



Oxnard Fire Department Fire Protection Planning Guide

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Design for Fire and Life Safety

The Oxnard Fire Department offers fire protection services through seven strategically located fire stations and a fire prevention staff that provides project planning, plan review, and inspection services.

The City of Oxnard enjoys an Insurance Services Office (ISO) Class 2 Fire Protection Grading, due in part to stringent protection requirements that are applicable to all projects.

All projects will require a detailed analysis by the Fire Prevention staff in which specific project conditions will be determined. The Fire Prevention staff is available for pre and post submittal consultation on an hourly basis to review all fire protection aspects of your project.

The office phone number is (805) 385-7722 for voice and (805) 385-8009 for FAX. The inspection staff are normally available during the week from 7:00 a.m. to 5:00 p.m.

Email address:

Oxnard_Fire@ci.oxnard.ca.us

Code Compliance – The Oxnard Fire Department enforces the 2010 California Fire Code, Chapter 14 of the Oxnard City Code, Titles 19 and 24 of the California Code of Regulations, and the 2010 California Building Code as applicable to the Fire Department.

The National Fire Protection Association Standards, including NFPA Guidelines for Fire Sprinklers and Alarm Systems are only some of the nationally recognized guides that are used for reference.

Our Department utilizes Mutual and Automatic Aid procedures to ensure that an appropriated number of personnel and equipment can arrive to an incident within a prescribed amount of time.

Essentially, this means that neighboring fire agencies often respond to emergencies within the City of Oxnard.

A number of our requirements are driven by this and the facts surrounding our staffing levels. That information is available on our website @

www.ci.oxnard.ca.us/fire/index.html

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ACCESS REQUIREMENTS

For Fire Apparatus

Turnarounds shall be required on all drives, courts and cul-de-sacs equal to or greater than **150** feet in length.

Roadway intersections and turning radii shall meet the minimum requirements of the City of Oxnard Traffic Engineering Department.

Tee or hammerhead turnarounds will be considered on a project-by-project basis.

Fire lanes, access roads and secondary fire access routes shall have a clear width of **26** feet and have a minimum vertical clearance of **13** feet **6** inches: this width shall be increased by **5** feet for each floor above the second story. The driving surface shall be an all-weather type that is capable of supporting the imposed loads of a fire apparatus (**46,000** pounds).

Gates shall have a minimum clear opening of **20** feet for two-way traffic, and **15** feet each for one-way traffic sets of gates.

Designated fire lanes shall have approved sign or markings, which meet the approved standards of the Fire Department and the State of California Vehicle Code.

For Firefighting

The ability of our Fire Department to make a quick attack of a fire, or to respond to another emergency, has been one of the key factors for allowing the City of Oxnard to have one of the lowest fire losses per capita in the country for a city of its size.

Building designers and other professionals should make every effort to remove any barriers for the rapid access and entry of emergency personnel and provide the safest environment possible.

All portions of the exterior walls of a single story building shall be not more than **150** feet from an approved fire access roadway. This distance must take into account any natural or man-made barriers such as trees, shrubs, fences, etc. and will be measured as a path of travel for the deployment of firefighting hose.

Each additional story in height, the distance shall be reduced by **20** feet per floor (i.e., a two-story building shall be no more than **130** feet from the access roadway and a three-story building no more than **110** feet from the roadway).

Buildings above **four** stories in height shall have approved roadways, or access, on at least three sides of the building, and no point on the perimeter of the building shall be more than **60** feet from such roadways.

SPECIAL ACCESS SYSTEMS:

- Commercial, industrial, and retail projects are required to install a KNOX Box key. Information on the type and location may be obtained from the Fire Department.
- Electrically operated vehicle entry gates may require radio activated controls at the discretion of the Fire Chief.

FIRE PROTECTION REQUIREMENTS

Fire Sprinklers

Fire sprinklers are recognized as the most cost effective method of reducing the loss of life and property from fire.

Automatic fire sprinkler protection is required in all new buildings, including dwellings, in accordance with Oxnard City Code, Chapter 14.

NFPA 13 is the standard for system design.

NFPA 13D systems will be field flow tested for one and two heads flowing to ensure system adequacy to design parameters.

NFPA 13R is the standard for residential occupancies up to and including 4 stories. 13R systems will be field flow tested for one to four heads flowing to ensure system adequacy to design parameters.

This policy statement gives a brief overview of the requirements of the City of Oxnard.

1. Automatic fire sprinklers shall be installed throughout all newly constructed buildings regardless of location, floor type, or occupancy classification.

Commercial speculative buildings for which a predetermined use per the CBC has not been determined are to be designed with a minimum density factor of **.21 GPM** over a minimum of **3000** square feet of area.

