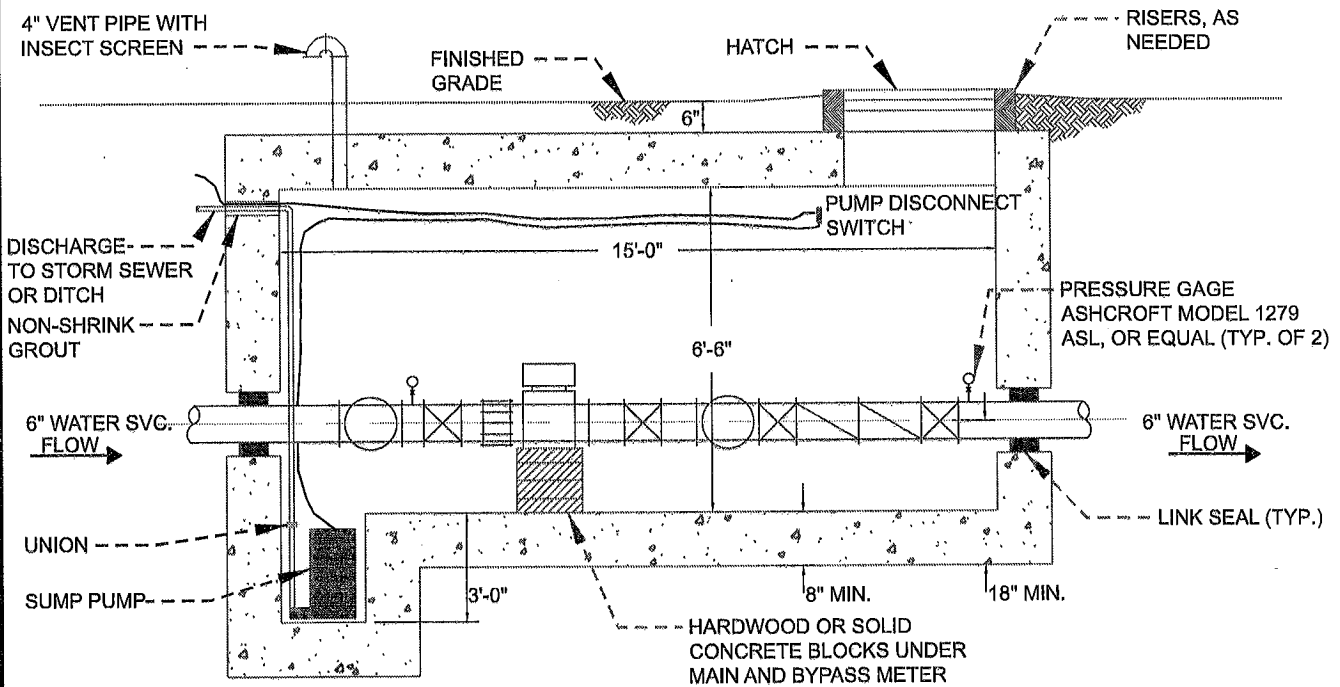


PLAN VIEW
NTS



NOTE: PIPING AND VALVES SHALL MATCH METER SIZE.

SECTION
NTS

No. Date Revision			

City of Loveland, OH
**STANDARD DRAWING FOR
 OUTSIDE METER PITS
 AND SETTING 6" METERS**
 PAGE 1 OF 2 FEBRUARY, 2018
 DRAWING NO.:
 LWW-300

