Graduate School of Architecture Vertical Studio - ARC 6241+6356 Professor Jeff Carney Fall 2024



Staying the Course: Building a Resilience Hub Network for Coastal Florida

Living along the coast of Florida is increasingly fraught with risks from sea level rise, stronger storms, and deadly heat. Compounding these hazards are nearly 1000 new residents per day, inflating property values, degrading environments, and stretching social services to their breaking point. Recent hurricanes offer a scary preview of what is in store for coastal communities if nothing changes.

Resilience Hubs are community-focused facilities that provide social services, support information exchange, and distribute essential supplies before, during, and after a disaster event, enabling communities to persist and thrive even in disaster prone environments. These facilities are 1), a highly flexible community asset year-round, providing services such as job training, food distribution, commercial activity, or local recreation; 2), a hardened and energy independent structure so that in the event of a disaster can act as a trusted place for community members and emergency officials to shelter; and 3), following a disaster event, the hub offers emergency response and recovery services including communication, food, childcare, and more to assist community members gain information and recover as swiftly as possible.

Following Hurricane Ian, coastal Lee County was devastated. Pine Island and the town of Matlacha (pronounced: "mat-la-shay") have since received scant attention and recovery assistance. The people and place maintain an "Old Florida" way of life with an agricultural economy and rural setting. Pine Island is home to farm workers from Central America, many of whom are undocumented. Matlacha is a quirky artist village sandwiched between small bridges. Such marginalized communities often experience increased exposure and sensitivity to climate hazards.

This year the Florida Institute for Built Environment Resilience (FIBER) partnered with a coalition of stakeholders including Lee County government, The Beacon of Hope, and the Matlacha Civic Association through a grant from the Collaboratory to assist with adaptation planning for Pine Island and Matlacha. As part of this larger effort our Fall 2024 studio will develop designs for three resilience hubs on Matlacha and Pine Island. As hubs reflect the diversity of the communities they serve, our three projects will adapt a shared program to the unique needs of each community as they seek to rebuild. In addition to emergency shelter, resilience Hubs

provide an opportunity to address the vulnerability of a community to climate impacts, enhancing the community's capacity to become more resilient to shocks and climate stresses in the future.

Following initial research and a site visit, students will be free to select from the three sites to pursue an independent design for one hub. Each hub has a particular community-led focus that students can further refine through individual research.

- 1. <u>Matlacha Park Pavilion and Civic Center</u> This project is sited in the county park directed connected to the Matlacha Pass and will focus on recreational opportunities for residents and tourists but also provide essential refuge to the low-lying community in the event of a disaster.
- 2. <u>Pine Island Farm Workers Collective</u> Located adjacent to the Pine Island Tropical fruit market, this hub will support the needs of the farm workers who support the local economy including childcare, housing services, and food distribution before and after a disaster.
- 3. <u>Pine Island Beacon of Hope</u> Located in the central part of Pine Island this hub will support the operations of the Beacon of Hope/United Way which offers job training and housing services, and will also coordinate emergency response and recovery operations across the island.

Studio time

The students will meet with the faculty member Mondays and Wednesdays, reserving Fridays to meet with FIBER staff and conduct individual research.

Trip

This studio includes a mandatory (expense paid) trip to the site September 6 and 7th.