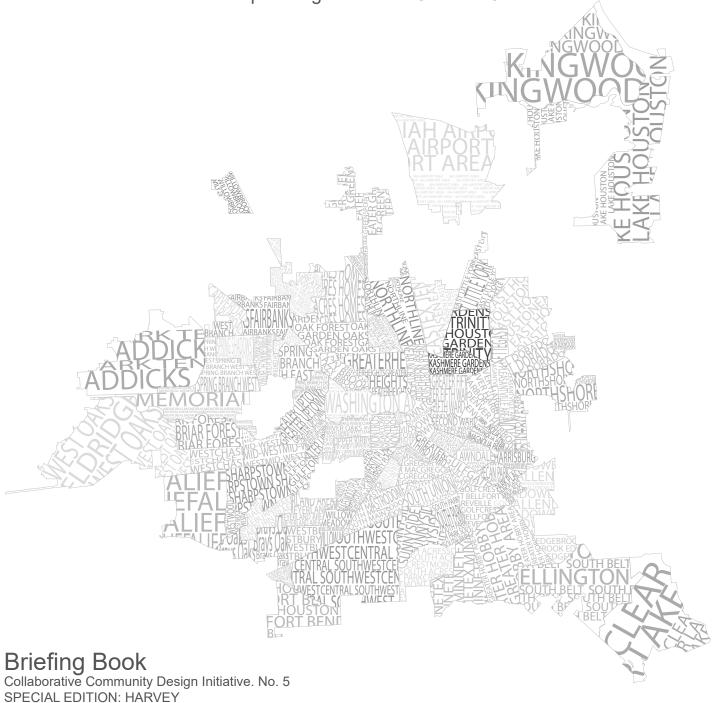
# Kashmere Gardens Trinity | Houston Gardens

Super Neighborhoods 52 and 48



UNIVERSITY of HOUSTON

Community Design Resource Center

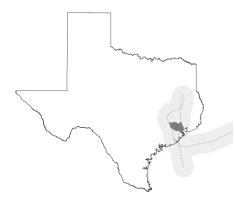
2018

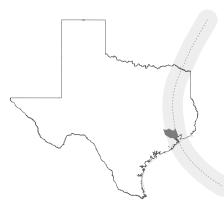


Kashmere Gardens, After Hurricane Harvey Photo by Marcus Yam, Los Angeles Times

## Contents

| Introduction (Harvey)   | 5  |
|---|----|
| Kashmere Gardens and<br>Trinity/Houston Gardens<br>(Harvey)   | 7  |
| <b>Context</b><br>Aerial<br>Figure Ground<br>Barriers<br>Land Use<br>Parks and Drainage<br>Transportation   | 17 |
| <b>Demographics</b><br>Population and Age<br>Race and Ethnicity<br>Poverty<br>Income<br>Education<br>Health<br>Housing  | 29 |
| <b>Opportunities</b><br>Neighborhood Resiliency<br>Neighborhood Resiliency (Rail Yards)<br>Economic Opportunity<br>Food Security<br>Buyouts to Amenities<br>Resilient Housing | 41 |
| Participants and Sponsors   | 55 |







Tropical Storm Allison Track, 2001

Houston suffered two major

flood events in the years

and the Tax Day Flood in

preceding Harvey, the Memorial Day Flood in 2015

2015-2016

2016.

Hurricane Ike Track, 2008

AUG 24, 2017

On Thursday Harvey is

upgraded from a tropical

storm to a hurricane. 30

in isolated instances.

Supermarket shelves

preparations.

inches of rain is forecast

empty as residents make

AUG 26, 2017

On Saturday Harvey makes a second landfall and weakens to a tropical storm. Rain forecasts for Houston are measured in feet. Several cities implement curfews and roads begin closing. HISD cancels school for the next week.



ABOVE: Harvey Timeline (Based on Analysis and Graphics by Matthew Nguyen, Constanza Peña, Victor Romo, and Cristina Trejo)

at 10pm near Rockport. Several counties call for voluntary and mandatory evacuations. Tornado and flood warnings are issued.

HISD closes schools.

early Sunday morning neighborhoods begin flooding and high water rescues by boat and helicopter are being televised live.

### Introduction

At the time of this publication, it has been nearly a year since Hurricane Harvey made landfall and slowly circled around the greater Houston area for five days. Harvey left behind over 150,000 flooded homes and a maximum recorded rainfall of 47.4".

It took only one month before the city seemed to be functioning normally. But the tragedy unfolding for thousands of families continues behind the closed doors of flooded homes and temporary hotel rooms. While natural disasters are equal opportunity events, the resources to recover are not. As civic leader Keith Downey notes: "The storm hit many underserved communities long before the hurricane arrived."

#### AUG 28, 2017

In an unprecedented move, the U.S. Army Corps of Engineers begins releasing water from reservoirs in west Houston. The release is to avoid a collapse that would inundate downtown Houston. The release floods thousands of homes near the reservoirs.



#### AUG 29, 2017 The rain from Hurricane Harvey begins to taper off, and by late Tuesday most neighborhoods would not see any more rain. The highest recorded rainfall in Harris County is 47.4". An estimated 30,000 are in Houston shelters.

The slow motion flood disaster that inundated Houston is evidence of a new climate normal. In the wake of this new normal we must begin to define and build towards greater resiliency—not just in preparation for the next disaster, but to ensure everyday resiliency.

The fifth biennial Collaborative Community Design Initiative, titled "Floods" is a partnership with four Houston neighborhoods that were severely impacted by Harvey: East Houston, Eastex/Jensen, Edgebrook, and Kashmere Gardens and Trinity/ Houston Gardens. This Briefing Book is for the Kashmere Gardens and Trinity / Houston Gardens Super Neighborhoods.

#### THE NEXT WEEK

Professionals, volunteers, and communities begin cleaning up. **Donation drives** and distribution points are set up across the city. Individuals are prompted to **contact insurance companies and apply for FEMA** assistance. Some begin returning to work.



#### THE AFTERMATH

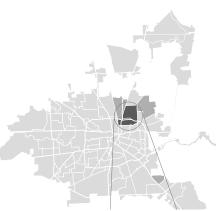
#### THE MONTH AFTER

Mucking, demolitions, and citywide cleaning continues. **Some schools reopen.** Displaced families relocated to **temporary housing.** Insurance and FEMA agents begin **property inspections.** 

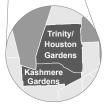
#### SIX MONTHS LATER

Some reconstruction efforts begin. Nearly **894,000 FEMA applications** are filed by the November deadline. An estimated **150,000** structures flooded in Houston. Houston residents must now consider whether to **rebuild or permanently relocate.** Many still reside in **temporary, sometimes makeshift, homes.** FEMA hotel programs extended through June 2018.





Kashmere and Trinity/Houston Gardens Location Map

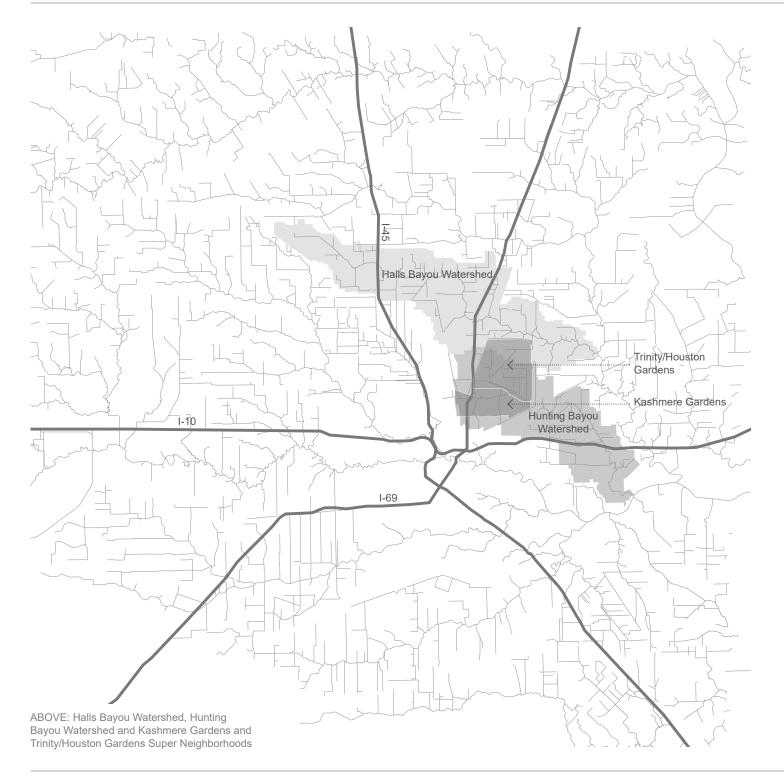


#### **ONE YEAR LATER**

Over **\$2 billion** in Recovery Funding is finally allocated to the City of Houston and Harris County for rebuilding. Codes and policies are being rewritten to mitigate flood risks. Efforts are lagging to ensure residents are more **informed and prepared** for future disasters.



THE FUTURE



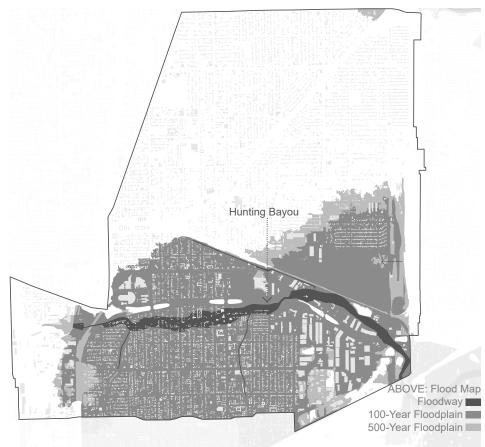
### **Kashmere Gardens and Trinity/Houston Gardens**

The Kashmere Gardens and Trinity/Houston Gardens Super Neighborhoods are located in northeast Houston, on either side of the North Loop. The two Super Neighborhoods have been combined for the purposes of this study, and will be referred to as the "Gardens" neighborhoods from here forward. The majority of the Gardens neighborhoods are located in the Hunting Bayou Watershed, with the northern portions intersecting the Halls Bayou Watershed (see map to the left).

The Harris County Flood Control District data indicates that of the 154,170 homes flooded during Harvey 48,850 were within the 100-year floodplain and 34,970 within the 500-year floodplain. While 70,370 flooded homes were not in an identified floodplain hazard area.

