

SANTA ROSA FIRE DEPARTMENT
FIRE PREVENTION BUREAU
STANDARD

July 1, 2010



PUBLIC IMPROVEMENT PLAN

PURPOSE:

The Fire Department participates in the Public Improvement Plan review process. We evaluate site plans and maps to ensure that previously applied Fire Department conditions are included in development plans. We review comments from Planning and Engineering activity and verify that the proposal will comply with Fire Department requirements related to access, water supply and Wildland Urban Interface.

CODE REFERENCES:

- California Fire Code, as adopted by the City of Santa Rosa
- City Design Guidelines
- City Design and Construction Standards
- Fire Department "General Development" Bulletin
- City Water System Standards

ATTACHMENTS:

- Fire Department "General Development" Bulletin

REQUIRED INSPECTIONS:

- Subdivision and/or Final Acceptance of Improvements
- Post installation fire flow "wet" test

PERMIT INFORMATION:

- If a private fire service water main/hydrant system is to be installed, the Fire Department "Underground Fire Main" permit will be required
- Encroachment Permit for work in the public right-of-way

FILE REVIEW

- PERMITS PLUS** - Access Permits Plus, search by street address or project name to identify previous review activity at the Subdivision, Planning, Engineering or Utility level.
- SUBDIVISION MAP CONDITIONS** - Review subdivision specific conditions and history. Are fire sprinklers conditioned? Is there an alternate method request/approval?
- WUI** – Determine if the project is in the Wildland Urban Interface. If so, check to see if any WUI requirements were conditioned upon the improvement.

PLAN REVIEW

- WATER SUPPLY** – SRCC 18-44.508.1.and 508.4 require that the fire flow for the project be identified and water mains of sufficient size to provide the required fire flow.

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- 18.44.508.4. Specify the fire flow to be achieved/provided.
 - City Water Standards. Provide a fire flow analysis/justification.
 - 18.44.B105.1. If undesignated; for One & two family dwellings minimum of 1500 gpm unless if located in the WUI where 2500 gpm minimum is required.
 - 18.44.B105.2. Multi-family and commercial minimum is 2500 gpm whether located in or out of WUI..
 - City Water Standards. Dead-end water mains of 8" diameter or smaller must have a hydraulic analysis to demonstrate capability.
- **FIRE HYDRANTS** – SRCC 18-44.508.5. Fire hydrants shall be spaced along City streets at 500 feet in residential areas and 300 feet in commercial areas.
- City Water Standard 857. Hydrant style: One & two dwellings can utilize the residential hydrant. Multi family residential and commercial must install the commercial (double steamer) hydrant.
 - 18.44.C105.1.f. Special note, 300 foot spacing for One & Two Family within the WUI.
 - 18.44.C102.1. Hydrants are required along the fire department access route. We examine the relationship between the hydrant, the access and the area for fire department operations.. Do not place hydrants at the head of cul-de-sac's or at the end of long commercial driveways.
 - 18.44.C105.1.c. If your design incorporates a divided street, hydrants are required along both sides of the street and also staggered.
 - 18.44.508.5..1. Where flag lots are present and homes are set back from the street, a fire hydrant must be located within 150 feet of all points of the first story as measured by an unobstructed route or an on-site fire hydrant is required.
 - 18.44.105.7.10. Private fire hydrant design and installation is a separate permit issued by the Fire Department. If the system is private, ensure that the plan specifies to submit to the Fire Department for review, approval and permit.
- **ACCESS** – SRCC 18-44.503
- Apparatus access.
 - Width
 - 18.44.503.2.1. Minimum 20 feet of width
 - 18.44.D105.2. Buildings exceeding 30 feet shall have a 26 foot width for aerial apparatus
 - 18.44.D105.3. Aerial access – one road a minimum of 15 feet from and a maximum of 30 feet from the building
 - City Design Standards. Length – maximum depth of 150' unless a cul-de-sac then the maximum is 500 foot
 - Two separate access roads required for:
 - 18.44.D104.1. Buildings three stories or 30 feet in height

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- 18.44.D104.2. Buildings exceeding 62,000 ft² in area
 - 18.44.D106.1. Projects with more than 50 dwelling units
 - 18.44.503.2.3. Surface – asphalt paved
 - 18.44.D103.3. Turning radius – inside 20 foot, outside 40 foot
 - 18.44.503.2.1. Vertical obstructions – clear area of 13 foot 6 inches
 - 18.44.D103.4. Turnarounds
 - 18.44.D103.4. Required when dead end is >150 foot
 - Street Design Standard 203-F may apply if 4 or less homes
 - 18.44.503.1.1. Access to within 150 feet of far side of building envelopes
 - 18.44.D103.6. Fire Lane – No Parking signage on all fire lanes
 - 18.44.503.3. No Parking – Emergency Vehicle Access on EVA barriers
 - 18.44.506.1.1. Knox locks are required on Emergency Vehicle Access (EVA)
 - City Standard Conditions. Opticom controlled access on gates/barriers if serving 5 or more single family dwellings.
 - 18.44.503.2.6. Curb cuts accommodate fire apparatus, especially for EVA transitions.
 - 18.44.503.2.6. Bridges indicate their weight rating
 - 18.44.501.4. Note that no combustible construction may start until approved access roads and water supply are installed and accepted.
- FIRE SPRINKLERS** – 18-16.903.2, 903.2.18. Noted on plan if conditioned as part of the subdivision conditions or as part of an approved alternate method request.
- An approved fire sprinkler system shall be installed in all new buildings. See 903.2.18.1 for exceptions related to Group U, pool houses, detached garages, motor vehicle fueling, non-combustible carports and B & M occupancies less than 500 ft².
- WATER CONNECTION** – City Water Standard 880. Note the location of the double detector check (DDC), must be in close proximity to fire department access. If yard hydrants are present, do not install a FDC on the backside of the DDC. If the DDC is only supplying fire sprinklers, an FDC on the back of the DDC is permissible if it is congruent with fire department operations.
- RESIDENTIAL METER SIZING** – City Water Standard 863 & 865. For one and two family dwellings, note the water meter size and the lateral size (corporation stop to meter box). Ensure that it will supply residential fire sprinkler system demand established by a fire sprinkler contractor.
- OTHER** –
- Has a Phase 1 Environmental Site Assessment been submitted?
- MISCELLANEOUS**

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- **HAZ-MAT.** Public improvements involving the Utility system(s) (water or sewer) often incorporate chemicals, compressed gasses or flammable liquids for either treatment or to supply backup power systems. Note the presence of any processes/equipment that require hazardous materials.
 - **PERMITS.** If hazardous materials are used, a HMMP with associated permits will be required for the storage, use and disposal (waste stream) of hazardous materials. This is typically accomplished prior to startup of the process equipment.
 - **OCCUPANCY TYPE.** Storage amount of hazardous materials could change the occupancy classification.
 - **WARNING SIGNS.** Note that warning signs for the storage of hazardous materials are detailed on the plan.
- ☐ Inspections shall be scheduled a minimum of 48 hours in advance. Directions for scheduling are found at: <http://ci.santa-rosa.ca.us/news/Pages/AutomatedFireInspectionRequestSystem.aspx>