

accessibility

developing aging in place options
DESIGNhabitat

Location Birmingham, AL
Date 2017-2019
Program Residential
Type Professional
Supervisor Justin Miller

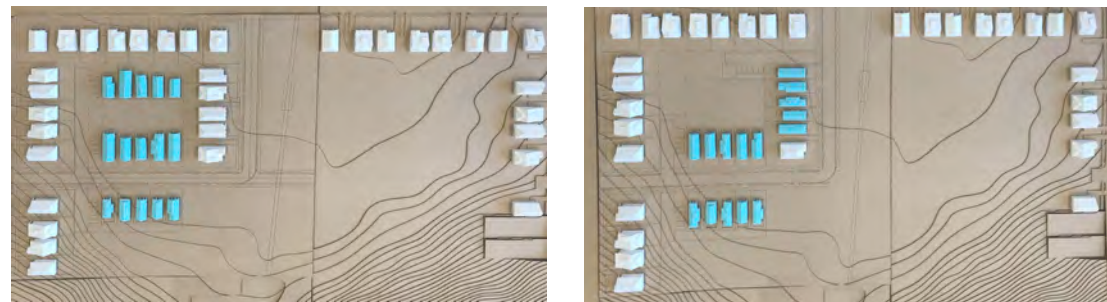
The following section displays work completed while employed with DESIGNhabitat, an Auburn University non-profit organization that functions in collaboration with Habitat for Humanity and HUD. The project reexamines and reforms the design and construction of affordable housing in Alabama. The accessibility research includes the Cascade Parc master plan and ongoing Aging in Place Multi-family Housing. The work reflects the teamwork of Auburn faculty, students, and consultants.



