CAL FIRE
NAPA COUNTY FIRE MARSHAL OFFICE
Commercial Guidelines

Revision: December 2015
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ACCESS FOR FIRE FIGHTING EQUIPMENT

1. **SURFACE**: Access roads shall be designed and maintained to support the imposed loads of fire apparatus H20-44 (40,000 pounds) and provide an all-weather surface.

2. **WIDTH**: Fire apparatus access roads shall be a minimum of two ten (10) foot traffic lanes not including shoulders for all commercial projects. Turnouts shall be a minimum of twelve (12) feet wide and thirty (30) feet long with a minimum twenty-five (25) foot taper on each end.

3. **ONE WAY ROADS**: All one-way roads shall be constructed to provide a minimum, not including shoulders, of one twelve (12) foot traffic lane.

4. **TURNING RADIUS**: Required access roads shall provide a minimum of 50 foot inside turning radius to accommodate fire apparatus.

5. **ROADWAY CLEARANCE**: There shall be an unobstructed vertical clearance of fifteen (15) feet and 10 feet of defensible space along each side of the driveway.

6. **GRADE**: Fire apparatus access roads shall have a maximum grade of 16%.

7. **TURN AROUND**: Dead end fire apparatus access roads in excess of 300 feet in length shall be provided with a turnaround that meets Napa County Fire Department Standards.

8. **OBSTRUCTIONS**: The required width of fire apparatus access roads shall not be obstructed in any manner, including but not limited to, parking of vehicles, placement of dumpsters, stacking of building materials, overhead obstructions under 15 feet, or any other items. Where required approved signs or other notices prohibiting parking or obstructions shall be provided and maintained.

9. **BRIDGES**: All bridges shall be capable of supporting a H20-44 (40,000 pound load) and shall be certified by a licensed Engineer. Bridges shall have their weight limits and vertical clearances posted at both ends of bridge. Turnouts shall be provided at both ends of bridge.

10. **GATES**: Where gates are provided, a means of fire department entry shall be provided. Manual gates shall be equipped with a KNOX padlock. Electronic gates shall be equipped with a KNOX key switch for an override system. All gates shall open inward and shall be two feet wider than the driveway. All gates shall be located a minimum of 30 feet from the public right of way to allow a vehicle to stop without obstructing the public right of way. Gate entrances shall be at least two feet wider than the width of the traffic lane(s) serving that gate.

11. **FLAMMABLE VEGETATION**: All roads and driveways shall provide a minimum of 10 feet of defensible space on each side of the driveway. All structures shall have a minimum of 100 feet defensible space.

12. **ADDRESSING**: Commercial building addresses shall be a minimum of SIX inches in height on a contrasting background. Industrial buildings shall be a minimum of TWELVE inches in height on a contrasting background. Approved numbers or addresses shall be placed on all new and existing buildings in such a position as to be plainly visible and legible from the street or road fronting the property and visible from both directions of travel. All numbers shall be visible from both directions of travel and numbers shall be reflective or illuminated.

13. **NO PARKING / FIRE LANE SIGNAGE** (See detail)
FIRE PROTECTION WATER SUPPLIES

An approved water supply capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into the jurisdiction. *Separate submittal for fire underground is required.*

1. **Community Water Systems:** Buildings served by a public or community water system shall provide fire flow calculations, certified by a State Licensed Civil Engineer, C-16 licensed contractor, or a registered engineer within their area of expertise, indicating compliance with CFC Appendix B. Projects served by municipal water supply shall have an approved water supply for fire protection be made available as soon as combustible material arrives on the site.

2. **On-Site Water Systems:** Buildings not served by a public water system shall provide water storage and fire flow calculations certified by a State Licensed Civil Engineer, C-16 licensed contractor, or registered engineer indicating compliance with Table B105.2 through Table 105.4 of the Napa County Code Amendments.

3. **Water Storage Facilities:** Water supply may consist of tanks or commercial reservoirs. Open commercial reservoir systems shall be proposed as a concept for review by the Fire Marshal prior to approval.

