

## Classic American Suburb

3203 Winding Lake Way, Katy, TX, US 77450  
1991

45' X 90'

**Cinco Ranch**, Texas, US is a master-planned 8,100 acres community that sits about 25 miles west of the City of Houston and 10 miles north of the City of Richmond. Cinco Ranch is considered to be part of the Greater Katy area as it is located around 10 miles southeast of the city of Katy. As an extension to the cities, this community has eleven community pools, a golf club, parks, greenbelts, YMCA, etc. The population density in Cinco Ranch is 3,400/sqmi

In addition, most of Cinco Ranch is located in the flood zone. A few subdivisions on the far southeast are in a 500-year floodplain and are next to the Barker reservoir, where can experience severe flooding during a hurricane or a flood event.

Submitted by  
Grace Wu

**Location**  
3203 Winding Lake Way,  
Katy, TX, US 77450  
Suburb of Houston, TX

**Designer/Planner**  
Unknown

**Opportunities**  
Although this is a flat suburb, where many impervious surfaces have been built upon the soils, there are still a lot of trees in the communities. More social spaces can be built to improve community connectedness, for example, a playground or an outdoor study area.

**Amenities** (.5 mile radius)  
o Cinco Ranch Lakes (next to the house)  
o Cinco Ranch Beach Club (5 min)  
o South Lake Village Tennis Courts (5 min)  
o Clear Water Park (13 min)  
o The Public House, Pub (13 min)

**Challenges**  
This place is built right next to a pond, thus it would be difficult to prevent the pond from getting polluted. Since this area is covered by a lot of impervious surface, it is expected that polluted water can flow more quickly into the pond.

**Lot Area**  
.44 acres

**Dwelling Type**  
Detached single-family

**Dwelling Area**  
3,628 square feet

**Number of Bedrooms**  
Four Bedrooms/ four bathrooms

**Value**  
Original purchase price is unknown.  
Current sales price USD \$677,800.

**References**  
Keller Williams, 2021. All About Katy Texas. <https://www.katyhomesforsaletx.com/katy-real-estate-home-page/katy-neighborhoods/cinco-ranch>.

WikiPedia, n.d. Cinco Ranch, Texas. [https://en.wikipedia.org/wiki/Cinco\\_Ranch,\\_Texas](https://en.wikipedia.org/wiki/Cinco_Ranch,_Texas)

**Image Source**  
Google Street View, October 2015



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*Childhood Home*  
**No. 97, Hanchang St, Kaohsiung City, Taiwan 802**  
**Around 1970**

**Wu-Kuai-Cuo**, Kaohsiung, Taiwan is a streetcar suburb in an urban neighborhood. Most of the buildings in this area were built around 1970 by developers, according to my parents. Many people bought a house and reside here because schools can be reached within a few minutes, including two elementary schools and one high school. This neighborhood allows residents to access almost everything they need for living, including postal office, schools, retail stores, restaurant, salons, police office, city's administrative office, etc. In Taiwan, as almost half of the population own a scooter, it is also convenient for residents to reach the most-urbanized area in Kaohsiung - fifteen minutes by driving or thirty minutes by bus, through the Sanduo 1st Road (Shown in the graphic).

On top of most of the lands in Wu-Kuai-Cuo are single-family mixed-used buildings, where the first floors are, usually, retail spaces for rent, and the upper floors are the residential areas. Different from the building structures in the U.S., most single-family houses are made of concrete and have a flat roof. The multi-functional veranda is also a signature feature in Taiwanese buildings, a privately-owned space on the first floor, which can be utilized as, again, retail spaces, or sidewalks for pedestrians, or even parking spaces. Lastly, this neighborhood is not as vulnerable to natural hazards as other areas in Taiwan.

Submitted by  
*Grace Wu*

**Location**

No. 97, Hanchang St,  
Lingya District,  
Kaohsiung City, Taiwan 802  
Suburb of Kaohsiung City

**Designer/Planner**

Unknown

**Opportunities**

As it has never snowed in Wu-Kuai-Cuo or in Taiwan, most of the buildings have flat roofs. This feature makes implementing small gardens on rooftops possible, for example, vegetable garden, herb garden, pollinator garden.

**Amenities** (.5 mile radius)

- o San-Sin High School of Commerce and Home Economics (1 min)
- o Kaohsiung City Government Police Bureau (3 min)
- o Kaohsiung City Lingya District Household Registration Office (3 min)
- o Kaohsiung City Fire Bureau (3 min)
- o Kaohsiung Wu-Kuai-Cuo Post Office (3 min)
- o Fu-Dong Market (3 min)
- o Fu-Kan Elementary School (5 min)
- o Fu-Kan Elementary School Park (5 min)
- o Fu-Dong Elementary School (6 min)
- o Lin-Jing Park (6 min)
- o Lots of restaurants, salons, retail stores, bus stops, etc.

