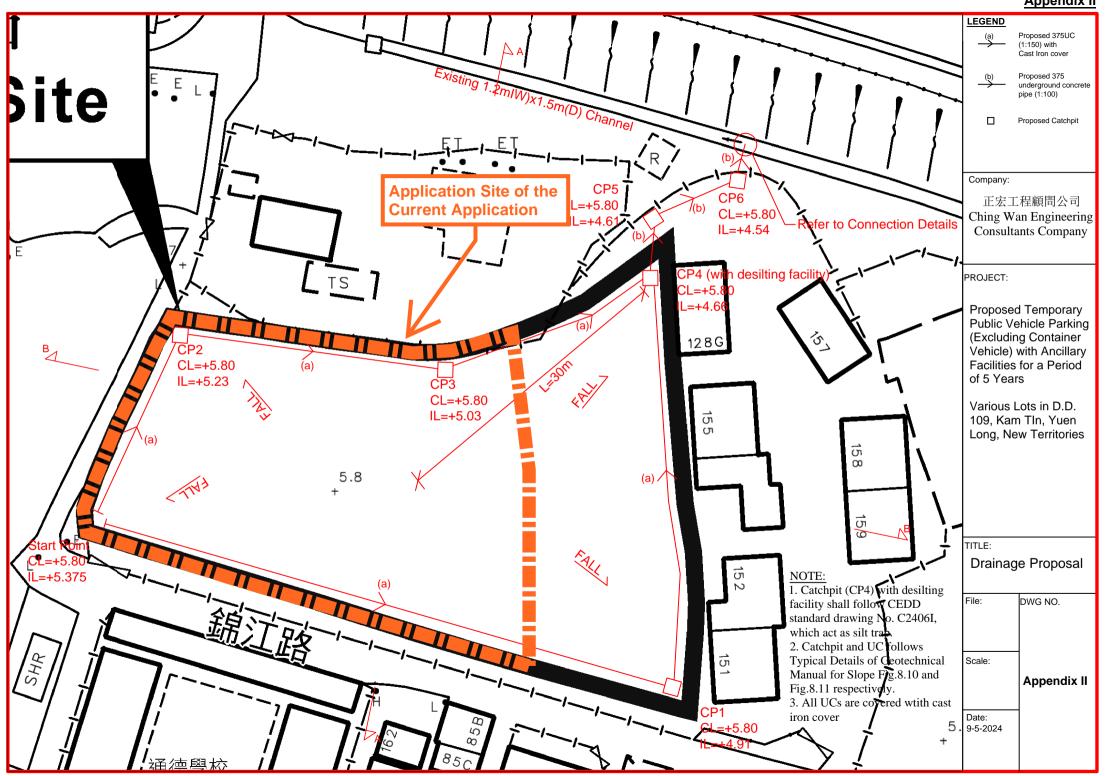
