Jackson Township Fire Department
New Construction Requirements
Based upon Ohio Fire Code (2017 Edition)

The Jackson Township Fire Department has established the following Fire Protection Guidelines to aid developers and architects in planning new construction within its jurisdictional boundaries of ***Jackson Township, Grove City, and The Village of Urbancrest***. Some items may not be required, depending on the type of occupancy, use group classification, and overall size of the structure, facility, or subdivision being constructed.
The Fire Department will verify the Proper State of Ohio licensing and certifications of contractors and subcontractors during the construction process.

We highly encourage all prospective developers and contractors to set up a preconstruction meeting to review these requirements during their project planning process. All building owner(s) / occupant(s) contractors, vendors, landlords, etc., should become familiar with these requirements.

Please incorporate the following items as a part of your overall plan development process:

Construction Documents:
Construction documents for proposed fire apparatus access, location of fire lanes, security gates across fire apparatus access, construction documents and all necessary calculations for fire protection systems to include hydrants, sprinklers, standpipes, and fire alarm systems need to be submitted along with the system plans to both Jackson Township Fire Prevention Bureau (614-875-5588) and Grove City Building Department (614-277-3075) for review and approval prior to construction.

Timing of Installation:
When fire apparatus access roads or a water supply for fire protection is required to be installed, such protection is to be installed and made serviceable prior to and during construction, except when approved alternative methods of protection are provided. Temporary street signs are to be installed at each street intersection when the construction of new roadways allows passage by vehicles.

Fire Apparatus Access Roads:

Approved fire apparatus access roads are to be provided for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction that is not readily accessible from a public and/or private street. The fire apparatus access road is to comply with the requirements of the Ohio Fire Code. It must extend to within 150 feet of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

We will consider, but not guarantee, making an exception to increase the distance of 150 feet where:

1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with rule 9 of the Ohio Fire Code.

2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades, or other similar conditions, and an approved alternative means of fire protection is provided.

Additional access may be required when more than one fire apparatus access road is necessary based on the potential impairment of a single road by vehicle congestion, terrain conditions, climatic conditions, or other factors that could limit access.

Fire access roads and associated signage require prior approval by the Jackson Township Fire Department on a case-by-case basis. Areas where fire access roads are normally required include access points deemed critical to firefighting operations, fire hydrant locations, Fire Department Connections (FDC), Post Indicator Valve Locations, and Fire Pump Control Locations.

Road/street widths are to be a minimum of 26 feet in unobstructed width (islands in entrances, cul-de-sacs, vehicle parking areas, etc., are not to be included in the calculation for street width). An unobstructed vertical clearance of not less than 13 feet 6 inches is required.

Fire access roads and all components of fire access roads are to be in compliance with the Ohio Fire Code, including Appendix D of the OFC. Private drives and streets will generally be deemed “Fire Access Roads,” and parking will be restricted based on the width of the drive/street. ***If the designed road widths do not meet the 26’ minimum, a designated Fire Access Road, no less than 26’ wide, will be required. Aerial apparatus requires a surface 26’ wide to accommodate setting up the apparatus.*** Fire apparatus access roads are to be designed and maintained to support the imposed loads of fire apparatus and surfaced so as to provide all-weather driving capabilities. An increase in the minimum access widths may be required where they are inadequate for fire or rescue operations. Gates or other approved barricades may be required across fire apparatus access roads, trails, or other access ways, not including public streets, alleys, or highways.

In paved areas, signage and striping of the fire access road are required, with the curbs painted a contrasting color (preferably yellow). Signage and striping or curb painting are required at all fire hydrant locations (paved areas). In locations where fire hydrant or other fire control appurtenances are located, the striping is to extend to 10 feet in width on both sides of the appurtenance. For Commercial / Industrial / Factory Buildings: Fire Apparatus Access Lanes are generally required to be posted on both sides of the Fire Apparatus Access Road with signage every 100 feet on unpaved roadways. Signage is to be a minimum of 12” wide and 18” tall. An example is provided below.

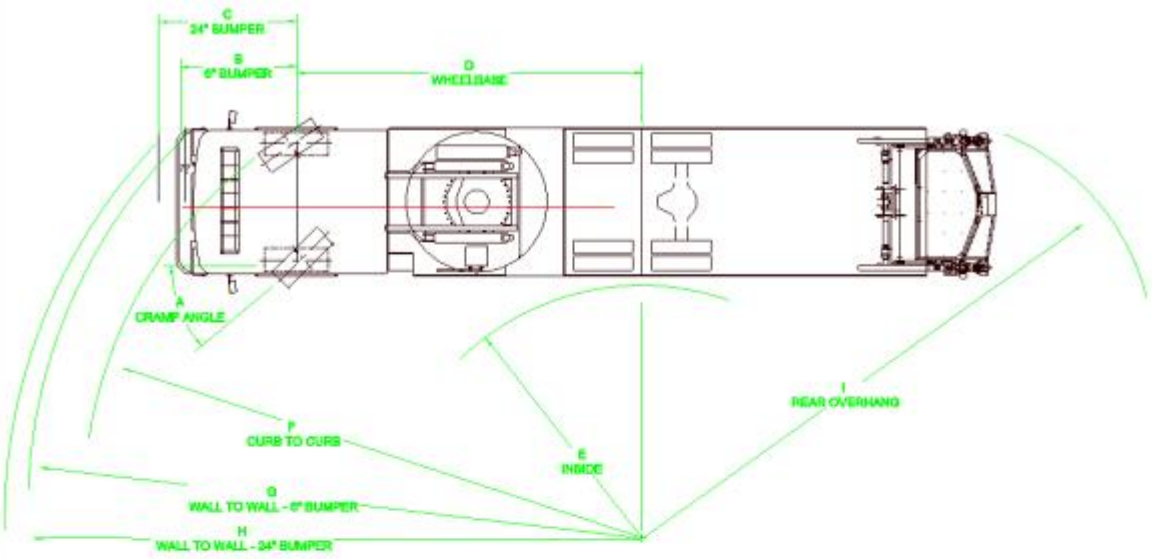
Fire department vehicle access to buildings used for high-piled combustible storage is required to comply with the applicable provisions of rule 32 of the Ohio Fire Code.

In paved areas, signage and striping of the Fire Lane SHALL also be required with the curbs painted a contrasting color (preferably yellow). Signage and striping or curb painting is required at all fire hydrant locations (paved areas). In locations where tractor-trailers are staged, the striping SHALL extend to 10 feet in width on both sides of a fire hydrant or other fire control appurtenance and extend in depth the entire length of the tractor-trailers being staged.

