National TAB

Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report is further detail about your building performance including recommendations, asset data, and pictures. Our focus is to work with the trades to remedy any issues or deficiencies during the actual field balancing and not after the balancing has occurred to achieve a positive environment and outcome. The level of success is determined by the availability of the trades, possible parts needed, or time constraints.

RTU's with VAV's and FPB's
Prior to balancing the outside air dampers were positioned to approximate final position. It was verified that filters were clean, fan rotation is correct, and belt tension was adequate. After each VAV and FPB was calibrated, the RTU's were tested in a maximum airflow condition to set up total flow. There is no diversity for either RTU so all boxes were put into a call for max cool. The fan speed is controlled by a static pressure set point. The setpoint was determined by ensuring that all boxes were satisfied and at least one VAV damper was 100% open. This was successfully completed for RTU-1. RTU-2 the total flow is within design and all boxes are satisfied except for VAV2-9 which was operating at 500 CFM out of a design of 600 CFM. Unable to increase the static pressure setpoint without overamping the motor.

Variable Air Volume (VAV) and Fan Parallel Fan Powered Box (FPB) Terminals
The VAV's were calibrated in a call for max cooling and the correction factors are reported on the individual asset. While in a call for full cooling, the individual air devices were then balanced within design tolerance. The VAVs were then stroked to minimum cool and the airflow values reported. The VAV was then stroked to heating and the airflow values reported. It was verified that there was a sufficient temp rise on each VAV. The FPB's are calibrated in the same way. For the FPB's fan, the airflow was measured at the diffusers and then the fan airflow was calculated by subtracting the airflow from the inlet. Adjustments were made to the fan until airflow was within design. Any equipment or diffusers that fell out of design are noted within the report.

General Exhaust Fans w/ Grilles
The general exhaust fans were measured by reading each air device with a flow hood. The total airflow for each fan is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within tolerance of design. Each terminal device was balanced to within tolerance of the design volume using the installed volume dampers. Any equipment that fell outside of this tolerance is noted throughout the report.

Ceiling Exhaust Fans
The ceiling exhaust fans were measured using a flow hood. If speed adjustment was provided, the fan speed was adjusted to within design tolerance. Any equipment that fell outside of this tolerance is noted throughout the report.