

Fire Prevention Code Policy

Office of the Fire Marshal • Roanoke Fire-EMS Department



Subject: Fire Department Connections

Date: April 3, 2020

Revision: A

Fire Marshal: David Guynn

Fire Chief: David Hoback

Purpose

Fire Prevention Code Policy documents are promulgated by the Office of the Fire Marshal of the Roanoke Fire-EMS Department, acting as the Fire Code Official for the City of Roanoke. This document is intended to provide guidance to stakeholders for compliance with the currently adopted edition of the City of Roanoke Fire Prevention Code (“the Code”) and compatibility with the standards and practices of the Roanoke Fire-EMS Department. In the event of a conflict with any provision of the currently adopted Code, the Code shall prevail.

Scope

This policy applies to:

- Construction of new buildings or structures within the City of Roanoke or buildings or structures for which a comprehensive plan review is otherwise required.
- Alterations of existing fire protection systems.
- Retroactive installation of locking fire department connection caps.

Authority/References

- City of Roanoke Fire Prevention Code, §912.2.2
- 2015 Uniform Statewide Building Code, §912

Policy

Fire Department Connections: General Policy

The Uniform Statewide Building Code delegates the authority to approve the location of fire department connections to the fire chief. In the City of Roanoke, the Fire Marshal or his/her designee is responsible for the approval of fire department connection locations. Fire department connection locations are reviewed during the comprehensive plan review and the fire protection system plan review. **Where fire department connection locations differ between the approved comprehensive plan and the approved fire protection system plan, the approved comprehensive plan location shall govern unless otherwise approved by the Fire Marshal or his/her designee. The fire protection designer has the responsibility of referring to the approved comprehensive plan during the fire protection system design and consulting with**

the Fire Marshal or his/her designee if changes from the approved comprehensive plan are required.

Fire Department Connections: Location

The following guidance applies to the location of fire department connections:

- Fire department connections shall, whenever practical, be located on the address side of the building.
- Fire department connections shall be located within 100 feet of a fire hydrant.
- Fire department connections serving a standpipe system or sprinkler connection shall be interconnected whenever practical.
- Where a Class I or III standpipe is installed, a minimum of two (2) remotely located fire department connections are required per standpipe zone in accordance with the current edition of NFPA 14.
- All fire department connections must serve all standpipes within the building or structure, and standpipes must be interconnected in accordance with Section 905 of the Uniform Statewide Building Code.

Any exceptions to this section must be approved by the Fire Marshal.

Fire Department Connections: Access

Unobstructed access to fire department connections must be provided at all times. The Fire Marshal or his/her designee must approve fire department connections located within fenced areas or in other areas with limited or restricted access. Access to fire department connections may require a designated fire apparatus access road, even where such road is not otherwise required.

Fire Department Connections: Physical Standards

Fire department connections within the City of Roanoke shall be equipped with at least one (1) 5-inch Storz sexless coupling with a 30-degree angled fitting. Threaded connections or Jones connections are not approved for new construction or renovation. Where multiple 5-inch Storz connections are required to support a fire protection system, each connection must be equipped with an individual check valve.

Freestanding fire department connections must be installed at no less than 32 inches and no greater than 48 inches above finished grade.

Building mounted fire department connections must be installed at no less than 18 inches and no greater than 48 inches above finished grade.

Where a fire department connection is subject to impact by a motor vehicle, impact protection shall be provided with guard posts as follows:

- Posts must be constructed of concrete-filled steel not less than 4 inches in diameter
- Posts must be spaced not more than 4 feet apart on center
- Posts must be set not less than 3 feet deep in a concrete footing not less than 15 inches in diameter

- Posts must be set with the top of the posts not less than 3 feet above finished grade
- Posts must provide at least 36” of working clearance around a fire department connection
- Posts must not impede the connection of hose

Fire Department Connections: Protective Locking Caps

All fire department connections installed as part of a new construction or renovation project shall be equipped with a 5” Storz locking cap to protect the integrity of the fire department connection.

The Fire Marshal or his/her designee is authorized to require retroactive installation of a Knox locking FDC cap in accordance with §912.4.1 of the Statewide Fire Prevention Code. This requirement shall be invoked when a building or structure located within the City of Roanoke has a second documented instance where a non-locking fire department connection cap is identified as missing or damaged.

The Fire Marshal or his/her designee is authorized to require the immediate retroactive installation of a Knox locking FDC cap when debris is visualized in a fire department connection or evidence of tampering exists that poses an immediate hazard to the building or its occupants.

