

NOTE: ALL MANHOLES MUST BE DAMP PROOF PER DOT SPECIFICATIONS 1080 "WATER PROOFING MATERIALS"

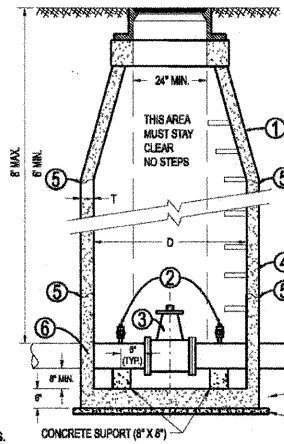
ALL LIDS TO BE USED ON WATER SYSTEM STRUCTURE SHALL BEAR THE WORDS "CITY OF CRYSTAL LAKE WATER".

DRAIN FOR VALVE VAULT SHALL BE CONSTRUCTED ONLY WHEN SHOWN ON THE PLANS.

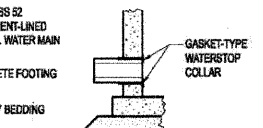
FRAME AND RINGS(S) TO BE SET IN MORTAR BED OR SEALED WITH A PREFORMED BITUMEN SEAL (E-Z-STICK OR APPROVED EQUAL).

FOR PRESSURE CONNECTION, SEE DETAIL UW-2.

D	T
8 INCHES AND OVER	5 FT. 6"



- 1 CONCENTRIC CONES REQUIRED
- 2 1" (PREFERRED, 3/4" MIN.) MUELLER, A.Y. McDONALD, OR FORD CORPORATION STOP EACH SIDE OF VALVE MUST BE A COMPRESSION FITTING.
- 3 MUELLER 2380-23-8020 OR AMERICAN FLOW CONTROL 2500-1 RESILIENT SEAT GATE VALVE
- 4 PRECAST CONCRETE MANHOLE SECTIONS WITH A MINIMUM THICKNESS OF 5"
- 5 WATERTIGHT JOINT
- 6 GASKET-TYPE WATERSTOP COLLAR FOR ALL WATER MAIN CONNECTIONS
- 7 CAST IRON MANHOLE FRAME & COVER SIMILAR TO NEENAH R-1712, OR EQUAL WITH STANDARD DUTY, NON-ROCKING TYPE LIDS WITH "CITY OF CRYSTAL LAKE WATER" CAST INTO LID. (NEENAH R-2835, OR EQUAL MAY BE USED IN GRASSY AREAS)



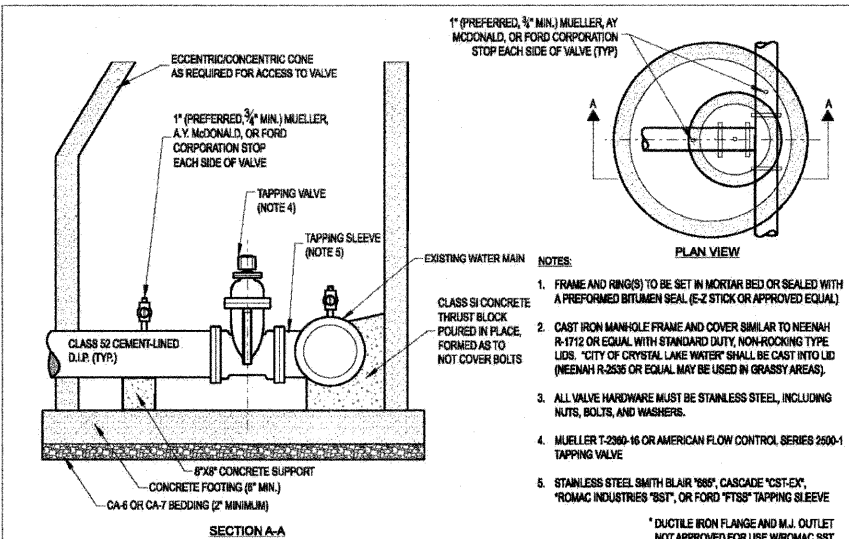
NOTE: ALL VALVE HARDWARE MUST BE STAINLESS STEEL INCLUDING NUTS, BOLTS & WASHERS.

Approved: City Engineer  
Victor C. Ramirez, P.E.  
Director of Engineering and Building

