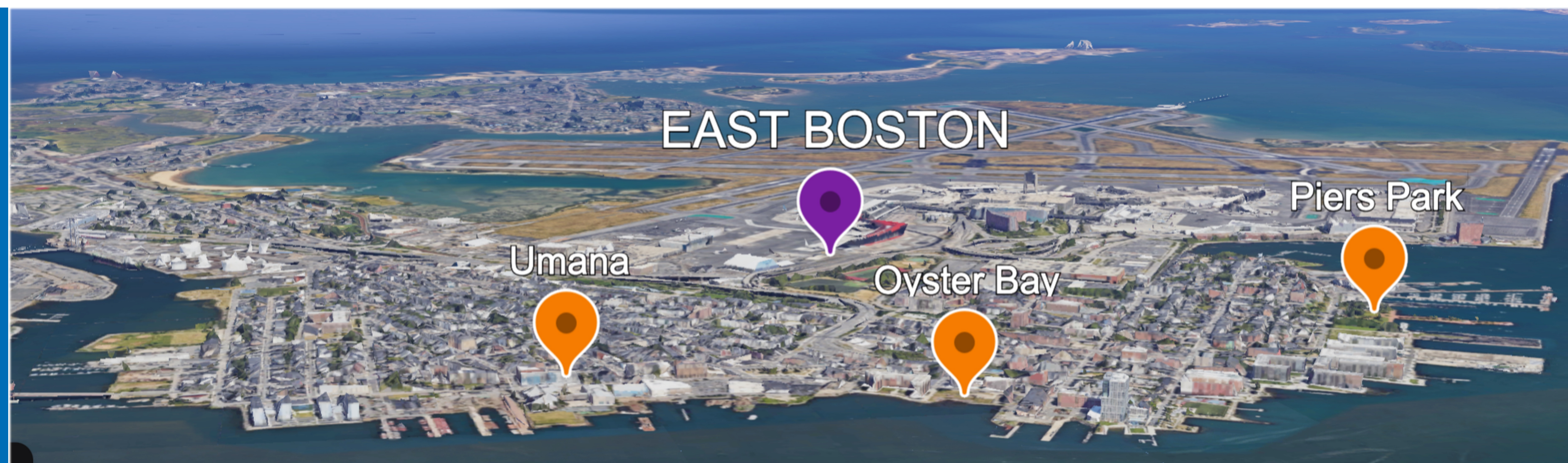


Designing Sustainable Shorelines in East Boston Using Traditional Ecological Knowledge

Principal Investigators: Robert Chen, UMass Boston; Lois Hetland, Mass. College of Art & Design; Cedric Woods, Inst. for New England Native American Studies (INENAS); Kim Starbuck, Urban Harbors Inst., UMass Boston; Melinda Vega Maldonado, Neighborhood of Affordable Housing (NOAH); Rebecca Shoer, Stone Living Lab

In 2022, WHOI Sea Grant funded a project led by Dr. Bob Chen of UMass Boston to engage high school students in East Boston and Mashpee in designing their vision for sustainable shorelines. Through classes and workshops, the course teamed resilience experts, artists, and architects with student community leaders to integrate art, design, engineering, science, and local knowledge in their work. The course led students through the design cycle, developing connections to their local shorelines and helping them to think about the needs of structures constructed near the water.



The high school students developed design plans for three vulnerable locations in their East Boston communities.



