



## **Violet Township Fire Department**

### **Fire Protection Requirements**

**8700 Refugee Rd. Pickerington Oh, 43147**

**614-837-4123**

## **GENERAL PLAN SUBMISSION REQUIREMENTS**

- Submit electronically with individual overlays (no combined utility drawings).
- Must include:
  1. Life Safety Floor Plan
  2. Access Layout (street and parking aisle widths)
  3. Turning Radius Details
  4. Water Supply Plan (hydrants, FDCs)

Pre-design meeting with VTFD is strongly recommended for all new projects.

### **(A) FIRE DEPARTMENT ACCESS**

- Street Widths:
  - Commercial/Industrial: Minimum 30 ft
  - Planned Subdivisions: Minimum 26 ft (excluding islands or cul-de-sacs)
- Fire Lanes:
  - Determined by VTFD
  - Minimum 25 ft wide, signed, striped, and accessible year-round
- Turning Radius: Minimum 51 ft outside turning radius
- Overhead Clearance: Minimum 13'6"
- Knox Boxes:
  - Installed ~between 5 ft & 6 ft above grade
  - Additional boxes may be required for:
    - Gate access, shutoffs, riser rooms, elevators, hazardous materials
- Addressing and Signage:
  - Addresses visible from street at night, both front & rear
  - Commercial, minimum of 6" address numbers
  - Big box buildings and warehouses, minimum of 18" address numbers on top corner of the street view side of the building
  - Interior and exterior signage for fire controls, roof access, mechanical areas

## **(B) FIRE HYDRANTS**

- Main Size: Minimum 8-inch water line
- Spacing: Max 350 ft between hydrants
- Placement:
  - Within 200 ft of primary fire apparatus arrival point
  - Minimum 50 ft from building
- Fittings:
  - 5" Storz on steamer port
  - Two 2.5" National Standard Thread ports
- Operational: Hydrants must be in service before vertical combustible material construction begins
- Private Fire Lines & Fire Hydrants:
  - Shall be installed per water departments guidelines
  - Fire Code Official shall witness the pressure test and flush
  - Fire Code Official shall visually inspect all thrust blocking

## **(C) SPRINKLER SYSTEM**

- FDC Requirements:
  - 5" Storz with 30° turn-down and Knox locking cap
  - Located within 100 ft of hydrant (same side of street)
  - Must avoid obstructing traffic flow
  - Remote FDCs require impact protection
- Testing:
  - Hydrostatic test: 200 psi for 2 hours
  - Line flushing required and witnessed by VTFD
- Signage:
  - Reflective red sign with 8" white letters FDC with building address in 2"
  - Building with standpipes shall add standpipe to the FDC sign in 2" white letters
- Alarms:
  - Weather resistant horn/strobe above FDC
  - Buildings with remote FDC shall have a weather resistant horn/strobe located on the side off the building that is facing the FDC
- Supervision:
  - All valves monitored
  - Annunciator panel within 20 ft of suppression riser
- Door Marking: Riser access doors painted red with signage (AHJ discretion)
- Riser Room Access: A accessible man door to the exterior shall be within 25ft of the fire riser

## **(D) STANDPIPE SYSTEM 2 ½ NST**

- Class III Systems per NFPA
- Hose connection at required exits and or stairwells
- 100 ft hose + 25 ft stream coverage
- Each connection must have shut-off
- Piping to roof deck shall be painted RED

## **(E) FIRE ALARM SYSTEMS NFPA72**

- Shall be addressable
- Combination systems, security and fire are not permitted
- Prior review required with Fire AHJ
- Sole Path Cellular Communications
- Remote annunciator panel required near Knox box & risers
- Digital floor plan & as built with device locations required in document box
- At FACP, include:
  - Monitoring company/contact
  - All passcodes (alarm, FACP, central station)
- CO Detection: Separate audible alert and connects to FACP

## **(F) EMERGENCY RESPONDER RADIO SYSTEM**

- All buildings must have an approved radio coverage test preformed per Ohio Fire Code Rule 510. Buildings that fail may not be occupied by the public till the BDA system has been commissioned and tested by AHJ

## **(G) VEHICLE IMPACT PROTECTION**

- Required around fire protection equipment (AHJ discretion)
- Required around electrical/mechanical/gas equipment (AHJ discretion)
- Required for compressed gas storage
- Compliant with 2017 Ohio Fire Code Rule 312

## **(H) COMPRESSED GAS STORAGE**

- Follow Ohio Fire Code Rules 53 & 61
- Propane storage prohibited inside buildings

