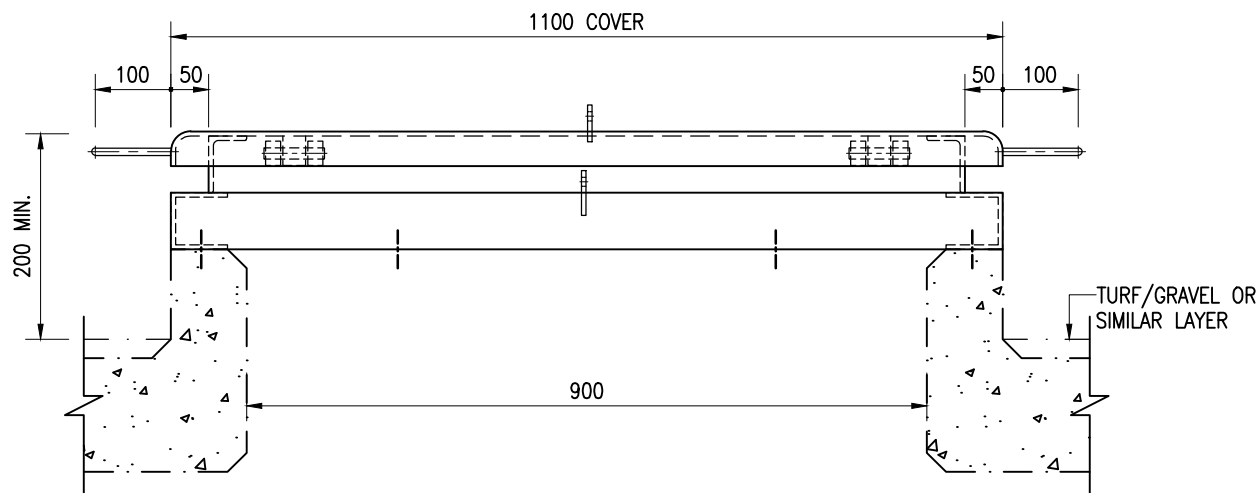
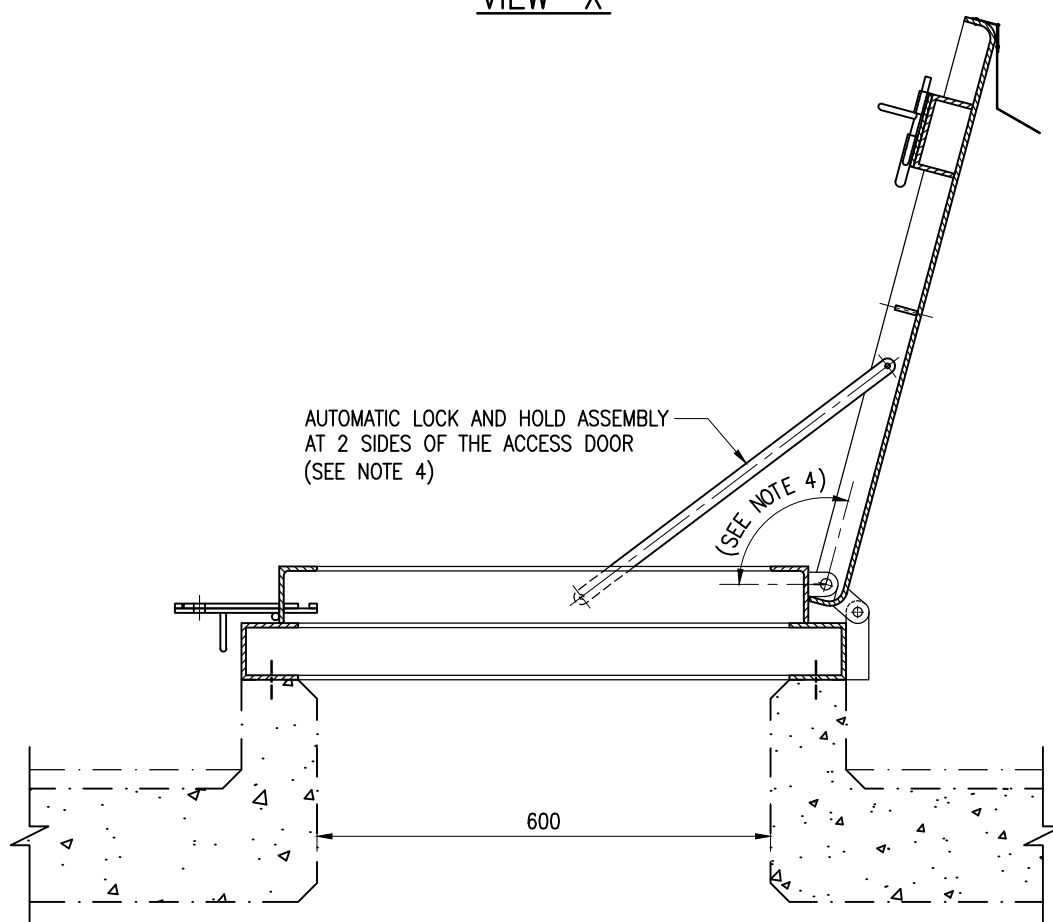
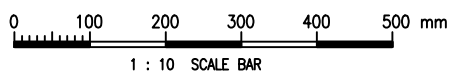
 <div style="text-align: center;"> <b>水 務 署</b>  <b>Water Supplies Department</b> </div>		
APPROVED	W.L. LEUNG AD/NW	DRAWING NO. WSD 3.22A (SHEET 1 OF 8)
DATE	23/10/14	
SCALE	1 : 10	
		CSWP