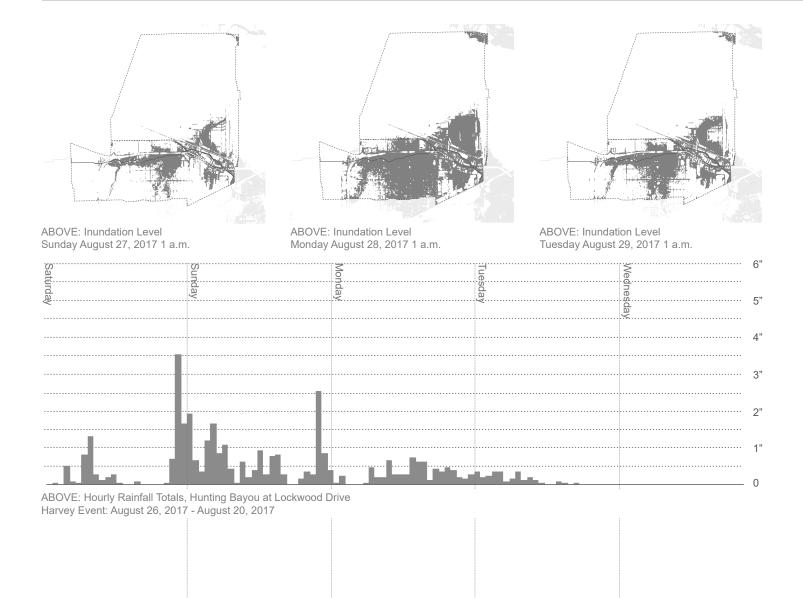
In the Gardens neighborhoods the FEMA Flood Hazard maps indicate the substantial flood risk along Hunting Bayou, with much of the Kashmere Gardens neighborhood falling in the 100-year flood plain. Flooding along Hunting Bayou has been a persistent hazard for residents, businesses and property owners. During Tropical Storm Allison in 2001, 8,270 homes in the Hunting Bayou watershed flooded. The Bayou level during Harvey was 2.2' higher than the level recorded during Allison.

Harris County Flood Control District estimates that 36% of flooded homes across the county were covered by flood insurance policies, while 64% were not.



BELOW: Kashmere Gardens, North Loop at Hunting Bayou, August 29, 2017 Photo Harris County Flood Control District





44'

40' 36'

.32'

Top of Bank

.00.

30

.2017

ABOVE: Stream Elevation, Hunting Bayou at Lockwood Drive Harvey Event: August 26, 2017 - August 30, 2017 Source: Harris County Flood Warning System

28

29

20

00

27

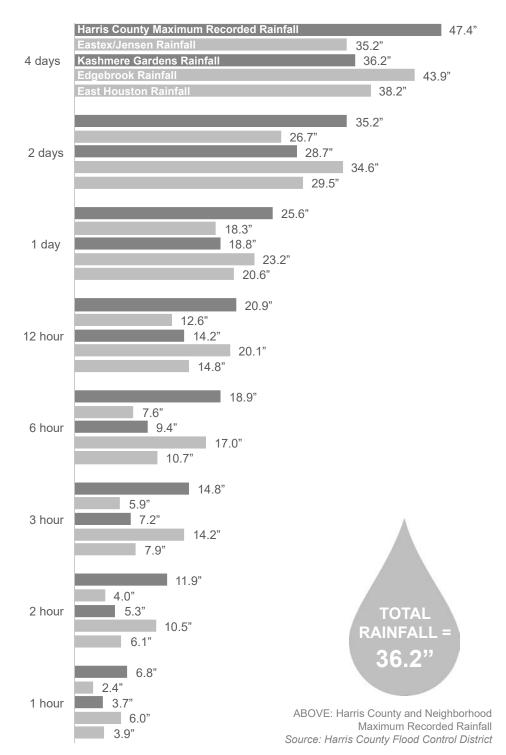
.26

The Harris County Flood Control District has compiled Hurricane Harvey rainfall data for gages across the County. The Kashmere Gardens gage, located at Hunting Bayou and Lockwood Drive, was used to identify maximum rainfall in the Gardens neighborhoods. The total rainfall over the five-day event was 36.2". The rainfall in the Gardens neighborhoods was moderate compared to the maximum rainfall amounts recorded across the County.

Yet, Hunting Bayou topped its bank in the early morning hours of Sunday August 27, 2017 and remained over the top of bank until mid-day on Tuesday August 29, 2017. The maximum stream elevation peaked at 43.6', three feet over the top of bank.

According to data from the Harris County Flood Control District, 7,420 homes were flooded in the Hunting Bayou Watershed, roughly 5% of the 154,700 estimated flooded homes county wide. The City of Houston's estimates of flood damage are much higher; the City reports that 3,672 homes in Kashmere Gardens and 3,954 in Trinity/Houston Gardens were flooded during Harvey. This estimate is above the overall number of structures flooded in the watershed according to the Harris County Flood Control District.

Based on the City of Houston estimates 79% of all homes in the Kashmere Gardens Super Neighborhood and 54% in Trinity/ Houston Gardens flooded during Hurricane Harvey.



|  | Tract<br>2308 | Tract<br>2306 | Tract<br>2304 | Tract<br>2303 | Tract<br>2302 | Tract<br>2301 | Tract<br>2109 | Tract<br>2110 | Tract<br>2112 | Tract<br>2117 |  |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|
| Socioeconomic Vulnerability                                |               |               |               |               |               |               |               |               |               |               |  |
| Persons below poverty                                      | $\bigcirc$    |               | $\bigcirc$    |               |               |               | $\bigcirc$    | $\bigcirc$    |               |               | Income and<br>poverty impact           |
| Civilian (age 16+) unemployed                              |               |               | $\bigcirc$    | $\bigcirc$    |               |               | $\bigcirc$    | $\bigcirc$    | $\bigcirc$    | $\bigcirc$    | a family's<br>capacity to              |
| Per capita income  | $\bigcirc$    |               | $\bigcirc$    |               | $\bigcirc$    |               | $\bigcirc$    |               |               |               | prepare for,<br>react to and           |
| Persons (age 25+) with no H.S. diploma                     |               | $\bigcirc$    |               |               | $\bigcirc$    | $\bigcirc$    | $\bigcirc$    |               |               |               | recover from a<br>disaster             |
| Household Vulnerability                                    |               |               |               |               |               |               |               |               |               |               | Seniors,                               |
| Persons aged 65 and older                                  | $\bigcirc$    | children and single parents            |
| Persons aged 17 and younger                                | $\bigcirc$    |               | $\bigcirc$    | are more                               |
| Civilian noninstitutionalized population with a disability |               | $\bigcirc$    |               |               |               |               |               | $\bigcirc$    |               |               | vulnerable<br>to a disaster            |
| Single parent household with children under 18             | $\bigcirc$    |               | $\bigcirc$    | $\bigcirc$    | $\bigcirc$    | $\bigcirc$    | $\bigcirc$    |               | $\bigcirc$    |               | than other<br>population<br>groups     |
| Minority Status and Language Vulnerability                 |               |               |               |               |               |               |               |               |               |               | Access to                              |
| Minority (all persons except white, non-Hispanic)          |               |               |               |               |               |               |               |               |               |               | information can<br>be a challenge      |
| Persons (age 5+) who speak English "less than well"        | $\bigcirc$    | $\bigcirc$    |               | $\bigcirc$    | $\bigcirc$    | $\bigcirc$    | $\bigcirc$    | $\bigcirc$    | $\bigcirc$    |               | for those with<br>language<br>barriers |
| Housing and Transportation Vulnerability                   |               |               |               |               |               |               |               |               |               |               |  |
| Housing in structures with 10 or more units                | $\bigcirc$    | Access to                              |
| Mobile homes estimate                                      | $\bigcirc$    | transportation<br>and quality          |
| At household level, more people than rooms                 | $\bigcirc$    |               | housing that<br>is outside of          |
| Households with no vehicle available                       | $\bigcirc$    |               | $\bigcirc$    |               | designated risk<br>zones reduces       |
| Persons in institutionalized group quarters                | $\bigcirc$    | vulnerability                          |
| Overall Social Vulnerability                               |               |               |               |               |               |               |               |               |               |               |  |
| Vulnerability ranking compared to U.S. Census Tracts       | 89%           | 97%           | 96%           | 92%           | 98%           | 98%           | 92%           | 92%           | 97%           | 99%           |  |
| (75% and over indicates social vulnerability)              |               |               |               |               |               |               |               |               |               |               |  |

ABOVE: Social Vulnerability Index Tracts in the top 10%, or at the 90th percentile (Indicate high vulnerability) Tracts below the 90th percentile Source: Social Vulnerability Index (2014), https://svi.cdc.gov/map.aspx

The Garden Neighborhoods have a very high Social Vulnerability Index, as developed by the ATDSR of the Centers for Disease Control utilizing 2014 Census data. Social vulnerability refers to the resilience of communities when confronted by external stresses on human health, including natural or human-caused disasters. The social vulnerability index is the "degree to which a community exhibits certain social conditions, including high poverty, low percentage of vehicle access, or crowded households." Each of these conditions can impact a community's ability to recover.

The Garden Super Neighborhoods include ten Census tracts: 2109, 2110, 2112, 2117, 2301, 2302, 2303, 2304, 2306 and 2308. An analysis of the specific social vulnerabilities are provided in the table to the left. All Census tracts that comprise the neighborhood are in the highest vulnerability category, averaging 95% compared to tracts across the United States.







### History

Kashmere Gardens, Trinity Gardens and Houston Gardens are bound together by rich and complex histories. The neighborhoods began developing in the 1930s, in what was then the outskirts of Houston.

Houston Gardens was completed in 1937 by the Suburban Resettlement Administration, a program established during the New Deal. The program developed "subsistence homesteads" across the United States during the height of the Great Depression. While the program was designed to help families out of poverty, it also sought to relieve congestion in cities and to provide opportunities for living on the "rurban" fringe, which was consistent with beliefs at this time in the benefits of rural life. The program focused on developing communities that would be self-sufficient, with small farms and agricultural plots as well as schools and community centers.

RIGHT: Kashmere Stage Band Photo By Stones Throw Records / Now Again BELOW, Left to Right: Historic Aerials 1944, 1978 and 2006 More than 10,000 people were "resettled" in the 200 communities developed under its tenure. The projects were primarily concentrated in the South, where farm tenancy, sharecropping, and discrimination had a significant impact on opportunity. Houston Gardens, the only subsistence homestead community in the Houston area, was originally platted into 100 lots. The area has a striking street layout-a large oval parceled on its ends into pie-shaped plots. Nearly every lot is more than an acre; parks ring the edges and the center of the community. Even today this unique plan is easy to spot on a Houston map.

By the 1940s Kashmere, Trinity and Houston Gardens all had well established schools and other civic institutions. These institutions were, and continue to be, the center of civic and political life.