Drawing Name: **STANDARD VALVE VAULT**

Drawing Number: **UW-01**  
Date: 4/15/2007  
Drawn: EM  
Checked: JN

CRYSTAL LAKE ILLINOIS Engineering Division



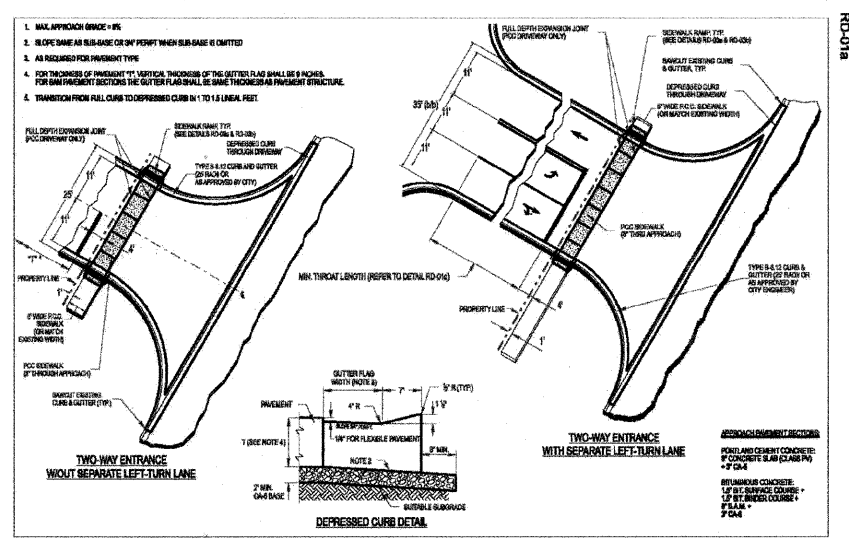
- NOTES:
1. FRAME AND RINGS(S) TO BE SET IN MORTAR BED OR SEALED WITH A PREFORMED BITUMEN SEAL (E-Z-STICK OR APPROVED EQUAL)
  2. CAST IRON MANHOLE FRAME AND COVER SIMILAR TO NEENAH R-1712 OR EQUAL WITH STANDARD DUTY, NON-ROCKING TYPE LIDS. "CITY OF CRYSTAL LAKE WATER" SHALL BE CAST INTO LID (NEENAH R-2835 OR EQUAL MAY BE USED IN GRASSY AREAS)
  3. ALL VALVE HARDWARE MUST BE STAINLESS STEEL, INCLUDING NUTS, BOLTS, AND WASHERS.
  4. MUELLER T-2800-16 OR AMERICAN FLOW CONTROL SERIES 2500-1 TAPPING VALVE
  5. STAINLESS STEEL SMITH BLAIR "888" CASCADE "CST-EX" "ROMAC INDUSTRIES" "851", OR FORD "FTS" TAPPING SLEEVE

Approved: City Engineer  
Victor C. Ramirez, P.E.  
Director of Engineering and Building

Drawing Name: **WATER MAIN PRESSURE CONNECTION**

Drawing Number: **UW-02**  
Date: 6/1/2007  
Drawn: EM  
Checked: JNLZ

CRYSTAL LAKE ILLINOIS Engineering Division

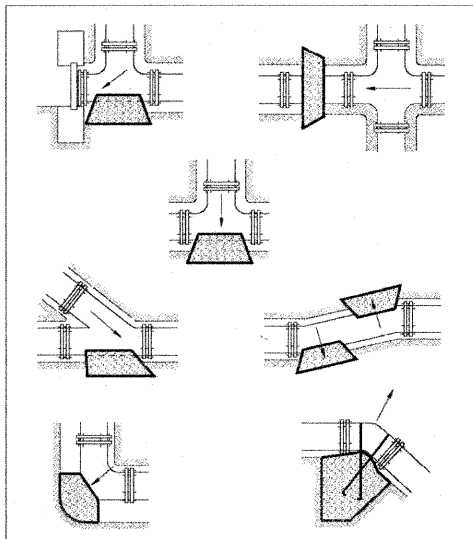


Approved: City Engineer  
Victor C. Ramirez, P.E.  
Director of Engineering and Building

Drawing Name: **DRIVEWAY NON-RESIDENTIAL APPROACH**

Drawing Number: **RD-01a**  
Date: 6/1/2007  
Drawn: EM  
Checked: LZ

CRYSTAL LAKE ILLINOIS Engineering Division



PIPE SIZE	TEEP PLUS	8"	45"	21.1/2"	11.1/4"
6	4	2	1	1	1
8	6	4	3	1	1
10	7	5	3	2	1
12	8	6	4	3	2
14	12	9	6	4	3
16	15	12	7	5	3
18	18	15	9	5	4
24	40	30	15	10	5

