



Memorial Drive Bicycle & Pedestrian Study

October 2025

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Executive Summary

Executive Summary

The Memorial Drive Bicycle and Pedestrian Study provides the Energy Corridor District with a clear roadmap to enhance safety, connectivity, and resiliency across the community. By pairing near-term quick wins with long-term strategies, the District can work with partners and funding agencies to phase improvements over time. These improvements include transforming Memorial Drive, Grisby Road, and the surrounding network into a connected system that supports mobility, livability, and economic vitality for residents, workers, and visitors alike.

Study Purpose

This 12-month study was an H-GAC project that identified opportunities for enhancing Memorial Drive from Eldridge Parkway to State Highway 6, Grisby Road, and the surrounding community. Memorial Drive serves as the primary east-west thoroughfare through the Energy Corridor District, connecting thousands of residents, jobs, and regional destinations. Today, this section of Memorial Drive features four lanes, a center-turn lane, minimal sidewalks, no dedicated bikeway, and an open ditch drainage system with limitations.

After early community engagement, which included a public open house and a project steering committee meeting, some project objectives were identified, including:

- Increase safety for all modes of travel, especially at major intersections
- Provide continuous sidewalks and a dedicated bikeway along Memorial Drive
- Upgrade existing stormwater infrastructure
- Identify opportunities for enhanced landscaping and placemaking



Memorial Drive: Alternatives Considered

It will be necessary to reconstruct Memorial Drive to provide more robust mobility enhancements and considerable stormwater upgrades. Two primary approaches were considered during the opportunities analysis:

Alternative 1: Reconstruct Memorial Drive with two travel lanes in each direction, with left-turn lanes at intersections, a 10-foot median mid-block, a 10-foot shared-use path on the north side of the street, and a six-foot sidewalk on the south side.

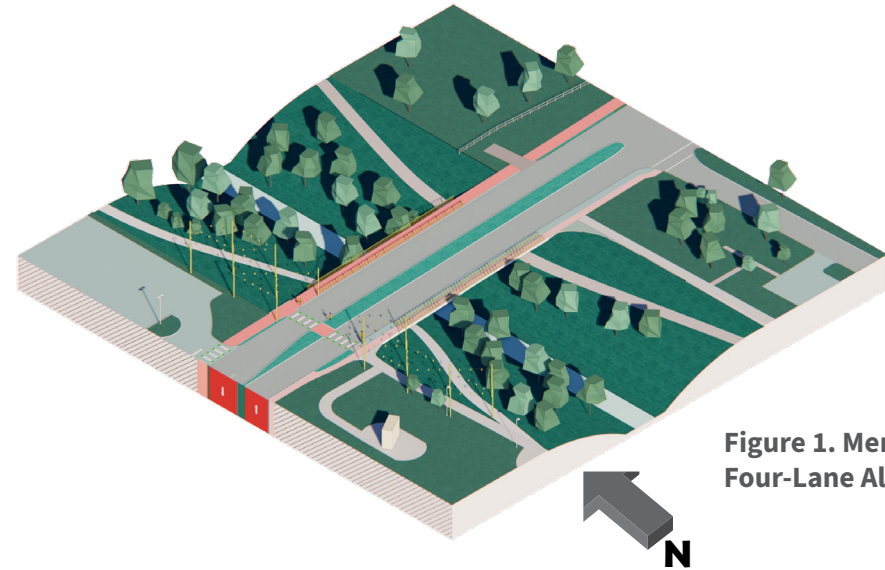


Figure 1. Memorial Drive Four-Lane Alternative

Alternative 2: Reconstruct Memorial Drive with one travel lane in each direction plus left-turn lanes at intersections. By reducing the number of vehicular lanes, it would be possible to provide a wide (approximately 30 feet wide) landscaped median featuring a shared-use path. Both sides of the street could also feature a six-foot sidewalk.

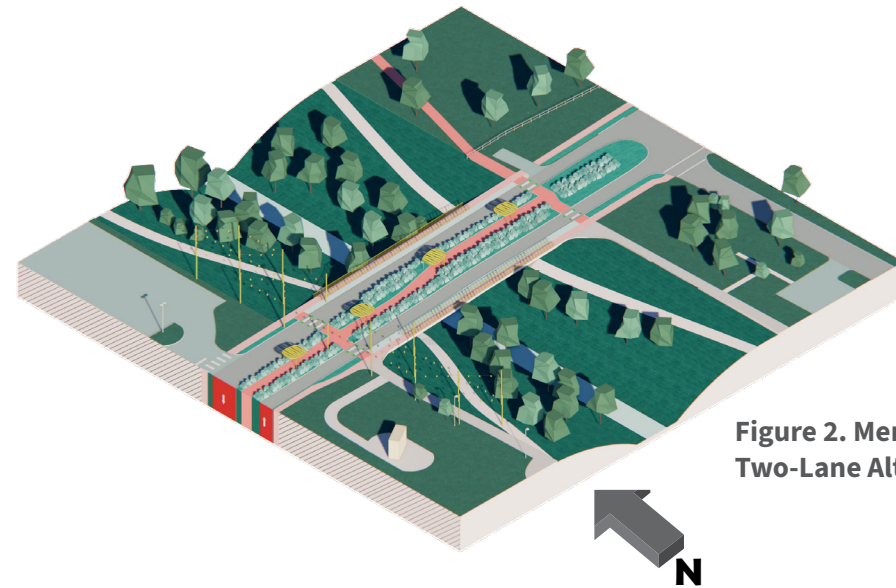


Figure 2. Memorial Drive Two-Lane Alternative

Both approaches were presented to the public at an open house and to the project steering committee. Participants expressed concerns about the reduction in the number of lanes and its potential impact on vehicular capacity and emergency response. People expressed enthusiasm about how both options included continuous sidewalks and a shared-use path with access to Terry Hershey Park and trails.

Ultimately, the four-lane cross-section received more support and was identified as the preferred and recommended alternative. Aspects from the two-lane concept, including a landscaped median and a confluence of trails in the vicinity of Terry Hersey Park, were incorporated into the refined, final recommendation for the four-lane cross-section.

Memorial Drive: Recommended Alternative

In addition to the multimodal safety improvements along Memorial Drive, roadway reconstruction would provide notable upgrades to stormwater infrastructure, including a reinforced-concrete pipe that would lead to reduced ponding during most storm events.

The greatest opportunity for placemaking enhancements along Memorial Drive is near Terry Hershey Park, where existing park trails cross the corridor. A signature pedestrian and bicycle bridge along Memorial Drive is recommended on the north side of the street and would create an opportunity for Energy Corridor District branding and placemaking. The project could incorporate signature lighting, landscaping, and safety improvements at the confluence of the existing park trail and the new Memorial Drive shared-use path.

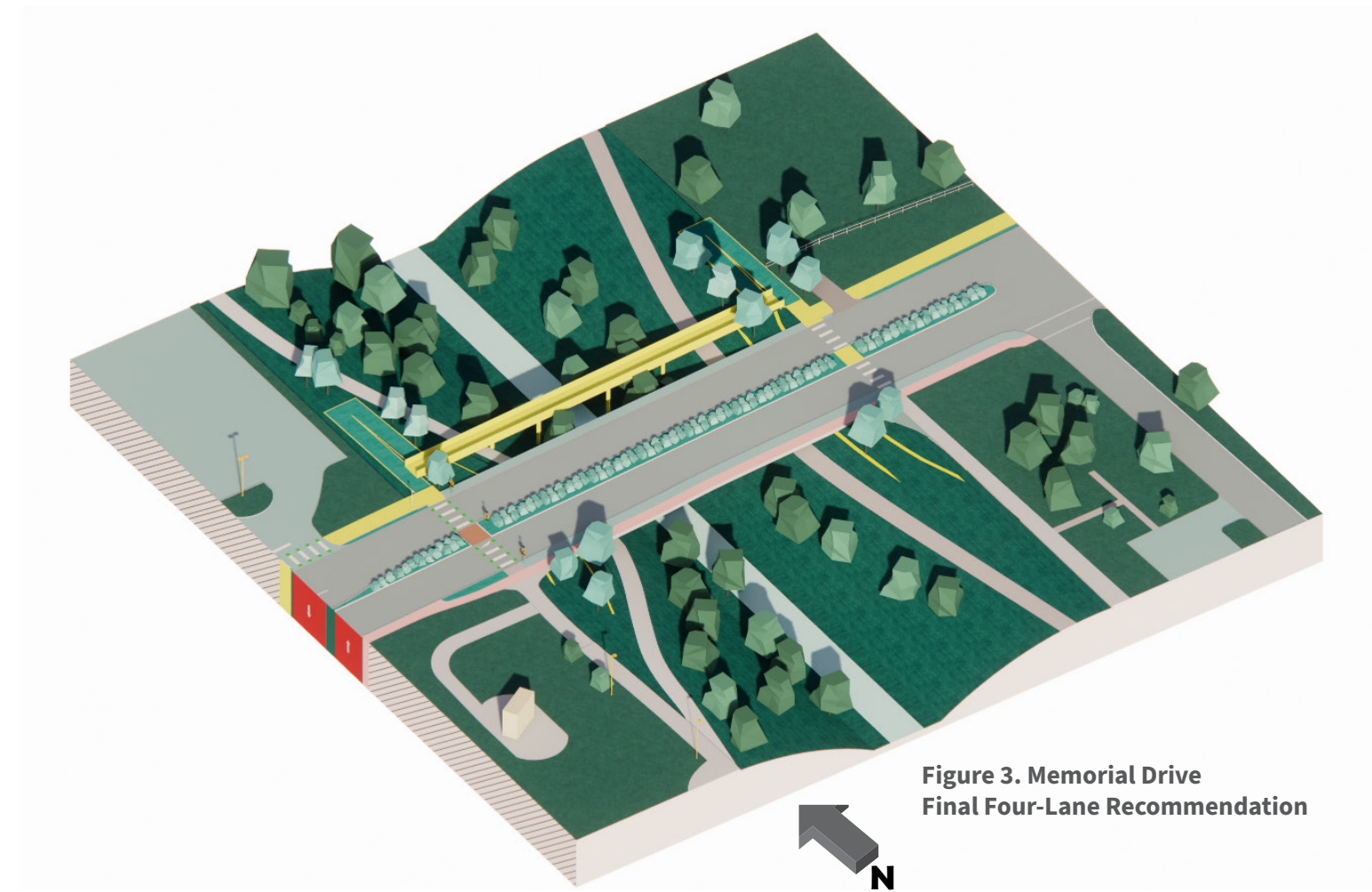


Figure 3. Memorial Drive Final Four-Lane Recommendation

Grisby Road Recommendations

Grisby Road enhancements primarily focus on the Grisby Square area. Reconstructing the street between Addicks-Howell Road and State Highway 6 presents an opportunity to formalize on-street parking, provide continuous sidewalks, increase district placemaking and landscaping, and improve stormwater infrastructure. East of Addicks-Howell, the existing eight-foot sidewalk can be expanded in the future to match the width of the proposed 10-foot shared-use paths throughout the study area.

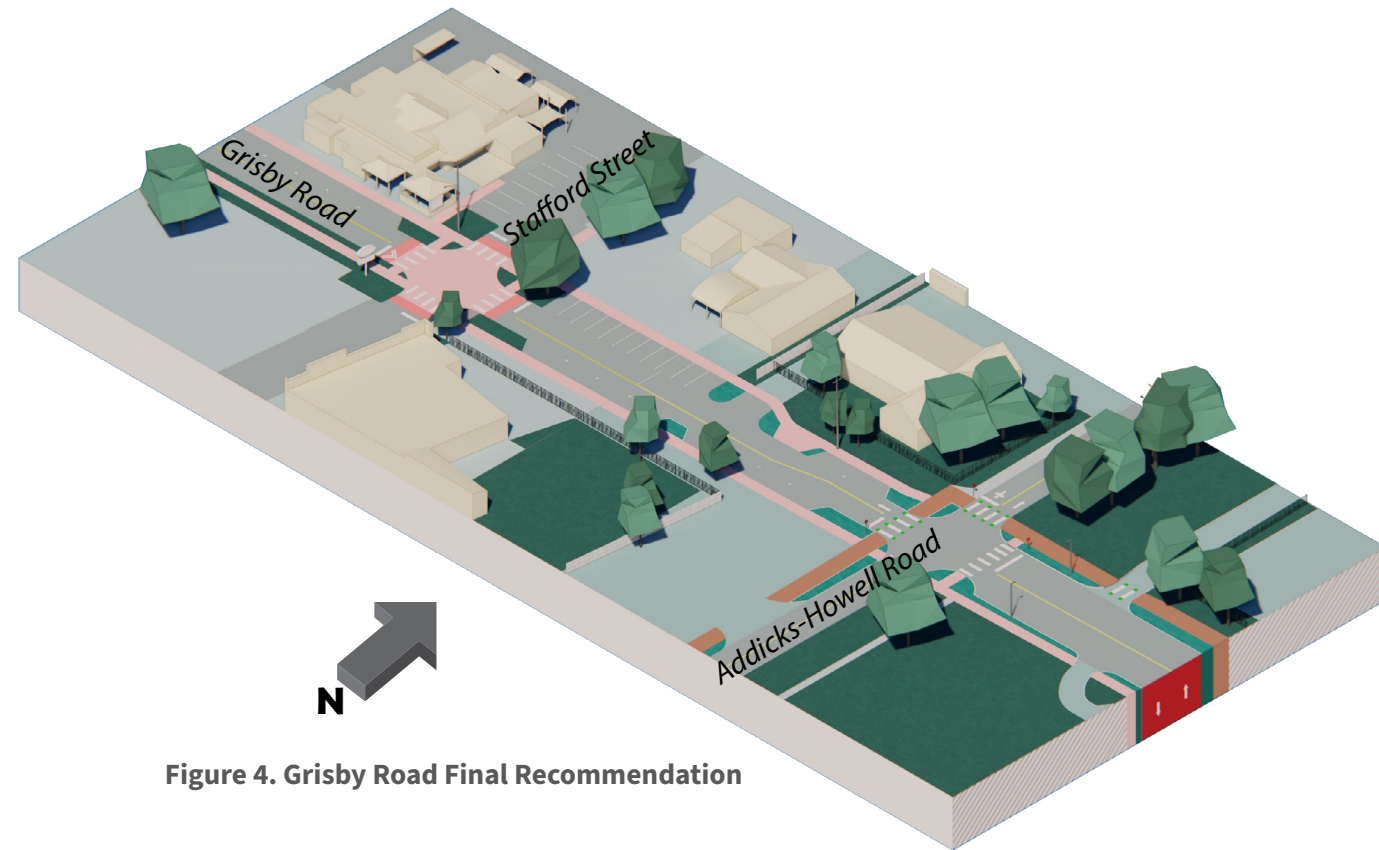


Figure 4. Grisby Road Final Recommendation

Overall mobility improvements for the entire study area are shown on the map on Figure 7, which showcase the Memorial Drive and Grisby Road reconstruction recommendations illustrated above.

To achieve the vision outlined in this H-GAC study, the Energy Corridor District will seek partnerships with key stakeholders, including the City of Houston, Harris County, TxDOT, METRO, and others, to fund and implement improvements throughout the study area and reconstruct Memorial Drive.

Engagement Overview

Throughout the study, the project team engaged with the community to provide updates on study progress and to gather feedback on the approach. A steering committee comprised of representatives from agencies across the region was established. The committee had three meetings, each focused on a study phase: Existing Conditions, Opportunities Analysis, and Recommendations and Implementation. At the beginning of the project, a stakeholder focus group was conducted to hear from representatives from local organizations and businesses within the study area. The project team held two open house style meetings for members of the public to participate. The two open houses were held at the Energy Corridor District; the first focused on Existing Conditions and Opportunities, and the second on Opportunities Analysis. In addition to in-person engagement, an online survey allowed members of the public to provide input on the alternatives considered. The ongoing engagement provided opportunities for members of the community to have awareness and a platform for input throughout the study that ultimately helped shape the project recommendations.



Figure 5. Public Open House



Figure 6. Steering Committee Meeting

Conclusion and Next Steps

To achieve the vision outlined in this H-GAC study, the Energy Corridor District will seek partnerships with key stakeholders, including the City of Houston, Harris County, TxDOT, METRO, and others, to fund and implement improvements throughout the study area and reconstruct Memorial Drive. The Implementation Considerations included in this study provide the Energy Corridor District with potential next steps to move the project forward. Improvements will likely need to begin with lower-cost approaches, like pavement marking enhancements that can be accomplished during an upcoming roadway overlay. Larger infrastructure projects will rely on grants and funding partners to carry out this project vision to provide safer and better connected mobility opportunities for Memorial Drive and the surrounding community.