The Kashmere Gardens neighborhood led the Houston fight

for integration of area schools. The first black student to attend an all white school in the city was enrolled at Kashmere Elementary School in 1960, Tyronne Day. In this era the neighborhood changed substantially. In 1950, Census data reports that the area was predominantly white, at 83%. Just ten years later, in 1960, the majority of the neighborhood's population was black, at 71%.

Kashmere High School, which serves the entire area, opened in 1957. In 1965 hundreds of students boycotted classes to protest against ongoing segregation in Houston schools. In the 1970s the high school rose to fame when the band director, Conrad Johnson, established the Kashmere Stage Band. The legacy of the Stage Band was documented in the film "Thunder Soul" produced by Jamie Foxx and released in 2010.

Kashmere Gardens was also home to a number of important political figures, including Mickey Leeland. The political and social activism in the neighborhood continues today.

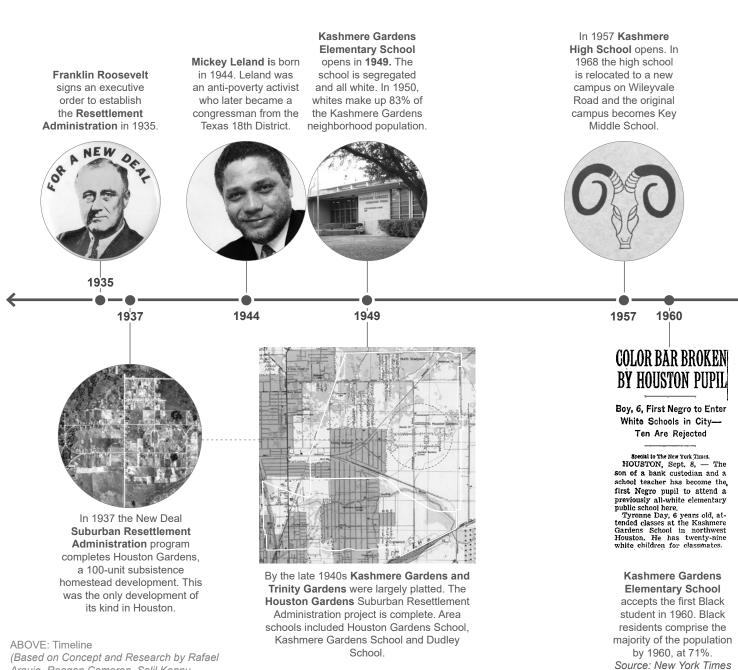


1944

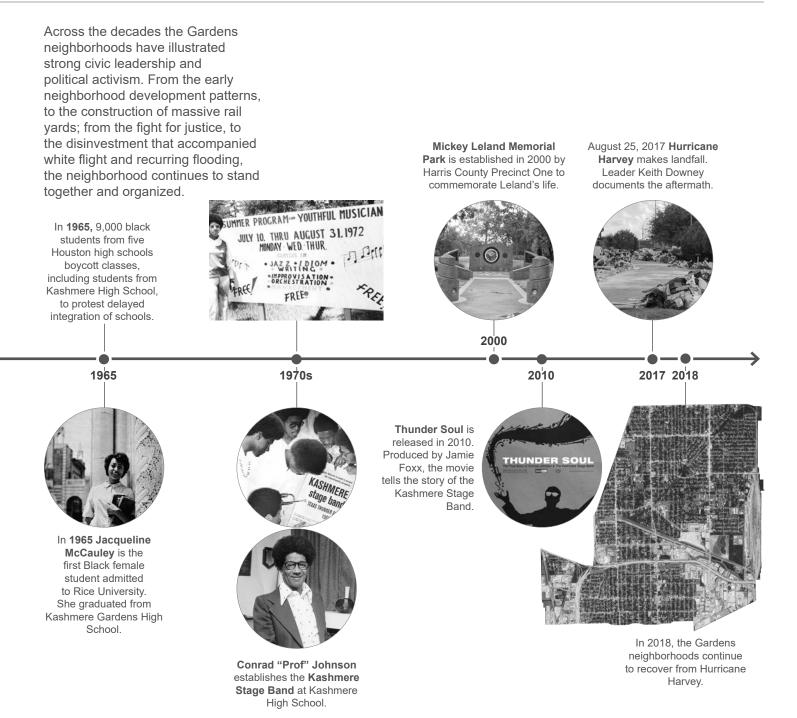


1978





Araujo, Reagan Cameron, Salil Kenny, Catalina Morales)





### Context

The Kashmere Gardens and Trinity/Houston Gardens Super Neighborhoods (Gardens) are located northeast of Downtown Houston. The combined neighborhood boundaries are approximately I-69 to the west, Tidwell Road to the north, the Settegast Rail Yard to the east, and Collingsworth Street and the Englewood Rail Yard to the south.

The neighborhood began developing in the 1930s and continued over the following decades. Two major rail yards define the boundaries of the neighborhood and also act as barriers. Additional rail lines weave throughout the neighborhood.

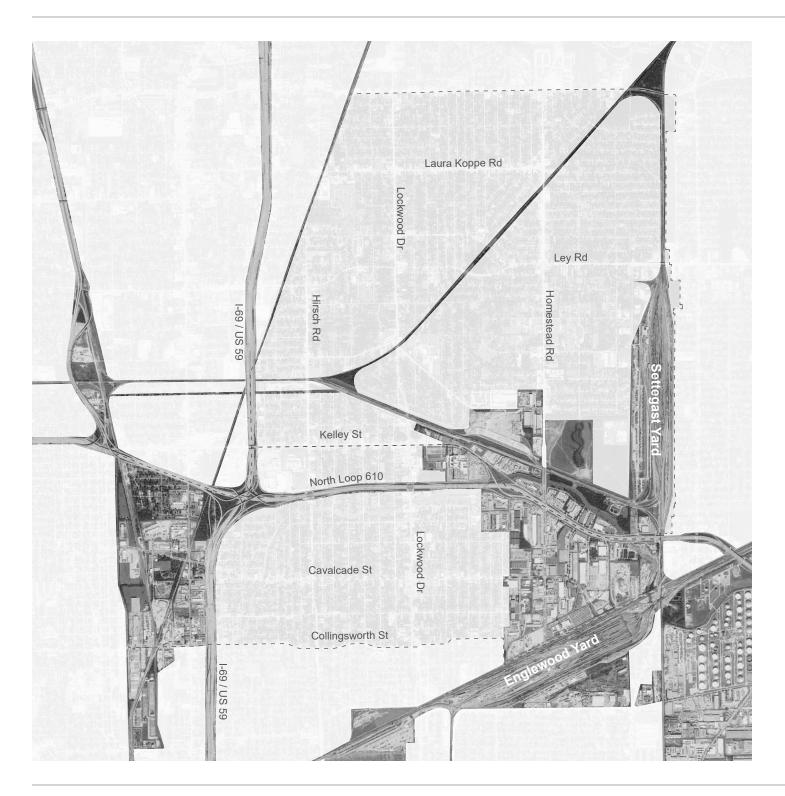
Hunting Bayou runs along the boundary between the Kashmere Gardens Super Neighborhood and Trinity/Houston Gardens, roughly parallel to the North Loop.

RIGHT: Figure Ground Map BELOW, Left to Right: North Loop During Tropical Storm Allison, 2001; Kashmere Gardens After Hurricane Harvey, 2017 OPPOSITE PAGE, Left: Aerial 2017 (Photos by Keith Downey and Marcus Yam, Los Angeles Times)









The Gardens neighborhoods are segmented by major infrastructure corridors and industrial development. Infrastructure corridors include two major rail yards-the Settegast Yards and the Englewood Yards-that define the eastern and southern boundary of the neighborhoods. A smaller rail yard sits in the center of the neighborhood just west of Homestead Road and north of Kelley Street. In addition two major rail lines traverse the neighborhood, converging near Hirsch Road and Bennington Street. The rail lines act as both barriers and as levies, significantly impacting drainage, particularly along Hunting Bayou.

Additionally, the Eastex Freeway, or I-69, bounds the western side of the neighborhood and the North Loop runs east to west in the southern quadrant, bisecting the neighborhood. The freeways are major boundaries in the neighborhood.

Finally, industrial land uses occupy areas adjacent to the rail yards in the southeast portion of the neighborhood, further limiting connectivity. The neighborhood of Kashmere Gardens is bounded on both the east and west by industrial land uses. Combined, the boundaries and barriers create a divided community, with many streets that dead end into the infrastructure corridors.

ABOVE, Right: Street Pattern Map RIGHT: Union Pacific Englewood Yard, Southeast of Kashmere Gardens OPPOSITE PAGE, Left: Map of Infrastructure Corridors and Industrial Land Uses





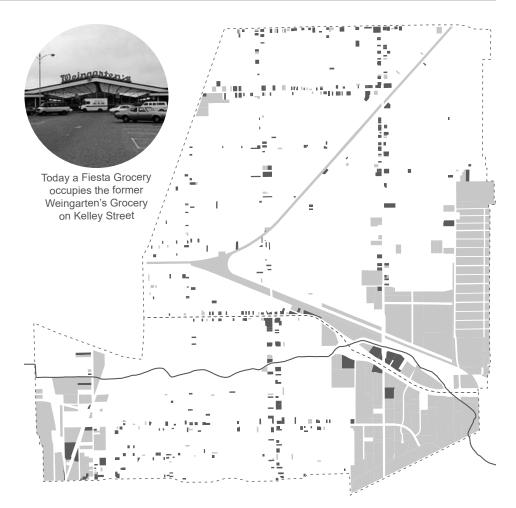




The major commercial corridor in Kashmere Gardens is Lockwood Drive and Kelley Street. In Trinity/ Houston Gardens the major commercial corridors are Homestead Road, Laura Koppe Road and Tidwell Road. The commercial development is sparse compared to the population of the area, and many businesses are small local shops. There is only one major grocery store in the community, Fiesta Mart on Kelley Street near Lockwood Drive. The building is a former Weingarten's Grocery.