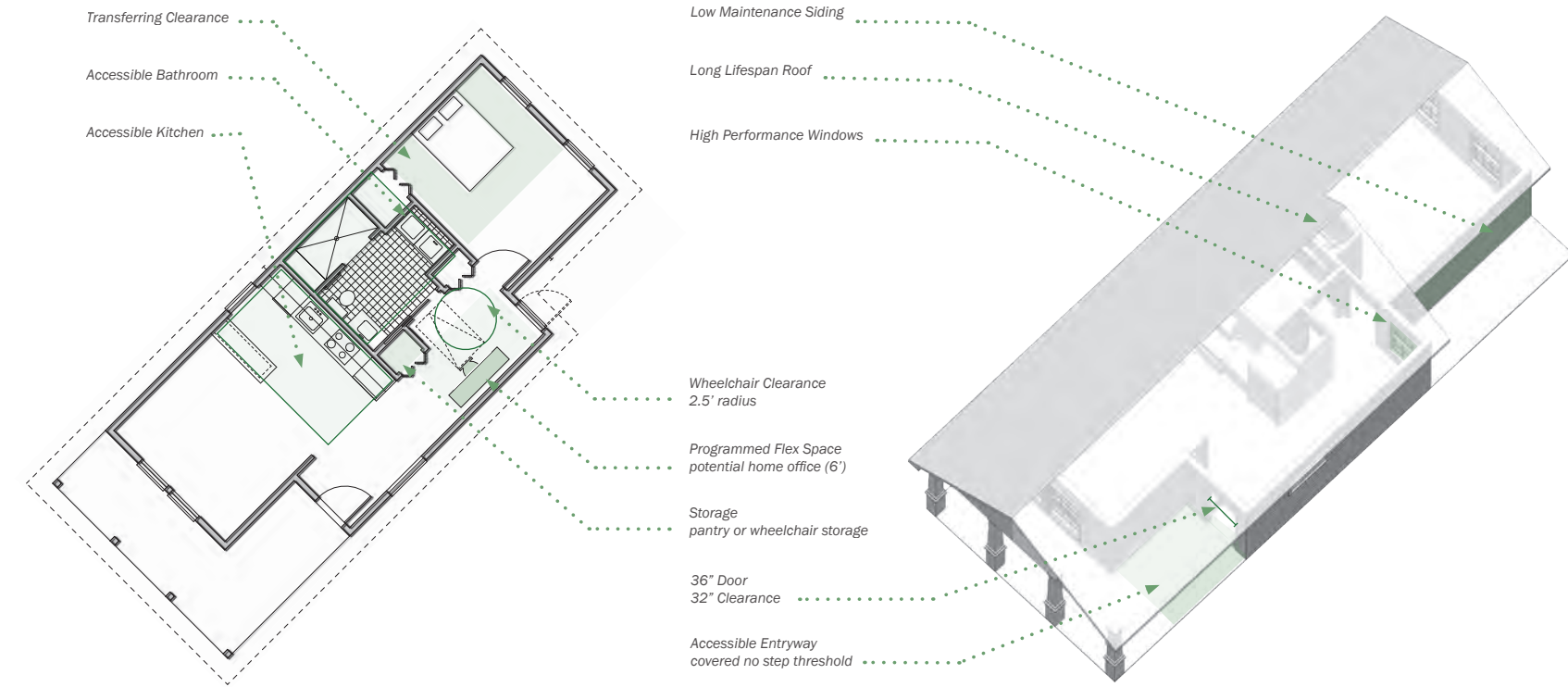
accessibility

developing aging in place options

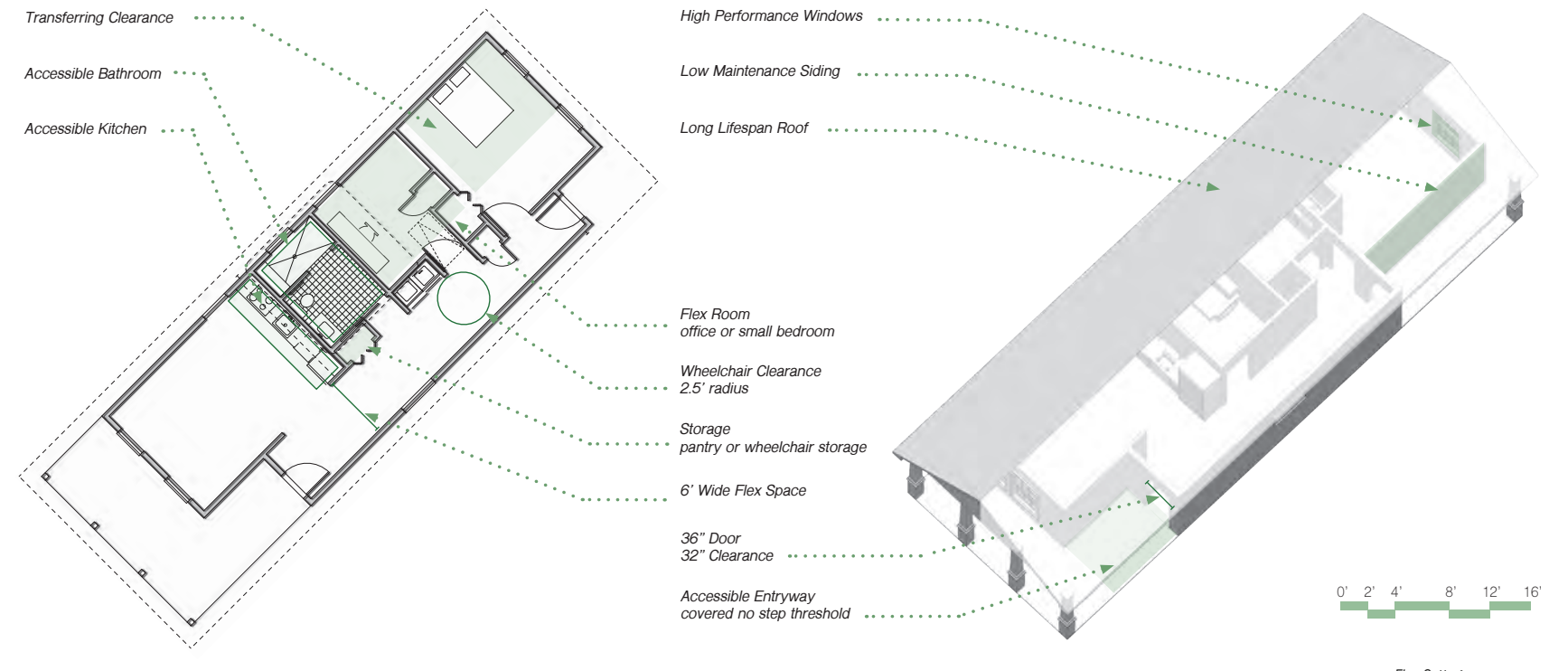
The Cascade Parc Community project is an affordable housing subdivision development in Jefferson County, AL. The designs for the development are a collaboration between the Greater Birmingham Habitat for Humanity affiliate and Auburn University faculty, students, Urban Studio, and the DESIGNhabitat team. The development consists of cottage style housing, an alternative zoning system that allows for a higher density of housing within a single family home neighborhood. Small one and two bedroom home clusters share a common green space, managed by a home owners association. Iterations of cottage zoning layouts are shown to the right.