4. **Fire Pumps:** Projects that are not served by community water may require a fire pump to meet the required fire flow and/or the demand for fire sprinklers. Fire Pumps shall be UL listed and installed in accordance with NFPA 20, 2013 edition. In the Local Response Area (valley floor,) fire Pumps may be either diesel driven or electric. In the State Responsibility Area (off valley floor,) fire pumps shall be diesel driven or electric with a backup diesel generator. *Separate permit submittal for fire pumps is required.*

5. **Fire Hydrants:** Fire hydrants shall be provided in accordance with the 2013 edition of the California Fire Code (CFC) Appendix B. Fire hydrant locations shall be shown on scaled civil drawings.

   All commercial fire hydrants shall have two 2 ½ -inch outlets with one 4 ½- outlet and shall have male National Hose thread connections.

   Hydrants shall be located within 250 feet from any portion of the exterior of the building as measured along approved vehicular access roads.

   Hydrants shall be located a minimum of 30 feet from all buildings.

   Blue reflective markers shall be installed to identify locations of all fire hydrants. from centerline of hydrant side of road and perpendicular to the hydrant.

   All hydrants shall be painted per NFPA 291 specifications. Hydrant body shall be painted Safety Chrome Yellow. Tops and caps should indicate the available GPM. Below 500 GPM shall be red, 500-999 GPM shall be orange, 1000-1499 GPM shall be green, and 1500 GPM or more shall be
blue.

Fire hydrants clearance shall have be a minimum of 18 inches from the center of the 4 ½ -inch discharge to finished grade level and 36 inches horizontal in all directions.

The minimum main size of all fire hydrants shall be 6 inches in diameter. Piping shall be installed with C-900 class 200 piping or ductile iron or equivalent per NFPA 24, 2013 edition for the installation of Underground Fire Protection Mains.

Parking prohibited within 15' in either direction of hydrant and shall have approved red striping and/or signage.

**FIRE DEPARTMENT CONNECTIONS (FDC)**

1. Each sprinkler system shall be provided with a sprinkler control valve to isolate the system from the water supply.

2. Valves provided for each sprinkler system shall be outside indicating. When there is more than one riser on the system, each riser shall have separate outside indicating valves.

3. The installation height of the Post Indicator Valve (PIV) shall be to the PIV handle socket.

4. Protection of the control valves is required when the control valves are subject to impact from vehicular traffic.

5. Working clearance for control valves shall be unobstructed 3-foot radius around the control valve.

6. All underground piping for fire protection shall be installed per NFPA 24, 2013 edition.

7. FDC’s shall be located on the address side of the building, close to curb face, facing the street fully visible and recognizable from the street or nearest point of fire apparatus access roads. Fire department connections shall be located within 50 feet of an approved fire hydrant.

8. FDC’s shall not be installed where there is a possibility of injury to firefighters by falling objects.

9. FDC’s shall be installed so that the centerlines of the inlets are located at a minimum height of 24.  

11. Fire department connections shall be designated by a sign as follows:

    a. The sign shall have contrasting

    b. The sign shall indicate the service for which the connection is intended and shall read, for example, as follows: **FDC SPRINKLER AND STANDPIPE SERVING 2100 GRAND AVE.**
# FIRE FLOW TABLES

## Light Fire Hazard Fire Flow Table B105.2

Light Fire Hazard Occupancies including but not limited to Residential Occupancies, Churches, Colleges, Dormitories, Hospitals, Institutions, Museums, Office Buildings and Schools not served by a Public Water Supply.

<table>
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<th>Type of Construction</th>
<th>Duration</th>
<th>Fire Flow</th>
<th>Storage</th>
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¹Types of construction based upon the Building Code. Add 10% to fire flow and storage volume if separation between buildings is less than 20 feet. Fire flow storage volume use shall be limited and dedicated to fire protection, see Section 903.3.1. Fire flow and storage volume in sprinklered buildings is in addition to the water demand for the sprinkler system and in-lieu of outside hose stream demand allowance.
Moderate Fire Hazard Fire Flow Table B105.3

Occupancies including but not limited to Asylums, Hotels, Prisons, Saw Mills, Gas Stations, Lumber Yards, Warehousing of normal combustibles, Wineries and Welding Shops not served by a Public Water Supply.

