



# GLENDALE FIRE DEPARTMENT

## FIRE MARSHAL'S OFFICE



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To: Contractors

From: Charles Jenkins, Fire Marshal

Subject: Contractor's Guide

This guide is provided by the Fire Marshal as a service to the construction and design community. The purpose of the publication is to provide information regarding frequently asked fire and life safety code questions and issues. Additionally, this guide provides important inspection and testing information, as well as Certificate of Occupancy requirements that will assist you with completing your project.

Our goal is to achieve compliance with City of Glendale Fire Codes by partnering and assisting you with completing your project within your deadlines. In order to be successful in this endeavor, communication is critical. If you communicate your issues to the fire inspector, an early solution can be worked out, keeping your project on track.

If you have any questions, please contact your fire inspector or the Assistant Fire Marshal at (623) 930-4420.

## General Information

- The general contractor is responsible for the fire safety of all property under their control.
- The general contractor is also responsible for any fire and life safety code violations that may occur on the job site.
- Once your project is approved and permits are obtained, you must maintain these documents (approved plans, permits and associated paperwork) on the job site during all construction inspections and system testing.
- Approved plans bearing a red fire department stamp shall be on the job site at all times. No inspections or tests will be conducted without them. The front page and the fire protection sheets shall bear a red fire department stamp.
- Fire protection systems shall be pre-tested by the contractor and all corrections made prior to calling for an acceptance inspection.
- Permit fees are calculated to include one primary test/inspection and two follow-up inspections. Additional charges per Community Development Fee Schedule ([Click Here](#)) will be assessed for each additional inspection. Scheduled inspections not canceled prior to the arrival of the inspector will be counted as an inspection.
- Tests and inspections performed after normal duty hours will be charged per the Community Development Fee Schedule ([Click Here](#)).
- Acceptance testing is required for all fire protection systems, and must be performed by the installing contractor named on the permit
- Unless otherwise approved through the alternate means and methods section of the fire code, all systems shall be designed and installed in accordance with the Glendale Building and Fire Code and the adopted amendments.
- The current list of adopted codes and amendmnets are available online. ([Click Here](#)).
- A copy of the current adopted Fire Code is available for review at the City Clerks office. Amendments to the current adopted code are available online. ([Click Here](#))
- The current Engineering, Design and Construction Standard is available online. ([Click Here](#))

## **Permit Inspection and/or System Test must be scheduled using the IVR automated system**

1. Dial (623) 915-3263 from a touch-tone phone.
2. Press 1 for English or press 2 for Spanish.
3. Press 1 to schedule an inspection.
4. Enter the numeric portion of your permit number followed by the pound key (#),
5. Verify that the correct site address was spoken.
6. Enter the three-digit inspection code you wish to schedule (please refer to list at the end of this document).
7. Verify that the correct inspection type was spoken.
8. Press 1 to schedule an inspection for the next business day (only if calling prior to 4:00 a.m.) or to schedule an inspection for a different day listen to the recorded message for further options.
9. Press 2 to continue.
10. Verify the correct inspection day is spoken.
11. Press 1 to hear your confirmation number if this is the only inspection you will be scheduling for this call or
  - Press 2 to schedule another inspection on the same permit number or
  - Press 3 to schedule another inspection on a different permit number.
12. Verify that your confirmation number is spoken.
13. Press zero for the operator at any time for assistance.

**\*Using code “499 final fire inspection” for non fire final inspections, such as; system tests, rough-ins, overhead, underground, fire alarm, and other fire protection system inspections will result in a failed inspection and require you to reschedule the test/inspection for a later date\***

## **Sprinkler Systems**

Over The Counter (OTC) permits – (IVR Code 402) may be obtained if your project meets the following criteria

- Tenat improvement projects only.
- Shall be a 20 or less sprinkler head modification (this includes added, removed and relocated sprinkler heads).
- The modification shall not be allowed in the original design area, if the modification occurs in this area a full plan review shall be required.
- Shop drawings detailing all sprinkler modifications must be available at the job site at all times.
- A copy of the original sprinkler plan, with the pipe layout must be available at the job

site at all times (if the original sprinkler plan/layout is not available, the OTC permit will be revoked and full plan submittal will be required).