**Challenges**

The buildings in this area are relatively old and dense, so it would not be possible for any major retrofitting projects. There would be no room for more on-the-ground gardens or desification because of its dense urban form.

**Lot Area**

.0108 acres

**Dwelling Type**

Detached single-family

**Dwelling Area**

472 square feet per floor \* 4.5 Floors =  
a total of 2124 square feet

**Number of Bedrooms**

Four Bedrooms/ two bathrooms

**Value**

Original purchase price is around USD \$100,000.

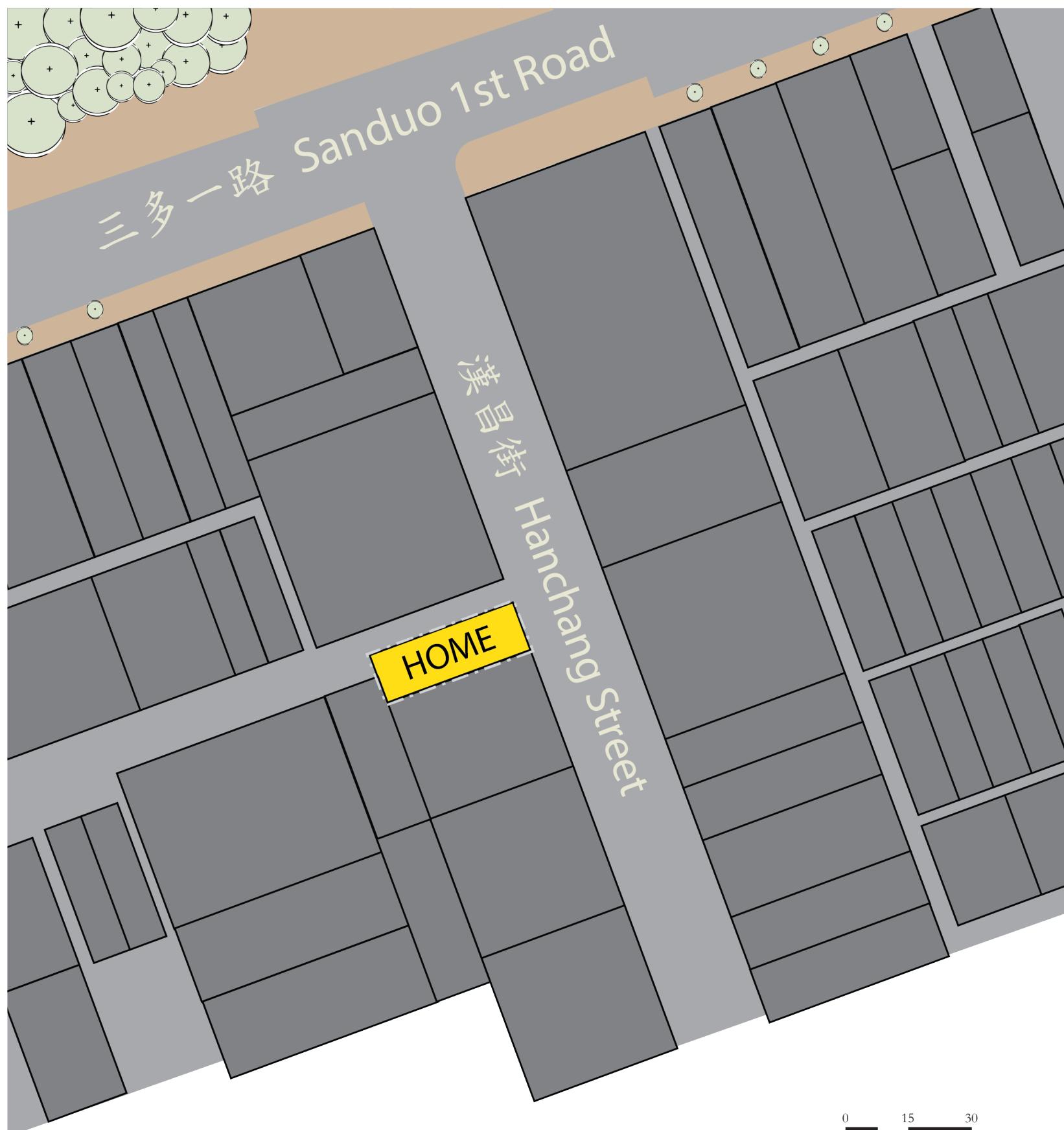
Current sales price is estimated to be USD \$675,000.

