

Santa Clara County Fire Marshal's Office



Fire Protection Water Supply Requirements for Properties Without a Water Purveyor

These guidelines apply to:

- New construction and additions over 500 sq. ft.
- One-and two-family dwellings
- Residential accessory structures
- Properties with wells or Shared Water Agreements
- Single-site development
- Unincorporated Santa Clara County

DWELLINGS

The Fire Department will need water in case of a fire. Your water must be stored in an above-ground tank along with your domestic water. Swimming pools, underground tanks, streams and ponds are not acceptable water sources for fire protection. Tanks must be automatically filled, and it is important that they be kept full at all times.

Double Tank System: Two tanks are required to satisfy the requirements of the Plumbing Code and to protect your domestic water supply from possible contamination from Fire Engine tanks.

- **Primary Tanks** hold water for domestic use combined with the supply for the fire sprinkler system (See Table 1 below)
- **Secondary Tanks** hold water to supply the hydrant (See Table 2 below)
- See Fire Marshal Standards CFMO-W1, CFMO-W4 & CFMO-W5 for details.

TABLE 1: Primary Tanks for Dwellings

RESIDENTIAL FIRE SPRINKLERS are required throughout the structure, including attached garage. If your project is an addition over 500 sq. ft., the existing part of the structure must be retrofitted with sprinklers. (See CFMO-SP6 Residential Sprinkler Standard)
Minimum of 3,000 gallons: 1,000 gallons for domestic, minimum 2,000 gallons for fire sprinklers (see below)
Contact your fire sprinkler contractor for actual sprinkler demand

TABLE 2: Secondary Tanks for Dwellings

501-3,600 sq. ft.	Minimum of 5,000 gallons of above-ground water storage for fire protection use only (See: Standard CFMO-W5) Exception: If the property is NOT located in the Wildland Urban Interface Fire Area, an acceptable alternative would be 30,000 gallon approved fire protection above-ground water storage tank without fire sprinklers (NOTE: a permit is required)
3,601-10,000 sq. ft.	Minimum of 10,000 gallons of above-ground water storage for fire protection use only (See: Standard CFMO-W5)
10,001-15,000 sq. ft.	Installation of an approved Minimum of 30,000 gallons of above-ground water storage for fire protection use only (See: Standard CFMO-W5)
Over 15,000 sq. ft.	Minimum of 45,000 gallons of above-ground water storage for fire protection use only (See: Standard CFMO-W5)

LET US HELP YOU: The Fire Marshal's Office is committed to providing as much assistance as we can to make your project move as quickly and easily as possible through the approval process. We encourage you to contact our Land Development Deputy at (408) 299-5763 or through our website at <http://firemarshal.sccgov.org> if you have any questions or would like to set up an appointment to discuss your project. We are also available for drop-in consultation or project sign-off at the **public counter every Wednesday and Friday from 8 am-12 pm and 1 pm-5 pm.**

NON-DWELLINGS

Fire protection water supply for any non-dwelling structure, such as a detached garage or barn, must meet the same requirements as a dwelling except for the quantity in storage (see Table 3).

TABLE 3: Residential Accessory (Non-Dwelling) Structures					
TYPE	SQUARE FOOTAGE				
	0-500	501-3,600	3,600-10,000	10,001-15,000	OVER 15,000
Accessory Structure ⁴	<u>SRA ONLY:</u> 5,000 gal.	5,000 gal. (7,500) ¹	15,000 gal. (22,500) ¹	30,000 gal. (45,000) ¹	+ 30,000 gal. ea. additional 10,000 sf
Greenhouse ²	N/A	5,000 gal.		7,500 gal.	10,000 gal.
Shade Structure ³	N/A			7,500 gal.	

NOTE 1: Water storage requirements shall be increased by 50% for all structures located within fifty (50) feet of other significant structures or a property line.

