

DIVISION 21 FIRE SUPPRESSION

Section 21 00 00 Fire Suppression - General

- 1 Fire Protection
 - 1.1 General
 - 1.1.1 The materials, equipment and assemblies shall meet the minimum requirements of Underwriters Laboratories of Canada.
 - 1.1.2 No water main supplying a hydrant system is to be less than NPS 6 diameter. Dead- ended mains are to be avoided where possible by looping of mains. Sectional valves are to be installed so that the majority of hydrants may remain in service during a water outage caused by a break or maintenance.
- 2 Fire Protection Water Supply Sources
 - 2.1 There may be areas where there is no established water supply, but due to features of construction and occupancy, a water supply for a system of fire hydrants, sprinklers, etc. is required. Water supply sources may consist of a connection to a public or private water main system, gravity tank, compartmentalized reservoir and fire pumps, rivers, lakes, etc.
 - 2.2 In areas where there is no established water supply and an outside hydrant system is not required, a water supply for an internal fire hose and standpipe system may be required. Water supply sources may consist of a pressure tank or a non-pressurized source, such as a reservoir, cistern or tank with a pumping system.
- 3 Where water storage is required, fire protection water shall be held in a separate storage device which may be located in or under rooms containing mechanical equipment and/or fuel storage tanks (this is not permitted for other underground cisterns/reservoirs). Potable water shall be stored above grade, but is not permitted in boiler rooms or other spaces with heat generating equipment. The minimum storage volume for water serving the plumbing fixtures shall be two days supply, based on a minimum usage of 12 litres/day per occupant for potable water and 12 litres/day per occupant for non-potable (eg. toilet flushing) water.
- 4 Mechanical design engineer to consult with DTIR on project requirements for non-potable water supply and rainwater collection systems.

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