UNITARIAN UNIVERSALIST CHURCH
OF ARLINGTON VIRGINIA

A Place to Connect, Grow and Serve

April 2021

FACILITY UPDATE submitted by Paul Kearney, Facilities Manager

We all have a lot of questions about what church might look like once we return from the Covid-19 shutdown. As part of evaluating the possibilities, we have undertaken an assessment of the facility to help determine safe occupancy limits and other safety protocols for use of the building. These will help to guide us when we start to use the building again.

UUCA has been upgrading and modernizing our HVAC systems for the last decade or so. Several systems have been integrated, from the oldest parts of the building to the newest. The systems are all under centralized computer control. This monitors and controls temperature, humidity, CO2 levels and occupancy schedules. Over the past year, we have used this control to sharply reduce the amount of heating and cooling in our closed facility, saving thousands of dollars and shrinking our carbon footprint. As we begin to reopen, we will use it to make UUCA spaces safer and more ventilated. To maintain control over the indoor environment, the system creates positive air pressure which keeps all the air moving in the direction we want. This means we cannot open windows to “facilitate” airflow! Although it’s a bit counterintuitive, opening windows reduces fresh air and air exchange in the building.

We have been meeting with the engineers who maintain our HVAC systems and have learned that we have considerably more control over the fresh air dampers in certain parts of the building. Specifically, the air dampers that regulate the Fellowship Hall and the Sanctuary can be opened to bring in more fresh air. Opening the dampers is not unlike opening the windows with fans and may make the rooms cooler or warmer than we find comfortable. In the newest addition to the building, the Center and Activity Room, we do not have manual control over the fresh air dampers. Fresh air enters these rooms through the HVAC system regulated automatically by CO2 levels. These spaces do get significant airflow and exchange, but the lack of manual control may mean that safe occupancy will be lower for these spaces.

On the lower level, the classroom wing on the west side of the building has a mass airflow unit which allows for significant control of the fresh air intake. This is a school-specific system that admits

outside air based on CO2 levels. The air damper responds to the number of occupants, adding more outside air as numbers increase. The damper has also been put under computer control so it can be opened even further if we wish. Again, the system relies on positive air pressure to function safely and efficiently.

What does all this technical language mean when we get back to meeting in the building? Well, one clear--if counterintuitive--message is 'for maximum fresh air and safety, keep the windows closed!’

As of now, it looks as though safe occupancy is roughly half capacity in the parts of the building where we can manually regulate fresh air intake, and probably closer to ¼ in the parts of the building where we cannot. Even “half capacity” will be subject to social distancing protocols and type of use for the space. We will continue to refine occupancy numbers in the coming months in advance of resuming in-person small groups meetings and/or worship.

As always, please contact me with questions or concerns.

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