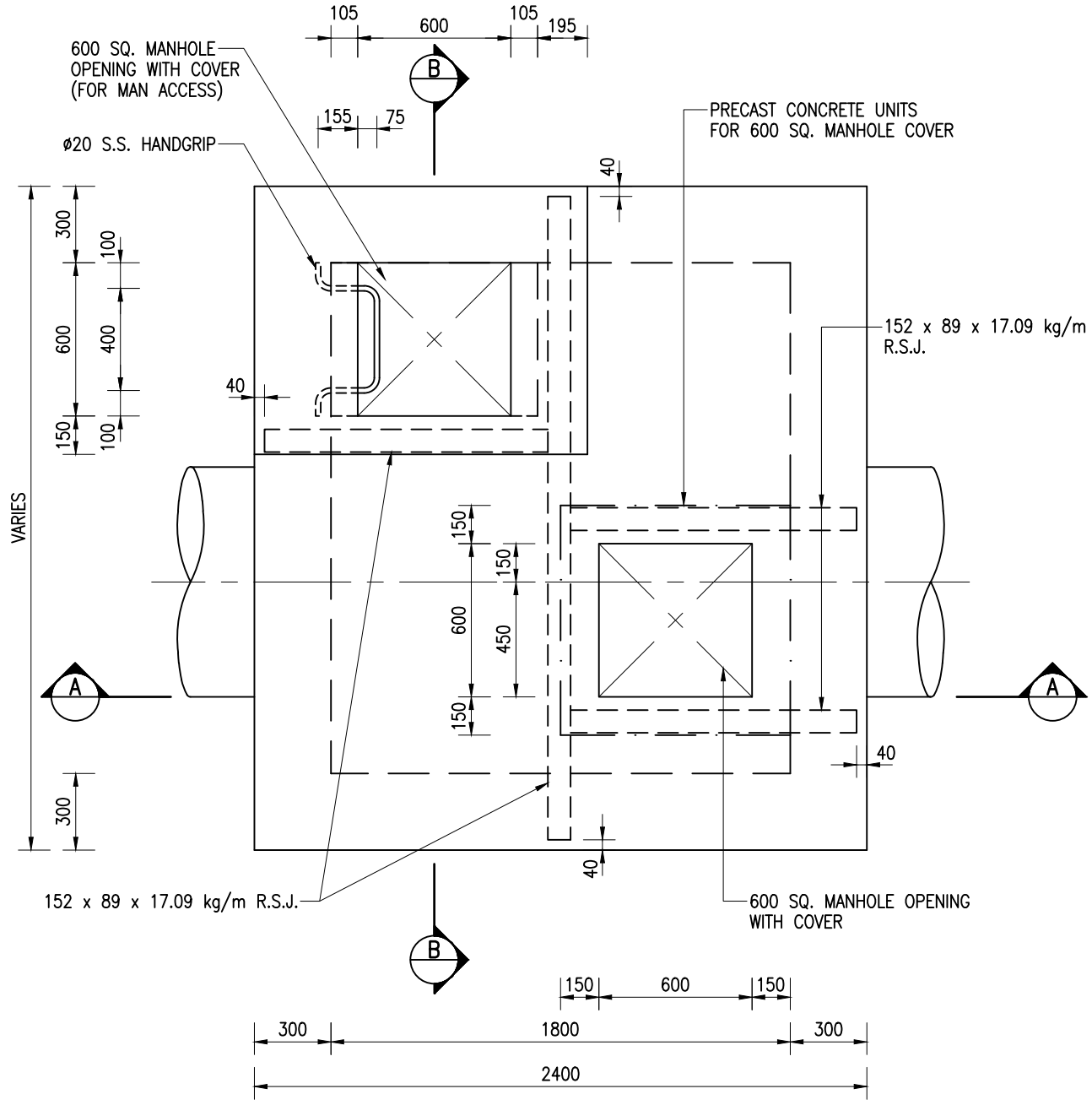


PLAN

0 500 1000 mm

1 : 25 SCALE BAR

REF.	REVISION	APPROVED	DATE
A	GENERAL REVISION	K.H. HO	18/8/21

MULTI-PURPOSE DOUBLE AIR VALVE / MULTI-PURPOSE INSERTION CHAMBER (CARRIAGEWAY) - GENERAL ARRANGEMENT

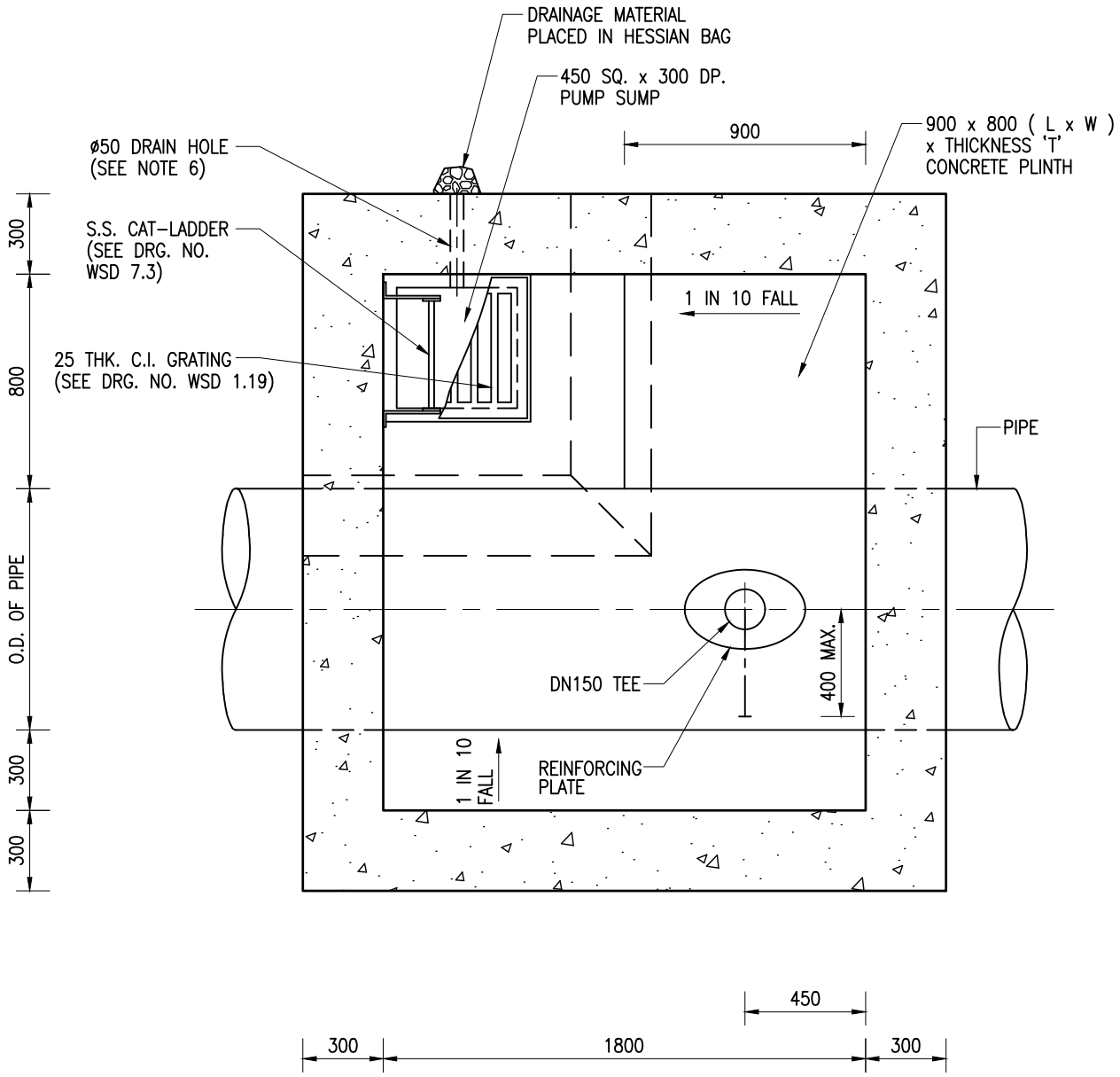
水 務 署
Water Supplies Department

APPROVED	W.L. LEUNG AD/NW
DATE	15/2/12
SCALE	1 : 25

DRAWING NO. CSWP

WSD 1.49A
(SHEET 1 OF 6)

