

Arlington High School Building Committee
AHS Sustainability/MEP Subcommittee Meeting
Mon Oct 29, 2018, 2:30pm - 5pm

Meeting Notes – Recorded by Ryan Katofsky

Attendees: Ryan Katofsky, Charlotte Milan, Ken Pruitt, Stephanie MacNeil, Kent Werst, Lori Cowles, Chin Lin, Kevin Settlemyer, Kevin Caddle, Brendan Giza-Sisson (Eversource), Jim Burrows, Tiago Gomes, Henry Fox-Jurkowitz, Quinn Connell, Ben Heymer (by phone)

Thermal comfort discussion

- Mainly a cooling issue
 - Are we having cooling everywhere?
 - For classrooms, designing for 80F and 45% RH for a design day (outdoor conditions of 91F with 73F wet bulb – about 65% RH) is reasonable
 - Should look at last 5 years to see how often this is exceeded
 - Also, does the town already have standard set points for town buildings?

Basis of design document

- This is the narrative that the design team will prepare for the different trades constructing the building
- We will include the Accelerate Performance scoping document as part of this
- We will also separate out elements not related to the Accelerate Performance program into a separate document on sustainability features to also be included in the Basis of Design document

EUI discussion

- For buildings >250,000 square feet in MA, designs are typically 40-42, with actual performance at around 55
- NREL has modeled K-12 schools in the 22-42 range
- Air-cooled VRF systems are nearly as efficient as ground-source heat pumps, because have very low pumping requirements compared to GSHPs.
- There is a cost allocation for GSHPs in the budget assuming 400 wells, with the actual costs to be determined based on the number of wells needed, and phasing, which still needs to be determined (e.g., need to drill test wells to determine ground conductivity, which influences number and depth of wells)
- The subcommittee agreed to the following goals for EUI
 - Baseline: 38 (all electric), 48 (primarily gas heat). This is the minimum for participating in the Accelerate Performance program
 - Target 30 (all electric), 40 (primarily gas heat). This is what we will be trying to achieve.

Accelerate Performance Scoping Document

- The subcommittee reviewed the revised scoping document, including the agreed to EUI targets, so that it could be presented to the full AHS BC for a vote.