NOTES

1. PROVIDE ALL EQUIPMENT AND MATERIALS.
2. AUTOMATED METER READING CAPABILITY SHALL BE COMPATIBLE WITH MICROFLEX CE5320 HANDHELD READERS THAT OPERATE WITH EQUINOX VERSION 2.0.060110 SOFTWARE.
3. PROVIDE ZOLLER MODEL M53 SUMP PUMP WITH FLOAT SWITCH LEVEL CONTROL. POWER TO BE PROVIDED BY PROPERTY OWNER. ALTERNATIVELY, IF GRADING PERMITS, A GRAVITY DRAIN WITH SANITARY CHECK VALVE MAY BE PROVIDED.
4. HATCH SHALL BE BILCO TYPE 'J' 42" X 42" WITH LOCKABLE HASP AND STAINLESS STEEL HARDWARE. PITS LOCATED IN THE RIGHT OF WAY, SUBJECT TO TRAFFIC LOADS, OR SUBJECT TO PARKING SHALL BE BILCO TYPE 'J-H20.'
5. VAULT SHALL BE WATERTIGHT PRE-CAST OR CAST-IN-PLACE CONCRETE DESIGNED TO SUPPORT AN AASHTO H20 LIVE LOAD.
6. VALVE VAULT, PIPING AND ALL EQUIPMENT SHALL BECOME THE RESPONSIBILITY OF THE PROPERTY OWNER.
7. POST INDICATOR VALVE IS REQUIRED, BUT NOT SHOWN ON DETAIL. VERIFY TYPE AND LOCATION FOR PIV WITH LSFD.
8. FOLLOW GREATER CINCINNATI WATER WORKS STANDARD DRAWING # 108-1A, 108-1B, AND 108-1C FOR VAULT CONSTRUCTION WITH THE EXCEPTION OF HATCH WILL REQUIRED TO BE 42" X 42" AND LADDER RUNGS ARE TO BE PERMANENTLY AFFIXED. OTHERWISE, SUBMIT SHOP DRAWINGS TO THE CITY OF LOVELAND FOR APPROVAL. INCLUDE ALL MATERIALS OF CONSTRUCTION AND PROVIDE STRUCTURAL DESIGN CERTIFICATION BY AN OHIO REGISTERED PROFESSIONAL ENGINEER.

			City of Loveland, OH
			STANDARD DRAWING FOR
			OUTSIDE METER PITS
			AND SETTING 6" METERS
			PAGE 2 OF 2 FEBRUARY, 2016
			DRAWING NO.:
			LWW-300A
		No. Date Revision	

CONSTRUCTION SPECIFICATIONS:
NO PRECAST PITS ALLOWED FOR BRANCHES 4" AND LARGER IN SIZE.

PIT CONSTRUCTION DETAILS:

A) METER PIT FLOOR SHALL BE 6" CONCRETE WITH 42 LB. ROAD MESH INSTALLED. THE FLOOR, AT ITS SHALLOWEST POINT MUST BE A MINIMUM OF 6", SLOPED TOWARD THE DRAIN OR SUMP PUMP LOCATION. FLOOR SLAB MUST ALSO HAVE WATER STOP INSTALLED.

B) METER PIT WALLS SHALL BE 8" CONCRETE WITH 5/8" DIAMETER STEEL REINFORCING RODS 18" CENTERED HORIZONTALLY AND VERTICALLY. REINFORCING STEEL TO BE ANGLED AND EXTEND 18" CENTERED INTO TOP SLAB.

C) METER PIT TOP SLAB SHALL BE A MINIMUM OF 8" CONCRETE WITH 5/8" DIAMETER REINFORCING RODS, 6" ON CENTER-SHORT SPAN AND 18" ON CENTER-LONG SPAN. REINFORCING STEEL IN TOP SLAB SHALL BE LOCATED IN THE BOTTOM PORTION OF THE SLAB, 2" FROM THE SURFACE. 5/8" REINFORCING STEEL TO BE 2' LONG IN TOP OF SLAB DIAGONALLY AT CORNER OF OPENINGS. TOP SLAB SHALL BE SET TO FINISHED GRADE.

CONCRETE CONSTRUCTION

ALL CONCRETE USED IN CONSTRUCTION OF METER PIT WALLS, FLOORS, AND REINFORCED SLABS SHALL BE COMPOSED OF ONE PART CEMENT, TWO PARTS SAND, AND THREE PARTS AGGREGATE BY WEIGHT AND A MAXIMUM WATER CEMENT RATIO OF 0.50. BEFORE CONCRETE IS PLACED, THE FORMS, REINFORCEMENT STEEL, WATER STOPS, AND ANCHOR BOLTS SHALL BE RIGIDLY SECURED IN PROPER POSITION. ALL DIRT, MUD, WATER, DEBRIS AND OTHER FOREIGN MATERIAL SHALL BE REMOVED FROM THE SPACE TO BE OCCUPIED BY THE CONCRETE. CONCRETE SHALL BE DEPOSITED AND COMPACTED IN THE WALL SLABS BEFORE ANY REINFORCING STEEL IS PLACED IN THE SLAB AREA AND SHALL SETTLE AT LEAST 2 HOURS BEFORE THE SLAB CONCRETE IS POURED. CONCRETE SHALL BE PROTECTED FROM LOSS OF MOISTURE FOR A CURING PERIOD OF AT LEAST 7 DAYS.