Summary of Study-wide Recommendations

- 1 Improve Eldridge Parkway crossing conditions to increase access to Memorial Drive Improvements
- 2 Create a confluence of shared-use paths at the entrance of Terry Hershey Park
- 3 Improve intersection safety and Memorial Drive crossings at Westlake Park Boulevard
- 4 Evaluate new traffic signal at Memorial Drive and Barkers Landing Road
- 5 Upgrade traffic signal and pedestrian crossings at Memorial Drive and Crossroads Drive
- 6 Improve Memorial Drive crossings and access to Wolfe Elementary
- 7 Coordinate with TxDOT to improve Memorial and SH-6 intersection, and explore access to George Bush Park
- 8 Improve Grisby Road and Addicks-Howell Road intersection crossings
- 9 Create walkable intersection with enhanced placemaking within Grisby Square at Stafford Street
- 10 Coordinate Grisby Road at SH-6 intersection safety with TxDOT

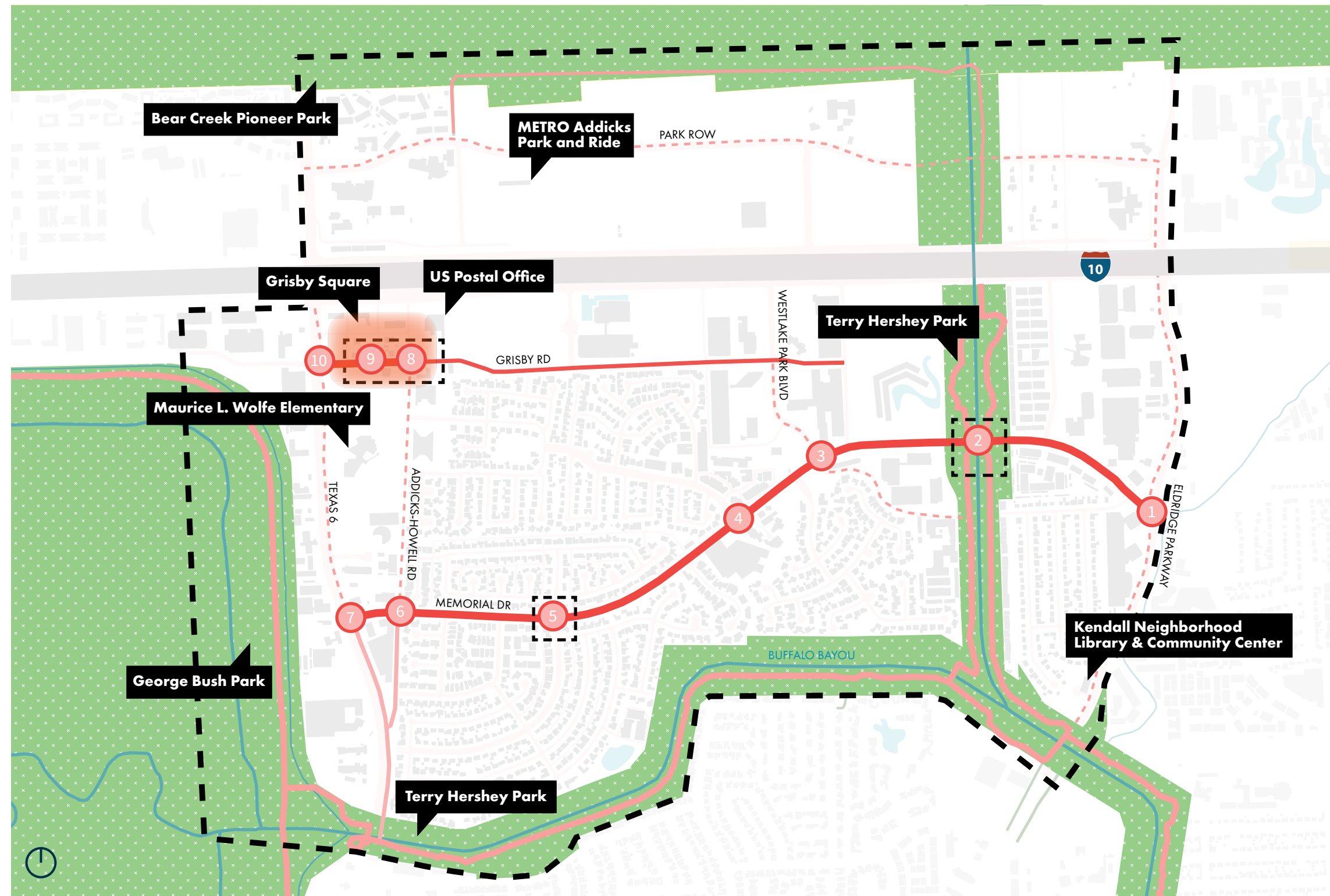


Figure 7. Map of Recommendations

Key

- Primary Corridor
- - - Potential Future/Partnership Corridor
- ⊗ Intersection Improvement
- Axon Illustration Area
- Grisby Square

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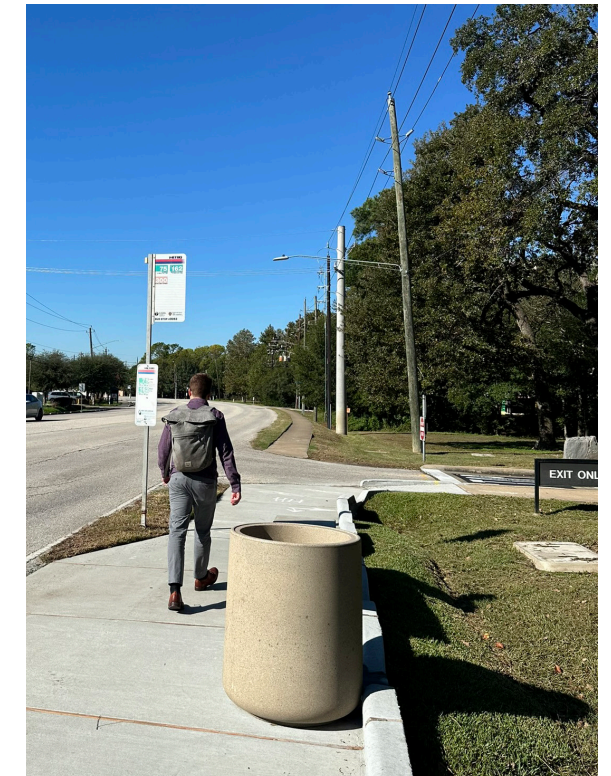


Chapter 1

Existing Conditions



Cyclists on Grisby Road near Grisby Square



Pedestrian walking along Memorial Drive

Project Background and Focus

The Memorial Drive Bicycle and Pedestrian Study will establish recommendations for improved multimodal infrastructure in the Energy Corridor District. The primary corridors include Memorial Drive between State Highway 6 (SH-6) and Eldridge Parkway, and Grisby Road between SH-6 and Westlake Park Boulevard. Potential improvements include high-comfort bike facilities, enhanced and new sidewalks and shared-use paths, intersection safety improvements, transit stop enhancements, improved landscaping, and stormwater drainage upgrades. In addition to the primary corridors, this Study will look at opportunities for improved connections to nearby destinations including residences, offices, commercial areas, schools, and public parks.

The Existing Conditions Report provides maps, data, and photos detailing the current demographics and transportation characteristics in and around the Study Area. These data reveal where safety issues occur, how people currently use the space, which groups are most affected, and where multimodal infrastructure gaps limit safe access. By understanding these, the project team can tailor recommendations to prioritize safety, support better bicycle and pedestrian mobility, and create public streets that align with the community's needs.

This project is a collaboration between the Houston-Galveston Area Council (H-GAC) and the Energy Corridor District.

Study Area in 1944



Area History

Memorial Drive and Grisby Road both run east/west through the heart of the Energy Corridor District. The Study Area has seen substantial growth from around the 1940s to today. As seen in the satellite imagery, the land has transformed from undeveloped marshland to suburban office towers and single family homes. Energy industry corporations began moving to the area in the 1970s, seeking land for suburban office campuses and proximity to new housing developments in West Houston and Katy. In 2001, the Energy Corridor Management District was established and has allowed the District to levy commercial taxes within their boundaries to support investments in infrastructure, urban planning, district branding and advertising, and public safety. In the past two decades, more multifamily apartment complexes have been developed. Post Covid-19, the District has seen some departure from office space, which has opened up new opportunities for office remodels and office to residential conversions.

Study Area in 2024

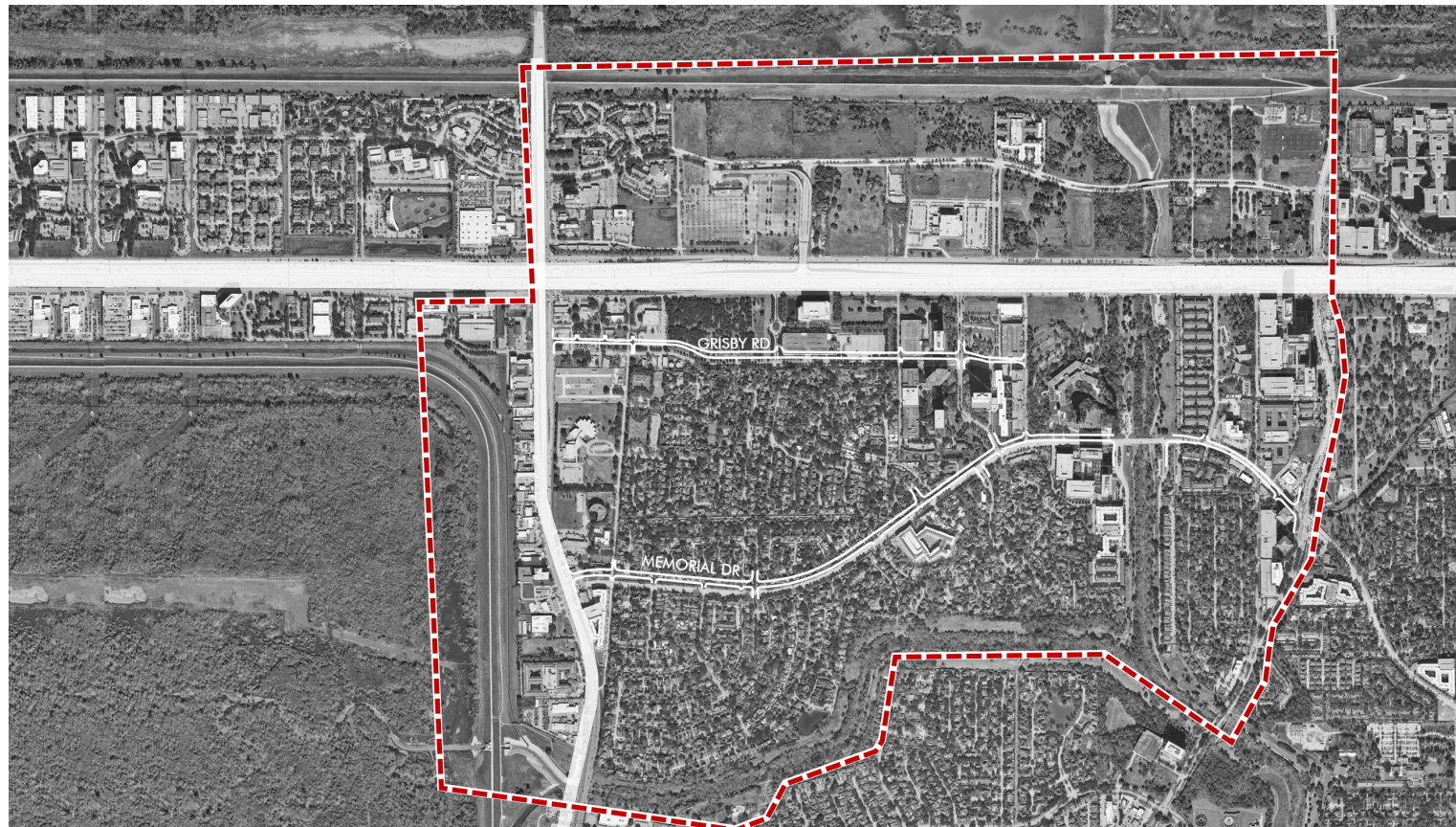




Figure 1.1 Destination Map

Key

- Study Area
- Primary Corridors
- Parks
- Shared-Use Path
- Bayous
- METRO Park & Ride
- Multi-Family Residential Destinations
- Commercial Destinations
- Office Destinations
- Civic Destinations

Destinations

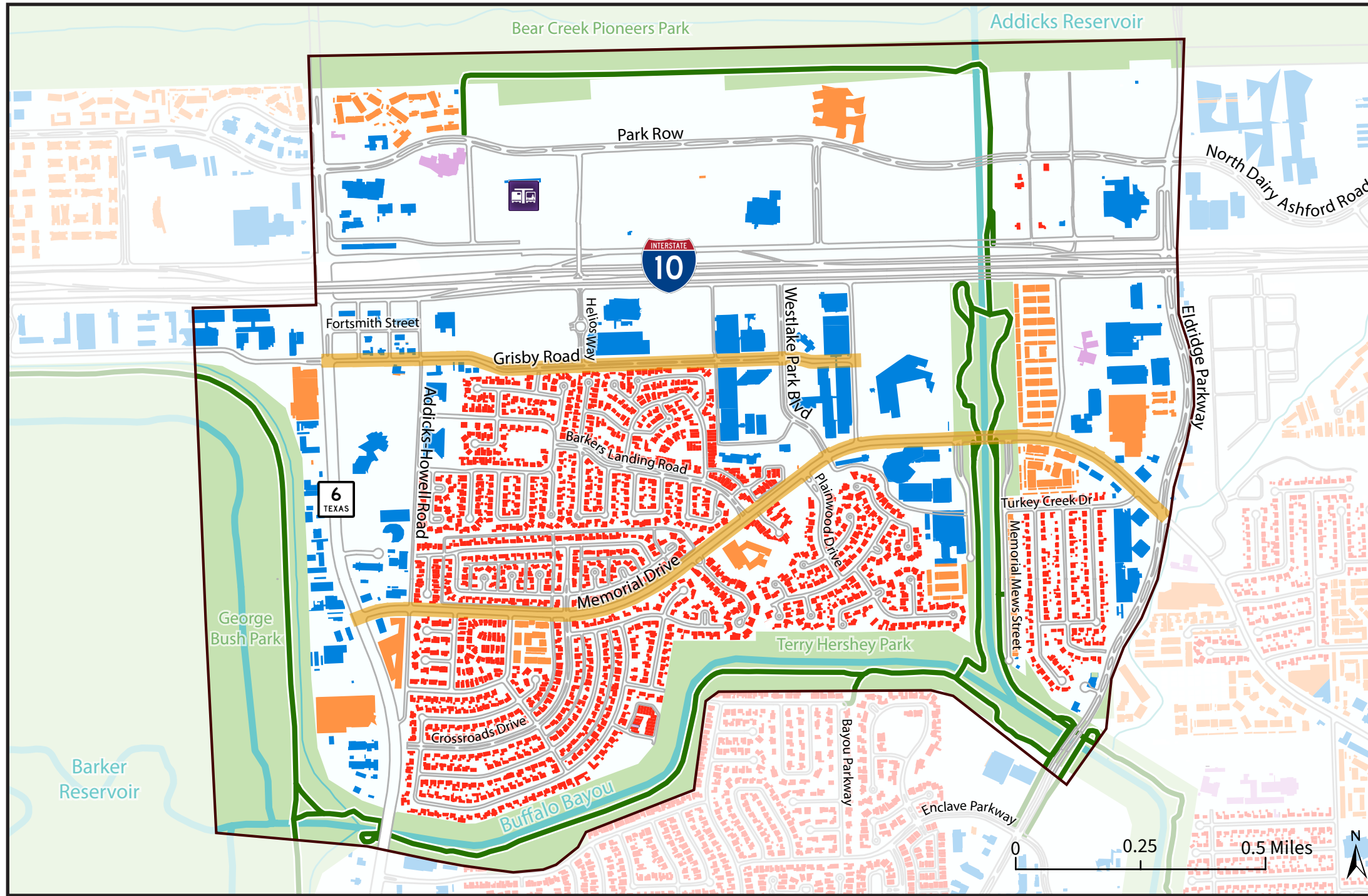
Commercial destinations in the Study Area are concentrated in the Grisby Square area, southeast of IH-10 and SH-6. The Grisby Square area is a six block conglomeration of restaurants with heavy lunchtime and night-time activity. Additional commercial buildings are scattered around the Study Area but are not as dense and centralized as Grisby Square.

High-rise offices line the eastern edge of Grisby Road, Memorial Drive, Westlake Park Boulevard, and the west side of Eldridge Parkway. The offices generate significant morning, mid-day, and evening peak hour vehicle and foot traffic.

Additional institutional destinations include the post office on Grisby Road, Wolfe Elementary School on Addicks-Howell Road, Houston Fire Station 78 on Memorial Drive, and Terry Hershey Park.

Addicks Park and Ride, north of IH-10 and east of SH-6, is a transit hub with peak hour commuter buses to regional destinations. The facility is constructed as a 28-acre bus loop with surface lots and direct IH-10 HOV lane access ramp. However, METRO is currently in discussions with a private developer for the facility to be re-built as a mixed-use transit-oriented development. The future development would maintain the transit center and park and ride.

Terry Hershey Park and its network of trails and shared-use paths is also a popular destination with access points at Memorial Drive, IH-10, Park Row, SH-6, and Eldridge Parkway.



Land Use

Most tracts within the Study Area are developed. The densest land uses in the Study Area are office buildings with some low to medium-density commercial areas outside of Grisby Square scattered around the neighborhood.

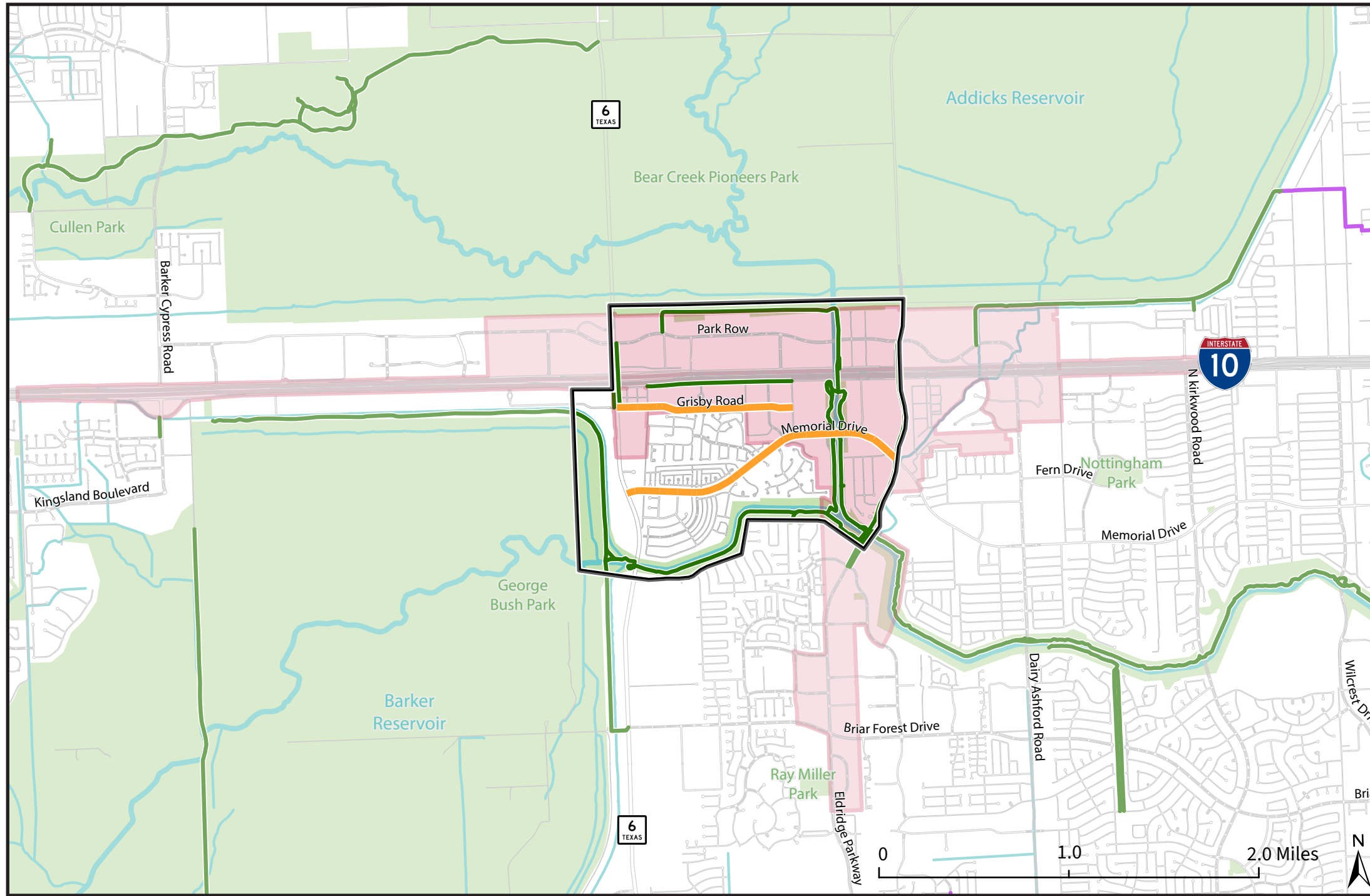
Single-family residential homes make up the majority of the tracts in the areas away from SH-6 and IH-10 with 85% of the total land in the Study Area being single-family residential. Several multi-family developments are scattered around the Study Area.

