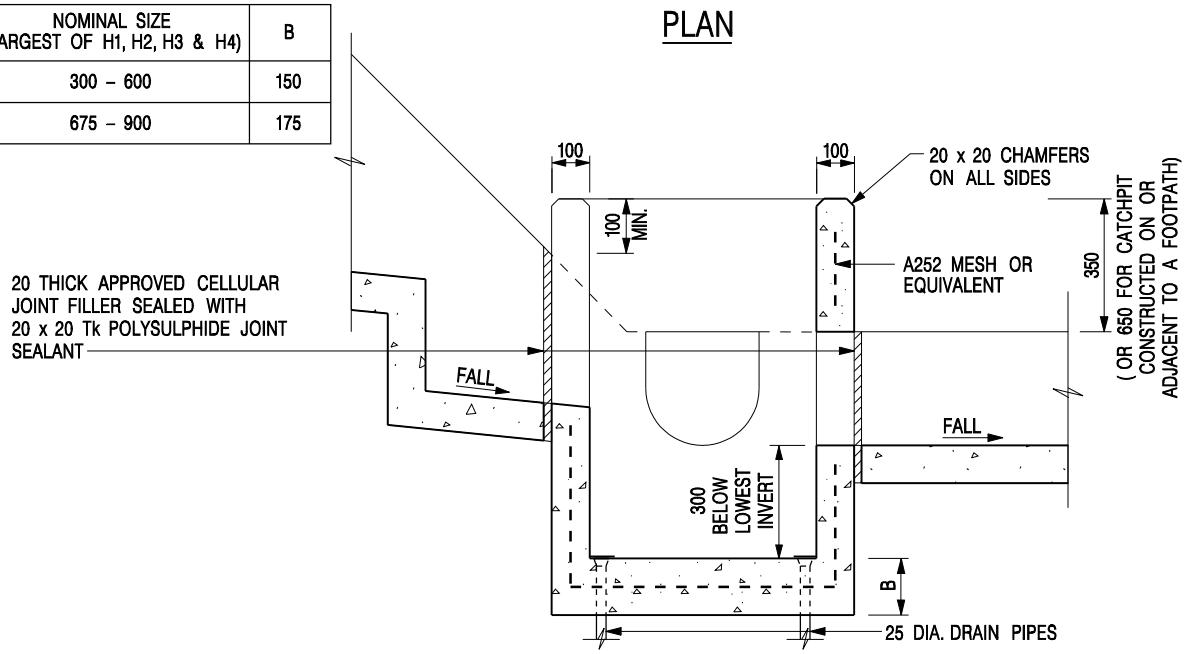
DATE JAN 1991

DRAWING NO. C2405 /5



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

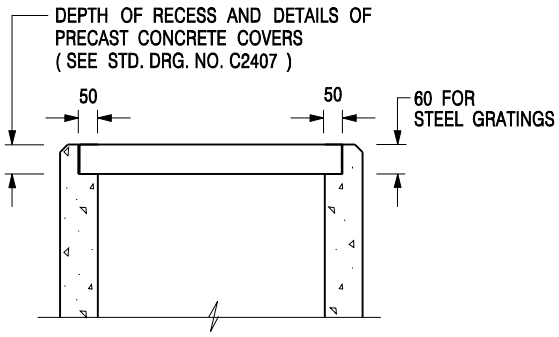
(SHEET 1 OF 2)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

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.

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

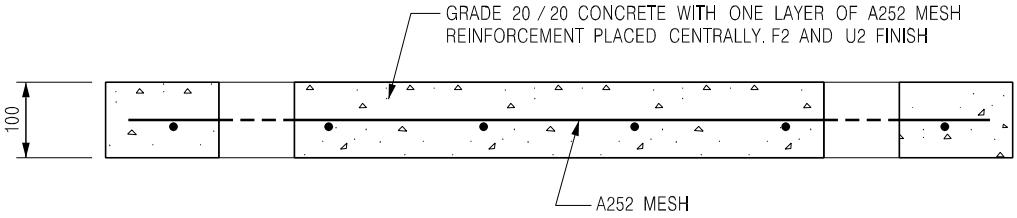
CATCHPIT WITH TRAP
(SHEET 2 OF 2)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

