



Moses Lake Fire Department
701 E 3rd AVE
Moses Lake WA 98837
www.cityofml.com

Water Supply & Fire Apparatus Access Requirements

This brochure is provided as a resource only. The items listed are the requirements generally cited on plans for approval. Included are general guidelines, additional requirements may apply for specific structures / occupancy types.

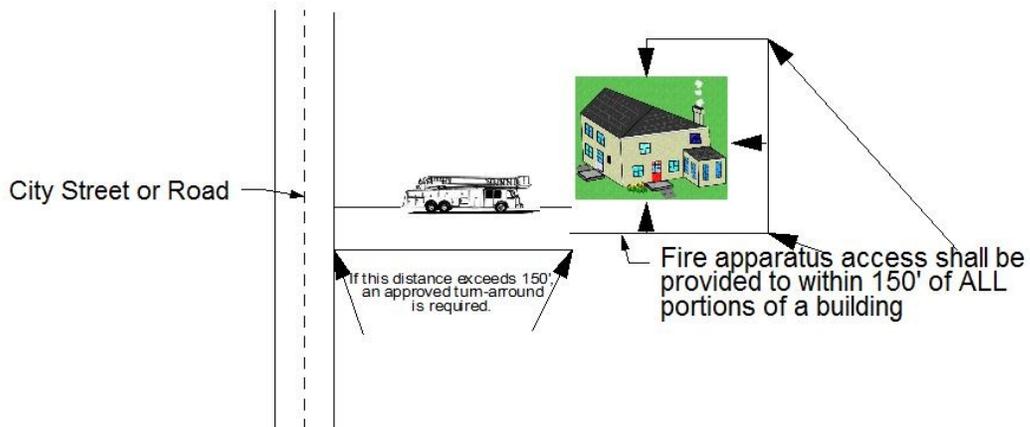
Fire Marshal's Office
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Moses Lake WA 98837
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1) Fire Apparatus Access Roadway:

Fire apparatus access roadways are required when any portion of a building is further than 150 feet from a city street or other approved roadway.

With the exception of certain residential occupancies, fire apparatus access roadways are required to be hard surfaced (either paved or concrete.) All fire apparatus access roadways shall be capable of supporting a 12,500 pound point load and a 45,000 pound live load. Documentation from a registered engineer will be required to demonstrate that the loads listed will be supported for any non-hard surfaced roadway.

Access roads shall be located 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 turn around is required if the fire apparatus access roadway dead ends 150 feet or more from the city street or road serving the property. (See Section 2)

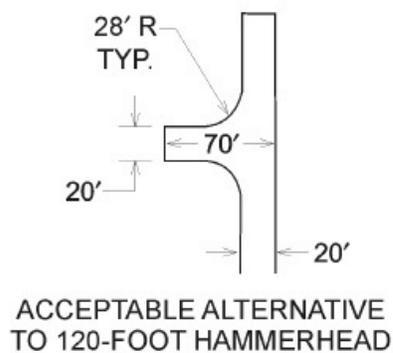
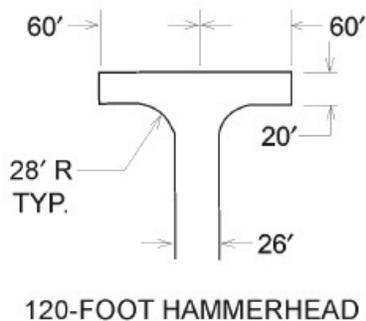
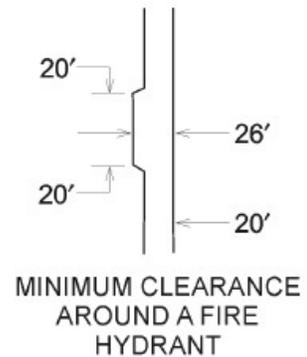
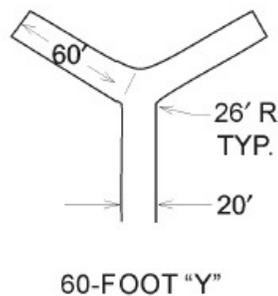
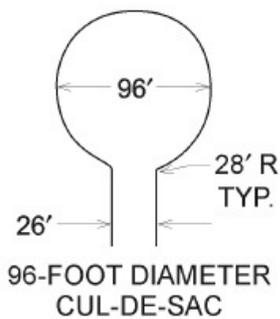


2) Dead End Access Roadways and Approved Turn-Arounds:

Where a circulating access roadway is not installed around a structure, and the fire access roadway dead-ends an approved turn around is required.