The largest undeveloped tract relevant to this study is located north of Grisby Road and west of Helios Way. A handful of undeveloped tracts border Park Row on the north side of IH-10.

Key

- Study Area
- Primary Corridors
- Parks
- Shared-Use Path
- Bayous
- METRO Park & Ride
- Single Family Residential
- Multi-Family Residential
- Commercial
- Religious Institutions

Figure 1.2 Land Use Map



- Key**
- Study Area
 - Energy Corridor District Boundary
 - Primary Corridors
 - Parks
 - Shared-Use Path
 - Neighborhood Bike Facility
 - Bayous

Figure 1.3 Energy Corridor District

Demographics

The Study Area includes a majority of the Energy Corridor District’s boundary, which is highlighted in red in Figure 1.3. The Energy Corridor District is home to multiple global energy firms and is nicknamed the Energy Capital of the World. This has resulted in the area supporting great places for people to work and live. According to the 2023 Energy Corridor Economic Report, the District has a median household income of \$79,500 and the median single-family home property value is around \$452,000. Compared to the City of Houston, where the average median household income is \$60,552 and median single-family home property value is \$264,000 (2020 Census).

Tables 1.1-1.3 provide an overview of the 2023 Study Area Demographic data compared to the rest of Harris County.

Table 1.1 Ethnicity Demographics Source: US Census 2023

Ethnicity	Harris County	Study Area
Total Population	4,758,579 Residents	13,239 Residents
% White	40%	53%
% Black	19%	15%
% Asian	7%	10%
% Native American	.8%	.9%
% Native Hawaiian & Pacific Islander	.8%	.4%
% Other	13%	3%
% Two Plus	19%	15%
% Non-Hispanic	56%	76%
% Hispanic	44%	24%

Table 1.2 Gender Demographics Source: US Census 2023

Gender	Harris County	Study Area
Male	2,366,425 Residents	6,511 Residents
Female	2,392,154 Residents	6,728 Residents

Table 1.3 Education Demographics Source: US Census 2023

Education	Harris County	Study Area
Households	1,728,103 Households	6,253 Households
% High School Educated Households	33%	15%
% of College Educated Households	37%	60%
% of Masters Degree Households	15%	22%
% of PHD Households	2%	4%

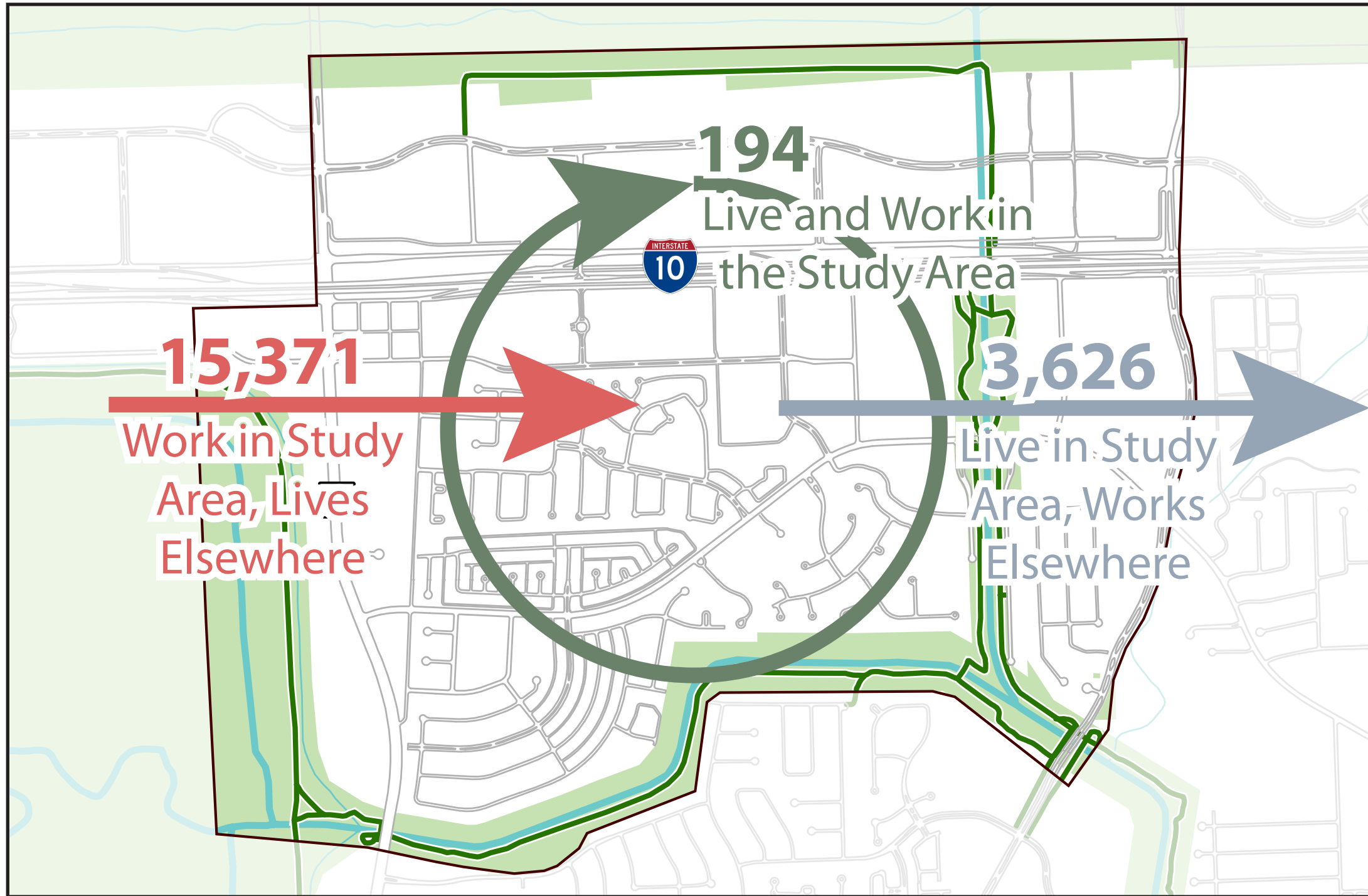


Figure 1.4 Commute Map

LEHD Data

Longitudinal Employer-Household Dynamics (LEHD)

In total, nearly 20,000 workers traverse the streets within the Study Area to either reach their homes or their jobs, with most of those trips utilizing Memorial Drive or Grisby Road.

Both Memorial Drive and Grisby Road run through the heart of the Energy Corridor District, which is home to major oil and gas companies like BP and ConocoPhillips. According to the Census “On The Map” data, over 15,000 workers commute into the Study Area for their jobs, and over 3,600 residents leave the Study Area to commute to their jobs elsewhere in the city. Nearly 200 workers live and work in the Study Area.

Only 5% of the parcels in the Study Area have commercial uses, yet over 15,000 workers commute into the Study Area to work. The high concentration of jobs are located at the multiple office towers throughout the Study Area including off Grisby Road and Memorial Drive at Eldridge Parkway. It is likely that a majority of these commuters are going to those areas where the office towers are located.

Table 1.4 provides a mode breakdown of commuters who live in the Study Area compared to the rest of Harris County.

Table 1.4 Commute Breakdown

Mode Choice	Percent of Harris County Commuters	Percent of Study Area Commuters
Drive Alone	72%	68%
Carpool	10%	7%
Transit	2%	2%
Taxi	0.22%	0.11%
Motorbike	0.07%	1%
Bike	0.26%	0.20%
Walk	1%	0.18%
Other	2%	0.35%
Work From Home	11%	18%

Source: US Census 2023

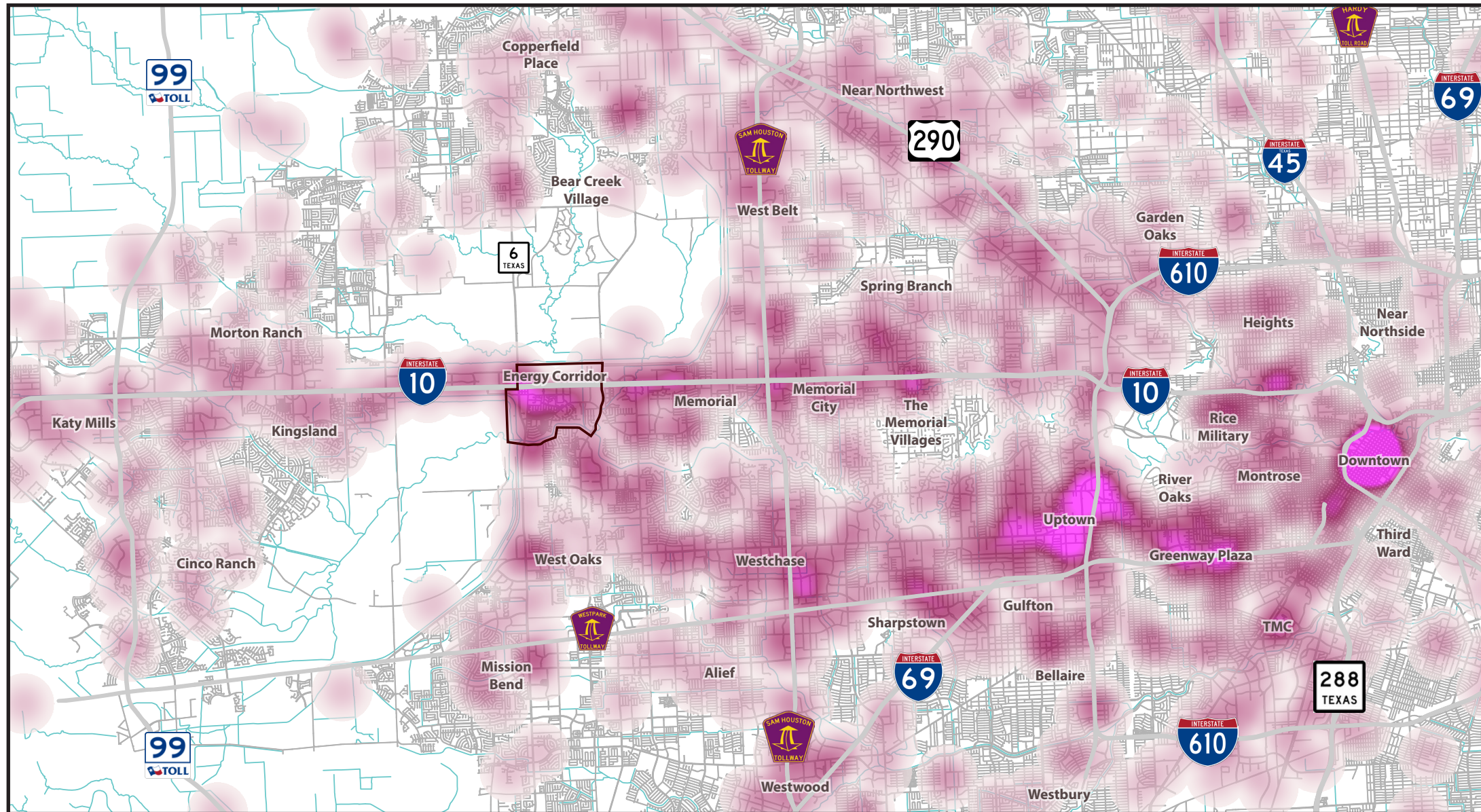


Figure 1.5 Where Residents Work
Source: US Census 2023

Key

- Study Area
- Where Study Area Residents Work
- Fewer Workers
- More Workers

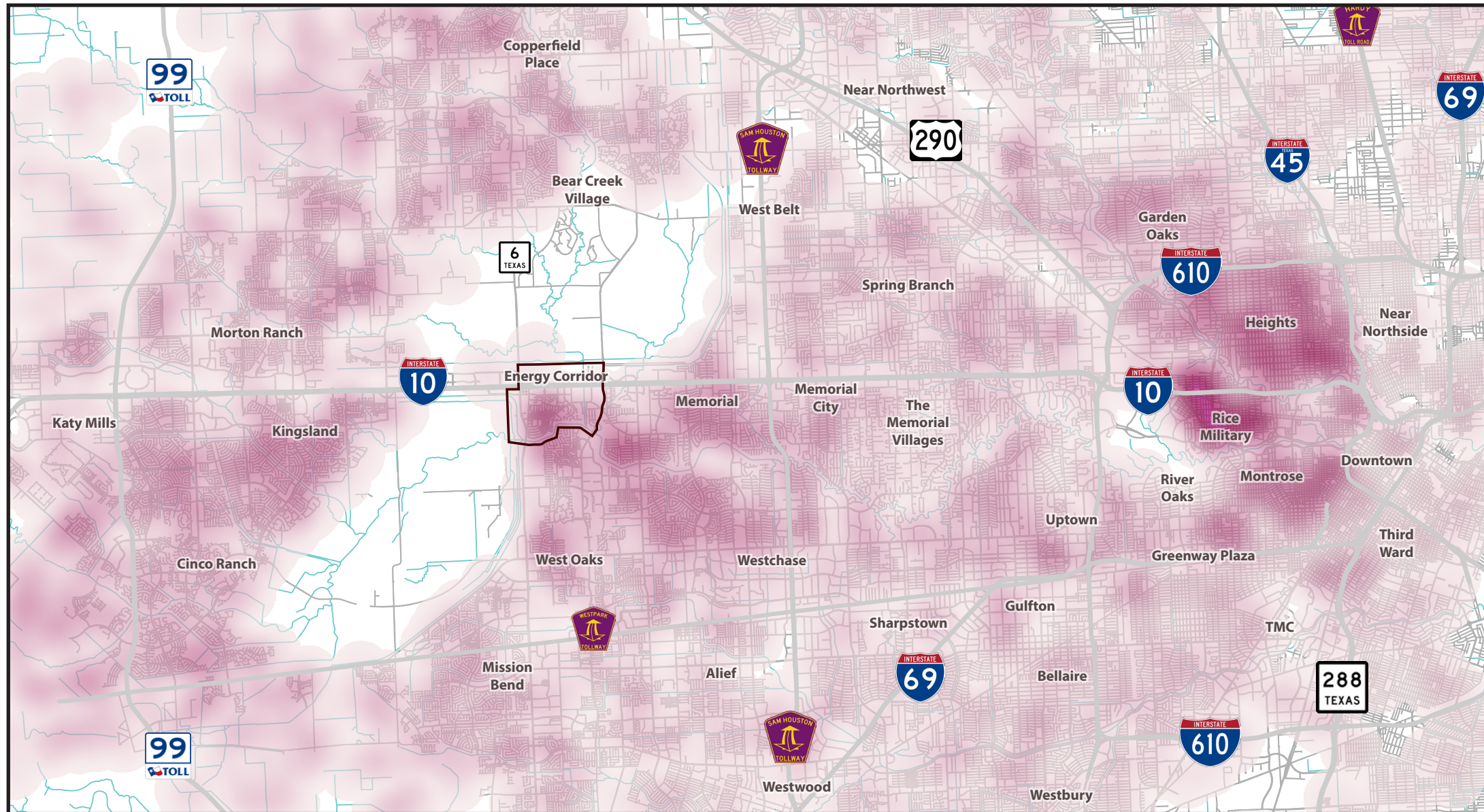
Where Residents Work

People commute from the Study Area to all of the main employment centers in the region. OnTheMap Census data, shown in Figure 1.5, reveals a high concentration of residents commuting from inside the Study Area to their jobs in Greenway Plaza, Downtown, Westchase, and Uptown. Table 1.5 below shows peak travel times between the Study Area and the major employment centers in the region.

Table 1.5 Commute Travel Times

Employment Center	Average Morning Commute Times	Average Evening Commute Times
Downtown	48 Minutes	60 Minutes
Greenway Plaza	43 Minutes	60 Minutes
Uptown	35 Minutes	47 Minutes
Westchase	22 Minutes	29 Minutes

Source: Google Maps Directions



Key

- Study Area
- Where Study Area Workers Live
- Fewer Workers
- More Workers

Where Workers Live

People travel to their jobs within the Study Area from all over the Houston metro region, as shown in Figure 1.6. OnTheMap data shows a high concentration of workers commuting from inside the Study Area, as well as the Heights, Rice Military, Kingsland, Cinco Ranch, and Montrose, as shown in dark pink on the map. Table 1.6 below shows the typical commute times to and from the Study Area.

Table 1.6 Commute Travel Times

Neighborhood	Average Morning Commute Times	Average Evening Commute Times
Heights	31 Minutes	48 Minutes
Rice Military	27 Minutes	42 Minutes
Kingsland	27 Minutes	28 Minutes
Montrose	28 Minutes	48 Minutes
Cinco Ranch	34 Minutes	36 Minutes

Source: Google Maps Directions

Figure 1.6 Where Workers Live
Source: US Census 2023

Equity Map - Transportation

Households near the Study Area's primary corridors spend a smaller percentage of income on transportation compared to neighboring blocks. Neighborhoods adjacent to the primary corridors are majority single-family homes with a higher median income than those north of IH-10 and west of SH-6, which could explain this discrepancy.

Further, neighborhoods adjacent to the primary corridors spend a larger percentage of income on transportation compared to the City of Houston average of 16.1%.

Although the Census Block Groups near the primary corridors spend less on transportation than those along SH-6 and IH-10, it is important to provide a wide range of transportation options to allow those who are unable to drive or choose not to drive to move around the neighborhood and city.

