PLUMBING

Executive Summary:

Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, and natural gas. Municipal sewer and municipal water service the Building. The Cohasset Town Hall contains an original structure that was built in 1857 and re-configured in 1928. An addition was constructed in 1987.

The majority of the plumbing systems have been modified as part of building renovations and upgrade projects. The plumbing systems, while continuing to function appear to have served their useful life. The plumbing systems could continue to be used with maintenance and replacement of failed components; however other non-dependent decisions will likely force the plumbing upgrade.

The plumbing fixtures are in fair to good condition. Attempts have been made to make bathroom fixtures accessible, however, the majority of fixtures do not meet current accessibility codes. In general, the fixtures appear to have served their useful life. Current Access Code requires accessible fixtures wherever plumbing is provided. In terms of the water conservation fixtures, their use is governed by the provisions of the Plumbing and Building Code. Essentially, the code does not require these fixtures to be upgraded, but where new fixtures are installed, as may be required by other codes or concerns, the new fixtures need to be water conserving type fixtures. All new fixtures are recommended.

Cast iron is used for sanitary drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. In general, the drainage piping can be reused where adequately sized for the intended new use.

Fixtures:

The water closets are floor mounted vitreous china with flush tanks.

Urinals are wall hung vitreous china with manually operated flush valves.

Lavatories are either wall hung or counter mounted vitreous china and have hot and cold water handle faucets. Typical faucets are not equipped with mixing valves. Lavatory off of Second Floor conference room is fed with cold water only.

Bathroom plumbing fixtures in the original building basement have been abandoned.

Staff Break Room sink is single bowl counter mounted stainless steel sink with gooseneck type faucet.

Electric water cooler is a single unit, wall mounted, with stainless steel bowl. There is only one water cooler in the building.

Janitor’s sink is floor mounted mop receptor with wall mounted faucet. Faucet is equipped with a vacuum breaker.
Water Systems:

The main domestic water service is located in the Basement. The service appears to be 1-1/4” in size and includes a 5/8" water meter. The main domestic cold-water distribution is 1” in size. In general, the domestic water piping is not insulated.

Piping, where exposed, appears to be copper with sweat joints. In general, water shut off valves are antiquated and should be replaced.

Domestic hot water for the building is generated through a natural gas fired, tank type, water heater. The heater has an input of 40,000 BTUH and 40 gallon storage. Heater is standard efficiency. The hot water system is not recirculated. The system does not have a thermostatic mixing valve to protect against scalding.

There is a shelf mounted tank type electric water heater for the Second Floor Men’s and Women’s bathrooms. Water heater appears to be 10 gallon unit and is not equipped with a mixing valve.
Domestic water service and meter  Domestic water heater  Shelf mounted electric water heater

Gas:

Natural gas is supplied to the building. The meter is located on the exterior of the building.

Natural gas is provided for the two heating boilers and one domestic water heater.

Gas piping is black steel with screwed joints and fittings.

Gas piping appears to be in good condition.
Drainage Systems:

Cast iron is used for sanitary drainage. Cast iron piping is a mix of hub and spigot type and no-hub with coupling joints depending on time of installation. Where visible, the cast iron pipe appears to be in fair to good condition. Smaller pipe sizes at lavatories and sinks appear to be copper.

In general, the cast iron drainage piping can be reused even in a major renovation where adequately sized for the intended new use.

Recommendations:

- Provide new high efficiency plumbing fixtures throughout the building.
- Provide new domestic water service sized for new plumbing fixtures.
- Provide new domestic water distribution piping. Insulate all domestic hot and cold water piping.
- Provide new condensing type gas fired water heater with thermostatic mixing valve and expansion tank. As an alternate provide instantaneous on-demand point of use electric water heaters.