<table>
<thead>
<tr>
<th>Type of Construction</th>
<th>Duration</th>
<th>Fire Flow</th>
<th>Storage</th>
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<sup>1</sup>Types of construction based upon the Building Code. Add 10% to fire flow and storage volume if separation between buildings is less than 20 feet. Fire flow storage volume use shall be limited and dedicated to fire protection, see Section 903.3.1. Fire flow and storage volume in sprinklered buildings is in addition to the water demand for the sprinkler system and in-lieu of outside hose stream demand allowance.
High Fire Hazard Fire Flow Table B105.4

High Fire Hazard Occupancies including but not limited to Aircraft Hangers, Chemical Works or Storage, Explosives Manufacturing, High Piled Combustible Storage, Flammable Liquids Storage, Paint Shops, Pesticide Manufacturing, Storage or Shipping, Warehouses of Combustible/Flammables and other occupancies involving processing, mixing, storage and dispensing flammable and or combustible liquids, not served by a Public Water Supply.

<table>
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<tr>
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<th>Storage</th>
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</table>

\(^1\)Types of construction based upon the Building Code. Add 10% to fire flow and storage volume if separation between buildings is less than 20 feet. Fire flow storage volume use shall be limited and dedicated to fire protection, see Section 903.3.1. Fire flow and storage volume in sprinklered buildings is in addition to the water demand for the sprinkler system and in-lieu of outside hose stream demand allowance.
FIRE SPRINKLERS SYSTEMS

1. An automatic fire sprinkler system shall be installed in all new commercial buildings or structures when the total floor area exceeds 3,600 square or throughout an entire building when an addition or expansion to the existing building exceeds 50% of the existing floor area and the building exceeds 3,600 square feet, or throughout an entire building which exceeds 3,600 square feet when repair or significant structural damage to the existing building (caused by flood, fire, or earthquake for example) requires rebuilding of 50% of the building structure.

2. All fire sprinkler systems shall be designed and installed per NFPA 13, 2013 edition. A minimum of three sets of drawings with hydraulic calculations, catalog cut sheets and owners information certificate shall be submitted.

3. An automatic sprinkler system shall be installed in all garbage compartments, rubbish and linen chutes, linen rooms, incinerator compartments, dumb waiter shafts, and storage rooms in all occupancies except Group R, Division 3. An accessible indicating shut-off valve shall be installed.

4. When serving 20 sprinklers or more, all water supply valves and water flow alarms shall be supervised by an approved central station service.

5. All exterior alarms shall be UL listed and visible from the street/roadway fronting the building. Additional horn/strobe devices may be required to indicate multiple riser locations.

6. No underground or aboveground piping shall be covered prior to a system rough-in/hydrostatic test at 200 P.S.I. for two hours.

7. All underground piping shall be flushed and approved by the Fire Department prior to connection to overhead piping.
HEATING VENTILATION & AIR CONDITIONING (HVAC)

1. Duct detectors shall be installed per NFPA.

2. Detectors that are installed in the air duct system in accordance with shall not be used as a substitute for open area protection.

3. Area smoke detectors within smoke compartments shall be permitted to be used to control the spread of smoke by initiating operation of doors, dampers, and other equipment.

4. Where the detection of smoke in the supply air system is required by other NFPA standards, a detector(s) listed for the air velocity present and that is located in the supply air duct downstream of both the fan and the filters shall be installed.

5. Detectors shall be listed for the purpose for which they are being used. Air duct detectors shall be installed in such a way as to obtain a representative sample of the airstreams. This installation shall be permitted to be achieved by any of the following methods:

   Rigid mounting within the duct.

   Rigid mounting to the wall of the duct with the sensing element protruding into the duct.

   Installation outside the duct with rigidly mounted sampling tubes protruding into the duct.

   Installation through the duct with projected light beam.

   The location of all detectors in the duct systems shall be permanently and clearly identified and recorded.
FIRE ALARM SYSTEMS

1. Fire alarm systems shall be provided to monitor automatic fire sprinkler systems and installed in accordance with the appropriate standards of the California Fire Code and NFPA 70 and 72 2013 edition.