Cad Ref. : WSD014901-A.dwg



SECTIONAL PLAN

SCHEDULE FOR THICKNESS OF CONCRETE PLINTH

NOMINAL DIAMETER OF PIPE (DN)	DN800 OR LESS	EXCEEDING DN800
THICKNESS OF CONCRETE PLINTH 'T'	NOT REQUIRED	NOMINAL DIAMETER – 800 OF PIPE

0 500 1000 mm

1 : 25 SCALE BAR

Cad Ref. : WSD014902-A.dwg

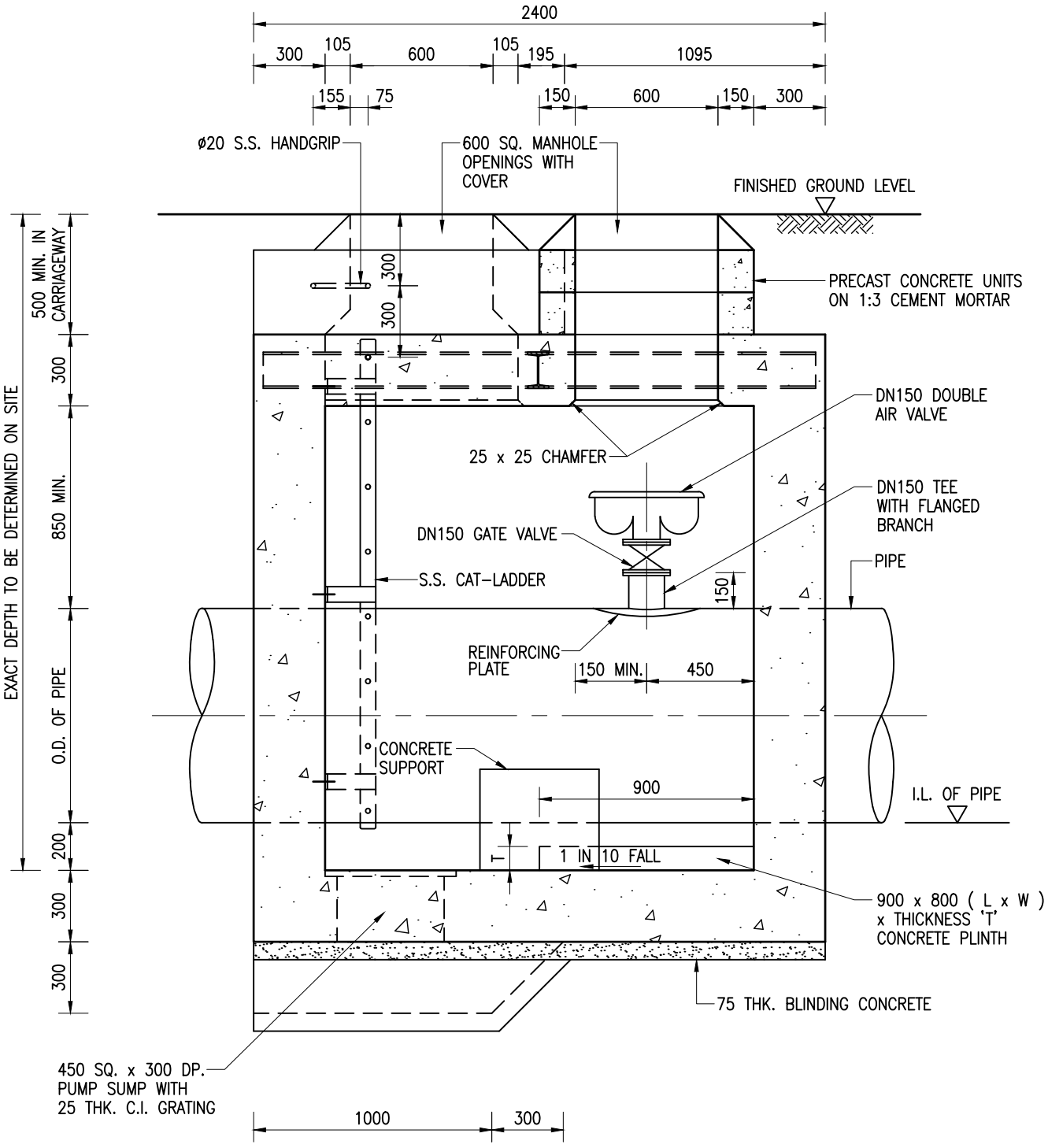
MULTI-PURPOSE DOUBLE AIR VALVE / MULTI-PURPOSE INSERTION CHAMBER (CARRIAGEWAY) - GENERAL ARRANGEMENT

