

## **EXETER TOWNSHIP**

4975 DeMoss Road  
Reading, PA 19606

Phone (610) 779-4888  
Fax (610) 779-5950

### **DEPARTMENT OF FIRE CODES & INSPECTIONS**

## **SITE / SUBDIVISION PLAN REVIEWS REQUIREMENTS**

**The following minimal information must be provided for a “site” plan review:**

- Plans drawn to scale
- Name of the building or subdivision
- Plan date
- Complete address
- Owner’s name, address, telephone number
- Design professional’s name, address, telephone number
- Applicant’s name, address telephone number (if different)
- Water supply defined
- Location of fire hydrants
- Location and diameter of water mains supply fire protection
- Cisterns
- Maximum height of building
- Total square footage
- Proposed building construction
- Proposed building use / occupancy
- Whether building / buildings will be protected by automatic sprinklers
- Location of any fire lanes, their marking and widths

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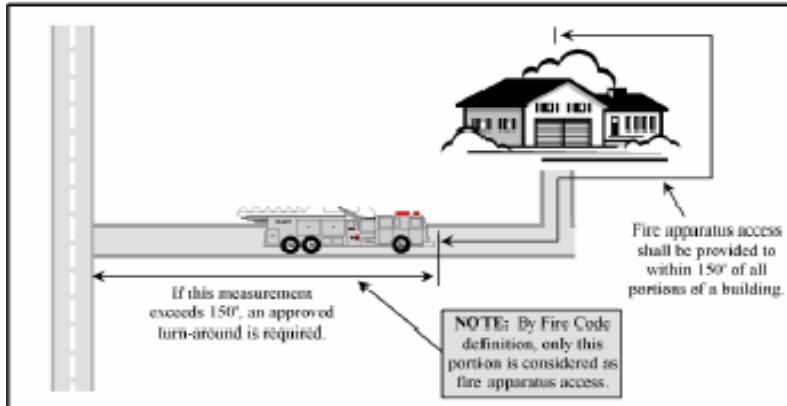
## DEPARTMENT OF FIRE CODES & INSPECTIONS

### Fire and Life Safety requirements for FIRE DEPARTMENT ACCESS and WATER SUPPLIES (Based on the 2009 International Fire Code)

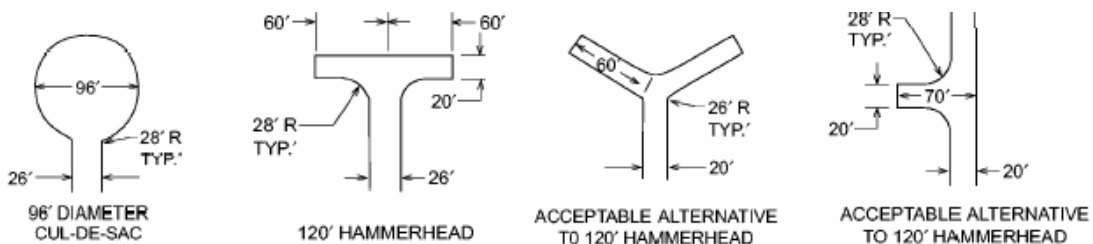
This information is being provided as a resource only. The items listed are the requirements most generally cited on plans for approval. If these items are included on the plans, the likelihood of a timely approval on the initial review is greatly increased. If questions arise with regard to any of the provisions, please call 610-779-4888.

### FIRE DEPARTMENT ACCESS

**1) FIRE APPARATUS ACCESS ROAD DISTANCE FROM BUILDING AND TURNAROUNDS:** Access roads shall be within 150 feet of all portions of the exterior wall of the first story of the building as measured by an approved route around the exterior of the building. An approved turnaround is required if the remaining distance to an approved intersecting roadway, as measured along the fire apparatus access road, is greater than 150 feet.