GREATER
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WATER
WORKS

BRANCH / METER ENCLOSURE -
GENERAL INFORMATION

METER VAULT CONSTRUCTION

APPROVED

DATE

STANDARD DRAWING

1/4/13

108-1A

REINFORCING STEEL

ALL REINFORCING STEEL SHALL BE FREE FROM DIRT, OIL, GREASE, OR AVOIDABLE, LOOSE RUST WHEN PLACED IN CONCRETE. REINFORCING STEEL SHALL BE SECURELY HELD IN PLACE DURING THE CONCRETE POURING OPERATION. IN NO CASE SHALL REINFORCING STEEL BE DRIVEN OR FORCED INTO CONCRETE AFTER IT HAS TAKEN ITS INITIAL SET.

WATERPROOFING

THE EXTERIOR SIDE OF PIT WALLS SHALL BE WATERPROOFED WITH TWO COATS OF WATER WORKS APPROVED WATER PROOFING SIMILAR TO ONE OF THE FOLLOWING MATERIALS APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS: THOROSEAL; U.S.S. CHEMICAL TARMASTIC #102; KOPPERS BITUMASTIC SUPER SERVICE BLACK; DAMCHEX; AMERCOAT #78; SEALTIGHT MEL-ROL AND MEL-PRIME PRIMER. VOIDS BETWEEN PIPE AND WALL SHALL BE GROUTED WITH A HYDRAULIC CEMENT.

DRAIN

EACH PIT SHALL BE DRAINED BY MEANS OF A 4" DRAIN LEADING TO A GRAVEL FILLED SUMP 3'X3'X3'. THE PIT SHALL BE SLOPED TO A FLOOR DRAIN PLACED IN A CORNER OPPOSITE THE LID. THE WATER WORKS APPROVED FLOOR DRAIN CASTING SHALL HAVE A 4" OUTLET AND A RAISED OR BEEHIVE DOME GRATE SIMILAR TO WADE #1634 OR JOSAM #7324.

PIT LIDS

PITS NOT SUBJECT TO PARKING OR TRAFFIC SHALL BE CONSTRUCTED USING A WATER WORKS APPROVED LID SIMILAR TO A BILCO J-1AL (24"X24") OR JD-2AL (48"X48") AND HAVE A FACTORY DRILLED 1-3/4" HOLE IN THE TOP.

PITS CONSTRUCTED IN PARKING AREAS SHALL HAVE A GUARD POST SET IN THE GROUND AT EACH CORNER OF THE ROOF SLAB, OR HAVE THE ROOF SLAB RAISED AT LEAST 6" ABOVE GROUND LEVEL TO PREVENT PARKING ON THE PIT.

PITS SUBJECT TO HEAVY TRAFFIC LOADS SHALL BE EQUIPPED WITH WATER WORKS APPROVED LIDS
SIMILAR TO: BILCO -1AL-H-20(24"X24"), J-D-2AL-H-20 (48"X48") OR JD-3AL-H-20 (48"X72").

(CONTINUED ON NEXT PAGE)



GREATER
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BRANCH / METER ENCLOSURE -
GENERAL INFORMATION

METER VAULT CONSTRUCTION


APPROVED	DATE	STANDARD DRAWING
<i>[Signature]</i>	1/4/13	108-1B

PIT LIDS
(CONTINUED)

PIT TOP MUST BE CONSTRUCTED TO MEET REQUIREMENTS FOR H-20 LOADING. ALL GCWW APPROVED LIDS SHALL BE EQUIPPED WITH STAINLESS STEEL HARDWARE AND MUST HAVE A 25 YEAR WARRANTY. LIDS SHALL BE CENTERED LENGTHWISE OVER THE DOMESTIC METER.

REMOVABLE METAL LADDER

THE REMOVABLE METAL LADDER SHALL BE AN APPROVED OSHA TYPE 1 INDUSTRIAL-HEAVY 250 POUND RATED LADDER THAT MEETS THE AMERICAN NATIONAL STANDARD SAFETY CODE FOR PORTABLE METAL LADDERS. ANSIA 14.2 - (LATEST REVISION). THE LADDER MUST REACH FROM THE PIT FLOOR AND EXTEND INTO THE PIT OPENING.

 GREATER CINCINNATI WATER WORKS		
BRANCH / METER ENCLOSURE - GENERAL INFORMATION		
METER VAULT CONSTRUCTION		
APPROVED <i>Kathryn Goble</i>	DATE 1/4/13	STANDARD DRAWING 108-1C