Appendix Ia

Fax, Agreed on 28 Aug 2024

Nolan Consultants Limited
路勤顧問有限公司

Our reference : NL/QTH/011468
Date: 16 Aug 2024

Transport Department
NT Regional Office
Traffic Engineering (NTW) Division
Boundary Section
7/F, Mongkok Government Offices,
30 Luen Wan Street,
Mongkok, Kowloon

Attn.: Mr. CHEUNG Hin Man (Prin Tech Offr (Traffic)/W1)

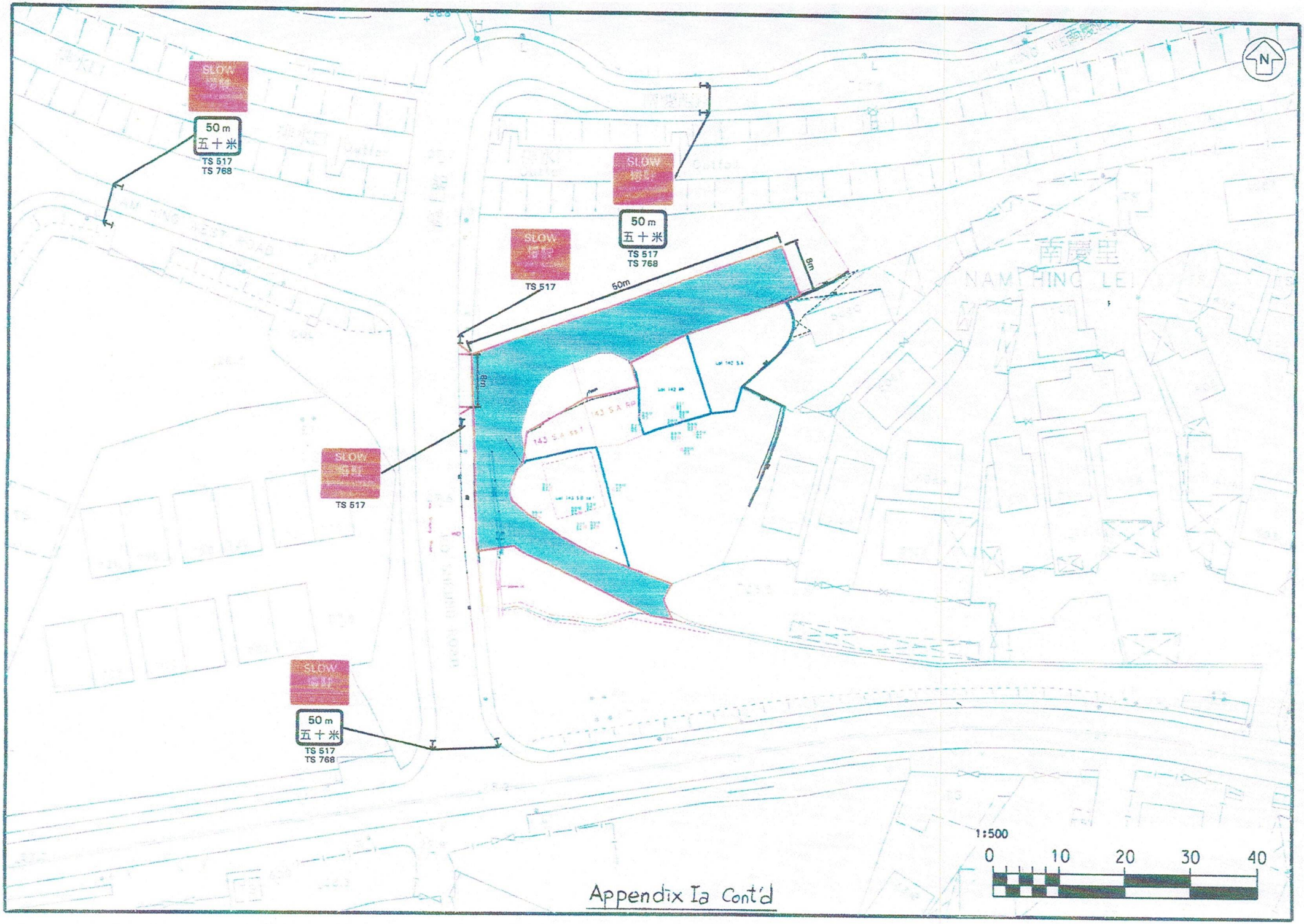
Temporary Traffic Arrangement for Temporary Run-In Out for Construction Works at Ko Sheung Road near Nam Hing West Road

Agreed on condition that all temporary traffic arrangements should comply with the Code of Practice for the Lighting, Signing and Guarding of Road Works (Fifth Issue 2017) issued by the Transport Department.
(CHEUNG HIN MAN)
PRIN TECH OFFR (TRAFFIC)/W1
28 AUG 2024