- When the area of modification can be isolated, a hydrostatic pressure test shall be performed.

Underground Hydrostatic Two-Hour Pressure Test (IVR Code 474, 475, 476)

- Inspection/test shall be requested by the contractor named on the permit.
- The system shall be pre-tested by the contractor.
- The system shall be tested hydrostatically at 200 psi for 2 hours.
- The fire inspector shall witness the beginning and ending pressure readings.
- All joints shall be fully exposed.
- Thrust blocks (kickers) or other approved mechanical restraints shall be in place and visible.
- Ductile iron pipe and fittings shall be encased in a polyethylene tube in accordance with the current Engineering Design and Construction Standard ([Click Here](#)).
- A flush must be conducted and witnessed by a fire inspector immediately following the the underground pressure test.
- All check valves shall be in the full open position.
- The contractor completing the work shall provide the Glendale Fire Department with a completed and signed (NFPA 13) Contractor's Material and Test Certificate for Underground Pipe.

\*\*\*\* IMPORTANT NOTE \*\*\*\*

It is highly recommended you consult with your city inspector who witnesses and conducts chlorination and bacteria tests of underground water lines prior to scheduling the underground hydrostatic test.

Overhead Hydrostatic Two-Hour Pressure Test and Rough-in Inspection (IVR Code 400, 401, 402, 403, 404, 405, 406, 407)

- Inspection/test shall be requested by the contractor named on the permit.
- The system shall be pre-tested by the contractor.
- The system shall be tested at 200 psi for two hours with all system piping visible from floor level. Sheet rock or ceiling tiles shall not be installed prior to the testing or inspection of the piping system without the approval of the fire inspector. Obstructions shall be removed before an inspection will be conducted.
- The fire inspector shall witness the beginning and ending pressure readings.
- The inspection/test must be completed prior to connecting the overhead system to the underground water supply system.
- The contractor completing the work shall provide the Glendale Fire Department with a completed and signed (NFPA 13) Contractor's Material and Test Certificate for Overhead Pipe.

Final Fire Sprinkler Inspection (IVR Code 498)

- Inspection/test shall be requested by the contractor named on the permit.

- The completed (NFPA 13) Contractors Material and Test Certificates must be provided to the fire inspector prior to the final inspection.
- Drywall and ceiling panels must be in place.
- Fire sprinkler monitoring by a UL approved third party monitoring company must be verified. A separate permit from the Fire Department is required for the monitoring of the sprinkler system. Permit must be obtained prior to testing.
- The hydraulic calculation data plate shall be installed. The calc-plate must be a stamped or engraved metal or rigid plastic material. The use of magic markers, embossed tape labels, or metal impression labels is not acceptable.
- Sprinkler head box(es) shall be properly installed and stocked with sprinkler heads, wrench, and an NFPA 25 booklet. The number of heads and boxes shall be in accordance with NFPA 13.
- All control valves must be supervised.
- The system must be fully operational.
- Signage must be installed per NFPA 13.
- A fire inspector must be present and witness the main drain test.
- A fire inspector must be present and witness the inspectors test and timed water flow alarm test.
- Other tests or inspections as required by NFPA 13 must be complete prior to, or at the final fire sprinkler inspection.

## **Fire Alarm Systems**

### Fire Alarm Rough-in Inspection (IVR Code 419, 420, 421, 422, 423, 424, 425)

- Inspection/test shall be requested by the contractor named on the permit.
- A rough-in wire and device inspection shall be scheduled before the final acceptance testing.

### Final Fire Alarm Inspection (IVR Code 497)

- Inspection/test shall be requested by the contractor named on the permit.
- The entire system shall be fully installed and pre-tested prior to scheduling a fire alarm acceptance test.
- Tests performed after normal duty hours will be assessed fees in accordance with the current Community Development Fee Schedule.
- Control panels, initiating and signaling devices, power supplies and auxiliary devices shall be tested in the presence of a fire inspector.
- All devices shall be tested in accordance with manufacturers' recommendations. It shall be the responsibility of the installer to provide and be ready with the equipment and supplies necessary to conduct the test. This includes heat guns, approved canned smoke, ladders and other necessary devices required for testing of the entire system.
- A copy of the approved plans shall be permanently maintained at the fire alarm panel.
- An approved simplified floor plan of the areas served by the alarm system shall be posted near the annunciator panel. Zone descriptions and/or devices shall correspond with the floor plan. Consult with a fire inspector regarding proper posting/display of the floor plan.

