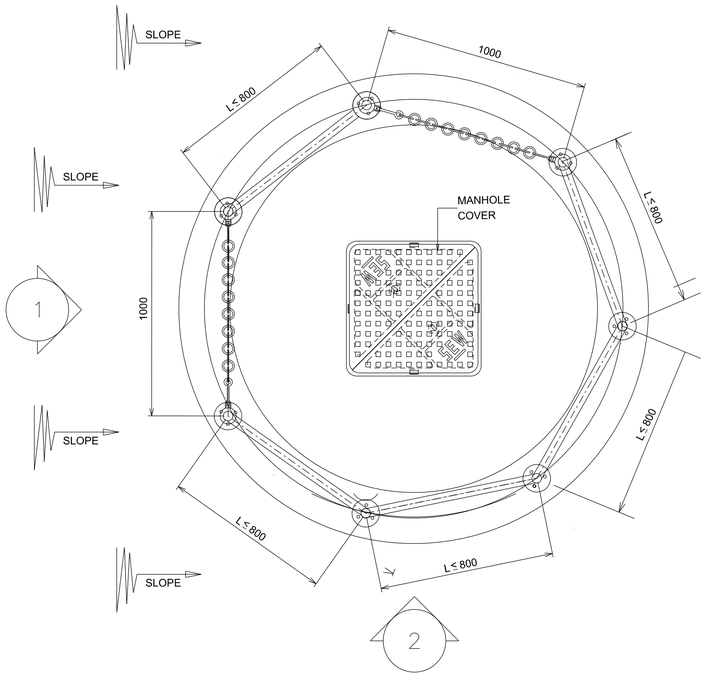
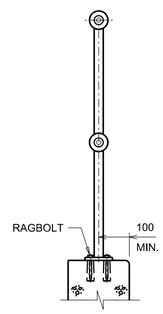
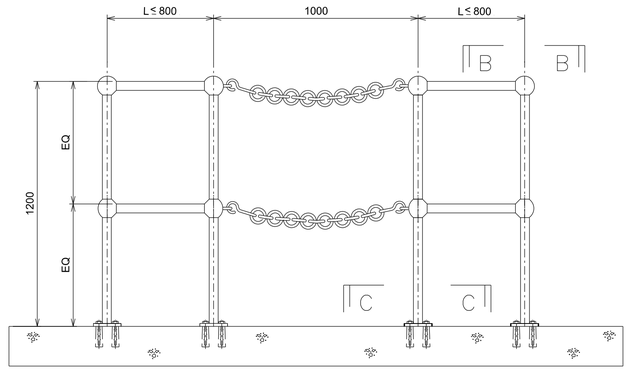


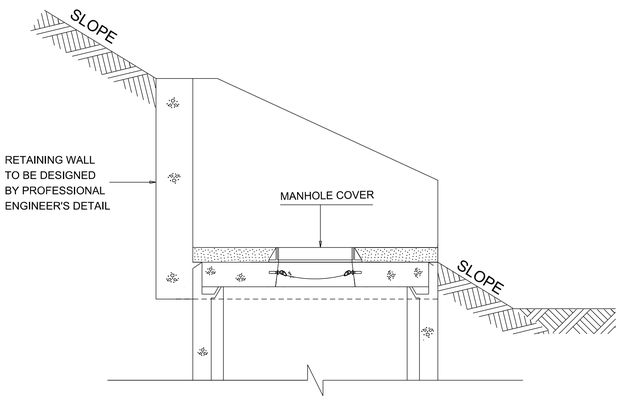
MANHOLE ON SLOPE
(WITH HANDRAILS)
PLAN A - A
Scale 1 :15



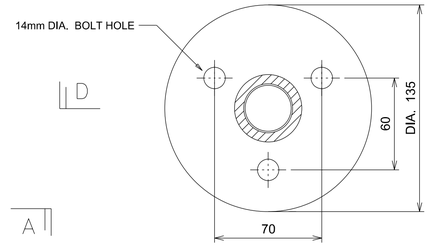
SIDE ELEVATION
Scale 1 :15



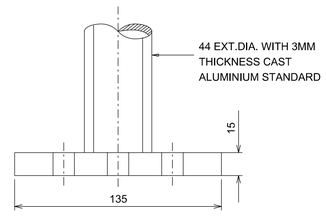
HANDRAIL (Elevation) — 1
Scale 1 :15



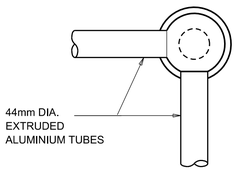
MANHOLE AT FOOT OF SLOPE
(WITH 3 SIDED RETAINING WALL)
SECTION E - E
Scale 1 : 25