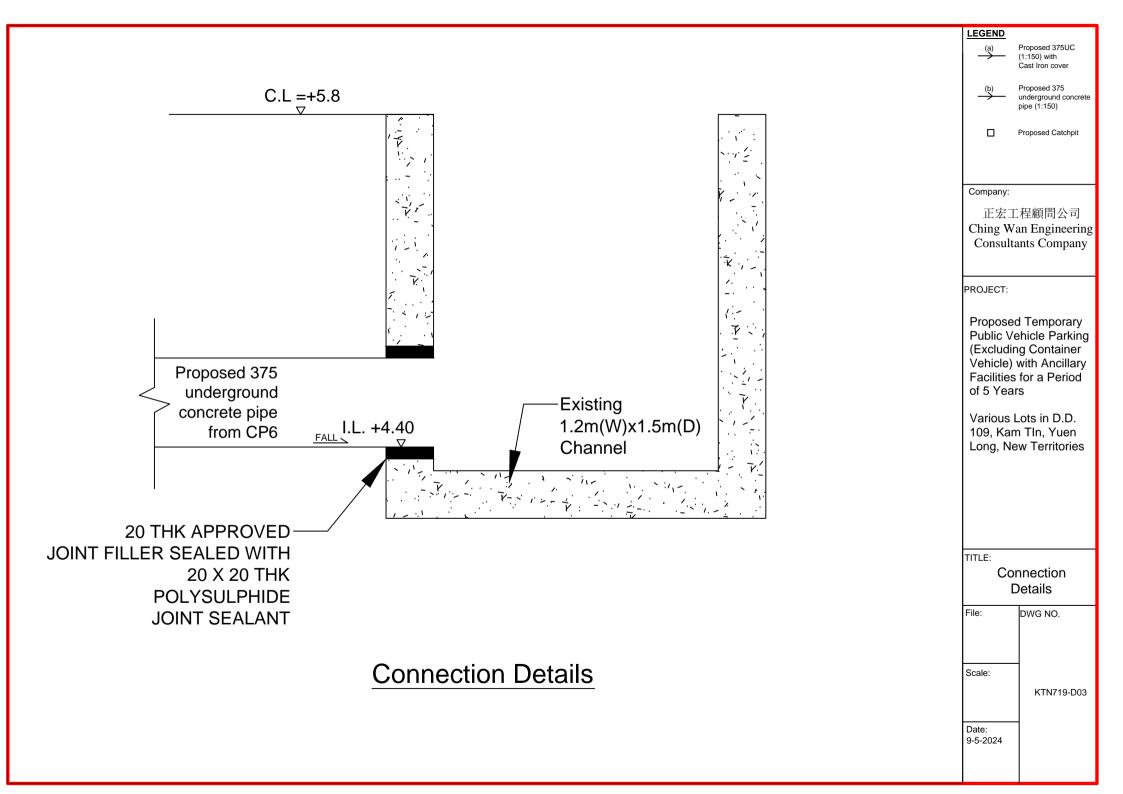
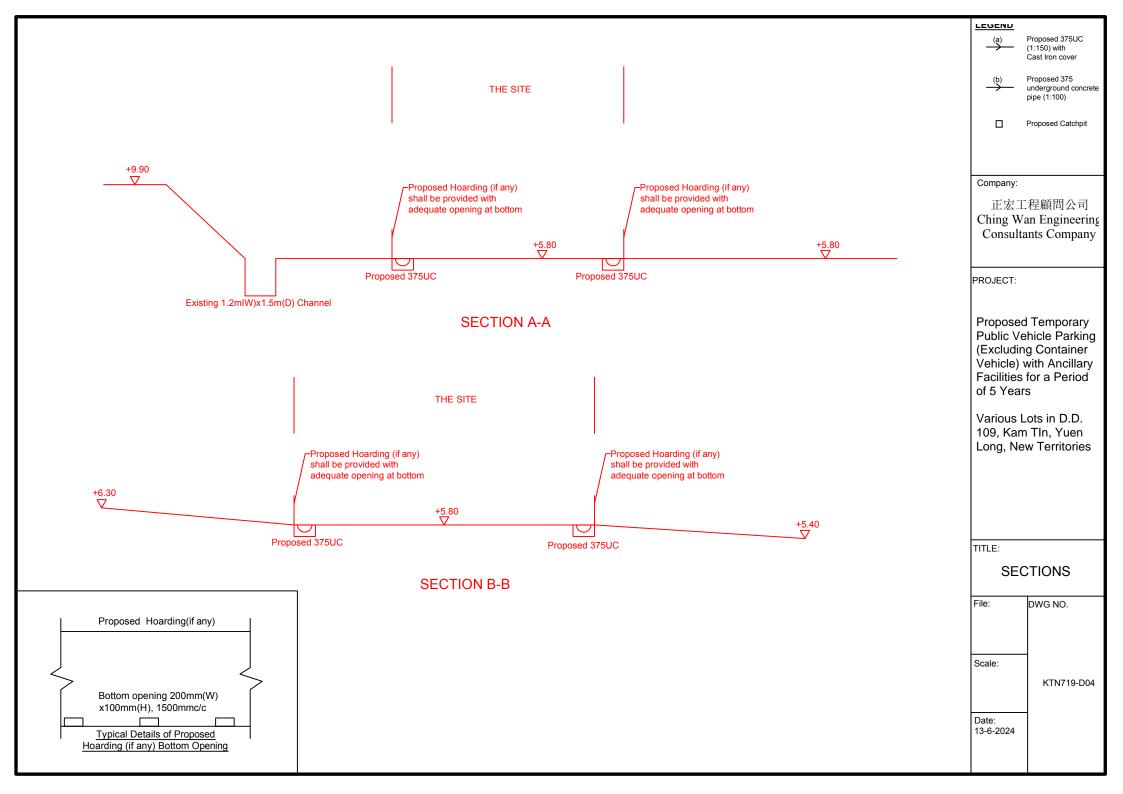