2. All fire alarm systems shall be monitored by an approved central or proprietary service.

3. Approved audible and visual notification devices shall be connected to every automatic sprinkler system to alert occupants upon activation within each separate occupancy. Visual alarm notification appliances shall be provided in public use areas and common use areas including restrooms, bathrooms, shower rooms, corridors, lobbies, meeting rooms and other occupied spaces described in the CFC section 907.10.1.1. All notification devices shall be installed by a C-10 licensed contractor. Building Permits cannot be issued until plans are submitted and approved by the fire department.

FIRE EXTINGUISHERS

1. Portable fire extinguishers shall be located to be readily accessible. Its type, location and spacing throughout the facility shall be in accordance with the provisions of Title 19, Chapter 3 and 2013 CFC Section 906.

2. Fire extinguishers (min.2A10BC) shall have finished floor, within minimum each extinguisher and exits.

3. Commercial kitchens: Install K-
FIRE DEPARTMENT KNOX BOX REQUIREMENTS

KNOX key entry systems shall be required for all commercial facilities in the County of Napa. These systems include gate access whether it's a manual or electric with Knox key switch #3501 or #3502. Knox cabinets are required to be mounted at the driveway entrance on the right hand side and shall be mounted 3 to 5 feet to the top of the box. Knox Cabinet #1308 with weather proof housing #1201. Ordering from Knox Co can be done via the KNOX website @ www.knoxbox.com or calling, 800-552-5669, use the department code #PS-01-0176-03-82 or specify CAL FIRE/NAPA CO FIRE.

Required for TCO/Final Inspection the cabinet shall also have the following items:

1. Two (2) master keys to all exterior doors.

2. KNOX cabinet, PIV/FDC, Location and size of water storage tanks, location and size of LPG/aboveground fuel storage tanks, fire pump room, water main shut off valve, gas main shut off, fire hydrants, standpipes (wet or dry) generator location of fire sprinkler riser if applicable.

3. Floor plan shall show the locations of the fire sprinkler riser with spare head box, fire alarm control panel, fire alarm enunciator panel, electrical rooms, Main electrical disconnect, photovoltaic disconnects, locations of flammable/combustible or hazardous liquids, solids, or gases with quantities. Mechanical rooms, boiler rooms, chiller rooms, etc. Emergency contact names and telephone numbers and the code to reset the system. Elevator machine rooms if applicable. Building more than one story shall provide floor plans for each floor.

4. All items described above shall be shown in red. PDF file of the required site plans and floor plans shall be emailed to the Commercial Fire Inspector prior to building final. Key boxes, key switches, padlocks and cabinets can be purchased online @ www.knoxbox.com.

5. Hazardous Materials Business Plan including Material Data Safety Sheets of all flammable/combustible or hazardous liquids, solids, or gases.

6. Emergency contact list for after hour incidents.
FIRE LIFE SAFETY PLANS FOR PROJECTS

Fire Safety, Evacuation & Lockdown Plans shall comply with the requirements of CFC 2013 Section 404. Fire Safety Plan - a written narrative and site plan shall be developed and submitted for fire department review that identifies the following items:

1. Procedures for reporting emergencies to the Fire Department.

2. Procedures for emergency notification, evacuation and/or relocation of all persons in the building under construction and on the site.

3. Procedures for hot work operations, management of hazardous materials and removal of combustible debris and maintenance of emergency access roads.

4. Floor plans identifying the locations of exits, exit stairs, exit routes and portable fire extinguishers.

5. Site plans identifying the designated exterior assembly areas for each evacuation routes.

6. Site plans identifying required fire apparatus access roadways and on-site fire hydrants.

7. Location and marking of Entry site/gate into a gated construction site

8. The name(s) and contact phone numbers of persons responsible for compliance with the Fire Protection Plan.
COMMERCIAL KITCHEN HOOD AND DUCT SYSTEMS

All commercial type cooking equipment that produces grease laden vapors shall be equipped with an automatic fire extinguishing system. *A separate plan submittal is required and systems shall comply with 2013 CFC 904, NFPA 17, 17A, and/or 96, 2013 edition.