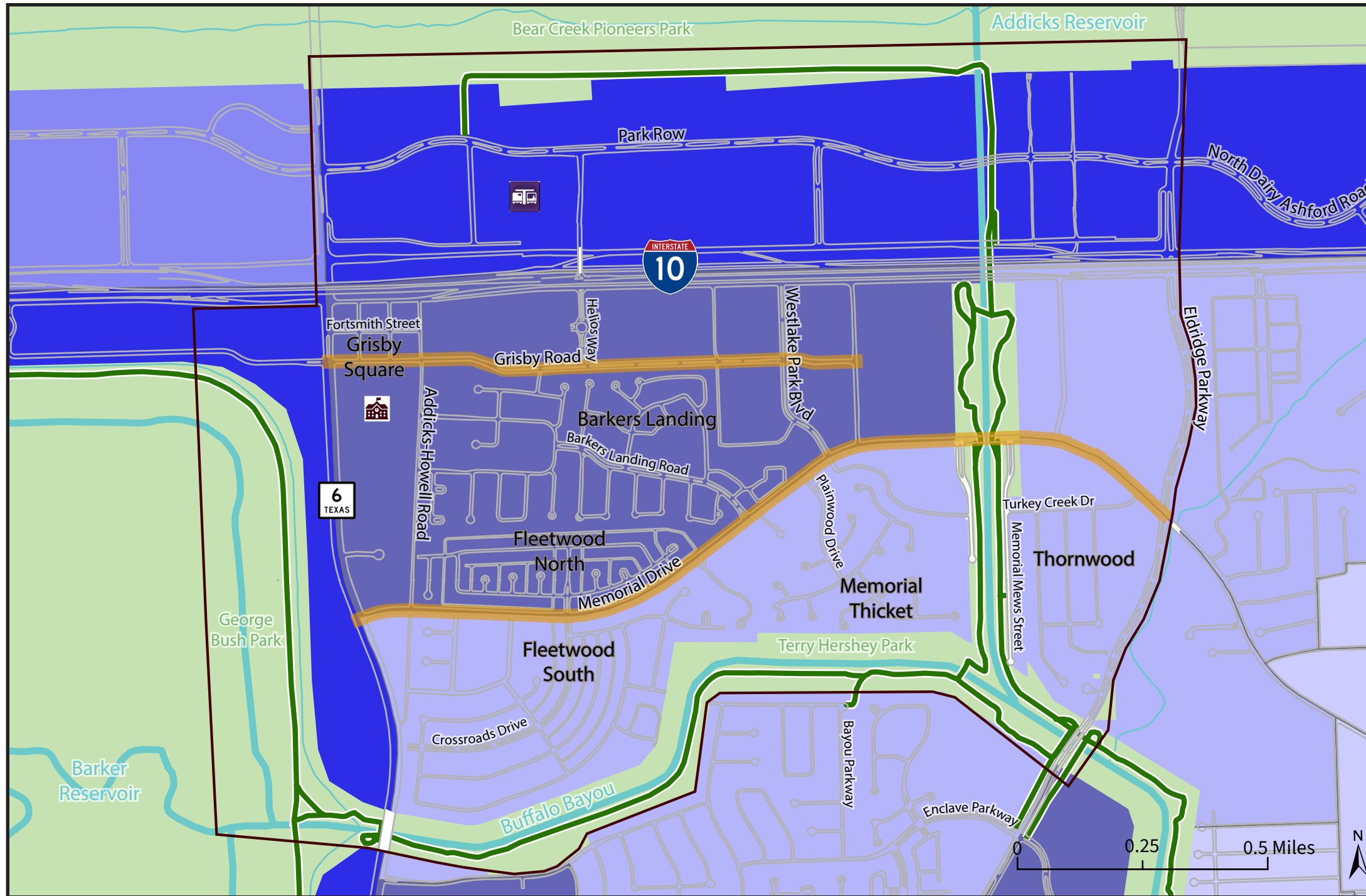


Figure 1.7 Percent of Income Spent on Transportation

Source: US Census 2022

Key

- | | | |
|-------------------|-------------------|------------------|
| Study Area | Bayous | 0-18% |
| Primary Corridors | Wolfe Elementary | 19-36% |
| Parks | METRO Park & Ride | 37-55% |
| Shared-Use Path | | Greater than 56% |

Equity Map - Cars per Household

The Census Block Groups that make up the Study Area average at least one car per household. This is below the City of Houston average of two cars per household, which could mean there is a need within the Study Area for active transportation options, or transportation options other than driving a car. Census blocks south of the bayou average two or more cars per household.

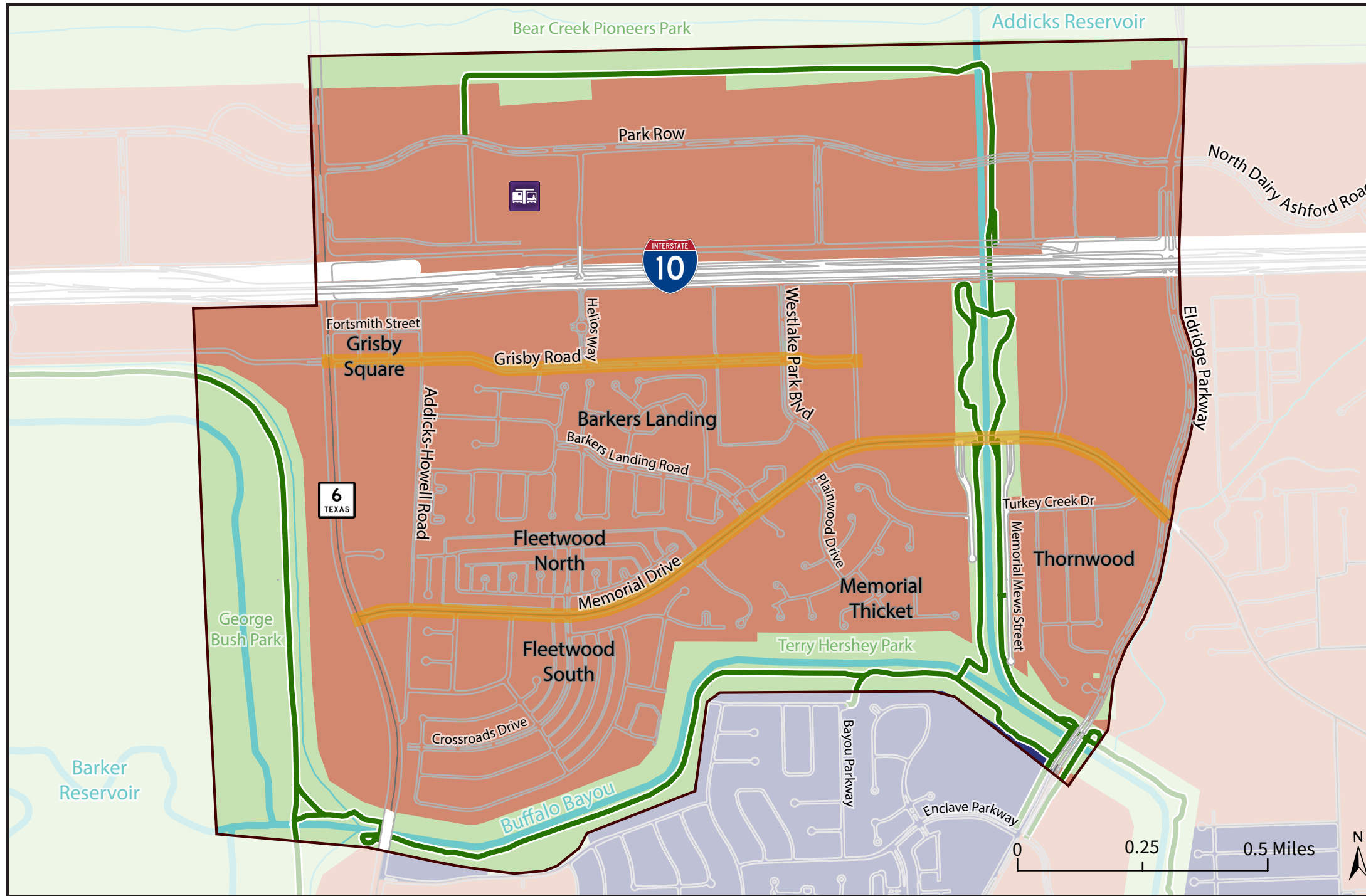


Figure 1.8 Average Car per Household

Source: US Census 2022

Key

- Study Area
- Primary Corridors
- Parks
- Shared-Use Path
- Bayous
- Average of at least 1 Car per Household
- Average of at least 2 Cars per Household

Equity Map - Housing

The Census Block Groups surrounding the primary corridors have a higher percentage of housing cost relative to median income as compared to the Study Area at large. The neighborhoods north and south of Memorial Drive are made up of largely single-family homes, and spend 48% and 49% of income on housing, respectively. The Census Block Groups around the edges of the Study Area consist of mostly multi-family apartments for rent.

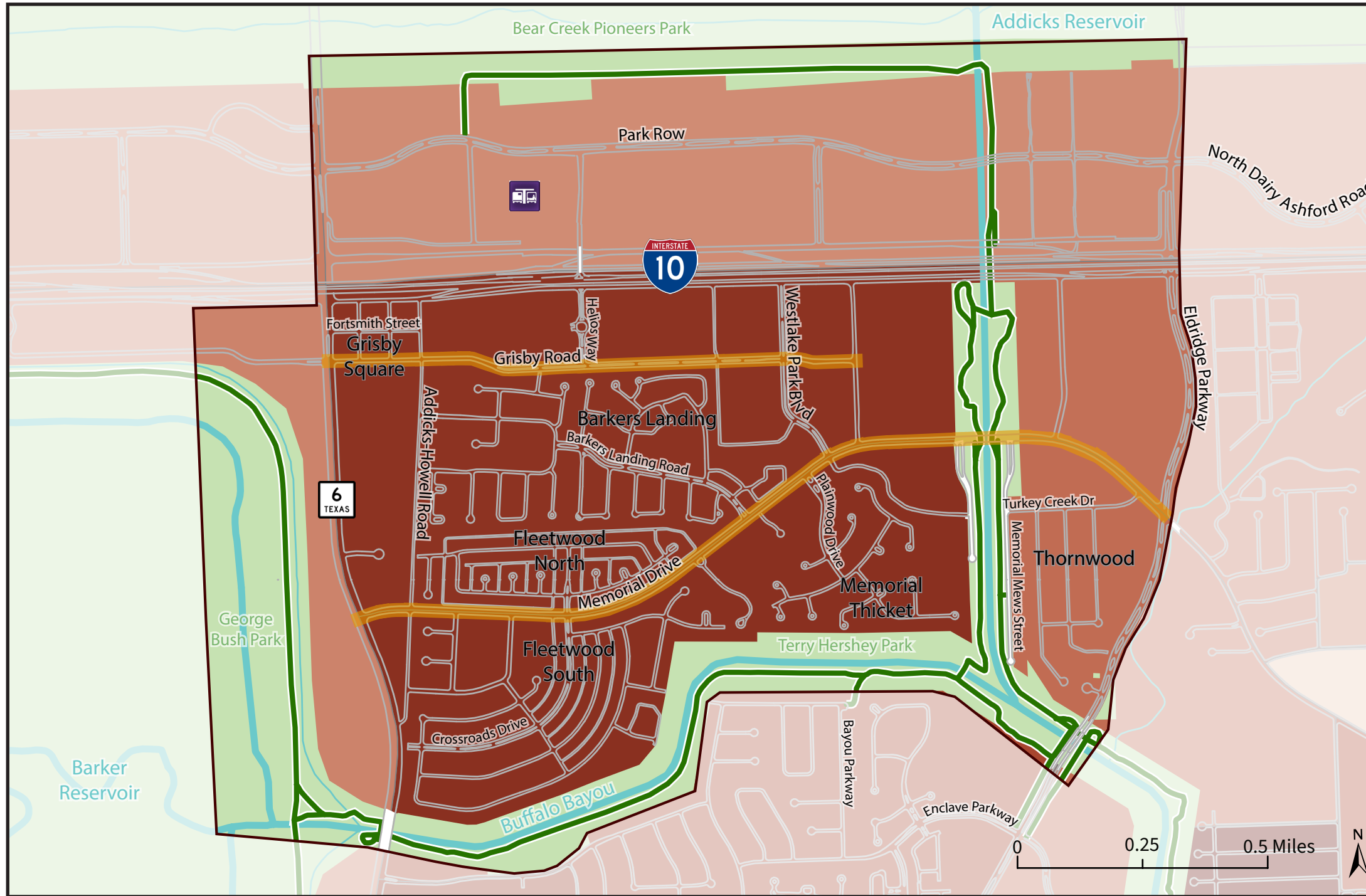
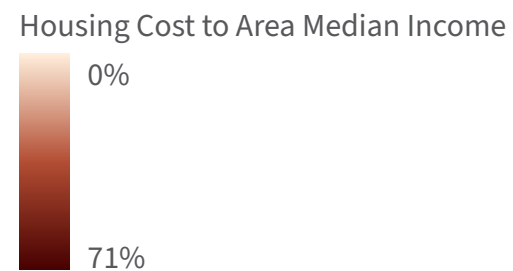
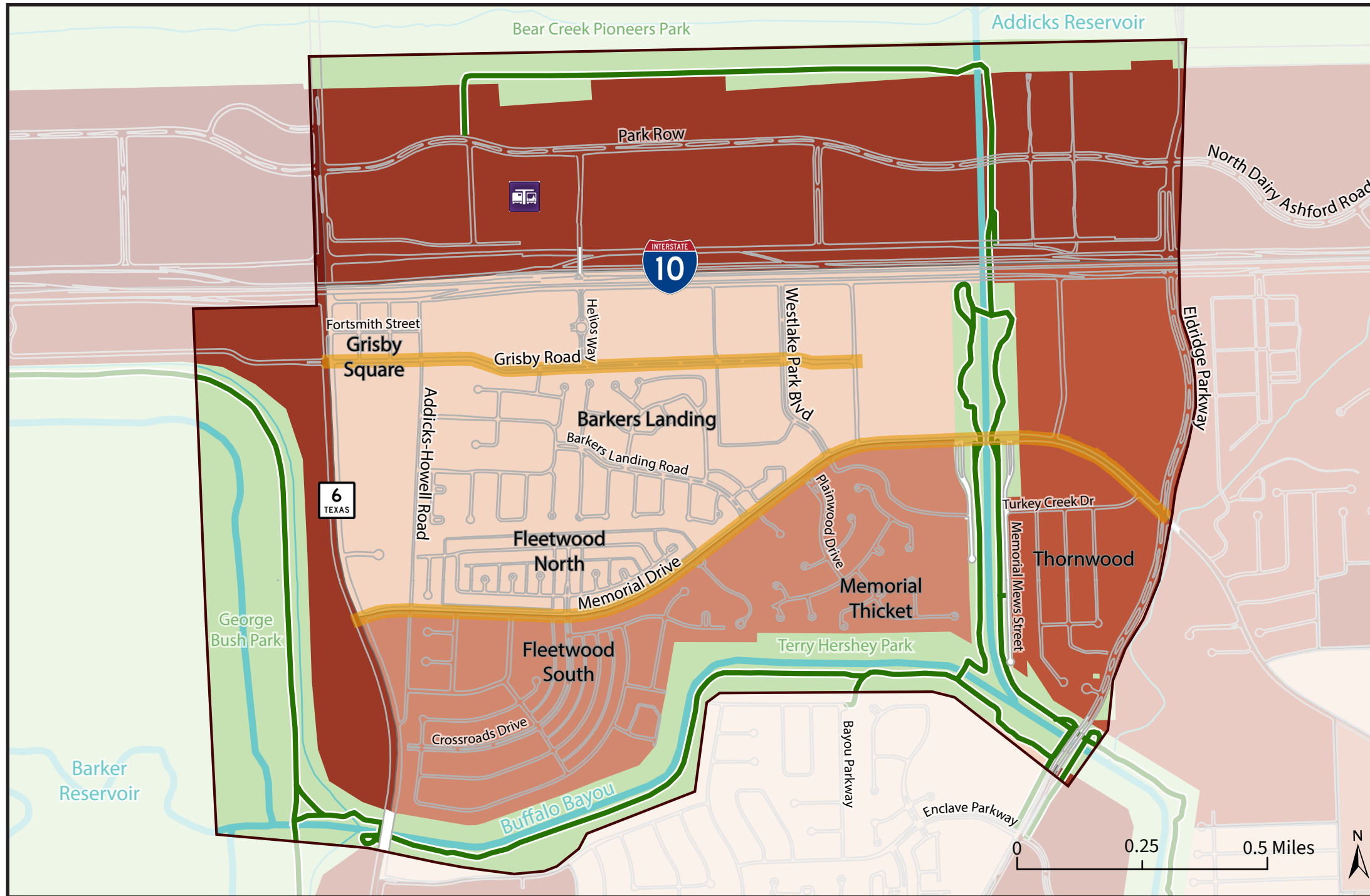


Figure 1.9 Percent of Median Income Spent on Housing
Source: US Census 2022

Key

- Study Area
- Primary Corridors
- Parks
- Shared-Use Path
- Bayous





Equity Map - Renters

The Census Block Groups around the primary corridors have fewer renters than the neighboring Census Block Groups. The Fleetwood and Barkers Landing neighborhoods are predominately made up of single-family homes, which are more likely to be owned. The Barkers Landing neighborhood is made up of only 4% renters, and the neighborhood south of Memorial Drive is made up of around 20% renters because it includes some apartments closer to Terry Hershey Park. There are several apartment complexes along Park Row, SH-6, and Eldridge Parkway which results in those Census Block Groups having higher percentages of renters at 67% and 72%.

The Study Area has seen an increase in multi-family developments over the past few years. The two most recent multi-family developments, The Caroline at Memorial and Memorial at Six, both have units set aside for moderate to middle income; and critical workforce such as teachers, nurses, first responders, retail and restaurant industry, law enforcement officials and other workers.