水 務 署
Water Supplies Department

APPROVED	W.L. LEUNG AD/NW
DATE	15/2/12
SCALE	1 : 25

DRAWING NO. CSWP

WSD 1.49A
(SHEET 2 OF 6)



SECTION A – A

0 500 1000 mm

1 : 25 SCALE BAR

Cad Ref. : WSD014903-A.dwg

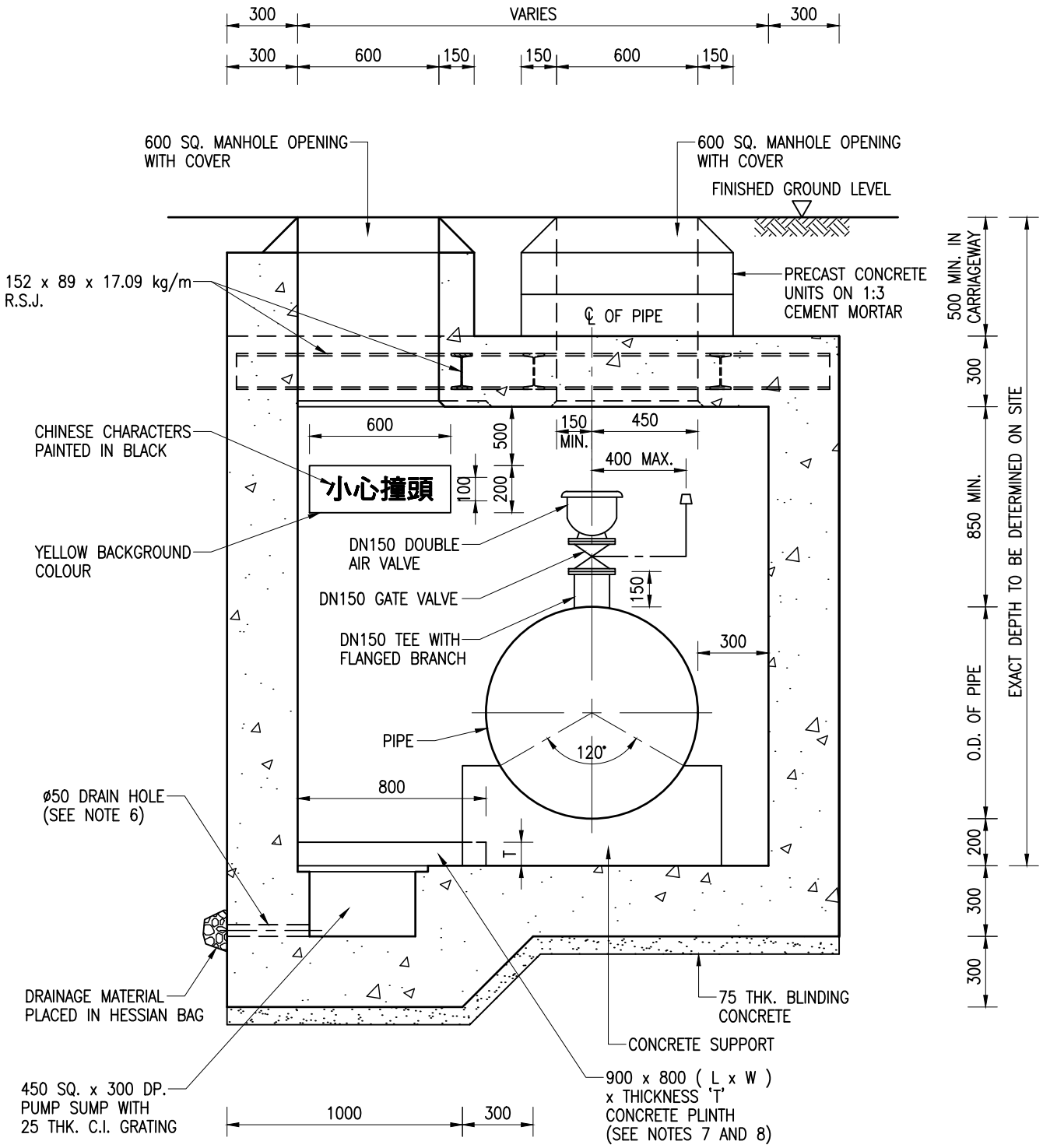
MULTI-PURPOSE DOUBLE AIR VALVE / MULTI-PURPOSE INSERTION CHAMBER (CARRIAGEWAY) – GENERAL ARRANGEMENT

