

Resilient Transit-Oriented Development Corridors

Alexander J. Felson, RLA PhD, Certified Senior Ecologist

Deputy Executive Director and Director of Design for Resilience, Connecticut Institute for Resilience and Climate Adaptation Associate Research Scientist, Marine Sciences University of Connecticut

November 12, 2019



Transit-Oriented Development (TOD)



Development of residential, commercial and employment centers within one-half mile of public transportation facilities (rail, bus) that meet transit supportive standards for land uses, built environment densities and walkable environments.

UCONN

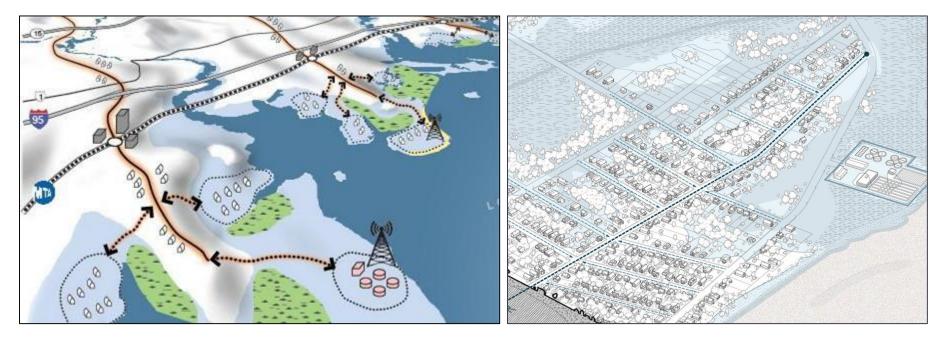






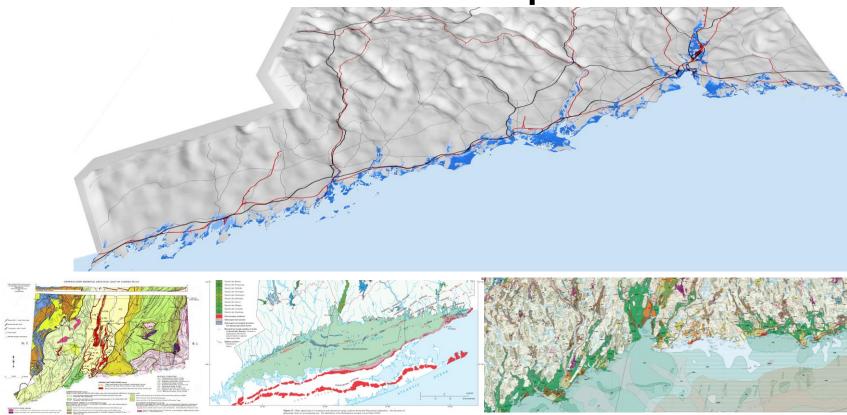


Multifunctional Benefits for Investment in Resiliency





Connecticut's patches of risk





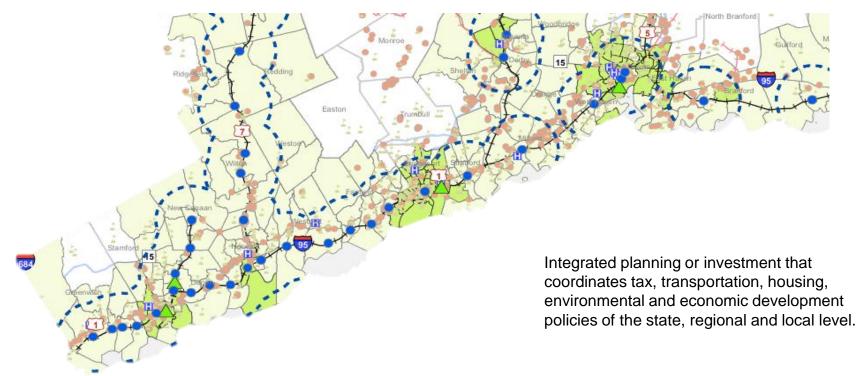








Investment Zone – Smart Growth



Areas with high rates of poverty serviced by rail (Source: CT Department of Transportation)









