BOZEMAN MT

Fire Flow Request Guidance Document

The following document is for guidance purposes only. The applicant shall read and understand the relevant references listed below.

Below is a description of the fire flow process, general information, applicant and City actions, and relevant references.

Description

Some development applications require water flow and pressure information. The most common reasons applicants need to submit for fire flow information are:

- Fire service or sprinkler design, which require static pressure, residual pressure, and approximate flowrate.
- Requests for modeled fire flow in gallons per minute (gpm) at nearest hydrant (at 20 psi residual pressure)
- Confirming there is water service to a site and requesting the static pressure of that service.

If you only need to confirm a water service and request the static pressure at the site, please contact the City's Water and Sewer Division. For fire flow information, follow the steps outlined within this document.

General Information

The City of Bozeman (City) maintains a hydraulic model of the municipal water distribution system. The model is considered an "all pipes" model, which includes all active City fire hydrants.

The model can produce a fire hydrant rating curve for a specific hydrant of interest. The fire hydrant rating curve shows the relationship between residual pressure and the available flow for the particular hydrant being analyzed. In general, the output produced from the model includes available fire flow demand and residual pressure.

The applicant is advised that the fire flows produced using the City's hydraulic model are produced using a specific fire flow hydraulic model scenario. Details surrounding the fire flow scenario utilized within the hydraulic model can be found in the City's 2017 Water Facility Plan (Section 6.7 Fire Flow Analysis).

In certain situations, the City may not have hydraulic modeled fire flow data. Typically, these areas include parts of the City that have been recently developed but have not been added to the City's hydraulic model yet. If the hydrant identified in the flow request is not within the model footprint or the applicant desires a physical flow test, the applicant's request will be directed to the City's Water and Sewer Division to schedule a physical test.

Applicant Actions

- Review the City's GIS Infrastructure Viewer, water, fire hydrants layers to determine the hydrant or hydrants for which you require flow information.
- Navigate to the City's ProjectDox Portal, which is located in the City's Development Center of the City of Bozeman website.
- Within the ProjectDox Development Center select the Engineering/Public Works tab and create a new project workflow in ProjectDox by selecting Fire Flow Request. The applicant may need to create a new user account within ProjectDox if a user account does not exist.
- Complete the Upload and Submit task. Provide the address or location of your project, and the specific hydrant ID of the hydrant(s) for which you are requesting flow data.
- Respond to applicant's tasks through ProjectDox, as necessary, to ensure that the request and reporting processes move forward. The applicant will be notified of tasks or reports via email, and any outstanding tasks will appear on the applicant's ProjectDox tab online.
- If corrections or clarifications concerning the request are required, the applicant will receive an email notification that the submittal requires correction. The applicant must make the necessary corrections and revise and resubmit the request, if determined necessary by the reviewing engineer.

City Actions

- The City will pre-screen the applicant's fire flow request submittal to ensure the applicant has provided adequate information including but not limited to the hydrant location, hydrant number, and development name if applicable to complete the request.
- A City review engineer will be assigned to the flow request, determine application adequacy, and run the model to produce a report and flow data specific to the requested hydrant(s).
- If the hydrant flow requested is outside of the model footprint, the request will be forwarded to the City's Water and Sewer Division for physical execution and reporting.
- When the request is complete the applicant will be notified via email. The City will provide the applicant with a data summary of the requested hydrant(s). Typically, this summary includes hydraulic model output in gallons per minute of the requested hydrant(s) (at 20 psi residual pressure) utilizing the models fire flow scenario.

Relevant References

- City of Bozeman Water Facility Plan Update 2017: https://www.bozeman.net/home/showpublisheddocument/4977/636420174896170000

- City of Bozeman GIS Infrastructure Viewer: https://gisweb.bozeman.net/Html5Viewer/?viewer=infrastructure

- City Water and Wastewater Facilities Plan
- City of Bozeman Engineer Design Standards and Specifications & Mods

Hydraulic Model Disclaimer

Because the water distribution information provided is calculated using hydraulic modeling software and is subject to variation, actual field conditions may vary. This information is provided to the requestor for evaluation purposes only, without warranty of any kind, including, but not limited to any expressed or implied warranty arising by contract, stature, or law. In no event regardless of cause, shall the City be liable for any direct, indirect, special, punitive, or consequential damages of any kind whether such damages arise under contract, tort, strict liability, or inequity.

City of Bozeman Contact Information

Department of Transportation & Engineering
20 East Olive
Bozeman, Montana 59715
406-582-2280

Water and Sewer
814 North Bozeman
Bozeman, Montana 59417
(406) 582-3200