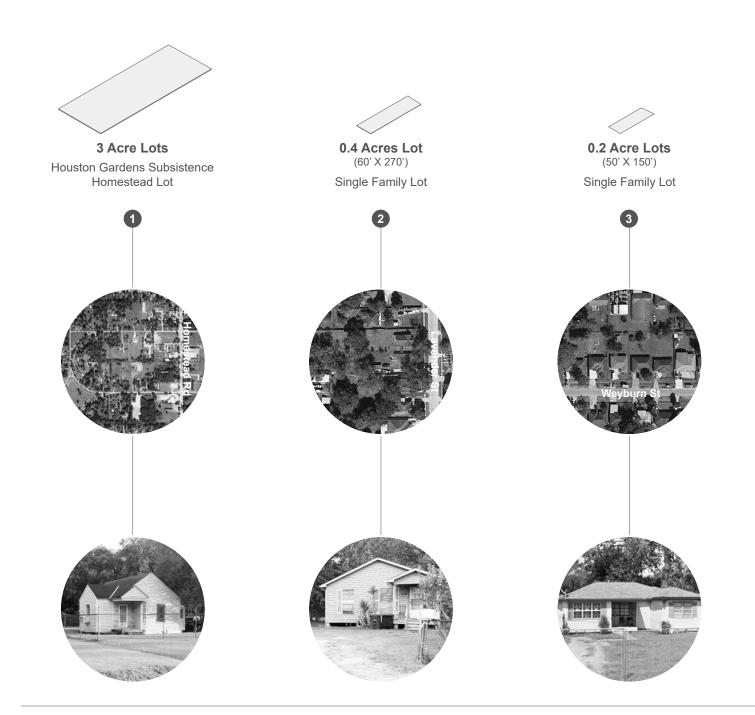
Large swathes of industrial land uses comprise the southeastern portion of the Gardens neighborhood. Industrial land uses include warehousing, railroad yards and other transportation uses.

Vacant and undeveloped land is scattered throughout the Gardens neighborhoods. Vacant land can be both an opportunity and a constraint, providing sites for new development but also encouraging nuisances such as illegal dumping.





ABOVE, Right: Commercial and Industrial Land Use Commercial Land Use Industrial Land Use RIGHT: Fiesta Grocery Store at Lockwood Dr and Kelley St OPPOSITE PAGE, Top: Vacant and Undeveloped Land Vacant Land OPPOSITE PAGE, Bottom: Englewood Rail Yard



The Gardens neighborhoods are characterized by a diversity of housing typologies and development patterns. Vacant lots are scattered throughout most of the residential areas, leaving gaps in the fabric of the community.

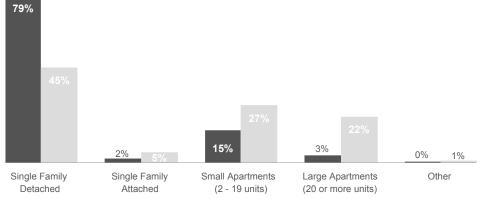
In 2016, single family homes made up 79% of all housing units, compared to 45% in Houston. Large apartments comprised just 3% of all housing in the neighborhood, compared to 22% in Houston. In the Gardens, small apartment buildings made up 15% of area housing.

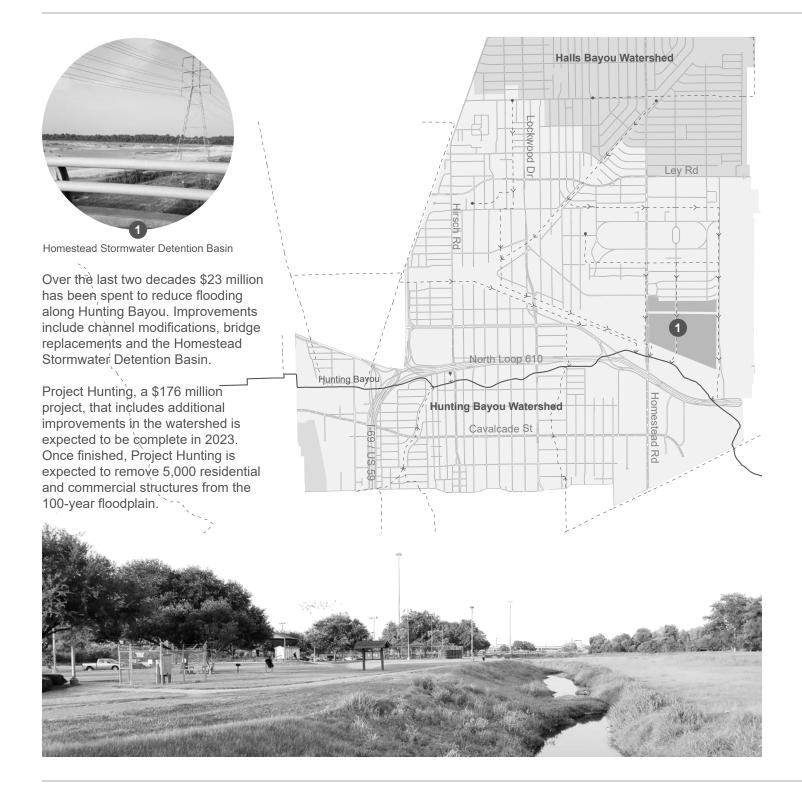
The median year that housing was constructed ranges from the late 1950s to the late 1960s. Although there is historic housing that dates back to the 1930s.

The housing lots are comparatively larger in the Gardens neighborhoods than the typical Houston lot, which measures 50' by 100'. Houston Gardens' historic homestead lots are approximately three-acres in size, enough area for large gardens or farming. The large lots provide opportunities to explore accessory dwelling units or other innovative strategies to increase affordable housing and overall resiliency in the neighborhood.

ABOVE, Right: Residential Land Use Map Single Family Multi-Family RIGHT: Housing by Type 2016 The Gardens Super Neighborhoods Houston OPPOSITE PAGE: Residential Lots Scale Source: ACS 2016







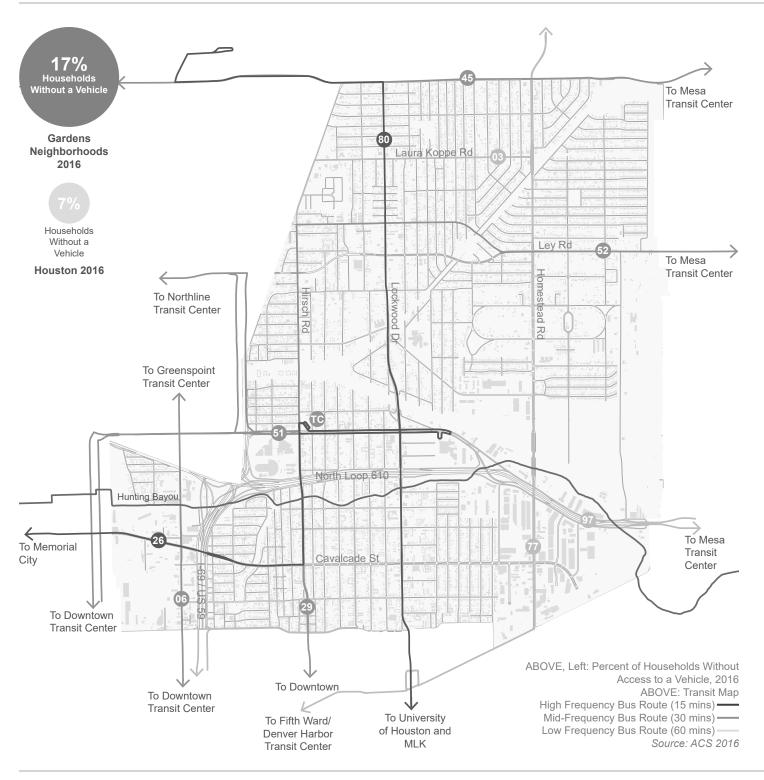
The Gardens neighborhoods have 14 public parks. Two area parks are operated by Harris County and the remainder by the City of Houston. While there are a large number of parks, five of the parks are very small, measuring less than one acre.

The City of Houston's 2015 Parks and Recreation Master Plan recommended 2.5 acres of neighborhood, community and pocket parks per 1,000 people. Based on this standard the Gardens neighborhoods has a 33-acre park deficit. Over 25% of area households live more than a 10-minute walk to a park.

Hunting Bayou, which begins just west of Kashmere Gardens, bisects the community and connects south to the Houston Ship Channel. While portions of the neighborhood are in the Halls Bayou Watershed, the majority of the area drains to Hunting Bayou. There are 45 miles of open waterways in the watershed, including Hunting Bayou and its major tributaries, such as Turkey Run and Schramm Gullies. The 75-acre Homestead Stormwater Detention Basin is complete through two of three phases. Upon completion the basin will hold approximately 300 million gallons of stormwater that would otherwise flood houses and businesses along Hunting Bayou.

ABOVE, Right: Park Map 1/4 Mile Radius 1/2 Mile Radius RIGHT: Recommended Park Area OPPOSITE PAGE, Top: Map of Bayous and Drainage Easements OPPOSITE PAGE, Bottom: Hunting Bayou Image at Hutcheson Park





The Gardens neighborhoods are well-served by public transportation. There are ten bus routes serving the community, three are high frequency routes running every 15 minutes, four are mid-frequency routes running every 30 minutes, and three are 60 minute routes. The routes with the highest ridership are the 80 MLK/ Lockwood, 45 Tidwell and 26 Long Point/Calvacade. Each of these routes runs every 15 minutes or less.

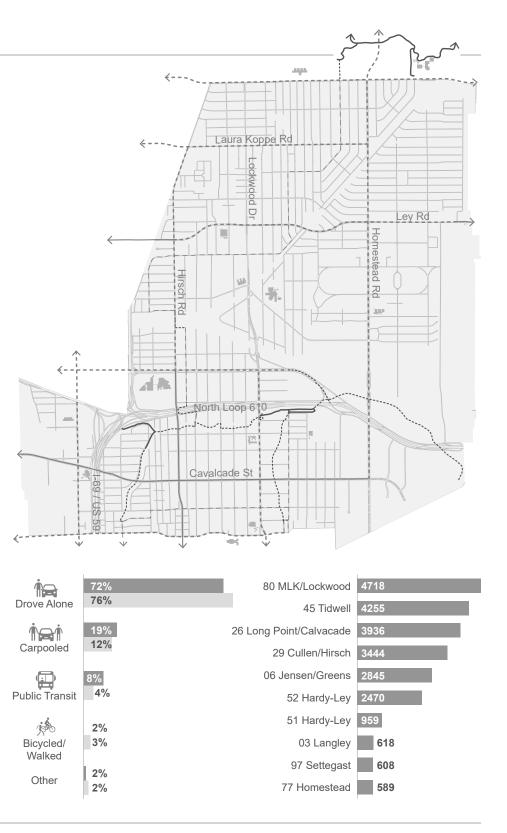
In 2016, 72% of the Gardens' workers over the age of 16 drove alone to work, which is lower than 76% in Houston overall. Furthermore, 8% of the Gardens' workers used public transportation, which is twice as high Houston. Public transportation is important to residents in the Gardens neighborhoods as 17% of households did not have a vehicle in 2016, compared to 7% in Houston.

