



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. NFPA 1, 18.2.3.1.2.**
- ❑ **Drawn to scale with compass (North Arrow) graphic representation.**
- ❑ **Legend identifying all symbols. NFPA 170, Standard for Fire Safety and Emergency Symbols.**
- ❑ **Fire Department Access Box Location. NFPA 1, 18.2.2.1.**
- ❑ **Water Supply. NFPA 1, 18.3.1.**

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 summary of Fire Protection Systems that will be installed.
- ❑ **Height Calculations** – Provide calculations for allowable height per IBC and 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 and 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), alleyways, fire lanes, parking lot lanes, or a combination thereof. NFPA 1, 18.2.3.1.2.
- ❑ **20' width** – Fire department access roads shall have an unobstructed width of not less than 20'. NFPA 1, 18.2.3.5.1.1.
- ❑ **16' height** – For portions of the fire department access road with overhead obstructions, provide callouts with the obstruction's height measured from the driving surface. COR Chapter 9, 18.2.3.4.1.2.3.
- ❑ **A Fire Department Access Road shall extend** to within 50' 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) COR Chapter 9, 18.2.3.2.1.
- ❑ **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. The distances shall be measured from the fire department access road, along the path that would be walked by fire department personnel.

- **Non-sprinklered Building** – Shall not exceed 150'. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150' from fire department access roads as measured by an approved route around the exterior of the building or facility. **NFPA 1, 18.2.3.2.2.**
- **Sprinklered Building** – Shall not exceed 450' When buildings are protected throughout with an approved automatic sprinkler system that is installed in accordance with NFPA 13, NFPA 13D, or NFPA 13R, the distance in NFPA 1, 18.2.3.2.2 shall be permitted to be increased to 450'. **NFPA 1, 18.2.3.2.2.1.**
- **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. **COR Chapter 9, 18.2.3.5.2.**
- **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. **NFPA 1, 18.2.3.5.3.3.**
- **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 terrain, climate conditions, or other factors that could limit access. The Fire Marshals office shall make the final determination for the necessity of additional Fire department Access Roads. **NFPA 1, 18.2.3.3.**
- **Dead Ends** – Dead-end fire department access roads more than 150' in length shall be provided with approved provisions for the fire apparatus to turn around. **NFPA 1, 18.2.3.5.4.**
- **Obstructions to Fire Department Access** - The 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 method of access shall be provided. **NFPA 1, 18.2.4.2.5.**
- **Marking** – Provide any proposed signage or surface markings pertaining to the Fire Department Access Road. **NFPA 1, 18.2.3.6.1.**
- **Fire Hydrants** – Show the location of all fire hydrants on the project site. Fire hydrants shall be spaced not greater than 300' from all exterior points of the structure where the fire hose would lay on the ground and within 400' from any dead-ends in a fire department access road. **COR, 18.5.1.7 and NFPA 1, 18.1.3.2.**
 - 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 and COR Chapter 9, 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 is known or anticipated. A fire hydrant is required to be within 100' of the FDC. **NFPA 14, 6.4.5.4.**
 - **High Rise Buildings** shall have two remote Fire Department Connections per **NFPA 14 7.12.1**
- **Fire Flow Data** – Provide calculations showing the required fire flows, per NFPA 1, Section 18.4. and documentation providing the anticipated fire flow provided on-site. **NFPA 1, Table: 18.4.5.2.1.**

Reference Codes:

The Fire Protection Site Plan should be developed using the International Building Code, NFPA 1, Fire Code, NFPA 14, Standard for the Installation of Standpipe and Hose Systems, NFPA 101, Life Safety Code, and City of Rockville (COR) Building and Fire Codes.