

## SECTION 3 – SYSTEM EXPANSION REQUIREMENTS

This portion of the connection manual is intended for expansion of the publically owned utility systems. Typically, expansion of the public utilities is associated with a project that requires site plan approval by the Township, examples of such projects include a new commercial building, a new residential subdivision, expansion of an existing commercial building, and running a fire hydrant to an existing or proposed building. During site plan review the Township's consulting engineer will copy MHOG on all review letters that have any proposed impact to the municipal water or sanitary sewer system. All publicly owned and operated system components require permits from the Michigan Department of Environmental Quality before installation, a list of the publically owned components is outlined below:

### Municipal Water Main

- 8-inch and greater water main (not including private fire suppression lines with no hydrants connected to them)
- Fire Hydrants
- System Valves
- Booster Stations

### Municipal Sanitary Sewer

- 8-inch and greater gravity sanitary sewer
- Manholes
- Force Main
- Air Release Structures
- Pump Stations

The petitioner is responsible for installing the proposed municipal utility systems in accordance with the MHOG and GO Sanitary Sewer and Water Design Standards. MHOG staff and consultants will ensure the proposed municipal utilities are built in accordance with the standards. The following steps outline the procedure for expansion of the existing water main and sanitary sewer systems.

### ***1. Impact Determination Process***

Any new user or group of contiguous new users that is anticipated to have an equivalent usage of 100 REUs or greater shall go through the Impact Determination Process. The proposed usage will be reviewed to determine if the improvement or usage will negatively impact the existing municipal water and sanitary sewer systems. MHOG will provide written documentation of the findings of the impact determination. It should be noted that impacts to the system may result in the requirement to install additional upgrades beyond the scope of the proposed project to ensure reliable service for all existing customers. It is therefore recommended that this step be completed as early in the planning step for a proposed project as possible.

## **2. Construction Plan Review & Permit Requirements**

Construction plans must be submitted to MHOG for all publicly owned utility extensions. This step is typically completed after site plan approval from the Township is obtained. The plans will be reviewed for conformance with MHOG & GO Sanitary Sewer and Water Design Standards.

All municipal water extensions must obtain an Act 399 Permit and all sanitary sewer extensions must obtain a Part 41 Construction Permit from the Michigan Department of Environmental Quality (MDEQ). As part of the construction plan review process the petitioner shall submit a completed MDEQ Permit Application for Water Supply Systems (Required under the Authority of 1976 PA 399, as amended) and/or a completed MDEQ Permit Application for Wastewater Systems (Required under the Authority of Part 41, Act 451, PA 1994 as amended).

MHOG will review the submitted construction plans and permit applications. Once all review comments have been satisfactorily addressed a letter of approval shall be issued by MHOG. MHOG will then sign the permit applications and submit them to the MDEQ for the necessary construction permits.

A flow diagram outlining the construction plan review phase is included as *Attachment 5*.

The petitioner is responsible for securing all other permits associated with the construction site, included, but not limited to, land use permits, soil erosion and sedimentation control permits, and road commission permits.

## **3. Construction Inspection Requirements**

A representative of MHOG shall be on site to observe the installation of all publicly owned municipal water and sanitary sewer systems. No public utilities can be constructed until MDEQ permits, as described above, have been obtained. MHOG shall attend a pre-construction meeting with the developer. At the pre-construction meeting MHOG will review the requirements for construction and testing of the municipal utilities. Allowable construction methods, materials, and testing requirements can be found in the MHOG & GO Sanitary Sewer and Water Design Standards.

MHOG will take redline notes on the approved construction plans and provide them to the petitioner for incorporation into as-built plans for the municipal utilities. MHOG will generate lead sheets for all individual service connections install as part of the municipal utility extension.

For water main projects, MHOG staff will collect and test bacteriological samples of the water main prior to placing in service.

A flow diagram outlining the construction phase is included as *Attachment 6*.

#### ***4. Construction Closeout and Acceptance***

MHOG will complete a walkthrough and issue a punch list after construction and testing of the municipal utilities are completed. MHOG will issue a Utility Acceptance Letter after the punch list is substantially complete, the site is restored at the main line components, and record files (included, but not limited to, shop drawings, as built drawings, and daily reports) are received. Following Utility Acceptance, MHOG will begin operation and maintenance of the utilities. A final walk through will occur after buildout of the site or two years following Utility Acceptance, whichever comes first. Buildout of the site is defined by the construction of at least 90% of buildings and/or the establishment of final grade and restoration at the site.

A construction contingency escrow will be collected to ensure the punch list is addressed, all documentation is received, and to provide incentive to the developer to protect the newly installed municipal utilities during buildout of the site. More details on the contingency escrow and other fees associated with system expansion can be found in **Section 4** of this manual.