



OCEAN CITY FIRE MARSHAL'S OFFICE
301 Baltimore Avenue, Ocean City, MD 21842
410-289-8780

MEMORANDUM

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| Subject: Underground Water Supply for Water-Based Fire Protection Systems – Plan Review & Testing Requirements | Memo #: 2004-001 |
| | Effective: June 7, 2004 |
| Authority: Deputy Chief S.E. Villani, Jr., Fire Marshal | Internal (FMO Staff) |

The following memo serves to clarify the scope and requirements of the Ocean City Fire Marshal's Office in respect to plan review and testing requirements of underground water supplies to water-based fire protection systems. This memo shall apply to all underground piping on the system side of the water meter connection, up to the base of the fire protection system riser.

PLAN REVIEW REQUIREMENTS

Per letter dated June 7, 2004, sent to all contractors submitting plans to this office for underground fire service mains, the following requirements shall be strictly adhered to for the submittals of underground fire service mains.

Working plans/shop drawings shall be submitted for approval by this office before any equipment is installed. Any deviation of plans shall be approved by this office.

The following information must be documented on, or submitted with plans or they will not be reviewed or approved, and will be returned to the submitting party as DENIED- DUE TO LACK OF INFORMATION. A copy of this memo should accompany any returned plans denied for this reason:

1. Name of building owner
2. Location of building, including street address
3. Point of compass
4. Underground pipe size
5. Underground pipe type
6. Underground pipe length
7. Point of connection to city main
8. Type of valves
9. Depth the pipe is laid below ground
10. Location of any thrust blocks and the material used
11. Specs on backflow prevention device(s) (Must be listed for fire protection service)
12. Shop drawings shall be drawn to scale and include equipment cut sheets and design calculations.
13. Three (3) sets of drawings and spec/cut sheets shall be submitted to this office for review

14. All drawings shall be in accordance with the appropriate National Fire Protection Association (NFPA) Standard.

Please be advised that all information listed above must be provided prior to plans being approved by this office.

TESTING REQUIREMENTS

Testing shall be conducted in the presence of a representative of this office, and it is the responsibility of the installing contractor to notify this office to schedule an inspection and flush of underground private fire service mains.

Inspections and witnessing of flush tests by this office will only be conducted on complete systems.

Water supply piping serving NFPA 13D sprinkler systems:

1. Piping is not required to be listed for fire protection service, however, must meet pipe/tube standards (ANSI/ASTM) referenced in NFPA 13D.
2. Piping is not required to be hydrostatically tested, but is recommended.
3. All underground piping is to be flushed prior to connection to aboveground sprinkler piping.
4. Pipe size and specs, depth of cover, protection, etc. shall be inspected by the AHJ at time of flush.
5. Installing contractor to provide material and test certificate for Underground piping to AHJ.

Water supply piping serving NFPA 13R sprinkler systems:

1. Piping is not required to be listed for fire protection service, however, must meet pipe/tube standards (ANSI/ASTM/AWS) referenced in NFPA 13R.
2. All piping and attachments are to be hydrostatically tested at 200 psi for 2 hours.
3. All underground piping is to be flushed prior to connection to aboveground sprinkler piping.
4. All thrust blocks, pipe size and specs, depth of cover, protection, etc. shall be inspected by the AHJ at time of hydrostatic test and flush.
5. Installing contractor to provide material and test certificate for Underground piping to AHJ.

In special situations where 13D or 13R systems may encounter working system pressures in excess of common residual street pressures, listing and testing requirements will be modified to account for this issue, on a case-by-case basis.

Water supply piping serving NFPA 13 sprinkler systems:

1. All piping to be listed for fire protection service or comply with AWWA/ASTM standards as referenced in NFPA 13.
2. All piping and attachments are to be hydrostatically tested at 200psi for 2 hours.
3. All underground piping is to be flushed.
4. Installing contractor to provide material and test certificate for Underground piping to AHJ.

5. All thrust blocks, pipe size and specs, depth of cover, protection, etc. shall be inspected by the AHJ at time of hydrostatic test and flush.

Underground fire service mains that are independent of supply to water based fire protection systems (ie. supplying private hydrant systems) shall be inspected in accordance with NFPA 24 and/or NFPA 13, as appropriate, and as adopted by the Ocean City Fire Prevention Code.

Backflow prevention devices, while not inherently an appurtenance of the fire sprinkler system, shall be hydrostatically tested at final building hydrostatic test, at the same pressure and duration as the above ground piping of the appropriate fire sprinkler system.

The appropriate completed material and test certificate for Underground piping is to be submitted at the completion of said test. Failure to provide Test Certificates at the time of test will result in failure of test, in which case the test must be rescheduled.