

## MAI GIA THON, HOUSTON, TEXAS

The Mai Gia Thon (Village) is a low to fixed income development designed to target senior Vietnamese in Houston. The goal of the Mai Gia Thon is to build a village for people with shared cultural values and create a support system for their well beings. The villagers are encouraged to get out and interact with their neighbors. The main activity for the inhabitants is walking where they can meet and greet their friends. The master plan of the Mai Gia Thon centers around a network of pedestrian walkways that connects communal spaces together: Vegetable gardens, sunken plazas, verandas and a wide promenade that are all designed to promote a "village" life style that is healthy, physically and mentally, for the residents.

The two main goals of the development are to help mitigate the flooding problems of Houston, and to reduce the energy consumption for the complexes. Vegetable gardens and plazas are sunken to retain water during heavy rains and slowly releasing it into the city drainage thus reducing flash flooding. The area along the city drainage ditch is lowered and widened to create a strolling promenade while increasing the capacity of the bayou. Inspired by the Texas "dog-trot", the individual living units are equipped with operable windows and public verandas are designed to capture prevailing wind thus reducing air-condition dependency and promoting open-air living that is familiar to the Vietnamese tropical way of life.



### PROJECT INFORMATION:

**Size:** 4.4 acres

**Location:** Southwest Houston, in 100-years flood plain

**Development:** 147 units totaling 155,730 sf of living area

### Townhouses:

2-bedroom Townhouse (2/2.5 @ 1,170sf): **61 Townhouses**

3-bedroom Townhouse (3/2.5 @ 1,430sf): **10 Townhouses**

### Apartments:

1-bedroom Apartment (1/1 @ 820sf): **68 Apartments**

2-bedroom Apartment (2/2 @ 1,190sf): **10 Apartments**

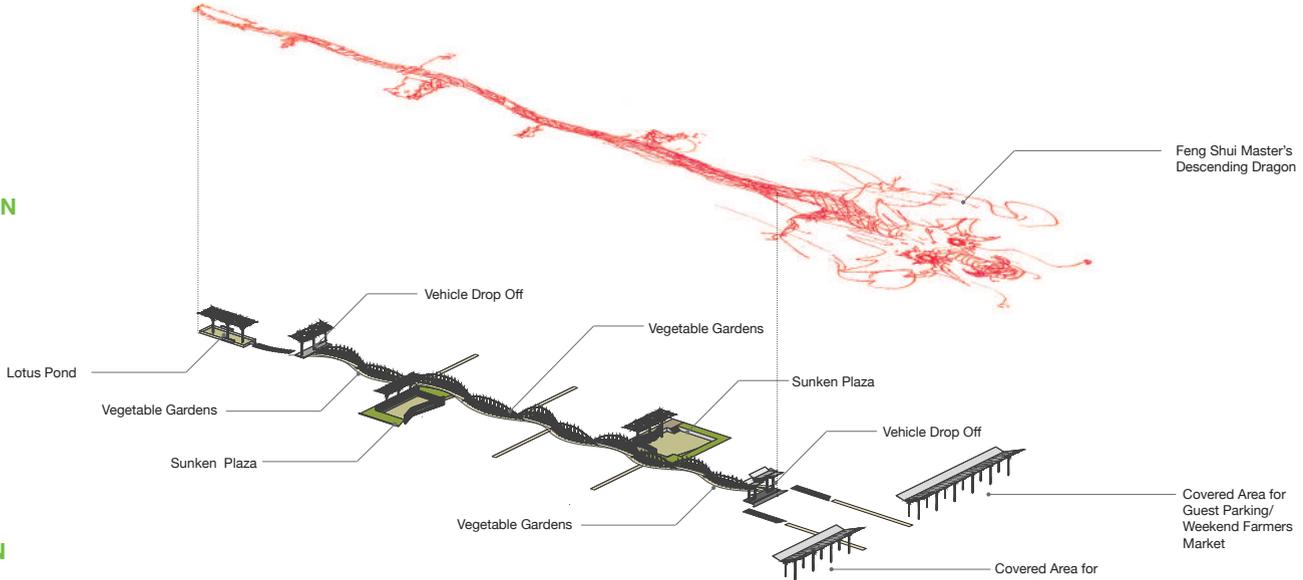
# WALKABLE COMMUNITY

- **Walking** is the main form of activity to promote a healthy life style and encourage residents to interact with their neighbors.
- **Pedestrian walkways** are separated from vehicular circulation for safety and comfort of walking.
- **Walkways** are buffered between the houses to provide shade for pedestrians.
- **Vegetable gardens** and sunken plazas are organized along the walkways to enhance the walking experiences.
- **Bayou promenade** provides place for exercise and relaxation, and connects the Mai Gia Thon to the Brays Bayou's parks system.