VIEW 'X'



ELEVATION FOR AUTOMATIC LOCK AND HOLD ASSEMBLY



Cod Ref. : WSD032202-A.dwg

ACCESS DOOR TO  
900 x 600  
MANHOLE OPENING



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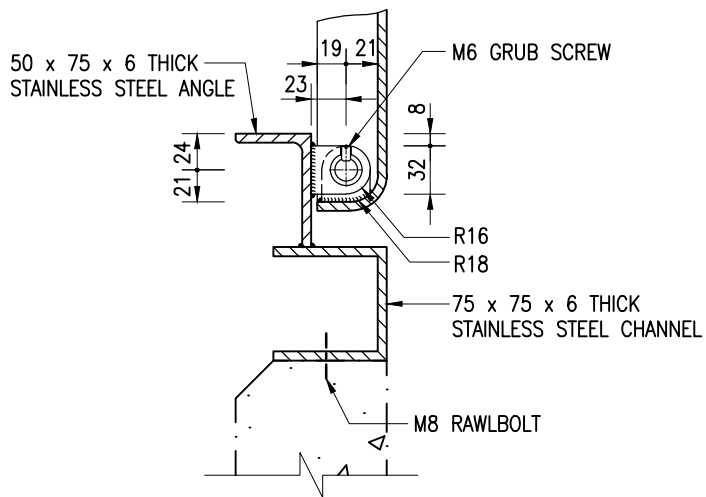
SCALE

1 : 10

DRAWING NO.

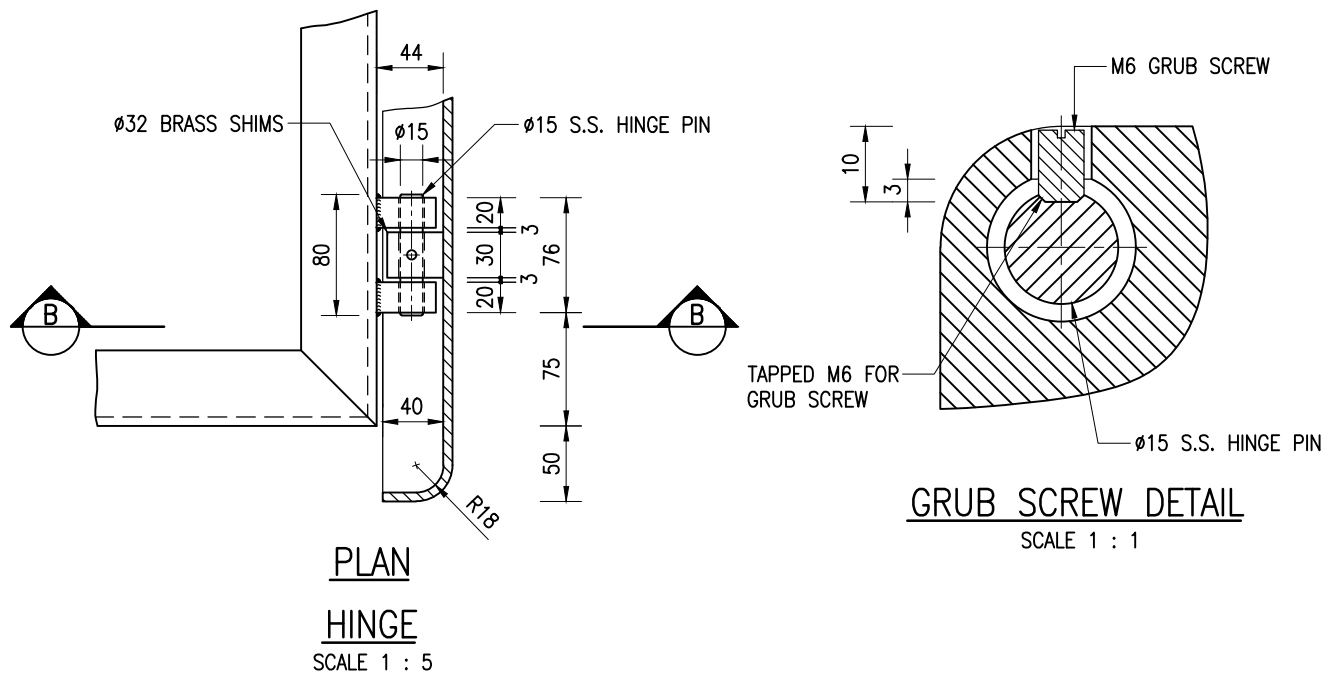
WSD 3.22A  
(SHEET 2 OF 8)