Applicant's letter ref. no. NL/QTH/011468 dated 16 Aug 2024

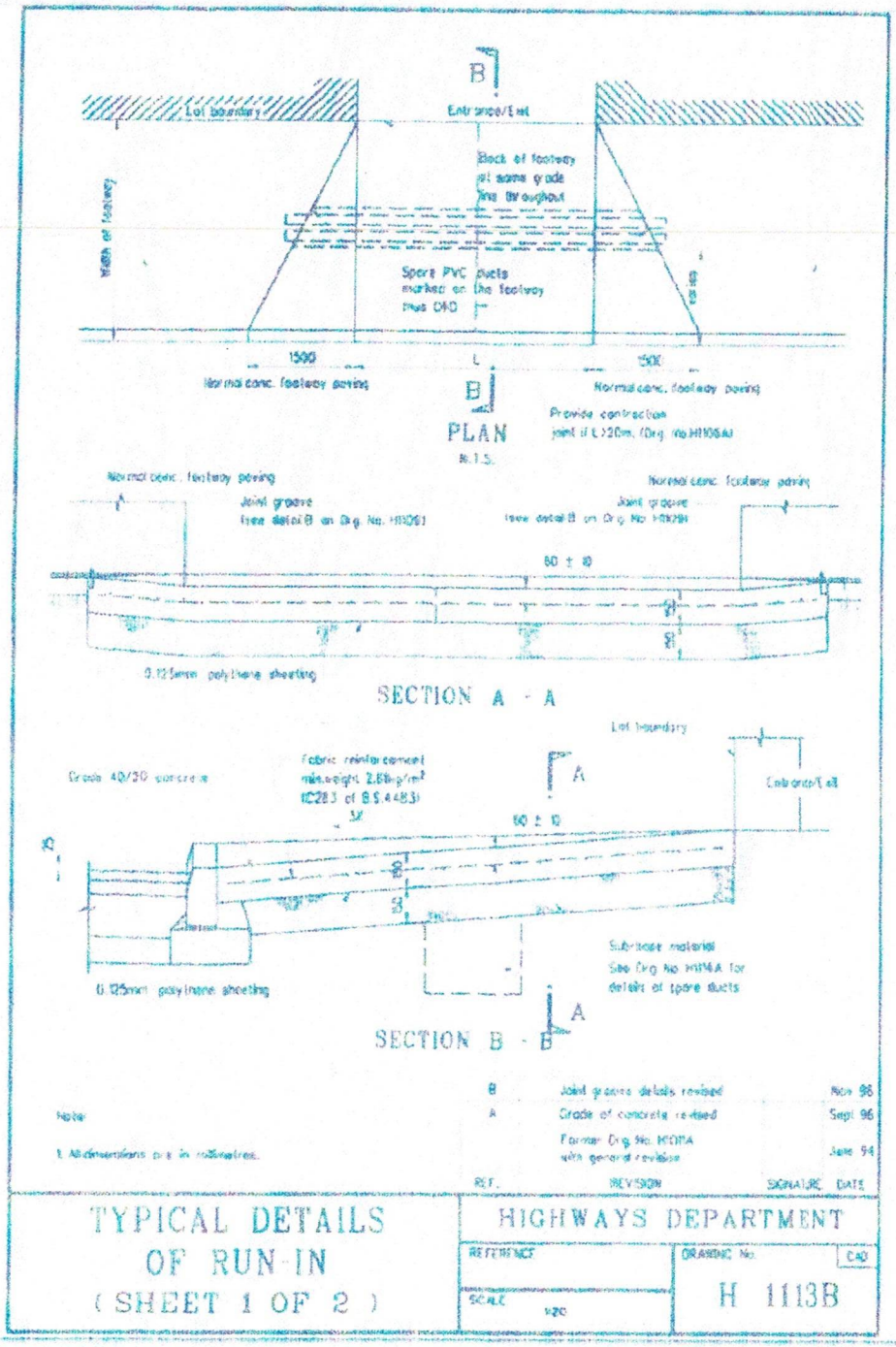
Agreed via fax (3747 3221) on 28 Aug 2024 with the following Approval Conditions :

1) Please liaise with locals and affected stakeholders before commencement of the proposed works.
2) As the works area as shown is outside the purview of TD, please verify the road/land status, seek prior comments and obtain consents from relevant managerial departments/affected parties/stakeholders.
3) Please provide the purpose of works area in detail.
4) As the proposed vehicular access/run-in/out is temporarily implemented on a footpath, please submit relevant drawing in detail to lay out the TTA for implementation of such vehicular access and pedestrian traffic control on footpath during implementation.
5) Please also liaise with district maintenance division of Highways Department beforehand for any removal of existing street furniture such as type II railings on the back of footpath. Such railings shall be immediately reinstated upon completion of works.
6) The plastic barriers as shown shall be provided with flashing lanterns for 24-hour TTA/works and shall be specified on the legend.
7) Water-filled barriers rather than plastic barriers shall be provided along the back of footpath when there is an adjoining slope or retaining wall underneath, please verify on site accordingly
8) The both sides of vehicular access/run-in/out shall be provided with amber revolving lanterns.
9) Banksman shall be deployed at the vehicular access/run-in/out for manual traffic control when necessary
10) Swept path analysis of construction/works vehicle for ingress/egress at the vehicular access/run-in/out shall be demonstrated.
11) Adequate and unobstructed sightlines shall be maintained at/near the vehicular access/run in/out.
12) Please seek prior comments and obtain consent from Traffic Police.
13) Please ensure no other concurrent TTA scheme nearby unless prior approvals/consents granted by TD and Traffic Police.
14) Please revise the anticipated programme of works for six months maximum and submit application for re-endorsement every six months.



Appendix Ia Cont'd

Appendix 1b



B	Joint grooves details revised	Nov 96
A	Grade of concrete revised	Sept 96
	Former Drg. No. H1011A with general revision	June 94
REF.	REVISION	SIGNATURE DATE

Note:

1. All dimensions are in millimetres.

TYPICAL DETAILS OF RUN-IN (SHEET 1 OF 2)

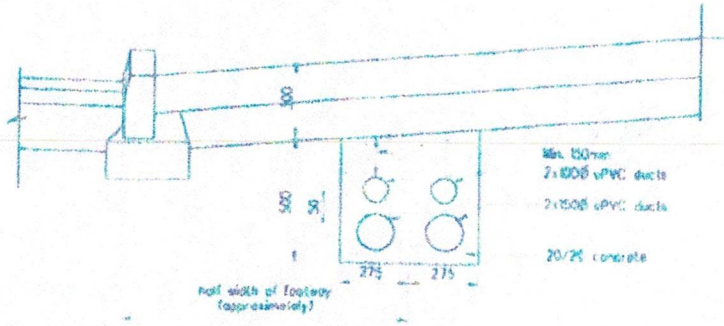
HIGHWAYS DEPARTMENT

REFERENCE

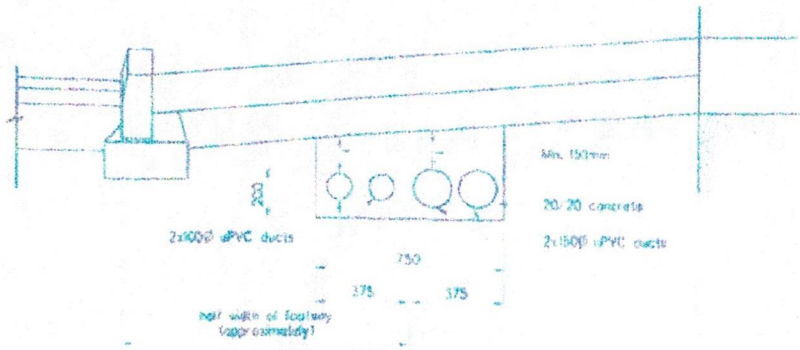
DRAWING No. H 1113B

SCALE 1:20

Appendix Ic



OPTION A



OPTION B

Notes:

1. 100 diameter ducts are provided for cabling of ATC or CCTV. 150 diameter ducts are provided for power cables.
2. The choice of option depends on the site situations (e.g. width of footway, existing underground utilities).
3. Position of both ends of the duct bank to be marked on footway thus CAD.