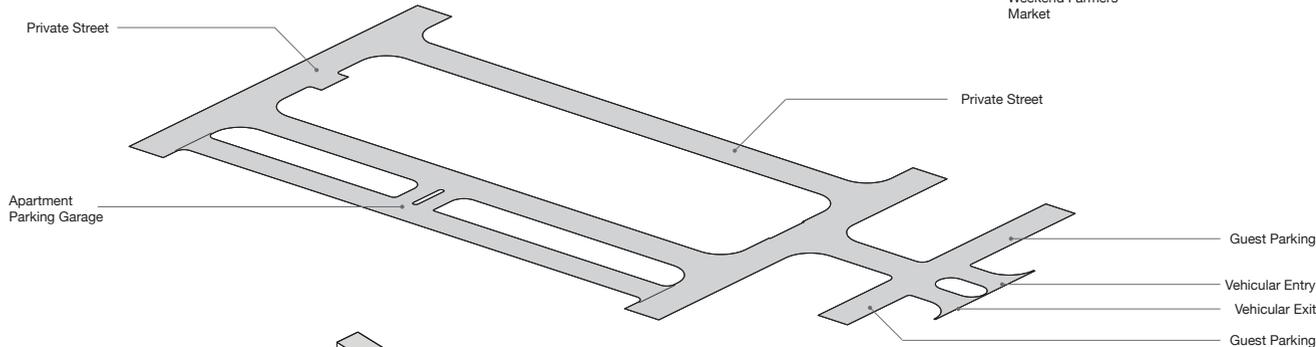
Inspired by the Ha Long Bay in Vietnam, the central walkway mimics a dragon going in and out of the water. The fruit and vegetable planters represent the dragon's body while the walking paths weave between it.