CSWP



### SECTION B - B

SCALE 1 : 5



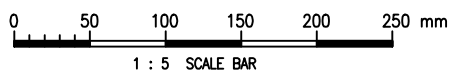
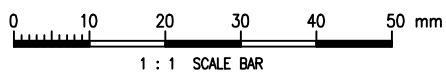
### PLAN

### HINGE

SCALE 1 : 5

### GRUB SCREW DETAIL

SCALE 1 : 1



Cad Ref. : WSD032203-A.dwg

ACCESS DOOR TO  
900 x 600  
MANHOLE OPENING



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SCALE

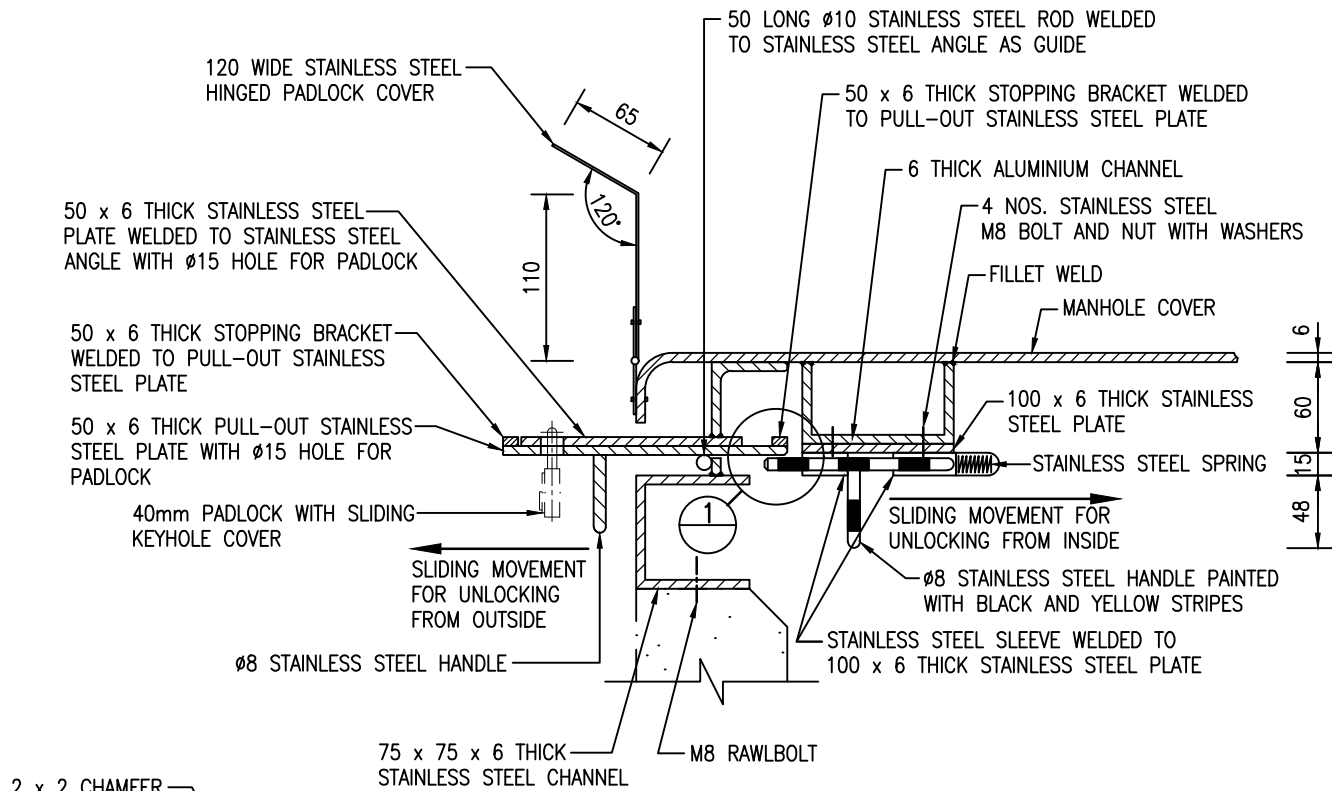
1 : 5 OR AS SHOWN

DRAWING NO.

