



SHAKOPEE FIRE DEPARTMENT

Fire & Life Safety for a Growing Community



UNDERGROUND PIPING SUPPLYING FIRE SPRINKLER SYSTEMS AND COMBINATION FIRE/DOMESTIC SYSTEMS Policy #05-2000 (04/01/2009) (2007 MSFC)

Aboveground General Requirements

1. Refer to Shakopee Fire Department Policy #04-2000.

Underground General Requirements

1. Permits are required for all underground water supply work.
2. All work shall be designed and constructed in accordance with nationally recognized standards.
3. Contact Shakopee Public Utilities (952-445-1988) for additional Water Department requirements.
4. The number of hydrants and distance between hydrants shall be in accordance with the Minnesota State Fire Code.
5. Hydrant locations for public and private hydrants shall be in accordance with the Water Policies of the Shakopee Public Utilities.
6. A minimum of one (1) fire hydrant shall be within 50 feet of the Fire Department Connection (FDC), but not less than 20 feet from the building. The hydrant shall be accessible via an asphalt access road. A separate service line with a minimum 6-inch diameter shall be provided to this required hydrant.
 - exception:** 1. This required hydrant may be tapped off the automatic fire sprinkler service line; however, the minimum diameter of the automatic fire sprinkler service line shall be increased to the next largest diameter. In cases where the required diameter of the automatic fire sprinkler system service line is 12 inches, a separate service line with a minimum 6-inch diameter shall be provided to this hydrant.
7. An indicator valve shall be placed on the fire service line. The Shakopee Fire Department shall approve the location of the indicator valve. The indicator valve shall be a minimum of 10 feet from any electric or gas meters and any electric transformers. The indicator valve should be outside the collapse zone of the building and shall be provided with a tamper switch. Additional information on indicator valves may be found in Policy #19-2004.
8. All underground piping shall be visual inspection by the Shakopee Fire Department, Shakopee Public Utilities and/or City of Shakopee Building Department before back filling.
9. The Shakopee Fire Department and/or Shakopee Public Utilities shall witness hydrostatic tests, flushing of underground lines and drawing of bacteria testing samples.

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10. Appointments for inspections can be made by calling both the Shakopee Fire Department and Shakopee Public Utilities. The Shakopee Fire Department can be reached at 952-233-9570 between the hours of 7:30 a.m. and 4:30 p.m. and City of Shakopee Building Department can be reached at 952-233-9396 between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday. Shakopee Public Utilities can be reached at 952-445-1988 between the hours of 7:30 a.m. and 4:00 p.m., Monday through Friday. Please arrange tests at least 24 hours in advance. Signed copies of the "Contractor's Material and Test Certificates" for underground piping shall be provided to the Shakopee Fire Prevention Bureau upon job completion.
11. The minimum inspections will include:
 - a. Visual inspection prior to backfill.
 - b. Hydrostatic test at 200 psi for 2 hours
 - c. Flushing
 - i. 4" main 1 – 2-1/2" hose line
 - ii. 6" main 1 – 2-1/2" hose line
 - iii. 8" main 2 – 2-1/2" hose lines
 - iv. 10" main 2 – 2-1/2" hose lines
 - v. 12" main 3 – 2-1/2" hose lines
 - d. Conductivity testing.
 - e. Bacteria testing.

Combination Service Lines
General Requirements

1. Combination fire sprinkler/domestic service lines are preferred by the City of Shakopee. Separate service lines are allowed in special situations where there will be a substantial domestic demand.
2. The maximum size of the domestic water supply (including lawn sprinkler systems) on combination fire sprinkler/domestic water supply lines shall not exceed 1/4 size of the main water supply.

exception:

 1. The maximum size of the domestic water supply may exceed 1/4 the size of the main water supply if an electric solenoid valve is installed on the domestic side of the service (including lawn sprinkler systems). This valve shall be normally powered open and shall close on loss of electric power or signal from the automatic fire sprinkler system flow indicator.
 2. The maximum size of the domestic water supply may exceed 1/4 the size of the main water supply if the domestic service (including lawn sprinkler systems) usage can be designed into the hydraulic calculations for the automatic fire sprinkler system.

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