Figure 1.10 Percent of Renters
Source: US Census 2022

Key

Study Area	Percent of Renters
Primary Corridors	0-18%
Parks	19-36%
Shared-Use Path	37-55%
Bayous	56-75%
	76-100%



Looking west along Grisby Road in Grisby Square

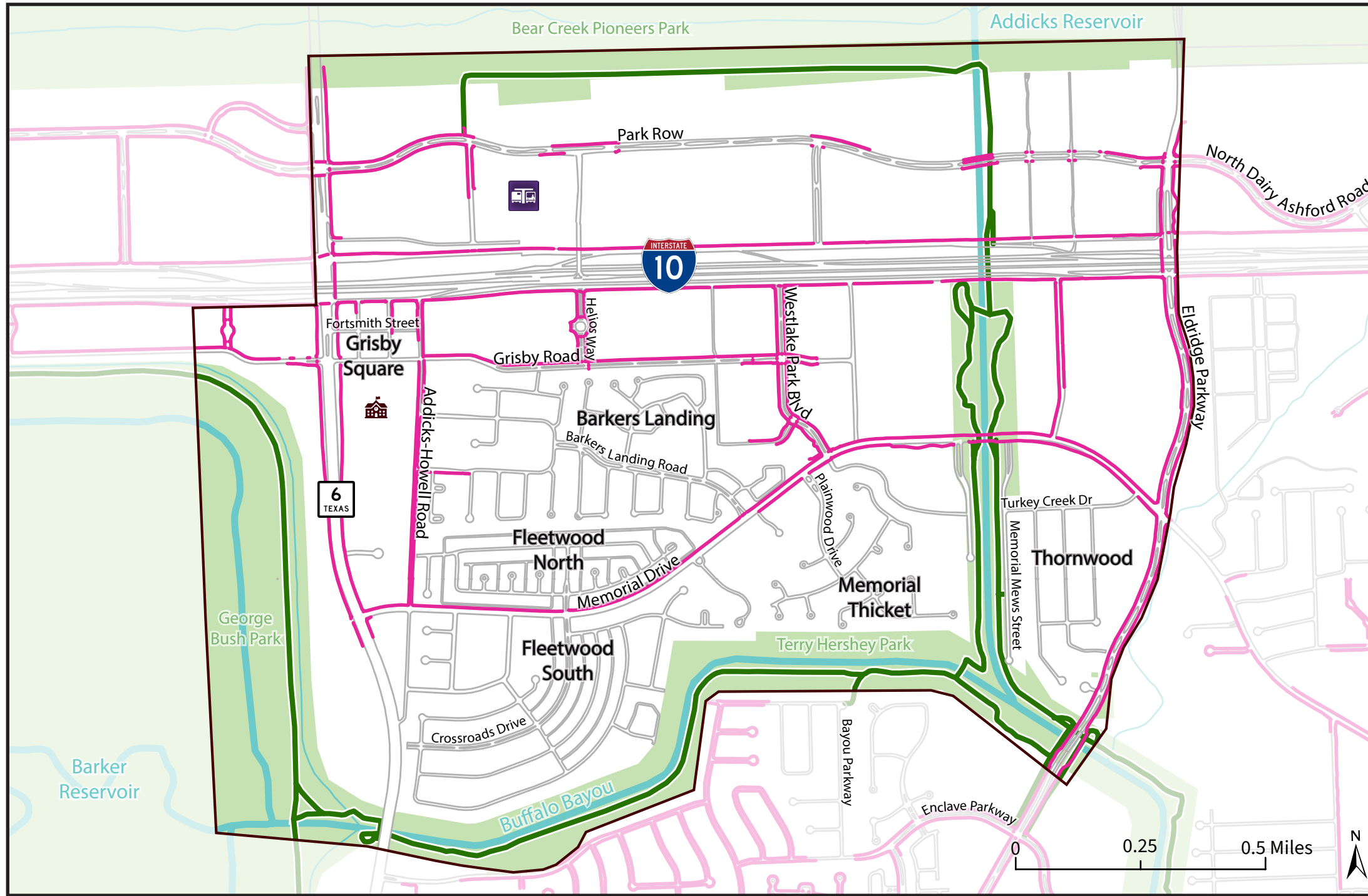


Memorial Drive at Crossroads Drive looking east

Transportation and Mobility

This section of the existing conditions report presents the overall transportation and mobility characteristics of the Study Area. This includes a look at the current sidewalks, bike facilities, transit, and roadway networks. It also presents maps and data for the entire Study Area and not just the two primary corridors of Memorial Drive and Grisby Road.

Presenting the transportation and mobility characteristics helps to set the stage for further analysis and discussion about what improvements may be needed in the Study Area. Both safety and access are important considerations that will be explored upon further analysis.



Existing Sidewalks

Although most of the study corridors and major connecting roadways have existing sidewalks, large segments do not meet the minimum width standards as defined by the City of Houston Infrastructure Design Manual (IDM), and some gaps still exist in the sidewalk network. There are no sidewalks along local streets within the Fleetwood and Barkers Landing neighborhoods, including Crossroads Drive, which connects to a signalized intersection, and Barkers Landing Road, which connects the Barkers Landing neighborhood to Memorial Drive.

For a long stretch of Memorial Drive between Barkers Landing Road and SH-6, the sidewalk along the south side does not exist. There is also no sidewalk on either side of Grisby Road between SH-6 and Addicks-Howell Road. In addition, the majority of sidewalks are too narrow (less than 6 feet wide along major thoroughfare streets or less than 5 feet wide along other public streets).

SH-6 and IH-10 are barriers to connectivity throughout the Study Area. SH-6 separates the residential neighborhoods and Grisby Square from George Bush Park Hike and Bike Trail to the west. IH-10 separates the residential neighborhoods and Grisby Square from the developments near Addicks Park & Ride and the Terry Hershey Trail Extension to the north. A lack of sidewalk infrastructure also makes access difficult between the neighborhoods north of Memorial Drive and Terry Hershey Hike & Bike Trail to the south.

Figure 1.11 Existing Sidewalks

Source: H-GAC 2024

Key

- Study Area
- Parks
- Shared-Use Path
- Bayous
- Wolfe Elementary
- Addicks Park & Ride
- Existing Sidewalks

Bikeways/Shared-Use Paths

At the time of writing this report, the study corridors have limited existing bicycle infrastructure, and there are no neighborhood or on-street facilities in the area. The Study Area does offer high-comfort bike facilities in the form of off-street dedicated shared-use paths and hike and bike trails. However, these facilities are largely disconnected from the street-level network and offer limited safe crossings. Existing and planned bicycle facilities within and around the Study Area are shown in Figure 1.12.

The Terry Hershey Hike & Bike Trail runs along the southern side of Buffalo Bayou as it runs east-west near the southern edge of the Study Area, and both sides of the bayou as it branches north towards the greenway entrance at Memorial Drive. The trail is connected to the Terry Hershey Trail extension that runs from the trailhead north towards Addicks Reservoir and west to Addicks Park & Ride. The trail is well maintained and in great condition.

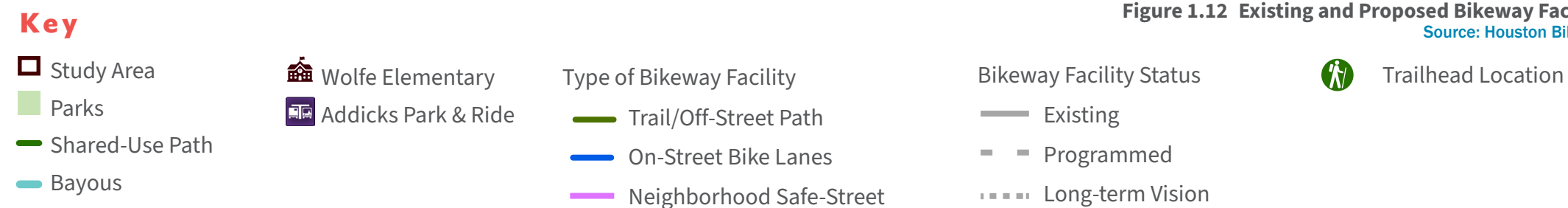
The George Bush Park Hike & Bike Trail and the George Bush Terry Hershey Connector run along the east side of the bayou at George Bush Park, and connect to the Terry Hershey Hike & Bike Trail at the southwest corner of the Study Area. These shared-use paths are also well maintained and in great condition.

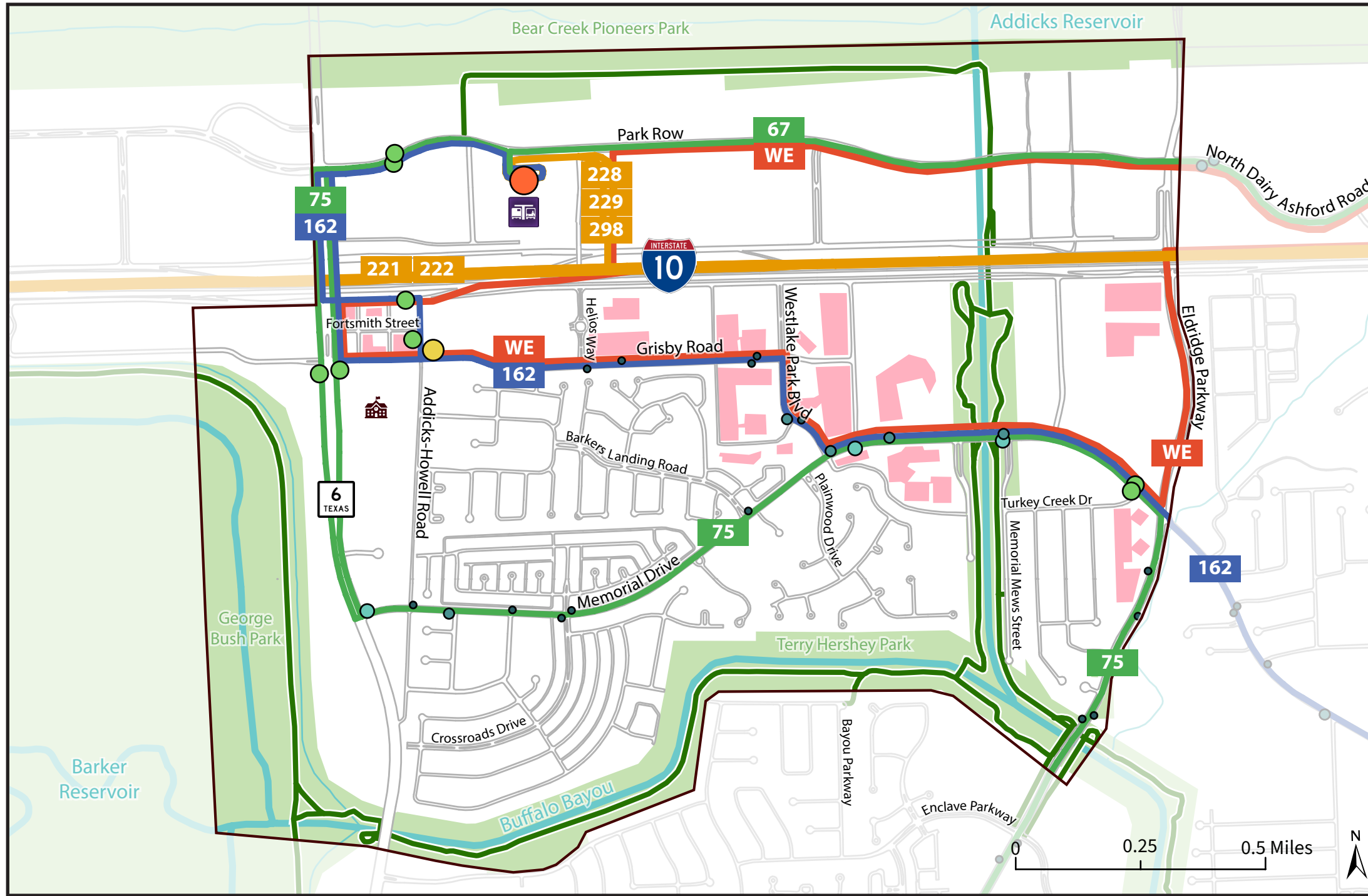
The Houston Bike Plan identifies a long-term vision of off-street high comfort bikeways along Addicks-Howell Road, Westlake Park Boulevard, and IH-10 Westbound Frontage Road in the Study Area. The plan also identifies enhanced connections to Addicks Park and Ride.

The current bike network lacks east/west connections to destinations like Grisby Square and Westlake Park via Memorial Drive and Grisby Road. Improvements that are proposed in the bike plan would help close gaps in the network, enhancing access to key destinations as well as improve safety and comfortability of bicyclists.



Figure 1.12 Existing and Proposed Bikeway Facilities
Source: Houston Bike Plan





Transit

Several Houston METRO bus routes travel through the Study Area, shown here in Figure 1.13, along with the frequency of each route and ridership heat map. The routes are as follows:

- 67 Dairy Ashford - operates hourly 7-days a week along Dairy Ashford Road linking Dairy Ashford Road to Addicks Park and Ride via Park Row and south to Alief.
- 75 Eldridge - operates hourly 7-days a week along Memorial Drive and Eldridge Parkway linking the Study Area with Addicks Park and Ride and Mission Bend.
- 162 Memorial Express - operates every 30 minutes 7-days a week along Memorial Drive linking the Study Area with Westlake Park Boulevard, Grisby Square, Addicks Park and Ride, Memorial City, and Downtown.
- Park and Ride Routes 228 and 229 connect Addicks Park and Ride to Downtown.
- Park and Ride Route 298 connects Addicks Park and Ride to the Texas Medical Center.
- Park and Ride Routes 221 and 222 operate along IH-10, but do not serve Addicks Park and Ride.

Shown in red on the map is The Woodlands Express. This service has two morning trips and two evening trips linking the Energy Corridor to The Woodlands, Texas.

Figure 1.13 Existing Transit

Source: Houston METRO and The Woodlands Township

Key

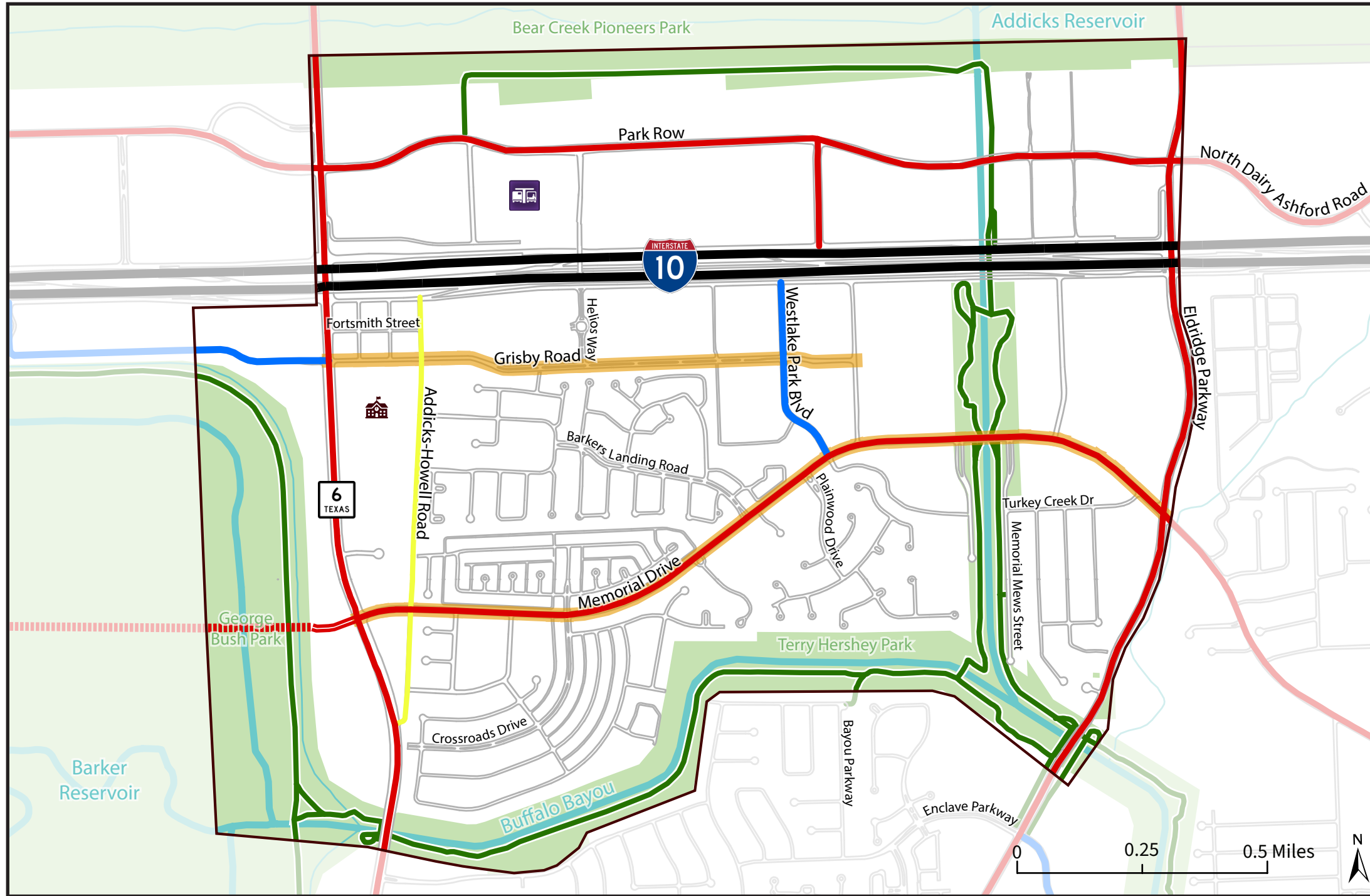
- Study Area
- Parks
- Shared-Use Path
- Wolfe Elementary

- Addicks Park & Ride
- Key Commercial Destinations

2023 Avg Weekday Ridership

- 0
- 1-3
- 4-6
- 7-10
- 11-25
- 26-50
- Over 50 Riders

- 30 Minute Frequency Local Route
- 60 Minute Frequency Local Route
- Park and Ride Route
- The Woodlands Express



MTFP

The 2024 City of Houston Major Thoroughfare & Freeway Plan was overlaid onto the Study Area (Figure 1.14). There are no planned roadway extensions within the Study Area at the time of writing this report. The City of Houston’s Infrastructure Design Manual provides guidance for sidewalk width, infrastructure additions like road humps, and speed limits based on the roadway designation.

Figure 1.14 Major Thoroughfare & Freeway Plan
 Source: City of Houston Planning Department

Key

Study Area	Wolfe Elementary	MTFP Classifications	Proposed MTFP Classifications
Primary Corridor	Addicks Park & Ride	Freeway/Tollways	TBW* Major Thoroughfares
Parks		Major Thoroughfares	Proposed Major Thoroughfares
Shared-Use Path		Major Collectors	*TBW = “To be widened”
Bayous		Minor Collectors	

Traffic Counts & Speeds

Average daily traffic counts (ADTs) and speeds were obtained to help understand existing traffic conditions in the Study Area. ADTs were collected from the Texas Department of Transportation (TxDOT) Statewide Traffic Analysis and Reporting System (STARS II), and 85th percentile speeds, where available, were collected from the City of Houston Public Works' GeoLink public basemap.

Figure 1.15 shows ADT volume and 85th percentile speed data points throughout the Study Area. A majority of the roadways within the Study Area has recorded 85th percentile speeds over the posted speed limits. The major roadways have the following posted speed limits:

- Grisby Road - 30 mph
- Memorial Drive - 40 mph
- SH-6 - 45 mph
- Eldridge Parkway - 35 mph
- Westlake Park Boulevard - 30 mph
- Addicks-Howell Road - 30 mph
- Park Row - 35 mph
- IH-10 Frontage Roads - 45 mph

ADT volumes collected in 2020 and 2021 may be impacted by the Covid-19 pandemic. Where available, ADT data was collected from 2022 and later to avoid those impacts.



Figure 1.15 85th Percentile Speeds and Traffic Counts

Source: TxDOT and City of Houston GIMS

Key

- Study Area
- Primary Corridor
- Parks
- Shared-Use Path
- Bayous
- Traffic Signal
- Average Daily Traffic Count
- 85th Percentile Speed
 - 0-5 mph over posted speed limit
 - 5-10 mph over posted speed limit
 - 10+ mph over posted speed limit
 - No Speed Data Available



Figure 1.16 Hazardous Waste Sites and Evacuation Routes

Source: H-GAC

Key

- Study Area
- Primary Corridor
- Parks
- Shared-Use Path
- Bayous
- Wolfe Elementary
- Addicks Park & Ride
- LPG Sites
- Pipeline
- Evacuation Route
- Hazardous Waste Sites

Environmental Safety

Environmental conditions within the Study Area were recognized in order to inform the safety of the existing population from hazardous substances or petroleum products due to a potential release to the environment. Underground pipelines and liquid propane gas (LPG) sites were identified in the Study Area with data from the Railroad Commission of Texas. The pipeline and LPG sites showcase where the project team should be mindful with recommendations since any roadway construction or ground modifications could impact these sites. Additionally, there are also hazardous waste sites shown on the map as well. There are 3 LPG sites, 2 hazardous waste sites, and 1 pipeline that are in the vicinity of the Memorial Drive Study Area.