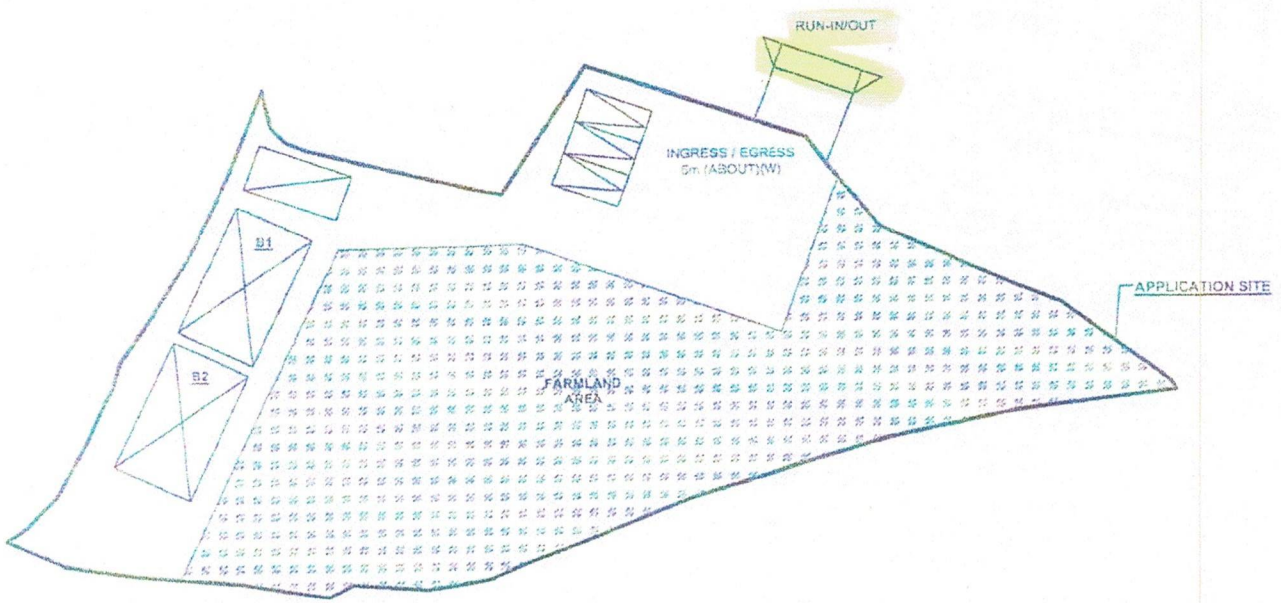
REF.	REVISION	SIGNATURE	DATE
A	Concrete cover revised. Former Drg. No. H 1011A with general revision		Sept 98 June 94

TYPICAL DETAILS OF RUN-IN (SHEET 2 OF 2)	HIGHWAYS DEPARTMENT	
	REFERENCE	DRAWING NO. H 1114A
	SCALE 1:20	

DEVELOPMENT PARAMETERS OF THE APPLICATION SITE

APPLICATION SITE AREA	: 1,769m² (ABOUT)
COVERED AREA	: 120m² (ABOUT)
UNCOVERED AREA	: 1,649m² (ABOUT)
PLOT RATIO	: 0.1 (ABOUT)
SITE COVERAGE	: 7% (ABOUT)
NO. OF STRUCTURE	: 2
DOMESTIC GFA	: NOT APPLICABLE
NON-DOMESTIC GFA	: 180m² (ABOUT)
BUILDING HEIGHT	: 3.5m - 6m (ABOUT)
NO. OF STOREY	: 1 - 2

STRUCTURE	USE	COVERED AREA	GFA	BUILDING HEIGHT
B1	AGRICULTURAL LEARNING CENTRE AND STORAGE OF SEED AND FARM TOOLS	60m² (ABOUT)	60m² (ABOUT)	3.5m (ABOUT)(1-STOREY)
B2 (G/F) (1/F)	RECEPTION, TOILET CHANGING ROOM	60m² (ABOUT)	120m² (ABOUT)	6m (ABOUT)(2-STOREY)
	TOTAL	120m² (ABOUT)	180m² (ABOUT)	



NORTH

W E

S

PARKING PROVISION

NO. OF PRIVATE CAR PARKING SPACE	: 5
DIMENSION OF PARKING SPACE	: 2.5m (W) X 5m (L)
NO. OF L/UL SPACE FOR LGV	: 1
DIMENSION OF L/UL SPACE	: 3.5m (W) X 7m (L)

LEGEND

- STRUCTURE
- FARMLAND
- LOADING/UNLOADING SPACE
- PARKING SPACE

Drawing No.: P04 | Of: 01

Project:
PROPOSED TEMPORARY PLACE OF RECREATION, SPORTS OR CULTURE (HOBBY FARM) FOR A PERIOD OF 5 YEARS AND LAND FILLING

VARIOUS LOTS IN D.D. 112, SHEK KONG, YUEN LONG, NEW TERRITORIES

Drawing Title: LAYOUT PLAN

Scale of Ax: 1 : 500

Signed: | Date: 8.4.2021

Nameplate: | Date:

Appendix II

Appendix III

Estimated Traffic Generation

1. The proposed vehicular access is via Ko Sheung Road and is assumed to serve 4 Small Houses (including Lots 143 S.A RP/143 S.A ss.1, 143 S.B ss.1, 143 S.B ss.2 and 143 S.B RP). The run-in/run-out point is 6m wide. As the proposed Small Houses are within walking distance from public transport facilities at Kam Sheung Road, the traffic generated by them is not significant.

2. It is assumed that there will be one parking space for private car (5m x 2.5m) and one loading/unloading bay for light goods vehicle (7m x 3.5m) for each Small House. The estimated traffic generation/attraction rate is shown as follows:

Type of Vehicle	Average Traffic Generation Rate (pcu/hr)	Average Traffic Attraction Rate (pcu/hr)	Traffic Generation Rate at Peak Hours (pcu/hr)	Traffic Attraction Rate at Peak Hours (pcu/hr)
Private car	0.4	0.4	4	4
Light Goods Vehicle	0.6	0.6	0	0
Total	1.0	1.0	4	4

Note:

a) The loading/unloading bay would only be used very infrequently and no such activity would be carried out at peak hours;
b) The pcu of private car and light goods vehicle are taken as 1 and 1.5 respectively; and
c) Morning peak is defined as 7:00 a.m. to 9:00 a.m. whereas afternoon peak is defined as 5:00 p.m. to 7:00 p.m.
d) Lot 139 has level difference with the proposed vehicular access and are not assumed to use it. Future connection to this access is subject to additional land filling works under separate planning application. Lot 145 S.A ss.2 is occupied by a car park using another vehicular access on the other side of Nam Hing Lei.