State Agency Consideration of "Principles of Smart Growth" per CGS Section 4-37/

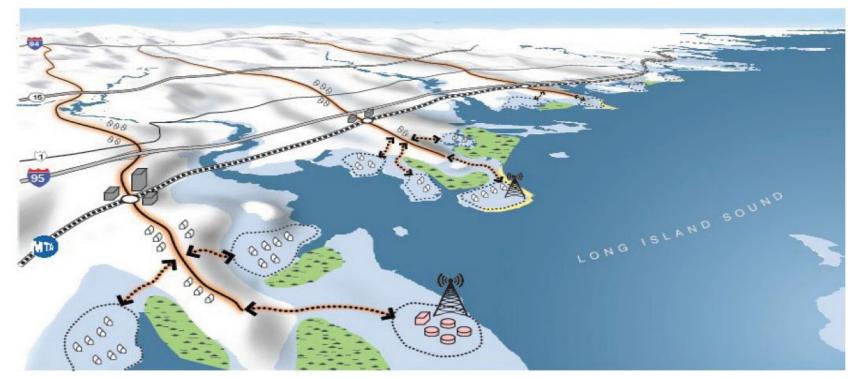


Investment Zones



Connecticut Institute for Resilience and Climate Adaptation

Resilience Corridors





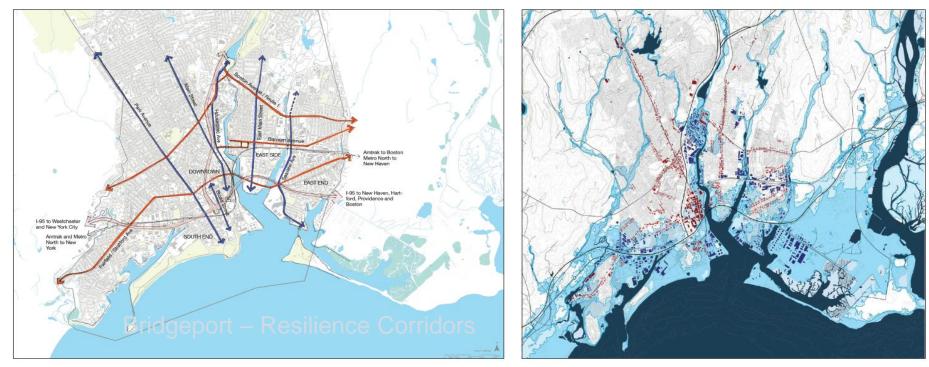
- TOD: Transit-proximate dense affordable homes that are adapted for climate change.
 - walkable neighborhoods with human-scale ground-floor environment that defines pedestrian zones from vehicular traffic.
 - O zoning and incentives to encourage adjacent commercial and industrial buildings to share adaptation strategies.
 - O open space and landscaped and hardscaped areas for access, aesthetics and gathering places with connected public open space networks.
 - adapting existing public housing with distributed low to moderate income and workforce housing.
 - mix of uses including residential, office, commercial and public spaces.
 - O access to transit and prioritize alternative transportation modes with the train station as a community destination.
- EXTENDED TOD Resilience Corridor: Identify individual road corridors that can function for access and egress.
 - Smart elevated streets perpendicular to the coast for egress and access with pedestrian amenities.
 - O Smart land uses focusing on watersheds, neighborhoods, conservation zones, remnant parcels, waterways and habitats.
 - O parkland for pedestrians and bicyclists designed as green infrastructure & recreation networks.