## PEDESTRIAN CIRCULATION



## VEHICULAR CIRCULATION



## HOUSING









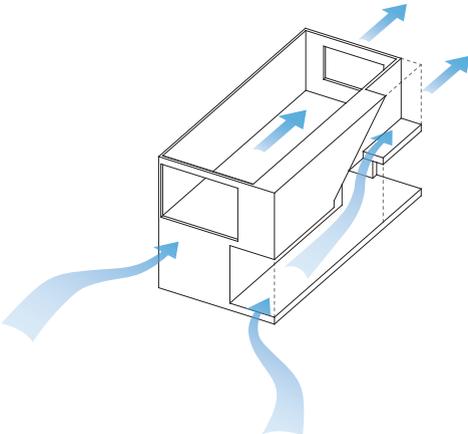


# VENTILATION STRATEGIES

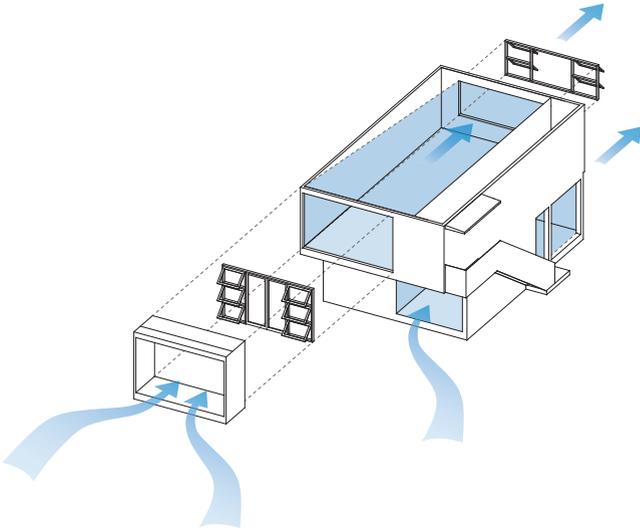
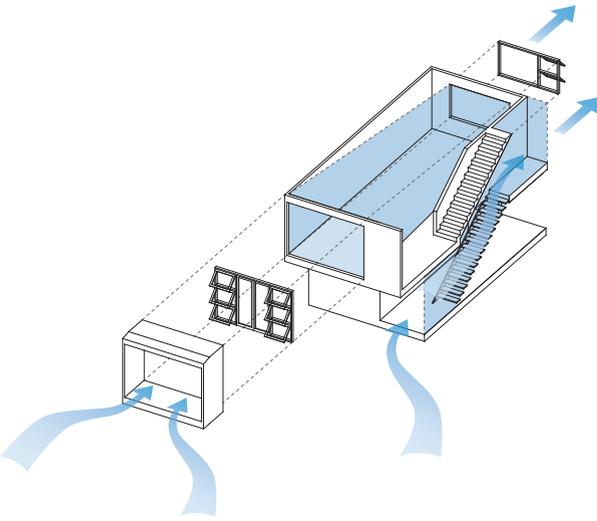
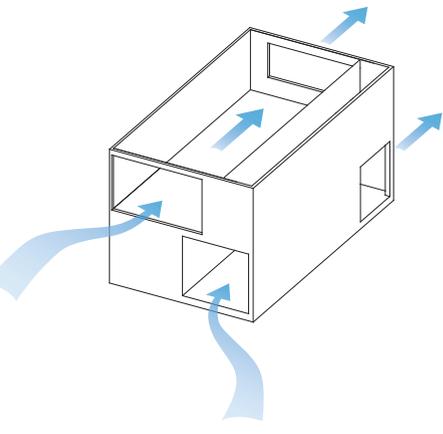
## TOWNHOUSES

“Wind Catcher”: Townhouses are modeled after the Texas “dog-trot” and outfitted with operable window systems allowing inhabitants to capture prevailing wind for the living areas.

2-Bedroom Townhouse



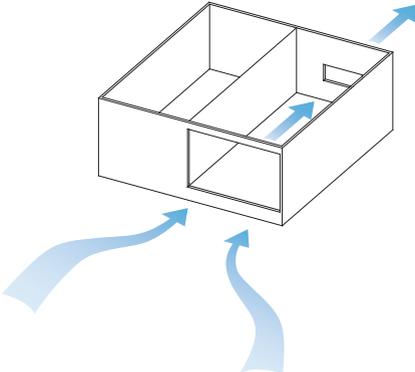
3-Bedroom Townhouse



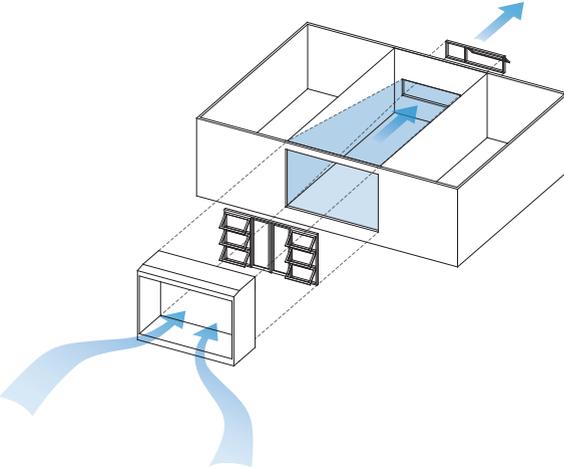
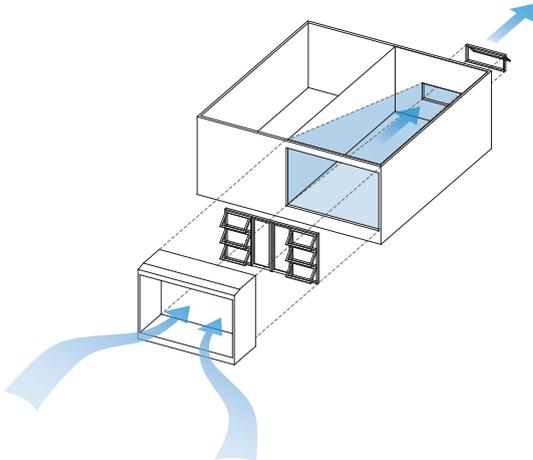
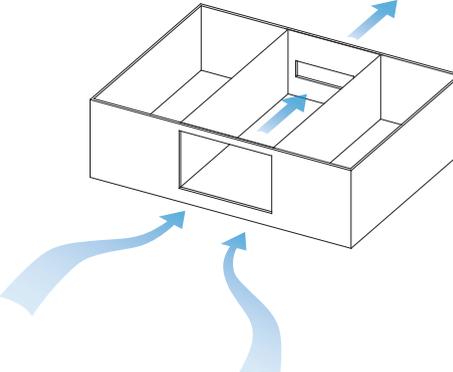
**APARTMENT UNITS**

**“Wind Catcher”:** Apartment units are modeled after the Texas “dog-trot” and outfitted with operable window systems allowing inhabitants to capture prevailing wind for the living areas.

