



Availability & Capacity Analysis by The Metropolitan District

The District requires that this analysis be completed prior to moving forward with a Developer's Permit Agreement or application for a connection permit. An owner and/or developer may be required by their lender, by the MDC, or other entity to obtain a letter from The Metropolitan District stating whether there is, or is not, water service and/or wastewater collection available (adjacent) to the proposed development/redevelopment/change in use (including fire suppression system alternations) site, and if such services are of sufficient capacity for the planned development. The intent of the availability and capacity analysis process is to research the capability of the existing District water distribution system and/or wastewater collection and treatment system (including any pumping stations) to meet the estimated needs for the planned additional residential dwellings or commercial/industrial buildings. Please allow a minimum of four weeks to complete the availability and capacity analysis process.

The availability and capacity analysis process is as follows:

1. A formal request for an availability and capacity analysis is made to Michael Curley, P.E., Manager of Technical Services, 555 Main Street, P.O. Box 800, Hartford, Connecticut 06142-0800. This request must include:
 - The location of the proposed development, including a street address and a location map.
 - A \$75.00 check payable to The Metropolitan District for administrative fees. The fee will be waived if the analysis is conducted as part of a (future) Developer's Permit-Agreement submission.
 - A detailed listing of the water uses and wastewater flow rates within the proposed development, including, but not limited to the following:

Residential

- The type of dwelling units planned for the development (single-family, townhome, multi-unit, etc.), including lot size and proposed lawn coverage, if irrigation is planned.
- The number of one-bedroom, two-bedroom, three-bedroom, etc. units planned for the development so that the population may be calculated per Department of Public Health guidelines.
- Estimated water usage and wastewater flow rates calculated per DPH design flow guidelines, with average volume per day (gpd) and peak flow (gpm). Flow shall not be calculated using fixture counts.
- The emergency (fire) service flow rate for sprinklers (if applicable). Please note if the flow rate is per unit, per building, etc. Please state if there is no fire service planned.

Availability and Capacity Analysis (continued)

- The number of fire hydrants proposed within the project limits, and the needed flow rate and duration as calculated by the design engineer and required by the local Fire Marshal.
- Other water uses and sources of wastewater within the planned development, such as irrigation, community buildings (kitchen facilities, rest rooms and/or locker rooms, etc.), swimming pool or other facilities.
- An overall site layout drawing (24" x 36") with contours.
- The maximum elevation and mean elevation of the subject parcel

Commercial/Industrial

- The type of commercial or industrial facility (office, retail, restaurant, hotel, manufacturing, etc.), including lot size and proposed lawn coverage if irrigation is planned.
- The size of the proposed commercial or industrial facility; specifically the number of restrooms planned (office and retail), the number of customers (restaurant), the number of rooms (hotel), the number of employees, etc.
- Estimated water usage and wastewater flow rates calculated per DPH design flow guidelines, with average volume per day (gpd) and peak flow (gpm). Flow shall not be calculated using fixture counts.
- Estimated water usage and wastewater discharges for industrial processes, including peak water usage and peak wastewater flow rates.
- The emergency (fire) service flow rate for sprinklers (if applicable). Please note if the flow rate is per unit, per building, etc. Please state if there is no fire service planned.
- The number of fire hydrants proposed within the project limits, and the needed flow rate and duration as calculated by the design engineer and required by the local Fire Marshal.
- Other water uses and sources of wastewater within the planned development, such as irrigation, community buildings (kitchen facilities, rest rooms and/or locker rooms, etc.), swimming pool or other facilities.
- An overall site layout drawing (24" x 36") with contours.
- The maximum elevation and mean elevation of the subject parcel.

2. Fire Flows – Special Considerations

General

Due to the particularly large demand characteristics of fire flows compared to domestic water needs, fire flow requires special attention and consideration (whether required for a renovation, a sprinkler conversion, or addition project). When specific fire flows are required for planned installations - including sprinklers, fire pump, and/or fire hydrants on site – these flows must be provided by the developers so it may be addressed in the Availability and Capacity request.

Availability and Capacity Analysis (continued)

Information Required

- a. Total Fire Flow Demand - The total fire flow demand for the property (the demand of the largest sprinkler system - new OR existing - and hose flow allowance) – as code reviewed by the Fire Marshal.
 - b. Sprinklers – Area sizes, peak flow rates, and types of sprinkler systems on site. This includes both new and existing sprinkler areas (if part of a building expansion/renovation/addition) over the entire property.
 - i. Sprinkler areas
 - ii. Area demand (in gpm)
 - iii. Sprinkler type for each area:
 - a) Wet
 - b) Early Suppression Fire Response (ESFR)
 - c) Dry
 - d) Deluge
 - c. Hydrants - The number of fire hydrants and expected hose allowance for the site.
 - i. Inside Hose Allowance
 - ii. Outside Hose Allowance
 - iii. Hose allowance downstream of pump
 - d. Fire Pump – If a fire pump is required the capacity (gpm) is required and water hammer/surge protection must be considered. Possible surge mitigation measures may include the following:
 - i. 2 hr or 90 min Total Fire Demand "Full Storage" tank
 - ii. Break Tank (15 to 30-min of storage)*
 - iii. Surge Tanks/Bladder Tank *(*By special permission only - subject to MDC and Fire Marshal Approval)
3. District staff will review the submitted information to determine if the District's current infrastructure can accommodate the planned water usage and wastewater flow rates. District staff may request additional information as applicable to the particular development and design.
 4. The District will provide a written response if there is, or is not, sufficient availability and capacity to provide the planned development with water service and to convey and treat wastewater from the referenced project, as detailed by the owner and/or developer.

Please note that the pressure and quantity of water service available may vary across a development due to the elevation of specific dwelling units and/or buildings, as well as concurrent water consumption within the development and the surrounding area.

Availability and Capacity Analysis (continued)

Department of Public Health regulations require that The Metropolitan District provide a minimum water pressure of 25 psi (with 35 psi recommended), and a maximum water pressure of 125 psi (as measured at the water main). The owner and/or developer may request a hydrant flow test(s) in the vicinity of the subject site to measure the pressure for design purposes. Please indicate in your request if a flow test is planned or has been performed for the site.

Additionally, our analysis does not focus on the technical adequacy of the design; such a review is conducted during the Developer's Permit-Agreement process, as applicable.