Fire Department Connections: Signage

Fire department connections shall be identified by an approved sign mounted on the street front, on the side of the building, or directly adjacent to a freestanding fire department connection.

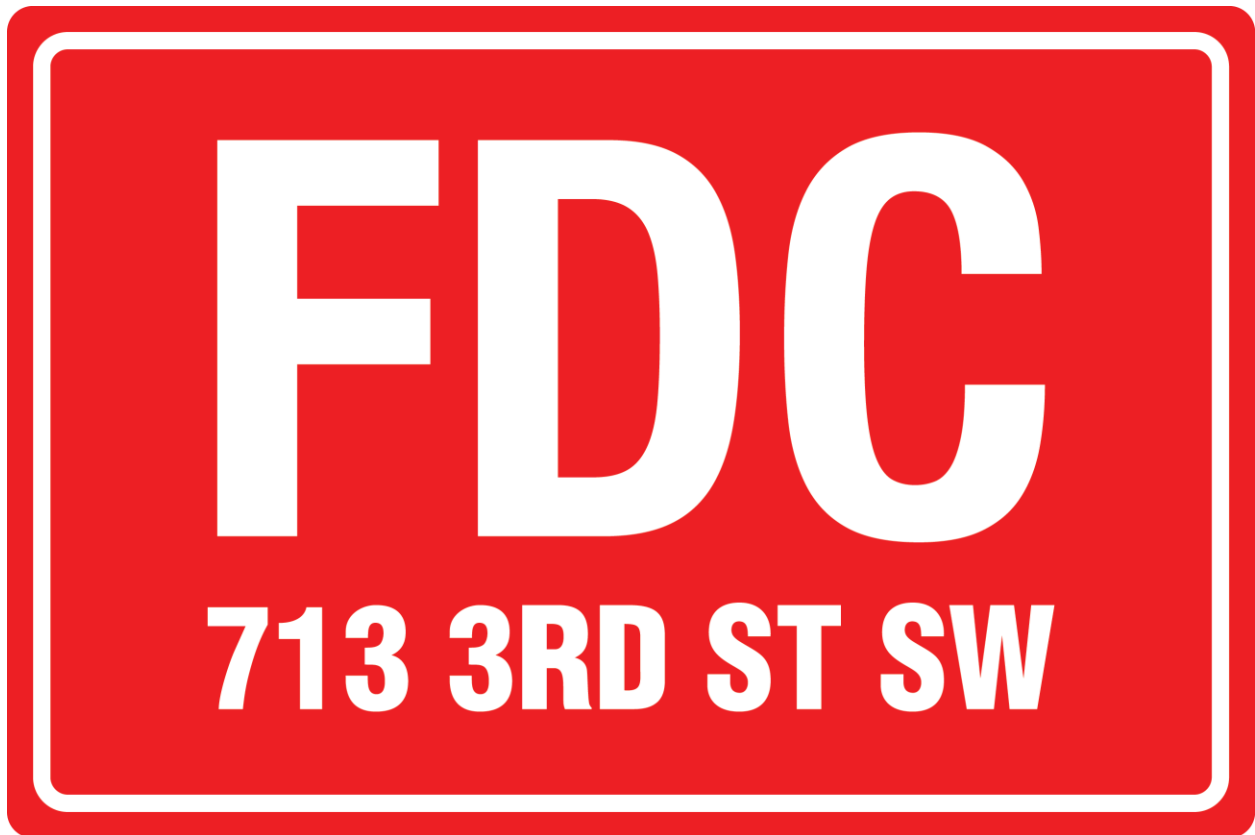
Fire department connection signage shall be constructed in accordance with Appendix A and shall:

- Be red in color
- Be at least 18 inches by 24 inches in size
- Have “FDC” in white retroreflective letters no less than six inches in height

Signage must indicate the building or portion thereof served by the fire department connection when the fire department connection is remotely located, the building is served by multiple fire department connections, or when required by the Fire Marshal. This information shall be provided in white retroreflective letters no less than two inches in height.

Additional signage may be required when the fire department connection is not visible to approaching fire apparatus on the address side of the building or when otherwise required by the Fire Marshal. This signage will be constructed similarly to the signage described above and in Appendix A, with the addition of an arrow indicating the location of the fire department connection in relation to the address side of the building.

Appendix A: Fire Department Connection Sign



Specifications:

18" x 24"

White retroreflective lettering on red sign

FDC lettering, 6" in height

FDC location information, between 1" and 2" in height