- A Certificate of Completion and the (NFPA 72) Inspection and Testing Form must be completed and provided to the Glendale Fire Department prior to acceptance.

## **Kitchen Hood Systems**

### Final Fire Hood Suppression System Inspection (IVR Code 496)

- Kitchen hood systems shall be installed in accordance with the Glendale Fire Code and UL 300.
- Inspection/test shall be requested by the contractor named on the permit.
- All actuation components including remote manual pull stations, mechanical or electrical devices, detectors, actuators, etc., shall be checked for proper operation during the inspection and in accordance with the manufacturers' listed procedures.
- All utilities required for proper operation of cooking equipment must be supplied to the equipment prior to testing.
- Upon activation of the system, the makeup air supply to each hood shall shut down and the hood exhaust fans shall continue to operate. Any deviation or exception to the typical sequence of operation must be approved during the plan review and permitting process.
- In buildings equipped with a fire alarm system, the hood suppression system must be connected and provide an alarm (activation) signal.
- A system layout plan shall be permanently installed at or near the manual activation device. The layout plan must show the location of all equipment protected by the suppression system and the approved nozzle positions. The layout plan shall be made of a durable material.

## **Certificate of Occupancy**

### Final Fire Inspection (IVR Code 499)

- Approved plans bearing the Fire Department stamp, permits and all other acceptance paperwork shall be available at the job site at all times from the start of construction through final inspection. In order to obtain Fire Final Approval for the Certificate of Occupancy, all conditions must be met
- All fire protection and life safety systems and equipment including sprinklers, fire alarms, smoke control, emergency lighting, etc. shall be installed, tested and in full operation.
- All fire department permit work inspected and the permit(s) closed.
- Third party monitoring shall be established.
- Proper type and number of fire extinguishers provided. Consult with a fire inspector for extinguisher placement when not indicated on the approved plan.
- Paving and signage shall be completed and installed.
- Address numbers shall be posted. When required, graphic directories shall be installed.

## **Fire Apparatus Access Roads**

Fire apparatus access roads are required during construction to provide emergency response vehicles onto the construction site. Access roads shall be in place prior to combustible construction materials being brought onto the site. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet and an unobstructed vertical clearance of not less than 13 feet 6 inches. Additionally, drive through access or an approved turn-around per the current Engineering Design & Construction Standard Detail ([Click Here](#)) shall be provided. During construction, temporary access roads shall be provided and must comply with all requirements.

- Fire apparatus access roads shall be an all weather driving surface, graded to drain standing water and engineered to bear the imposed loads of fire apparatus. The minimum surface shall be six inches of ABC compacted to 90 percent over an approved base. Compaction test results shall be provided to the inspector *prior* to approval. Alternate methods may be approved when designed and sealed by a professional engineer and approved by the city engineering department and the fire department.
- All fire apparatus access roads shall be clearly marked at the entrance with an approved sign approximately three feet by four feet. The lettering shall be red on a white background which states, “**EMERGENCY ACCESS ROAD**” and shall include the address of the site. The use of arrows may be approved by a fire inspector. Additional access road markings may be required throughout the project.
- Open trenches in a fire apparatus access road shall be plated at all times with steel plates capable of maintaining the integrity of the fire apparatus access road design.
- The access road shall reach to within 150 feet of all points of any building, combustible construction materials, and combustible debris storage areas.
- The edges of the access road shall be marked. Where markings are not practical or possible, curbing shall be installed.

## **Fire Hydrants** (IVR Code 457, 458, 459)

Fire hydrants shall be in place and operational prior to combustible construction materials being brought on site. *Operational is defined as fully tested, chlorinated, and approved.* At least one hydrant shall be located within 150 feet of stored combustible construction materials. Hydrants shall be installed in accordance with the current Engineering, Design and Construction Standard ([Click Here](#)).

