Title: Pilot Project for Living Monitoring Systems / SURF

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Summary: This is a continuation of a project that was funded last year. Thus far, Sustainable Undergraduate Research Fellows (SURF) has conceived of several interactive displays that reflect the team's four core values of "sustainability, community, education, and accuracy" and that measure The Kendeda Building's ability to meet its sustainability goals, or building "health." Funding for this upcoming year will support SURF's efforts to continue developing concepts and prototypes, create detailed presentations on their implementation, and finally create physical prototypes for each proposed display.

Title: Placing The Kendeda Building in Atlanta through Interaction Geography + KBISD: Pathways for Equitable Access (PEA); Partnership with Living Building Equity Champions

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Summary: Note that this project will receive support from Georgia Tech's Serve-Learn-Sustain (SLS) Program and is a combination of two proposals. One project proposes to leverage a Georgia Tech-developed approach to visualizing human activity called "interaction geography" to extend the mission, activities, and reach of The Kendeda Building in ways that advance multiple performance areas of the Living Building Challenge: Place, Equity, and Beauty. The project will result in a dynamic, visual exhibit. Click https://www.benrydal.com/re-shape for a video that provides an example of what this exhibit might look/feel like with data from different students in a different urban context (Nashville, TN). Another project is an expansion of The Kendeda Building Pathways Project that was funded last year. Partnering with the Equity Champions and an English 1101 course focused on equity, disability theory, and the built environment, this project will address issues of diversity and inclusion and incorporate these concepts into the existing Pathways Project. The faculty will work together in the coming weeks to identify how best to integrate the two proposals into one Pilot Project.

Title: Dynamic Air Quality Monitoring in the Kendeda Living Building

Principal Investigator: Dr. Jennifer Kaiser, School of Civil and Environmental Engineering (jkaiser34@gatech.edu)

Summary: The goal of this project is to design a real-time indoor air quality monitoring system that can be used for teaching, research, teaching, and operational purposes. This work has three separate components:

a. Designing a smart strategy for monitoring IAQ
b. Evaluating commercially available equipment
c. Designing tools for researchers, students, and the facilities team

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Title: Augmenting Pro-Environmental Occupant Behaviors in the KBISD

Principal Investigator: John E. Taylor, School of Civil Engineering (jet@gatech.edu)

Summary: This pilot project proposes the development of an augmented reality-based occupant education and building system performance feedback system to be used during the operations phase of The Kendeda Building. Occupants will interact with the education and feedback system on a mobile device, which displays sustainable building features and offers more detailed information such as real-time system performance and how occupants should interact with the sustainable feature. Visualization of the building features will be structured by the Living Building Challenge's seven petals.