

FIRE WATER STORAGE CALCULATION

COMMERCIAL PROJECT

BOMMARITO WINERY
1109 GALLERON LANE, ST. HELENA, CA 94574
APN: 030-080-003

MARCH 18, 2019



PREPARED BY:
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Project: Bommarito Winery
 1109 Galleron Lane
 St. Helena, CA 94574
 APN: 030-080-003

Project Description:

The following calculations are for the fire protection water storage for non-residential buildings on the Bommarito Winery project.

Commercial Fire Sprinkler Water Storage Calculations

Need Fire Sprinklers?	Yes	per Napa County Code 15.32.090
Building Classification	B, S-1, F-1	per CBC Part 2, Chapter 3, Section 310
NFPA Standard for Sprinklers	NFPA 13	per CBC Part 9, Chapter 9, Section 903.3.1.1
Occupancy Hazard Level	Ordinary Hazard - Group 1	see NFPA 13
Minimum Flow Requirement	0.1	GPM/SF per NFPA 13 Figure 11.2.3.1.1
Size Of Largest Sprinkler Area	4680	SF, essentially largest compartment
Minimum Sprinkler GPM required	468	GPM
Hose Stream Allowance	250	GPM, per NFPA 13 Table 11.2.3.1.2
Minimum Water Supply	60	minutes, per NFPA 13 Table 11.2.3.1.2

Total Sprinkler Storage Requirement 43080 gallons

Commercial Fire Hydrant Water Storage Calculations

County Fire Hazard Occupancy Type	Moderate Fire Hazard	loosely defined in County Code
Is the building sprinklered?	Yes	if yes, 50% reduction in fire flow
Is building separation less than 20 feet?	No	if yes, 10% addition to storage volume
Minimum Fire Flow	500	GPM, from table (total SF of ALL site buildings)
Minimum Duration	60	minutes, from table
Total Hydrant Storage Requirement	15000	gallons
Total Fire Protection Water Storage	58080	