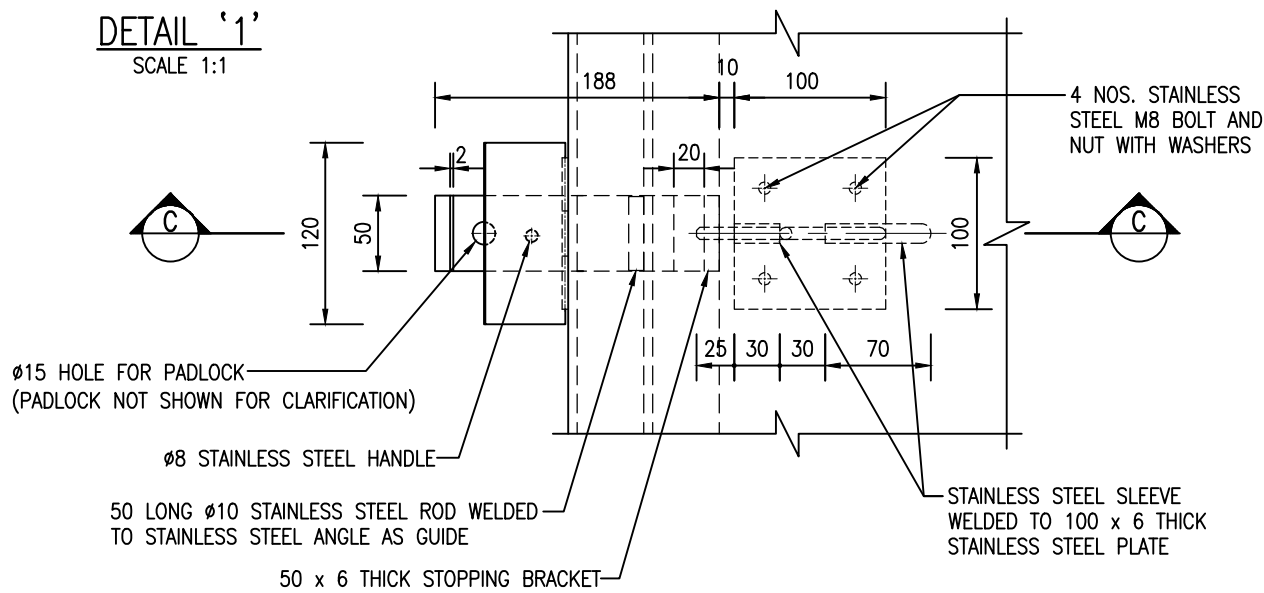
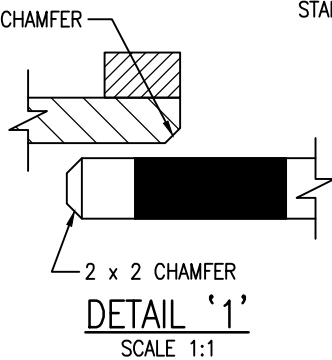
WSD 3.22A

(SHEET 3 OF 8)

CSWP

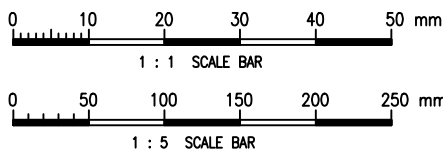


SECTION C - C



PLAN

LOCK ASSEMBLY DETAIL



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ACCESS DOOR TO  
900 x 600  
MANHOLE OPENING

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AD/NW

DATE

23/10/14

SCALE

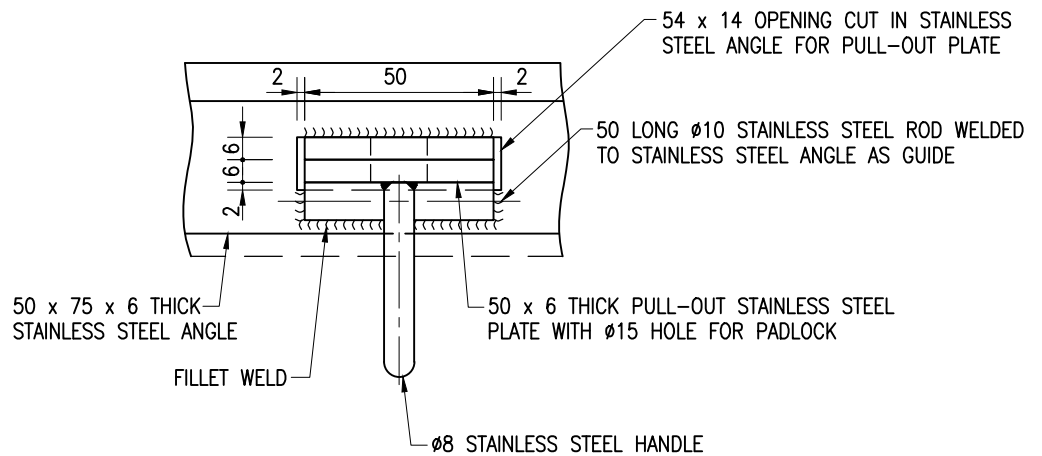
1 : 5 OR AS SHOWN

DRAWING NO.

