



To: Wellesley Planning Board

Date: September 2025

Memorandum

VHB Project #: 12920.21

From: WC Design Team

Re: Wellesley College Campus Renewal
Residence Hall Swing Space – Project of Significant Impact
Water Municipal System Impact Analysis

This memorandum summarizes the analysis of project-generated municipal systems impacts for the proposed development of temporary student housing at Wellesley College as they relate to the campus water distribution system.¹ This project involves construction of 150 student beds within five buildings, designed to serve as swing space during the renovation of the school's residential halls at Wellesley College. This residential swing space will be sited at the location of the existing Dower Hall dormitory, which is slated for demolition.

The water demand for the Residence Hall Swing Space is estimated to be 10,725 gallons per day (gpd). The water demand estimate, based on the Sanitary Sewer MSIA calculations, includes a 10% increase of the sanitary sewer flow estimate to account for water consumption. The overall campus demand is not expected to change as this Project will replace existing residence halls, which will be taken offline as they are renovated. The project does not propose any increase in student, faculty, or staff populations that would lead to an increased daily water demand. Also, the project will install low-flow fixtures to replace the current outdated fixtures in the residence halls, thereby resulting in a net reduction in overall campus water usage when compared to the existing condition.

Wellesley College owns and maintains its own private water supply and distribution system and does not rely on the Town of Wellesley municipal water system. The College intends to provide a new 2-inch domestic and 4-inch fire service connection to each temporary student housing building. These connections will come off a new 8-inch water line that will be constructed to tap an existing 10-inch water main which runs parallel to the west side of the existing Dower Hall. No change to the Town of Wellesley municipal water piping is proposed. Refer to the Preliminary Utilities Plan included with this submission for additional information and location of the proposed layout and connections.

A hydrant flow test was performed adjacent to the Site in July 2025, resulting in the following observations:

- Static Pressure - 75 PSI
- Residual Pressure - 70 PSI
- Total Waterflow - 1,358 GPM
- Available Waterflow at 20 PSI - 4,957 GPM

The AWWA recommended minimum static pressure is 35 psi. The Project is not anticipated to require a fire pump.

¹ Water system information provided by AHA and Wellesley College.