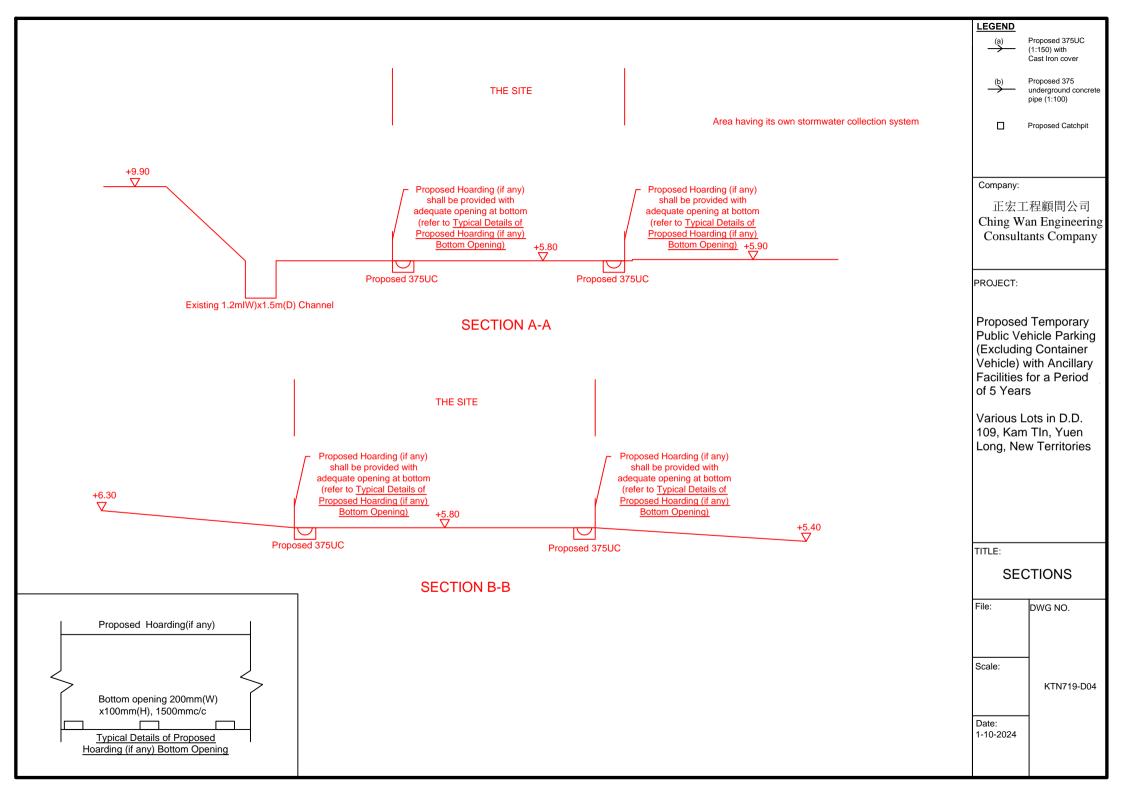