WSD 3.22A

(SHEET 4 OF 8)

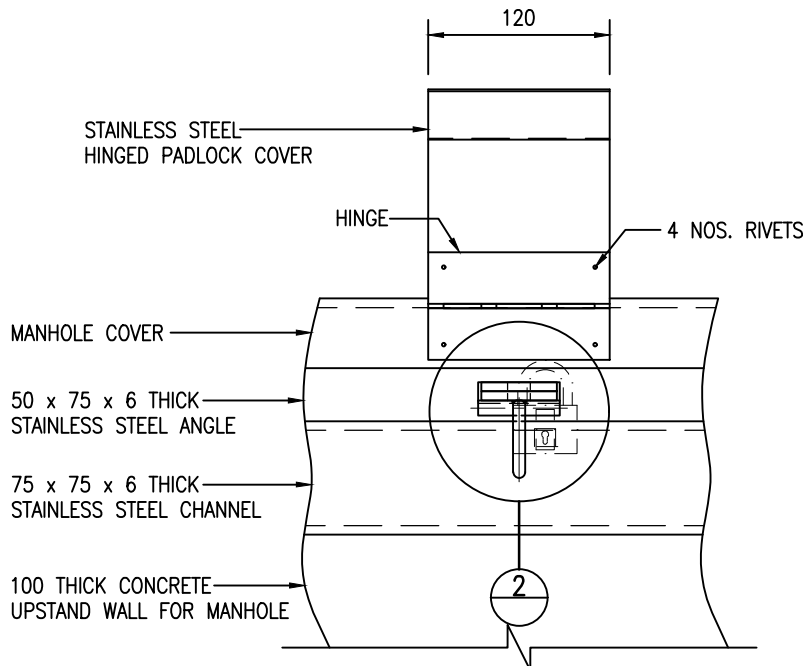
CSWP



## DETAIL '2'

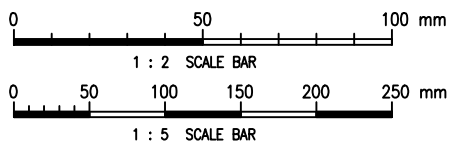
SCALE 1 : 2

(PADLOCK NOT SHOWN FOR CLARIFICATION)



## ELEVATION

## LOCK ASSEMBLY DETAIL



Cad Ref. : WSD032205-A.dwg

ACCESS DOOR TO  
900 x 600  
MANHOLE OPENING



水務署  
Water Supplies Department

APPROVED

W.L. LEUNG  
AD/NW

DATE

23/10/14

SCALE

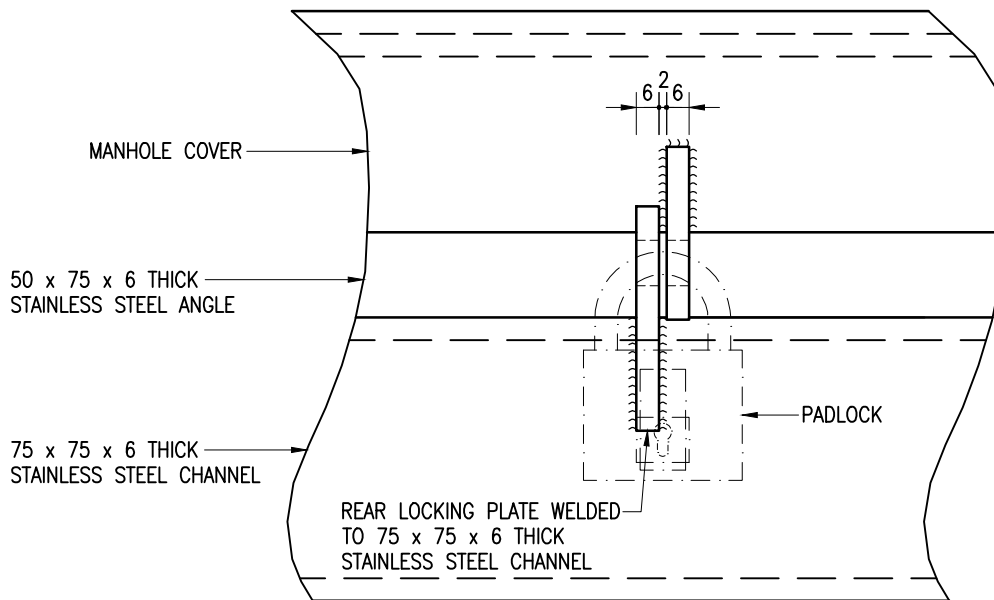
1 : 5 OR AS SHOWN

DRAWING NO.