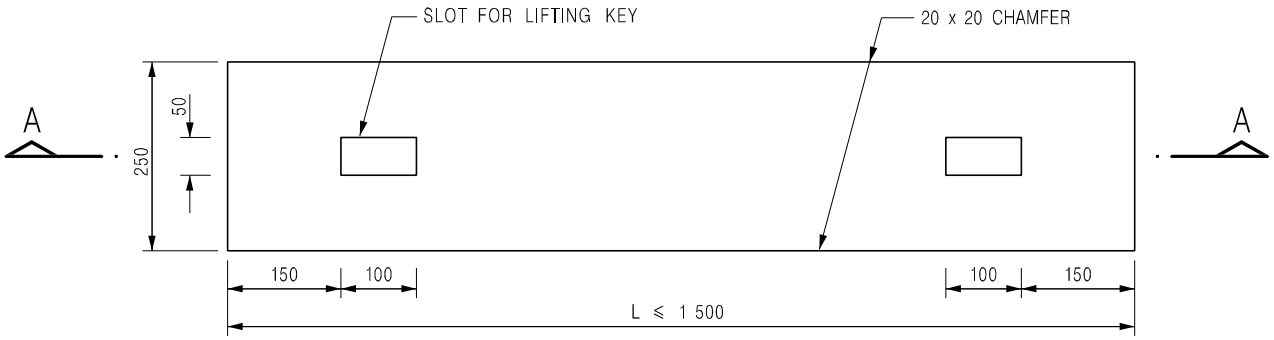
SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2406 /2A

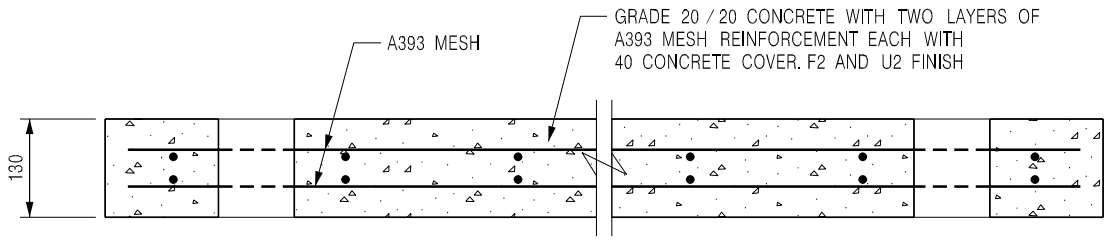


SECTION A – A

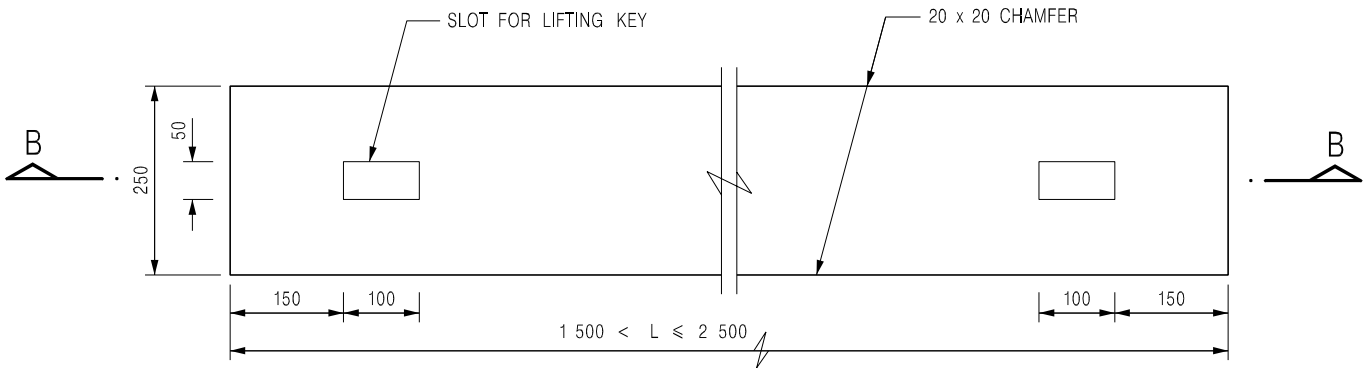


PLAN

TYPE 1 – FOR SPAN UP TO 1.5 m



SECTION B – B



PLAN

TYPE 2 – FOR SPANS 1.5 m TO 2.5 m

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL EXTERNAL EDGES OF THE COVERS SHALL BE 20mm CHAMFERED.