Two existing bike trails serve the neighborhood, both are located alongside Hunting Bayou at Hutcheson Park and at the Hunting Bayou Hike and Bike Trail. The Houston Bike Plan proposes a series of future bike lanes and routes inside the neighborhood, that once complete will create better connectivity.

ABOVE, Right: Existing and Proposed Bike Lanes and Bayou Greenways

- Existing On-Street
  Existing Bayou Greenway
- - Proposed Shared On-Street
- ····· Future Bayou Greenway
- Schools
- RIGHT: Means of Transportation to Work, 2016 and Bus Route Ridership, 2017
- Garden Neighborhoods
- Houston

Source: ACS 2016, METRO Ridership 2017



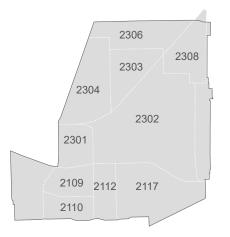
|  |          | Kashmere Gardens<br>Trinity/Houston Gardens |          |           | Houston   |           |  |  |
|--|----------|---|----------|-----------|-----------|-----------|--|--|
|  | 2000     | 2010  | 2016     | 2000      | 2010      | 2016      |  |  |
| Total Population                           | 31,052   | 27,645                                      | 26,502   | 1,953,631 | 2,068,026 | 2,240,582 |  |  |
|  |          | -11%  | -4%      |           | 6%        | 8%        |  |  |
| Population Density (per Sq Mile)           | 3,069    | 2,722                                       | 2,610    | 3,372     | 3,449     | 3,737     |  |  |
| Race/Ethnicity                             |          |   |          |           |           |           |  |  |
| White                                      | 1%       | 2%  | 1%       | 31%       | 26%       | 26%       |  |  |
| Black or African American                  | 80%      | 75%   | 64%      | 25%       | 23%       | 23%       |  |  |
| Asian                                      | 0.2%     | 1%  | 0%       | 5%        | 6%        | 6%        |  |  |
| Hispanic or Latino                         | 17%      | 22%   | 34%      | 37%       | 44%       | 44%       |  |  |
| Other                                      | 1%       | 0%  | 1%       | 2%        | 2         | 1%        |  |  |
| Age  |          |   |          |           |           |           |  |  |
| 17 Years or Younger                        | 28%      | 24%   | 24%      | 28%       | 26%       | 25%       |  |  |
| 18 - 64 Years Old                          | 57%      | 62%   | 62%      | 64%       | 65%       | 65%       |  |  |
| 65 Years or Older                          | 14%      | 14%   | 15%      | 8%        | 9%        | 10%       |  |  |
| Place of Birth                             |          |   |          |           |           |           |  |  |
| Foreign Born Residents                     | 8%       | 11%   | 15%      | 26%       | 29%       | 26%       |  |  |
| leans of Transportation to Work            |          |   |          |           |           |           |  |  |
| Drove Alone                                | 61%      | 68%   | 72%      | 72%       | 74%       | 76%       |  |  |
| Carpooled                                  | 18%      | 15%   | 14%      | 16%       | 14%       | 12%       |  |  |
| Public Transportation                      | 15%      | 10%   | 8%       | 6%        | 5%        | 4%        |  |  |
| Bicycled and Walked                        | 3%       | 2%  | 2%       | 3%        | 3%        | 3%        |  |  |
| Dther                                      | 1%       | 2%  | 1%       | 1%        | 2%        | 2%        |  |  |
| Educational Attainment 25 Years +          |          |   |          |           |           |           |  |  |
| ess Than High School                       | 46%      | 36%   | 32%      | 30%       | 26%       | 23%       |  |  |
| High School Graduate (includes equivalent) | 31%      | 39%   | 35%      | 20%       | 23%       | 23%       |  |  |
| Some college                               | 17%      | 19%   | 25%      | 23%       | 23%       | 24%       |  |  |
| Bachelor's degree                          | 3%       | 5%  | 6%       | 17%       | 18%       | 19%       |  |  |
| /laster's degree                           | 2%       | 2%  | 2%       | 6%        | 7%        | 8%        |  |  |
| Other Professional School Degree           | 1%       | 1%  | 0%       | 4%        | 4%        | 4%        |  |  |
| /ledian Household Income                   | \$18,651 | \$25,299                                    | \$27,409 | \$36,616  | \$44,124  | \$47,010  |  |  |
| Percent of Houston's Median                | 50%      | 57%   | 58%      |           |           |           |  |  |
| Percent of Population Below Poverty        | 31%      | 27%   | 25%      | 19%       | 18%       | 19%       |  |  |
| lousing Units                              | 12,243   | 12,183                                      | 11,952   | 782,009   | 889,489   | 937,245   |  |  |
| Occupied                                   | 89%      | 82%   | 82%      | 92%       | 86%       | 89%       |  |  |
| /acant Housing Units                       | 11%      | 18%   | 18%      | 8%        | 14%       | 11%       |  |  |
| Fenure                                     |          |   | E 10/    | 400/      |           |           |  |  |
| Percent Owners                             | 54%      | 57%   | 51%      | 46%       | 45%       | 43%       |  |  |
| Percent Renters                            | 46%      | 42%   | 49%      | 54%       | 55%       | 57%       |  |  |
| louseholds without access to a vehicle     | 9%       | 18%   | 17%      | 12%       | 10%       | 9%        |  |  |
| Persons per Household                      | 2.5      | 2.3   | 2.2      | 2.7       | 2.7       | 2.7       |  |  |
| Sources: Census 2000, ACS 2010, ACS 2016   |          |   |          |           |           |           |  |  |

### **Demographics**

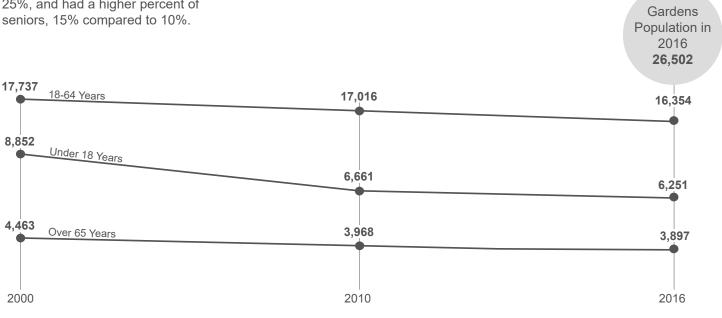
The Gardens neighborhood, comprised of the Kashmere Gardens and Trinity/Houston Gardens Super Neighborhoods, encompasses over ten square miles and was home to 26,502 people in 2016. The population density is 2,610 people per square mile, which is considerably lower than the Houston average density of 3,737 people per square mile.

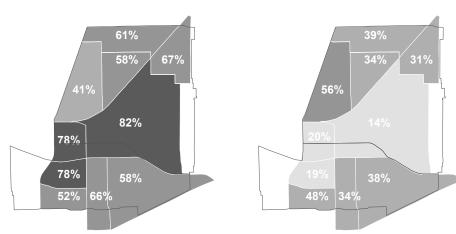
Between 2000 and 2016 the population of the Gardens declined from 31,052 to 26,502 people, a 15% loss. In contrast, the City of Houston grew in population by 14% over the same time period.

Since 2000, the number of residents in every age group, from children, to adults, to seniors has declined. In 2016, the Gardens had a lower percentage of children under the age of 18 than Houston overall, 24% of the total population compared to 25%, and had a higher percent of seniors, 15% compared to 10%.



ABOVE: Gardens Census Tract Map BELOW: Population by Age, 2000-2016 Sources: ACS 2000, 2010, 2016





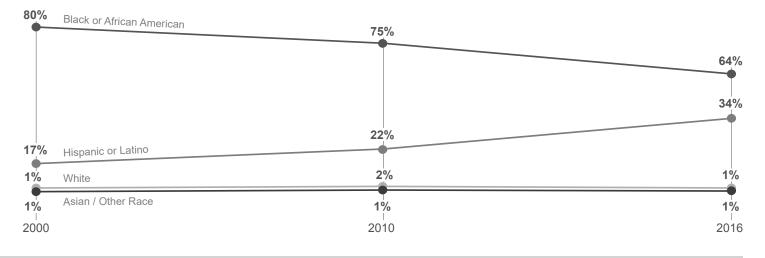
Percent Black/African American Population, 2016 Percent Hispanic/Latino Population, 2016



Over the decades the demographics of the Gardens neighborhoods have changed. In 1950, the Kashmere Gardens neighborhood was 83% White. By 1970, the neighborhood was 88% Black or African American. In more recent years, the Hispanic or Latino population has increased in the Gardens neighborhoods, rising from 17% in 2000 to 34% in 2016. The growing Hispanic population is reflected in demographic change across Houston.

In 2016, the majority population group in the Gardens was Black or African American, at 64%. In the same year, 15% of the neighborhood's population was born outside of the United States, much lower than the 29% in Houston overall.

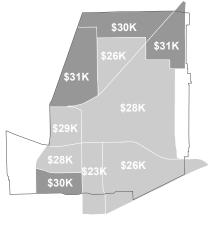
BELOW: Percent Population by Race and Ethnicity, 2000-2016 OPPOSITE PAGE, Bottom: Kashmere Gardens Community Picnic Photo by Keith Downey Sources: Census 2000, ACS 2010, ACS 2016





In 2016, the median household income in the Gardens neighborhoods was \$27,409, compared to \$47,010 in Houston. Median household income remains very similar across Census Tracts in the neighborhood.

In 2016, 25% of families in the Gardens neighborhoods had incomes below the federal poverty level. The percent of families living below poverty has declined since 2000, when 31% of families lived

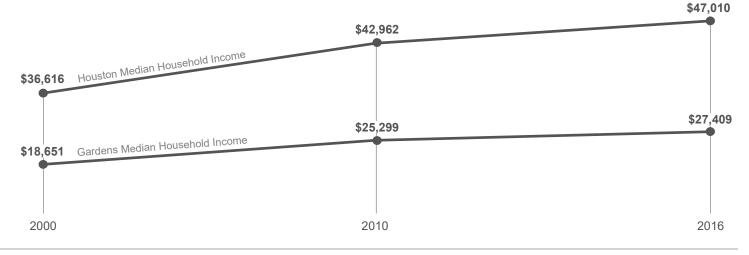


Median Household Income, 2016

below poverty. However, in 2016 the poverty level was still 6% higher than Houston overall, which had a poverty rate of 19%.

Children are the most vulnerable population group in the Gardens neighborhood. Poverty rates for residents under the age of 18 in 2016 was 41%, much higher than Houston overall where 34% of children lived below poverty. Critically, 54% of the children living in Census Tract 2302 in Kashmere Gardens and 68% living in Census Tract 2301 in Trinity/ Houston Gardens were living below the poverty level in 2016.