**1-Bedroom Apartment**

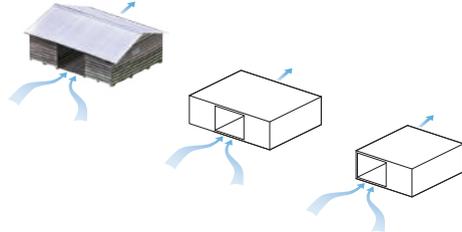


**2-Bedroom Apartment**



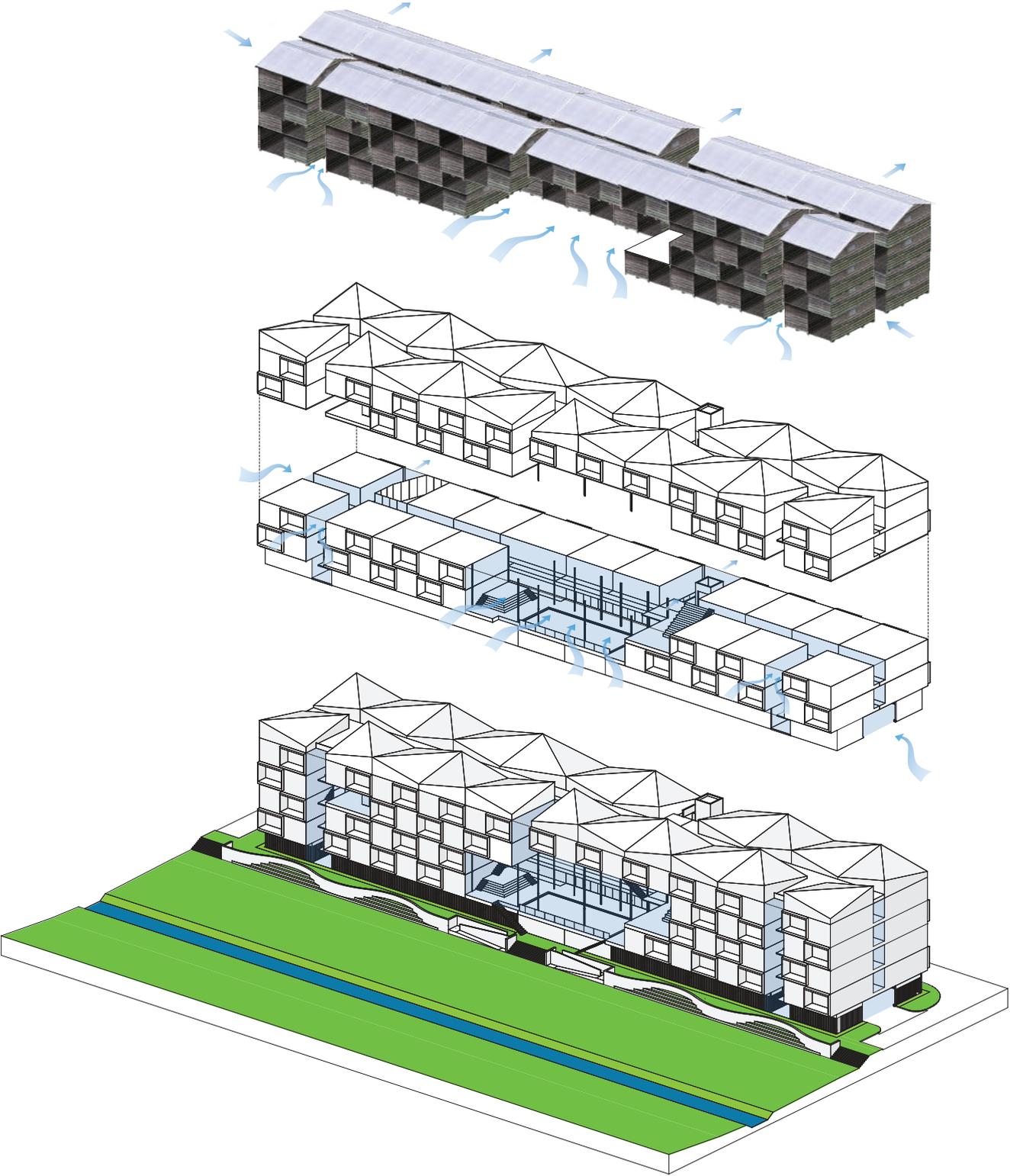
# VENTILATION STRATEGIES

- Using the Texas “dog-trot” as the model, the apartments, single-family houses, and townhouses are equipped with an operable windows system allowing the wind to move through the living area sf the units.
- **Apartment condominiums** are designed with open hallways, stairwells and communal verandas to allow wind to move through the structures.



## APARTMENT CONDOMINIUM

**Apartment Condominium:** Using the Texas “dog-trot” as the living module, the apartment units are stacked like masonry walls with open hallways and open communal spaces to allow wind to move through the structures.











# FLOOD MITIGATION

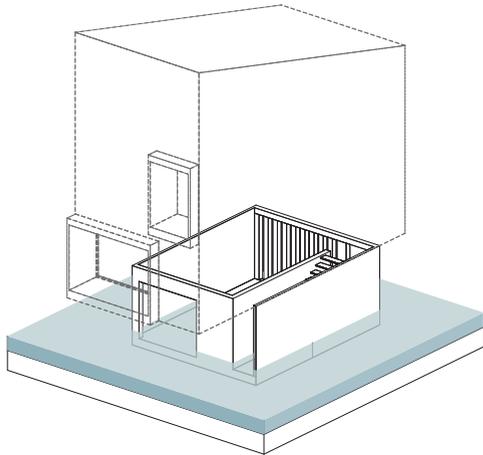