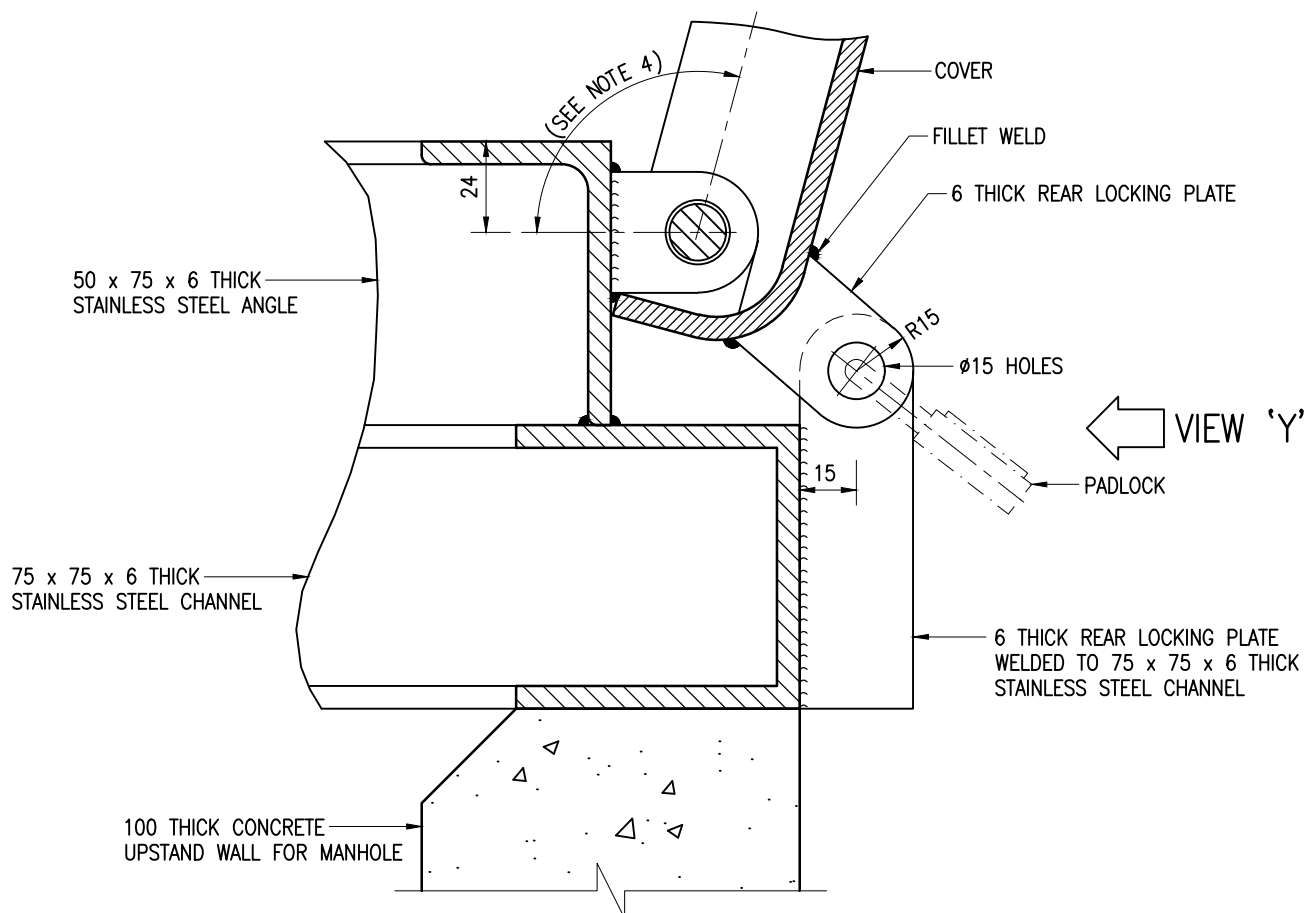
WSD 3.22A

(SHEET 5 OF 8)

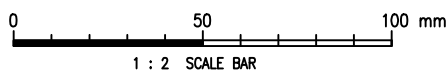
CSWP



VIEW 'Y'