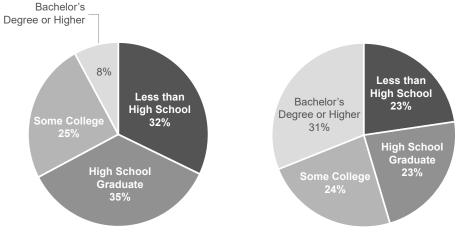
BELOW: Median Household Income Over Time, Houston and Gardens Super Neighborhoods OPPOSITE PAGE, Bottom: Poverty Level Over Time by Age Group Sources: Census 2000, ACS 2010, ACS 2016



Educational attainment in the Gardens neighborhoods has improved substantially since 2000 when 46% of residents over the age of 25 had not completed high school. By 2016, the percent of residents without a high school degree was reduced to 35%, a number still much higher than 23% in Houston overall. In 2016, 25% of Gardens residents over 25 had some college education and 8% had a bachelor's degree or higher.

An important neighborhood education resource, the McCrane-Kashmere Gardens Neighborhood Library, was flood during Harvey. The library has been temporarily housed at the Kashmere Multi-Service Center for nearly a year.

RIGHT: Educational Attainment (25 Years +) Gardens Neighborhoods and Houston, 2016 BELOW, Left to Right: St. Francis Assisi Campus Flood (*Photo by St. Francis Assisi Houston*), Kashmere High School OPPOSITE PAGE, Top: School Map OPPOSITE PAGE, Bottom: Children at Risk Rankings for Area Schools Sources: ACS 2016, Children at Risk



Gardens 2016

Houston 2016

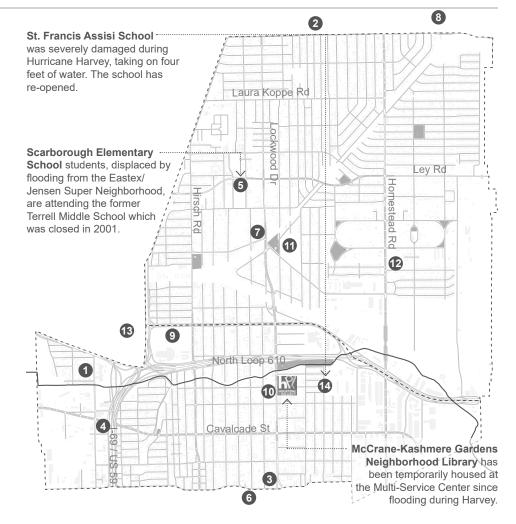




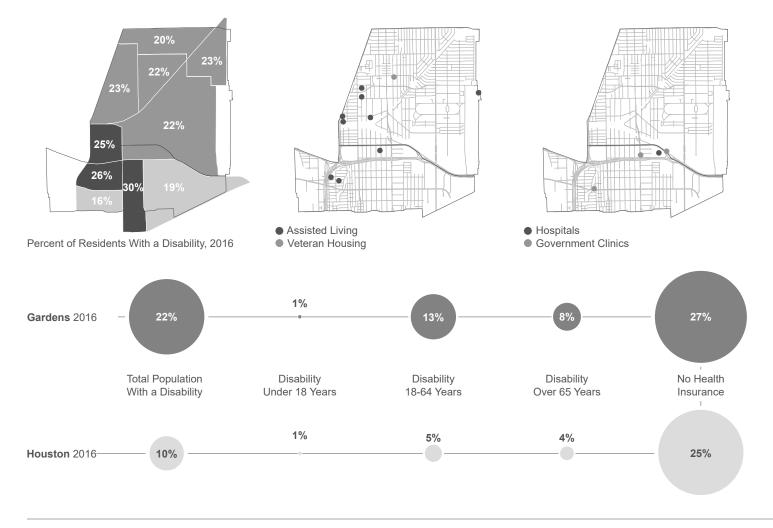
The Gardens neighborhoods are served by eleven public schools, one parochial school and one charter schools. According to the 2018 Children at Risk School Rankings, six out of the twelve schools evaluated in the area have a failing grade. All other schools received grades between a C+ and a D.

In addition, six of the fourteen area schools are located in a 100-year floodplain. St. Francis Assisi Catholic School was significantly damaged by flooding during Hurricane Harvey. The parish and school, which serves a vibrant African-American Catholic community, saw at least four feet of water across the campus. The school has re-opened but suffered losses of materials and equipment.

Students displaced from the nearby Scarborough Elementary School in the Eastex/Jensen Super Neighborhood due to flooding from Harvey are attending classes at the former Terrell Middle School, which was closed by HISD in 2001.



| 1 Yes Prep Northside                   | D                                       | C    | C+   |
|--|---|------|------|
| 2 Shadydale Elementary School –        | D+                                      | D+   | C-   |
| 3 Isaacs Elementary School –           | C                                       | D    | C-   |
| 4 Ross Elementary School –             | —— F ———                                | F    | C-   |
| 5 Scarborough Elementary School –      | C                                       | C    | D    |
| 6 Fleming Middle School –              | F                                       | D    | D    |
| Felix Cook Junior Elementary School —  | D                                       | F    | F    |
| 8 Forest Brook Middle School -         | — F — — — — — — — — — — — — — — — — — — | F    | F    |
| 9 Francis Scott Key Middle School –    | —— F ———                                | F    | F    |
| 🔟 Kashmere Gardens Elementary School – | — F — — — — — — — — — — — — — — — — — — | F    | F    |
| Kashmere High School –                 | —— F ———                                | F    | F    |
| McGowen Elementary School              | — F — — — — — — — — — — — — — — — — — — | F    | F    |
| 🔞 Barbara Jordan High School 🦳 🚽       | NA                                      | NA   | NA   |
| 🚯 St Francis of Assisi School —        | NA                                      | NA   | NA   |
|  | 2016                                    | 2017 | 2018 |



In the Gardens neighborhoods, residents with a disability made up 22% of the population in 2016, more than double the percent in Houston overall, which is 10%. Furthermore, 13% of residents between 18 and 64 years of age had a disability, which is substantially higher than the 5% in Houston. The Gardens neighborhood has numerous assisted living facilities and other services, for both seniors and those who are disabled. The number of residents who are disabled leads to greater vulnerability, particularly during a disaster.

In 2016, 27% of the neighborhoods' residents did not have health insurance, which is similar to the 25% in Houston overall.

According to the USDA's Food Desert Atlas, five out of the ten Census tracts in the Gardens neighborhood are classified as food deserts, Census tracts with a low income population and more than one mile from a grocery store. The only major grocery store in the area is Fiesta, located at the intersection of Lockwood Drive and Kelley Street. There are nine Houston Foodbank pantries inside the neighborhood. Pantries reduce food insecurity in vulnerable neighborhoods.

ABOVE: Food Stores and Food Deserts

Food Desert (USDA)
 Grocery Stores
 Small Markets
 Convenience Stores
 Food Pantries
 RIGHT: Lyndon B. Johnson Hospital
 OPPOSITE PAGE, Bottom Left: Residents with
 Disabilities by Age and Health Insurance, 2016
 Sources: USDA Food Desert Atlas, Houston
 Foodbank, ACS 2016







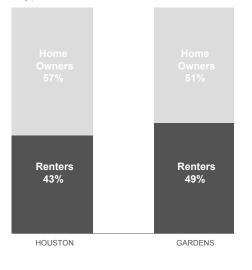
Between 2000 and 2016, the number of housing units in the Gardens neighborhood declined by 2%, dropping from 12,243 in 2000 to 11,952 in 2016. Over the same time period, the percent of vacant units in the neighborhood increased from 11% in 2000 to 18% in 2016.

In 2016, 35% of households in the Gardens were occupied by a single person. Furthermore, 14% of households were seniors, over the age of 65 years, living alone. The combined impact of seniors living alone, a large number of

RIGHT: Percent Home Owners, Persons Per Household, Percent Vacant Units, and Total Housing Units Over Time BELOW: Tenure, 2016 OPPOSITE PAGE, Left: Inundation Map Legend HCFCD Estimated Inundation

- Housing Parcel
- Building Footprint

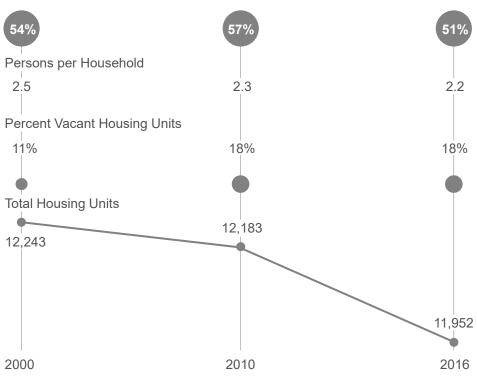
Sources: Census 2000, ACS 2010, ACS 2016, Harris County Flood Control District Inundation Map, HCAD



vacant housing units, high poverty rates for children, and a large number of disabled residents, is a community that was vulnerable even before a disaster. Yet, the Gardens neighborhood was one of the hardest hit by flooding and damages from Hurricane Harvey.

The City of Houston estimates that 7,726 homes, or 64% of all homes, in the Gardens neighborhood were damaged by flooding due to Hurricane Harvey. Harris County Flood Control District has purchased 94 properties along Hunting Bayou for flood mitigation projects and to prevent recurring damages. Additional properties are targeted for buyouts in the future.

A primary challenge for homeowners in the Gardens neighborhood is the value of housing. The median value of homes in ZIP Code 77026, which includes Kashmere Gardens, was \$85,200 in 2018 according to Zillow. While the median value of a home in Houston is \$178,300. Homeowners would find it difficult to find an affordable home to purchase in Houston.



Percent Owners



# **Opportunities**

At the time of publication it has been nearly a year since Hurricane Harvey began dumping rain at unprecedented rates and flooding much of Houston. City leaders report that over 150,000 homes were damaged by flood waters across the city. Lives, routines and resources were disrupted.

Important questions are being asked about how do we prepare for, react to and recover from disasters of this magnitude, both now and in the future? Furthermore, what can we do collectively to identify the opportunities and challenges in our communities? It is critical to identify opportunities, across scales, that have the potential to reduce future risks, assist with recovery and lead to greater resiliency over time. By building on the assets of our communities, while understanding the challenges, we can develop strategies that create greater resiliency.

The Gardens Super Neighborhoods, are bounded on the west and south by two expansive railroad yards the Settegast Yard and Englewood Yard—and bisected by Hunting Bayou. Much of the Kashmere Gardens neighborhood is in the 100-year flood plain. Project Hunting, a Harris County Flood Control District mitigation project, could have transformative effects, removing 5,000 structures from the floodplain.