- **Living Levels** are raised to the second level above the 500-year flood plane.
- **CMU walls** are constructed with gaps to allow flood water to escape.
- **Bayou promenade** stepped down 4ft and widened the bayou bank by 20 feet, thus increasing the capacity of the bayou to contain and dispose of excess water during floods.
- **Sunken plazas** are lowered 2-0" to retain water during heavy rains and slowly release it to the city storm drainage system.

## FOUNDATION

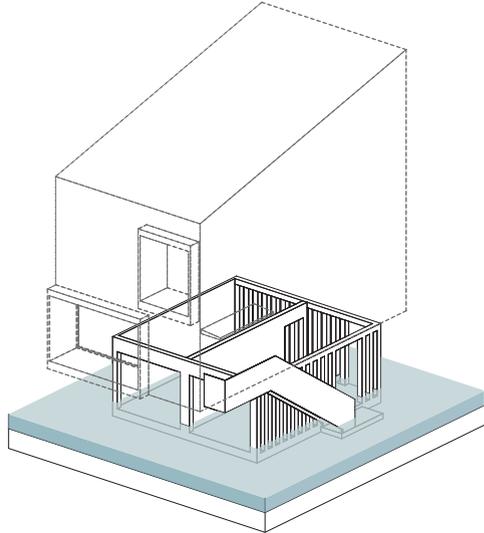
**Foundations:** Living spaces are raised to the 2nd floor or above the 500-year floor plain.

