

PRESSURE TEST		2-HOUR		24-HOUR	
TOTAL LENGTH OF MAIN (FEET)					
PIPE DIAMETER (INCHES)					
TEST PRESSURE (PSI)					
TOTAL ALLOWABLE LEAKAGE IN ONE HOUR (GALLONS)					
TOTAL ALLOWABLE LEAKAGE IN TIME FRAME (GALLONS)					

CALCULATION FOR ACTUAL WATER VOLUME LOSS		2-HOUR		24-HOUR	
SURFACE AREA OF SUPPLY VESSEL (FEET)					
MAXIMUM ALLOWABLE DROP IN WATER LEVEL (FEET)					
ACTUAL DROP IN WATER LEVEL (FEET)					
GALLONS					
INITIAL METER READING					
24TH HOUR METER READING					
TOTAL ALLOWABLE LEAKAGE (GALLONS)					
ACTUAL LEAKAGE (GALLONS)					
PASS OR FAIL					

PROJECT NAME: _____

CONTRACTOR: _____

WITNESS: _____

LINE PRESSURIZED DATE: _____ TIME: _____ AM / PM

LINE TESTED DATE: _____ TIME: _____ AM / PM

LOCATION DIAGRAM:

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

Drawing Name: **WATER MAIN TEST REPORT**

Drawing Number: **UW-09**

Date: 4/11/2007

Drawn: EM Checked: LZ

CRYSTAL LAKE ILLINOIS Engineering Division

CITY OF CRYSTAL LAKE WATER MAIN CHLORINATION SPECIFICATIONS:

- DISINFECTION OF WATER MAINS SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION, CURRENT EDITION
- THE CITY ENGINEERING DIVISION AND WATER DIVISION SHALL BE NOTIFIED 48 HOURS IN ADVANCE FOR SCHEDULING OF ANY TESTING CHLORINATING, FLUSHING, OR SAMPLING.
- ONLY CITY WATER DIVISION PERSONNEL MAY OPERATE WATER VALVES ON LIVE MAINS.
- A WATER VALVE JUMPER IS REQUIRED TO MAINTAIN PRESSURE ON THE CHLORINATED LINES DURING THE SAMPLING PROCEDURE FOR PROPER INSTALLATION AND REQUIREMENTS SEE THE STANDARD WATER VALVE JUMPER DETAIL.
- WATER MAINS SHALL BE FLUSHED WITH A MINIMUM VELOCITY OF 2.5 FPS.
- THE INITIAL CHLORINE CONCENTRATION SHALL BE 50 mg/L WITH A MINIMUM 24 HOUR RESIDUAL OF 25 mg/L.
- THE METHOD OF CHLORINE APPLICATION SHALL BE APPROVED BY THE CITY:
 - LIQUID CHLORINE W/CHLORINATING DEVICE WITH BACKFLOW PREVENTER.
 - CHLORINE BEARING COMPOUNDS IN WATER.
 - TABLET DISINFECTION.
- ALL NEW VALVES AND HYDRANTS SHALL BE OPERATED WHILE LINE IS BEING CHLORINATED.
- THE CITY ENGINEERING DIVISION SHALL DETERMINE LOCATION AND QUANTITY OF CORPORATION STOPS FOR FLUSHING AND CHLORINATING.
- THE FINAL FLUSHING RESIDUAL IN THE NEW CHLORINATED LINES SHALL BE BETWEEN 0.2 AND 2.0 mg/L.
- ALL WATER SAMPLES SHALL BE COLLECTED ON TWO (2) CONSECUTIVE DAYS AND PASS BACTERIOLOGICAL TEST RESULTS. IN THE EVENT THAT THE FIRST SET OF SAMPLES TAKEN TWO (2) CONSECUTIVE DAYS APART FAIL TO PASS, ANOTHER SET OF SAMPLES MAY BE TAKEN TWO (2) DAYS APART (PER STATE SPECS). IF THE SECOND SET FAILS TO PASS TESTING, THEN THE PROCEDURE MUST BE REPEATED WITH THE MAIN BEING RECHLORINATED, REFRESHED, AND RESAMPLED.
- STATE CERTIFIED LAB MUST BE USED FOR SAMPLES.

CHLORINE REQUIREMENTS TO PRODUCE 50 mg/L CONCENTRATION IN 100 FEET OF PIPE-BY DIAMETER

PIPE SIZE IN INCHES	100% CHLORINE, LB.	1% CHLORINE SOLUTION, GALS.
4	0.027	0.33
6	0.061	0.73
8	0.108	1.30
10	0.170	2.04
12	0.240	2.88

NUMBER OF 5-GRAIN HYPOCHLORITE TABLETS REQUIRED FOR A DOSAGE OF 50mg/L PER LENGTH OF PIPE SECTION

PIPE SIZE IN INCHES	LENGTH OF PIPE SECTION IN FEET				
	UP TO 13	18	20	30	40
2	1	1	1	1	1
4	1	1	2	2	2
6	2	2	3	3	4
8	2	3	5	5	6
10	3	5	7	7	9
12	5	6	10	10	14