Master plan showing home clusters within cottage zoning
Drawing by Henry Savoie



1 Bedroom Cottage
Interior Area: 736 SQFT

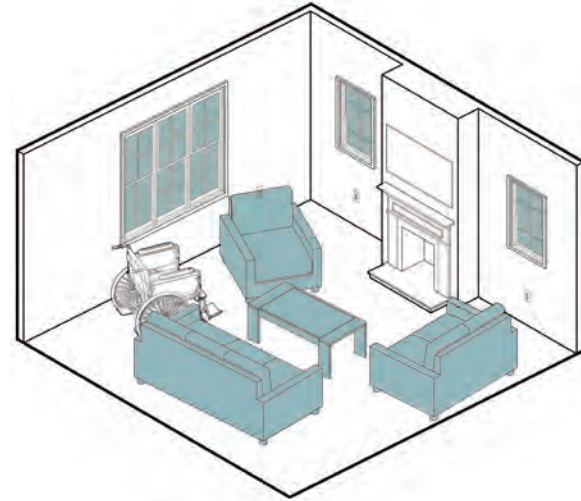


Flex Cottage
Interior Area: 904 SQFT

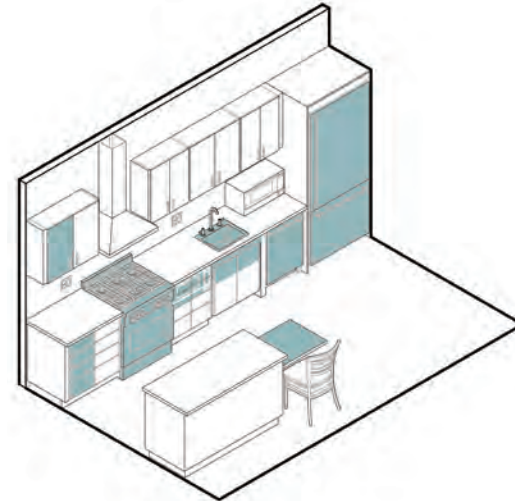
The DESIGNhabitat team developed a series of cottage prototypes that reflect the universal design principles and can be varied throughout the site. The designs allow for residents to remain in their homes for a longer period of time. Aging in Place architecture is designed to be accessible, safe, and comfortable for all potential users. Accommodations for mobility and visual impairments are integrated into the design of the homes.