1. Commercial cooking equipment that produces grease laden vapors shall be provided with a Type I Hood, in accordance with the California Mechanical Code and an automatic fire extinguishing system that is listed and labeled for its intended use. [CFC 904.11]

2. Manual activation devices shall be located in an approved location. [CFC 904.11]

3. Fire extinguishers provided for the protection of cooking grease fires shall be of an approved type compatible with the automatic extinguishing agent. Sizing and distribution shall be in accordance with the latest edition of NFPA 10. Minimum (1) 2A10BC and one (1) 1½ gallon class K-

4. Submit 3 complete wet-stamped sets of plans drawn to scale under a separate fire permit. Plans shall include the room layout, including exit doors, walls, etc. Include flow calculations and cut-sheets for all components.
SUBTERRANEAN CAVES

The use of subterranean space in natural or manmade caves shall be in accordance with section 436.1 CFC Napa County code amendments.

TYPE 1 CAVES - Are natural or manmade caves used solely for storage and/or processing of wine at a winery facility. Type 1 caves are NOT accessible by the public.

TYPE 2 CAVES - Are natural or manmade caves used solely for storage and/or processing of wine at a winery facility. Type 2 caves are accessible by the public on guided tours only. All Type 2 caves require a minimum of an approved manual fire alarm system. Public tours for the public shall be continuously guided by staff knowledgeable in the location of exits and the use of emergency notification devices.

TYPE 3 CAVES - Are natural or manmade caves used solely for storage and/or processing of wine at a winery facility. Type 3 caves are accessible by the public on guided tours only and contain assembly areas. Any cave with a wine library and/or bathrooms is considered a Type 3 cave. All Type 3 caves require an approved manual fire alarm system and fully sprinklered. Tours for the public shall be continuously guided by staff knowledgeable in the location of exits, fire extinguishers and the use of emergency notification devices.

CAVE FIRE ALARM SYSTEM:
A manual and automatic fire alarm shall be installed in all Type 2 and 3 caves and all caves if they contain any combustible material needed for use in processing or storage of wine, to service and maintain a restroom, wine laboratory or library. Fire alarm systems shall be designed and installed in compliance with NFPA 72 2013 edition and shall be monitored by an approved central station, remote station or proprietary system.

CAVE FIRE DEPARTMENT ACCESS:
Fire Apparatus access roads shall be provided to all cave portals, unless the cave exits into a structure and comply with Section 503 of the CFC 2013 edition.

CAVE WATER SUPPLY:
An approved water supply capable of supplying the required fire flow for fire protection shall be provided for all caves and fire flow calculations certified by a State Licensed Civil Engineer, C-16 licensed contractor, or registered engineer indicating compliance with Table B105.2 through Table 105.4 of the Napa County Code Amendments.*Separate submittal

CAVE EXITS:
A minimum of two exits shall be provided for all type caves. The exits shall be located remotely from each other and arranged to minimize any possibility that either exit may be blocked by a fire or an emergency condition.

Exit travel distance shall comply with the Building Code. In most instances a storage only cave may be have a travel distances of up to 300 feet unsprinklered or 400 feet sprinklered. Any cave used for assembling people must be sprinklered and maximum travel distance shall not exceed 250 feet.

Exit and egress lighting shall be supplied whenever the cave is occupied. Exits shall be illuminated to a minimum intensity of not less than 1 foot-candle (10.76 lx) at floor level whenever the winery cave is occupied. Fixtures providing exit illumination shall be supplied
from a dedicated circuit or source of power used only for exit illumination. The power supply system. In the event of its failure, illumination shall be automatically provided from an emergency system in Types 2 and 3 winery caves. Emergency systems shall be supplied from storage batteries or an on-site generator set, and the system shall be installed in accordance with the requirements of the California Electrical Code. Exit signs shall be installed at required exits and where otherwise necessary to clearly indicate the exits from assembly areas in Type 3 winery caves.

**ADDITIONAL REQUIREMENTS:**

The area of winery caves shall not be limited if constructed entirely of noncombustible materials. Winery caves constructed with combustible materials shall be limited in area so that no point is more than 150 feet from an exit.

The walls and ceilings of winery caves shall not contain hidden or concealed spaces.