Dead-End Fire Apparatus Access Roads in excess of 150 feet in length require an area for turning around fire apparatus, which must meet (Appendix D) of the OFC specifications and be reviewed and approved by the *Jackson Township Fire Department*.

Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge is to be constructed in accordance with the Ohio Fire Code. Bridges and elevated surfaces SHALL be designed for a live load sufficient to carry the imposed loads provided by *Jackson Township Fire Department*. Vehicle load limits SHALL be posted at both entrances to bridges.

The required turning radius of drives, lanes, fire apparatus access roads, and so on are provided in the diagram on the following page.



Parameters

A	Cramp Angle (maximum)	42 deg. 425 Tires
B	Front Overhang 6" Bumper	76"
C	Front Overhang 24" Bumper	94"
D	Wheelbase	247"

Calculated Results

E	Inside Turning Radius	21-11"
F	Curb to Curb	36'-9"
G	Wall to Wall 6" Bumper	40-5"'
H	Wall to Wall 24" Bumper	41-8"'
I	Rear Overhang Swing	35'-6"

Cramp Angle may vary due to vehicle configuration.
Curb to Curb based on a 9" curb

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

The Jackson Township Fire Marshal is authorized to require the installation and maintenance of electric gate operators, where provided, SHALL be listed in accordance with UL 325 as listed in rule 1301:7-7-47 of the Administrative Code. Gates intended for automatic operation SHALL be designed, constructed, and installed to comply with the requirements of ASTM F 2200 as listed in rule 1301:7-7-47 of the Administrative Code.

Secured Gates and Barricades:
When required, gates and barricades SHALL be secured in an approved manner. Roads, trails, and other access ways that have been closed and obstructed **shall not** be trespassed on or used unless authorized by the owner and Jackson Township Fire Marshal.

Exception: The restriction on use **shall not** apply to public officers acting within the scope of duty.

Security Gates:
The installation of security gates across a fire apparatus access road SHALL be approved by the Jackson Township Fire Marshal. Where security gates are installed, they SHALL have an approved means of emergency operation. The security gates and the emergency operation SHALL be maintained operational at all times. Electric gate operators, where provided, SHALL be listed in accordance with UL 325 as listed in rule 1301:7-7-47 of the Administrative Code. Gates intended for automatic operation SHALL be designed, constructed, and installed to comply with the requirements of ASTM F 2200 as listed in rule 1301:7-7-47 of the Administrative Code.

Premises Identification:

Address Numbers:
New and existing buildings SHALL have approved address numbers, building numbers, or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers SHALL contrast with their background. Address numbers SHALL be Arabic numbers. Numbers SHALL be a minimum of 4 inches high with a minimum stroke width of 0.5 inch, where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole, or other sign or means SHALL be used to identify the structure.

Street or Road Signs:
Streets and roads SHALL be identified with approved signs. Temporary signs SHALL be installed at each street intersection when construction of new roadways allows passage by vehicles. Signs SHALL be of an approved size, weather resistant and be maintained until replaced by permanent signs.

Signage is required by *Jackson Township Fire Department* for First Responder for both interior and exterior of complex, building, business, and/or tenant space(s) showing access to Mechanical Areas / Sprinkler Riser Control Rooms(s) / Fire Alarm Control Panel(s) / Roof Access.

Key Boxes:

A (Knox) Lock Box SHALL be installed in a location determined by *Jackson Township Fire Department*, approximately 5 feet above finished grade, with Knox brand cylinder eLock system. Applications for Lock boxes are available online at https://www.knoxbox.com/. More than one Knox box may be required due to the size or layout of a structure.

Locks:
An approved lock SHALL be installed on gates or similar barriers when required by the *Jackson Township Fire Department*.

Fire Protection Water Supplies:

Required water supply:
An approved water supply capable of supplying the required fire flow for fire protection SHALL be provided to premises upon which facilities, buildings, or portions of buildings are hereafter constructed or moved into or within the jurisdiction.

Type of Water Supply:
A water supply SHALL consist of reservoirs, pressure tanks, elevated tanks, water mains, or other fixed systems capable of providing the required fire flow.

Private Fire Service Mains:
Private fire service mains and appurtenances SHALL be installed in accordance with NFPA 24 as listed in rule 1301:7-7-80 of the Administrative Code.

Water tanks:
Water tanks for private fire protection SHALL be installed in accordance with NFPA 22 as listed in rule 1301:7-7-47 of the Administrative Code.

Fire Flow:
Fire flow requirements for buildings or portions of buildings and facilities SHALL be determined by an approved method.

Water Supply Test:
The Jackson Township Fire Marshal SHALL be notified prior to the water supply test. Water supply tests SHALL be witnessed by *the Jackson Township Fire Department,* or approved documentation of the test SHALL be provided to the Jackson Township Fire Marshal prior to final approval of the water supply system.

REQUIREMENT: Private fire service mains and appurtenances SHALL be 8 inches minimum in diameter, SHALL be installed, inspected, tested, and approved in accordance with NFPA 24 which includes residential subdivisions. Jackson Township Fire Department SHALL inspect all public and private fire service mains prior to final filling of the pipe trench. Hydrostatic testing and flushing of all public and private fire service mains SHALL be in accordance with NFPA 24 and SHALL be witnessed by *Jackson Township Fire Department*. Looped Fire Protection Mains are preferable when at all possible. Plan submittals for review are required by the Jackson Township Fire Marshal prior to waterline approval or installation.

Fire Hydrants:

Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 300 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains SHALL be provided where required by the Jackson Township Fire Marshal.

1. For Use Group F and H: Commercial Development Use Groups, R-1, A, B, E, I, M and S; Multi-Family Development Use Groups R-2, R-3 and Multi-Single Family, the distance requirement SHALL be no more than 300 feet (183 m) between adjacent hydrants.

2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with 1301:7-7-09 of the Administrative Code, the distance SHALL be no more than 300 feet (183 m) between adjacent hydrants.

3. One (1) fire hydrant SHALL be provided within 150 feet of the terminus dead-end streets.

Hydrant for standpipe system and Fire Department Connections

For structures with standpipes and/or automatic sprinkler systems, the public hydrant designated for the Fire Department Connection (FDC) is for the sole use of supplying the FDC and shall not be considered in the calculated distance for hydrant spacing noted in OFC 507.5.1, separate fire hydrant(s) SHALL be provided from the apparatus access road to within 300 feet of all portions of the structure for water supply to firefighting apparatus.

