July 1, 2010	SANTA ROSA FIRE DEPARTMENT FIRE PREVENTION BUREAU STANDARD
City of Santa Rosa	**COMMERCIAL TENANT IMPROVEMENT**

Purpose

The SRFD Fire Prevention Bureau reviews commercial Tenant Improvement Building Permits to ensure compliance with Fire & Life Safety Codes. This standard outlines the general requirements for Fire Service Features to be included in the design and construction of commercial tenant improvements. Information contained herein applies to typical instances and may not address all circumstances.

Code References

- 2007 California Fire Code (CFC)
- 2007 California Building Code (CBC)
- SRFD Fire Prevention Bureau Standards:
  - Storage, Handling and Use of Liquid and Solid Hazardous Materials
  - General Development
  - Illuminated Address Signs
  - Fire Department Key Box Requirements and Installation
  - Portable Fire Extinguishers
  - In Building Public Safety Radio System

- Alteration of Commercial Building permit (from Building Department): Categories and fee amounts are found on line: www.srcity.org – Department: Community Development.

Attachments

1) Plan Review Checklist – Commercial Tenant Improvement
2) Inspection Checklist – Commercial Tenant Improvement

Required Inspections

1) Buildings with fire alarm or fire sprinkler systems shall have those individual inspections completed prior to requesting the final inspection.
2) Final Fire Inspection under the Building Permit

Inspections shall be scheduled a minimum of 48 hours in advance. Directions for scheduling are given at time of permit issuance.

Permit Information

In addition to providing the project address, owner, designer, scale and Code Analysis information required by the Building Code, submitted plans shall show the following information:

- Intent to modify an automatic fire sprinkler system and the NFPA standard for its design
- Intent to modify an automatic fire alarm system and the NFPA standard for its design
- Intent to modify fire pump and/or standpipe system and the NFPA standard for its design
- Intent to modify other Special Extinguishing System and the NFPA standard for its design
- Intent to store or use Hazardous Materials at the project site

The above items may be listed as “Deferred Submittal” items.

General Requirements

Fire apparatus access and fire suppression water supplies shall comply with the requirements described in the General Development Standard. Premises Identification shall be provided per the Illuminated Address Standard. Fire Department key boxes shall be provided at all facilities equipped with automatic fire sprinklers, fire alarm systems or other fire suppression or detection systems per the Fire Department Key Box Standard. Portable fire extinguishers shall be provided per the Portable Fire Extinguisher Standard.

All exterior doors shall have paved access walkways connecting them to required fire apparatus access roads and shall be equipped with hardware (key locks) allowing emergency ingress into the building. A level ladder staging area shall be provided outside all required emergency egress windows above the first floor. Guard posts are required for hydrants, tanks, generators and gas meters.

Rooms containing controls for air-conditioning systems, sprinkler risers and valves, or other fire detection, suppression or control elements shall be identified with permanent and durable signage for the use of the Fire Department. Fire Command Centers in High and Mid-Rise buildings shall comply with the requirements of their respective Standards.

Emergency evacuation plans are required for Group A, B, E, H, I, R-1, R-2 college and universities, R-4, High Rise Buildings, Group M with an occupant load >500 or >100 above or below the level of discharge, Covered Malls >50,000 ft/2, underground buildings and buildings with an atrium and having a Group A, E or M occupancy.

In buildings regulated by the State Fire Marshal (A, E, H, I, R-1, R-2 and R-4 Occupancies) which are over two stories in height or which do not have a straight-run stairway between floors, at least one elevator shall be installed which is designed to accommodate an ambulance gurney or stretcher (minimum 42 inch side-slide door and minimum 80 inch by 54 inch cab interior). All elevators in newly constructed buildings shall be provided with Phase 1 emergency recall operation and Phase 2 emergency in-car operation. In buildings with sprinklered hoistways or

elevator machine rooms, automatic shunt trip capability (with notification at the Fire Alarm Control Unit and inside the elevator car) shall be provided.