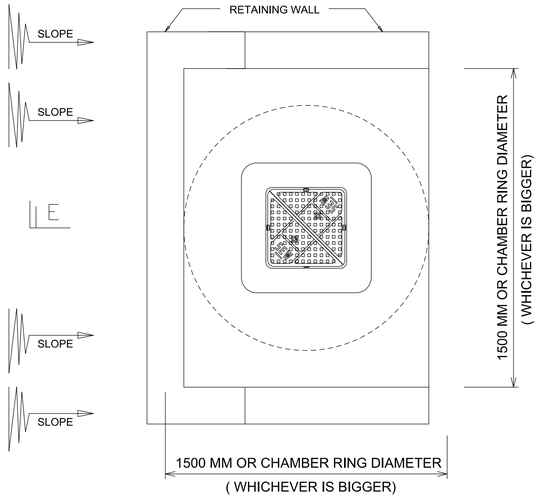
PLAN C - C
Scale 1 : 2



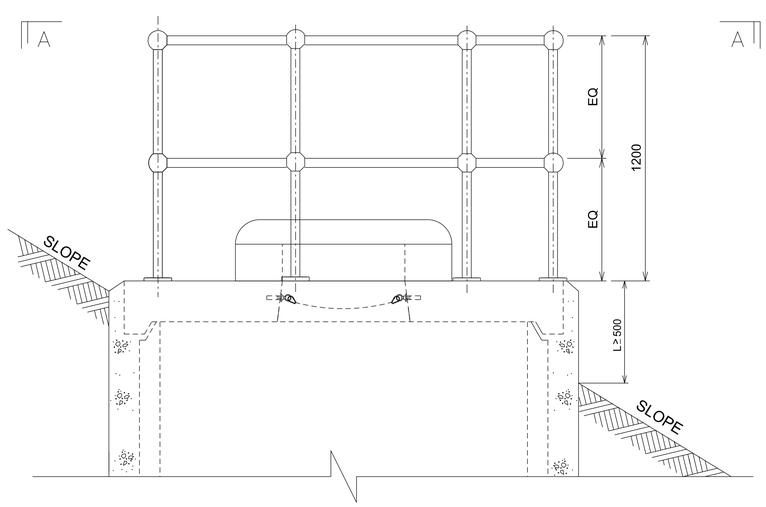
SECTION D - D
Scale 1 : 2



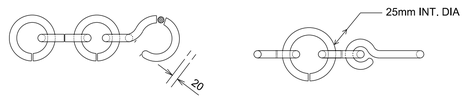
PLAN B - B
Scale 1 : 5



MANHOLE AT FOOT OF SLOPE
(WITH 3 SIDED RETAINING WALL)
PLAN
Scale 1 : 25



(Elevation) — 2
MANHOLE ON SLOPE
(WITH HANDRAILS)
Scale 1 :15



FRONT ELEVATION PLAN

DETAIL OF 50mm INT. DIA. RING AND HOOK
Scale 1 : 5

NOTES:

1. THE ALUMINIUM ALLOY SHALL BE 6082. THE FORM OF MATERIAL FOR THE RAILS SHALL BE TO EN 573, AND FOR THE STANDARDS SHALL BE TO EN 755.
2. WELDS TO BE OF A STRUCTURAL TYPE MADE BY APPROVED WELDING TECHNIQUE TO GIVE SOUND, STRONG WELDS WITH A MINIMUM DIMENSION NOT LESS THAN THE THICKNESS OF THE JOINTING MEMBERS.
3. FIXING TO HANDRAILS TO BE MADE WITH ALUMINIUM ALLOY RAGBOLTS, BOLTS AND NUTS.
4. ALUMINUM SURFACE IN CONNECTION WITH CONCRETE SHALL HAVE AT LEAST TWO COATINGS OF HEAVY-DUTY BITUMINOUS PAINT OR OTHER SEPARATING MATERIAL.
5. DIAMETER OF SS316 STAINLESS STEEL RAGBOLTS TO BE 13MM. THE RAGBOLT SHOULD BE EMBEDED SUCH THAT THE SHANK PROTRUDES NOT MORE THAN TWO THREADS BEYOND THE HEAD OF THE NUT. RUBBER SEPARATOR SHALL BE PLACED BETWEEN THE BOLT AND THE ALUMINIUM BASE PLATE.
6. CONNECTION DETAILS
   a) FILLET WELD ALL AROUND BETWEEN FENCE POST AND BASE PLATE.
   b) FILLET WELD ALL AROUND BETWEEN JOINTING BALL AND FENCE POST, TOP AND BOTTOM.
   C) RIVETED CONNECTION TO HORIZONTAL GUARDRAIL.
7. ALUMINIUM ALLOY HANDRAIL & SAFETY CHAIN ARE TO BE ANODISED ON BOTH THE INSIDE AND THE OUTSIDE OF THE MEMBER. MINIMUM THICKNESS OF THE ANODIC OXIDE LAYER SHALL BE 20 μm.
8. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.

ISSUED : JULY 2019	SCALES	# MANHOLE ON SLOPE
LAST REVIEWED : –	AS SHOWN	PUB SINGAPORE'S NATIONAL WATER AGENCY WATER RECLAMATION (NETWORK) DEPARTMENT PUB/WRN/STD/011

[ORIGINAL BORDER SIZE 810mm X 565mm]