**2) DEAD END ROADS:** Dead end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround.



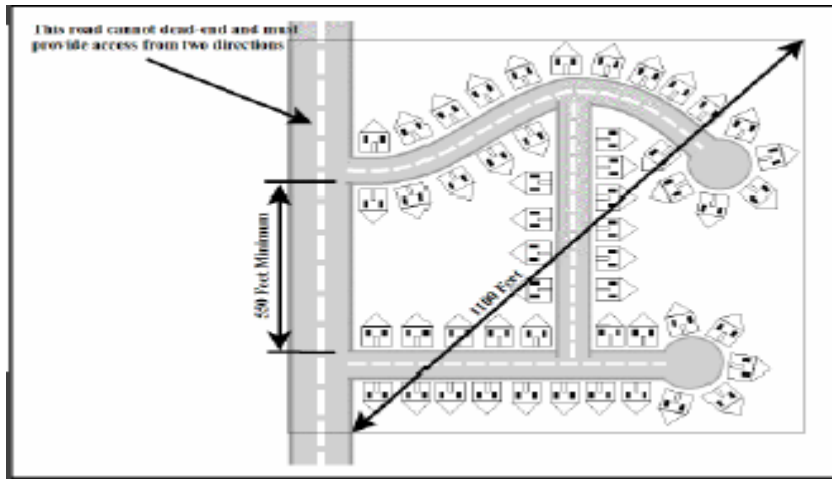
**3) FIRE APPARATUS ACCESS ROAD EXCEPTION FOR AUTOMATIC SPRINKLER**

**PROTECTION:** When buildings are completely protected with an approved automatic fire sprinkler system, the requirements for fire apparatus access may be modified as approved by the fire code official.

**4) ADDITIONAL ACCESS ROADS – COMMERCIAL:** Where buildings exceed 30 feet in height or three stories in height shall have at least three separate means of fire apparatus access. Buildings or facilities having a gross area of more than 62,000 square feet shall be provided with at least two separate means of fire apparatus access.

**5) AERIAL FIRE APPARATUS ACCESS:** Buildings or portions of buildings or facilities exceeding 30 feet in height above the lowest level of fire department vehicle access shall be provided with approved fire apparatus access roads capable of accommodating fire department aerial apparatus. Overhead utility and power lines shall not be located within the aerial fire apparatus access roadway. Fire apparatus access roads shall have a minimum unobstructed width of 26 feet in the immediate vicinity of any building or portion of building more than 30 feet in height. At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building.

**6) REMOTENESS:** Where two access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.



**7) FIRE APPARATUS ACCESS ROAD WIDTH AND VERTICAL CLEARANCE:** Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (12 feet for up to two dwelling units and accessory buildings), and an unobstructed vertical clearance of not less than 13 feet 6 inches. Where fire apparatus roadways are less than 26 feet wide, “NO PARKING” signs shall be installed on both sides of the roadway and in turnarounds as needed. Where fire apparatus roadways are more than 28 feet wide but less than 32 feet wide; “NO PARKING” signs shall be installed on one side of the roadway and in turnarounds as needed. Where fire apparatus roadways are 32 feet wide or more, parking is not restricted.

**8) FIRE APPARATUS ACCESS ROADS WITH FIRE HYDRANTS:** Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet.

**9) NO PARKING SIGNS:** Where fire apparatus roadways are not of sufficient width to accommodate parked vehicles and 20 feet of unobstructed driving surface, "No Parking" signs shall be installed on one or both sides of the roadway and in turnarounds as needed. Roads 26 feet wide or less shall be posted on both sides as a fire lane. Roads more than 26 feet wide to 32 feet wide shall be posted on one side as a fire lane. Signs shall read "NO PARKING - FIRE LANE" and shall be installed with a clear space above grade level of 7 feet. Signs shall be 12 inches wide by 18 inches high and shall have red letters on a white reflective background.



**10) SURFACE AND LOAD CAPACITIES:** Fire apparatus access roads shall be of an all-weather surface that is easily distinguishable from the surrounding area and is capable of supporting not less than 12,500 pounds point load (wheel load) and 75,000 pounds live load (gross vehicle weight). You may need to provide documentation from a registered engineer that the design will be capable of supporting such loading.

**11) BRIDGES:** Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO *Standard Specification for Highway Bridges*. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the fire code official. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, approved barriers, approved signs or both shall be installed and maintained when required by the fire code official.

**12) TURNING RADIUS:** The inside turning radius and outside turning radius shall be not less than 28 feet and 48 feet respectively, measured from the same center point.

**13) PAINTED CURBS:** Where required, fire apparatus access roadway curbs shall be painted red and marked "NO PARKING FIRE LANE" at approved intervals. Lettering shall have a stroke of not less than one inch wide by six inches high. Lettering shall be white on red background.

**14) GRADE:** Fire apparatus access roadway grades shall not exceed 10 percent. Intersections and turnarounds shall be level (maximum 5%) with the exception of crowning for water run-off. When fire sprinklers are installed, a maximum grade of 15% may be allowed.

**15) GATES:** Gates securing fire apparatus roads shall comply with all of the following:  
Minimum unobstructed width shall be 16 feet, or two 10-foot sections with a center post or island.  
Gates serving one- or two-family dwellings shall be a minimum of 12 feet in width.  
Gates shall be set back at minimum of 30 feet from the intersecting roadway.  
Gates shall be of the swinging or sliding type  
Manual operation shall be capable by one person  
Electric gates shall be equipped with a means for operation by fire department personnel  
Locking devices shall be approved.