The use of temporary piping / hydrant systems is acceptable provided the hydrant(s) operate at the required flow rate. A site plan indicating the pipe layout, water source and connection(s) and hydrant type and location must be submitted and approved prior to installation.

## **Combustible Waste**

Combustible waste shall not be allowed to accumulate on site except in approved

containers. Waste material shall be removed from buildings on a daily basis. Combustible debris, waste material, or trash shall not be burned on the construction site.

## **Fire Extinguishers**

Fire extinguishers, sized for not less than ordinary hazard (2A:10B:C), shall be required in buildings under construction. Extinguishers shall be located at each stairway, on all floor levels where combustible materials have accumulated and in every storage and construction shed. Extinguishers shall be installed in plain view, at accessible location and away from hazardous areas. Additional extinguishers shall be provided where special hazards exist.

## **Asphalt Kettles**

Asphalt (tar) kettles and pots shall not be used inside buildings or on top of a roof. Kettles shall not be located within 20 feet of any combustible material, combustible building surface or any building opening. Control areas shall be identified by the use of traffic cones, barriers or other approved means. Roofing kettles and asphalt (tar) kettles shall not block emergency escape routes, gates, roadways or entrances. There must be an attendant within 100 feet of an operating kettle who is knowledgeable of the operation and hazard. The attendant shall have the kettle within sight during operation.

A portable fire extinguisher with a minimum 40B:C rating shall be located within 25 feet of each operating kettle, with an additional minimum 3A:40B:C rated fire extinguisher located on the roof

## **Heaters**

Heaters used in structures shall be designed and approved for inside use. Heaters shall not be used in areas where they may create a hazard. Adequate ventilation shall be provided for fuel burning heaters. Heaters shall be turned off and moved to a safe location before refueling. Storage of heaters shall be in such a manner to avoid contact with flammable/combustible materials and liquids.

## **Hot Work** *(IVR Code 482)*

A fire extinguisher (minimum 2A:20B:C) shall be located within 30 feet of any person using a torch or other flame-producing device for removing paint, sweating pipe joints, applying roofing materials, or any other process requiring an open flame device. Hot work areas shall not contain combustibles, or shall be provided with appropriate shielding to prevent sparks, slag or heat from igniting exposed combustibles. In all cases, a fire watch shall be maintained in the vicinity of the operation for no less than one-half hour after the torch or flame-producing device has been used. Individuals performing hot work, and individuals responsible for providing fire watch, shall be trained in the use of

portable fire extinguishers.

## **Knox Boxes**

A Knox box, Knox padlock, Knox key switch, or other Knox device shall be installed where access to fire protection systems or apparatus access throughout the property is obstructed by physical barriers (i.e. gates, doors, ballards, etc.).

- Knox box location(s) may be determined during the plan review process or confirmed with the fire inspector assigned to the project. Common mounting locations include the front or main entrance or near the riser or fire control room door. More than one Knox device may be required.
- Knox boxes shall be installed at a height between 4 to 6 feet above the finished grade.
- Flush mounted Knox boxes are recommended for aesthetic and security reasons, early construction decisions will determine if this is feasible. Applicants may obtain a Knox Company order form from the Glendale Fire Marshal's Office by calling (623) 930-4420.
- The fire inspector shall secure the keys in the Knox box.

## **Fire Lane Signs** (IVR Code 428)

- When required, approved signs, curb markings or other approved notices shall be provided for access roads/fire lanes.
- Fire lane sign locations may be determined during the plan review process or confirmed with the fire inspector assigned to the project.
- Signs shall be in accordance with the current Engineering Design and Construction Standard Detail ([Click Here](#)).
- Signs shall be installed perpendicular to the road and facing the direction of travel. The fire inspector will determine if two-sided signs are required.

## **Storage and Use of Flammable Liquids** (IVR Code 435)

- A Permit is required for the storage or use of flammable and combustible liquids
- The storage of all flammable liquids must be in approved containers.
- Flammable liquids shall not be stored in buildings under construction.
- All containers must be appropriately labeled and include applicable caution and warnings statements.

