

# Revitalizing Communities: Harnessing Energy Efficiency and Education for Sustainable Living



Bronco Construction Research Center at Western Michigan University

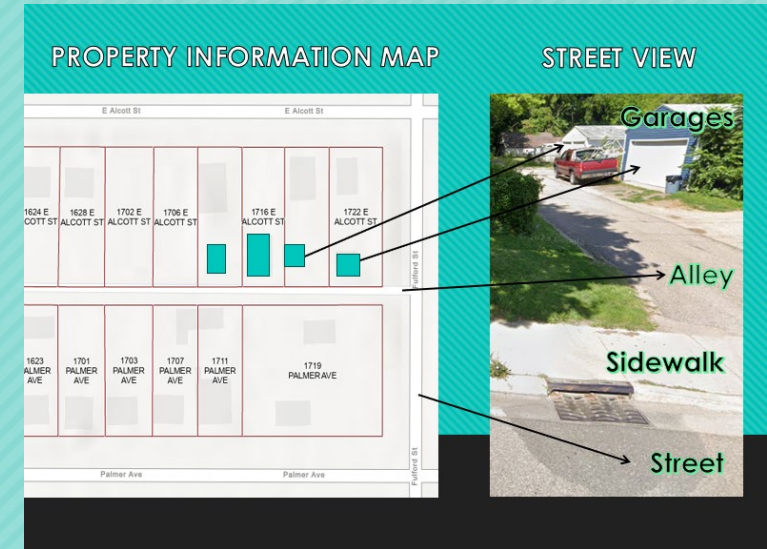
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- Our proposal targets Kalamazoo’s neighborhoods experiencing socio-economic challenges, including housing affordability and energy efficiency issues. This includes disproportionately black, unhoused communities interspersed within the bounds of the Edison Neighborhood. Many Edison neighborhood homes built before the 1960s lack modern energy efficiency. The low State Equalize Value of many properties, with a substantial portion valued below \$50k, underlines affordability and signals a need for updates to meet energy standards (see the Bar Graph).
- Kalamazoo County is experiencing a shortage of affordable and energy-efficient homes (7,750 new units are required to accommodate present and future population of the county appropriately), high energy consumption in residential settings, and the need for sustainable infrastructure to support community growth without compromising environmental integrity
- The 2022 Kalamazoo Housing Plan places a high priority on promoting the development of accessory dwelling units (ADUs) to increase affordable housing options without significant new construction. KCHP survey reports that energy inefficient, unhealthy accessory structures (garages and sheds) commonly house individuals, specifically members of the unhoused community thus creating an energy pressure.
- Formalizing accessory structures (detached garages, sheds) into accessory dwelling units (ADUs) addresses key energy challenges and needs by providing efficient and sustainable housing solutions. The layout of Edison Neighborhood is particularly well suited (top Figure) for bulk uptake of ADU technology. ADUs, from basement units to detached buildings on existing properties (bottom Figure), offer a pragmatic approach to enhancing living spaces without the substantial energy and resource demands typically associated with new construction.



Kalamazoo County Government

The City of Kalamazoo

Office of Diversity and Inclusion  
Western Michigan University

Social Science Department  
Western Michigan University

Edison Neighborhood Association

Building Blocks of Kalamazoo