NOTE 2: May not be used for purposes of storage of any kind. Greenhouses with covering material exceeding a Class-A (0-25) flame-spread rating shall meet the requirements for Accessory Structures.

NOTE 3: Limitations apply. See Standard CFMO-W1.

NOTE 4: Residential riding arenas with noncombustible canopy structures with dirt floors and no sides, used only for the purpose of providing shelter for riding arenas which are not used in any way for combustible or noncombustible storage, may be approved with no requirements for fire protection water supply. Such structures shall be approved on a case-by-case basis.

HYDRANTS

Each property must have at least one wharf hydrant with a single 2-1/2-inch outlet (See Figure 1). The hydrant must be located at least 55-ft.

from the closest portion of the structure and no further than 600 ft. from all exterior portions of the structure in a location acceptable to the Fire Marshal (See Figure 2 & Standard CFMO-W4). If your source is a Shared Water System, each property served by the system must have it's own hydrant.



Figure 1

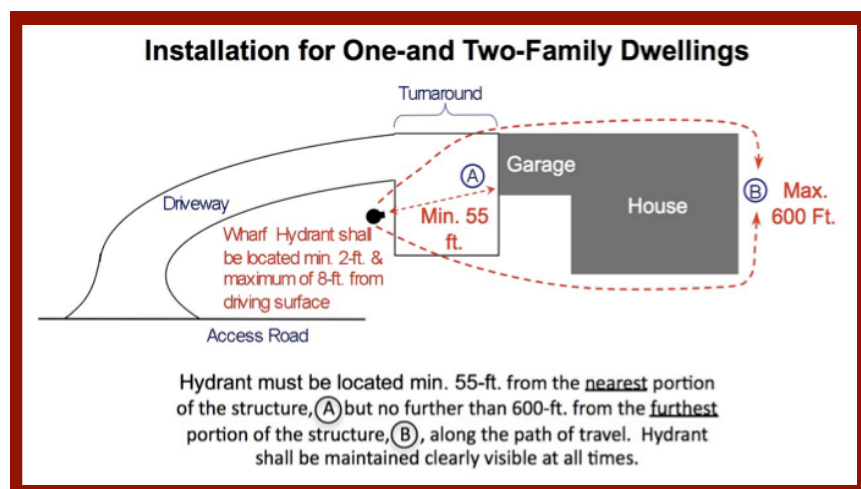


Figure 2

PROCESS

LAND USE PROCESS: The Fire Marshal's Office reviews plans submitted to the Planning Office and lists requirements for water supply, hydrants and fire department access (driveways and roads) as part of your conditions of development. At that time it helps us if you include the following information on your site plan submitted to the Planning Office:

- a. Source of water supply (*e.g., on-site well or Shared Water Agreement*)
- b. Total square footage of structure(s), including attached garages and accessory structures covered by your application

BUILDING PERMIT PROCESS: The Fire Marshal's Office also reviews plans submitted to the Building Department to make sure everything required during the Planning review is shown on the plans. If something is missing it will be listed on the letter you will receive from the Planning Office.

In most instances you can stop by and simply add the missing information to the submitted site plans and we can sign off the Building Permit right there.

FIRE MARSHAL PERMIT PROCESS: If you are required to install a tank and/or wharf hydrant to supply fire protection water you will obtain your Fire Marshal Permit through the Building Permit process, however you will need an inspection by the Fire Marshal's Office prior to pouring your foundation.

TO AVOID DELAY, the following must be shown on the site plan:

- a. Hydrant and it's proximity to a drivable surface (driveway, turnaround or access road)
- b. Tanks, including location, capacity and interconnection
- c. Elevation of tanks and wharf hydrant
- d. Piping from tanks to wharf hydrant (*indicate 4-in. diameter on plans*)
- e. Proof of recorded Shared Water Agreement (*if applicable*)

For further information, see Fire Marshal Standard CFMO-W1, CFMO-W4 & CFMO-W5 (downloadable from our website: <http://firemarshal.sccgov.org>)