



FLOWER MOUND FIRE DEPARTMENT

FIRE MARSHAL'S OFFICE

3911 SOUTH BROADWAY AVENUE | FLOWER MOUND, TEXAS 75028

PHONE (972) 874.6270 | www.flower-mound.com

FIRE HYDRANTS LOCATION AND FIRE FLOW

This guide is intended as a resource for installing fire hydrants to serve as a fire protection water supply for commercial development and residential subdivisions.

All fire hydrants for this guide and any other guidelines or requirements of the Fire Department shall conform to the 2021 International Fire Code, as adopted and amended by the Town of Flower Mound. **NOTE. The Engineering Department has additional requirements for fire hydrant installation.**

I) CONSTRUCTION DETAILS

- A) Materials
- B) Fire hydrants shall be manufactured per AWWA C-502, dry-barrel fire hydrants.
- C) Hydrants shall be manufactured so that all maintenance and adjustments can be performed without excavation and that hydrants may be faced in any direction in relation to the base.
- D) Each fire hydrant shall have one (1) 4 1/2" pumper connection and two (2) 2 1/2" hose connections. Threads for hose connections shall be National Standard Threads. The hydrant shall open counterclockwise.
- E) Painting
 - 1) The fire hydrant bonnet and body shall be powder-coated silver from the manufacturer.
- F) Manufacturers
 - 1) Mueller (Super Centerlon 200)
 - 2) American Darling (8-84-B)
 - 3) M&H Valve Company
- G) Installation
 - 1) General
 - (a) Installation shall be per AWWA M-17. A 90° anchor or flange fitting shall be required unless otherwise approved by the Town Manager or his designee.
 - (b) Fire hydrants shall have a maximum buried depth of 7 feet, including extension.
 - 2) Location Markers
 - (a) The location marker shall be placed in the center of the roadway opposite the fire hydrant. The installation of this reflector shall be per the manufacturer's recommendation. Location markers shall be Stemsonite 1-88-55A or approved equal (reflective and blue).

II) GENERAL LOCATION NOTES

- A) The centerline of the hydrants shall be located in the parkway, 3'6", behind the back of the curb, with a splash pad provided from the edge of the pavement to the fire hydrant.
- B) Fire hydrant lead shall have a gate valve at the connection to the main.
- C) Fire hydrants in commercial and industrial areas shall generally be at street intersections and so located that there will be a fire hydrant every three hundred (300) feet. Fire hydrants in a residential area shall be generally located on street intersections (or on the property line at locations other than street intersections) and not over five hundred (500) feet apart. Fire hydrants in a multi-family complex shall be generally located on street intersections and not over three hundred (300) feet apart.
- D) Spacing between fire hydrants shall not exceed 500 feet. Spacing may be reduced to 200 ft. based on the required fire flow, building size and construction, and site conditions.
- E) Fire hydrants must be located within a utility easement or public right-of-way.
- F) Dead-end lines for hydrant leads shall not exceed 50 feet on multi-family, commercial, or industrial sites.
- G) Fire hydrants shall not be located in the bulb of a cul-de-sac.



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III) FIRE DEPARTMENT CONNECTION (FDC) & FIRE HYDRANT ACCESS

- A) The Fire Department Connection (FDC) shall be located adjacent to and face an approved fire lane.
- B) FDC shall be a Remote FDC and not affixed to the building.
- C) The FDC shall be within 50 feet of a fire hydrant.
- D) A minimum of a 5-foot wide, unobstructed pathway shall be provided from the fire hydrant to the FDC. Parking/loading spaces and landscaping are considered an obstruction.
- E) Shall be located a minimum of 3 ft. from the face to any landscaping and provide a clear pathway to the fire lane and adjacent fire hydrant. Parking, screening, and landscaping are considered obstructions.
- F) Where fire hydrants are subject to impact from a motor vehicle or industrial equipment, they shall be protected per IFC Section 312.

IV) FIRE HYDRANT ACCESS & PROTECTION

- A) A clear space of 3 ft. shall be maintained around the fire hydrant. Building elements, signs, shrubberies, trees, bushes, or other landscaping elements shall not be located within the three-foot clear space around the fire hydrants.
- B) A 5-foot wide, unobstructed pathway shall be provided from the fire hydrant to the public street or fire lane. Parking/loading spaces and landscaping are considered an obstruction
- C) Where fire hydrants are subject to impact from a motor vehicle or industrial equipment, they shall be protected per IFC Section 312.

V) IFC SECTION 312

- A) Bollards or guard posts *for fire hydrant and FDC protection* shall comply with the following:
 - 1) Constructed of steel at least 4 inches in diameter.
 - 2) Spaced 3 feet from the face of the fire hydrant or FDC.
 - 3) Set at least 3 feet deep in a concrete footing not less than 15 inches in diameter.
 - 4) Set the top of the post at least 3 feet above grade.

VI) FIRE FLOW AND FIRE HYDRANTS

- A) The total number of fire hydrants required will be based on an evaluation of the projected fire flow needed for the building(s).
- B) Additional fire hydrants may also be required based on the hazards present, the size of the building(s), and access to the facility. The fire code official shall determine this.
- C) The minimum fire flow required shall be 1,500 GPM.