# WATER SUPPLY / HYDRANT INFORMATION

- 1) COMMERCIAL BUILDINGS - REQUIRED FIRE FLOW:** The minimum fire flow and flow duration shall be as specified in Table B 105.1 using IFC, Appendix B.
- 2) SINGLE FAMILY DWELLINGS - REQUIRED FIRE FLOW:** The minimum available fire flow for single family dwellings and duplexes served by a municipal water supply shall be 1,000 gallons per minute. If the structure(s) is (are) 3,600 square feet or larger, the required fire flow shall be determined according to IFC Appendix B.
- 3) RURAL BUILDINGS - REQUIRED FIRE FLOW:** Required fire flow for rural and suburban areas in which adequate and reliable water supply systems do not exist may be calculated in accordance with National Fire Protection Association Standard 1142, 2001 Edition, when approved by the fire code official.
- 4) FIRE HYDRANTS – COMMERCIAL BUILDINGS:** Where a portion of the building is more than 400 feet from a hydrant on a fire apparatus access road, as measured in an approved route around the exterior of the building, on-site fire hydrants and mains shall be provided. This distance may be increased to buildings equipped throughout with an approved automatic sprinkler system.
- 24) FIRE HYDRANT NUMBER AND DISTRIBUTION:** The minimum number and distribution of fire hydrants available to a building shall not be less than that listed in Table C 105.1.

TABLE C105.1  
NUMBER AND DISTRIBUTION OF FIRE HYDRANTS

FIRE-FLOW REQUIREMENT (gpm)	MINIMUM NUMBER OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS <sup>a, b, c</sup> (feet)	MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE TO A HYDRANT <sup>d</sup>
1,750 or less	1	500	250
2,000-2,250	2	450	225
2,500	3	450	225
3,000	3	400	225
3,500-4,000	4	350	210
4,500-5,000	5	300	180
5,500	6	300	180
6,000	6	250	150
6,500-7,000	7	250	150
7,500 or more	8 or more <sup>e</sup>	200	120

For SI: 1 foot = 304.8 mm, 1 gallon per minute = 3.785 L/m.

- a. Reduce by 100 feet for dead-end streets or roads.
- b. Where streets are provided with median dividers which can be crossed by fire fighters pulling hose lines, or where arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis up to a fire-flow requirement of 7,000 gallons per minute and 400 feet for higher fire-flow requirements.
- c. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.
- d. Reduce by 50 feet for dead-end streets or roads.
- e. One hydrant for each 1,000 gallons per minute or fraction thereof

**Considerations for placing fire hydrants may be as follows:**

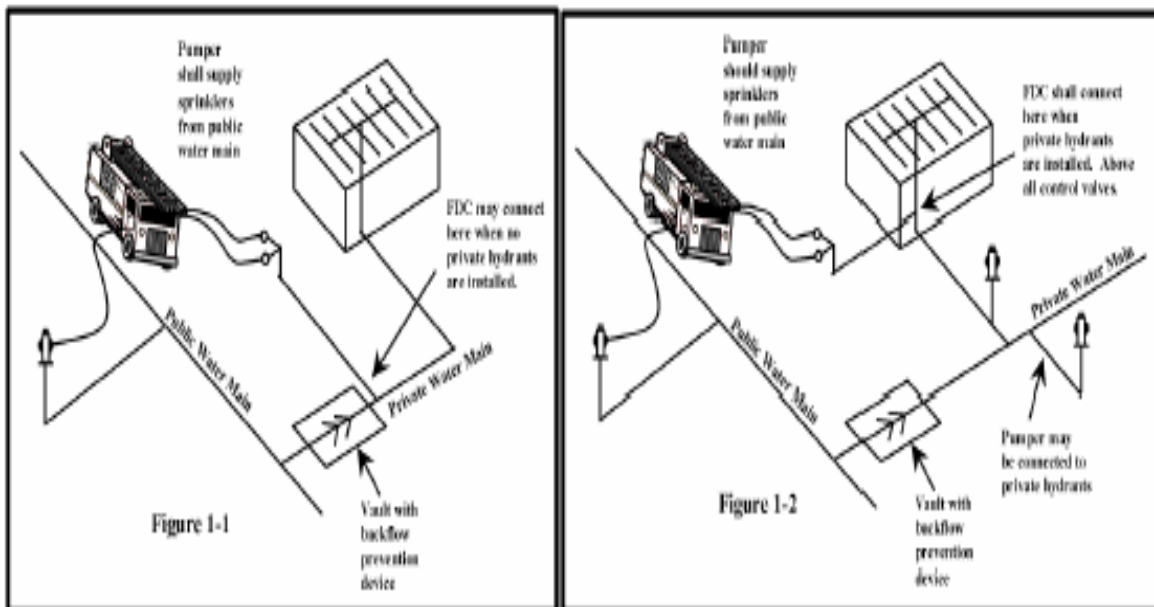
- Existing hydrants in the area may be used to meet the required number of hydrants as approved. Hydrants that are up to 600 feet away from the nearest point of a subject building that is protected with fire sprinklers may contribute to the required number of hydrants.
- Hydrants that are separated from the subject building by railroad tracks shall not contribute to the required number of hydrants unless approved by the fire code official.
- Hydrants that are separated from the subject building by divided highways or freeways shall not contribute to the required number of hydrants. In heavily traveled collector streets only as approved by the fire code official.
- Hydrants that are accessible only by a bridge shall be acceptable to contribute to the required number of hydrants only if approved by the fire code official.