3. In view of the size of the Small House sites, adequate space for manoeuvring could be provided within them such that no queueing up of vehicles onto the proposed vehicular access would be occurred. The negligible increase in traffic would not aggravate the traffic condition of Ko Sheung Road and nearby road networks.

Appendix IV

Drainage Proposal

A. Existing Situation

1. The application site (the Site) The proposed vehicular access varies in width from about 3.5m at the southern portion to 6m at the ingress/egress point. The Site will be filled with concrete to a maximum of about 1.07m to form the road surface.

B. Level and Gradient of Site

2. The proposed road levels would range from 27.3mPD to 28.4mPD **(Plan 3)**. U-channels would be provided with gradient of minimum fall of 1:100 along the road **(Plan 4)**. As demonstrated in the hydraulic calculation, 225mm surface U-channels within the Site and 400mm surface U-channels outside it will be capable to drain surface runoff accrued at the Site and those from adjacent areas.

C. Catchment Areas

3. The proposed drainage facilities would mainly drain surface runoff from the road surface. According to the direction of flow, the road surface forms Catchment 1 (C1). An area of about 723m^2 to the east of the proposed access road is included as an external catchment.

4. Lot 142 S.A has its own drainage facilities and site formation works for proposed Small House developments have been approved under planning application no. A/YL-SK/346.

D. Existing Drainage Facilities

5. There is a public catchpit to the north of the proposed run-in **(Plans 4 and 5b)**. A 375mm U-channel to drain into it under the approved application no. A/YL-SK/346 is proposed to be enlarged to 400mm.

6. The run-in/run-out formed by excavation **(Plan 4)** would be served by the existing public drainage system at Ko Sheung Road.

7. The areas near the eastern part of the Site are generally of a higher elevation. With part of the original surface runoff intercepted by the proposed vehicular access, the westward storm water flow into the 525mm surface U-channel below the roadside slope of Ko Sheung Road and the southward flow into the existing stream within Lot 139 would become less **(Plans 4 and 5c)** and the drainage circulation would be improved in general.

E. Proposed Drainage Facilities

8. Based on the hydraulic calculation, it is considered that the proposed 225mm surface U-channels for Catchments 1 (C1) would be adequate to intercept storm water passing through and generated at the Site **(Plan 4)**.

9. All the proposed drainage facilities will be constructed and maintained at the applicants' own cost.

10. All U-channels are to be covered by precast concrete slabs or cast iron gratings.

11. The proposed drainage facilities may be modified to tie in with those in connection with the approval condition on drainage under planning applications no. A/YL-SK/346 and A/YL-SK/376.

12. The proposed drainage works, mainly at the fringe of the Site, are detailed below:

    (a) In view that construction of U-channels may be continued for several working days, surface channel would be formed in short sections and all redundant soil would be cleared before the formation of another short section.

    (b) The proposed development would neither obstruct overland flow nor adversely affect existing natural streams, village drains, ditches and the adjacent areas.

    (c) Adequate openings of about 100mm would be provided at the bottom of walls or hoarding to intercept the existing overland flow passing through the Site.

Hydraulic Calculation

for

Proposed Vehicular Access

in

D.D. 112,

Shek Kong,

Yuen Long,

N.T.

