

## SECTION 2.3 – NEW FIRE SUPPRESSION CONNECTION

This procedure has been developed to assist property owners with the various steps associated with completing a new connection to the municipal water system for a fire suppression lead. A fire suppression lead is used for connection to a fire suppression system and is intended for use during a fire only. This section assumes that a hydrant is not being installed and therefore, a MDEQ permit is not required for the work. If hydrants are involved, please refer to Section 3 of this document.

The following procedure outlines the steps necessary to coordinate the fire suppression lead installation with MHOG:

### 1. *Determine Availability of Water Main with Township*

The property owner shall contact the Township in which the potential connection is located to determine availability of municipal water for a new fire suppression connection.

*Note: The MHOG Utility Department can assist in this step by providing any plans for the water main.*

Ultimately, the Township needs to approve all new fire service connections before the property owner works with the MHOG Utility Department.

### 2. *Work with MHOG to Obtain Available Fire Flow Data*

Prior to installing fire suppression systems, the fire suppression company typically requires available fire flow data from the municipal water system. The MHOG Water System has multiple pressure districts; and fire flow and pressure throughout the system vary depending on the booster stations that are in operation, the level of the water towers, and the demand for water from the users of the system.

Obtaining fire flow data can be accomplished in one of two ways:

**Hydraulic Water Model Data:** MHOG maintains a hydraulic water model of the distribution system, and can provide property owners with available fire flow and residual pressure during the peak hour demand conditions.

**Fire Flow Test:** A fire flow test can be performed at the nearest existing hydrant to the site. It is the responsibility of the property owner to complete the fire flow test and notify MHOG. MHOG must be on site to observe the fire flow test and to operate the hydrant. It should be noted that the hydraulic water model data is typically more conservative than the on-site fire flow test as the hydraulic water model assumes peak hour demand conditions.

### **3. Construction Plan Review**

Construction plans must be submitted to MHOG for review of all proposed fire suppression systems. Following Township or Site Plan approval, MHOG will generate a construction plan review escrow invoice. Upon receipt of the funds, MHOG will review the proposed fire suppression lead for general conformance with the MHOG Design Standards. Upon approval of construction plans, MHOG will stamp the plan set approved.

The construction plans shall specify the proposed materials for the pipe, valve, and valve box. The permissible materials can be found in MHOG Sanitary Sewer and Water Design Standards, Part IV – Approved Procedures and on the standard detail sheets.

### **4. Field Connection**

MHOG owns and operates the water main up to the shut off valve which is typically located at the right-of-way line. As a result, prior to construction commencing, MHOG will generate a construction inspection escrow invoice. Upon receipt of the escrow funds, less any remaining escrow from the plan review stage, the petitioner shall schedule a pre-construction meeting between the site contractor, owner/developer, MHOG's engineer, and MHOG Operators.

MHOG's engineer observes the installation of the pipe, tie in to the municipal main, pressure test, and bacteriological sampling of the new fire suppression line as well as generates redlines of the approved construction plans with any modifications observed during installation. The full description of the procedure for water main testing can be found in the MHOG Sanitary Sewer and Water Design Standards, Part IV – Approved Procedures.

The property owner is responsible for installation of the privately owned components of the service lead, which include the pipe from the shut off valve into the building. Inspection of the private components of the fire suppression line is under the jurisdiction of the Livingston County Building Department, and the permissible materials for the pipe and fittings should be approved by them.

It is required that tracer wire be installed on the fire suppression line.

A MISS DIG (811) should be called in prior to field work, and MHOG will mark the location of the municipal water main. MHOG is not responsible for any site restoration.

MHOG should be notified for operation of the newly installed fire suppression valve during the testing of the fire suppression system, if required by the fire department and/or the county building department.

It is the responsibility of the petitioner to provide MHOG with as-built drawings in State Plane Coordinates of the newly installed main prior to MHOG accepting operation of the public portion of the new fire suppression line.

## 5. Fees

The potential fees that may be required for this procedure are listed below:

<b>Description of Fee</b>	<b>Further Info on Amount Can be Found</b>
Township Fees (including tap fees)	The Township in which the site resides
MHOG Fees - Fire Suppression Line	Section 4 of this Manual
Plumbing Department Inspection Fees	Contact Livingston County Building Dept.
Contractor Fees (Excavation & Plumbing)	To be hired by Property Owner
Fire Department Inspection	Brighton Area Fire Department or Howell Area Fire Department
Road Right of Way	Livingston County Road Commission or MDOT