VII) BACKFLOW PREVENTION

- A) All dead-end lines shall have a fire hydrant installed for flushing purposes. If installing a fire hydrant is not possible, a flushing valve is required. A good rule of thumb is 50 ft. Contact the Engineering Department to determine if a backflow prevention device will be required.



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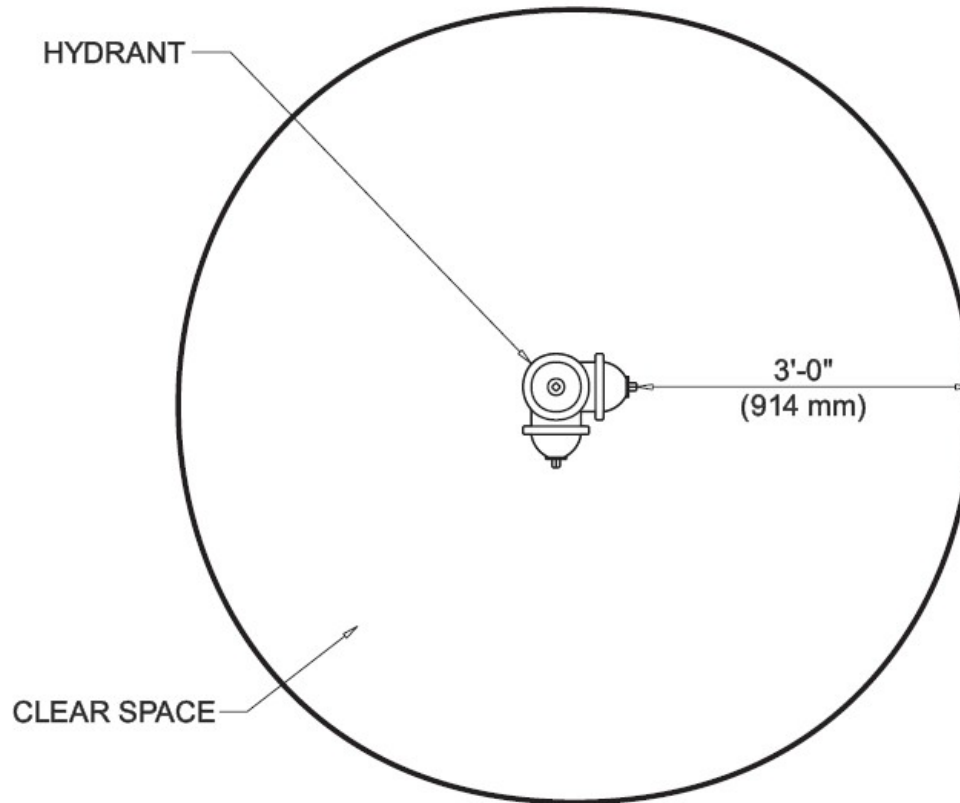


Figure 508.5.5
HYDRANT CLEARANCE



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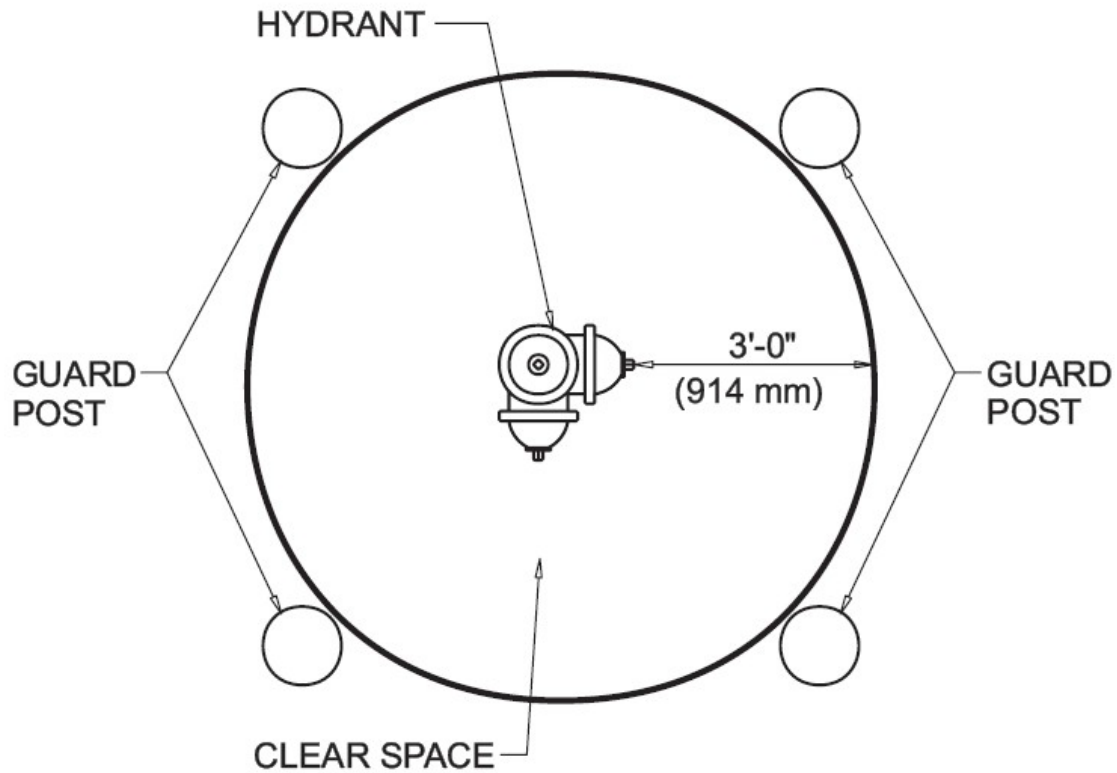