## Glendale Fire Department Construction Guide

<b>City of Glendale Fire Department IVR Inspection Codes</b> 400: AFES< 10,000 SQ Feet	
401: AFES 10,000 SQ Feet or more	445: Hood System, Single System
402: AFES Modification 1-20 heads	446: Hood System, Multiple Systems
403: AFES Modification 21-50 heads	447: Hood System, Modification
404: AFES Modification 51-100 heads	448: Liquid/Gas Powered Equipment Inside
405: AFES Modification 101-500 heads	449: LP Gas System Installation
406: AFES Modification >500 heads	450: LP Gas System Modification
407: AFES Modification No Heads Included	451: LP Gas with Fixed Fire Protection
408: Aircraft Refueling	452: LP Gas Temporary Use Inside a Building
409: Battery Systems, Install	453: LP Gas Container Storage
410: Battery Systems, Modification	454: Mall, Temporary Structure
411: Blasting, 30 Day Permit	455: Mall, Place of Assembly
412: Bonfires	456: Open Burning
413: Bowling Alley Resurfacing- Flammable	457: Private Hydrants, 1-5
414: Carnivals/Fairs	458: Private Hydrants, >5
415: Compressed Gas System Installation <400 lbs	459: Private Hydrants, Modification
416: Compressed Gas System Installation >400 lbs	460: Product Pump-over or Pump-out
417: Compressed Gas System Modification	461: Special Extinguishing System to 5,000 SQ Feet
418: Explosives, Possess/Storage	462: Special Extinguishing System, 5,000 SQ Feet
419: Fire Alarm 1-500 SQ Feet	463: Special Extinguishing Systems Modification
420: Fire Alarm 501-2,000 SQ Feet	464: Spray Booth/Room/Area Installation
421: Fire Alarm 2,001-10,000 SQ Feet	465: Spray Booth/Room/Area Modification
422: Fire Alarm 10,001-52,000 SQ Feet	466: Standpipes, 1-4 Pipes
423: Fire Alarm > 52,000 SQ Feet	467: Standpipes, >4 Pipes
424: Fire Alarm Modification 1-5 Devices	468: Standpipes, Modification
425: Fire Alarm Modification >5 Devices	469: Tents, Canopies ETC, Single
426: Fire Alarm, Panel Replacement	470: Tents, Canopies ETC Each Additional
427: Fire Alarm, Fire Sprinkler Supervision	471: Trade Shows 1-5,000 SQ Feet
428: Fire Lane Modification	472: Trade Shows 5,000-50,000 SQ Feet
429: Fire Pumps, Single Pump	473: Trade Shows >50,000 SQ Feet
430: Fire Pump, 2 or More Pumps	474: Underground Water Supply, First 150 Feet
431: Fire Pumps Modification	475: Underground Water Supply,>150 Feet
432: Fireworks/Flame Effects, New	476: Underground Water Supply, Modification
433: Fireworks/Flame Effects, Repeat Show	477: Access Gates/Fire Lane Installation
434: Fireworks, Multiple Shows	478: Access Gates, Modification
435: Storage Use, Handling Flammable/Combustible Liquids	479: Aerosol Storage/Handling
436: Hazardous Materials Tank Install, 1 Tank	480: Amusement Building, Operation of
437: Hazardous Materials Tanks Install, >1 Tank	481: High-Piled Storage >500 SF
438: Hazardous Materials Tank Install, Fixed Fire Protection	482: Hot Work, Temporary
439: Hazardous Materials Tank Install, Inside a Vault	483: State Required License, Child or Adult <5
440: Hazardous Materials Tank Install, Modification	484: State Required License, Child or Adult >5
441: Hazardous Materials Tank Install, Abandonment/Removal, 1 Tank	485: State Required License, Hospitals, Nursing Homes, Assisted Living, Behavioral Health
442: Hazardous Materials Tank Install, Abandonment/Removal, >1 Tank	486: State Required License, Liquor
443: Hazardous Materials Use/Storage Permit	487: State Required License, Misc.
444: Hazardous Facility/Area, Closure, Abandonment, Modification	488: Spraying/Dipping Operations, Hazardous
	496: Final Fire Hood Suppression System
	497: Final Fire Alarm
	498: Final Fire Sprinkler
	499: Final Fire Inspection