Dec, 2025

Assume return period T = 50years

According to Table 3a of SDM 2018,

a = 505.5 , b = 3.29 , c = 0.355

$$i = \frac{a}{(td+b)^{c}}$$

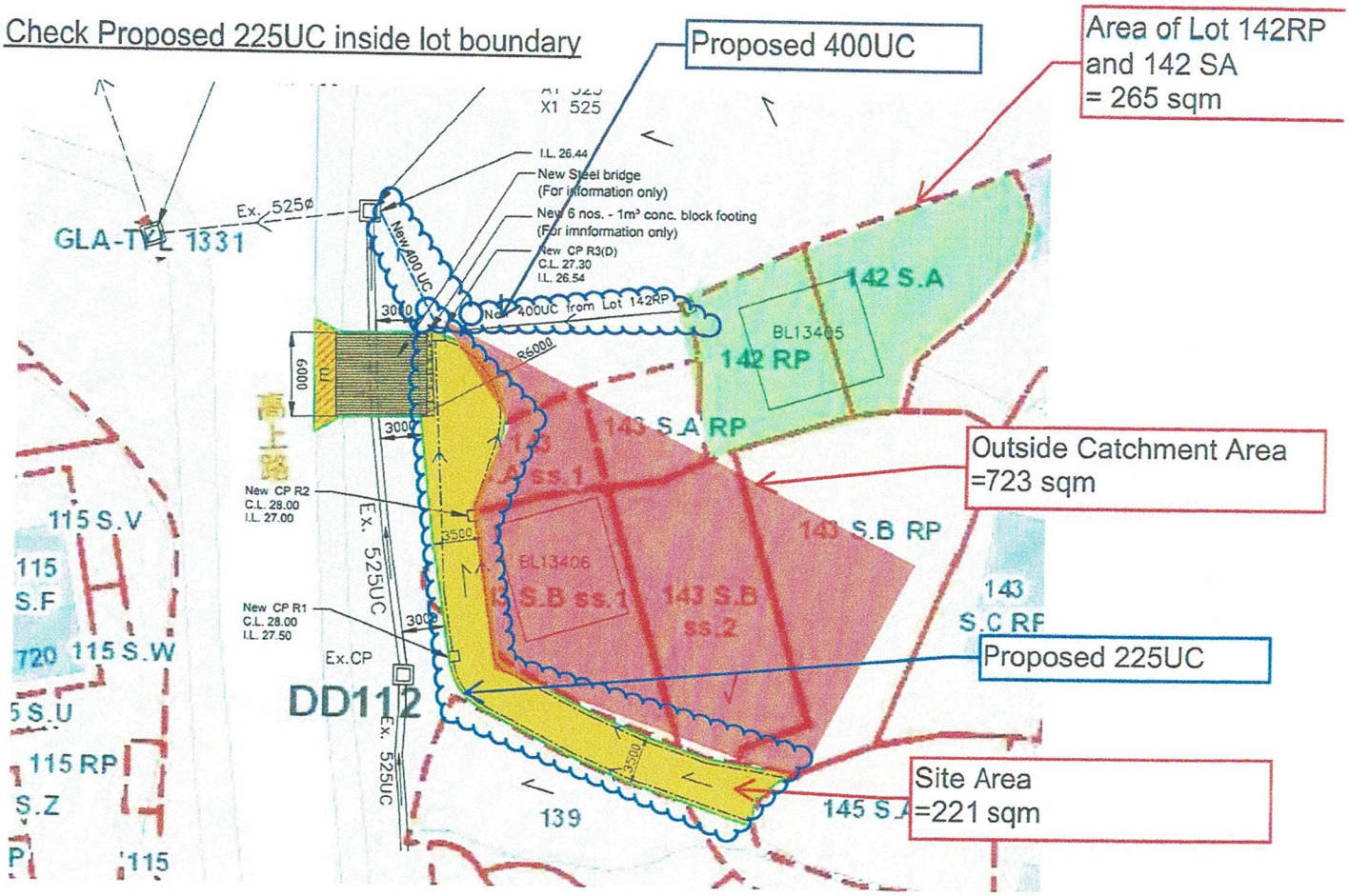
Duration in minutes is taken as 6 mins

According to Table 28 of SDM, 2018 , rainfall increase = 16%

$$i = \frac{505.5}{(6+3.29)^{0.355}} \cdot (1 + 16\%) \quad = 229 \quad \times (1 + 16\%) \quad = 265\text{mm/hr}$$

265mm/hr is taken for design

Check Proposed 225UC inside lot boundary



Outside Catchment Area = 723 sq m , Coefficient of surface runoff C = 0.95 (Hard -paved)
Site Area = 221 sqm , Coefficient of surface runoff C = 0.25 (Soil - paved)

Q = 0.278 C i A

= 0.278 (0.95)(723 x 10 ^-6)(265)+0.278 (0.25)(221 x 10^-6)(265)

= 0.054671 m3/s

= 3281 lit/min

As a result, proposed 225 UC can cater surface runoff from site boundary.

For checking new 400UC,

Additional Surface runoff from BL13405

= 0.278 x 0.95 x (265 x 10^-6) x 265

= 0.01854 m3/s = 1113 lit/min

Total surface runoff for new 400UC = 3281+1113 = 4393 lit/min

As a result, proposed 400 UC can cater surface runoff from site boundary and BL13405

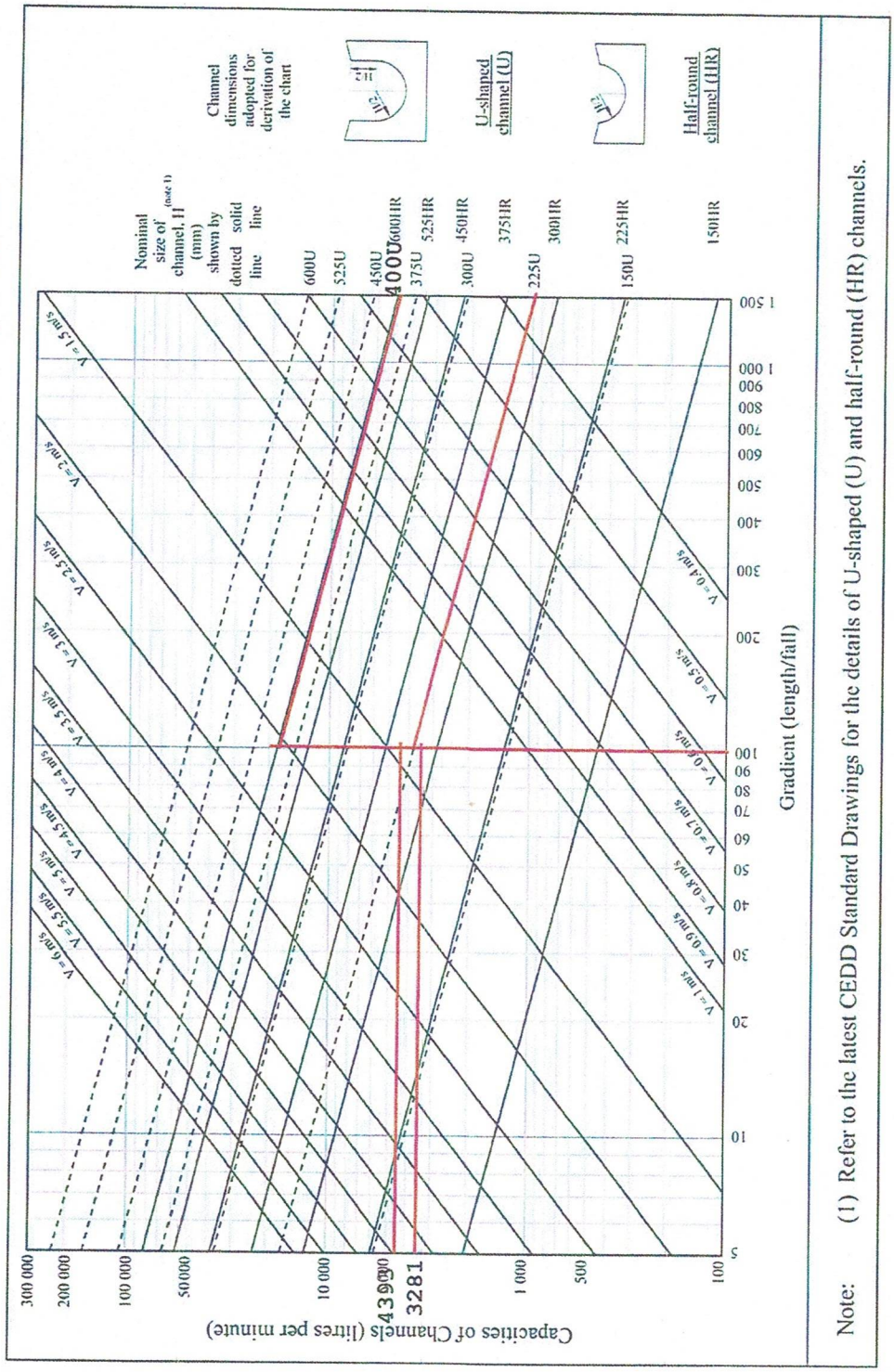
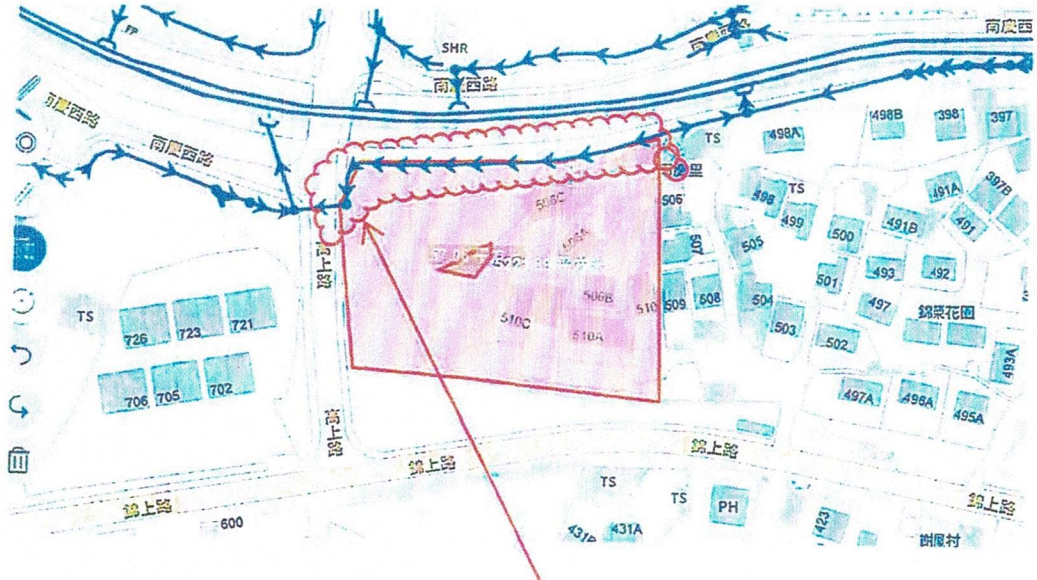