The opportunities identified here seek to mitigate flooding risks, expand economic opportunity, and improve community amenities, all while looking forward to more resilient housing and neighborhood models. The opportunities build on the civic strength of the historic African American neighborhoods, platted with large lots and well connected by transit.



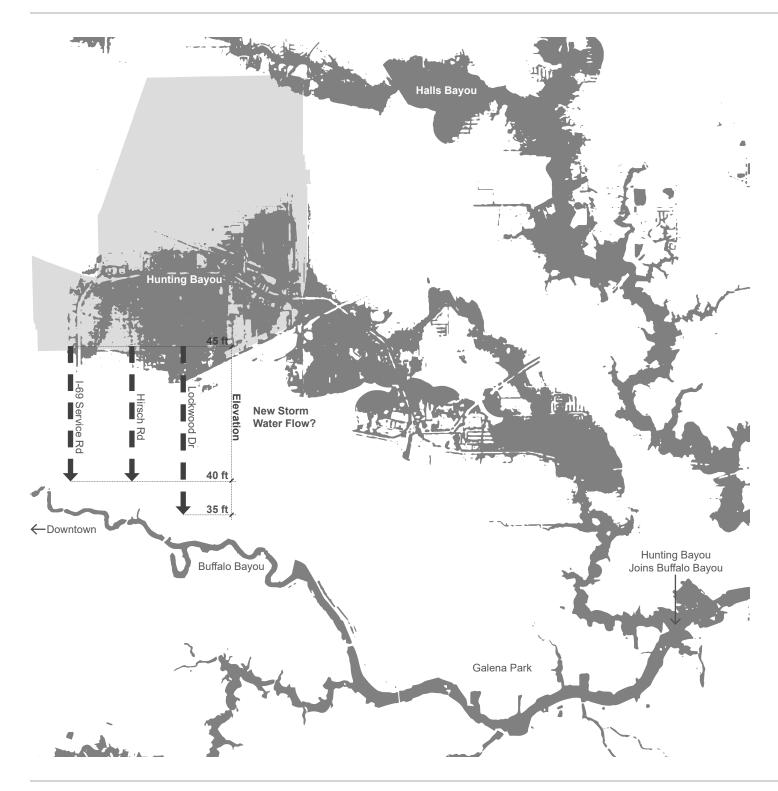
NEIGHBORHOOD SCALE



**BLOCK SCALE** 



**BUILDING SCALE** 



## Neighborhood Resiliency

In the Gardens neighborhoods the main flooding during Hurricane Harvey occurred along Hunting Bayou, west of both the Settegast and Englewood rail yards. Currently, storm water flows southeast along Hunting Bayou until its confluence with the Houston Ship Channel and Buffalo Bayou just east of Galena Park. Buffalo Bayou did not have significant flooding between Downtown and Galena Park.

There is an opportunity to connect the Kashmere Gardens section of Hunting Bayou to Buffalo Bayou through channels or underground storm drains. The elevation of Kashmere Gardens is 45 feet, but declines moving south, reaching 35 feet just north of Buffalo Bayou.

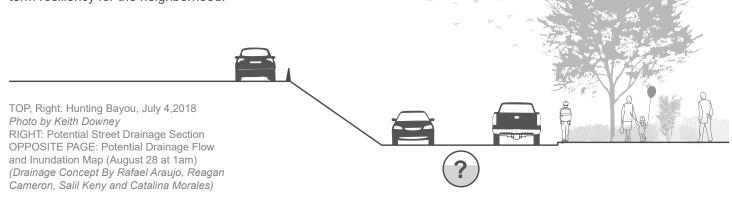
There are major thoroughfares that have the width to support more drainage infrastructure, including Lockwood Drive, Hirsch Road, and the Eastex Freeway Service Road. Re-routing storm water flow could help alleviate the flooding along Hunting Bayou and increase long term resiliency for the neighborhood.

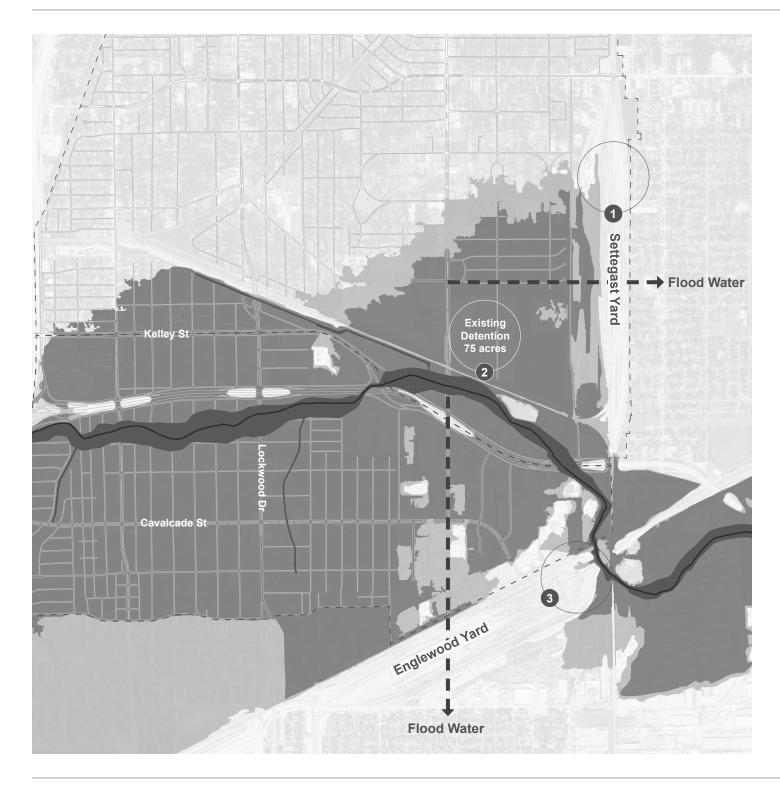


Hunting Bayou



Current Storm Water Flow





## Neighborhood Resiliency: Rail Yards

The Settegast and Englewood rail yards define the eastern and southern boundaries of the Gardens neighborhood. The massive infrastructure of the rail yards act as levies, damming the flow of storm water across their boundaries. This obstruction of drainage is clearly visible in the sharp boundary of the floodplain between the east and west, and north and south (see floodplain map to the left). Over the last two decades \$23 million has been spent on channel modifications, bridge replacements and the Homestead Stormwater Detention Basin to reduce flooding along Hunting Bayou. An additional \$176 million is being requested through the Harris County bond election for future improvements. The proposed improvements are expected to remove 5,000 residential and commercial structures from the 100-year floodplain. Exploring how the rail yards could assist in mitigating flooding, instead of adding to this hazard, could create greater neighborhood resiliency. This could include alleviating the levy quality of the rail yards while also exploring the sites as additional detention.

BELOW: Diagrammatic Section of Rail Yard MIDDLE: Aerial Photos OPPOSITE PAGE: Floodplain Map and Proposed Rail Yard Stormwater Detention Floodway 100-Year Floodplain 500-Year Floodplain