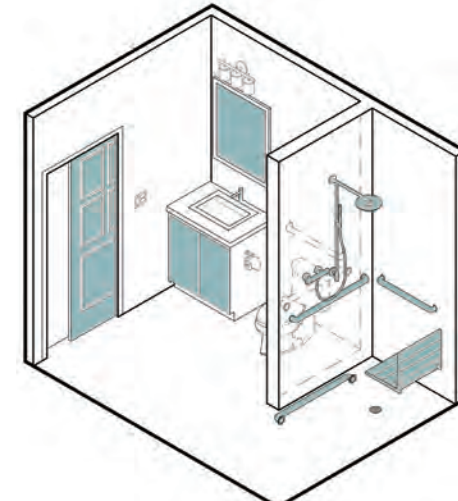
Entry



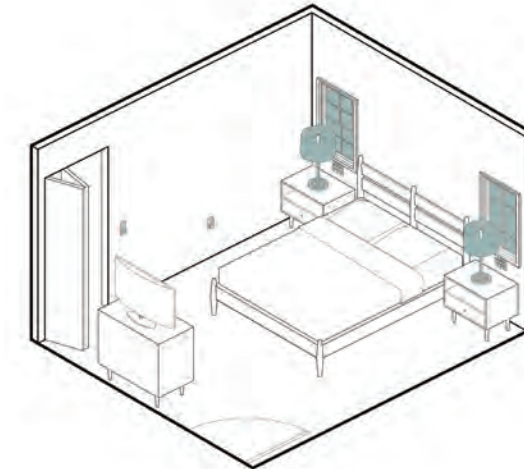
Living Room



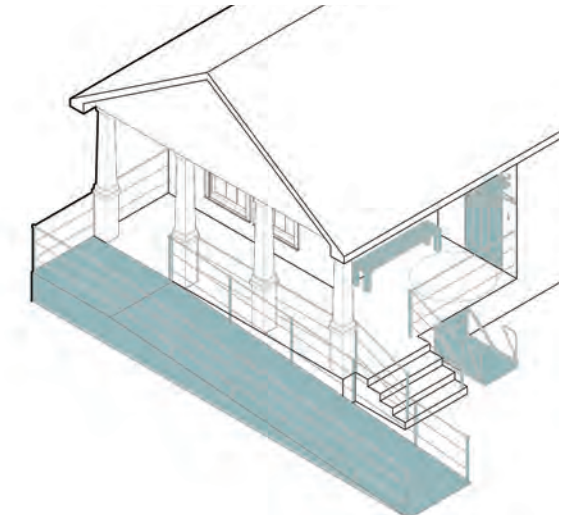
Kitchen



Bathroom



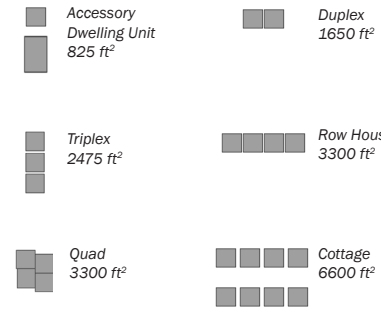
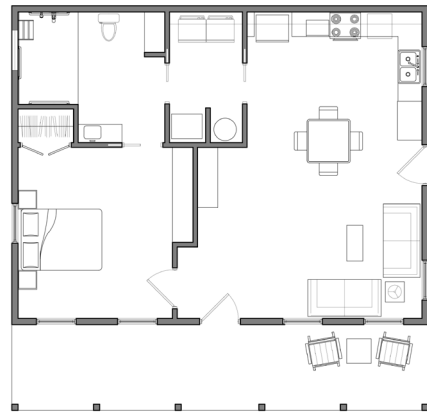
Bedroom