Figure 1 - Chart for the rapid design of U-shaped and half-round channels up to 600 mm

Note: (1) Refer to the latest CEDD Standard Drawings for the details of U-shaped (U) and half-round (HR) channels.

Catchment Area of Existing 525mm dia. pipe



Catchment Area = 5300m²

Coefficient of runoff = 0.95

$Q = 0.278\ C\ i\ A$

$= 0.278(0.95)(265)(5300 \times 10^{-6})$

$= 0.3709 m^3/s$

$= 22256 lit/min$

Check existing 525mm ϕ concrete pipe by Colebook - white Equation.

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

$g = 9.81 m/s^2$

$D = 0.525m$

Ks = 0.00015m (Table 5, from DSD Sewage Manual, concrete pipe)

$v = 1.14 \times 10^{-6}\ m^2/s$

$S = 0.015$

$$\text{Cross-Section Area} = \frac{TV\,(0.525)^2}{4} = 0.2164\ m^2$$

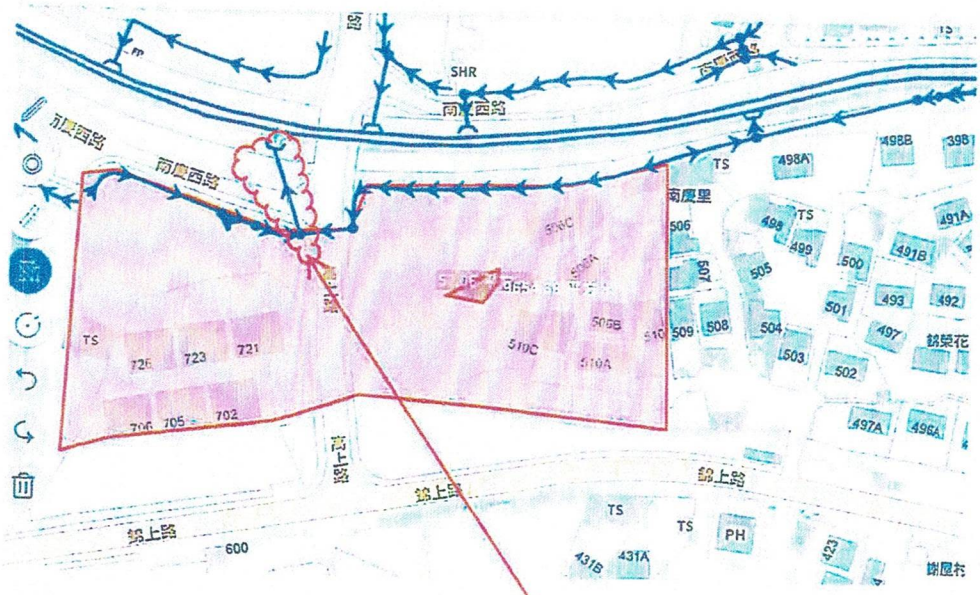
Therefore, design velocity of pipe capacity = 3.18m/s

> velocity from catchment area

$$= \frac{0.3709}{0.2164} = 1.72 m/s \quad \text{OK!}$$

As a result, proposed 300UC and existing 300mm dia underground pipe can cater the surface runoff due to proposed development

Catchment Area of Existing 750mm dia. pipe



Checking this part of drainage facility: Existing 750mm dia. pipe

Catchment Area = 9700m²

Coefficient of runoff = 0.95

$Q = 0.278\ C\ i\ A$

$= 0.278(0.95)(265)(9700 \times 10^{-6})$

$= 0.6788\ m^3/s$

$= 40538 lit/min$

Check existing 750mm ϕ concrete pipe by Colebook - white Equation.

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

$g = 9.81 m/s^2$

$D = 0.750m$

Ks = 0.00015m (Table 5, from DSD Sewage Manual, concrete pipe)