Resilience Corridors



Yale School of Architecture



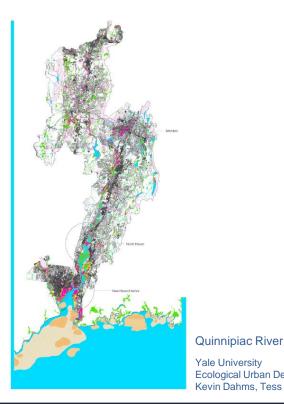


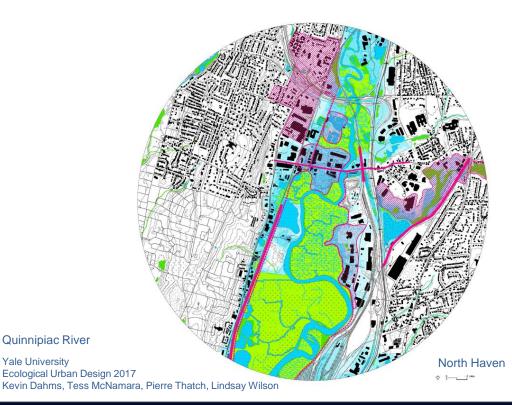






Watershed to site scale analysis







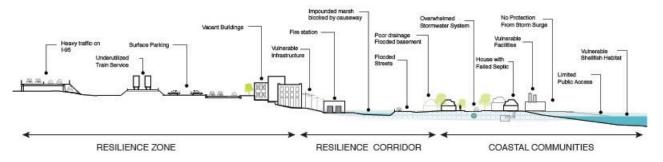


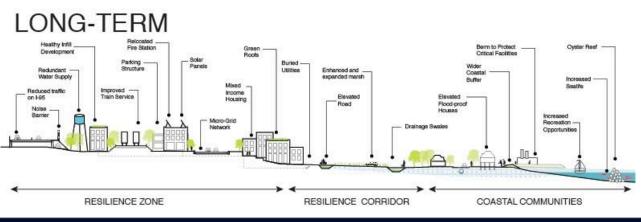


















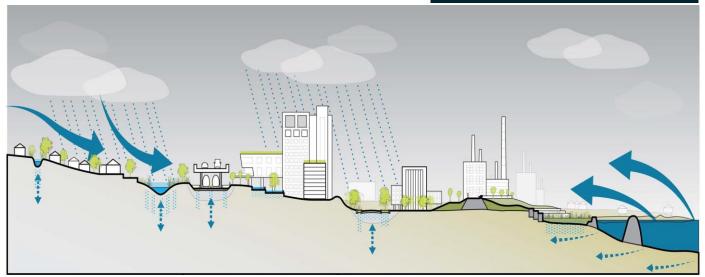




MODEL FOR THE SOUND FORCES OF WATER

CLAIM THE EDGE, CONNECT THE CENTER

REBUILD BY DESIGN: RESILIENT BRIDGEPORT



RIPARIAN WATERSHEDS

RIVER/WATERSHED RESTORATION STREAM DAYLIGHTING

STREAM CAPACITY ENHANCEMENT PARK-TO-

RIPARIAN CORRIDOR CONNECTIONS

URBAN STORMWATER

GREEN DRAINAGE CSO SEPARATION FLOOD-PROOF/ELEVATED BUILDINGS CROSS-CITY CONNECTIONS/ NETWORKS

COASTAL STORMS & SEA LEVEL RISE

SHORELINE STABILIZATION AND ENHANCEMENT BERMS AND STORM SURGE BARRIERS CRITICAL FACILITIES PROTECTION RELOCATION OF FLOOD PLAIN DEVELOPMENT