For alterations or repairs to existing building(s) involving demolition, removal, or repair of more than 50% of the structure, the building shall meet the automatic fire sprinkler requirements for a newly constructed building. For any change of occupancy, where the proposed new occupancy classification is deemed to be more hazardous that the existing classification as determined by the Fire Code or Building Official, and for conversions from residential or apartment buildings to condominiums, the building shall meet the automatic fire sprinkler requirements for a newly constructed building.

New buildings over 25,000 square feet in area or four stories in height shall be equipped with an In-Building Public Safety Radio System designed and installed per the Fire Department Standard.

All new commercial buildings (over 500 square feet for Business or Mercantile occupancies) are to be equipped with an automatic fire sprinkler system. Buildings over 3 stories or 30 feet in height shall also have Class 1 standpipe systems for Fire Department use. In buildings over 3 stories, the sprinkler and standpipe systems shall be made serviceable as each floor is constructed, per the appropriate Fire Department Standards.

Fire alarm systems, when required, are to initiate an alarm and notify occupants of the need to evacuate. Alarm requirements differ between occupancies and hazardous processes. CFC 907 details when an alarm is required. Special attention is needed regarding CFC Section 908 for Emergency Alarms for hazardous processes that require an evacuation alarm.

In buildings regulated by the State Fire Marshal (A, E, H, I, R-1, R-2 and R-4 Occupancies), decorative materials and furnishings are regulated for flame spread and smoke production.

Grease-laden vapors from commercial cooking equipment shall be exhausted by a Type 1 hood with 1-hour rated exhaust ducting, constructed per the Mechanical Code. Type 1 hoods shall be protected by a Fixed Extinguishing System, designed and installed per the Fire Department Standard of that name.

Tenancies with more than 50 occupants or located above or below the ground floor shall have two exits, except as provided by the Building Code, with doors swinging in the direction of exit travel. Where two or more exits are required, illuminated exit signs shall be provided. Means of egress shall have at least one foot-candle illumination at ground level at all times that the building is occupied. Where two or more exits are required, exit signs and egress illumination shall be equipped with 90 minutes backup power. When a demising wall is proposed to be installed, it is required to evaluate exiting on both sides of the demising wall to ensure the exit path is not compromised.

Panic hardware is required for egress from Group A & E occupancies with >50 occupants, no-knowledge (single action) is required on other doors and manually operated flush or bolt locks are not permitted. Electronic magnet and “push to release” features require special approval.

Door hardware for shell buildings constructed for multiple tenants shall comply with the no-knowledge requirement for the overall space prior to installation of demising walls.

Buildings with more than 500 square feet of storage area over 12 feet in height may be subject to additional requirements regarding High Piled Combustible Storage, including but not limited to, additional exit doors, smoke and heat vents and an enhanced automatic sprinkler system.

Buildings or tenant spaces containing battery rooms have special spill control, ventilation, signage, separation and alarm requirements.

Fuel dispensing stations require an emergency shut-off in a specific location(s) with appropriate signage.

CFC Chapter 27 regulates buildings or occupancies that manufacture, store or use hazardous materials. Special requirements apply to spill control and secondary containment to limit a release to the environment. Materials such as cryogenics, compressed gases, flammable/combustible liquids, highly toxic and toxic materials, oxidizers, unstable and water reactive materials have specific requirements beyond CFC Chapter 27 due to the unique hazards of these materials.

Buildings with Hazardous Production Material (HPM) workstations, gas cabinets, exhausted enclosures, silane gas and ozone systems must comply with CFC Chapters 18, 27 and 37.

Liquid Petroleum (LPG) storage tanks have special requirements in CFC 38 for quantity stored and location in proximity to buildings, building openings and property lines.

Medical gas systems have special requirements on appliance locations, shut-off valves, excess flow valves and warning signs. CFC 30 details the special requirements for the construction of the system piping, testing and certification as well as the type of enclosure to be provided.

Paint Booth, Powder Coating and Electrostatic Spray Operations are regulated by CFC 15.

Welding and open flame activities are regulated by CFC 26