Portable fire extinguishers shall be located to be readily accessible. Its type, location and spacing throughout the facility shall be in accordance with the provisions of Title 19, Chapter 3 and California Fire Code Section 906.1. Other fire appliances shall be maintained at the site as required by the fire chief.

Assembly areas of Type 3 winery caves shall be provided with exits as required by the California Building Code for Group A Occupancies.

Seating arrangements. Seating arrangements in the assembly areas of Type 3 winery caves shall be in accordance with California Fire Code, Section 1028.9

CFC 436.8.2 Standby personnel. Per the California Fire Code, Section 2404.20, when, in the opinion of the fire chief, it is essential for public safety, the owner, agent or lessee shall employ one or more qualified persons, as required and approved by the chief, to be on duty at such place. Such individuals shall be in uniform or otherwise easily identifiable. Standby personnel during the times such places are open to the public or when such activity is being conducted.

Before the start of any activity requiring standby personnel, such individuals shall:

1. Inspect the required fire appliances to ensure they are in the proper place and in good working order.
2. Inspect all exits to verify accessibility and proper operation. While on duty, such individuals shall not be required or permitted to perform any duties other than those specified by the fire chief.

Open-flame devices. The use of candles and other open-flame devices shall be in accordance with California Fire Code Section 308.1.7.
**INSPECTIONS**

Please allow a minimum of 48 hours notice to schedule inspections. Contractor will insure all approved plans, forms, and permit cards necessary for the inspection are available at time of inspection. Failure to do so may require a re-inspection. Please note additional inspections, re-inspections or special site visits are not included in the permit fees and shall be charged at a per hour basis.

**UNDERGROUND INSPECTION:**
(Water Supply, Storage Supply Lines and Fire Hydrant)

Inspection 1: Inspection of the underground fire line system shall include a visual inspection of all underground piping, thrust blocks, mechanical joints.

Inspection 2: A 200 psi pressure test to all fire lines.

Inspection 3: Flushing of the system shall be witnessed by the Napa County Fire system is clear and free of debris before connecting to the fire sprinkler system. Contractor will provide (2) 2-Fire Marshal inspection. Contractor will supply a safe anchoring system to hose lines while performing flush test. Contractor shall provide the NFPA 24 Underground Installation and Test Materials Certification upon final inspection.

**FIRE SPRINKLER SYSTEM INSPECTION:**
Inspection 1: Inspection of all welds prior to hanging of pipe. Contractor shall insure all pipe is laid out and ready for inspection. Contractor shall supply weld certificates for the specified welding technician.

Inspection 2: Prior to connecting to water supply, a hydrostatic pressure test of 200 psi for two hours, and verify that the system has been installed per the approved set of plans. A final acceptance test shall also be conducted. The installing contractor shall provide the NFPA 13 Aboveground Piping Material and Test Certification upon final inspection.

**FIRE ALARM SYSTEM INSPECTION:**
A functional test shall be conducted to ensure that the system has been installed in accordance with the approved plans. This inspection shall include phone line tests, smoke detectors, manual pull boxes, heat detectors, water flow and other functional tests as required by NFPA 72. Contractor shall provide the NFPA 72 Installation Certification upon completion of the functional test.

**BUILDING FINAL INSPECTION:**
Prior to final approval of the building permit a final inspection shall be conducted to ensure compliance with all applicable codes and standards. Inspections shall include but not be limited to fire department access roads, building exiting, fire hydrants, addressing, locations of fire extinguishers, location of Knox box or storage cabinet, and the final sign offs on all required fire protection systems, etc. The following checklist is to assist the contractor/developer/owner to insure all requirements are met prior to calling for a TCO (Temporary Certificate of Occupancy) or Final Inspection. Please be advised all fire life safety requirements will need to be met prior to granting a TCO or Final which is addressed on this Check List. Also be advised a TCO is only good for 180 days maximum and all final requirements and inspections will need to be met.
FINAL OCCUPANCY CHECKLIST
The following are some of the most commonly overlooked items at a final inspection. Therefore, this is not an all-inclusive checklist. Additionally, some of these items may not apply to all projects. If you have questions, please contact your fire department inspector prior to final inspection.