## **(I) ELECTRIC VEHICLE CHARGING STATIONS**

- Barrier Protection: Required if subjected to vehicle impact.
- Disconnect Requirements:
  - Knox Remote Power Box or approved service disconnect
  - Located 20'–50' from EV charger, mounted 60" high
  - White reflective sign: "EV CHARGER EMERGENCY DISCONNECT" in 2" red letters

## **(J) SECURITY GATES**

- Must be approved by Fire Code Official
- Emergency Operation Required
  - Must maintain operation 24/7
  - Knox key switch override required
  - Must meet UL 325 and ASTM F2200

## **(K) FIRE EXTINGUISHERS**

- Shall follow NFPA 10 for size, type and distribution
- Travel distance of a maximum of 75ft
- Identification in Large Buildings, sign and/or red column stripe for visibly over obstructions

**(Any items above that fall into your project scope, please see Violet Fire Code Req Document for in-depth description and definitions)**

### **Schedule Your Pre-Design Meeting:**

**Contact:**

**Joe Magerko**

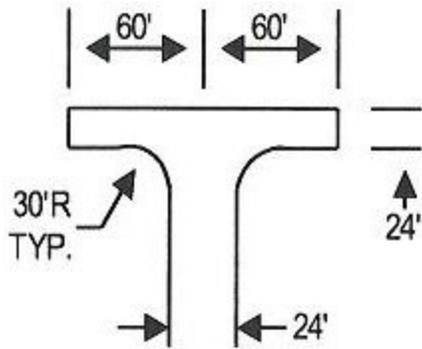
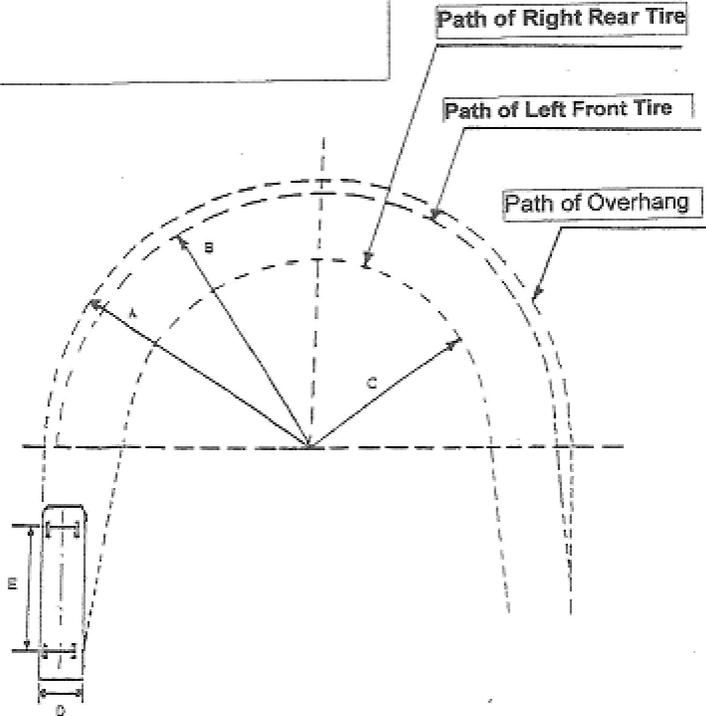
Fire Prevention Bureau  
prevention@violet.oh.us  
614-382-5922

**Contact:**

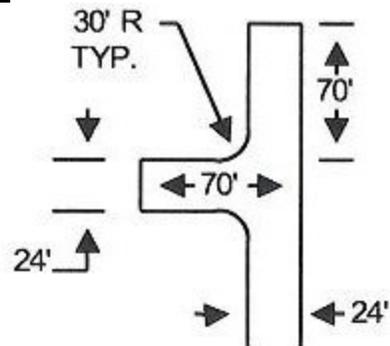
**Lt. Barry Wright**

Fire Prevention Bureau  
prevention@violet.oh.us  
614-382-5901

Maximum Turning Radius	(A) - 50' 9"
Minimum Turning Radius	(B) - 47' 9"
Minimum Inside Radius	(C) - 35' 1"
Vehicle Width	(D) - 8' 5"
Wheel Base	(E) - 23' 8"
Vehicle Height	12' 0"
Vehicle Length	42' 0"



120' HAMMERHEAD



ACCEPTABLE ALTERNATIVE TO 120' HAMMERHEAD

**Fire Apparatus Turning Requirements:**

The grade and angles of approach and departure of the fire apparatus access roads and driveways **shall not** exceed 10 percent in grade.