

ORDINANCE NO. 284

AN ORDINANCE FOR PLACING WATER LINES AND WASTE WATER LINES INTO SERVICE IN THE CITY OF BARLING, ARKANSAS

WHEREAS, the City of Barling has the duty to operate various water lines and waste water lines located in the area formerly known as Fort Chaffee; and

WHEREAS, these water lines and waste water lines require special rules and regulations adopted because of their age and condition; and

WHEREAS, the City of Barling desires these rules and regulations to be uniformly applicable to all parts of the City of Barling.

NOW THEREFORE BE IT ORDAINED AND ENACTED BY THE BOARD OF DIRECTORS OF THE CITY OF BARLING, ARKANSAS THAT:

SECTION 1. Placing Water lines Into Service.

A. Performing Tests. The owner or developer of the property requesting the water line to be placed into service and accepted for maintenance by the City shall be responsible for providing all materials, equipment, and labor and performing all work required for all tests and repairs on the water line prior to the water line being placed into service. All tests shall be performed in the presence of City personnel. All tests must be successfully performed before a water line can be placed into service and accepted for maintenance by the City.

B. Pressure Tests. The water line is to be pressure tested over a 2-hour period at a minimum pressure of 1.5 times the static pressure. The loss of water during the 2 hour test shall not exceed 0.3 gallons per inch diameter per 1,000 feet of pipe.

C. Flushing. The water line is to be flushed at a minimum velocity of 3.5 feet per second until there is no visible particles in the water or no visible discoloration of the water being flushed. The pipe or opening in which the flush water is being discharged through shall have a minimum diameter of 33% of the main line pipe size.

D. Pigging. Where required by the City or if the flush water does not clear within 30 minutes, a "pig" consisting of a cylinder with wire brushes attached, shall be forced through the water line under pressure. The water line shall be pigged until the discharge from the water line is clear.

E. Disinfection. The water line shall be disinfected with a chlorine solution at a minimum concentration of 50 mg/l for a minimum period of 24 hours. The chlorinated water shall be flushed from the lines and samples collected and submitted to the Arkansas Department of Health for bacteriological analysis. The water samples shall successfully pass the bacterial tests for 2 successive days. Where the water samples fail the bacteriological tests, the disinfection process shall be repeated.

F. Barnacles. Where an abandoned water line contains barnacles or nodules to the extent that it reduces the diameter more than 15%, the pipeline shall be reamed and lined with cement mortar prior to being placed into service.

SECTION 2. Placing Waste Water lines Into Service.

A. The owner or developer of the property requesting the waste water line to be placed into service and accepted for maintenance by the City shall be responsible for providing all materials, equipment, and labor and performing all work required for all tests and repairs on the waste water line prior to the water line being placed into service. All tests shall be performed in the presence of City personnel. All tests must be successfully performed before a waste water line can be placed into service and accepted for maintenance by the City.

B. Air Test Pipe. All waste water pipe to be placed into service shall be air tested. The air test shall be made by sealing off the waste water line segment between two manholes. Air shall be added to the waste water line segment until the pressure has reached 4.0 psi. The air supply shall be disconnected and the pressure shall be allowed to stabilize from 2 to 5 minutes.

After the air pressure is stabilized, the pressure shall be adjusted to 3.5 psi. The amount of time it takes for the air pressure to drop from 3.5 to 3.0 psi shall be recorded. If the recorded time is less than the time shown on the following table, the pipe will have failed the test and appropriate corrective actions will be required.

<u>Pipe Size</u>	<u>Time</u>	<u>Pipe Size</u>	<u>Time</u>
4 in	2.5 min	12 in	7.5 min
6 in	4.0 min	15 in	9.5 min
8 in	5.0 min	18 in	11.5 min
10 in	6.5 min	21 in	13.5 min

When the prevailing groundwater is above the waste water line being tested, air pressure shall be increased 0.43 psi for each foot the water table is above the flow line of the pipe. Building laterals shall be considered part of the lateral to which they are connected and no adjustment of test time shall be allowed to compensate for the smaller diameter of the building laterals.