Fire Hydrant Colors:

Public hydrants SHALL be painted completely with Sherwin Williams (Safety Yellow) or an approved equivalent color.
Private hydrants SHALL be painted Sherwin Williams (Safety Yellow) or the approved equivalent color on the barrel, with the bonnet (top) and caps painted (white).
Private hydrants on a commercial fire loop not pressurized by a fire pump SHALL be painted Sherwin Williams (Safety Red) or an approved equivalent color on the barrel, with the bonnet (top) and caps painted (white).
Private hydrants on a commercial fire loop pressurized by a fire pump SHALL be painted completely with Sherwin Williams (Safety Red) or an approved equivalent color.

Inspection, Testing and Maintenance:
Fire hydrant systems SHALL be subject to periodic tests as required by the Jackson Township Fire Marshal. Fire hydrant systems SHALL be maintained in an operative condition at all times and SHALL be repaired where defective. Additions, repairs, alterations, and servicing SHALL comply with approved standards. Private hydrants are the responsibility of the property owner and SHALL be maintained in compliance with NFPA 25.

All hydrants SHALL be installed and approved in accordance with NFPA 24 and meet the local water purveyor's hydrant specifications.

> **REQUIREMENT:** Fire Hydrant Spacing SHALL not exceed 300 feet. The minimum distance to the building that a fire hydrant can be located is 40 feet. Fire Hydrants SHALL be located a minimum of 2 feet behind the curb to protect the hydrant from vehicle traffic.

Private Fire Service Mains and Water Tanks:
Private fire service mains and water tanks SHALL be periodically inspected, tested, and maintained in accordance with NFPA 25 as listed in rule 1301:7-7-47 of the Administrative Code at the following intervals:

(i) Private fire hydrants (all types): Inspection annually and after each operation; flow test and maintenance annually.

(ii) Fire service main piping: Inspection of exposed, annually; flow test every five years.

(iii) Fire service main piping strainers: Inspection and maintenance after each use.

Obstruction:
Unobstructed access to fire hydrants SHALL be maintained at all times. The fire department SHALL not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

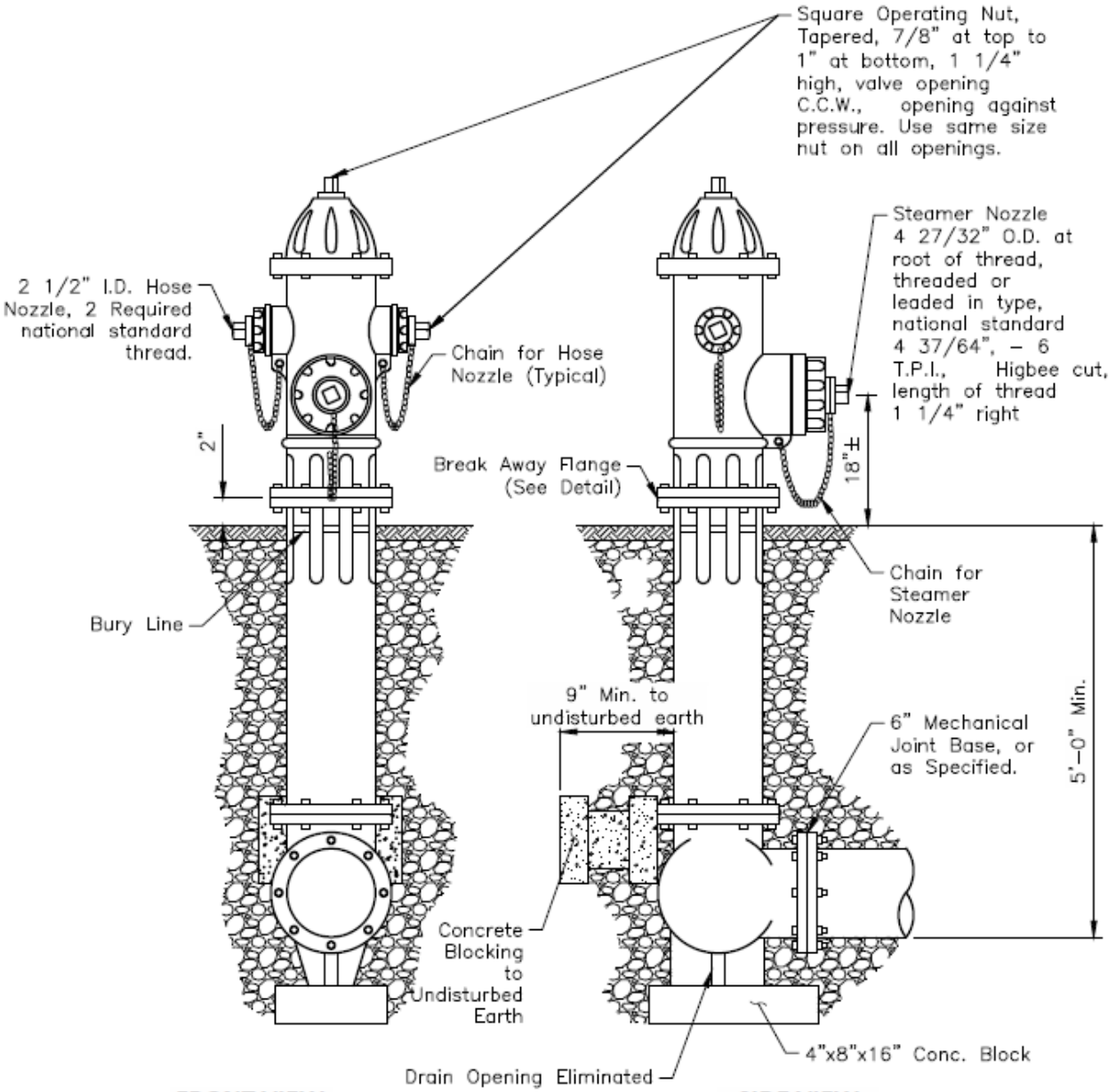
Clear Space Around Hydrants:
A 3-foot clear space SHALL be maintained around the circumference of fire hydrants, except as otherwise required or approved.

Physical Protection:
Where fire hydrants are subject to impact by a motor vehicle, guard posts, or other approved means SHALL comply with paragraph (L)(312) of rule 1301:7-7-03 of the Administrative Code.