**CMU Walls:** Masonry walls on the ground level are constructed with gaps allowing flood water to escape.

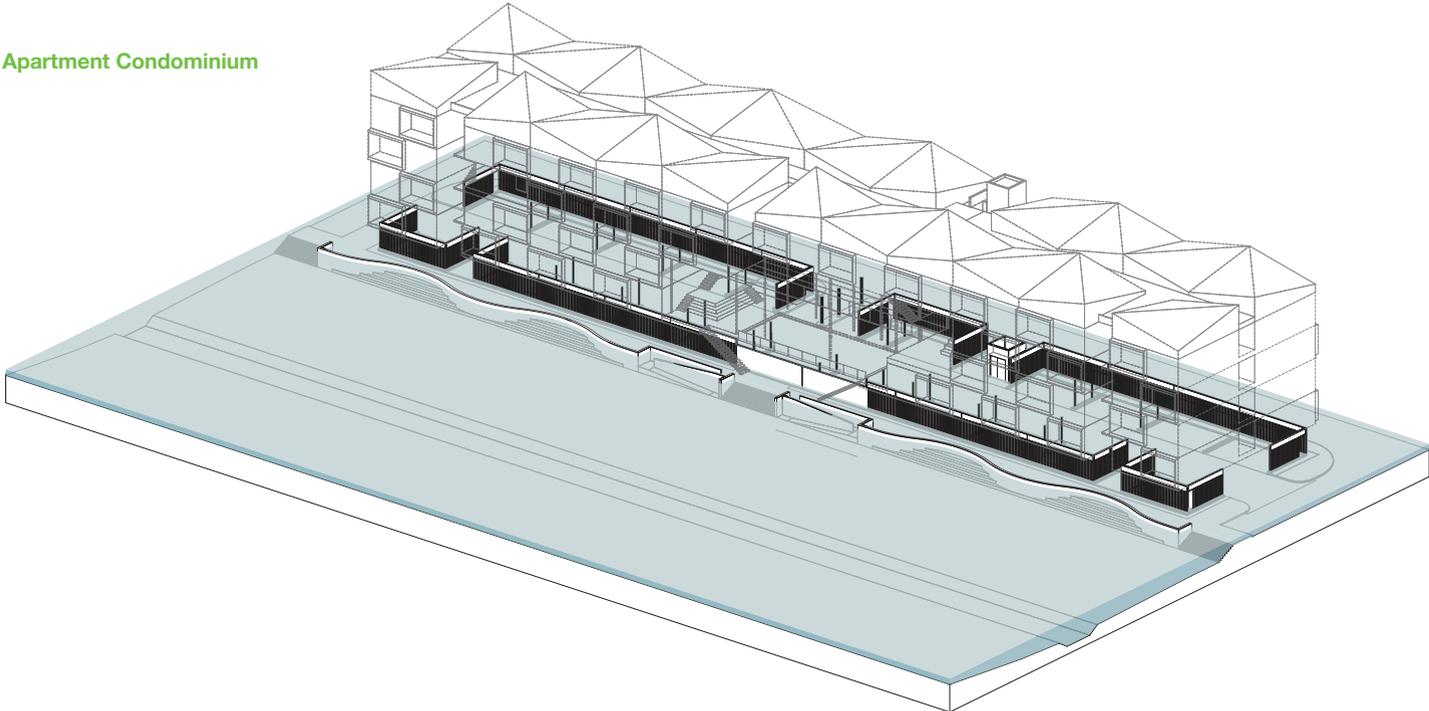
Townhouse: 2 Bedroom



Townhouse: 3 Bedroom



Apartment Condominium



## BAYOU PROMENADE

**During Normal Day:** The promenade is the main public outdoors space with an open vista for the Mai Gia Thon. The promenade allows for a wide varieties of activities for groups and individuals. The promenade is stepped 4ft down and connects the village to the City of Houston's system of parks and bayous.

**Condominium Structures** are raised to second level above 500-years flood plain

**Bayou Promenade** steps down 4ft to connect the complexes to the adjacent bayou allowing the inhabitants to enjoy the bayou bank