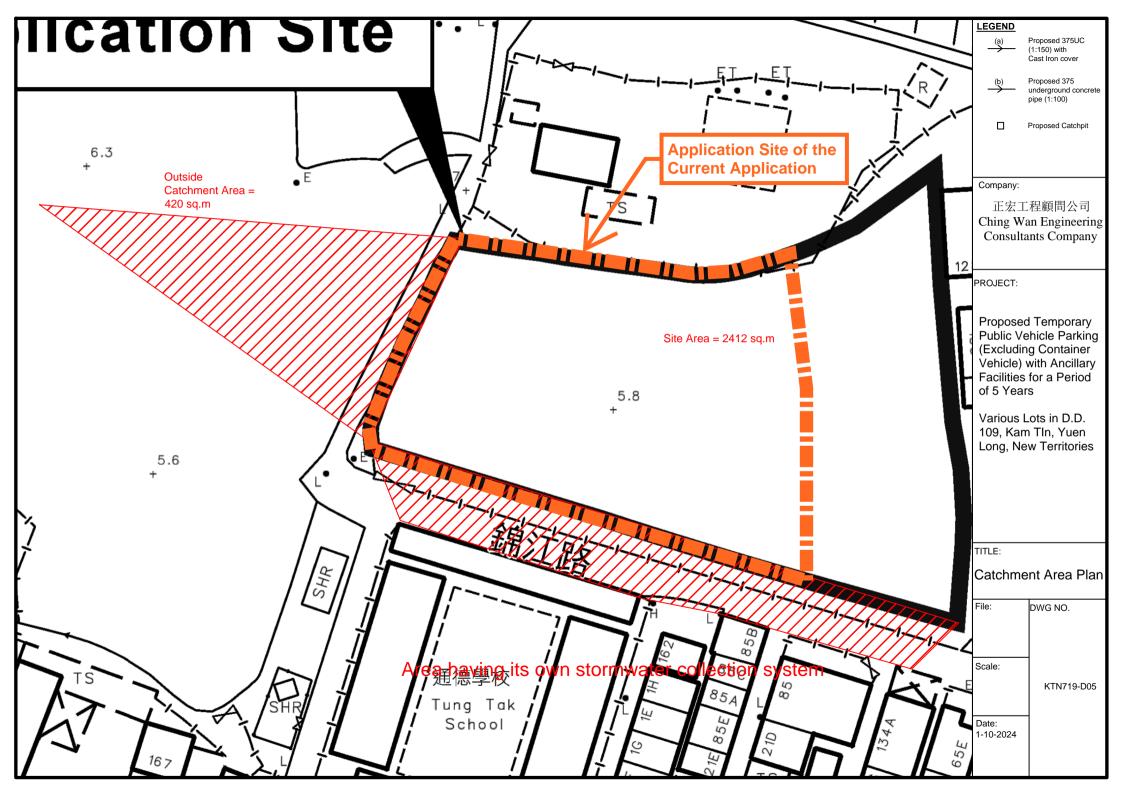
Appendix II











Site Area 3182 Calculation of Runoff from the Proposed Development, $= 0.278 \,\mathrm{CiA}$ C = 0.95(P.42 of Stormwater Drainage Manual) m^2 Α = 3182= 0.003182 km^2 $= 0.14465 \text{ L/ H}^{0.2} \text{A}^{0.1}$ $= 0.14465*30/1^{0.2}*3182^{0.1}$ = 1.937min $= a/(t+b)^c$ (Table 3d, 10 years Return Period) $= 1157.7/(1.937+19.04)^{0.597}$ = 188 mm/hr Therefore, = 0.278*0.95*188*0.003182Q = 0.158m³/sec = 9487 lit/min Calculation Maximum Capacity of Proposed 375mm dia. Underground pipe. $= R^{2/3} * S_f^{0.5} / n$ Manning Equation dia 375 mm R $= \pi r^2/2 \pi r$ 0.1875 m where r= = r/2= 0.09375m $s/m^{1/3}$ = 0.012(Table 13 of Stormwater Drainage Manual)

1/ 100 $S_{\rm f}$ = 0.01

 $= 0.09375^{2/3}*0.01^{0.5}/0.012$ Therefore, = 1.72m/sec

Maximum Capacity (Q_{max}) = 0.9*V*A(0.9 factor is adopted for sedimentation)