TxDOT designates regional and statewide evacuation routes for disasters like hurricanes, pipeline evacuations, or other hazardous material incidents. The main evacuation route near the Study Area is IH-10 West towards San Antonio. Residents in this area of West Houston would most likely use SH-6 or Eldridge Parkway to reach IH-10 during an evacuation. Memorial Drive would not be a highly utilized evacuation route due to its proximity to IH-10 and it terminating into George Bush Park.

Crashes and Road Safety

All recorded collisions in the TxDOT Crash Records Information System (CRIS) database between January 2019 and December 2023 in the Study Area were obtained to analyze the crash history along primary corridors and to understand crash patterns across the area as a whole. The crashes were weighted against entering traffic volume and then mapped and analyzed to determine crash location and severity trends in proportion to crash potential. Figure 1.17 shows the weighted crash density for the Study Area. The crashes were weighted against its corridor's daily traffic count, allowing crashes that occur with higher frequency in proportion to the corridor's expected crash rate to be highlighted. For example, crashes on Memorial Drive and Grisby Road can be seen on the crash heat map just as well as those on SH-6, even though SH-6 sees a higher crash rate due to its higher daily traffic count.

Five crashes involving a pedestrian or bicyclist occurred on Memorial Drive, which has a posted speed limit of 40 mph but frequently sees 85th percentile speeds greater than 40 mph. This, along with the high crash density in relation to traffic volume at the intersections of Memorial Drive at Crossroads Drive and Memorial Drive at Westlake Park Boulevard, indicates there may be a need for safety improvements to combat the frequency of crashes and improve vehicle, pedestrian, and bicycle infrastructure.

On Grisby Road, there was a high density of crashes in relation to the traffic volume near the west end with one serious injury crash and one pedestrian crash at the intersection of Grisby Road and SH-6.

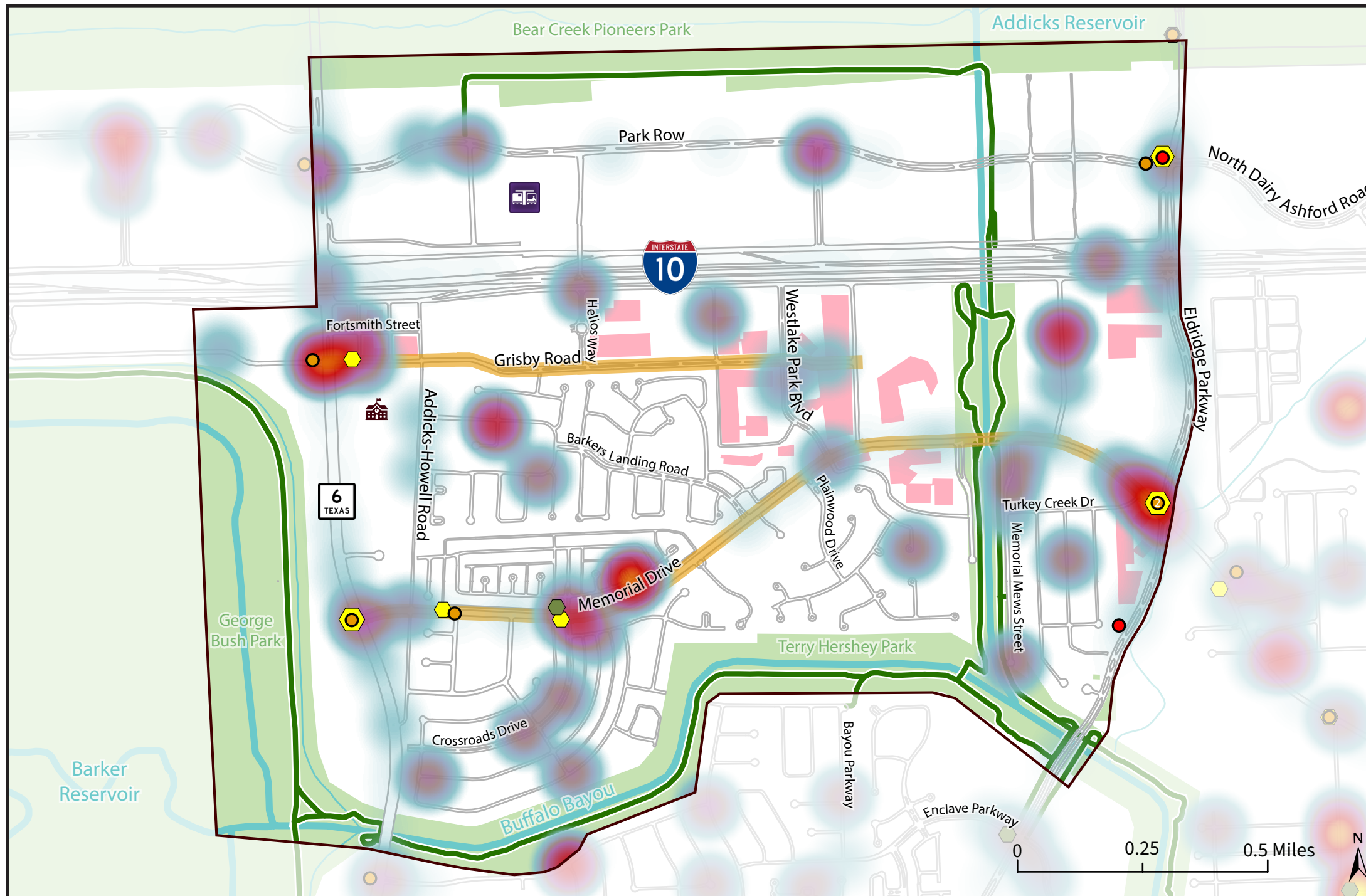


Figure 1.17 Crash Hotspots and Types of Crashes
Source: TxDOT CRIS Data

Key

- Study Area
- Primary Corridor
- Parks
- Shared-Use Path
- Bayous
- Wolfe Elementary
- Addicks Park & Ride
- Crashes 2019-2023
- Fewer Crashes
- Many Crashes
- Serious Injury Crash
- Fatal Crash
- Pedestrian-Involved Crash
- Cyclist-Involved Crash

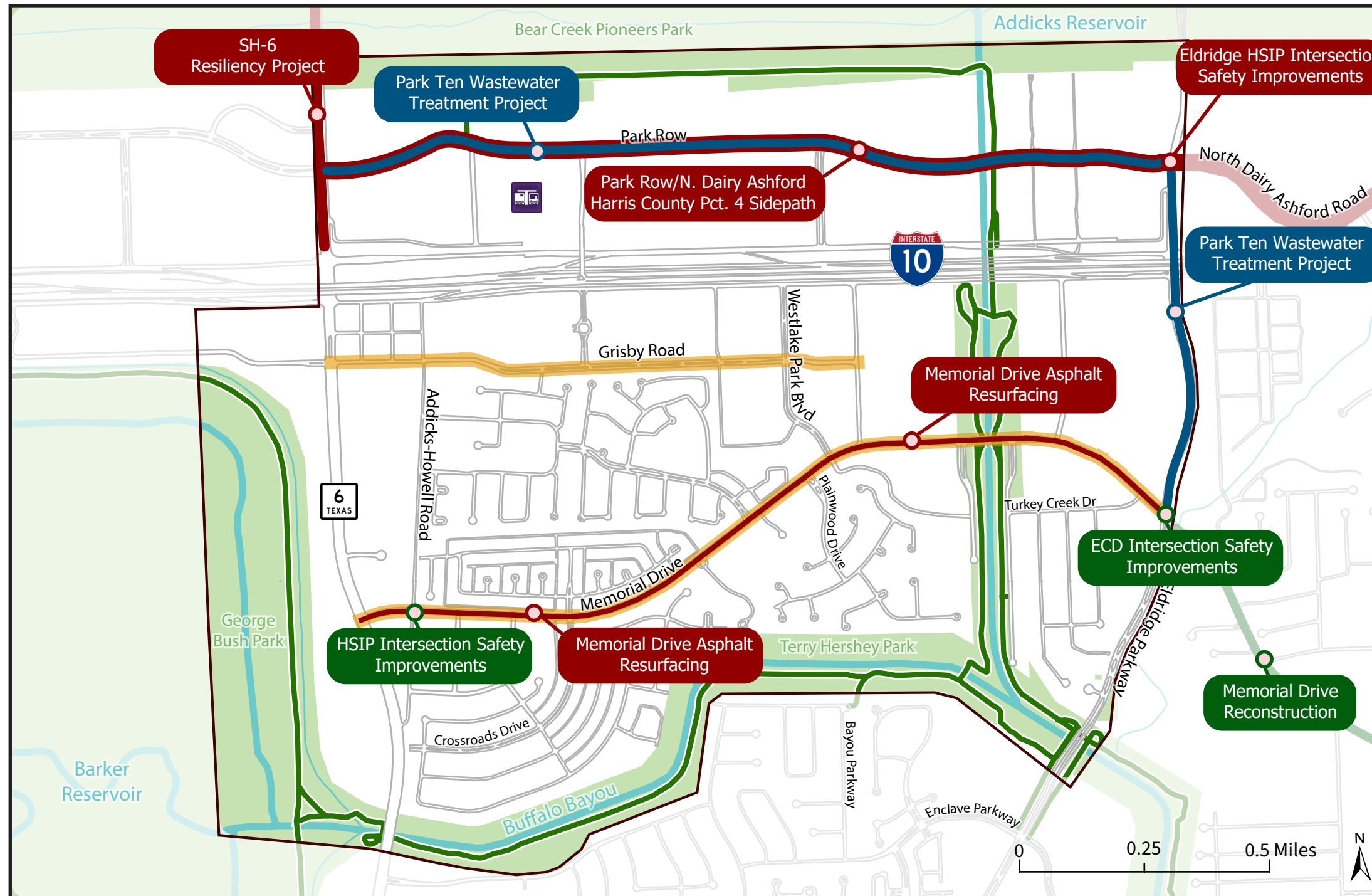


Figure 1.18 Completed, In-Progress, or Planned Infrastructure Projects

Key

- Study Area
- Primary Corridor
- Parks
- Shared-Use Path
- Bayous
- Wolfe Elementary
- Addicks Park & Ride
- Completed Projects
- Active Construction Projects
- Planned Projects

Related Plans and Projects

Planned infrastructure projects in the area were collected through a review of existing plans and studies completed by local agencies and capital project lists. This list of projects was also created in coordination with a steering committee supporting this mobility effort, comprised of agency representatives from TxDOT, City of Houston, Harris County, H-GAC, Energy Corridor District, and METRO. Projects were categorized as Completed, Active Construction, or Planned based on known project schedules at the time of writing of this report.

The projects identified in the map provide multimodal connections and/or public health improvements that will enable safer, more efficient mobility in the Study Area and surrounding neighborhoods. This planning effort seeks to supplement this existing work through identifying unaddressed gaps in the Study Area.

Related Projects

HSIP Intersection Safety Improvements (City of Houston)(Completed)

- Access management project to construct a median to restrict certain movements at the intersection of Memorial Drive and Addicks-Howell Road.

ECD Intersection Safety Improvements (Energy Corridor District)(Completed)

- Signal and roadway upgrades and pedestrian improvements, including pedestrian refuge islands, curb ramps, lighting, channelized right-turn lanes, and pavement markings.

Memorial Drive Reconstruction (City of Houston TIRZ 17)(Completed)

- Capital Improvement Plan (CIP) project to rebuild Memorial Drive from N. Kirkwood Road to Eldridge Parkway.

Park Ten Wastewater Treatment Project (City of Houston)(Active Construction)

- New installation of gravity wastewater lines and force main, abandonment of the Park Ten WWTP and improvements to the North Eldridge Lift Station and Park Row Regional Lift Station. The project focuses on maintaining a state of good repair for drainage and water pipe infrastructure for the area. There are no direct mobility improvements from the project.

Memorial Drive Asphalt Resurfacing (City of Houston)(Planned late 2025)

- Major rehab project to replace asphalt and concrete pavement sections, including replacement of damaged curbs, sidewalks, and storm inlets as necessary along Memorial Drive between Eldridge Parkway and SH-6.

Eldridge Highway Safety Improvement Program (HSIP) Intersection Safety Improvements (Energy Corridor District)(Planned 2026)

- Proposed signal upgrades and pedestrian improvements, including median refuge islands, sidewalks, curb ramps, and pedestrian crossings.

Park Row/N. Dairy Ashford Pct.4 Sidepath (Harris County)(Planned 2027)

- 3.5 miles of proposed sidewalks and sidepaths along Park Row/N. Dairy Ashford Road.

SH-6 Resiliency Project (TxDOT)(Planned late 2028)

- Enhance safety, address drainage and flooding, relieve congestion, and improve mobility along the SH-6 corridor between IH-10 and Clay Road.

Addicks Park and Ride Transit Oriented Development (METRO partnership with private developer) (Planned - No date announced)

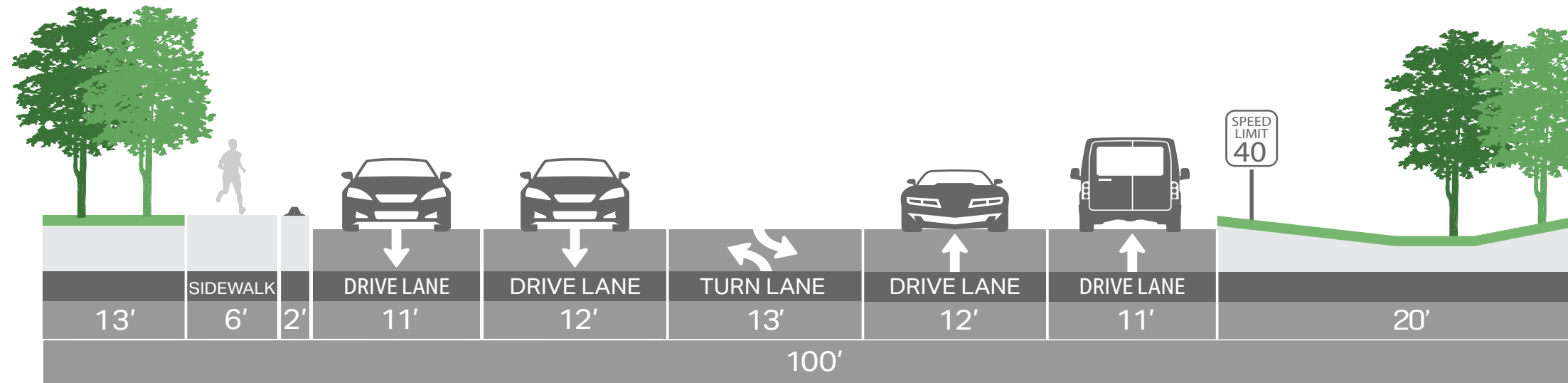
- Redevelopment of the Addicks Park and Ride lot and transit center into a multi-use residential and commercial development. Details are unknown at this time and timeline is a few years away from start of construction.

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Memorial Drive Existing Conditions

Memorial Drive is a major east/west corridor that runs from Downtown Houston to SH-6. Its extents within the Study Area provide access to the Energy Corridor neighborhoods to the north and south, Terry Hershey Park, and to some of Houston’s largest employers towards the eastern end. METRO Routes 75 and 162 run along Memorial Drive, connecting neighborhoods to local destinations, such as Addicks Park and Ride, Grisby Square, and George Bush Park; and regional destinations, such as Memorial City and Downtown. Memorial Drive also provides access to the popular Terry Hershey Hike and Bike Trail, with pedestrians, bicyclists, dog walkers, and families with strollers frequently crossing the busy corridor to access the shared-use path.

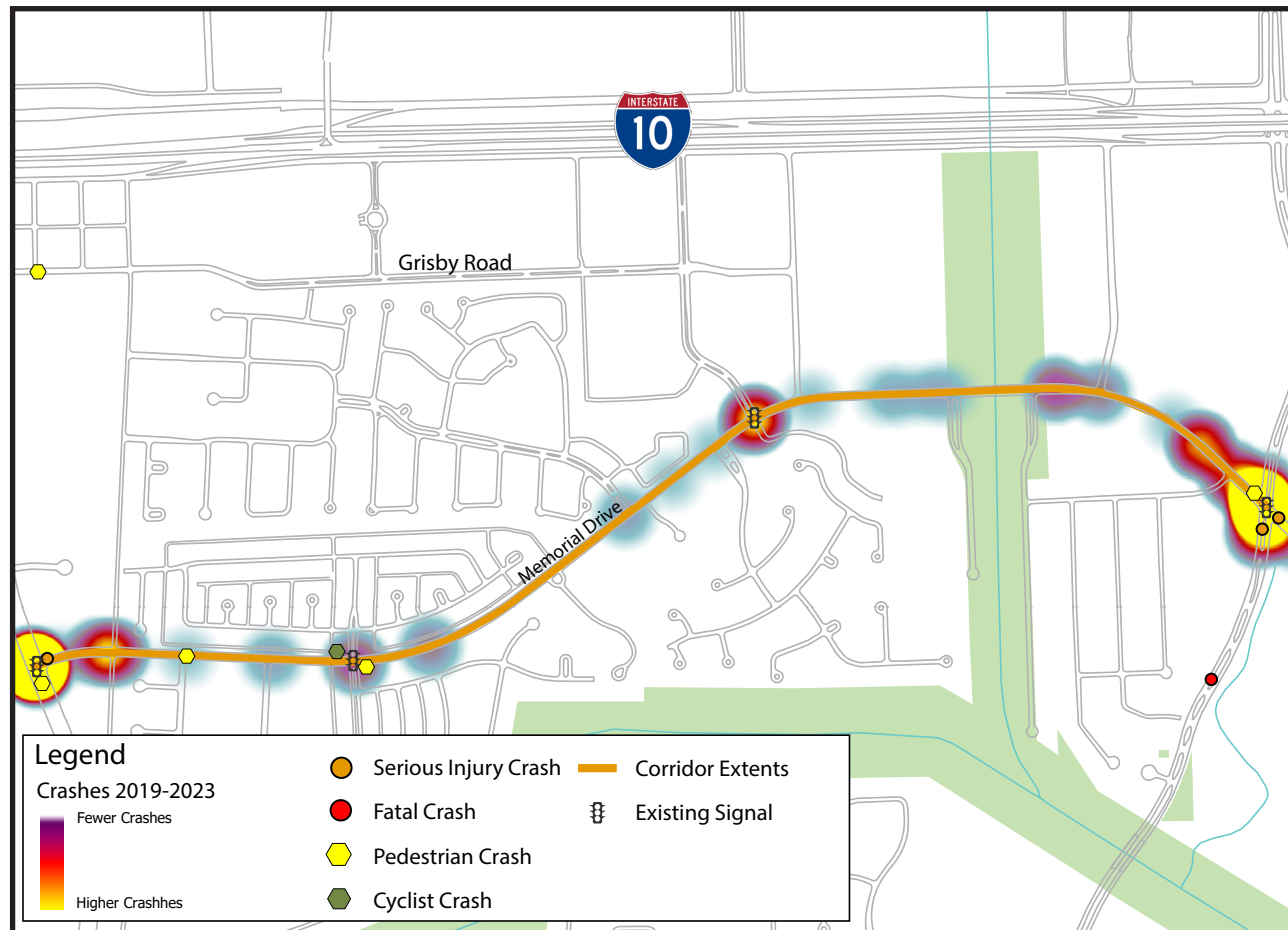
Figure 1.19 Typical Existing Cross-Section



Key Corridor Features

- Corridor Classification (2024): Major Thoroughfare
- ROW: 100-140'
- Roadway Type: concrete, asphalt
- Roadway Width: 59'
- 85th Percentile Speed: 45 mph (near SH-6), 50 mph (near Terry Hershey Park)
- Posted Speed Limit: 40 mph
- Drainage Type: curb & gutter, open ditch with slotted curbs
- Paving Condition Index (PCI) Range (2020): 22-90
- Average PCI (2020): 55

Figure 1.20 Corridor Crash Map



All recorded collisions in the TxDOT Crash Records Information System (CRIS) database between January 2019 and December 2023 on Memorial Drive were plotted and weighted with respect to traffic volume, as shown on the map to the left.