UMANA SCHOOL

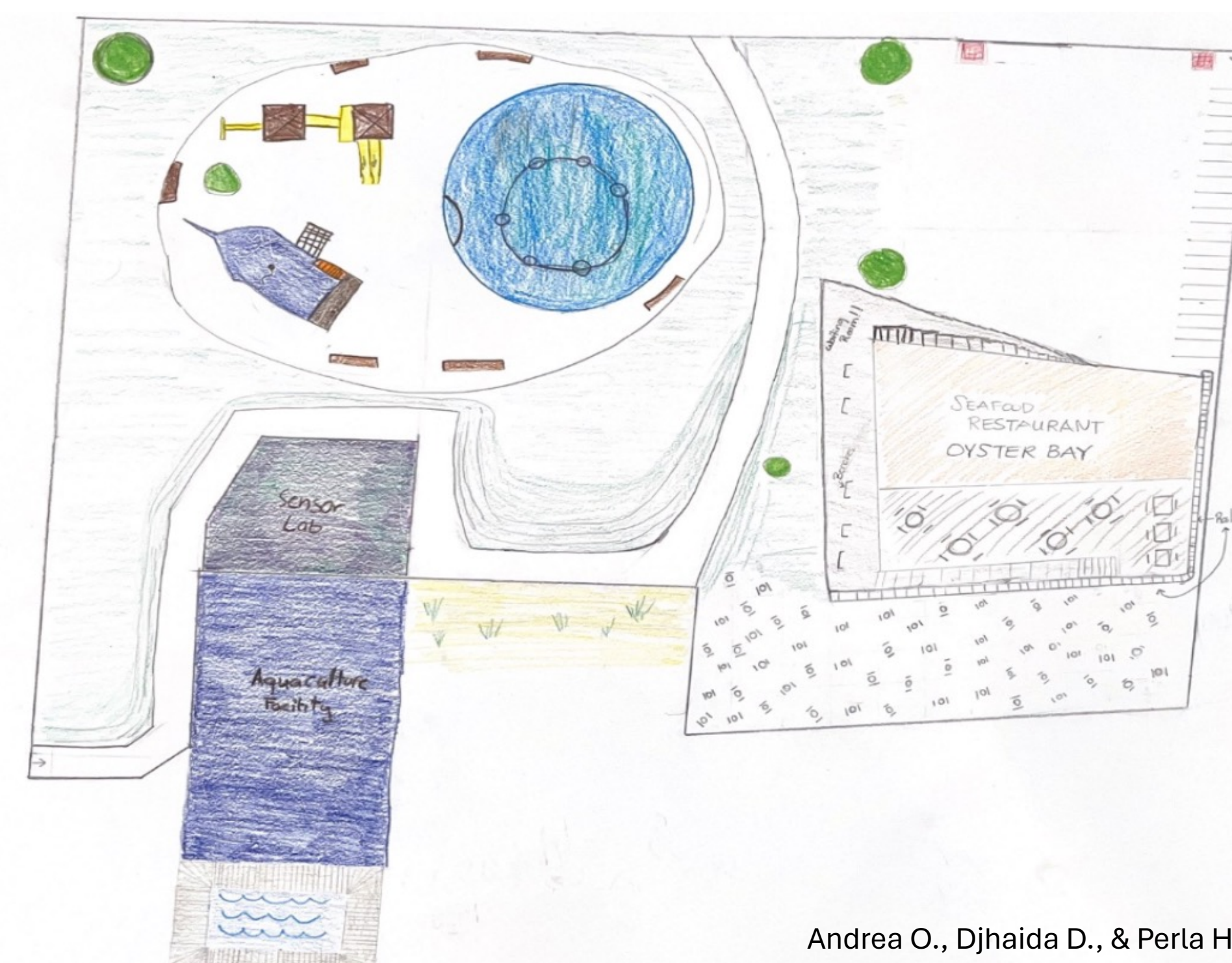


UMANA SITE

Mario Umana Academy is a K-8 dual language school that has long been flagged by the City of Boston and Climate Ready Boston as an area of high concern. The students designed a floating dock through the school's marshes as an alternative path to the shoreline.



OYSTER BAY PARK



Andrea O., Djhaida D., & Perla H.

The site's history as a shipyard and home to large oyster reefs inspired the students' design for an elevated restaurant with parking and a patio, a playground, and a pier supporting aquaculture and a sensor testing facility.



PIERS PARK III



Christian C., Victor & Gustan

This parcel of land consists of an abandoned pier that has fallen into disrepair. The youth wanted the community to explore and reconnect to nature in the space, so they added open, raised walkways that people could kayak around. There is a cove for water activities, a hilltop and waterfall, and walking/biking trails.