REF.	REVISION	SIGNATURE	DATE
B	NAME OF DEPARTMENT AMENDED.	Original Signed	01.2005
A	GENERAL REVISION	Original Signed	12.2002

PRECAST CONCRETE COVERS FOR CATCHPIT AND SAND TRAP

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 10

DATE JAN 1991

DRAWING NO. C2407B

興土木 利民生 齊拓展 創明天

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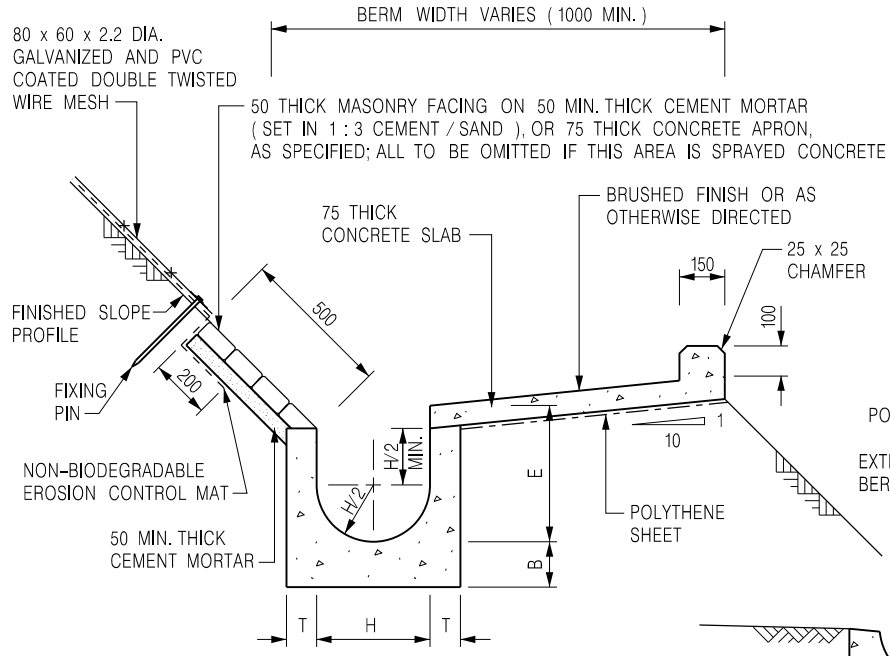
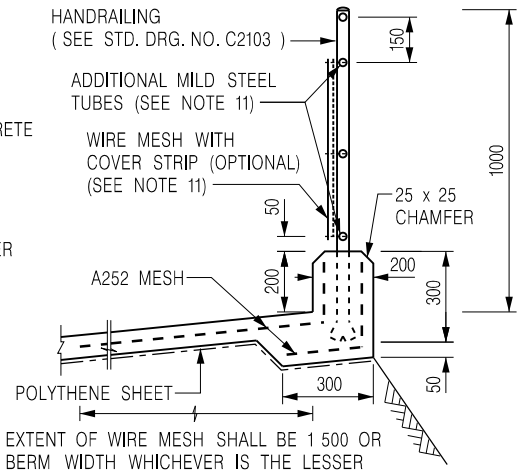
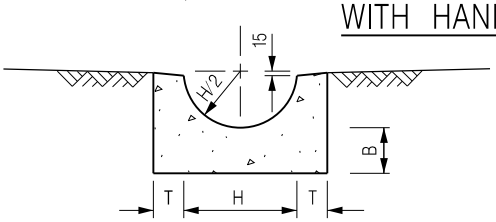


