

Henrico Division of Fire POD Submittal Guidelines

The following are Guidelines for the development and submittal of PODs for Henrico County Division of Fire. Code reference for the Virginia Statewide Fire Prevention Code (SFPC) and the Virginia Construction Code (VCC) are provided. All codes referenced are from the 2015 editions.

Fire Apparatus Access Roads (Fire Lanes)

- Fire lanes shall extend to within 150 feet of all points of the exterior of the proposed building. The distance is extended to 200 feet if building is fully sprinklered. *SFPC 503.1.1.*
- Fire lanes shall be a minimum of 20 feet wide for one-way traffic and a minimum of 24 feet wide for two-way traffic. Fire lanes shall have a minimum vertical clearance of 13 feet 6 inches. *SFPC 503.2.1 and 503.2.2.*
- Two points of access are required for all developments exceeding 62,000ft² (124,000ft² if buildings are sprinklered), developments with more than 50 single family dwellings, and developments with more than 82 townhomes or multifamily dwelling units. *SFPC 503.1.2*
- The minimum turning radii for fire lanes shall be designed and demonstrated by a 47' fire apparatus. *SFPC 503.2.4*
- Fire lanes shall be surfaced with asphalt, concrete, or other similar hard materials and designed to support fire apparatus weighing 80,000lbs. Gravel, grass pavers, and other similar type materials are not acceptable surfacing for fire lanes. *SFPC 503.2.3*
- The maximum grade within a fire lane is 10%. *SFPC 503.2.7*
- Approved turnarounds shall be provided for dead end fire lanes in excess of 150 feet. *SFPC 503.2.5 and D103.4*
- Fire lanes shall be marked in accordance with Henrico County's fire lanes guidelines. A copy of these guidelines shall be placed on all PODs. (see last page of this document) *SFPC 503.3*
- Speed Bumps are not permitted within fire lanes. All other traffic calming devices shall be approved by the fire code official. *SFPC 503.4.1*
- Gates shall be approved by the fire code official. Henrico County requires a Knox padlock or fire department key box with the gate keys at all manual gates. Electric gates require a Knox key switch bypass or key box secured switch to keep the gate in the open position. Additionally, for residential developments, or where otherwise deemed necessary by the fire code official, the "Click 2 Enter" system is required to be installed. *SFPC 503.5*
- Where bollards are used to secure fire lanes from other traffic, the bollards shall be removable, weigh not more than 25lbs each and be non-locking. *SFPC 503.5*

Fire Hydrants

- Fire hydrants are required to be located to be within 350 feet of all points of the building exterior. *SFPC 507.5.1*
- The number of fire hydrants shall be determined using the 2014 Guidelines ISO method of fire flow calculations. The I-9 fire flow estimate form from Henrico County Department of Public Utilities (DPU) shall be shown on the plans. *SPFC 507.3*
- Hydrants across four (4) lane roads, railways, or roads with an AADT of more than 30,000 shall not be counted toward required hydrants. *SPFC 507.5.1 and C102.1*
- Hydrants and Fire Department Connections (FDCs) shall be located 1.5 – 7 feet from the curb of edge of pavement. *SFPC 507.5.1*
- All FDCs shall provide a minimum 2 – 2.5-inch Siamese connection with Richmond Special Threads¹. Five-inch Storz connections are acceptable for buildings requiring large flows. Storz connections shall be angled 30° downward. *VCC 912.3*
- FDC locations shall be approved by the fire code official. FDCs shall be located as to not impede fire department operations. Additional FDCs or FDCs that are remote from the building may be required in order to achieve this. *VCC 912.2*
- FDCs shall located 18 – 48 inches from the ground. *VCC 912.2*
- Dedicated hydrants shall be located not more than 50 feet from FDC and located on the same side of the drive aisle of road as the FDC. *SFPC 507.5.1 and VCC 912.2*
- Bollards installed in accordance with SFPC Section 312 may be required where either the FDC of dedicated hydrant is determined to be subject to vehicle impact. *SPFC 507.5.6 and VCC 912.4.3*

Signs

- All Buildings shall display the numerical address in 4-inch numbers on a high contrast background. The stroke width shall not be less than ½-inch. The address shall be visible from the road serving the building. *SFPC 505.1*
- FDCs shall be marked with the letters “FDC” in 6-inch reflective white letters and the address of the building they serve in 2-inch reflective white letters. The sign shall have a red background. PIVs and other fire service appurtenance shall be similarly marked *VCC 912.2.2*.

¹ 2.5” Richmond Special Threads (RCH) - O.D 3.1250” x 8TPI

- Fire lane signs shall be installed as per the Henrico County Fire Lane Guidelines (see last page). *SFPC 503.3*
- Provide a proposed layout of the fire lane signs on the plan. *SFPC 503.3*

Miscellaneous

- Henrico Division of Fire recommends that fire department key boxes be installed on all commercial construction. Acceptable key boxes are those manufactured by the Knox Corporation or Supra boxes manufactured by the Kiddie Corporation. *SPFC 506.1*
- Where high piled combustible storage is proposed, add a note to the plan to that effect. Show the required building access components. *SPFC 3206.6*

Henrico County Fire Lane Guidelines

The establishment of fire lanes allows the Division of Fire access to a building. The need for such designation arises from building design, complex layout, and the possibility of vehicles parking in needed access way in case of an emergency. With this in mind, the projected need and final decision of the Fire Marshal, or his designee, may vary between occupancies and/or locations. These specifications are primarily for occupancies with curb and sidewalk adjacent to the building. Other building arrangements may require different guidelines to establish and maintain fire lanes.

Legislative Authorization: In accordance with §503.3 of the Statewide Fire Prevention Code, adopted by reference by the Board of Supervisors on January 11, 1995, authorization was granted to establish fire lanes.

Guidelines for Fire Lane Designation: The Fire Chief, or his duly authorized designee requires the owner, lessee, or occupant of any private or public traffic way to provide and maintain regulatory signs and/or pavement markings of an approved type to notify operators of motor vehicles of the boundaries of fire lanes and restrictions related thereto. These fire lanes shall be at least twenty (20) feet in width, and the route of these fire lanes shall be marked with posted signs. A combination of curb markings, and/or pavement markings may be used with the approval of the fire official.

Specifications: A single sign mounted on a single post with a double directional arrow. These signs shall be posted no more than fifty (50) feet from the beginning or end of a fire lane and at intervals of one hundred (100) feet or less. All signs are to be mounted seven (7) feet from bottom of the sign to top of the grade. All signs are to be installed on a forty-five (45) degree angle to the movement of traffic, regardless of a one-way lane. Where signs are not practical, The Fire Marshal's Office may approve "No Parking" and "Fire Lane" to be painted on the pavement at intervals of one hundred (100) feet or less using yellow reflective paint.

When dictated by the Fire Marshal, the one hundred (100) feet sign spacing interval may be decreased due to site characteristics.

The Fire Marshal's Office may also require that yellow reflective paint four (4) inches wide be placed along either the edge of the gutter pan or the edge of pavement, or on the curbs, thereby designating the boundaries of the fire lane.



Fire Lane Sign

Sign Dimensions is 12" wide x 24" tall

Aluminum sign with reflective vinyl applied

Red and white with arrow outlined in black

Corners are cut at a 1.5" radius