

APPENDIX 2

Augusta County Fire Protection Design Policy

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Purpose:

The purpose of this policy is to set forth general procedures regarding the implementation of Chapter 24 of the Code of Augusta County as it relates to Fire Protection.

General Policy:

1. Fire Hydrants

The Fire Chief shall have the authority to require the installation of fire hydrants as deemed necessary to have water available for firefighting purposes prior to the use of combustible materials in construction being commenced on any floor above the first or ground floor level. Such hydrants shall be accessible to firefighting apparatus at the time they are installed and at all times thereafter. The need for such fire hydrants will be determined by the use and size of the structure involved in accordance with Chapter 24-2 of the Augusta County Code. The number of fire hydrants, their placement, and the desired fire flow shall be determined by the standards and specifications of this Policy and the Augusta County Service Authority (ACSA) Design and Construction Standards.

A. Hydrant Design and Placement

- i. Fire hydrants shall be generally located at street intersections and at the ends of streets ending in cul-de-sacs. Fire hydrants shall not be installed on lines less than 6 inches in diameter.
- ii. Fire hydrants shall be connected only to water systems adequately designed for fire flows and domestic flow.
- iii. The separation between fire hydrants shall generally be as follows:
 1. Single family detached developments shall be 600 feet to 800 feet maximum.
 2. Townhouses, apartment, commercial, office, industrial, and mixed-use developments shall be a maximum of 500 feet for industrial/heavy commercial and 800 feet for light commercial/residential.
 3. Additional hydrants may be required based on the type and density of construction.
- iv. The maximum distance measured along the centerline of the street or public right of way to the structure shall be as follows:
 1. Industrial Buildings – 250 feet
 2. Commercial and Office Buildings – 400 feet
 3. Churches and Schools – 400 feet

4. Apartments, Multi family, Townhouses – 350 feet
 5. Single Family Duplex – 400 feet
 6. Single family dwellings – 500 feet from lot line
 7. Mobile Home Parks – 500 feet
- v. Additional hydrants may be required as deemed necessary by the Augusta County Fire Chief.
 - vi. A fire hydrant shall be provided within 50 feet of the fire department connection or to any fire protection systems located within the building.
 - vii. Hydrants shall be installed in accordance with ACSA standards.
 - viii. Hydrants shall be located as follows:
 1. Curb and Gutter Streets: typically 3 feet from the face of the curb, but not less than 18 inches and not more than 12 feet behind the face of the curb, unless approved by the Fire Chief.
 2. Ditch Sections Streets: typically 6 feet from the edge of the shoulder, behind the ditch line, or as required by VDOT, but not more than 12 feet beyond the edge of the pavement, unless approved by the Fire Chief.
 - ix. If hydrants are to be located in an area of possible guardrail construction, plans should be checked for notes regarding possible obstruction.
 - x. No plantings or the erection of other obstructions shall be made within 5 feet of any fire hydrant, or within 10 feet of a fire department connection.
 - xi. In developments where no public water supply system is available, a dry fire hydrant or other means of fire protection may be required as determined by the Fire Chief. The dry fire hydrant shall be designed, constructed and located as approved by the Fire Chief.

B. Fire Hydrant Specifications

All fire hydrant design and installation shall be in accordance with the current standards as set forth by the ACSA, both on public or private streets and in easement areas.

- i. The 4 ½ inch steamer connection shall face the street, travel lane, service drive, fire lane or vehicular travel-way where accessible or as approved by the Fire Chief. The fire hydrant shall be un-obstructed on the street side.
- ii. Fire hydrants placed on streets without curb and gutter shall have the 2 ½ inch hose connection a minimum clearance of 5 feet from the side slopes or fixed objects.

- iii. The bottom of the safety flange shall be 2 inches above the elevation of the edge of the shoulder on the streets without curb and gutter and above the elevation of the curb on streets with curb and gutter.

2. Fire Department Connections

When fire suppression systems require a connection through which the fire department can pump water into the sprinkler, a standpipe or other system furnishing water for fire extinguishment makes a desirable auxiliary supply. For this purpose one or more fire department connections (FDC) shall be provided.

- A. There shall be no shutoff valve in the fire department connection
- B. In the fire suppression system, the fire service piping shall be installed in compliance with current NFPA Standards and the IBC Standards. NFPA allows for this piping to be installed in a vault or inside the structure.
- C. Fire department connections shall be on the street side of buildings and shall be located and arranged so that hose lines can be readily and conveniently attached to the inlets without interference from nearby objects including buildings, fences, posts or other obstructions.
- D. The height of the fire department connection shall be 36 inches from the ground surface to the operating features.
- E. Fire department Siamese connections shall be provided with breakaway caps at the time of installation to prevent vandalism and such caps will be maintained by the property owner.
- F. Fire department connections will be painted a contrasting color to the building or its surroundings.
- G. Specifications acceptable to the Augusta County Fire Chief for FDCs are found in the NFPA 24 Standards.
- H. Post Indicator Valves

Every connection from the fire service main to a building shall be provided with a listed indicating valve so located as to control all sources of water supply except fire department connections.

- i. Post Indicator Valves (PIV) shall be located not less than 40 feet from the buildings being protected.
- ii. The height of the PIV shall be 36 inches from the ground surface to the operating features.
- iii. The PIV shall be located within 15 feet of the FDC.
- iv. Tamper switches or monitoring in accordance with current NFPA Standards shall be provided on each PIV unless specifically waived by the Fire Chief.

- v. A PIV is not required in applications where tamper switches are provided on the outside screw and yoke (OS&Y) valves located within the building.
- vi. Specifications acceptable to the Augusta County Fire Chief for PIVs are found in the NFPA 24 Standards.