**Reference**

Parents

**Image Source**

Google Street View, Oct 2015



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# CONSIDERING CLASSIC SUBURB + CHILDHOOD HOME

Submitted by  
Grace Wu

Suburb is an area adjacent to or within a metropolitan area that is primarily a residential area. Depending on the forms of the suburbs, retrofitting strategies differ. Here, I will be comparing and analysing two almost completely different suburbs - Cinco Ranch and Wu-Kuai-Cuo - and will present potential retrofitting strategies for these two areas to increase sustainability.

According to Ridrigue (2020), urban extension can take place in five general forms: infillinf, extension, linear development, sprawl, and large-scale projects. As a classic American suburb, Cinco Ranch was developed as a form of sprawl, where subdivisions and scattered lots are easy to observe. However, while redesining the entire suburb is impossible and not environmentally and financially practical, scattered lots can just provide the best spaces for retrofitting, especially for any buildings standing right next to a waterbody, in this case, a natural pond.

Wu-Kuai-Cui is an extension to the downtown of the city of Kaohsiung as the lands were developed directly adjacent to existing land uses (Ridrigue,

2020). Although the urban design history of Wu-Kuai-Cui is unknown, its form is most similar to Clarence Perry's Neighborhood Unit. Everything is in a walkable unit in most parts of Wu-Kuai-Cui. One can easily walk to schools, post office, parks, bus stations, salons, etc. The neighborhood is dense and sociable because every residential buildings are next to each other, and, indeed, most buildings are mixed-use buildings. This creates tons of social spaces for people to see each other when they go downstairs to buy breakfast, walk to schools, go to a post office, or go to a hot pot place. Image (c) presents another example of the effort of the local government trying to increase the sociality and vitality in the neighborhood. After the Kaohsiung Street Art Festival in 2017, paintings on buildings can been seen everywhere even in a narrow alley. However, one challenge presented by the neighborhood is the old and out-dated building structures, which makes a vertical accessible dwelling unit impossible.

In my retrofitting plan for Cinco Ranch, I proposed adding more trees and green roofs to reduce urban heat island effects, building pollinator gardens to

support pollinators, constructing an artificial pond or wetland to help retain and filter water runoff, adding solar panels to reduce carbon footprints, and placing a table and benches to provide a space for community socialization. Although Tachieva (2010) had suggested adding additional dwelling units for suburban ranch houses in his Sprawl Repair Manual, I did not add another accessible dwelling unit or suggest andy densification because there is the pond next to the lot. Increasing desity of people living in this area would likely increase the amount of pollutant entering the pond.

In contrast to Cinco Ranch, lot sizes in Wu-Kuai-Cui are usually at the equivalent of a building area - small. Thus, opportunities for building more trees, constructing an artificial wetland in the backyard, or even placing a table outside are limited. Densification or adding another accessible dwelling unit would also be challenging because the buildings are old and the neighborhood is already dense. Therefore, I proposed adding solar panels to help homeowners achieve energy independence and building a green roof or pollinator roof to reduce urban heat island effects and to increase biodiversity.

## Reference

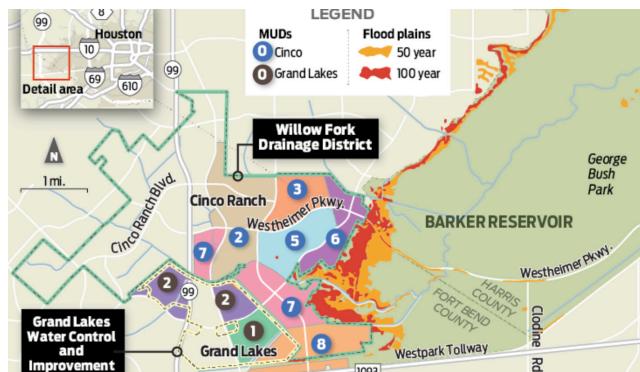
- Galina Tachieva, 2010. Sprawl Repair Manual, Island Press. eISBN: 978-1-59726-985-8. Paper: 978-1-59726-732-8.  
Jean-Paul Rodrigue, 2020. The Geography of Transport Systems: FIFTH EDITION, New York: Routledge, 456 pages. ISBN 978-0-367-36463-2. doi.org/10.4324/9780429346323

## Image Credit

- (a) LoopNet. <https://www.loopnet.com/Listing/23501-Cinco-Ranch-Bld-Katy-TX/22734217/>  
(b) Willow Fork Drainage District. U.S. Army Corps of Engineers.  
(c) Street Art Festival, Kaohsiung, Taiwan. 2017. Available at: <https://www.flickr.com/photos/yannhorng/38699948661/in/album-72157687827853992/>  
(d) Center for GIS, RCHSS, Academia Sinica. <http://gissrv4.sinica.edu.tw/gis/kaohsiung.aspx#>.  
(e) ISBN: 9789860003499. (2004). <https://jonyao1978.pixnet.net/blog/post/19134876>.