Dead-end roads that are 150 feet or more in length, as measured from the city street or public road serving the property, must have a fire apparatus turn around that complies with one of the following acceptable designs:

NOTE: Fire apparatus access roadways 0-500 feet in length are required to be 20' in width. Fire apparatus access roadways 501-750 feet in length shall be 26' in width. Fire apparatus access roads over 750 feet require special approval.



3) Gates:

Gates securing fire apparatus access roads shall be a minimum of 20 feet in width, and shall be of the swinging or sliding type. Gates controlled electronically shall be equipped with a fire department approved Knox key switch, and be equipped with a man gate to access manual controls located not further than 50 feet from the vehicle gate.

4) Buildings 30 feet or more in height:

When any portion of a building exceeds 30 feet in height above the lowest level of fire department vehicle access an aerial fire apparatus access road will be required.

Aerial fire apparatus access roadways shall have a minimum unobstructed width of 26 feet, exclusive of shoulders.

At least one entire side of the building shall have an aerial access roadway within a minimum of 15 feet and a maximum of 30 feet from the building.

5) Multi-family residential developments:

Multiple family residential projects that have more than 100 dwelling units require two separate and approved fire apparatus access roadways.

6) One or two family residential developments:

Developments that have more than 30 dwelling units shall be provided two separate and approved fire apparatus access roads.

7) Turning radius:

For turns on required fire apparatus access roadways the inside and outside turning radius shall be not less than 25 feet and 40 feet respectively, measured from the same center point.

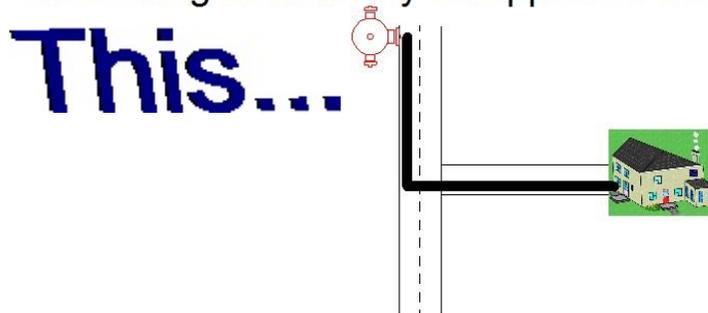
Fire Hydrants and Fire Flow

All buildings greater than 600 square feet are required to be served by fire hydrants.

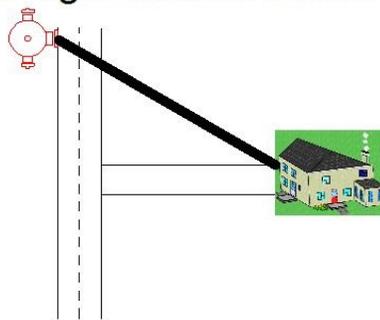
1) Distance to buildings:

Measurements for distance to buildings, and for spacing, shall be measured by an approved fire apparatus access roadway and not line of sight.

Measuring distance by an approved access roadway.



Line of sight measurement



Not this...

2) Spacing:

Hydrants shall be spaced not further than 600 feet apart for one and two family residential developments.

Hydrants shall be spaced not further than 300 feet apart for all other occupancy types.

3) Fire Flow:

Fire flow is the amount of water needed to control a fire in a building of a given size, and type.

Fire flow calculations are determined based on the ISO guide for determining fire flow and are dependent upon building size, construction type, and proximity to other buildings or exposures.

For one and two family residential up to 5,000 square feet a minimum of one fire hydrant capable of supplying the calculated fire flow is required within 400 feet of the structure as measured by an approved fire apparatus access road. Where more than one hydrant is required for one and two family residential developments, spacing between hydrants shall not exceed 600 feet.

For all other occupancy types the number of fire hydrants required will be determined by applying the ISO guide for determining fire flow. Single hydrants will be credited at a maximum of 1,500 gallons per minute when determining the total number of hydrants required. Hydrants are required within 250 feet of any portion of the building as measured by an approved fire apparatus access road. Where more than one hydrant is required spacing between hydrants shall not exceed 300 feet.

4) Buildings, or groups of buildings, with a ground floor area greater than 20,000 square feet:

Any building, or group of buildings with exposure distances between buildings of less than 40 feet, that have a ground floor area greater than 20,000 square feet must have hydrants installed around the perimeter of the structure.

Hydrants shall be installed around the perimeter of the structure and shall be accessed by approved fire apparatus access roads. Maximum spacing between hydrants is 300 feet.

References:

Moses Lake Municipal Code Chapter 16
2009 edition of the International Fire Code, Chapter 5, and Appendix D.