REQUIREMENT: Fire hydrants SHALL be installed per Grove City Standard Drawings (C-GC-31) (C-GC-32), with cap/lanyard attached to the steamer nozzle, two 2 ½ inch side discharge nozzles equipped with National Standard Hose Thread. Hydrant operating nuts SHALL be a tapered square. All threads provided for fire department connections to sprinkler systems, standpipe systems, yard hydrants, or any other fire hose connection SHALL be compatible with the connections utilized by *Jackson Township Fire Department*.

Bollard protection SHALL be required (as determined by *Jackson Township Fire Department*). Steel bollards filled with concrete SHALL be installed at a minimum of 3 feet from the hydrant and in a manner so as not to obstruct the clear space in front of the hydrant outlets. Fences, trees, shrubs, walls, or any other objects SHALL not obstruct hydrants.

Private fire service mains, where paved areas exist, SHALL have a clear area with a minimum of 10 feet to either side of the fire hydrant, and the area in front of the fire hydrant SHALL be properly signed and striped in the same manner required for Fire Lanes.



FRONT VIEW **SIDE VIEW**

Backfill shall consist of granular material conforming to Item 304 or other approved suitable material, power tamped in layers not exceeding 4 inches in thickness, loose measurement. This granular backfill shall extend from the bottom of the pit or trench to 6 inches below the existing or proposed surface of the surrounding area. The cost of furnishing and placing this backfill shall be included in the price bid for each fire hydrant. All fire hydrants shall be installed with concrete blocking against undisturbed earth.

Approved By:

City Engineer, EMH&T Inc

Cindi Fitzpatrick

City Service Director

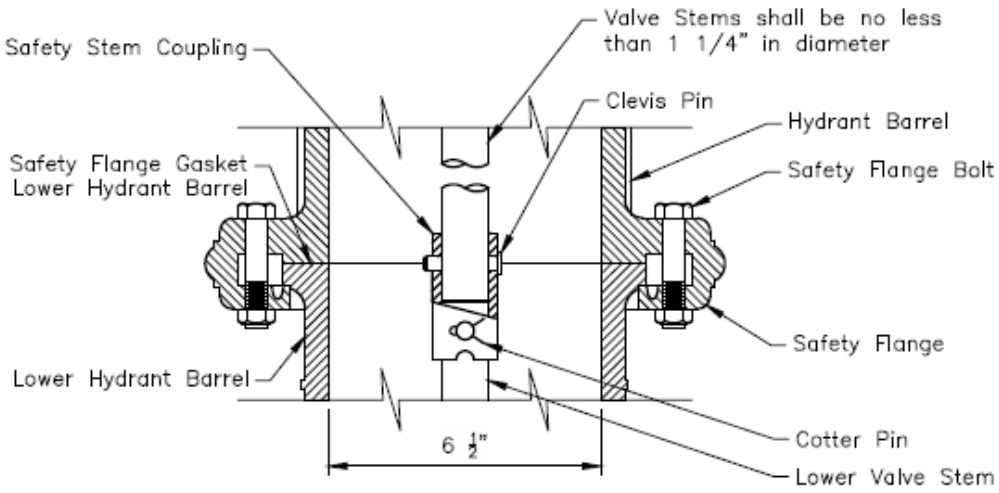
STANDARD DIMENSIONS FOR

STANDARD FIRE HYDRANT DETAIL

CITY OF GROVE CITY, OHIO

STANDARD CONSTRUCTION DRAWING

Revised	Sheet	Drawing No.
January 2024	1/3	C-GC-31



BREAK FLANGE & SAFETY COUPLING SECTION

FIRE HYDRANT NOTES:

Type of hydrant: The hydrant shall be the post type traffic model made of cast iron as shown hereon. It shall have a breaking connection that prevents loss of water when the upper and lower sections are separated by a smashing impact. The hydrant shall be of the compression type with the valve opening in a counter–clockwise direction against the pressure and closing with the pressure. The valve end of the stem or valve rod shall be so constructed as to eliminate contact of dissimilar metals in the presence of moisture.

The stem or valve rod shall be constructed in one continuous length from the valve to the breaking coupling or to the bottom of the extension piece where extensions are required. The stem or valve rod between the valve and operating nut shall be made of stainless steel and have a 1–¼ inch minimum diameter after machining. The breaking coupling shall fit over the valve rod and be located at the proper point to conform to the breaking connection in the standpipe. All bolting below grade shall be stainless steel.

The barrel shall have an area of not less than 120 percent of the valve opening. The type of valve shall be rubber with the diameter of the port in the seal ring being a minimum of 4–¼ inches.

All interior working parts of the hydrant including valve and valve seat shall be such that they can be removed through the top of the standpipe without excavation. The upper section of the standpipe above the ground line shall be adjustable so that the nozzles can be rotated to any desired position. All drip or drain openings shall be eliminated or plugged with a threaded, properly sized plug of the same material as the hydrant casting. The hydrants shall be equipped with rubber–faced valves. The hydrant shall be rated for a pressure of 250 p.s.i. All lubrication shall be accomplished by using NSF/FDA food grade grease.

Reference Specifications:
All fire hydrants shall conform with the latest American Water Works Association Standards, C–502 and the requirements of the City of Grove City and the Jackson Township Fire Department as enumerated herein. All specifications shall refer to the latest effective editions.

Approvals and Certifications:
The following hydrants have been approved for use:
Clow – "Eddy"
American Darling – "Mark 73"
Mueller – "Super Centurion"

(Fire Hydrant Notes Continued to Sheet 3)

Approved By: City Engineer, EMH&T Inc City Service Director	STANDARD DIMENSIONS FOR STANDARD FIRE HYDRANT DETAIL	CITY OF GROVE CITY, OHIO STANDARD CONSTRUCTION DRAWING Revised: January 2024 / Sheet: 2/3 / Drawing No.: C-GC-31

(Fire Hydrant Notes Continued from Sheet 2)

The approved hydrants listed above must conform to all the requirements contained herein. "Stock" models will not be accepted.

Alternative "equals" to the hydrants listed above will be considered. The manufacturer shall submit supporting data to the City for review and consideration.

Any fire hydrants, delivered to a project within the City or to the City, which fail to conform to the approved information on file with the City, shall be rejected.

With each delivery shipment of fire hydrants, the hydrant manufacturer shall certify that the hydrants conform to the information approved and on file with the City. The certificate shall include the model or identification numbers of the hydrants being delivered and approval date of the information on file with the City. The documentation does not constitute approval or final acceptance of the specific hydrants delivered.