 $= 0.9*1.72* \pi r^2$

= 0.171m³/sec

m³/sec 1 nos of pipe = 0.171= 10257lit/min

> 9487 lit/min

Provide 375mm dia underground pipe (1:100) is OK

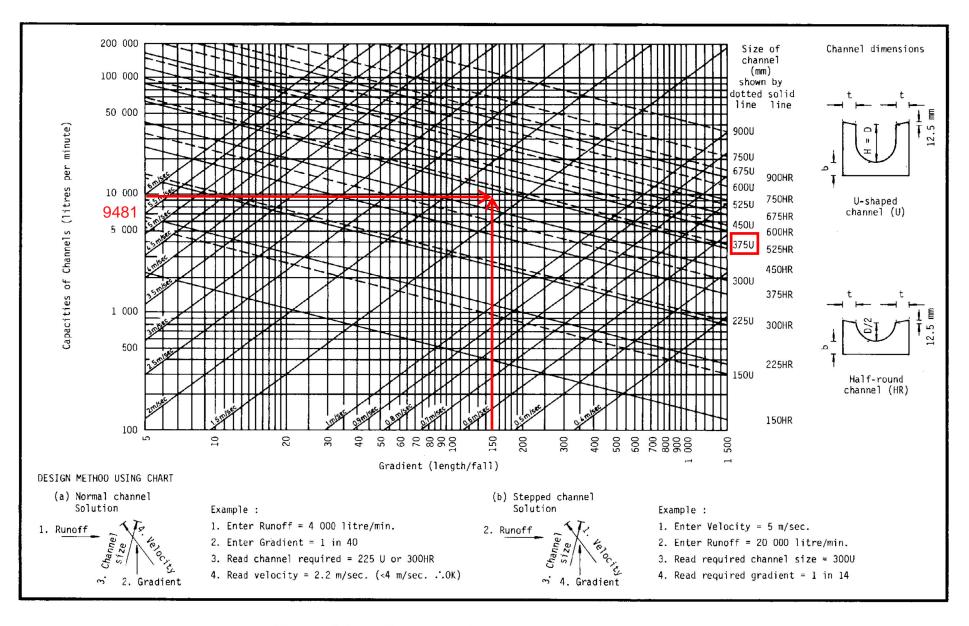
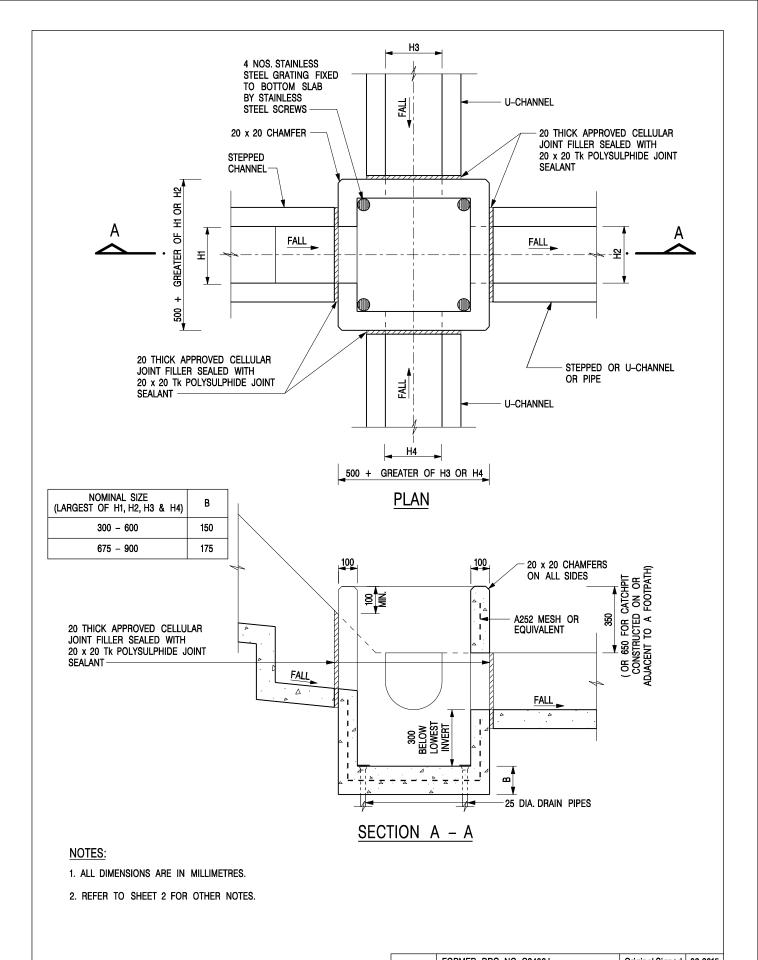
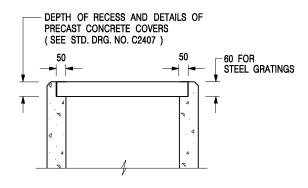


Figure 8.7 - Chart for the Rapid Design of Channels



| | - | FORMER DRG. NO. C2406J. | | Original Signed | 03.2015 | |
|--------------------|------|--|-------------|-----------------|---------|--|
| | REF. | REVISION | | SIGNATURE | DATE | |
| CATCHPIT WITH TRAP | CI | CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT | | | | |
| (SHEET 1 OF 2) | SCAL | E 1 : 20 | DRAWING NO. | | | |
| | DATE | JAN 1991 | C24 | 106 /1 | | |
| 卓越工程 建設香港 | V | We Engineer Hong Kong's Development | | | | |



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) 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 ℃ 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 'F' ON STD. DRG. NO. C2405.
- 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