GENERAL CONTRACTOR ITEMS:

1. Copy of approved plans. This includes all submittals related to this project (civil, architectural,

2. Permit Inspection Cards with all required inspections signed off:
   - Underground flush
   - Hydrant/Riser/Lateral
   - Above Ground Hydro- Sprinkler System
   - Fire Pump Acceptance
   - Fire Alarm
   - Protection of commercial cooking operations
   - Special systems- High piled stock, Dust collection, LPG tank, above/underground storage tanks.

3. Copies of Fire/Safety Inspection Reports for all inspections.


5. Fire extinguishers (min. 2A10BC) mounted and provided with State Fire Marshal's service tag. Mounted 3' - 5' above finished floor, within 75' feet of travel distance between exits.

6. KNOX Cabinet- Knox cabinets are required to be mounted at the driveway entrance on the right hand side and shall be mounted 3 to 5 feet to the top of the box. Knox Cabinet #1308 with weather proof housing #1201. Ordering from Knox Co can be done via the KNOX website @ www.knoxbox.com or calling, 800-552-5669, use the department code #PS-01-0176-03-82 or specify CAL FIRE/NAPA CO FIRE.

   Cabinet shall have the following items:
   a. Two (2) master keys to all exterior doors, labeled and separated on different labeled rings.
   b. PIV/FDC, Location and size of water storage tanks, location and size of LPG/aboveground fuel storage tanks, fire pump room, water main shut off valve, gas main shut off, fire hydrants, standpipes (wet or dry) generator location of fire sprinkler riser if applicable.
   c. ow the locations of the fire sprinkler riser with spare head box, fire alarm control panel, fire alarm enunciator panel, electrical rooms, Main electrical disconnect, photovoltaic disconnects, locations of flammable/combustible or hazardous liquids, solids, or gases with quantities. Mechanical rooms, boiler rooms, chiller rooms, etc. Emergency contact names and telephone numbers and the code to reset the system. Elevator machine rooms if applicable. Building more than one story shall provide floor plans for each floor.
   d. All items described above shall be shown in red. PDF file of the required site plans and floor plans shall be emailed to the Commercial Fire Inspector prior to building final. Key boxes, key switches, padlocks and cabinets can be purchased
e. Hazardous Materials Business Plan including Material Data Safety Sheets of all flammable/combustible or hazardous liquids, solids, or gases.

7. All doors shall be hung and approved door hardware installed. All fire rated doors shall be provided with closures and smoke seals. All interior and exterior suite doors shall be labeled with suite numbers.

8. For tenant improvements projects where the area of work is only a portion of the building, exiting from the location of the tenant improvement all the way to the exterior of the building will be evaluated for Fire Code compliance.

9. ADDRESSING: Commercial building addresses shall be a minimum of SIX inches in height on a contrasting background. Industrial buildings shall be a minimum of TWELVE inches in height on a contrasting background. Approved numbers or addresses shall be placed on all new and existing buildings in such a position as to be plainly visible and legible from the street or road fronting the property and visible from both directions of travel. Said numbers shall contrast with their background. All numbers shall be visible from both directions of travel and numbers shall be reflective or illuminated. On private common driveways- install permanent addressing located at all forks or turns directing traffic to the property.

10. Fire access lane “NO PARKING – FIRE LANE” signs shall be installed and/or fire lanes/curbs painted.

11. For projects requiring fire stopping of rated assemblies, a copy of detail shall be provided to verify penetrations are correctly fire stopped.

12. New hydrants shall be flushed prior to flush inspection by the fire department. Provide a hydrant wrench for flushing, clean burlap bags, m

13. Fire hydrant barrels shall be painted safety chrome yellow with tops and caps painted according to NFPA 24 GPM: 0-499 RED, GPM: 500-999 ORANGE, GPM: 1000- 1499 GREEN, GPM: 1500 + LIGHT BLUE.

14. Provide blue reflective street marker for all hydrants.

15.

16. Post indicator valves and fire department connections shall be painted red and have the address number(s) stenciled in white.