All air testing equipment shall be supplied by the owner or developer. The pressure gage shall have a maximum pressure reading of 30 psi, shall have minimum divisions of 0.10 psi, and shall have an accuracy of 0.04 psi. Accuracy and calibration of the gage shall be certified by a reliable testing firm at 6-month intervals or when requested by the City. Owner or developer shall, at this own expense, locate and repair defective pipe and/or joints until the air test is within the specified allowances.

C. Deflection Test. All PVC gravity pipe that is to be placed into service shall be tested for deflection. The deflection testing device shall be a ball, cylinder, or other approved shape which will prove the actual diameter of the pipe. It must not change shape or size when subjected to force from the pipe walls. The diameter of the

device shall be equal to 92.5% of the average inside diameter of the pipe in an unloaded condition.

The testing device shall be pulled through the entire length of pipe that is to be placed into service. If the device sticks in the pipe at any point, the pipe shall be repaired and retested. For acceptance, the device must pass through the entire section of line between structures in one pass without the use of excessive force.

D. Cleaning. All wastewater pipe that is to be placed into service shall be cleaned and flushed to remove all dirt and foreign material. The cleaning and flushing shall proceed from upstream to downstream. Only one section of pipe between two manholes shall be cleaned at a time. The downstream pipe at a manhole is to be plugged while the upstream section is being cleaned.

E. Vacuum Test Manholes. A vacuum test shall be performed on each manhole that is to be placed into service in accordance with ASTM C-1244. All pipes connected to the manhole are to be temporarily plugged. A metal cover, with suitable gasket, shall be placed over the top of the manhole frame. The cover shall be provided with valved pipe connections for attaching the vacuum pipe and a vacuum gage reading inches of mercury or psi. A vacuum pump shall apply a vacuum of 10 inches of mercury (5 psi). The time it takes for the vacuum to drop to 9 inches of mercury (4.5 psi) shall not be greater than the value listed in the following table. If the manhole fails, the suitable repairs shall be made and the manhole retested until a satisfactory test is obtained.

MINIMUM TEST TIME FOR MANHOLD VACUUM TEST

Depth (in feet)	Manhole Inside Diameter (in inches)								
	30	33	36	42	48	54	60	66	72
	Time (in seconds)								
8	11	12	14	17	20	23	26	29	33
10	14	15	16	21	25	29	33	36	41
12	17	18	21	25	30	35	39	43	49
14	20	21	25	30	35	41	45	51	57
16	22	24	30	34	40	46	52	58	67
18	25	27	32	38	45	52	69	65	73
20	28	30	35	42	50	53	66	72	81
22	31	33	39	46	55	64	72	79	89
24	33	36	42	51	59	64	78	87	97
26	36	39	46	55	64	75	85	94	105
28	39	42	49	59	69	81	91	101	113
30	42	45	53	63	74	87	98	108	121

F. Raise Manholes. Where the top of the existing manhole is in a flood plain, drainage channel, low area, depression, or otherwise subject to the intrusion of storm water through the top of the manhole, the top of such manhole shall be raised to an elevation that is above the storm water elevation.

SECTION 3. Validity.

A. All Ordinances and parts of Ordinances in conflict with this Ordinance are hereby repealed.

B. Should any portion of this Ordinance be unconstitutional or invalid and so declared by a Court of competent jurisdiction, then the remainder of this Ordinance, and any remaining applications of this Ordinance, shall not be affected by such partial unconstitutionality or invalidity.

C. Emergency Clause. It is hereby determined and declared that an emergency exists by reason of the necessity of establishing reasonable procedures for the placing of water lines and waste water lines in service in the area of the City formerly known as Fort Chaffee (and the entire City of Barling) and that the immediate effect of the provisions of this Ordinance are necessary to preserve the health, safety, and welfare of the inhabitants of the City of Barling, Arkansas so that it is hereby declared and determined that this Ordinance shall be in full force and effect as of the date of its adoption.

PASSED AND APPROVED THIS 24TH DAY OF APRIL, 2001.



PAUL RIVALDO, Mayor

ATTEST:



CHERYL MARTIN, City Clerk

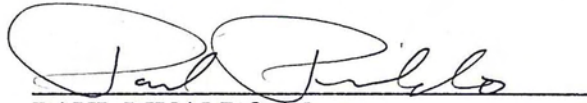
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