A total of 315 crashes occurred on Memorial Drive during this time period. Of those, 3 resulted in a serious injury and 5 involved a pedestrian and/or bicyclist.

The highest intersection crash rates (crashes per million entering vehicles) occur at the following locations:

- Memorial Drive at Westlake Park Boulevard (0.47)
- Memorial Drive at Eldridge Parkway (0.41)
- Memorial Drive at SH-6 (0.38)



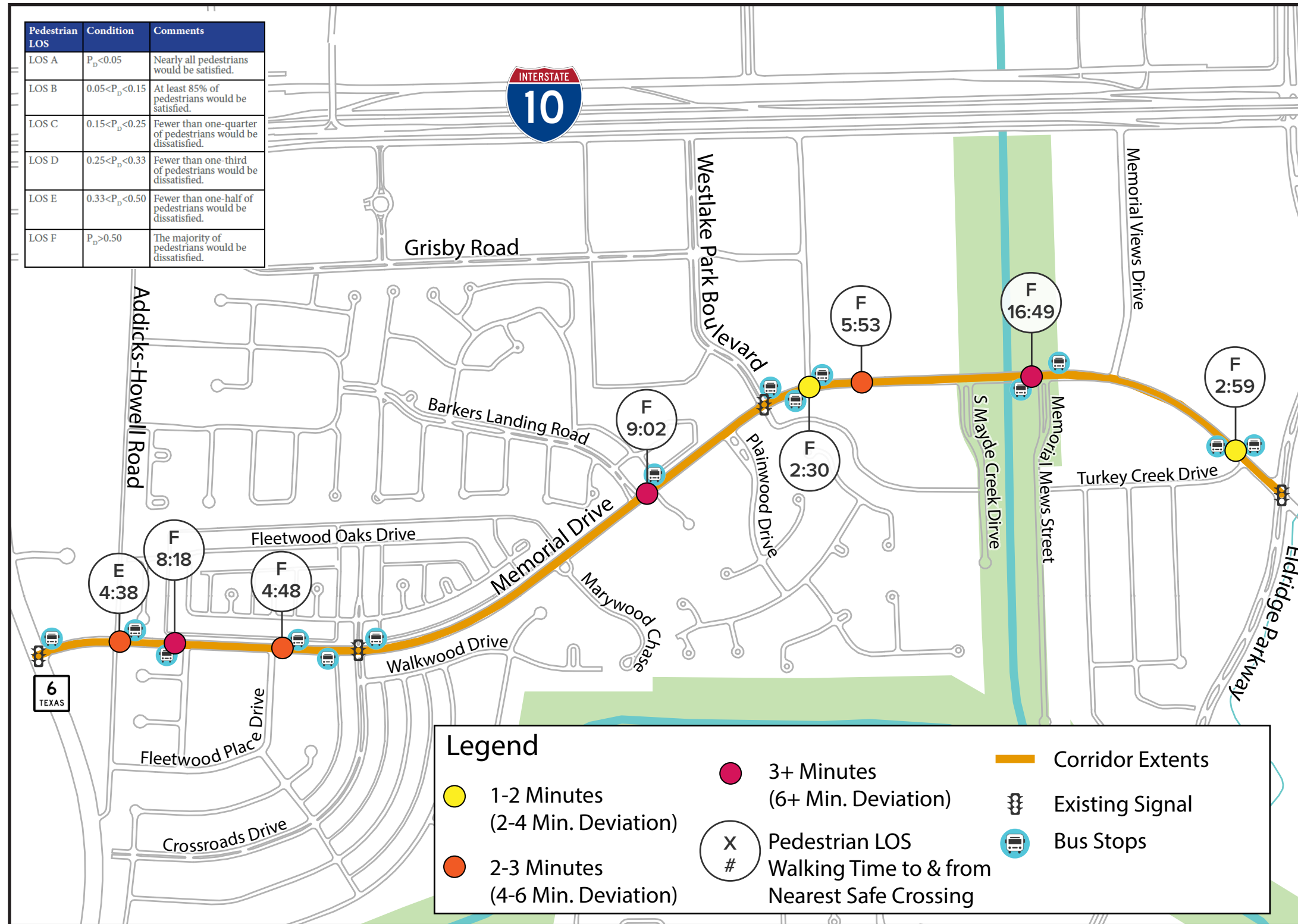
Memorial Drive’s sidewalks are 6’ along the north side or entirely missing along a majority of the south side along the corridor from SH-6 to Eldridge Parkway.



Houston METRO Route 75 Eldridge serves the entire stretch of Memorial Drive within the Study Area connecting Eldridge Parkway to the Barkers Landing and Fleetwood neighborhoods.

Memorial Drive Existing Conditions

Figure 1.21 Corridor Crossing Analysis



Crossing Analysis

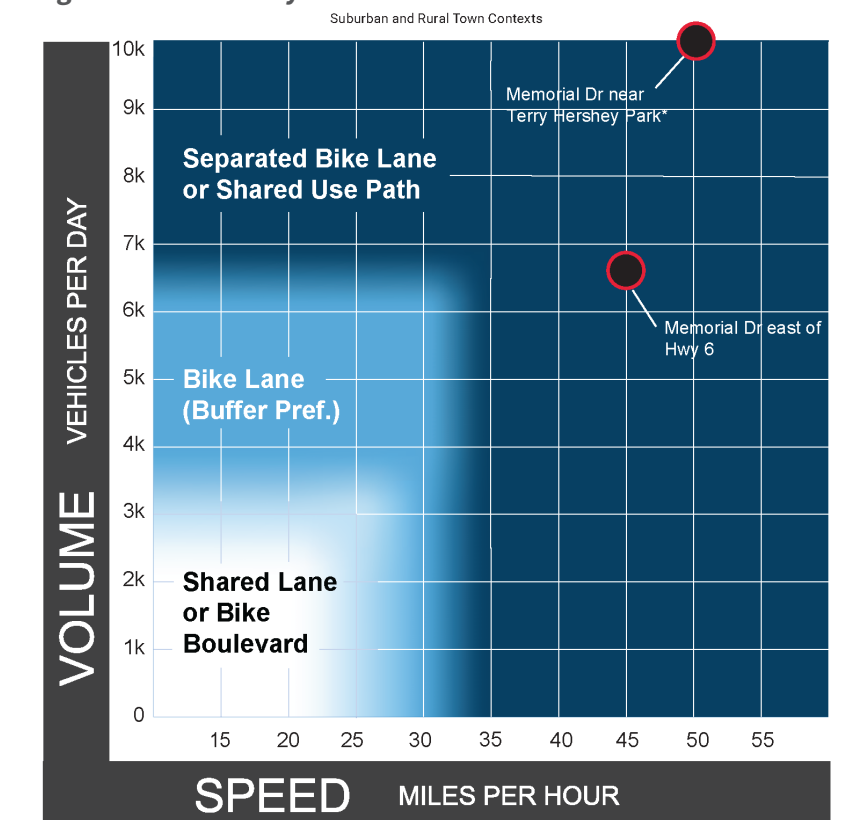
Pedestrian walk times to and from the nearest safe crossings along Memorial Drive are shown in the Corridor Crossing Analysis Figure. Deviation time, which are the yellow, orange, and red dots on the map, is the time it takes for a pedestrian to walk to the nearest safe crossing, cross the street, and walk back to their original desired crossing location. Safe crossings are at signalized intersections, stop-controlled intersections, or any other controlled crossings. Walk times were evaluated at locations where pedestrian crossing demand exists, often at existing transit stops. Based on walk time to the nearest safe crossing, there is a need for midblock pedestrian crossings between SH-6 and Crossroads Drive, at Barkers Landing Road, and between Westlake Park Boulevard and Eldridge Parkway.

Pedestrian LOS is based on the probability of pedestrian satisfaction as it applies to pedestrian delay at an uncontrolled crossing. It is defined by a score of A-F as shown in the table in Figure 1.21.

Bicyclist Comfort

The Federal Highway Administration's (FHWA) Bikeway Selection Guide uses vehicle speeds and volumes to determine the level of separation needed between bicycles and pedestrians. As shown in the Guide below, based on the collected traffic data, separated bike facilities or shared-use paths are warranted to provide a safe and comfortable biking experience on Memorial Drive.

Figure 1.22 Bikeway Selection Guide

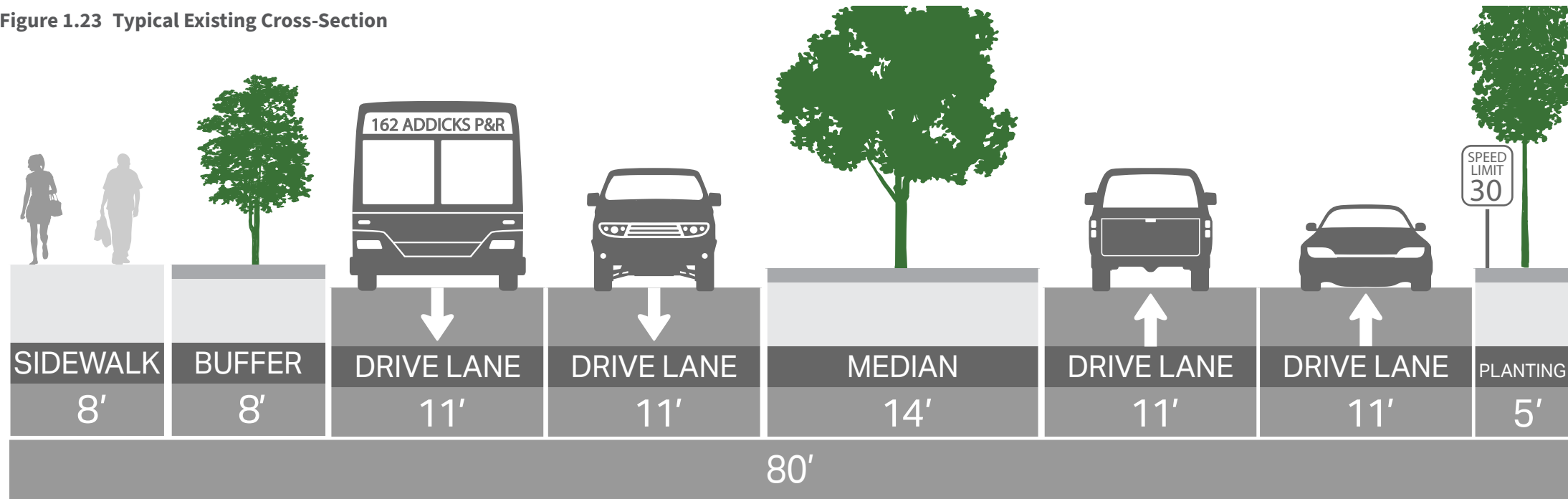


*The volume at Memorial Drive near Terry Hershey Park is greater than 10k vehicles per day.

Grisby Road Existing Conditions

Grisby Road is a local east/west corridor within the Study Area that provides access to the Energy Corridor neighborhoods to the south, popular local restaurants to the north, and a major job center to the east, BP Energy Company. Home to Grisby Square, Grisby Road is an economic generator that attracts businesses and customers from all over the Energy Corridor District. METRO Route 162 traverses the corridor, connecting all of these destinations to the larger transit network in West Houston. Both ends of Grisby Road within the Study Area see many pedestrians and cyclists crossing to access nearby restaurants, green space, and office buildings.

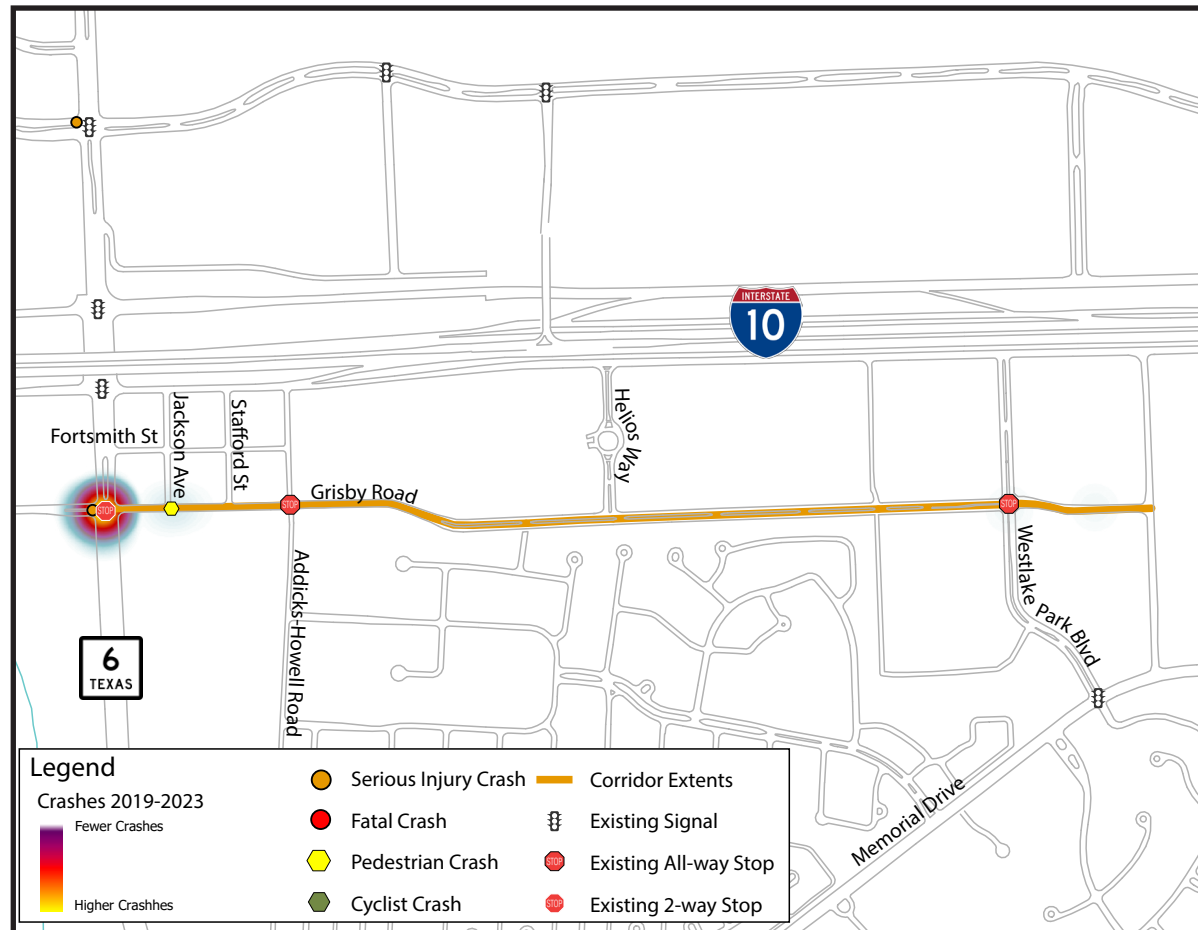
Figure 1.23 Typical Existing Cross-Section



Key Corridor Features

- Corridor Classification (2024): Local Road east of SH-6, Major Collector west of SH-6
- ROW: 50-80'
- Roadway Type: concrete, asphalt
- Roadway Width: 40-60'
- Posted Speed Limit: 30 mph
- Drainage Type: curb & gutter, drop grates
- Paving Condition Index (PCI) Range (2020): 56-83
- Average PCI (2020): 64

Figure 1.24 Corridor Crash Map



All recorded collisions in the TxDOT Crash Records Information System (CRIS) database between January 2019 and December 2023 on Grisby Road were plotted and weighted with respect to traffic volume, as shown on the map to the left.

A total of 14 crashes occurred on Grisby Road during this time period. Of those, one crash involved a pedestrian.

A high crash rate with respect to entering traffic volume occurs at Grisby Road and SH-6, where nearly 36% of crashes on Grisby Road occur.