$v = 1.14 \times 10^{-6}\ m^2/s$

$S = 0.015$

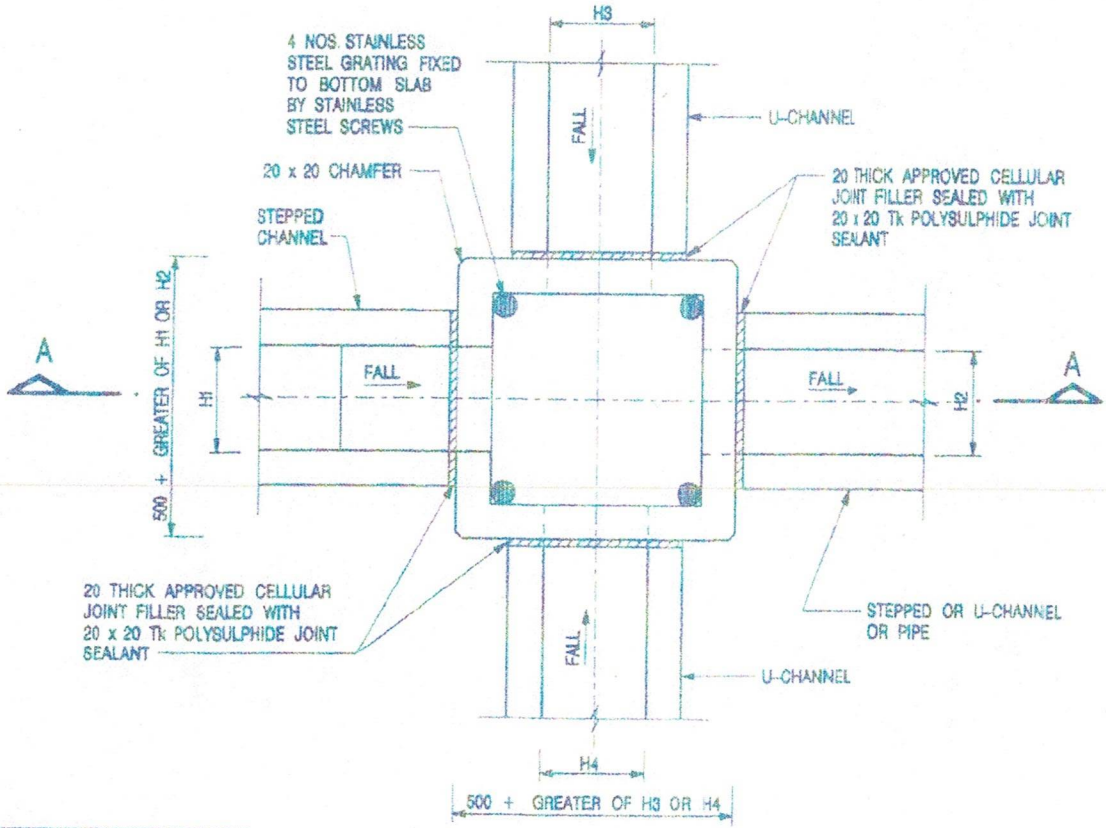
Cross-Section Area = $\frac{TV\ (0.750)^2}{4} = 0.4418\ m^2$

Therefore, design velocity of pipe capacity = 3.95m/s

> velocity from catchment area

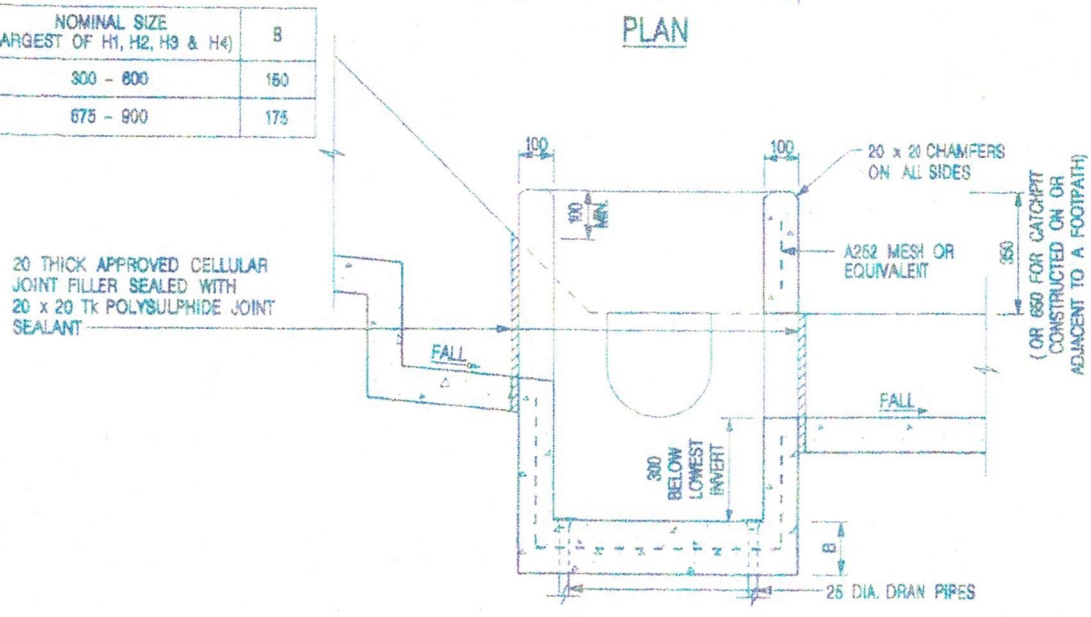
$= \frac{0.6788}{0.4418} = 1.54 m/s$ OK!

As a result, existing 750mm dia underground pipe can cater the surface runoff due to proposed development



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

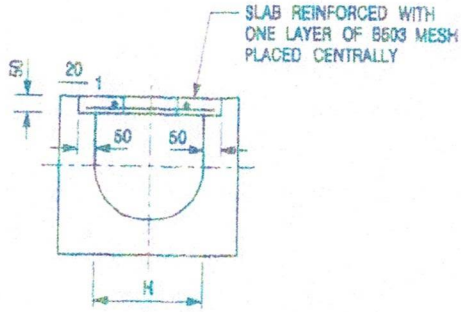
(SHEET 1 OF 2)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

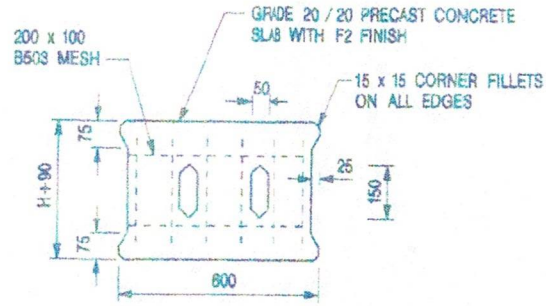
SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2406 /1