水 務 署
Water Supplies Department

APPROVED	W.L. LEUNG AD/NW
DATE	15/2/12
SCALE	1 : 25

DRAWING NO. CSWP

WSD 1.49A
(SHEET 3 OF 6)



SECTION B – B

0 500 1000 mm

1 : 25 SCALE BAR

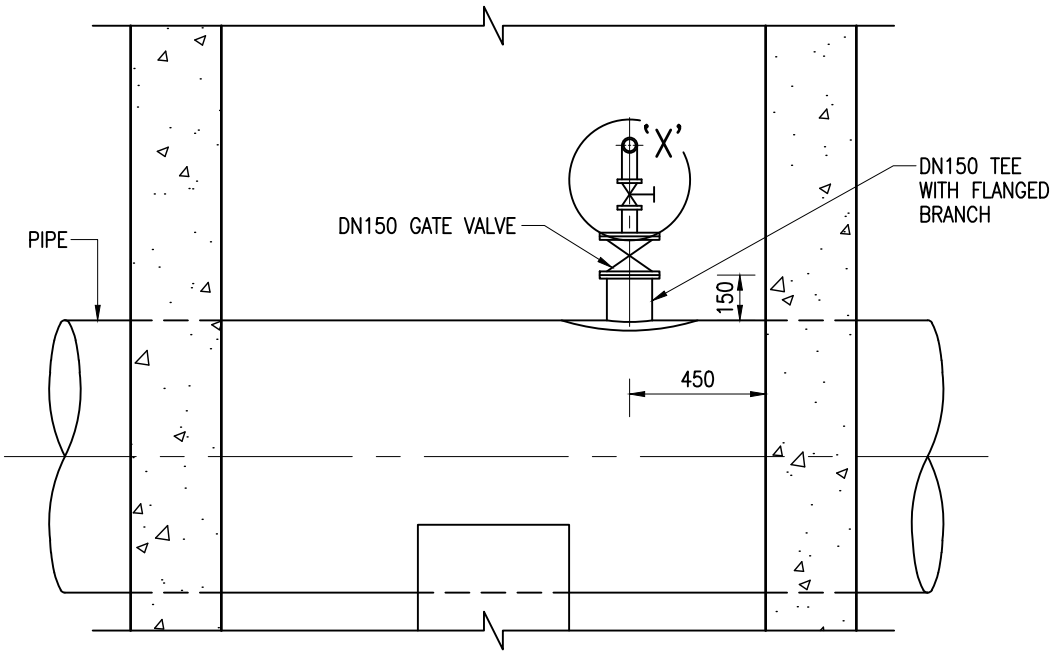
Cad Ref. : WSD014904-A.dwg

MULTI-PURPOSE DOUBLE AIR VALVE / MULTI-PURPOSE INSERTION CHAMBER (CARRIAGEWAY) – GENERAL ARRANGEMENT

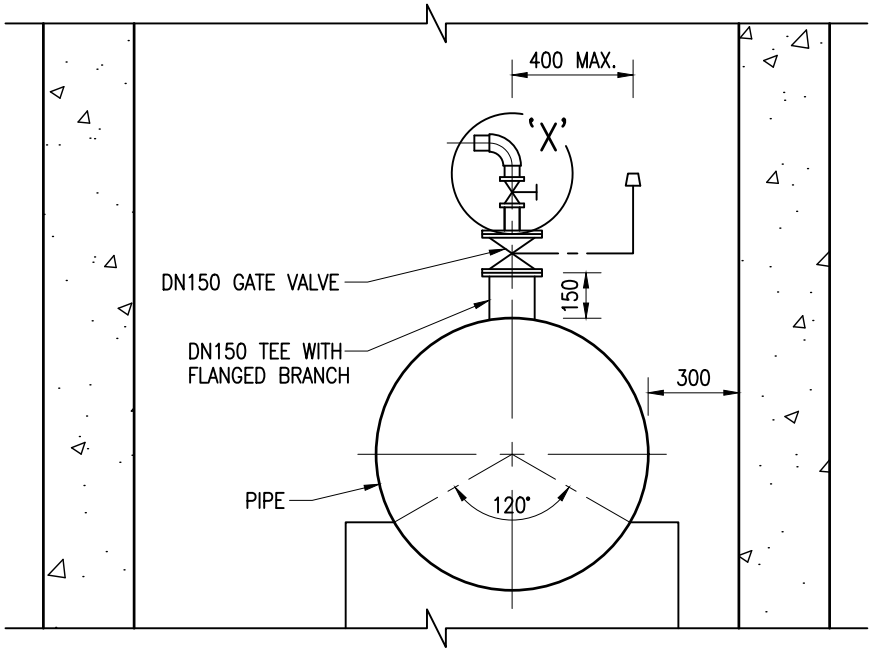
水 務 署
Water Supplies Department

APPROVED	W.L. LEUNG AD/NW
DATE	15/2/12
