



# CHARLESTON FIRE DEPARTMENT



## Fire Marshal Division

### Information Bulletin

#### Fire Apparatus Access Roads One- and Two-Family Dwelling Increases

The purpose of this document is to further clarify conditions that must be achieved in order to provide for an increase in the distance between the fire apparatus access route the one and two-family dwelling meeting specific conditions. These considerations are based on the application and interpretation of the applicable code provisions and operational considerations of the Charleston Fire Department.

The International Fire Code Chapter 5, Section 503, addresses fire apparatus access roads for all buildings. This section requires fire apparatus access roads to extend to within 150' of all portions of the facility and all portions of the exterior walls of the first floor. Specific exceptions are provided within the IFC to identify when the Fire Code Official is authorized to increase the dimension of the 150-foot limitation. Plan submittals must clearly demonstrate the need for this increase and clarify what provisions are proposed as alternate means of fire protection and safety measures. This document is offered as guidance during the design phase to identify conditions in which we will consider extending this distance:

- Fire apparatus access routes to extend beyond 150' up to 200' of all portions of the building when:
  - 1) The building is equipped throughout with an approved automatic sprinkler system in accordance with the IFC.
  - 2) The vertical distance between the grade plane and the highest roof surface does not exceed 30 feet. The highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of a parapet wall, whichever is greater.
- Fire apparatus access routes to extend beyond 200' up to 250' of all portions of the building when:
  - 1) The building is equipped throughout with an approved automatic sprinkler system in accordance with the IFC.
  - 2) Constructed of either:
    - a. Type I or II construction and limited to 3,500 square feet.
    - b. Type III, IV, or V construction and limited to 2,500 square feet and:
      - i. Class A or B roof assemblies in accordance with ASTM E 108 or UL 790.
      - ii. Attic space is constructed of non-combustible or fire-retardant treated materials and separated from the living space by a 1-hour fire rated assembly.
      - iii. No electrical or mechanical equipment installed within the attic space.
  - 3) The vertical distance between the grade plane and the highest roof surface does not exceed 30 feet. The highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of a parapet wall, whichever is greater.

These elements are designed to provide a reasonable degree of safety to the public and first responders by limiting or reducing the potential risk of a fire event. This document is intended to provide general guidance during the design phase of a project and may be amended by the Fire Code Official following an acceptable modification proposed by a design professional in accordance with IFC 104.9 or alternative materials and methods proposed in accordance with IFC 104.10.

Please contact the City of Charleston Fire Department – Fire Marshal Division at (843)724-3429 with any questions or for additional information.