

# **City of Chatsworth Water Works Commission**

## **Water Specifications**

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**INFORMATION AND DATA SHEET**

Department of Natural Resources  
Environmental Protection Division  
Floyd Towers East,  
Suite 1362  
2 MLK Jr. Dr.  
Atlanta, Georgia 30334

Gentlemen:

The following data is submitted for your review and approval for addition to the City of Chatsworth Water Supply System.

Project Name: \_\_\_\_\_

Project Location: \_\_\_\_\_

Land Lot: \_\_\_\_\_ District: \_\_\_\_\_

Developer: \_\_\_\_\_

Type of development: \_\_\_\_\_

Number of units: \_\_\_\_\_

Number of units previously approved but not yet constructed: \_\_\_\_\_

Required fire flow: \_\_\_\_\_ gpm (Not an EPD Requirement)

Flow Test Information

Static Pressure: \_\_\_\_\_ psi at \_\_\_\_\_ ft. elevation

Maximum elevation in development: \_\_\_\_\_ ft.

Flow available: \_\_\_\_\_ gpm at \_\_\_\_\_ psi residual

Size of water main at point of tie-in to project:

Date of flow test: \_\_\_\_\_

The Chatsworth Water Works Supply System can sufficiently supply the requirements of this subdivision as well as those previously approved and not yet constructed.

Water main material and size within the project area are adequate to meet minimum pressure requirements of 20 psi at peak demand.

The water system will be owned, operated and maintained by The Chatsworth Water Works Supply System.

Wastewater for this project will be handled by (check one):

- Septic Tank
- Sewer System

Very truly yours,

\_\_\_\_\_  
Title: General Manager

## **WATER**

(a) Pipe

Ductile Iron - Class 50 sizes 6" and above.  
- Class 51 sizes 3" and 4".

Polyvinyl Chloride – Class 200 (DR-21)

All fittings shall be M.J. -D.I. or cast iron.

(b) Valves

Gate valves 2 1/2" and smaller shall be solid wedge, bronze type rated for 175 psi working, pressure. 3" and larger AWWA C 500 "O" Ring, working pressure 200 psi. Valves shall be City Standard as manufactured by Mueller Company or M & H Valve and Fitting Company.

(c) Valve Boxes

Valve boxes shall be cast iron, heavy roadway type, two piece with drop covers.

(d) Hydrants

Hydrants shall be per AWWA C-502. Hydrants shall be City Standard as manufactured by Mueller Company, M & H Valve and Fittings or American Darling. Two (2) 2-1/2" hose connections, one (1) 4-1/2" pumper connection. Four foot (4') depth of cover over leader pipe. Six inch (6") shoe connection. In addition all hydrants must have tamper proof tops.

(e) Concrete Blocking

The Contractor shall furnish all materials and perform all labor as necessary for installing concrete blocking for fittings, including elbows, tees, and other fittings as shown on the drawings and/or specified herein.

Concrete blocking shall be formed and poured at the backs of fittings, including elbows, tees, and other fittings as shown on Drawings and as directed by the Engineer. Concrete mix shall be 1:2-1/2:3-1/3, and have a compressive strength of not less than 2500 psi after 28 days. Blocking shall be poured against undisturbed earth.

(f) Customer Service Connections

- (1) Corporation Stops: Shall have standard corporation stop thread conforming to AWWA Standard C-800 on the inlet end with compression pattern flared tube couplings for connections to goosenecks.
- (2) Goosenecks: Copper tubing for goosenecks shall conform to the applicable requirements to ASTM Standard B-88, type K, annealed.
- (3) Copper Tubing: Shall conform to ASTM Standard B-88, type K, annealed.
- (4) Service Stops: Shall be water-works inverted-ground-key type, round flow way, tee handle, without drain. All parts shall be of bronze with compression-pattern flared tube couplings, and shall be designed for hydrostatic test pressure not less than 200 psi.

- (5) Water Meters: Shall be the displacement type conforming to AWWA Standard C-700 with bronze main case, high density synthetic polymer measuring chamber, reinforced hard rubber oscillating piston or disc polycarbonate plastic register box and cast iron or bronze bottom plate. Maximum operating pressure shall not be less than 150 psi. Meters shall be 5/8" x 3/4" or 5/8'1 x 1/2".
- (6) Meter Boxes: Shall be of cast iron construction. The body of box shall be oval and have an open bottom. The cover shall have the words "Water Meter" cast into the top.