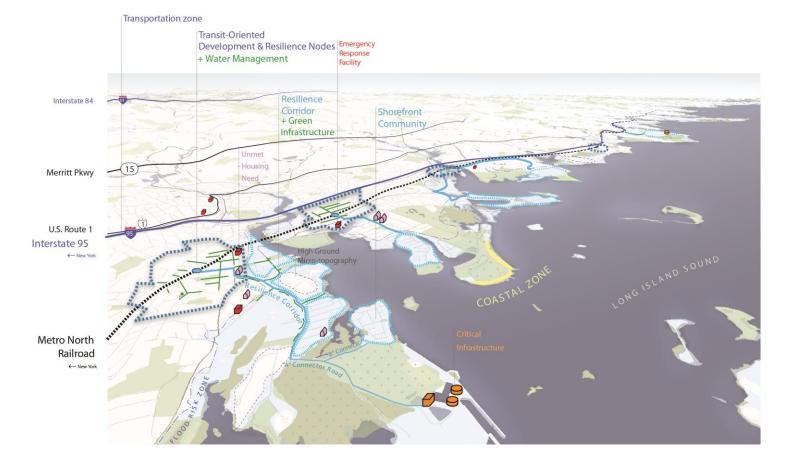




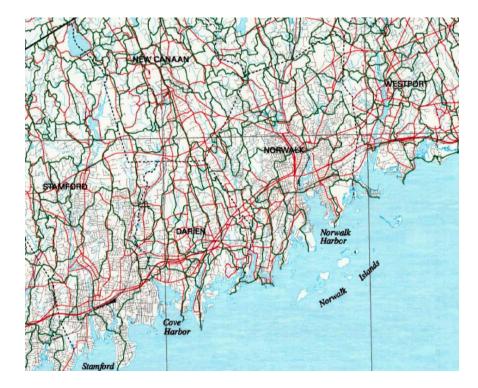


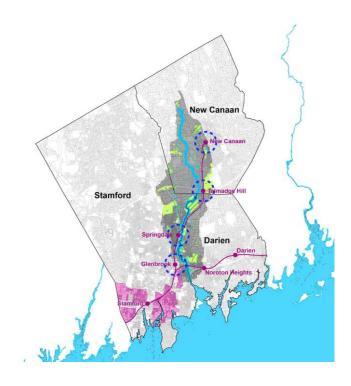






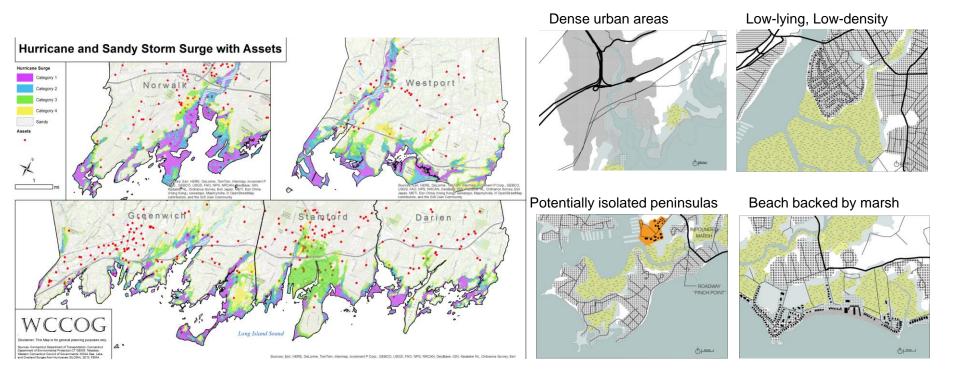




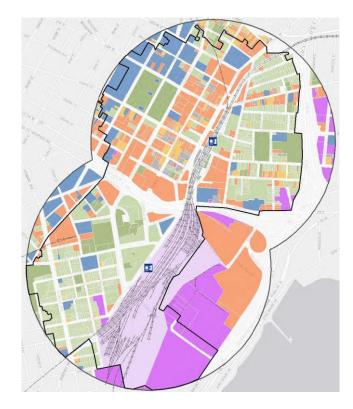


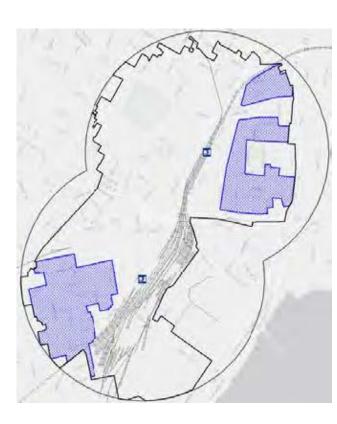


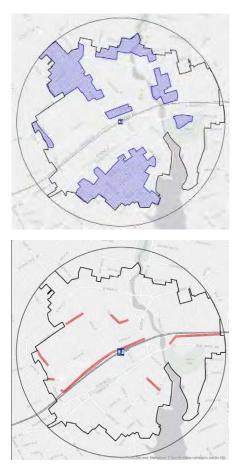
Shorefront communities: vulnerable typologies











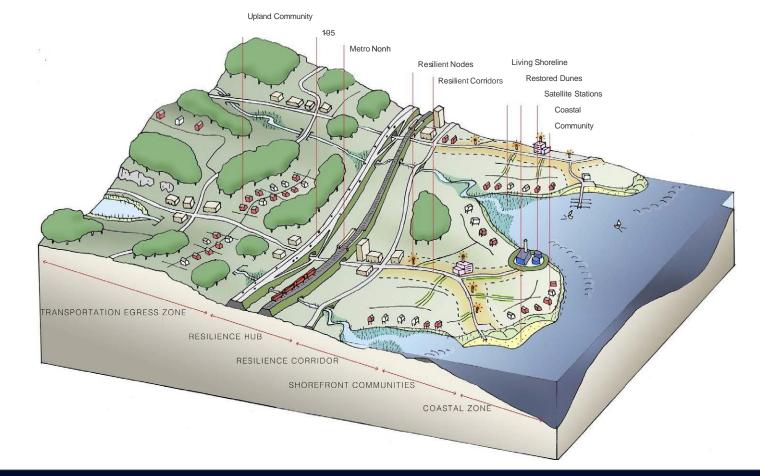
UCONN





















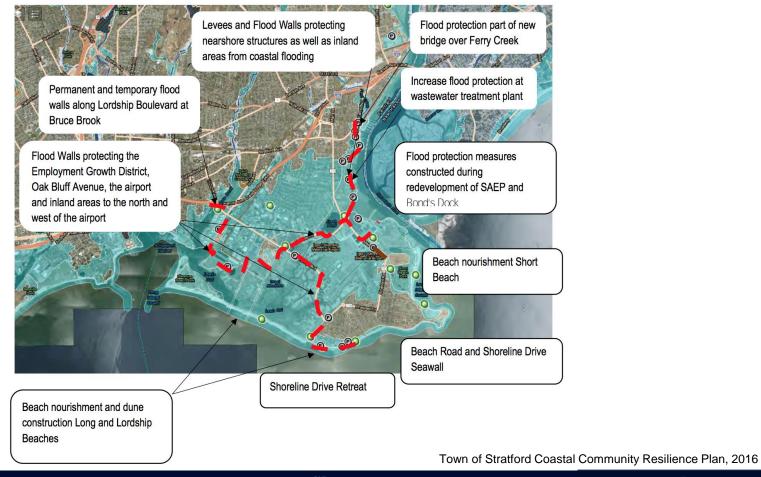




VULNERABILITY AND RISK 87



Plan of Conservation Development 2014



UCONN









HUD National Disaster Resilience Competition

CIRCA partnering with State Agencies Fostering Resilience (SAFR Council)



Alexander J. Felson, Deputy Executive Director, alexander.felson@uconn.edu









