

**abstract/thesis** At present, New York and New Jersey ports process over four million twenty-foot shipping containers each year. Shipping containers are designed to travel by several modes of transportation and can be modified to provide a density of residential relief in little time. A typical building, depending on its configuration, can hold approximately eighty households, or one hundred and sixty inhabitants, provide eight thousand square feet of commercial office space as well as six thousand square feet of vegetated rooftop.

**deployment** Temporary docks are installed along Prospect Shore's coastline. These docks serve to unload, store, and distribute the modified containers. A single cargo ship, carrying five thousand modified containers, could supply enough relief containers to build forty buildings; supporting roughly four thousand units of housing, or eight thousand people.

**construction** Assembly begins when construction cranes are delivered to the center of a site, with prospective buildings to be created around it. The buildings are oriented east-west in order to take advantage of passive heating and winds from the South. The core of the buildings are made from three modified forty-foot long containers, two of which hold the circulation and services, including recycling/refuse collection and mechanical system distribution, and a third container which provides secured entry and stack ventilation for the corridors and lobby.

**base** The base of each building is made by stacking two containers to create a single double height space which can serve as a commercial, community, or relief space. The upper portion of these units serve as a mechanical space for the commercial unit as well as a means to collect waste piping from the residencies above, eliminating the need for extensive foundation work.

**typical building** Two containers placed above the commercial level form the first studio unit in a series. An additional sleeping container can be added to these units to provide an addition 2-3 sleeping spaces, or enough for a small family. When an entire floor is in place, workers perform simple snap connections from corridor conduits to provide potable water and power. Vertical waste lines are connected from floor to floor and to collecting pipes located in the upper level of the commercial space at the base. Modified panels at the exterior face of each unit open to create balconies.

**sustainability** Solar panels provide power to the units along the southern façade, while turbines installed at the roof take advantage of southern winds to power the units to the north. Each building provides a community space for group discussion, education, and community activity. Each dwelling unit has radiant heating in the floor and radiant cooling in the ceiling. Wastewater from dishwashers, showers, and washer machines is directed to a gray water tank where it is filtered and stored on the rooftop to reduce potable water use. During the removal of debris from damaged sites, topsoil is placed in modified containers and stored on the rooftops as roof gardens that offer increased insulation, reduced heat gain and water runoff, as well as providing a space for tenants to grow vegetables and herbs.

**day 500** In the future the temporary docks are converted to public parks and water taxi access. When a property owner is ready to rebuild, half of the relief building can be safely removed and shipped around the world by boat, train, and truck to provide immediate relief for those in need.