**Grand Steps** creates a gateway between complexes and Brays Bayou park system.

**Retaining Walls** create a barrier between gated a community and public park system.

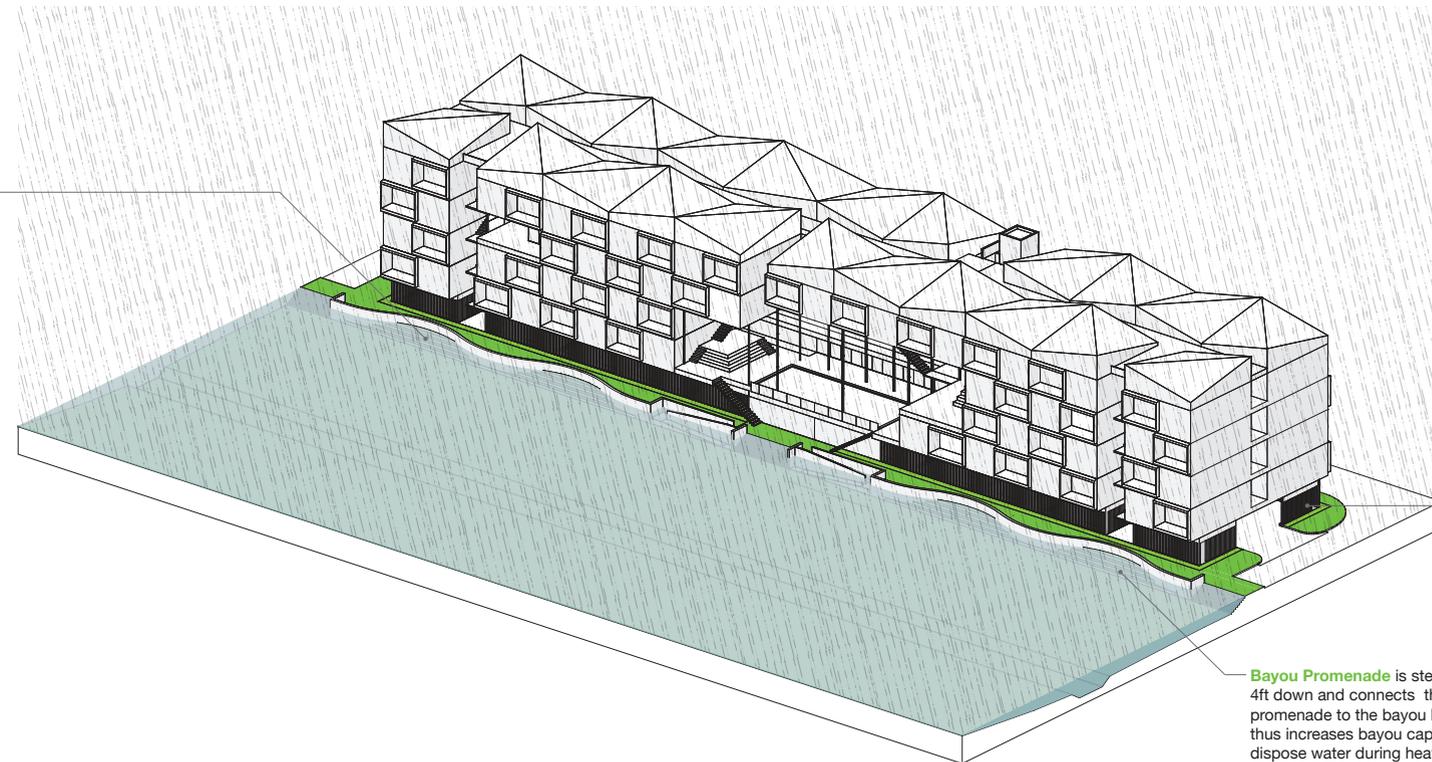
**Sitting Areas** Undulating brick retaining walls provide soil stability and create sitting area for residents to enjoy the bayou view.

**During a flooding event:** The promenade is sunken 4 ft and the bayou is widened by 20 ft thus increasing its capacity to hold rain water.

**Bayou Promenade** widened the promenade increases bayou capacity to dispose water during heavy rain,

**Gapped Garage Walls** allow water to escape during floods.

**Bayou Promenade** is stepped 4ft down and connects the promenade to the bayou bank, thus increases bayou capacity to dispose water during heavy rain.