Inspection:
Prior to installation, all fire hydrants shall be inspected by the City Engineer or a City representative and by the Chief of the Jackson Township Fire Department or a Fire Department representative. The hydrants shall receive either a conditional acceptance or a rejection. Conditional acceptance shall mean that the hydrants may be installed.

Upon installation, each hydrant shall be tested for operation and leaks with a member of the Jackson Township Fire Department present during the test, and shall receive either operational acceptance or a rejection.

The City reserves the right to reject any and all fire hydrants found to be in non-compliance with any of the requirements stated herein at any time during the acceptance, or above described approval, process. Any fire hydrants which are rejected and which cannot be brought into compliance with the requirements as stated herein shall be removed from the project site, storage site, or the work site at no expense to the City.

The final field acceptance shall govern over any document approval and shall be based on all the work being completed; including installation, testing, operation and painting.

Installation:
The fire hydrant shall be installed as specified herein and in accordance with the City of Grove City Standard Drawing No. C-GC-32, the City of Columbus Standard Water Drawings No. L-6637, Type A Setting, No. L-6409, Type B Setting, or as specified by the City Engineer.

The base section of all fire hydrants shall be set to an elevation which will be correct for the proposed grade of the street. The elevation of the top barrel section shall be set so that the grade line of the hydrant is at the established or proposed finished grade, as indicated on the construction drawings, through the installation of hydrant extension sections, as needed.

The hydrant nozzles shall be turned as directed by the engineer or his representative.

Painting:
Final paint color shall be two coats of Sherwin Williams Industrial Enamel Alkyd Coating Safety Yellow B54Y37 or equivalent. Prior to painting, samples shall be submitted to the Jackson Township Fire Department for approval. After operational acceptance, all hydrant surfaces above the ground line shall be cleaned, washed, and wire brushed, and all surfaces or spots that require touching up shall have one coat of primer paint applied. When all the surfaces have been primed and are dry, then all hydrant surfaces shall receive two (2) coats of the approved enamel.

Materials and Workmanship:
All machined parts shall be true to gauge so that they will be interchangeable between hydrants of the same make and size.

When required, non-adjustable hydrant wrenches, properly sized to the specified operating nut dimensions and fabricated by the hydrant manufacturer, shall be supplied.

Approved By: City Engineer, EMH&T Inc City Service Director	STANDARD DIMENSIONS FOR STANDARD FIRE HYDRANT DETAIL	**CITY OF GROVE CITY, OHIO** STANDARD CONSTRUCTION DRAWING Revised: January 2024 | Sheet: 3/3 | Drawing No.: C-GC-31

DETAIL NOTES

The Contractor shall set Fire Hydrants to proper grade, with the ground line at the same elevation as the top of curb. Where there is no curb, set ground line at 3/8 inch per foot from the edge of pavement. Set Fire Hydrants to proper grade at the time of installation, using the proper length of Fire Hydrant lower barrel, (5 foot Min.), or through the proper use of extensions, after installation.

This detail is to be used in conjunction with the following standard drawings as they may apply for the particular installation; City of Columbus No. L-6637 Type "A" Setting, No. L-6409 Type "B" Setting & City of Grove City No. C-GC-31 Standard Fire Hydrant.

Approved By:

City Engineer, EMH&T Inc

City Service Director

STANDARD DIMENSIONS FOR

FIRE HYDRANT LOCATION DETAIL

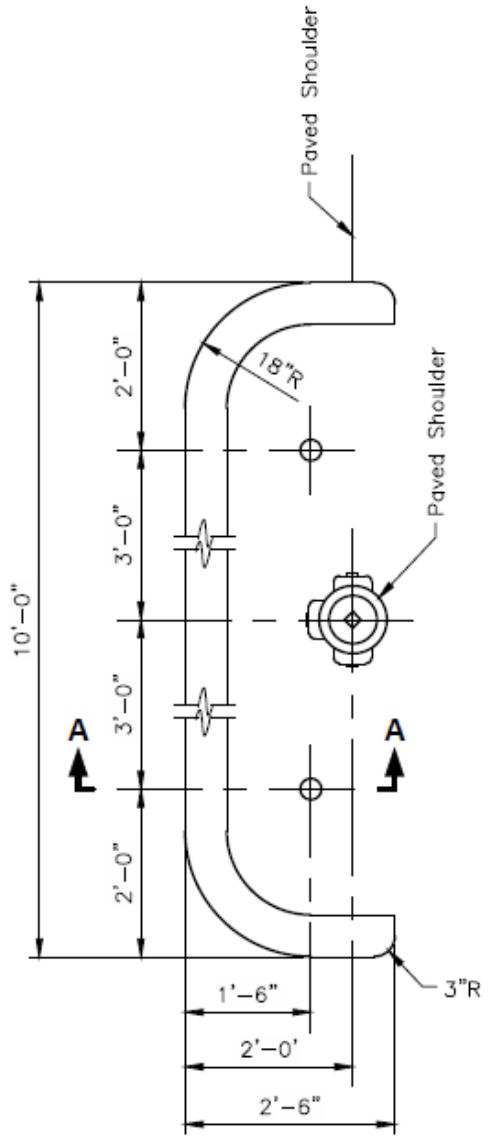
CITY OF GROVE CITY, OHIO

STANDARD CONSTRUCTION DRAWING

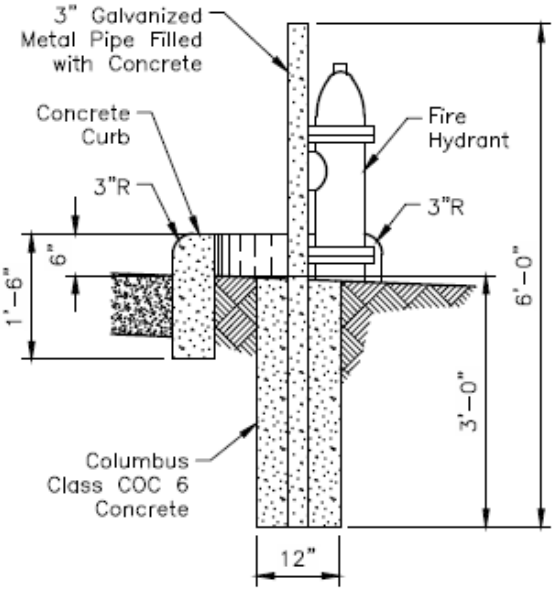
Revised	Sheet	Drawing No.
May 2022	1/2	C-GC-32

3–inch Metal Protection Posts shall be wire brushed clean and painted one coat of primer and two coats of Federal Safety Orange enamel after each coat is thoroughly dry.