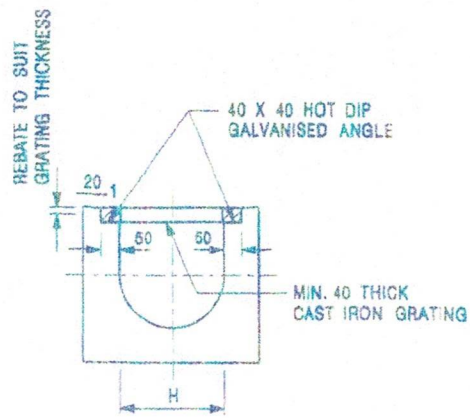
TYPICAL SECTION



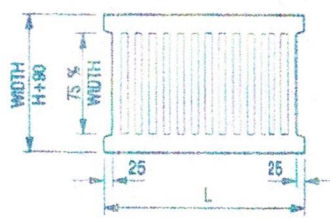
PLAN OF SLAB

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

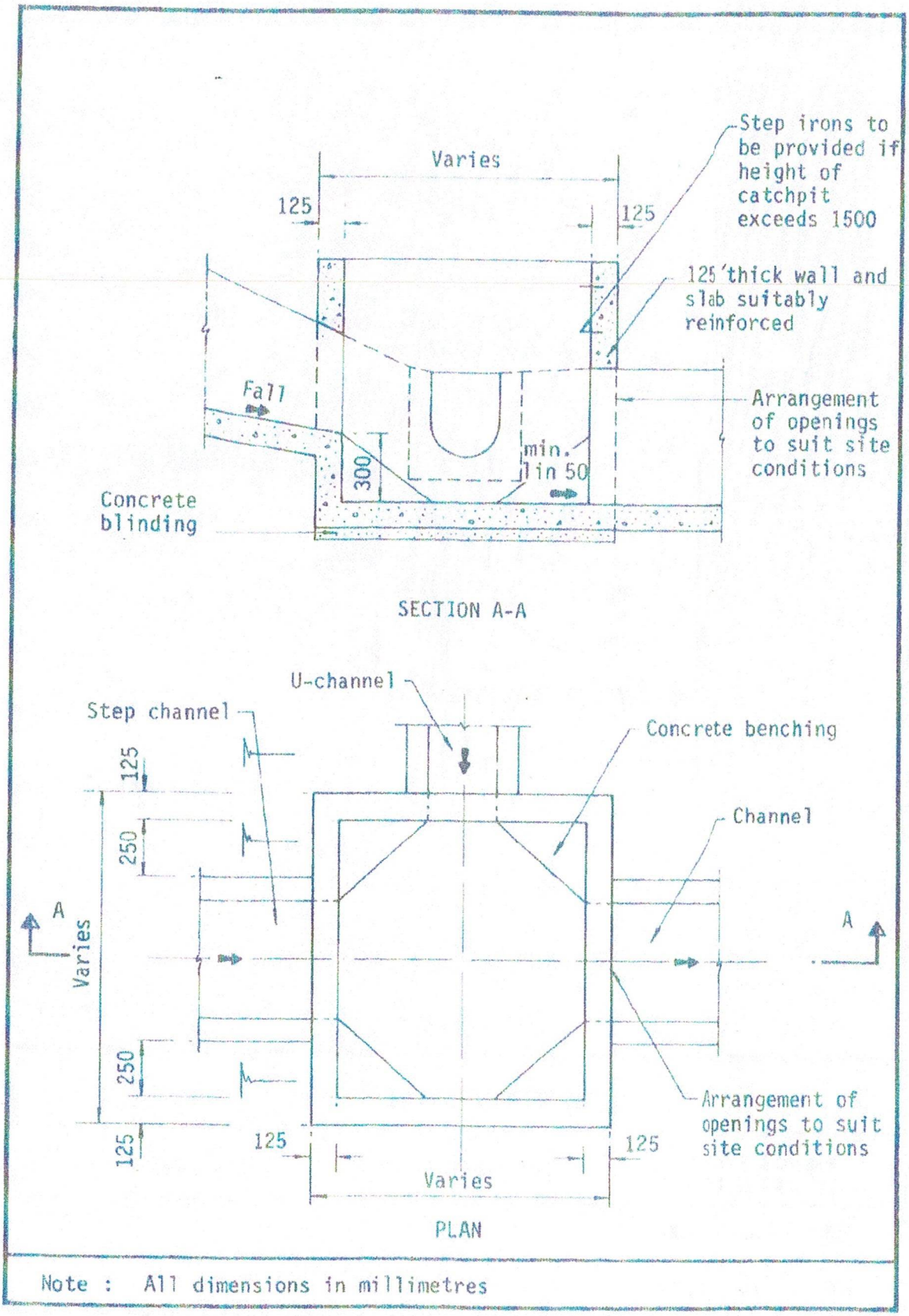
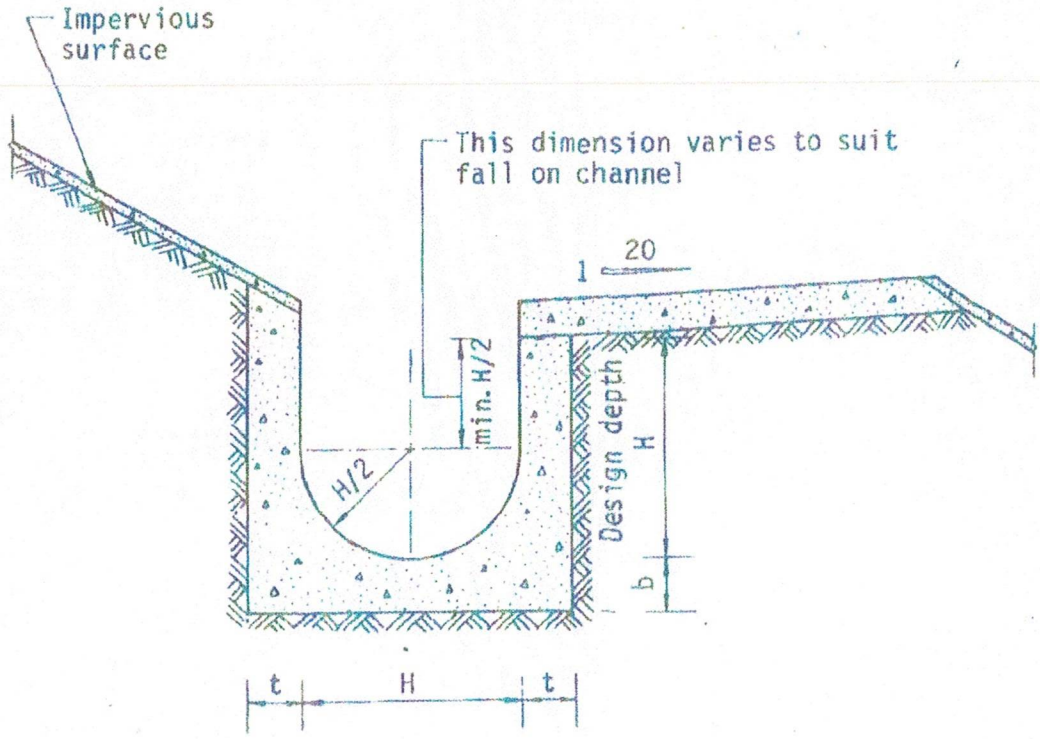


Figure 8.10 - Typical Details of Catchpits



Dimensions of U - channel

Nominal size of channel H (mm)	Thickness t (mm)	Thickness b (mm)
225 to 600	150	150
675 to 1200	175	225

Figure 8.11 - Typical U-channel Details