



Clark County Building and Fire Prevention Field Inspection Division FIELD INSPECTION GUIDELINE

Division:	Inspections	Policy & Procedure:	FIG-P-009
Subject:	Onsite Building Sewer Test	Effective Date:	10/01/2020
Code:	2018 Uniform Plumbing Code, Section 723.0	Revised Date:	
Proposed:	Matthew Brewer	Approved:	Sam Palmer

Interpretation:

Section 723 of the 2018 UPC allows water testing or low-pressure air testing of the building sewer. This field Inspection guideline is to establish inspection procedure for the building sewer and promote consistency between this and other agencies.

Field Application:

All building sewers shall have a visual inspection to verify: pipe size, material, alignment, slope, and bedding.

All building sewers shall be tested. 2018 UPC requires the building sewer to be water tested by plugging the end of the building sewer at its points of connection with the public sewer or private sewage disposal system and completely filling the building sewer with water from the lowest to the highest point thereof. Shorter sections of the building sewer can be tested in this same manner, until the entire system is tested

Alternatively building sewers may be low-pressure air-tested for leakage **ONLY If low pressure testing is allowed by the pipe manufacture, and only after the initial backfill has been placed.** The pipe sections shall be backfilled to prevent damage should any portion of the piping or fittings rupture when air is applied to the system. Testing shall conform to ASTM F 1417 and C 828 Low Pressure Air Testing Procedure for Gravity Sewer. Tests will be conducted by the contractor, with contractor furnished equipment and witnessed by the plumbing inspector. The Contractor shall seal off the section of pipe to be tested at each manhole connection and test plugs shall be securely braced within the manholes. **UNDER NO CIRCUMSTANCES SHOULD WORKERS BE ALLOWED TO BE PRESENT IN THE CONNECTING MANHOLES OR NEAR TO THE SEWERS BEING TESTED WHILE A PRESSURE TEST IS BEING CONDUCTED.** Add air slowly into the test section, after an internal pressure of 4.0 psig is obtained, allow internal air temperature to stabilize. After stabilization period, adjust the internal air pressure to 3.5 psig, disconnect the air supply and begin timing the test. Time required for the pressure to decrease from 3.5 psig to 2.5 psig shall not be less than time shown for given length/diameter in the following table.

Pipe Dia. Inches	Length for Min Time in feet	Minimum test Time (Min:Sec)	Added time for each additional foot of pipe (Seconds)
4	597	3:46	.380
6	398	5:40	0.855
8	298	7:33	1.5120
10	239	9:27	2.374
12	199	11:20	3.419
15	159	14:10	5.342
18	133	17:00	7.693
21	114	19:50	10.471
24	99	22:40	13.676
27	88	25:30	17.309
30	80	28:20	21.369
33	72	31:10	25.856

If there has been no leakage (zero psig drop) after one hour of testing, the test section shall be accepted and the test complete.

The minimum time allowable for the pressure to drop from 3.5 psig to 2.5 psig during a joint test, regardless of pipe size, shall be 10 seconds.