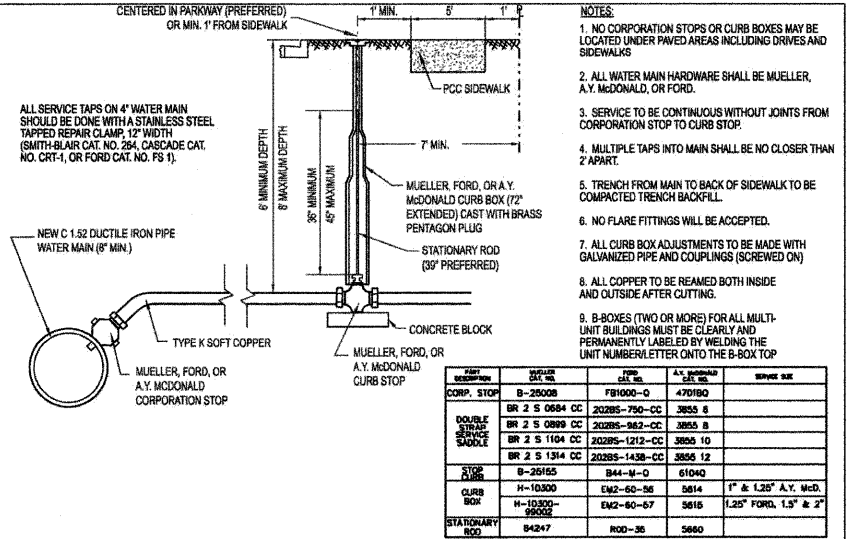
- NOTES:
1. ALL BLOCKING SHALL BE POURED CLASS SI CONCRETE AGAINST UNDISTURBED EARTH.
  2. ALL BENDS OR ELBOWS GREATER THAN 11 1/4" SHALL HAVE THRUST BLOCKING. FORM AS TO NOT COVER BOLTS.
  3. IN LIEU OF THRUST BLOCKING "MEGALUG" (EBA) JOINT RESTRAINTS OR APPROVED EQUAL CAN BE USED AS APPROVED BY THE ENGINEER.

Approved: City Engineer  
Victor C. Ramirez, P.E.  
Director of Engineering and Building

Drawing Name: **THRUST BLOCK INSTALLATION**

Drawing Number: **UW-03**  
Date: 4/15/2007  
Drawn: EM  
Checked: JN

CRYSTAL LAKE ILLINOIS Engineering Division



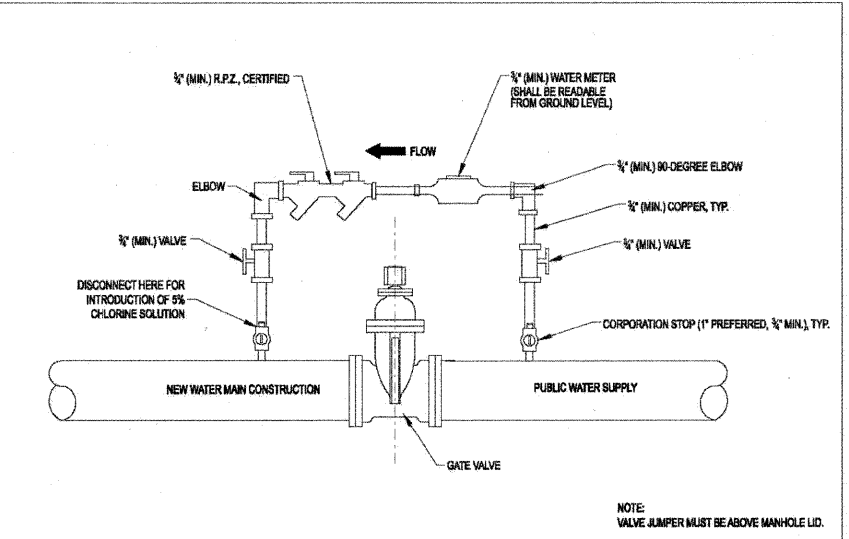
PIPE SIZE	TYPE	MANUFACTURER	ITEM NO.	QTY	REMARKS
8"	COMP. STOP	B-28308	FR1000-C	4/10/00	
8"	DOUBLE SERVICE SADDLE	BR 2 S 0884 CC	20285-790-CC	3853 8	
8"	DOUBLE SERVICE SADDLE	BR 2 S 0889 CC	20285-863-CC	3853 8	
8"	DOUBLE SERVICE SADDLE	BR 2 S 1194 CC	20285-1219-CC	3850 10	
8"	DOUBLE SERVICE SADDLE	BR 2 S 1314 CC	20285-1438-CC	3855 12	
8"	STOP	B-26155	B44-M-C	61040	
8"	CURB BOX	H-10300	EM2-60-56	6614	1" & 1.25" A.Y. W.D.
8"	CURB BOX	H-10300-99002	EM2-60-67	6616	1.25" FORD, 1.5" & 2"
8"	STATIONARY ROD	D4247	ROD-35	5860	

Approved: City Engineer  
Victor C. Ramirez, P.E.  
Director of Engineering and Building

Drawing Name: **WATER SERVICE INSTALLATION**

Drawing Number: **UW-04**  
Date: 4/15/2007  
Drawn: EM  
Checked: JN

CRYSTAL LAKE ILLINOIS Engineering Division



Approved: City Engineer  
Victor C. Ramirez, P.E.  
Director of Engineering and Building

Drawing Name: **WATER VALVE JUMPER**

Drawing Number: **UW-05**  
Date: 4/15/2007  
Drawn: EM  
Checked: JN

CRYSTAL LAKE ILLINOIS Engineering Division

NOTE: THESE CITY DETAILS ARE ALSO LOCATED ON THE CITY OF CRYSTAL LAKE WEBSITE.