(g) Testing

When a section of pipe of a length deemed adequate is ready for testing, the line shall be thoroughly blown free from air and a leakage test made. Wherever conditions will permit, pipelines shall be tested before the trench is back-filled. All joints then shall be examined during open trench test and all leaks entirely stopped. A test pump, and means for accurate measurement of water introduced into a line during testing, shall be furnished. Furnish and install corporation stops at all high points in the line as required for blowing lines free from air and at the test pump location.

- (1) Temporary Bulkheads: Furnish, install and remove all temporary bulkheads, flanges or plugs, to permit the required pressure tests. Furnish all equipment and labor to properly carry out such test and to replace defective material.
- (2) Test Pressure and Leakage: Test pressures shall be 200 pounds per square inch. Leakage allowed during the test per thousand feet of pipe shall be:

Inches	Gal/Hr.
4	0.43
6	0.64
8	0.85
10	1.06

Minimum test period shall be two (2) hours; however, if, additional testing is required, such additional testing shall be performed.

- (3) Defective Materials and Workmanship: Any cracked or broken material, such as pipe, fittings, valves or hydrants shall be removed and replaced with sound pieces. Joints which leak shall be carefully remade. Remade joints and replaced material shall be re-tested under the same conditions of operation. If joints or materials are then found to be defective, they shall be remade and replaced until the line passes the required test.

(h) Sterilization

All pipelines and all appurtenances including house service connections which have been exposed to contamination by reason of this construction shall be sterilized before being placed in service.

Pipelines shall remain filled for a 24-hour period with a solution of water and HTH or chlorine in amounts equivalent to at least the following quantities for each 100 feet of pipe.

Pipe Size	Oz. of HTH
6"	2
8"	3
10"	4
12"	6
16"	10

Not less than one ounce of HTH shall be used, per hundred feet, for all mains, sizes 2" and smaller, and the above quantities shall be increased if necessary to secure a chlorine residual of 50 parts per million after 24-hours.

The Developer shall obtain bacteriological analysis of samples of water taken from the distribution system which are satisfactory to the Owner, before the lines will be accepted.

Furnish all HTH of liquid chlorine required for sterilization. Furnish all equipment and labor required for the work, and provide for the bacteriological test.

(1) Flushing: Upon completion of the sterilization, all mains and piping shall be thoroughly flushed before placing in service. All highly chlorinated water used for disinfection of the water lines must be disposed of in accordance with Rules and Regulations of the Georgia Environmental Protection Division.

(i) Installation of Pipelines

Pipe shall be installed with a minimum of four feet (4') cover; ditch line shall be on a straight even grade with no peaks or valleys. Sufficient excavation shall be made for pipe bells. Ditch bottoms shall be fine graded. Ditch in rocky areas shall be undercut and the pipe bedded in at least six inches (6") of crushed stone, gradation 1167. Selected backfill consisting of finely divided earth, sand, stone dust, or crushed stone shall be placed and tamped about and over the pipe (in six inch (6") layers) up to a height of at least twelve inches (12") above the top of the pipe barrel.

Before replacing the remaining backfill on PVC pipe, detectable marking tape, imprinted with the words "BURIED WATER", as manufactured by Reef Industries, Inc. Allen Systems, Inc. or equal shall be placed in the ditch for the entire length of pipe line installed. Tape for pipe smaller than six inches (6") shall be two inches (2") in width, tape for pipe six inches (6") and larger shall be six inches (6") in width.

In addition to the above, a detector wire (minimum of 12 gauge coated copper) will be installed in the bottom of the pipe trench before installation of the water pipe. The wire will be looped around all valves, hydrants, etc., to form a continuous feed through the entire pipe line installation.

General Backfill material may be used to fill the remainder of the ditch except that no rock will be permitted to be mixed with backfill material. Backfill material shall be placed in six inch (6") layers with each layer thoroughly compacted with heavy-duty tampers. Wheel loading will not be permitted until the pipe has a minimum cover of thirty-six inches (36").

New water lines must be back 5 feet of street right-of-way.

All services across a road must be put in conduit (2 inch).