LOCKING ARRANGEMENT FOR COVER IN FULLY OPEN CONDITION



Cad Ref.: WSD032206-A.dwg

ACCESS DOOR TO  
900 x 600  
MANHOLE OPENING



水務署  
Water Supplies Department

APPROVED

W.L. LEUNG  
AD/NW

DATE

23/10/14

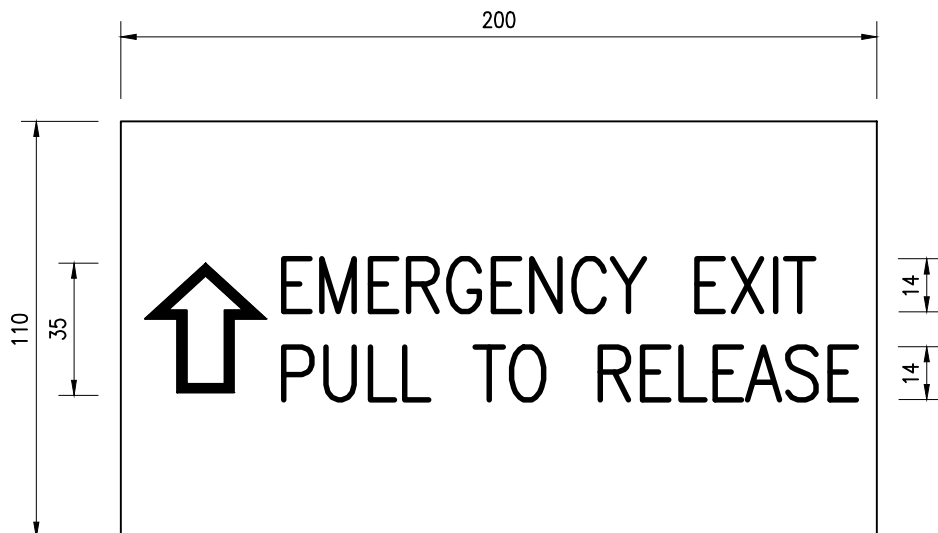
SCALE

1 : 2

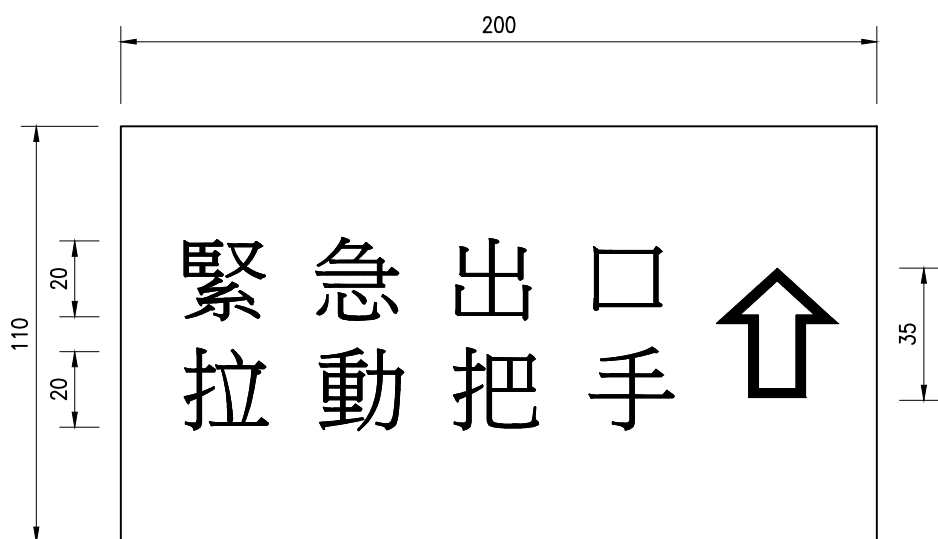
DRAWING NO.

WSD 3.22A  
(SHEET 6 OF 8)

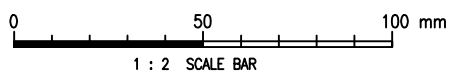
CSWP



ALUMINIUM PLATE LABEL IN ENGLISH



ALUMINIUM PLATE LABEL IN CHINESE



Cad Ref. : WSD032207-A.dwg

ACCESS DOOR TO  
900 x 600  
MANHOLE OPENING



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W.L. LEUNG  
AD/NW

DATE

23/10/14

SCALE

1 : 2

DRAWING NO.


WSD 3.22A  
(SHEET 7 OF 8)

CSWP

NOTES :