**5) FIRE HYDRANT DISTANCE FROM AN ACCESS ROAD:** Fire hydrants shall be located not more than 15 feet from an approved fire apparatus access roadway.

**6) REFLECTIVE HYDRANT MARKERS:** Fire hydrant locations shall be identified by the installation of reflective markers. The markers shall be spring loaded and colored blue. They shall be located on the hydrant.

**7) FIRE HYDRANTS THREADS:** All hydrants shall have a 5-inch STORTZ (steamer) connection and two 2-1/2 inch connections with "READING" threads.

**8) FIRE HYDRANT/FIRE DEPARTMENT CONNECTION:** A fire hydrant shall be located within 100 feet of a fire department connection (FDC). Fire hydrants and FDC's shall be located on the same side of the fire apparatus access roadway. FDCs shall normally be remote except when approved by the fire code official.



**9) ACCESS AND FIRE FIGHTING WATER SUPPLY DURING CONSTRUCTION:** Approved fire apparatus access roadways and fire fighting water supplies shall be installed and operational prior to any combustible construction or storage of combustible materials on the site.

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### PLAN EXAMINATION PERMITS – See fee schedule

ARCHITECTUAL

SITE / SUBDIVISION

Today's Date: \_\_\_\_\_

Business Starting Date: \_\_\_\_\_

Business Name: \_\_\_\_\_

Business Street Address: \_\_\_\_\_

Business Contact Person: Phone: \_\_\_\_\_

Location / Address of work performed: \_\_\_\_\_

Reason for Application: New Business \_\_\_ Change of ownership \_\_\_ Change of address \_\_\_  
Previously operating without permit \_\_\_ New Location \_\_\_

Other than yours, is there another business operating at this address?

Yes \_\_\_ No \_\_\_

If yes, provide the name of the business: \_\_\_\_\_

A Fire Code Permit is required to maintain, use, store, or handle materials, or to conduct processes, which produce conditions hazardous to life or property, or to install equipment used in connection with such activities. If your business intends upon engaging in any of the following activities, operations, practices or functions, a Fire Code Permit may be required. Please identify all of your business' intended activities by placing an "X" in the box provided. If you require assistance, or would like more information, contact us at 610-779-4888. When issued, the permit shall be posted in a conspicuous location on the premises and shall be kept on the premises until removed/replaced by the Fire Official or AHJ. The permit shall be renewed annually. Changes in use or owner will require issuance of a new Fire Code Permit.

#### Items below for Fire Official's Office Use Only

**This section is for application approval only.**

Inspector \_\_\_\_\_

Date \_\_\_\_\_

**This section is for on-site final approval only.**

Inspector \_\_\_\_\_

Date \_\_\_\_\_

Permit # \_\_\_\_\_ AMOUNT RECEIVED \_\_\_\_\_ Check No. \_\_\_\_\_

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### DEPARTMENT OF FIRE CODES & INSPECTIONS

## SITE / SUBDIVISION PLAN EXAMINATION APPLICATION A FIRE PREVENTION PERMIT IS REQUIRED

DATE: \_\_\_\_\_ PROJECT VALUE \$ \_\_\_\_\_ FEE \$ \_\_\_\_\_

### PROJECT INFORMATION:

Project Name: \_\_\_\_\_

Project Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

SQ. FT.: \_\_\_\_\_ NO. Of Stories: \_\_\_\_\_ Construction Type: \_\_\_\_\_

Use Group / Occupancy Type: \_\_\_\_\_ Hazard Class: \_\_\_\_\_

Water Supply defined: \_\_\_\_\_ Fire Main size: \_\_\_\_\_

No. of fire hydrants \_\_\_\_\_ Cisterns \_\_\_\_\_

Is building protected with sprinklers? YES \_\_\_\_\_ NO \_\_\_\_\_

Fire Lane Width: \_\_\_\_\_ Access Roads \_\_\_\_\_

### APPLICANT INFORMATION: (If different from above)

Name of Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ e-mail \_\_\_\_\_

Contact Name: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

- *Plan review fee - See current fee schedule.*