17. Break away locks installed on PIV.

18. Fire control rooms shall be labeled “FIRE CONTROL ROOM” and fire riser rooms shall be labeled “FIRE RISER ROOM” in minimum 1 inch letters with contrast background. Rooms with electrical ELECTRICAL MAIN SHUT OFF INSIDE”.

19. For projects requiring exit and egress emergency illumination, verify emergency lights function. When signage is not accessible from floor level provide ladder.

20. For assembly areas over 49 occupant load signs shall be posted.

21. Fire Department Access: Access road provided to within 150 of exterior portions of buildings, as measured by an approved route around exterior of building.

22. Mechanical Ventilation shut Down for HVAC units exceeding 2000 CFM.

23. Elevators comply with fire requirements for re-call.

24. Trash enclosures greater than 1.5 cubic yards not stored within 5 feet of combustible walls, openings or roof eave lines. Approved if sprinklered.

25. Fire Alarm Contractor Items: Fire alarm contractor shall be present at final inspection and shall be prepared to test 100% of the new devices. A minimum of two people must be present to test the fire alarm system and radio communication must be provided. If portions of the building are occupied, notification of building occupants of fire alarm testing shall be the responsibility of the general contractor and shall be done in advance of the final inspection.

26. Copy of the alarm pre-test results.

27. Copy of the fire alarm monitoring contract.

28. Fire Sprinkler Contractor Items: For new buildings, a fire sprinkler main drain test shall be conducted to obtain baseline static and residual pressures.

29. Spare heads box with spare heads of each type and sprinkler wrench. Locate box in fire riser room, alarm panel room, or fire pump room.

30. Hydraulic design placard on riser.

31. Documentation of current 5-year certification on fire sprinkler system.

32. Exterior water flow bell with 911 placard.
DRIVEWAY

10 feet minimum width and 2 feet shoulder on each side = 14 feet wide total

Note: Defensible Space shall be provided each side of access drives and roads for a distance of 10 feet from the edge of road surface.

Refer to Napa County Defensible Space Guidelines for Fuel Modifications.

ACCESS ROAD

8 foot minimum width and 1 foot shoulder on each side = 10 feet wide total

Note: Defensible Space shall be provided each side of access drives and roads for a distance of 10 feet from the edge of road surface.

Refer to Napa County Defensible Space Guidelines for Fuel Modifications.
14'-0" MIN. DRIVEWAY
20'-0" MIN. ACCESS ROAD

- 10 Feet minimum driveway width and 2 feet of shoulder on each side = 14 feet total width required.

ACCESS ROAD
- 18 Feet minimum roadway width and 1 feet of shoulder on each side = 20 feet total width required.

STUB-OUT TURN AROUND

FIRE SAFE STANDARDS

CAL FIRE
Napa County Fire Department
999 BEALE STREET
ST. HELENA, CALIFORNIA 94574

SCALE

23
FIRE LANES

Fire lanes will be designated on approved plans. All fire lanes must be

based red curb marking paint and lettered to the above standards. Lettering shall be in WHITE, three inches (3) 

ainted red

above.

Access roadway fire lane requirements:

Width
36 feet or greater  No requirements
Between 28 and 36 feet  post on one side
Between 20 and 28 feet  post on both sides
Less than 20 feet  not permitted
FIRE LANE CURB PAINTING

signage or stenciling must meet the criteria as stated above.

The Fire Marshal may designate any public or private roadway a fire lane when accessibility or obstruction is in question.

**Signs marking fire lanes shall be as follows:**

Signs marking fire lanes to be instal end of curbed areas and spaced a maximum of seventy-situation, additional signage may be required.
FIRE LANE SIGNAGE

A = 7 feet height from surface of sidewalk to bottom of sign.

B = 24 inches from edge at gutter.

C = 24 inches minimum embedment.

Note: Signs may be mounted on existing posts, fences or buildings if the post, fence or building is no more than 24 inches from the curb or edge of road surface. Signs may be installed flush to the wall with fire department approval.

Background can either be White on Red.
REFERENCES

1. California Code of Regulations Title 24
2. California Health and Safety Code Title 19
3. Public Recourse Code 4290 & 4291
4. NFPA 2013
5. Napa County Code Chapters 8 & 15
6. California Vehicle Code 22500