

## 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.

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, but the lead sheet is typically stored at the Township.*

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. MHOG will review the proposed fire suppression lead for general conformance with the MHOG Engineering Standards. Upon approval of construction plans MHOG will stamp the plan set approved. MHOG will attempt to review construction plans for fire suppression systems within 7 business days of submittal of plans.

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, Section 22 11 13 Water Distribution Piping 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. MHOG will require that we inspect the live tap and new valve and box during installation by the property owner's contractor. A minimum of 48 hour notice must be given to MHOG staff to observe the live tap.

MHOG will redline the approved construction plans with any modifications observed during installation.

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.

Although they are private lines, bacteriological testing is required on new fire suppression lines to protect the municipal water supply from cross contamination. MHOG collects the samples for testing after pipe installation, disinfection, and flushing have been completed. The full description of the procedure for water main testing can be found in the MHOG Sanitary Sewer and Water Design Standards, Section 22 11 13 Water Distribution Piping.

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

A MISS DIG 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

## 5. Fees

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

| Description of Fee                      | Further Info on Amount Can be Found                          |
|---|--|
| Township Fees (including tap fees)      | The Township in which the site resides                       |
| MHOOG 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                    |