

CHAMBERS

CHAMBER No.	CHANGE	INTERIOR ELEV.	SURFACE ELEV.	DIFFERENCE IN ELEV.	COVER LOCATION	DRAIN TYPE/OUTLET DIA.	FOR LOCATION REFER TO PLAN No.	REMARKS

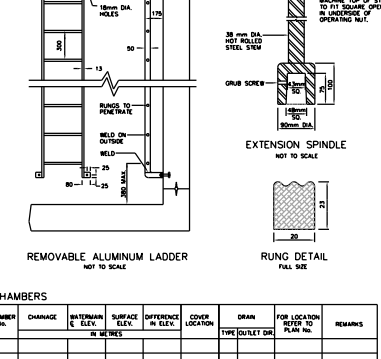
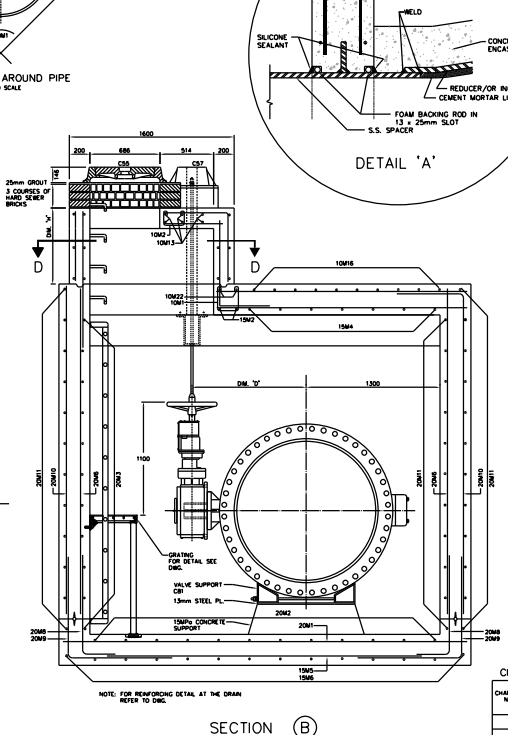
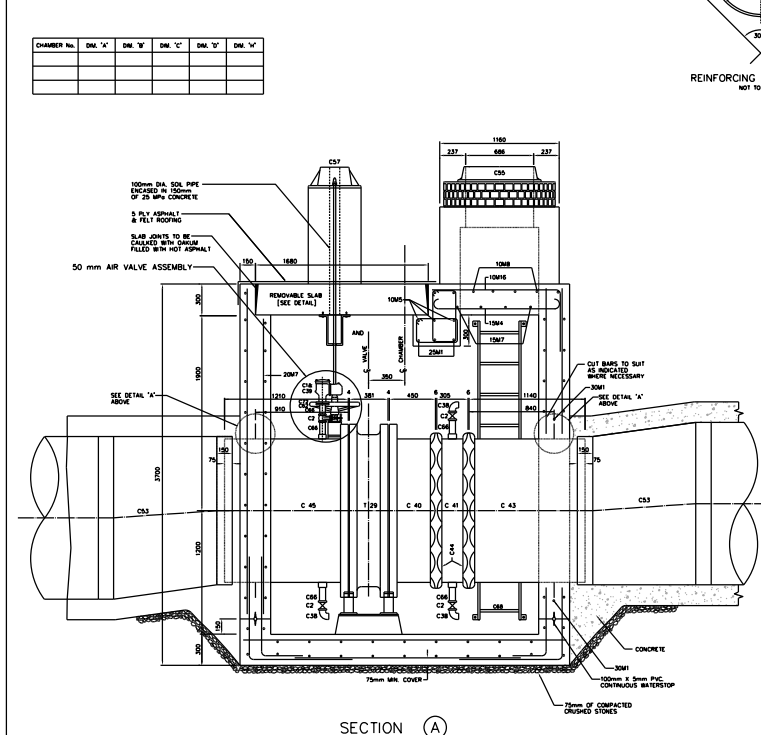
- NOTES**
- 25MPa CONCRETE TO BE USED EXCEPT AS NOTED.
 - MAXIMUM SIZE OF COARSE AGGREGATE TO BE 20mm.
 - COVER TO MAIN REINFORCING TO BE 50mm OR AS INDICATED.
 - ALL BAR DIMENSIONS ARE OUT TO OUT.
 - BARS TO BE BENT COLD, MINIMUM INSIDE RADIUS TO 4 DIAMETERS.
 - ALL CROSSING BARS TO BE WELL WIRED.
 - ALL REINFORCING STEEL TO BE DEFORMED BILLET-STEEL BARS GRADE 350, CONFORMING TO C.S.A. STANDARD C30.12M.
 - ALL LAPS IN REINFORCING STEEL TO BE AT LEAST 30 DIAMETERS IN LENGTH OR AS SHOWN, AND TO BE STAGGERED.
 - ALL BRICKWORK TO BE OF HIGH QUALITY HARD SEWER BRICK, LAID IN FULL MORTAR BED AND JOINTS, PARGED INSIDE AND OUTSIDE.
 - WATERSTOP (P.V.C.) TO BE PROVIDED AT ALL CONSTRUCTION JOINTS.
 - WHERE NECESSARY ADJUST REINFORCING STEEL TO SUIT WATERSTOPS AND OPENINGS.
 - PROVIDE SUMP PIT WITH GRATING AND SLOPE FLOOR TO SUMP 10mm/A.M.T.R.
 - DRAIN OUTLET TO BE LOCATED AT NEAREST POINT TO EXISTING SEWER.
 - DRAIN CONNECTION TO SEWER TO BE MADE BY CONTRACTOR UNLESS OTHERWISE NOTED IN THE GENERAL SPECIFICATIONS.
 - ALL ALUMINUM SURFACES CONTACTING CONCRETE TO RECEIVE ONE COAT OF BITUMINOUS PAINT.
 - TOP TWO STEPS AND ANY ADDITIONAL STEPS IN THE CHIMNEY TO BE OF THE REMOVABLE TYPE.
 - CHAMBERS DEEPER THAN 1200mm FROM SURFACE ELEVATION TO TOP OF VALVE OPERATING SPINDLE SHALL HAVE EXTENSION SPINDLE AND GUIDE BRACKET.
 - ALL ALUMINUM SURFACES CONTACTING CONCRETE TO RECEIVE ONE COAT OF BITUMINOUS PAINT.
 - "X" DEPENDS ON HEIGHT OF CHIMNEY (DIM. 'Y') AND BARS SHALL BE COUNTED TO ENSURE THAT THE BOTTOM BAR IS LESS THAN 150mm ABOVE THE CHAMBER ROOF.