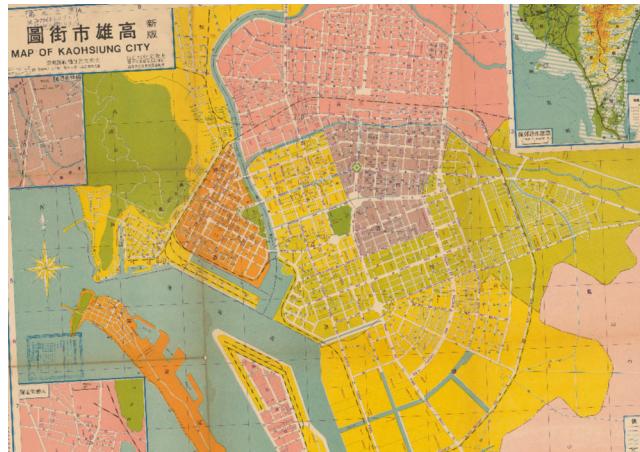
(a) Cinco Ranch Aerial View



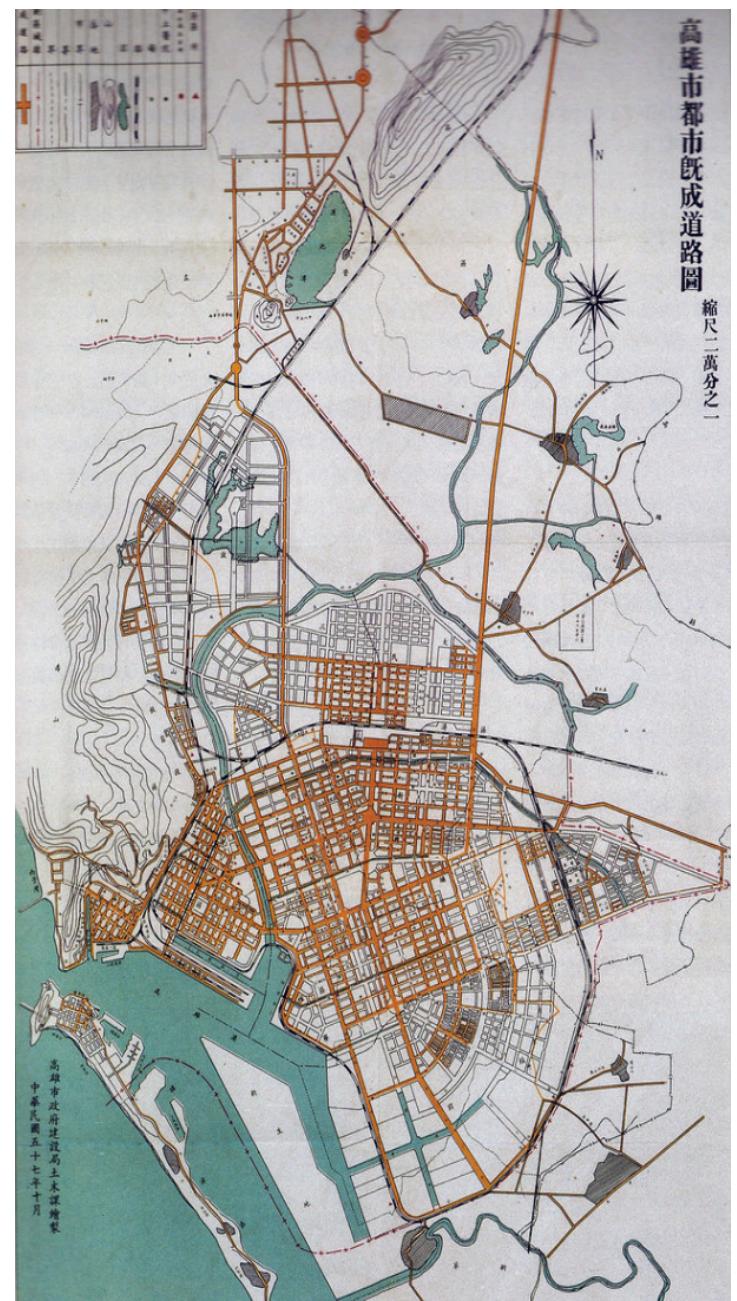
(b) Cinco Ranch Flood Plains



(c) One of many street arts in Lingya District



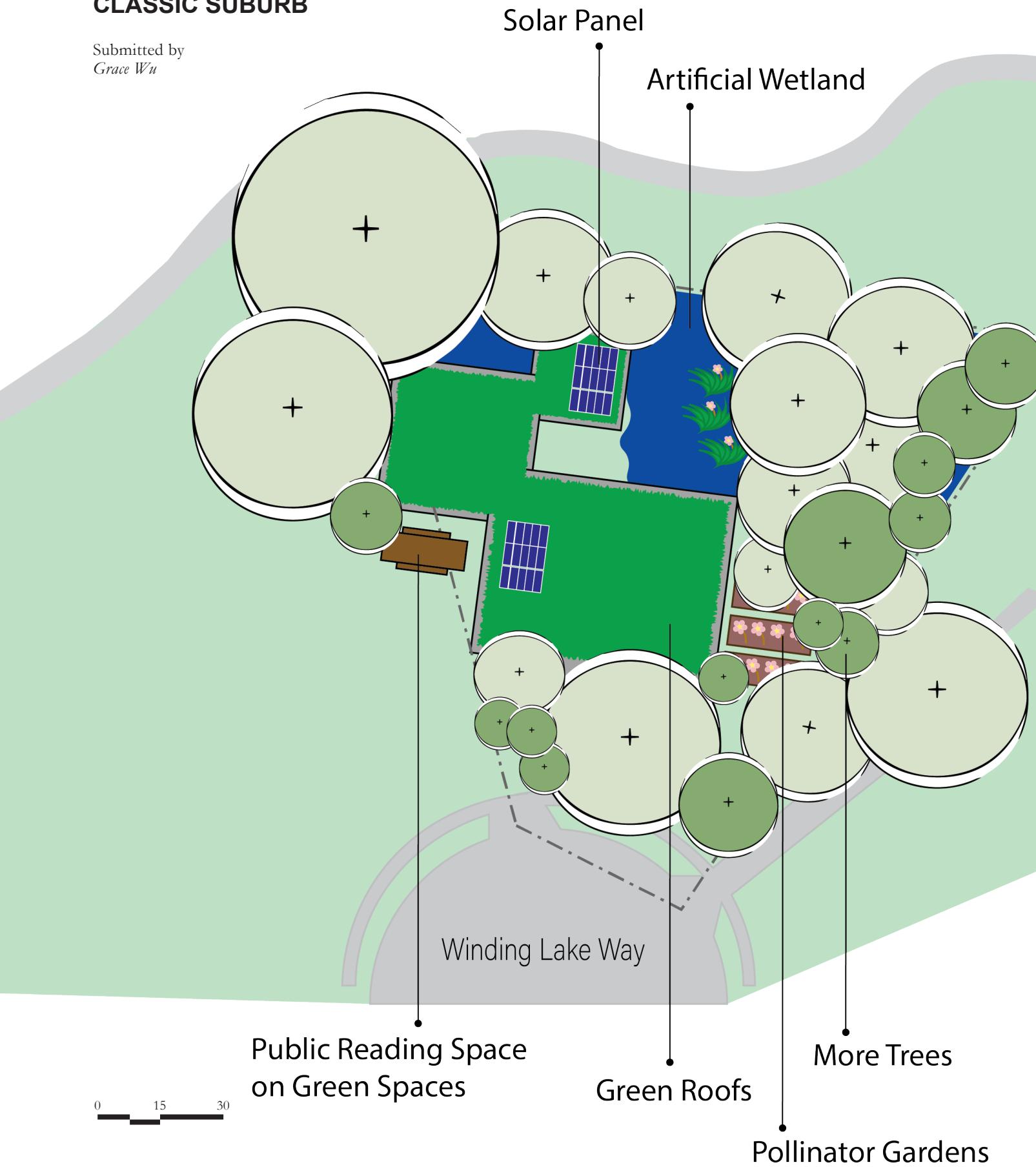
(d) Map of Kaohsiung City, 1976 1976.12.18.49



(e) A Kaohsiung City Road Map, October 1968

**RETROFITTING THE LOT**  
**CLASSIC SUBURB**

Submitted by  
Grace Wu



**RETROFITTING THE LOT**  
**CHILDHOOD HOME**