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

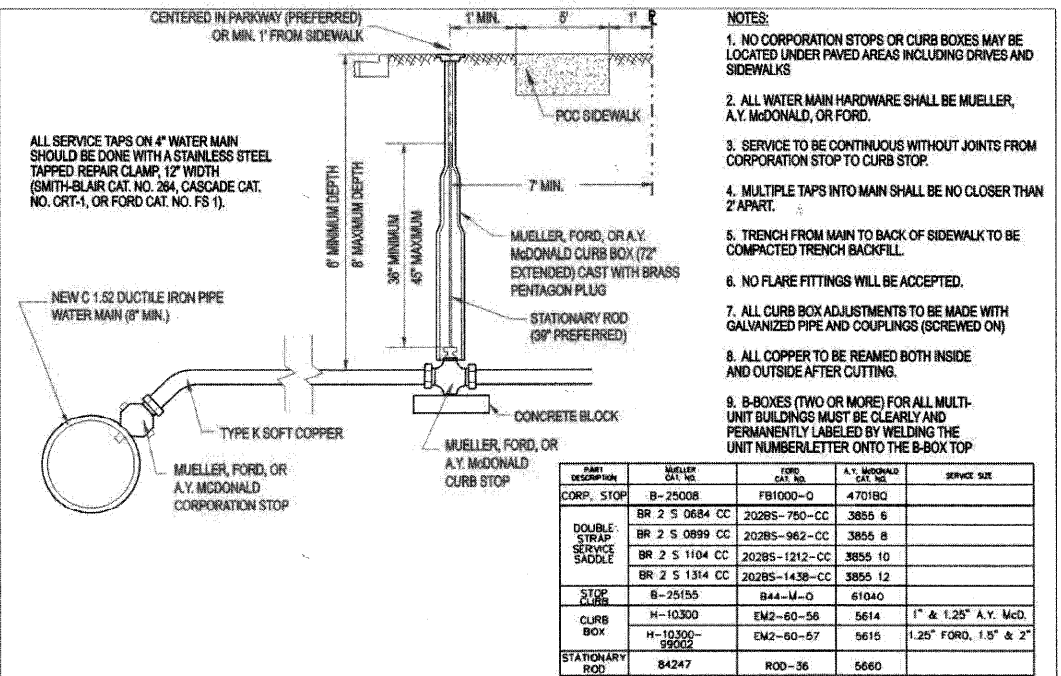
Drawing Name: **CHLORINATION SPECIFICATIONS**

Drawing Number: **UW-08**

Date: 4/15/2007

Drawn: EM Checked: LZ

CRYSTAL LAKE ILLINOIS Engineering Division



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

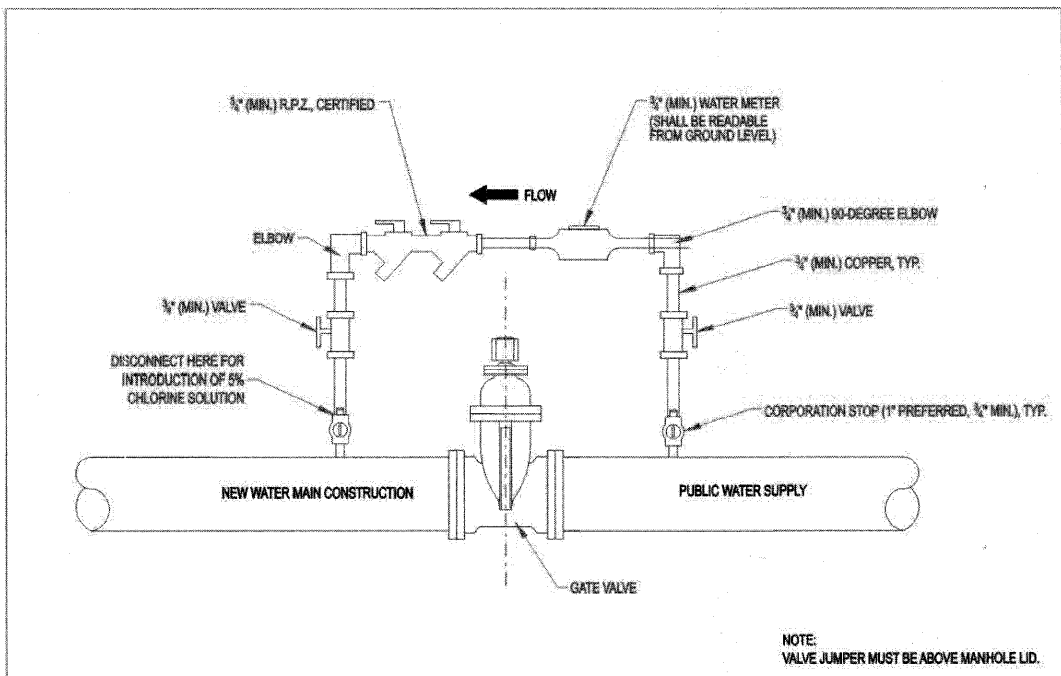
Drawing Name: **WATER SERVICE INSTALLATION**

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.*
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

REVISIONS	
NAME	DATE

MCHENRY COUNTY DIVISION OF TRANSPORTATION
WALKUP ROAD F.A.U. 0085

WATER MAIN DETAILS
SHEET 2 OF 2

SCALE: N.T.S. DRAWN BY: RJS
DATE: 04/15/11 CHECKED BY: MCD

TENG

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
265 S. MCCORMICK AVE. CHICAGO, IL 60601
TELEPHONE: 773-688-8000

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