BENDING SCHEDULE

BAR No.	DIA.	TOTAL LENGTH	a	b	c	d	SHAPE	O.C.	No. REITS
10M1	10	900	230	230	230			300	8
10M2	710	130	230	130				150	8
10M3	1840	520	230	520	230			200	20
10M4	1240	380	230	380	230			200	20
10M5	3900							AS SHOWN	5
10M6	900							200	24
10M7	1880							200	4
10M8	2400							200	8
10M9	1600							200	8
10M10	H-100							300	5
10M11	H-600							300	4
10M12	614							300	4
10M13	1060							200	6
10M14	1500							300	4
10M15	1060							300	4
10M16	1820	1270	600					200	10
10M17	H-630	H-200	600					300	7
10M18	H-180	H-100	500					300	8
10M19	H-494	H-100	614					300	5
10M20	2420	2040	600					200	6
10M21	2820	900	1900	900				300	4
10M22	4260	600	3100	600				AS SHOWN	2
15M1	15	1940	1380					AS SHOWN	2
15M2	2400	3100						AS SHOWN	2
15M3	2400	2040						300	6
15M4	1630	1270						300	7
15M5	3000							300	11
15M6	2200							300	14
15M7	2400							300	4
15M8	4000							300	7
20M1	20	3900						300	9
20M2	3100							300	12
20M3	3100							300	22
20M4	2000							300	24
20M5	3800							300	7
20M6	3150							300	71
20M7	2800							300	7
20M8	1310	1050	300					300	42
20M9	2060	1050	1050					300	46
20M10	3710	2150	600					300	10
20M11	6120	1550	3100	1550				300	24
25M1	25	4460	3800					AS SHOWN	3
30M1	30	O.D. + 600						AS SHOWN	8

MATERIAL LIST

MARK	SUPPLIED BY CITY OF TORONTO	MARK	SUPPLIED BY CONTRACTOR
C30	1-1300mm FABRICATED S.S. FL. VCT CONNECTION	C41	1-1300mm FABRICATED S.S. VCT-VALVE CONNECTION
T20	1-150mm HORIZONTAL BUTTERFLY VALVE	C42	1-1300mm FABRICATED S.S. VCT-VALVE SPACER
C1	1-1300mm FABRICATED S.S. VCT-VALVE ASSEMBLY	C43	1-1300mm FABRICATED S.S. VCT-VALVE CONNECTION
C44	2-1300mm VCT. COUPLING, STYLE 44 SHOULDERED	C44	2-1300mm VCT. COUPLING, STYLE 44 SHOULDERED
C45	1-1300mm FABRICATED S.S. FLANGE ASSEMBLY	C45	1-1300mm FABRICATED S.S. FLANGE ASSEMBLY
C53	2-1500mm TO 1500mm ECCENTRIC REDUCERS	C53	2-1500mm TO 1500mm ECCENTRIC REDUCERS
C54	1-CST WELDING SQUARE FRAME WITH CONICAL COVER AND PLUG FOR VALVE CHAMBERS AS PER SPEC. (SEE Dwg. 1000)	C54	1-CST WELDING SQUARE FRAME WITH CONICAL COVER AND PLUG FOR VALVE CHAMBERS AS PER SPEC. (SEE Dwg. 1000)
C55	1-50mm DIA. CLOTH INSERTED RUBBER GASKETS [FULL FACE, ONE PIECE]	C55	1-50mm DIA. CLOTH INSERTED RUBBER GASKETS [FULL FACE, ONE PIECE]
C56	1-150mm DIA. CLOTH INSERTED RUBBER GASKETS [FULL FACE, ONE PIECE]	C56	1-150mm DIA. CLOTH INSERTED RUBBER GASKETS [FULL FACE, ONE PIECE]
C57	1-STEEL PLATE, 300mm x 900mm x 6mm	C57	1-STEEL PLATE, 300mm x 900mm x 6mm
C58	2-STANDARD BUTTERFLY VALVE SUPPORTS	C58	2-STANDARD BUTTERFLY VALVE SUPPORTS



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Toronto Water Engineering & Construction Services

Title
Sub#1
Sub#12

1350 mm HORIZONTAL BUTTERFLY VALVE CHAMBER (Position B)

DESIGN Design DRAWN Drawn CHECKED Checked CONTRACT No. X-X

SCALE SCALE DRAWING NUMBER T-1110.12-2 SHEET X OF X

DATE DATE

GENERAL MANAGER, TORONTO WATER DIRECTOR, Design and Construction Linear Underground Infrastructure

EXECUTIVE DIRECTOR, Engineering & Construction Services Design and Construction Linear Underground Infrastructure MANAGER, Design and Construction Linear Underground Infrastructure

No.	DATE	REVISIONS	INITIAL	SIGNED