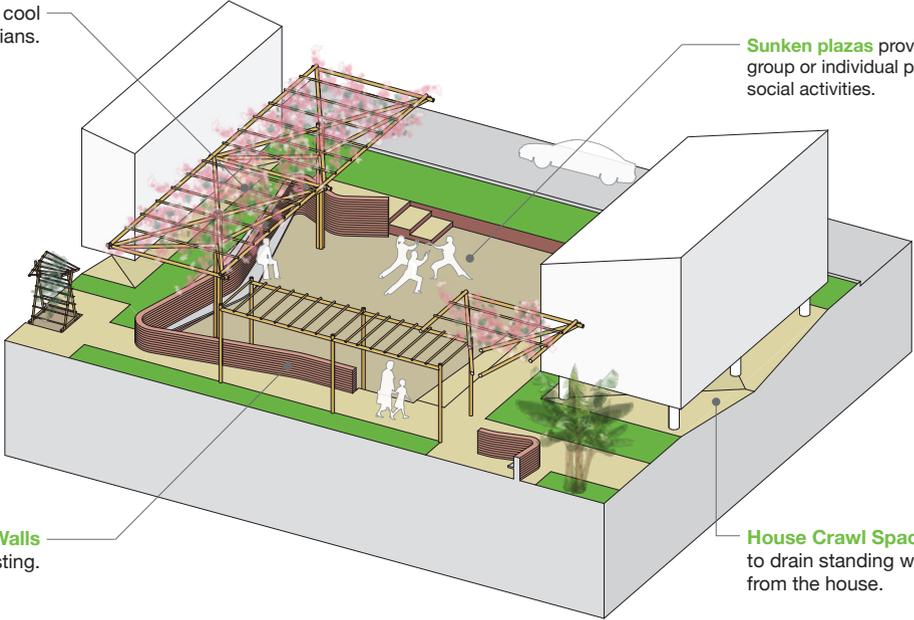


# COMMUNAL SPACES

- **Sunken plazas** are placed throughout the complexes to promote outdoors activities and social interaction between residents.
- **Vegetable gardens** lined the pedestrian walkways enable inhabitants to grow tropical vegetables and enhance the walking experiences.
- The **Bayou promenade** provides a long outdoors space to hold group and individual activities. It also connects the village to the larger Brays bayou's park system.

**Bamboo Trellis** provide cool shade for pedestrians.

**Sunken plazas** provide spaces for group or individual physical and social activities.



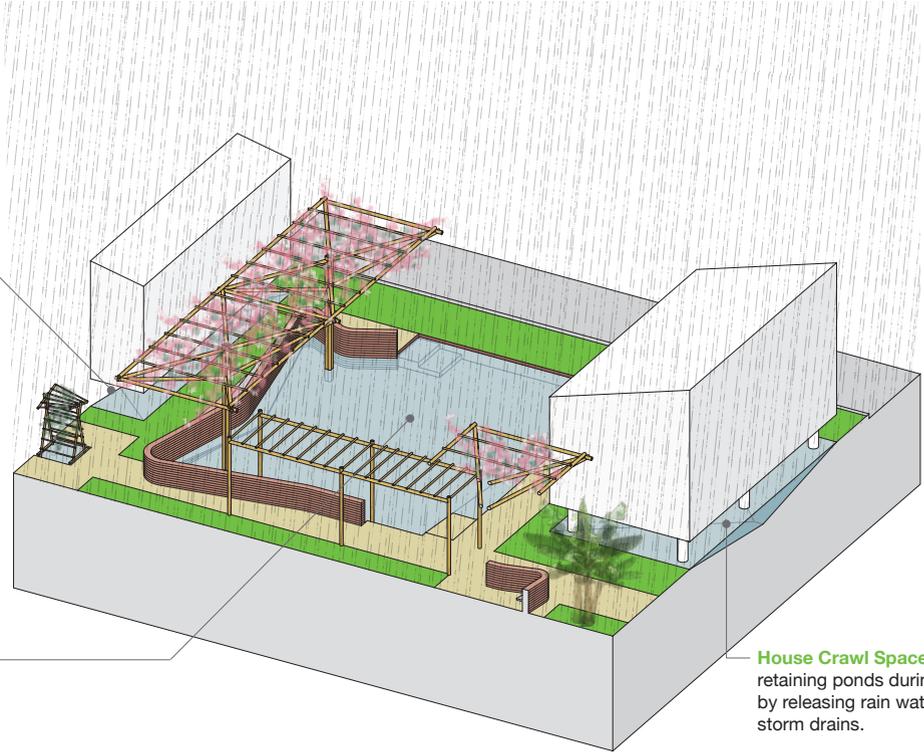
**Masonry Retaining Walls** provide benches for resting.

**House Crawl Spaces** are sloped to drain standing water away from the house.

# SUNKEN PLAZAS

**Sunken Plazas** are “community building” spaces. The plazas encourage individual or group activities and increase social interaction between inhabitants.

**Single Family Homes** are raised 2'-0" minimum above 500-years flood plain.



**Sunken Plazas** are lowered to retain water during heavy rains and releasing the water slowly into storm drains, thus reducing flash flooding.

**House Crawl Spaces** act as water retaining ponds during heavy rains by releasing rain water slowly into storm drains.





