



Inspection Services Division

FIRE PROTECTION SITE PLAN

The Fire Protection site plan shall be an accurate, to-scale representation of all structures on the project site, including pools, retaining walls, and fences. This site plan shall be separate from other submitted plans and shall include:

- ❑ **Project name, address, property lines, and grade lines.**
- ❑ **Name(s) for all roadways on/or immediately adjacent to the project area.**
- ❑ **Proposed Fire Lanes.**
- ❑ **Drawn to scale with compass (North Arrow) graphic representation.**
- ❑ **Legend identifying all symbols.**
- ❑ **Fire Department Access Box Location.**
- ❑ **Water Supply (Fire Flow Calculations).**

Building Code Summary Requirements

- ❑ **Use Group** – Use Group per International Building Code (IBC)
- ❑ **Construction Type** – Type of construction per the International Building Code (IBC)
- ❑ **Fire Protection Systems** – Provide a summary of Fire Protection Systems that will be installed.
- ❑ **Height Calculations** – Provide calculations for allowable height per IBC. The designed height of the proposed building(s) shall be shown on the Fire Protection Site Plan.
- ❑ **Area Calculations** – Provide allowable area calculations per IBC. The designed area of the proposed building(s) shall be shown on the Fire Protection Site Plan.
- ❑ **Frontage Perimeter** – If frontage is used for an area increase, all portions of the building(s) exterior, including width, used in the frontage increase calculation, must be indicated on the fire protection site plan. Overhead obstructions to fire department operations (e.g., power lines and trees) should be minimized within the 20' open area used for frontage calculations.

Fire Department Access Summary Requirements

- ❑ **Fire Department Access Roads** - Fire department access roads shall consist of roadways (where speeds do not exceed 35 mph), fire lanes, parking lot lanes, or a combination thereof. The fire department access road shall extend to within 50 ft of at least one exterior door that can be opened from the outside and provides access to the interior of the building. Sprinklered one- or two-family dwellings or townhouses are permitted within 150 ft of the fire department access road(s).
- ❑ **20'-0 width** – Fire department access roads shall have an unobstructed width of 20 ft.
- ❑ **16'-0 height** – For portions of the fire department access road with overhead obstructions, provide callouts with the obstruction's height measured from the driving surface
- ❑ **Exterior Perimeter Access** – Any portion of the building(s) or any portion of the exterior wall of the first story of the building(s) shall be no further from a fire department access road(s) than the distances indicated below. Distances shall be measured from the fire department access road along the path walked by fire department personnel.
 - **Non-sprinklered Building** – Not more than 150 ft
 - **Sprinklered Building** – Not more than 450 ft
- ❑ **Surface** – Fire department access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with an all-weather driving surface. Materials and systems other than asphalt or concrete will require additional information subject to approval by Permit and Inspection Services.

- ❑ **Curb Cuts** – Fire Department Access Roads connecting to roadways shall be provided with curb cuts extending at least 2' beyond each edge of the fire department access road.
- ❑ **Turning Radii** - Turning radii for the fire department access road shall comply with the following:
 - (1) The minimum interior turning radius for a fire department access road is 25 ft
 - (2) The minimum exterior turning radius for a fire department access road is 50 ft
 - (3) Performance-based approval of alternative turning radii may be permitted if apparatus movement into opposing lanes of traffic is minimized and an unrestricted fire department access road is maintained.
- ❑ **Multiple Access Roads** – More than one fire department access road shall be provided if access by a single access road could be impaired by vehicle congestion, condition of the terrain, climatic conditions, or other factors. Inspection Services shall make the final determination for the necessity of additional Fire department Access Roads.
- ❑ **Turnarounds** – All Fire Department Access Roads in excess of 150' must be provided with an approved means for fire department apparatus to turn around. Cul-de-sacs used to provide a dead-end apparatus turnaround shall not be less than 90 ft in diameter at the closed end. ref. COR, 18.2.3.5.3.1.
 - Hammerhead or T-turnarounds used to provide a dead-end apparatus turnaround shall have legs not less than 60 ft long and all portions of the hammerhead or T-turnaround not less than 20 ft wide. ref. COR, 18.2.3.5.3.2.
- ❑ **Obstructions to Fire Department Access** – Fire Protection Site Plan shall indicate gates, bollards, or other obstructions to Fire Department Access on the roads. If these obstructions are designed to permit Fire Department Access, information regarding the access method shall be provided.
- ❑ **Marking** – Provide any proposed signage about the Fire Department Access and Fire Lanes.
- ❑ **Fire Hydrants** – Show the location of all fire hydrants on the project site. Fire hydrants shall be spaced not greater than 300 ft from all exterior points of the structure where the fire hose would lay on the ground and within 400 ft from any dead-ends in a fire department access road. ref. COR, 18.5.1.7.
 - Fire hydrant spacing may be increased to 500 ft for structures protected throughout by an approved automatic sprinkler system, in accordance with Section 9.7 of NFPA 101, Life Safety Code, 2018 Edition. ref. COR, 18.5.1.7.1.
- ❑ **Fire Department Connection** – The location of the Fire Department Connection (FDC or Siamese connection) should be shown if the location of the FDC is known or anticipated. A fire hydrant is required to be within 100' of the FDC.
- ❑ **Fire Flow Data** – Provide calculations showing the required fire flows, per NFPA 1, Section 18.4. and documentation providing the anticipated fire flow on-site.

Means of Egress Summary Requirements

- ❑ **Exit Termination** – Show all exit points on the building(s), providing emergency egress for building occupants.
- ❑ **Exit Discharge** – Beginning at the exterior of the building(s), provide the following information for the exit discharge.
- ❑ **Width** - The width of the walking surface shall be indicated and shall not reduce to less than is required based upon the occupant load.
- ❑ **Surface** – Walking surface materials must be stable, level, slip-resistant, and free of tripping hazards.
- ❑ **Path to a Public Way** – Provide the path of exit discharge from the exterior of the building(s) to a public way.
- ❑ **Special Provisions** – Provide special egressing arrangements (e.g., discharging into a secured, outside enclosure or courtyard) for consideration by the Inspection Services Division.

Reference Codes: International Building Code, NFPA 1, *Fire Code*, NFPA 101, *Life Safety Code*, and City of Rockville Building and Fire Codes should be used in developing the Fire Protection Site Plan.