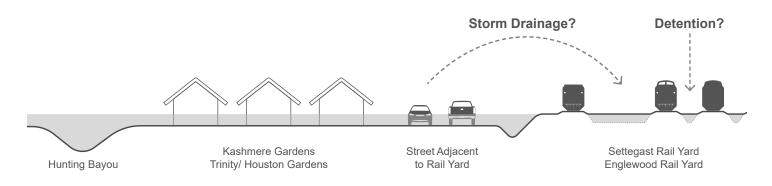
Settegast Rail Yard Condition

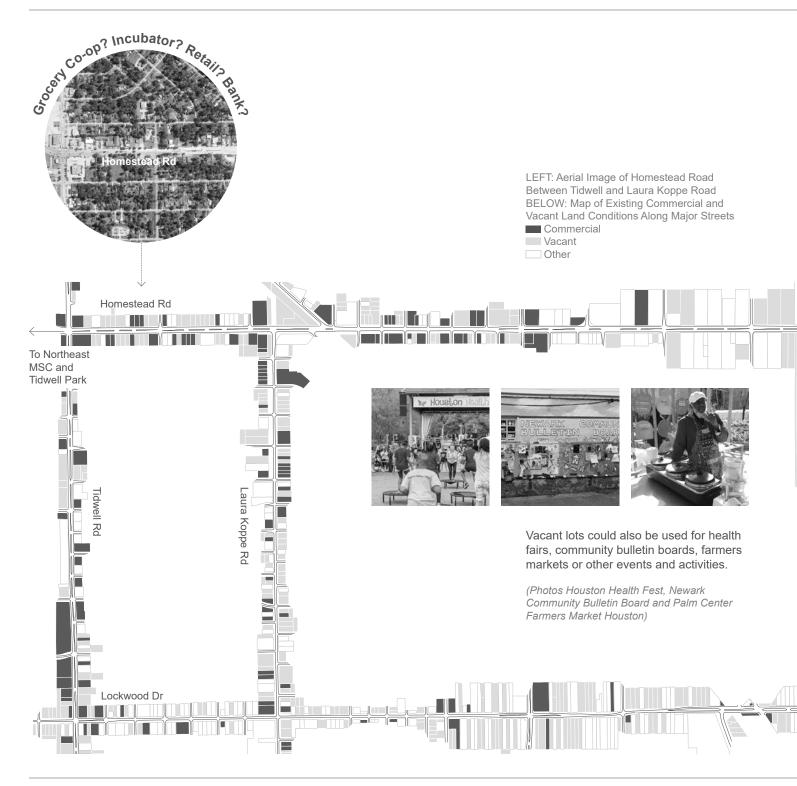


Homestead Stormwater Detention Basin



Englewood Rail Yard Condition





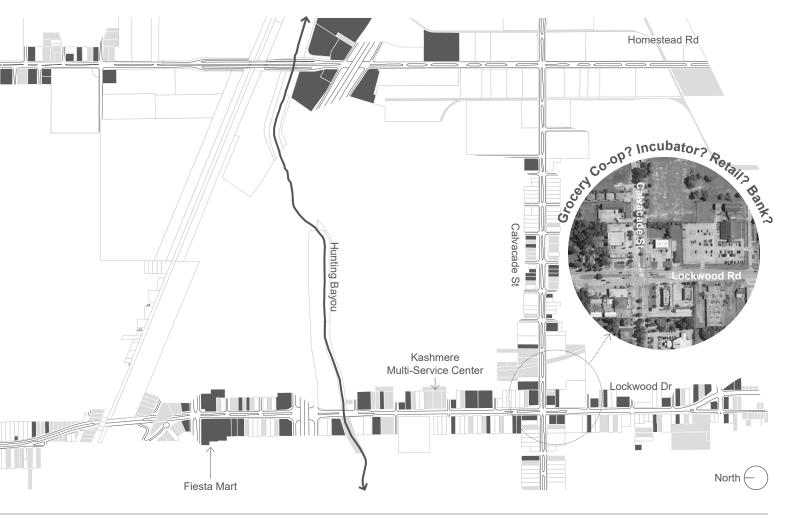
## **Economic Opportunity**

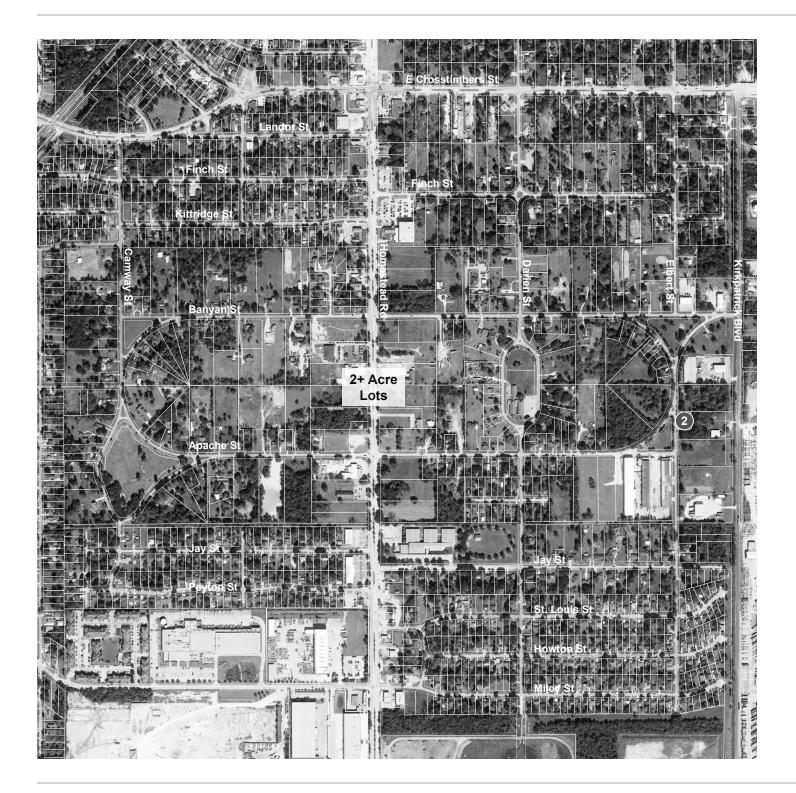
Commercial activity and economic development in the Gardens neighborhoods is extremely limited and scattered throughout the area. Nonetheless, the primary commercial corridors are Lockwood Drive and Homestead Road, followed by Tidwell Road, Laura Koppe Road and Calvacade Street.

In the Trinity/Houston Gardens area the segment of Homestead Road between Tidwell Road and Laura Koppe Road, has the potential to become a primary commercial zone. In this location, there is a balance between existing commercial land uses and vacant land, as well as two civic gathering spaces, the Northeast Multi-Service Center and Tidwell Park.

Inside the boundaries of the Kashmere Gardens neighborhood, Lockwood Drive is the major commercial corridor for the neighborhood. The Kashmere MultiService Center, located between Hunting Bayou and Calvacade Street, is a major destination in the area, as well as other civic sites and schools.

Despite the scarcity of commercial zones, the Gardens neighborhoods have an abundance of vacant lots that could be utilized as zones for local incubator programs, grocery stores, retail shops, restaurants, banks or other uses. Economic opportunity is a key element to greater resiliency.





## **Food Security**

Houston Gardens, a historic subsistence homestead community, was completed in 1937 by the Suburban Resettlement Association. The only such development in Houston, the site was originally divided into one hundred lots, ranging in size from one to three acres. The distinct site is an elongated oval, divided into pie shape pieces on the ends, and rectangular lots in the center. The unusual street pattern is still evident today.

There are currently two community gardens in the neighborhood and one grocer. The .75-acre Goffney Community Garden, sponsored by Target Hunger, is located on Cavalcade Street near the intersection with Kashmere Street. In addition, NuWaters is establishing a training farm in Houston Gardens. The NuWaters farm builds on the history and potential of the original purpose of Houston Gardens as a subsistence homestead community. If the NuWaters farm is a success, urban agriculture could again become an important part of the neighborhood. The potential overall impact could be to eliminate food insecurity and build alternative economic opportunity in the neighborhood. Combined, this would create a more resilient community.

ABOVE: Grocery Store, Food Desert and Community Gardens and Farms Map Food Desert Grocery Stores Supermarkets Convenience Stores RIGHT: Community Gardens and Farms OPPOSITE PAGE: Historic Houston Gardens (NuWaters Photo by Salvador Sosa Jr)



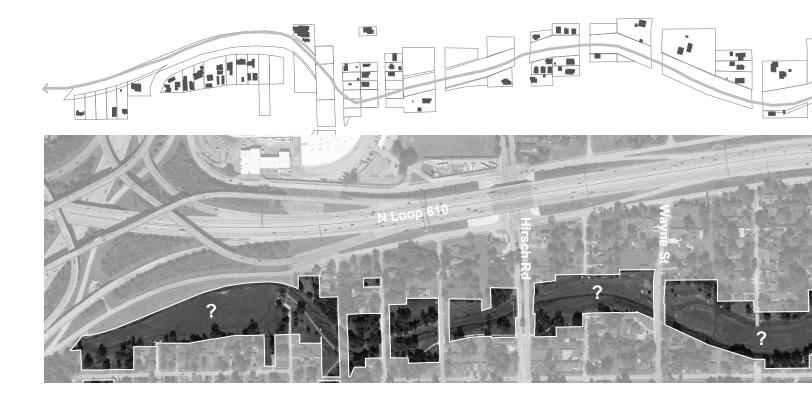


Goffney Community Garden in Kashmere Gardens



NuWaters Training Farm in Houston Gardens





### **Buyouts to Amenities**

The Harris County Flood Control District has purchased 94 properties adjacent to Hunting Bayou to make room for Project Hunting, a \$176 million flood damage reduction project. According to the Harris County Flood Control District "When this project is complete, most neighborhoods near the bayou will see water surface elevation reductions of 3-4 feet for the 1 percent (100-year) flooding event. The number of homes and businesses subject to the 1 percent (100-year) flooding event would drop from 5,100 to 650, and all homes and businesses will benefit from the reduced frequency and depth of flooding."

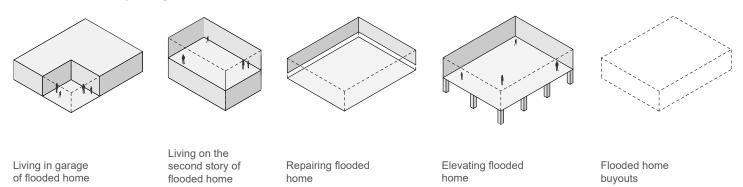
As a result of Project Hunting, and the work of other partners such as the Houston Parks Board, there are green "benches" that range in size from 30 to 300 feet, and hike and bike trails along segments of Hunting Bayou just south of the North Loop. When complete, the hike and bike trails will extend from Cavalcade Street to Lockwood Drive. In the future, the trail will extend south and east to Herman Brown Park. Additional buyouts and flood improvement projects have the potential to transform this area into a ribbon of green infrastructure, creating a sustainable and resilient community.

BELOW: HCFCD Buyouts, Hunting Bayou Parcel Owned by HCFCD Bought Out Structure BELOW: Opportunity "Benches" Along Hunting Bayou





Flooded Home Recovery Strategies



of nooded n

## **Resilient Housing**

The City of Houston estimates that 7,726 homes, or 64% of all homes, in the Gardens neighborhoods were damaged by flooding due to Hurricane Harvey.

Despite Hunting Bayou watershed experiencing flooding regularly, new housing development continues to occur. Today, there are over twenty new plats in the community.

To combat the risk of flooding and encourage resilient building, the City of Houston recently amended the floodplain ordinance, Chapter 19. The new code requires structures in the 100- and 500-year floodplains to be elevated two feet above the 500-year flood elevation.

Developing resiliency strategies for new housing, including elevating, on-site rainwater collection and detention, and other mitigation strategies could work to ensure that future flood risks are minimized, and that no negative impacts are created through new construction. In addition, evaluating the appropriate flood mitigation strategies for existing housing would protect residents. These strategies could include elevating, flood proofing, on-site detention and block level drainage ditch maintenance. Combined these strategies could help to secure the investment of families' in their homes, particularly those that are already at risk.

Ensuring greater resiliency of area housing will help to protect the wealth and stability of area families.

RIGHT: Flooded Apartments in Kashmere Gardens

BELOW: Resilient Housing Strategy OPPOSITE PAGE, Top: Gardens Aerial with New Plats (white) OPPOSITE PAGE, Bottom: Strategies for

Home Recovery Sources: City of Houston Plat Tracker, Harrel

Park Photos by Keith Downey (Resilient Housing Strategy by Constanza Peña; Strategies for Home Recovery by Rocio Alonso, Canston Fitzwater, Shoaib Nizami, John Taylor)





emergency nome unit is quickly built, and family can return to their neighborhood

FLOOD EVENT Family is Displaced



# **Participants and Sponsors**

### **Participants**

Community Design Workshop University of Houston College of Architecture + Design Student Team, Spring 2018 Rafael Araujo Reagan Cameron Salil Kenny Catalina Morales \*This document includes research prepared by students in Spring 2018

Community Design Resource Center Susan Rogers, Director Adelle Main, Assistant Director Angelica Lastra, Design Strategist Jose Mario Lopez, Design Strategist Gabriela Degetau, Research Assistant Constanza Peña, Research Assistant

Honored Guests and Critics Kinder Baumgardner Antoine Bryant Margaret Wallace Brown Amanda Burden Robert Burrow Alan Cisneros Keith Downey Dineta Frazier Niel Golightly Secunda Joseph Hiroko Kobayashi Kimberly Hatter Brandi Holmes Alex Lahti Elaine Morales Lauren Racusin Jeff Reichman Patricia Oliver Jasleen Sarai Preetal Shah Juan Antonio Sorto Christof Spieler Amanda Timm Jenifer Wagley Kenneth Williams Huey Wilson

#### **Special Thanks**

The Collaborative Community Design Initiative is supported through a generous gift from the Japan Business Association of Houston and a grant from the National Endowment for the Arts. The initiative would not be possible without the generous commitment of time from community leaders and stakeholders and professionals across Houston. We would like to thank all of our partners and supporters.

We would like to send a special thanks to Amanda Burden and Lauren Racusin of Bloomberg Associates and to Keith Downey for sharing his photographs of Harvey's impact on Kashmere Gardens.



