

ADERHOLD HALL (1060)

Aderhold Hall was originally constructed with 201,060 square feet across seven floors in 1971 and has undergone a number of partial renovations since this time. The building is predominately served by a single, custom fabricated air handler located in the penthouse level. The air handling unit (AHU) provides a variable volume of cool air to the building. Heating is provided by both constant and variable volume zone terminal units with hot water heating coils located in the above ceiling ductwork. The unit is equipped with pleated air filters to remove particulate matter from the airstream.

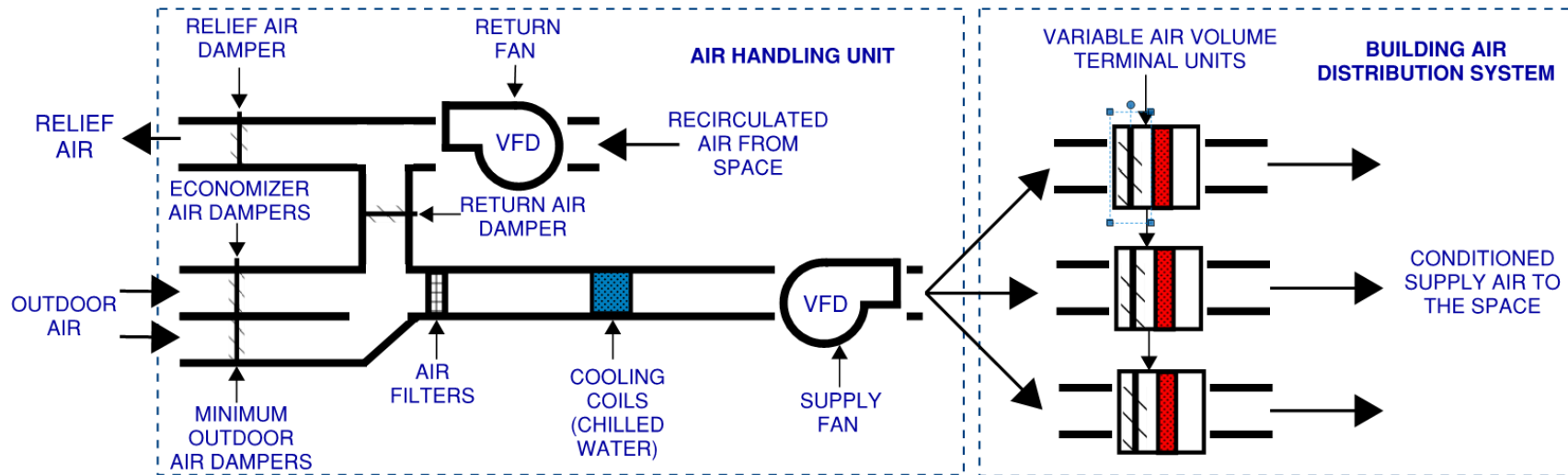
Two new fan powered induction terminal units (PIUs) were added to supply classroom G5 in 2019 and small renovations have also occurred on the 1st, 2nd, 3rd and 6th floors over the past 20 years.

Chilled water is supplied throughout the building from a chiller located in the basement mechanical room or from the campus chilled water system. Heating hot water is generated with a building steam to hot water heat exchanger using steam from campus central steam system.

VARIABLE VOLUME AIR HANDLING UNIT

The air handling unit delivers a variable volume of conditioned air consisting of a mixture of recirculated building air and fresh air from outside of the building. The return air is filtered, mixed with outdoor air and cooled with chilled water coils in the air handling unit before being supplied to rooms throughout the building through above ceiling ductwork. Space heating is provided by Variable Air Volume terminal units (VAVs) with hot water reheat coils located in supply ductwork throughout the building. The VAVs are equipped with an air damper to regulate the volume of air delivered from the central AHU to the space based on the current space temperatures and a hot water reheat coil to provide space heating when needed. A portion of the VAVs also include a fan and a filter combination that will mix in air from the above ceiling plenum with the conditioned air from the central AHU when the space requires heating.

Air is recirculated from the spaces back to the air handling unit through ceiling mounted air return registers located in each space. Return air is pulled from a plenum space above the ceiling. Exhaust is provided in restrooms on each floor to remove odors and to maintain a slightly positive building pressurization.



VARIABLE VOLUME AIR HANDLING UNIT SCHEMATIC