Fire Hydrant Protection shall be used when hydrants are within 6 feet (6') from the edge of pavement of streets, access roads, and drives without curb or elsewhere as directed.



PLAN VIEW



SECTION "A-A"

FIRE HYDRANT PROTECTION DETAIL

DETAIL NOTES

1. No Hydrant shall be located within thirty feet (30 feet) from the edge of pavement or face of curb lines of any two public streets extended to their intersection.
2. No hydrant shall be located within six feet (6 feet) from the edge of any residential drive approach, nor shall any hydrant be located within eight feet (8 feet) of an alley, commercial drive, or access road.
3. Valve box and cover casting shall be level with the finished ground or flush with paved surfaces.
4. Prior approval shall be obtained from the City Engineer before any change is made to the ground elevation at an existing hydrant or valve box.

Approved By:

City Engineer, EMH&T Inc

Cindi Fitzpatrick

City Service Director

STANDARD DIMENSIONS FOR

FIRE HYDRANT LOCATION DETAIL

CITY OF GROVE CITY, OHIO

STANDARD CONSTRUCTION DRAWING

Revised	Sheet	Drawing No.
May 2022	2/2	C-GC-32

FIRE DEPARTMENT CONNECTION (FDC):

Fire Department Connection Fittings: Provide a 2.5'' Siamese for the Fire Department Connection. The supply piping from the Fire Department Connection to the sprinkler/standpipe system SHALL be 5" minimum in diameter. The top of the fitting SHALL be a minimum of 24 inches and a maximum of 48 inches above the finished grade.

Fire Department Connections: SHALL be within 75 feet of a public hydrant on the same side of roadway, located ***remotely*** away from the building. Locations for FDC's SHALL be determined by *Jackson Township Fire Department*. Plan submittal and review is required prior to approval and installation of the FDC.

Signage indicating the building address is required to be located on the Fire Department Connection. In paved areas, ten (10) feet to either side of the FDC and the area in front of the FDC SHALL be properly signed with the curb painted and pavement striped in the same manner as required for Fire Lanes. Signage is required to identify fire protection equipment and equipment locations. SHALL be constructed of durable materials, permanently installed, and readily visible. Letters and numbers SHALL contrast with the sign background and have an appropriate width-to-height ratio to permit the sign to be read easily.

Locking Fire Department Connection Caps: *Jackson Township Fire Department* requires (Knox) locking "FDC" caps on Fire Department Connections for water-based fire protection systems. The fire department carries appropriate key wrenches for removal. Applications for locking Fire Department Connection caps are available online at https://www.knoxbox.com/.

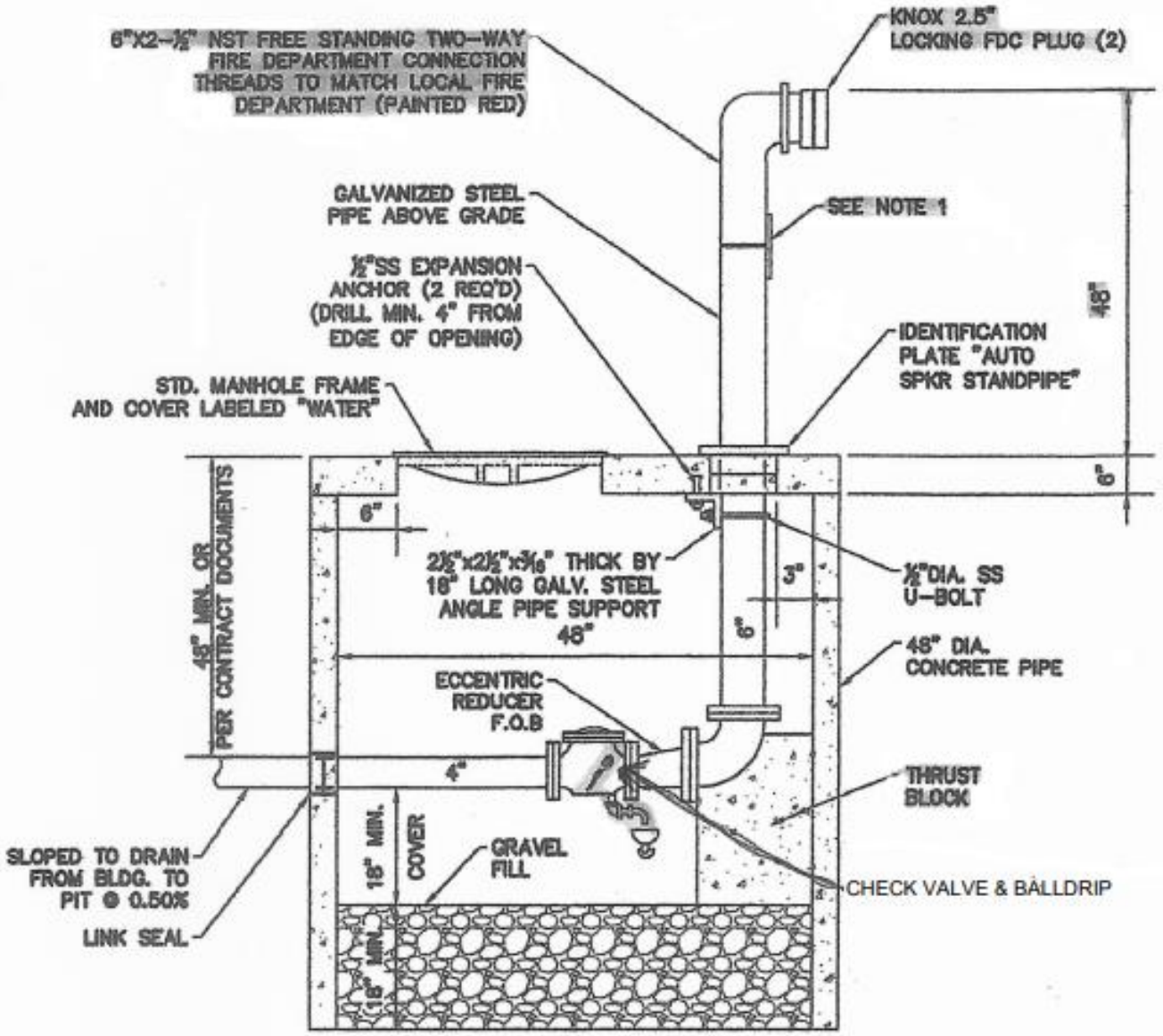
FDC testing: All fire department connections are required to pass a hydrostatic test (200# for 2 hours) as required for the building fire suppression system. All FDC lines SHALL be flushed prior to final approval and witnessed by *Jackson Township Fire Department*.