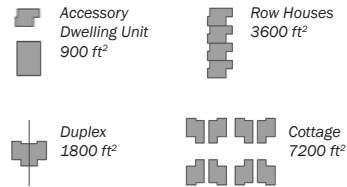
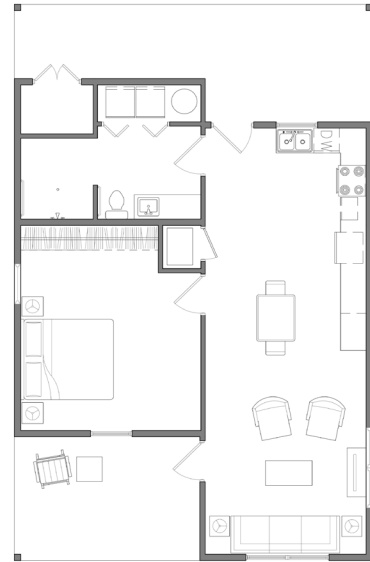
Exterior

Axonometric room diagrams highlighting mobility considerations
Diagrams by Kate Mazade and Michaela Robinson

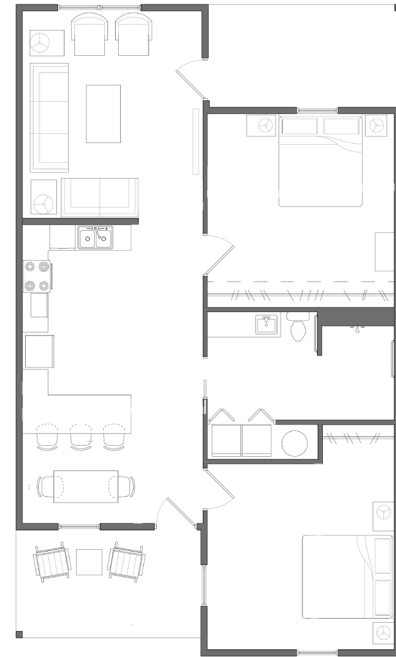
Continuing the research and design of affordable accessible solutions, the Aging in Place Multi-Family Housing project is an ongoing study. The DESIGNhabitat team is examining how aging in place suggestions can be communicated to the public in an accessible format and interface. The axonometric diagrams display room-by-room considerations and safety standards that can be used to design new or modify existing houses to ensure ease within the home.



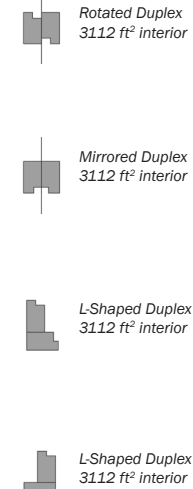
1 Bedroom 1 Bath Unit



1 Bedroom 1 Bath Unit



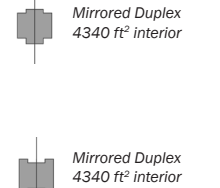
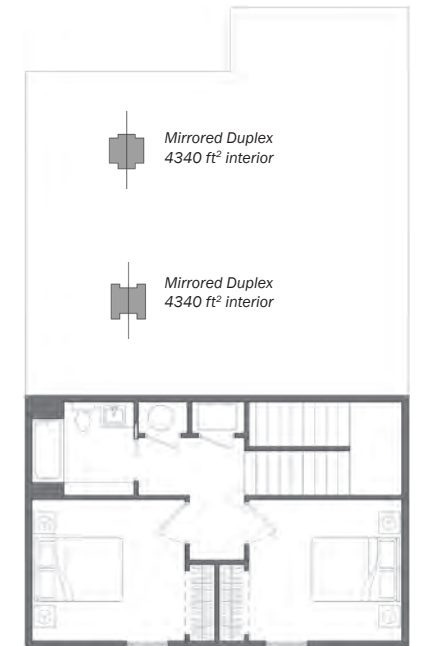
2 Bedroom 1 Bath Unit



3 Bedroom 2 Bath Unit



4 Bedroom 3 Bath Unit



The team is currently exploring accessible solutions that accommodate more residents in the form of accessory dwelling units, duplexes, triplexes, row houses, and cottage communities. The schemes shown here are representative of a larger set of multi-family housing models. The designs aim to provide residents with a usable home and a modest footprint. The compact floor plans allow for more cost effective homes that utilize space-saving solutions while allowing for increased clearances throughout the homes.