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRAWING NO. WSD 3.5 AND WSD 3.7 FOR A 100 mm THICK CONCRETE UPSTAND WALL SURROUNDING A MANHOLE OPENING WITH SIZE 900 mm X 600 mm. THE DIMENSIONS OF THE COVER AND FRAME FOR THE ACCESS DOOR SHALL BE INCREASED ACCORDINGLY BY 100 mm IN CASE OF A 150 mm THICK CONCRETE UPSTAND WALL SURROUNDING A MANHOLE OPENING WITH SIZE 900 mm X 600 mm.
3. THE COVER OF THE ACCESS DOOR SHALL BE MADE OF ALUMINIUM ALLOY FOR DAMP AND CHLORINATED ENVIRONMENT WITH NON-SLIP SURFACES. IT SHALL BE STIFFENED WITH STIFFENERS AND CAPABLE OF WITHSTANDING AN IMPOSED LOAD OF 5 kN/m<sup>2</sup> SUCH THAT A MAXIMUM DEFLECTION OF THE COVER UNDER THE ACTION OF DEAD AND IMPOSED LOAD SHALL NOT EXCEED 6 mm.
4. THE COVER OF THE ACCESS DOOR SHALL BE ABLE TO BE OPENED TO AN ANGLE OF 105° TO THE HORIZONTAL AND LOCKED AND HELD AUTOMATICALLY AT FULLY OPEN POSITION. THE AUTOMATIC LOCK AND HOLD ASSEMBLY SHALL BE ABLE TO BE HELD/RELEASED BY AN OPERATOR USING ONE HAND WHEN CLOSING THE COVER.
5. THE LOCK ASSEMBLY (INCLUDING THE LOCKING DEVICE) SHALL ENABLE LOCKING AND UNLOCKING FROM OUTSIDE (WITH KEY) AND INSIDE (WITHOUT KEY) OF THE MANHOLE.
6. THE ACCESS DOOR SHALL BE EQUIPPED WITH A TORSION BAR OR EQUIVALENT OPERATION MECHANISMS THAT ENABLE THE COVER TO BE OPENED OR CLOSED BY AN OPERATOR USING ONE HAND. THE WEIGHT OF THE DOOR WITHOUT THE FRAME AND THE TOTAL WEIGHT OF THE DOOR SHALL NOT EXCEED 30 kg AND 50 kg RESPECTIVELY UNLESS OTHERWISE APPROVED BY THE ENGINEER.
7. THE ACCESS DOOR SHALL BE WATERPROOF WHEN IN THE FULLY CLOSED POSITION.
8. PARTICULARS OF THE ACCESS DOOR, INCLUDING THE AUTOMATIC LOCK AND HOLD ASSEMBLY AND THE LOCK ASSEMBLY, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. MANUFACTURING OF THE ACCESS DOOR SHALL NOT COMMENCE PRIOR TO THE APPROVAL.
9. SHARP EDGES OF THE ACCESS DOOR SHALL BE MACHINE-FINISHED TO FORM SMOOTH SURFACES.
10. WHERE DISSIMILAR METALS ARE MATED, SUCH AS ALUMINIUM AND STEEL, THE MATING SURFACES SHALL BE INSULATED TO PROVIDE PROTECTION AGAINST GALVANIC CORROSION. BOLTS, NUTS, WASHERS AND RIVETS SHALL BE SIMILARLY INSULATED. THE MEANS OF PROVIDING THIS PROTECTION SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
11. ITEMS WHICH ARE TO BE BOLTED OR RIVETED TOGETHER AT THE MANUFACTURER'S FACTORY SHALL HAVE THE PRIMING COAT APPLIED BEFORE THE PARTS ARE ASSEMBLED. THE MATING SURFACES OF THESE ITEMS SHALL BE SEALED WITH LITHARGE AND GLYCERINE OR AN APPROVED PUTTY DURING ERECTION. FOR ALUMINIUM ALLOY, THE MATING SURFACES SHALL BE SEALED WITH AN APPROVED SEALER.
12. ALUMINIUM ALLOY PLATES SHALL BE TO BS EN 485-1+A1, BS EN 485-2, BS EN 485-3, BS EN 485-4, BS EN 515, BS EN 573-1, BS EN 573-2, BS EN 573-3 AND BS EN 573-5. ALUMINIUM ALLOY BARS SHALL BE TO BS EN 515, BS EN 573-1, BS EN 573-2, BS EN 573-3, BS EN 573-5, BS EN 755 AND BS EN 12020.
13. STAINLESS STEEL PLATE, SHEET AND STRIP SHALL BE OF STEEL DESIGNATION 1.4404 TO BS EN 10088-2 FOR FLAT PRODUCT, BS EN 10088-3 FOR LONG PRODUCT, BS EN 10296-2 FOR TUBE, AND SHALL BE TO BS EN 10095, BS EN 10048, BS EN ISO 9445-1 AND BS EN ISO 9445-2. STAINLESS STEEL SPRING SHALL BE OF STEEL DESIGNATION 1.4401 TO BS EN 10270-3.
14. ALL CONNECTIONS SHOWN ARE INDICATIVE ONLY.
15. THE FACES OF THE ALUMINIUM PLATE LABELS SHALL BE CONSTRUCTED WITH CLASS REF. 1 REFLECTIVE MATERIALS TO BS EN 12899-1. THE PLATE LABEL SHALL BE YELLOW IN COLOUR (CODE 08 E 51 TO BS 5252F) AND THE CHINESE CHARACTER, ENGLISH LETTERING AND ARROW SIGN SHALL BE BLACK IN COLOUR (CODE 00 E 53 TO BS 5252F).
16. ALL WELDS SHALL BE 3 mm FILLET WELD.
17. FOR ACCESS DOOR TO 900 x 600 MANHOLE OPENING FOR FRESH WATER SERVICE RESERVOIRS. REFER TO DRAWING NO. WSD 3.23.

Cod Ref. : WSD032208-A.dwg

ACCESS DOOR TO 900 x 600 MANHOLE OPENING	 <b>水務署</b> <b>Water Supplies Department</b>		
	APPROVED	W.L. LEUNG AD/NW	DRAWING NO. <span style="border: 1px solid black; padding: 2px;">CSWP</span>
	DATE	23/10/14	WSD 3.22A (SHEET 8 OF 8)
	SCALE	NOT APPLICABLE	