SCALE	1 : 25

DRAWING NO. CSWP
WSD 1.49A
(SHEET 4 OF 6)



SECTION A – A
(ALTERNATIVE DETAILS)



SECTION B – B
(ALTERNATIVE DETAILS)

0 500 1000 mm
1 : 25 SCALE BAR

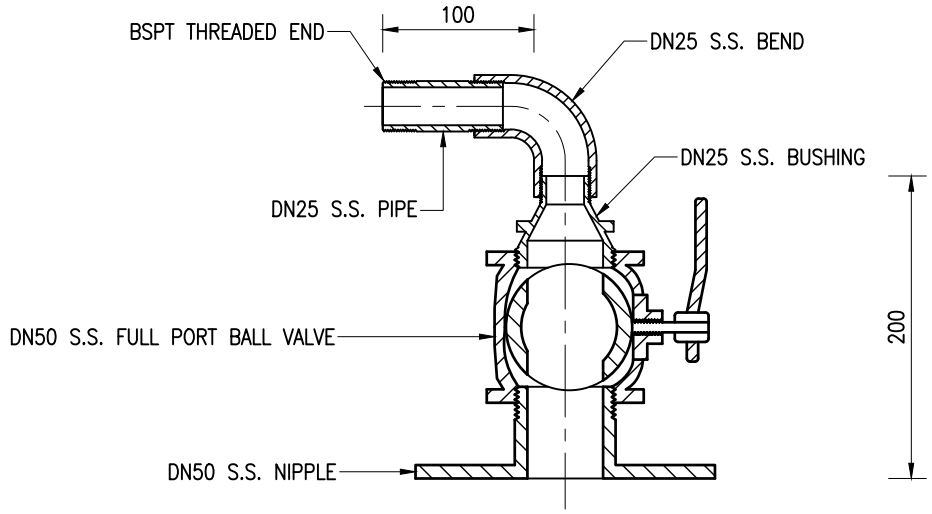
Cad Ref. : WSD014905-A.dwg

MULTI-PURPOSE DOUBLE AIR VALVE / MULTI-PURPOSE INSERTION CHAMBER (CARRIAGEWAY) – GENERAL ARRANGEMENT

水 務 署
Water Supplies Department

APPROVED	W.L. LEUNG AD/NW
DATE	15/2/12
SCALE	1 : 25

DRAWING NO. CSWP
WSD 1.49A
(SHEET 5 OF 6)