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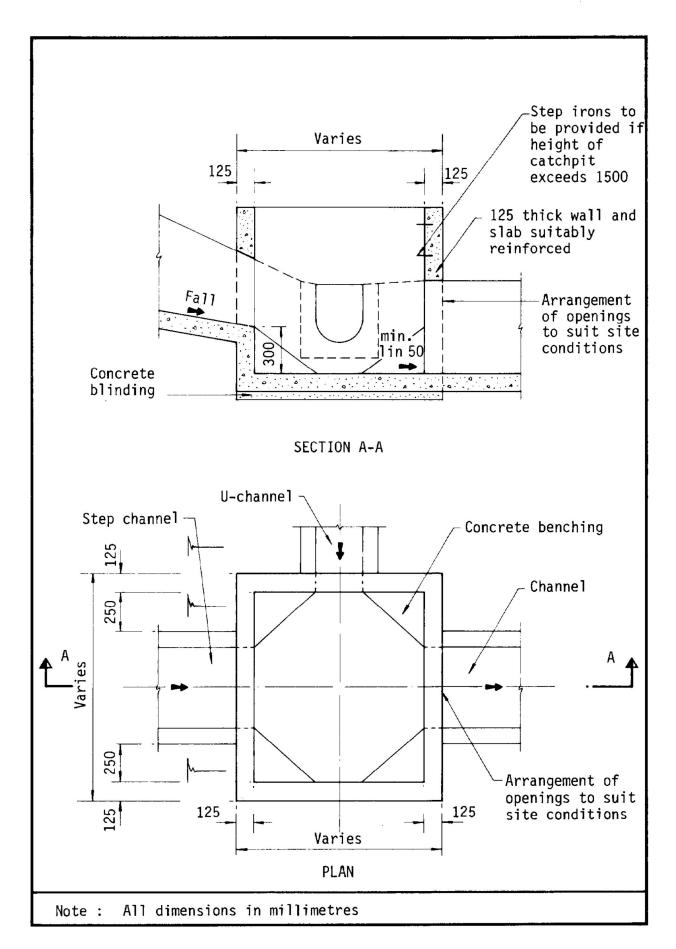


Figure 8.10 - Typical Details of Catchpits

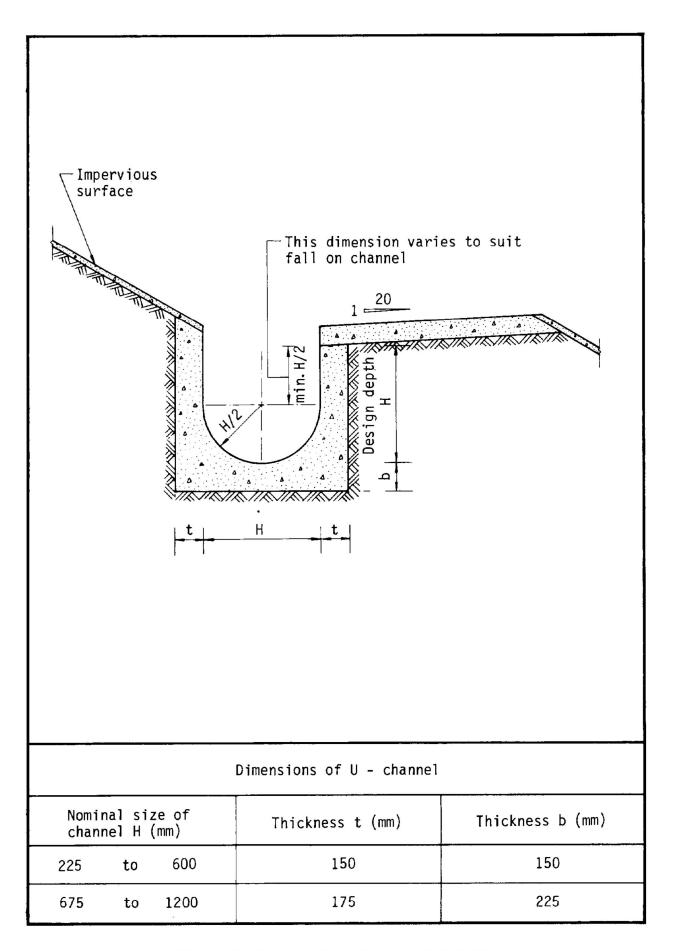


Figure 8.11 - Typical U-channel Details



Photo 1