Residential or listed quick response sprinkler heads shall be used in dwellings and guest room portions of hotels and motels.

NFPA 13R and 13D systems require sprinkler protection in the following circumstances:

Under roofs, canopies, and overhangs over four feet in width.

In usage spaces and compartments under stairs, including bathrooms and closets.

Above fuel-fired equipment in normally unoccupied attics and crawl spaces.

EXCEPTIONS

Detached private carports, storage sheds and similar structures with less than **500** square feet of roof area (including overhangs), that are at least **5** feet from the property line or **10** feet from any adjacent structure on the same or adjoining property.

2. Automatic fire sprinklers shall be installed throughout buildings undergoing a change of occupancy or change of use to a more hazardous classification as determined in the CBC or by the Fire Chief.
3. Additions greater than **1000 square feet** to commercial or residential buildings (not including the garage) shall have fire sprinklers installed in the addition and throughout the existing structure.

Calculations are to be submitted using a design pressure of 50-PSI static at

the street or as indicated on Public Works Pressure Zone Map.

FIRE PROTECTION REQUIREMENTS, CONT.

Fire Hydrants

Fire Hydrants, permanent all weather surface roadways, curbs and gutters, are required to be in place **prior** to combustible framing.

All combustible framing must be kept within **150** feet of an acceptable access road serviced with active fire hydrants. If a project requires a secondary fire access, it shall have a minimum clear width of **26** feet and a vertical clearance of **13** feet, **6** inches, be paved and support a **46,000-pound** fire apparatus.

All new hydrants shall be 6" wet barrel with National Standard Thread, NST outlets. (Refer to Public Works Standard Plates) The sizing and type of City Oxnard approved hydrants are as follows:

Type Residential R-1 4" x 2-½"
Jones J-3700
or approved equal

Type II & Type III R-2 or greater
4" x 4" x 2-½" Jones J-3775
or approved equal

Fire hydrant locations shall be clearly identified by the installation of **blue** reflective markers in the middle of the street.

Fire Flow and Hydrant Spacing

Fire Flow

Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method or

Oxnard Fire Department published Standards.

Residential

A spacing requirement of **500** feet with no structure more than **300** feet from a hydrant. Multiple family residential spacing is **300** feet with no structure more than **200** feet from a hydrant.

Industrial and Commercial

A spacing requirement of **300** feet and located so that no structure is more than **150** feet from multiple outlet hydrants (onsite hydrants are included).

Streets with medians shall have hydrants placed on each side of the median so that fire lines will not have to cross the street.

Tactical considerations may require additional hydrants – and will be considered on a project-by-project basis.

Onsite hydrants shall **not** be connected to the same underground supply as the fire sprinkler or fire standpipe systems.

When any portion of a building is more than **150** feet from a fire hydrant provided on a public street, onsite hydrants capable of providing the required fire flow will be required.

NOTE: Fire flows listed are minimums and specific projects may require additional fire flow depending on occupancy, size and construction of a particular building. Fire flow for a project will be based on the largest building within the project. Be aware that the City Water Department has reduced the city water pressure during periods of conservation.

A Fire Protection Engineer may be required to assist us with your project.

FIRE PROTECTION REQUIREMENTS, CONT.

Specialized Systems

Hood fire extinguishing systems are required for the protection of commercial type food processing equipment **except** where there are no grease-laden vapors created. These systems are required in all restaurants, food preparation facilities or other kitchens that are **not** in a residence.

Different types of extinguishers may be required depending on occupancy or use.

Fire Department Connections

Fire Sprinklers

The Fire Department connection (FDC) is required to be accessible to a public right-of-way (normally the road to which the building is addressed). This connection shall face towards that street and be within 50 feet of a hydrant that is not separated by routes of vehicle travel.

Whenever possible a single FDC shall be utilized in conjunction with separate control valves (indicator type) for each building.

Wet and Dry Standpipe Systems

The same requirements for a sprinkler FDC applies to the FDC for any standpipe system.

Wet type II & III Systems are reserved for unique settings and will not store hose that is accessible to the public. Our department does not want untrained personnel using fire hose lines in confined areas.

A Type I System may be required if, upon review of the project, firefighting operations would benefit. This could be any of the listed circumstances or a combination of:

- An access point to building for fire apparatus is too great.
- Limited number of points of entry or exterior building access.
- Distance to the most interior area of the building is excessive for firefighting hose.

High-Rise and Mid-Rise

High-rise and mid-rise projects require special fire protection features which are found in Titles 19 and 24 of the California Code of Regulations. Generally, all of the code requirements that apply to high-rise buildings will also be applied to mid-rise.