DETAIL 'X'

NOTES :

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL REINFORCED CONCRETE SHALL BE GRADE 35/20D. BLINDING CONCRETE SHALL BE GRADE 20/20D.
3. FOR CONNECTION DETAILS OF ROLLED STEEL JOIST, REFER TO DRAWING NO. WSD 1.13.
4. THIS CHAMBER MAY BE USED FOR PRESSURE OR FLOW MEASUREMENTS BY REPLACING THE DN100 DOUBLE AIR VALVE WITH THE FITTING SHOWN IN DETAIL 'X' AND SECTIONS A – A AND B – B (ALTERNATIVE DETAILS). PRESSURE MEASUREMENTS MAY BE TAKEN BY CONNECTING A DATA LOGGER TO THE BSPT THREADED END SHOWN IN DETAIL 'X'. FLOW MEASUREMENTS MAY BE TAKEN BY REMOVING THE DN25 STAINLESS STEEL BEND AND INSERTING AN INSERTION TYPE ELECTROMAGNETIC FLOWMETER THROUGH THE DN50 STAINLESS STEEL FULL PORT BALL VALVE.
5. THIS CHAMBER MAY ALSO BE USED AS AN INSERTION CHAMBER FOR NON–DISTRUCTIVE CONDITION ASSESSMENT OF AN IN–SERVICE PRESSURISED WATER MAIN BY REMOVING THE FITTING SHOWN IN DETAIL 'X' AND INSERTING A TETHERED OR UNTETHERED SURVEY DEVICE THROUGH THE HORIZONTAL GATE VALVE.
6. DRAIN HOLE AND HESSIAN BAG SHALL BE INSTALLED WHEN THE ESTIMATED HIGHEST GROUND WATER LEVEL IS BELOW THE FORMATION LEVEL OF CHAMBER.
7. IF THE THICKNESS 'T' OF CONCRETE PLINTH IS MORE THAN 175 mm, STEPS SHALL BE PROVIDED IN FRONT OF THE CONCRETE PLINTH FOR ACCESS AND THE LENGTH 'L' OF THE CONCRETE PLINTH SHALL BE ADJUSTED SUCH THAT THE RISE OF EACH STEP DOES NOT EXCEED 175 mm AND THE STEPS WILL NOT BLOCK THE GRATING.
8. EDGES OF THE CONCRETE PLINTH AND STEPS, WHERE PROVIDED, SHALL BE PAINTED IN YELLOW WITH ALTERNATIVE BLACK STRIPES (100 mm IN HEIGHT) FOR WARNING PURPOSE.
9. THE MANHOLE OPENING FOR MAN ACCESS SHALL BE LOCATED NEARER TO THE PAVEMENT SIDE FOR ACCESS SAFETY.
10. 700 m SPACING IS RECOMMENDED BETWEEN INSERTION CHAMBERS. THE EXACT SPACING BETWEEN THE INSERTION CHAMBERS SHOULD BE DETERMINED ON A CASE–BY–CASE BASIS DEPENDING ON THE FITTINGS ALONG THE ALIGNMENT.

0 50 100 150 200 250 mm

1 : 5 SCALE BAR

Cad Ref. : WSD014906-A.dwg

MULTI–PURPOSE DOUBLE AIR VALVE / MULTI–PURPOSE INSERTION CHAMBER (CARRIAGEWAY) – GENERAL ARRANGEMENT

水 務 署
Water Supplies Department

APPROVED	W.L. LEUNG AD/NW
DATE	15/2/12
SCALE	1 : 5

DRAWING NO. CSWP

WSD 1.49A
(SHEET 6 OF 6)