VEHICLE IMPACT PROTECTION:

Bollard protection SHALL be required (as determined *by Jackson Township Fire Department*). Steel bollards filled with concrete and designed to the specifications of Rule 312.2 OFC SHALL be installed at a minimum of 3 feet from the FDC and in a manner so as not to obstruct the clear space in front of connections.

Obstructions such as fences, trees, shrubs, walls, or any other objects SHALL not obstruct the Fire Department Connection (FDC).

Paved areas 10 feet to either side of the FDC and the area in front of the FDC SHALL be properly signed and striped in the same manner required for Fire Lanes.



NOTE:

1. A PERMANENT METAL SIGN OF 6"x11" MUST BE FIRMLY BANDED AT THE FIRE DEPARTMENT CONNECTION RISER WITH LETTERS OR NUMBERS, A MINIMUM OF 2 INCHES IN HEIGHT, WITH THE FOLLOWING:
   A. "FDC" WITH THE NUMBER(S) OF THE ADDRESS OR ADDRESS RANGE THAT THE FIRE DEPARTMENT CONNECTION SUPPLIES.
   B. THE BACKGROUND COLOR SHALL BE RED, WITH WHITE LETTERS.
   C. INDICATE THE PRESSURE REQUIRED TO DELIVER THE GREATEST SYSTEM DEMAND.

(B) DETAIL

FIRE DEPARTMENT CONNECTION N.T.S.

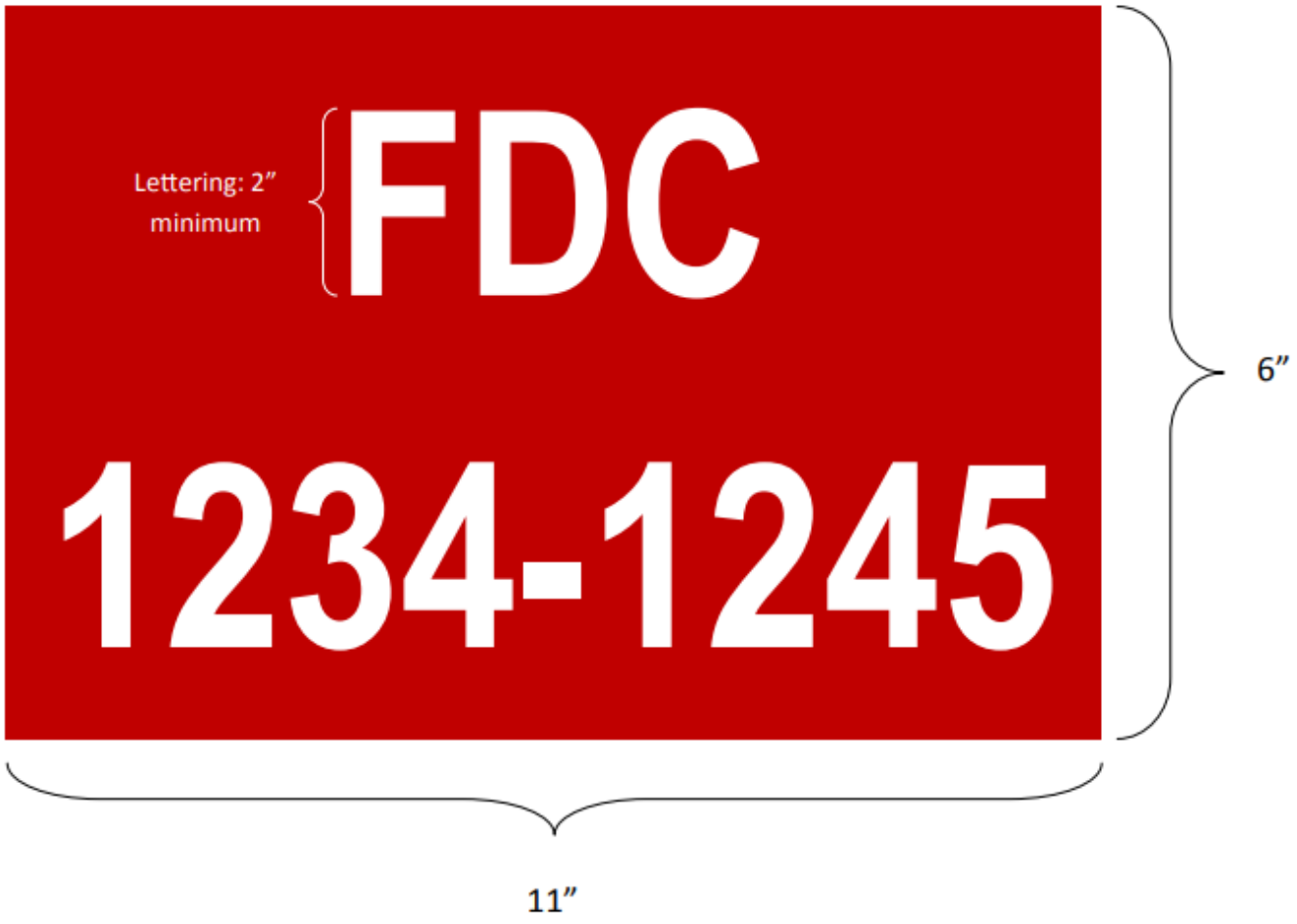
FIRE DEPARTMENT CONNECTION INSTALLATION REQUIREMENTS

A permanent metal sign of six (6) inches by eleven (11) inches must be firmly banded /attached at the Fire Department Connection riser with letters and/or numbers, a minimum height of two (2) inches, with the following:
"FDC" with the address number or address range that the Fire Department Connection supplies.
The background color shall be red, with white letters/numbers.

OFC 912.2.2: Existing Buildings. On existing buildings, wherever the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an approved sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" at least 6 inches (152 mm) high and the words in letters at least 2 inches (51 mm) high or an arrow to indicate the location. All such signs shall be subject to approval of the fire code official.

NFPA 24 5.9.5.4 Indicate the pressure required to deliver the greatest system demand (when needed)

Sample:



FIRE STANDPIPE SYSTEMS:

Standpipe Systems SHALL be installed and comply with all the requirements of NFPA 14 for a Class I Standpipe System, with NST threads equipped with a 2 ½" to 1 ½" reducer and a cap attached with a chain.