A California licensed Fire Protection Engineering firm may be required to be hired, at the applicants expense, to provide the Oxnard Fire Department written certification that all of the required fire protection systems are properly designed, provided and installed. When the structure is complete, the Fire Protection Engineer shall demonstrate that all fire protection and life safety elements have been installed and function as required and provide written certification to the effect.

General

Commercial, industrial, care facilities and those deemed appropriate are to have address numbers a minimum of six inches high. Address numbers shall be plainly visible and legible from the street or roadway fronting the building.

In multiple building projects and projects with rear access roadways, address numbers shall also be placed on the rear of the buildings.

Numbers shall contrast with their background to make them plainly visible.

PROTECTIVE SIGNALING SYSTEMS

All new buildings shall be constructed with noncombustible or fire retardant roofing materials.

Fire extinguishers shall be provided in all commercial occupancies at a rate of one **2-A: 10 BC** extinguisher per **3000** square feet or fraction thereof, with a 75 foot maximum travel distance, and in industrial occupancies at a rate of one **2-A: 20 BC** (minimum) extinguisher with a maximum 50 foot travel distance.

Protective Signaling Systems

The Oxnard Fire Department uses **NFPA 72 - Standard for the Installation, Maintenance and Use of Protective Signaling Systems** current Edition per CFC.

Fire alarm systems are to be designed with the advance knowledge and approval of the Fire Marshal. Application and permitting is done through the City of Oxnard Permit Center, 214 S. C Street, Oxnard, Ca 93030, (805) 385-7925.

The system design shall include full system monitoring and annunciation to allow the crucial information of a system actuation to best dispatch the available equipment to a call.

The use of full system annunciation will allow the Suppression Fire Battalion Chief and Emergency Fire Dispatch Division to properly send equipment that is best suited to any system call – trouble alarm, pull station call, water flow alarm or any other combination of devices that will indicate the critical level of urgency.

A Fire Alarm System Certification and Description per NFPA 72 Certificate of

Completion, shall accompany all plans submitted for approval.

All plans will comply with all of the system requirements as modified by the State of California Title 24 Amendments and include Notification Appliances for the Hearing Impaired.

All systems shall have the capability of annunciation and communicating the location of the device that is initiating and confirming the alarm. (i.e., 1600 SOUTH ROSE AVENUE-SECOND FLOOR-SOUTH WING MANUAL PULL STATION EXIT CORRIDOR 3, SECOND FLOOR-SOUTH WING WATERFLOW JANITOR CLOSET ROOM 2113 – SECOND FLOOR SOUTH WING SMOKE DETECTOR EXIT CORRIDOR 3)

In this example, the Emergency Dispatcher would send out a full response, notifying the arriving crews of what they could expect upon arrival and allow the Suppression Battalion Chief the critical information to send in additional crews well in advance of having to be on scene and discover an actual fire on the second floor of the building.

The annunciating information would be displayed at the site at the annunciator panel and the alarm system shall have the capability of transmitting this information to a 24-hour monitoring location or company that will relay the information to the Oxnard Fire Department.

The added benefit of sending the appropriate fire fighting equipment and personnel at the proper time interval will greatly diminish the amount of fire loss, water, and property damage and provide the greatest amount of safety to the responding crews.

HAZARDOUS MATERIALS

Acceptance tests are to be conducted upon the completion of an installation or alteration.

Satisfactory tests of the entire system shall be made in the presence of a representative of the Oxnard Fire Department. All functions of the system shall be tested, including operation of the system in various alarm and trouble modes for which it was designed per the requirements of NFPA 72 Chapter 10.

The Oxnard Fire Marshal shall be informed of such testing per NFPA 72 Chapter 10.

Facilities that constitute a unique challenge and/or hazard may be required to provide devices that will identify access points with a visual device (strobe). Additionally, skylights or vertical roof smoke vents may require similar devices to allow personnel to respond more effectively

Hazardous Materials

The Oxnard Fire Department has a separate Division that specializes in the codes, laws and ordinances relating to hazardous materials, underground storage tanks and hazardous wastes. The Certified Unified Program Agency (CUPA) should be contacted at the Department's address or phoned at (805) 385-8364. Additional information is available on the CUPA website @ www.ci.oxnard.ca.us/fire/cupa.html

A permit will be required if your business handles, stores, or uses any hazardous materials at or above 55 gallons, 500 pounds, or 200 cubic feet, or any amount of hazardous waste. There are lower reporting requirements for organic peroxides, poisons A and B, and explosives.

Contact CUPA for any requirements and for specific information on providing Business Plans, Risk Management Plans and Prevention Programs.

Federal, State and local requirements may change from time to time – a periodic review will keep you current.

As stated previously, this guide was developed to provide a brief compilation of general requirements and is not all-inclusive. We solicit your comments and encourage you to contact us so that we may assist you in providing fire safety and protection systems in our community.