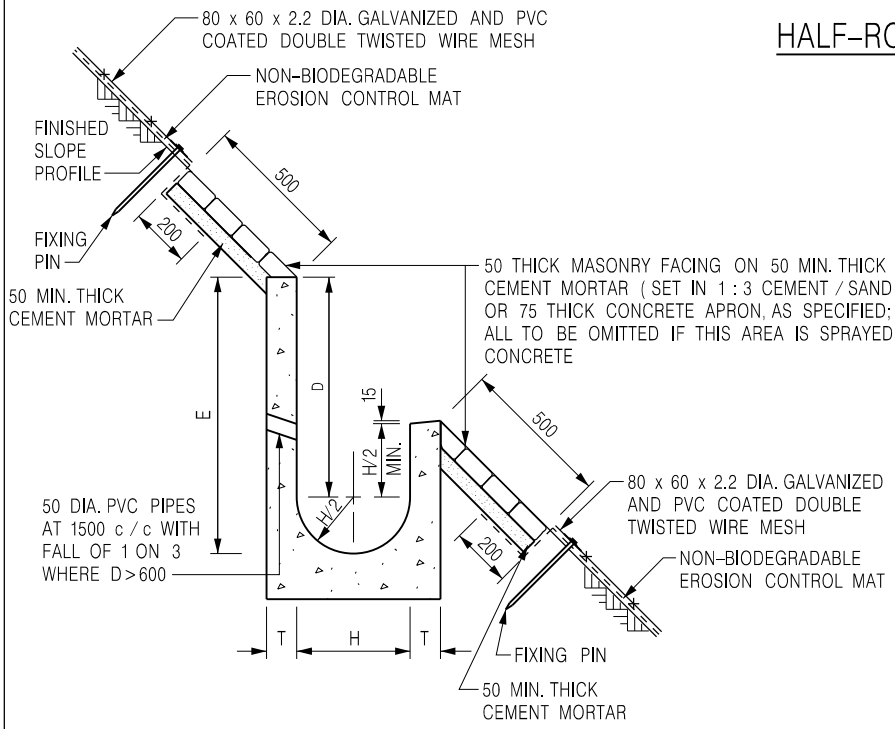
U-CHANNELS CONSTRUCTED ON BERM



DETAILS OF BERM WITH HANDRAILING



HALF-ROUND CHANNEL



U-CHANNELS NOT CONSTRUCTED ON BERM

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. C2511/1E.
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. C2511/1E)
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

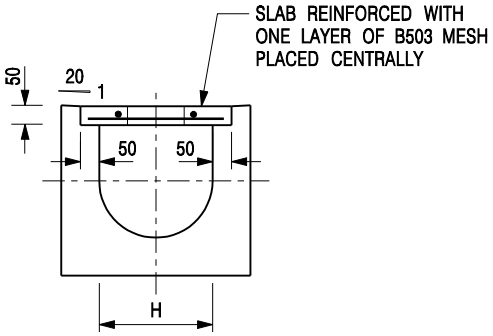
DETAILS OF HALF-ROUND AND U-CHANNELS (TYPE A – WITH MASONRY APRON)

CEDD **CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT**

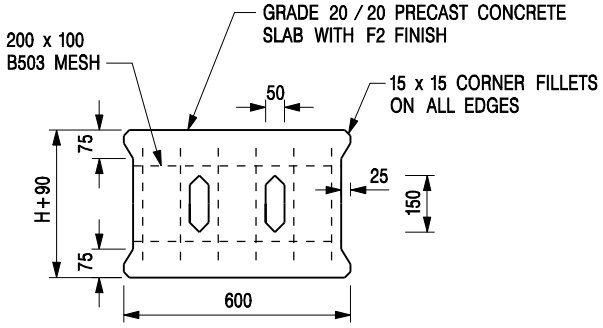
SCALE 1 : 25

DATE JAN 1991

DRAWING NO. C2409J



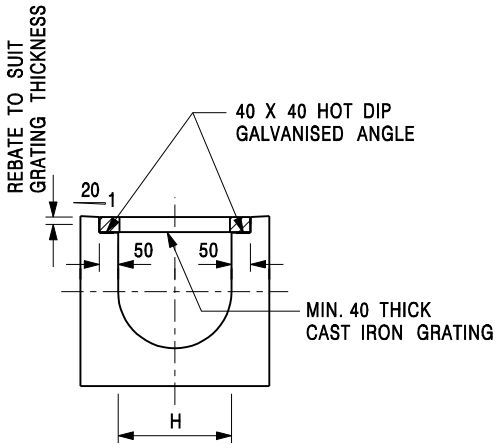
TYPICAL SECTION



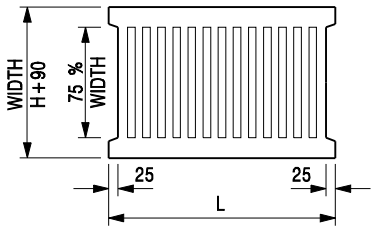
PLAN OF SLAB

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