



LOCAL REQUIREMENTS FOR THE INSTALLATION AND INSPECTION OF FIRE PROTECTION SYSTEMS

Fire protection and prevention for sites and structures shall be designed, constructed and maintained in accordance with the provisions of Chapter 12 of the Madison Heights Municipal Code, as adopted, the Fire Prevention Standards of the National Fire Prevention Association (NFPA), as adopted by reference, the Building AND Fire Prevention Codes of the City of Madison Heights, these standards and other applicable ordinances.

1. Pipe Threads

<u>Pipe Size</u>	<u>Thread Type</u>
1½" connections	National Pipe Straight Hose (NPSH) thread
2½" connections	Detroit Standard thread
4" (steamer) connections	Detroit Standard thread
FD Connection	5" Storz or equivalent

Fire Protection

- a) All fire hydrants shall be double steamer and painted red.
- b) All structures, except one and two family dwellings built under use group R-3, shall be equipped with a "Knox Box" key storage unit. The location and number of the key storage units shall be determined by the Madison Heights Fire Marshal.
- c) Burning of trash or debris is prohibited.

Design Criteria

The City of Madison Heights can not control the volume or pressure in the municipal water system and can not guarantee that the pressures observed during flow testing can be maintained during peak use periods. For this reason fire protection systems in the City of Madison Heights shall be designed using the lowest recorded sustained residual water pressure in the previous twenty-four month period. That pressure as of September 1, 2001, is forty (40) pounds. Verify the current pressure with the Department prior to system design.

Fire Suppression Systems

- a. All hydrostatic and alarm tests must be scheduled directly with the fire department at 248-588-3605. That office will coordinate with the building department. Piping inspections must be scheduled by calling 248.583.0831.
- b. The riser must be installed in accordance with the City approved piping detail. The piping inspection by the Mechanical Inspector must be complete and approved.
- c. The suppression system (including required alarms) must be complete and fully operational. We do not witness partial tests.

- d. An inspectors test must be installed on each riser and reduced to the smallest size head in service on that riser. Wherever possible, the preferred location is at the farthest point from the water source
- e. The State of Michigan Bureau of Construction Codes has determined that the alarm equipment required to monitor a fire suppression system is NOT an "fire alarm" under the code and as such, notification devices are NOT required in the occupied spaces of a building. The Madison Heights Building Department and the Madison Heights Fire Department **STRONGLY** recommends that notification devices be installed in all buildings in sufficient numbers to alert all the occupants of the activation of the fire suppression system.

Whether the activation is from a fire, or another activity such as damage or freezing, the water flowing from these systems can cause severe building damage and personal injury in a matter of minutes. Immediate notification to building occupants is necessary to protect their safety.

- f. Spare heads and wrenches must be in place.
- g. Fire Department connections shall be a 5” Storz connector, or an approved equivalent, and shall be installed within one hundred forty (140) feet of a public fire hydrant. The Fire Department connection shall be a minimum of ten feet from any gas or electric service and clearly visible from the adjacent roadway or driveway. If visibility is obstructed a sign shall be placed overhead of the connection reading “Fire Dept. Connection” in a size and location acceptable to the Fire Department..
- h. All new or modified systems must comply must conform to the current backflow/cross connection rules and approved City riser diagram.
- i. Dry pipe systems must be tested for timed operation as well as pressure.