Figure 508.5.6
HYDRANT IMPACT PROTECTION

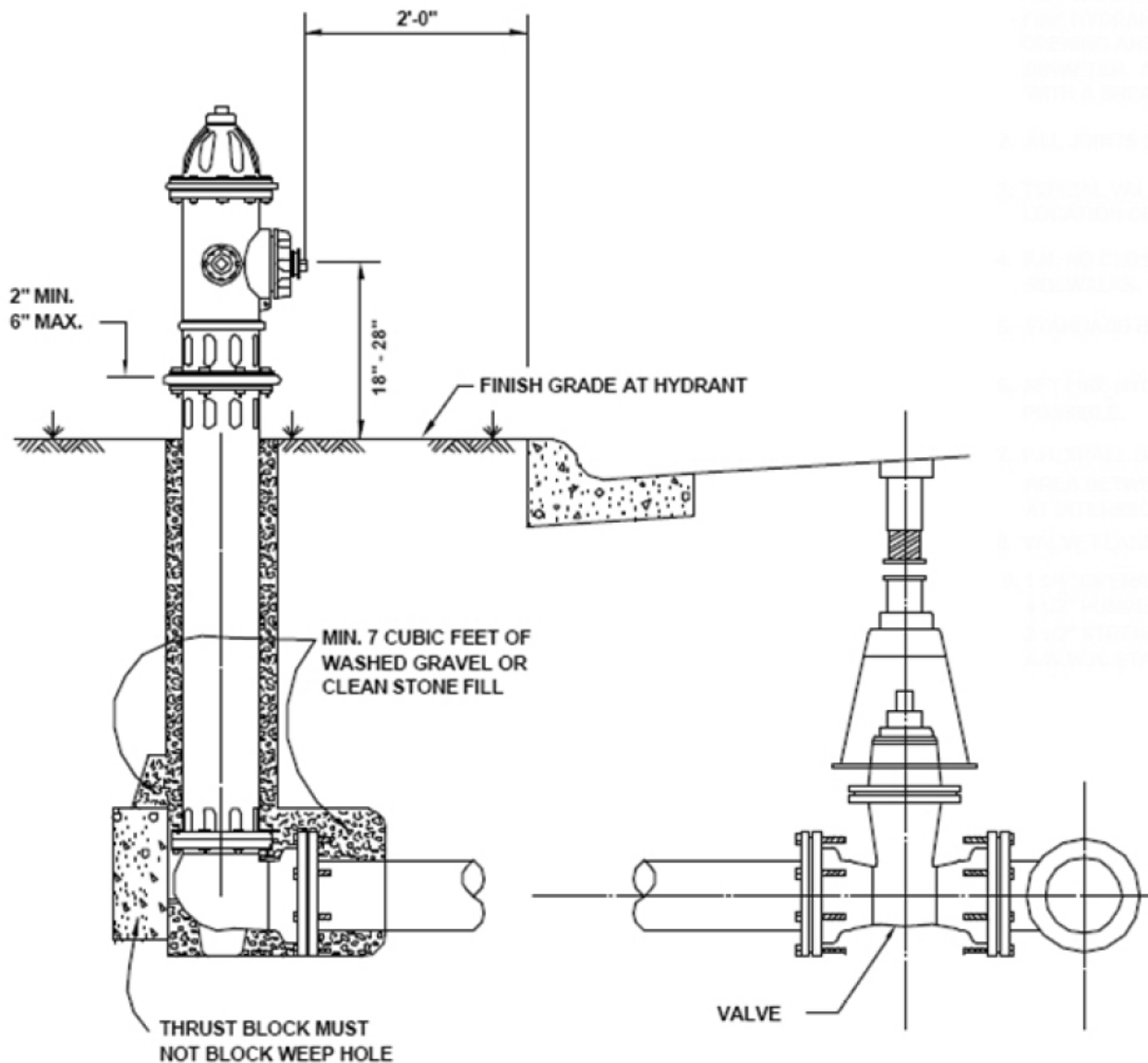


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N.T.S.

City of McKinney Standard Fire Hydrant Construction Detail

Additions, Modifications or Alterations to the fire hydrant detail are subject to review and approval of the Fire Department.



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