An adequate number of Class I standpipes SHALL be installed to allow any point in the building to be reached by a 100-foot length of hose and a 25-foot water stream. Standpipe connections SHALL be required at all designated exit locations.

Fire Hose/Fire Hose Racking installations **shall not** be installed for use by building occupants. Where the building is protected throughout by an approved automatic sprinkler system, hose stations for use by the building occupants SHALL not be required, subject to the approval of the *Jackson Township Fire Department*.

Shut-off valves SHALL be provided at each hose connection location with prior approval from the *Jackson Township Fire Department*.

FIRE SPRINKLER SYSTEMS:

All Fire Sprinkler Systems SHALL be installed in accordance with NFPA 13.

Post-indicator valves (PIV) Wrenches SHALL be secured with frangible locks. Exterior Wall Post-Indicator Valves (WPIV) SHALL also be chained and locked in the OPEN position with frangible locks.

Inspectors Test Locations for all fire sprinkler systems SHALL be installed in accordance with NFPA 13.

ESFR SPRINKLERED FACILITIES:

The *Jackson Township Fire Department* recommends that the following requirements be implemented within facilities equipped with ESFR Fire Suppression Systems and proposed travel distances in excess of 250 feet.

The recommendations are as follows:

Secondary Power Sources be provided for the Fire Pump System, Emergency Egress Lighting, Engineered Mechanical Smoke Exhaust Systems, and Fire Alarm Notification Systems or as otherwise required and approved by the Jackson Township Fire Marshal.

NFPA 72 Compliant Automatic Fire Alarm System (horns, strobes, detectors, voice evacuation systems and manual pull stations) be provided throughout the facility, or as otherwise required and approved by the Jackson Township Fire Marshal.

Engineered Mechanical Smoke Exhaust systems where approved by the Jackson Township Fire Marshal would be an acceptable alternative to smoke and heat vents. These systems would be manual operation only and independently controlled by the Firefighter's Smoke Control Panel, to be located in the Fire Pump Control Room.

Engineered Mechanical Smoke Exhaust systems should be designed to allow for a total interior air exchange every 30 minutes. The required number of smoke exhaust fans will be based on the total cubic feet within the specific fire area. The minimum allowable fan size SHALL be 15,000 cfm. The preferred fan size is 45,000 cfm.

FIRE EXTINGUISHERS:

Fire Extinguishers SHALL be provided throughout the facility in accordance with the requirements listed in NFPA 10 and prior approval of the Jackson Township Fire Marshal.

ROOF HYDRANTS:

Roof Hydrant locations SHALL be determined when required at the request of *Jackson Township Fire Department*. The number of roof hydrants required SHALL be based upon 1 roof hydrant for every 250,000 sq. feet and SHALL be located within 20 feet of the roof access scuttle, hatch, or doorway.

Roof Hydrants SHALL be equipped with a double 2 ½" NST valve hose connection. Water supply piping to the roof hydrants SHALL be a minimum of 3" in diameter. The roof hydrant SHALL also be equipped with an exterior Post–Indicator Valve (PIV) or Wall Post-Indicator Valve (WPIV) to allow for fire department operation. This valve SHALL be located in the immediate area of the roof hydrant. A drain valve SHALL also be installed past the PIV or WPIV to allow draining of the unheated portion of the standpipe once the roof hydrant valve has been closed**.**

Roof Hydrant flow requirements SHALL be included in the calculations for the Fire Sprinkler System/Standpipe System.

Signage is required to identify fire protection equipment and equipment locations. SHALL be constructed of durable materials, permanently installed and readily visible. Letters and numbers SHALL contrast with the sign background and have an appropriate width-to-height ratio to permit the sign to be read easily.

ROOF ACCESS LADDERS / ROOF HATCH MARKINGS:

Roof Access Ladders SHALL require prior approval from the *Jackson Township Fire Department*. Emergency lighting shall be provided to illuminate the roof access ladder. Reflective materials for roof hatches exteriors SHALL be marked with reflective striping so as to make them highly visible under poor light or smoke conditions. The interior side of the hatch SHALL also be labeled. Roof hatches SHALL be a minimum of 36" x 42" in size to facilitate firefighters in full protective gear.

FIRE ALARM SYSTEMS:

1. Fire Alarm Systems SHALL require prior review with the *Jackson Township Fire Department*. *(Systems SHALL* be ***addressable****, which indicates on the panel readout exactly what device is in alarm or trouble.)*

2. Fire Alarm System installations and testing SHALL comply with all the requirements in accordance with NFPA 72

3. A remote fire alarm enunciator panel located near a front (and/or rear) entry point by the Knox box and operable by any first responder.

4. A diagram of the facility floor plan(s) with the specific location of all devices, as shown on the fire alarm control panel, will be posted at all fire alarm control panel(s) (FACP) (and a copy given to *Jackson Township Fire Department*).

5. The following information SHALL be posted on FACP & available for FD:
    a. central station monitoring company name
    b. central station monitoring contact number
    c. any & all necessary account passwords/passcodes related to the occupancy
    d. any & all necessary passwords related to the fire alarm systems

e. any & all necessary Fire Alarm Control Panel (FACP) Passwords / Pass Codes

6. Horn / Strobe light located outside on the exterior of the building in place of water gong/bell

7. All fire protection system control valves SHALL be supervised with electronic tamper devices connected to the fire protection supervisory system and to a central station alarm monitoring service

8. All fans SHALL be controlled to automatically shut down upon duct or area smoke detector activation or sprinkler system water flow

CYLINDER / TANK STORAGE of Compressed Gases (Including Propane, Carbon Dioxide, etc.)

As per Ohio Fire Code 2017, SHALL also comply with all requirements under NFPA 58/59.

Emergency Responder Radio Coverage:

All buildings shall have radio coverage approved for emergency responders to meet Rule 5, Section 510 of the 2017 Ohio Fire / Building Code.

Preconstruction Document Packet:

- Fire Department New Construction Requirements
- Fire Department Contact Information
- Building Contact Information:
  ****All Inspection Requests **MUST** be phoned to the Grove City Building Department (614-277-3075).*
- Project Information:

  Name: _____

  Assigned Address: _____

  Site Contact: Name: _____ # = _____

  _____

  Projected Life Safety & Final Inspection Dates: _____

This document shall remain on-site at all times with the building card for review by Fire Safety Inspectors.

7/23/2019