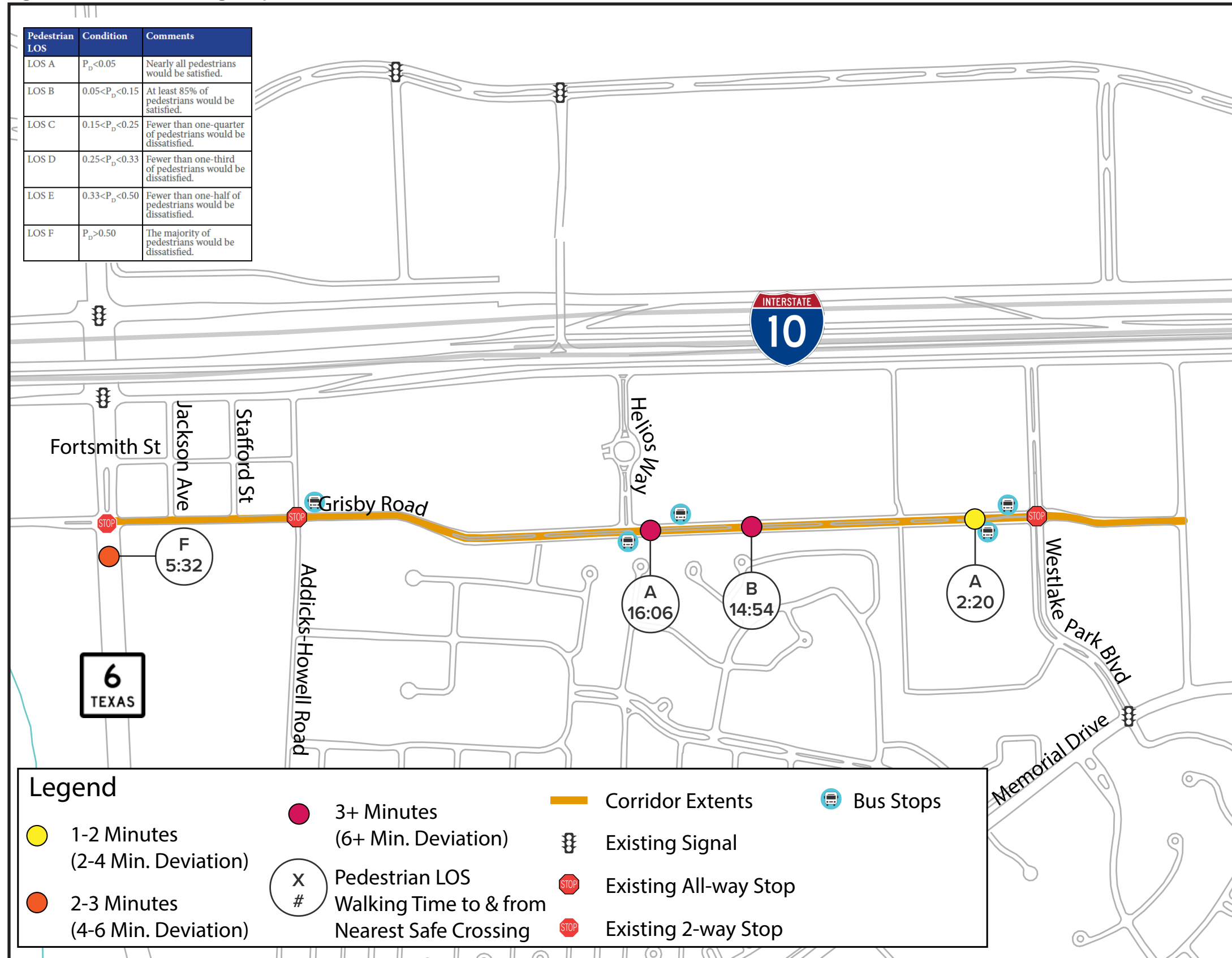
Grisby Road around Grisby Square lacks sidewalks. Grisby Road between Addicks-Howell Road and Westlake Park Boulevard has accessible and wide sidewalks on the north side.



Houston METRO Route 162 Memorial Express operates along Grisby Road serving destinations like Grisby Square and Westlake Park.

Grisby Road Existing Conditions

Figure 1.25 Corridor Crossing Analysis



Crossing Analysis

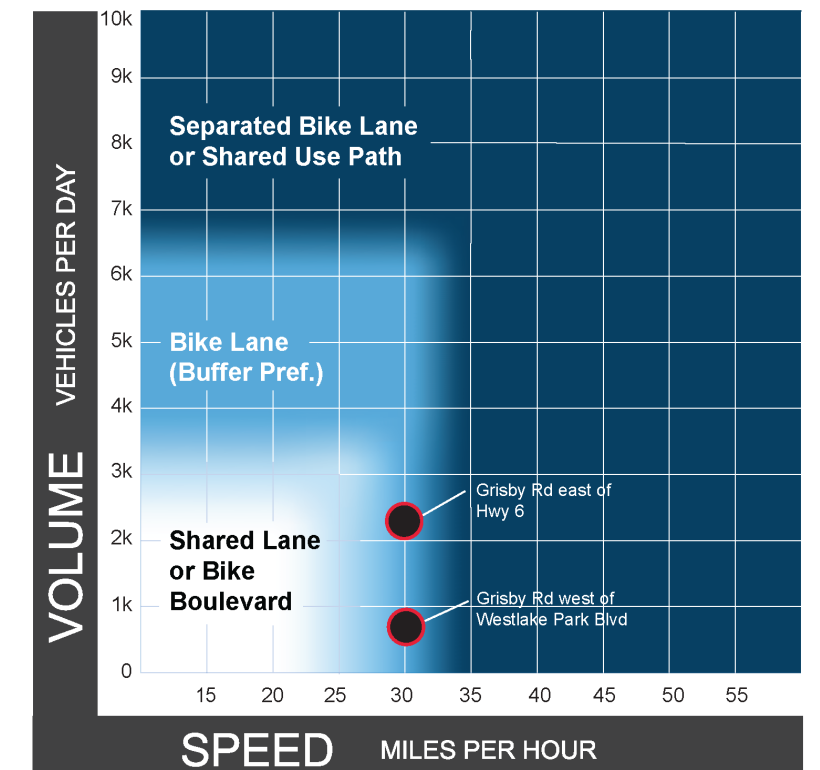
Pedestrian walk times to and from the nearest safe crossings along Grisby Road are shown in Figure 1.25. Deviation time, shown in the yellow, orange, and red dots on the map, is the time it takes for a pedestrian to walk to the nearest safe crossing, cross the street, and walk back to their original desired crossing location. Safe crossings are at signalized intersections, stop-controlled intersections, or any other controlled crossings. Walk times were evaluated at locations where pedestrian crossing demand exists, often at existing transit stops. Based on walk time to the nearest safe crossing, the greatest need for midblock pedestrian crossings exists between Helios Way and Westlake Park Boulevard.

Pedestrian LOS is based on the probability of pedestrian satisfaction as it applies to pedestrian delay at an uncontrolled crossing. It is defined by a score of A-F as shown in the table in Figure 1.25.

Bicyclist Comfort

The FHWA's Bikeway Selection Guide uses vehicle speeds and volumes to determine the level of separation needed between bicycles and pedestrians. As shown in the Guide below, based on the collected traffic data, buffered bike facilities or a back-of-curb shared-use path is warranted to provide a safe and comfortable biking experience on Grisby Road.

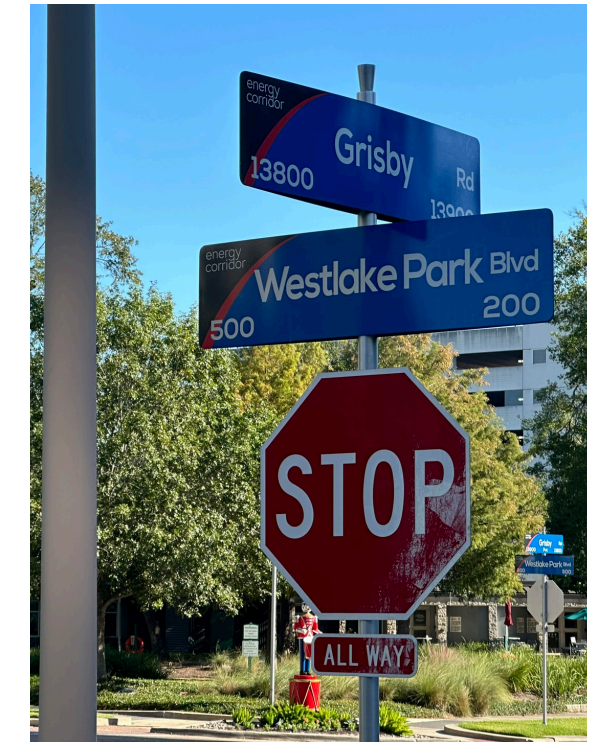
Figure 1.26 Bikeway Selection Guide



*The volume at Memorial Drive near Terry Hershey Park is greater than 10k vehicles per day.



The Energy Corridor District partnered with METRO to have District Branded bus shelters at bus stops across the Study Area



The Energy Corridor District has specialized street name signs throughout the District

Places and Public Spaces

The Energy Corridor has two main features that help establish a sense of place. The first is the office parks and complementary placemaking created by the Energy Corridor Management District. When visitors, residents, and workers see the tall towers in the suburban landscape, they know they have arrived in the Energy Corridor. There is standardized Energy Corridor District branded wayfinding and placemaking signage throughout the District. Around half of Memorial Drive, from Eldridge Parkway to Westlake Park Boulevard, is within the District. The entire stretch of Grisby Road from Westlake Park Boulevard to SH-6 is within the District and the District's identity and brand is more noticeable compared to Memorial Drive due to the Energy Corridor District branded signage and bus stops.

The second feature is Terry Hershey Park and the hike and bike network along Buffalo Bayou. The regional hike and bike network creates an east-west and north-south spine where people can reach jobs or activities via foot, bike, or mobility device. The hike and bike network and surrounding natural green space plays a vital role in making the Energy Corridor a place where people want to visit, work, and live.

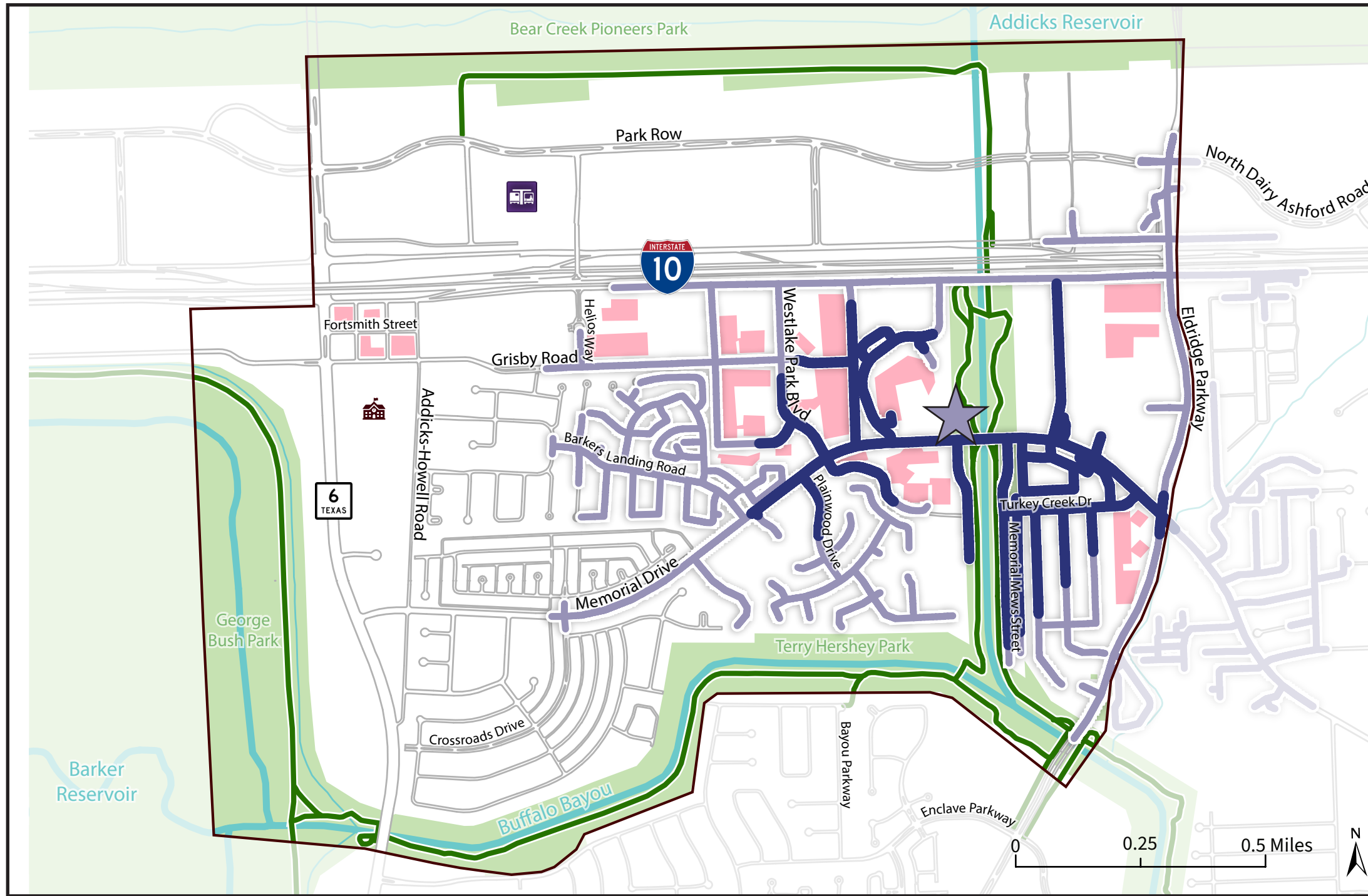


Figure 1.27 Memorial Drive Walkshed

Key

- Study Area
- Parks
- Shared-Use Path
- Bayous
- Wolfe Elementary
- Addicks Park & Ride
- Starting Point - Terry Hershey Park Trailhead
- Half-Mile Walk
- 1-Mile Walk

Walkshed - Memorial Drive

The Terry Hershey Hike and Bike Trail is a major asset to the community and provides a safe, comfortable place for people to walk, bike, and roll. However, the existing street-level sidewalk network could better support the regional hike and bike greenway network with more accessibility and safety improvements that would enable more people to reach the network via foot or mobility device. For example, the Fleetwood and Barkers Landing neighborhoods do not have sidewalks at all. The major roadways have some curb ramps and mostly contiguous sidewalks, but there are significant maintenance issues especially at the intersection of Crossroads Drive and at Barkers Landing Road with ADA ramps.

As evident in Figure 1.27, a large portion of the Study Area is accessible within a 1-mile walk. From the Terry Hershey Park trailhead on Memorial Drive, a pedestrian can access residential areas to the east and west, as well as job centers and commercial destinations at the eastern edge of Grisby Road, Memorial Drive, and the west side of Eldridge Parkway. The Study Area has a high potential for increased connectivity and a pleasant environment for residents, commuters, and recreational visitors.

Bikeshed - Memorial Drive

The Terry Hershey Hike and Bike Trail is a major bikeway within the Study Area that connects the area to Houston's greater bike and greenway networks. However, its connection to the greater bicycle network is limited. The Study Area lacks street-level bike facilities, so bicyclists must share lanes with vehicles without any safety buffer or dedicated space. There are no dedicated bike facilities along Memorial Drive in the Study Area.

As evident in Figure 1.28, much of the West Houston region is reachable within a 3-mile bike ride from the Terry Hershey Park trailhead on Memorial Drive. The bikeshed extends well beyond the Study Area and covers the Energy Corridor, Memorial, and Eldridge/West Oaks neighborhoods, as well as job centers and commercial destinations in the Energy Corridor District. From Terry Hershey Park's trailhead on Memorial, one can quickly reach George Bush Park, Ray Miller Park, Bear Creek Pioneers Park, and Nottingham Park by bike. The Study Area has a high potential for increased accessibility and connectivity and providing a pleasant biking experience for residents, commuters, and recreational visitors.

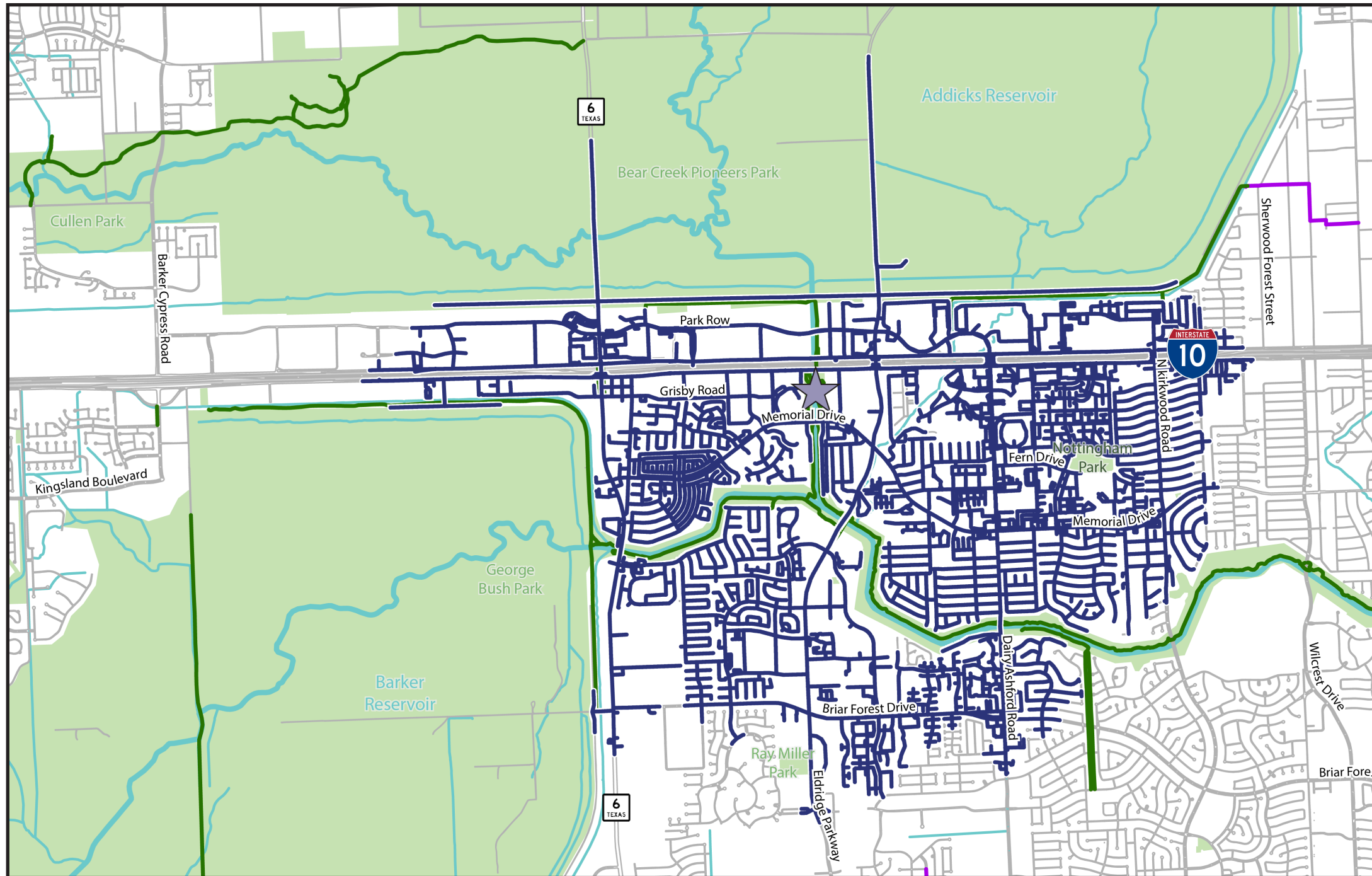


Figure 1.28 Memorial Drive Bikeshed

Key

- Parks
- Shared-Use Path
- Bayous
- ★ Starting Point - Terry Hershey Park Trailhead
- 3-Mile Bike
- Shared On-Street Bike Facility

Walkshed - Grisby Road

Grisby Square, located on the north side of Grisby Road east of SH-6, is a key destination comprised of local restaurants and businesses that generates pedestrian traffic in the Study Area. However, the surrounding sidewalk network is inconsistent with some missing sidewalk ramps. The sidewalk network exists almost solely along major corridors, as the Fleetwood and Barkers Landing neighborhoods south of Grisby Road have no sidewalks. In addition, a major gap in the sidewalk network exists along Grisby Road west of Addicks-Howell Road.

As shown in Figure 1.29, a large portion of the Study Area is reachable within a 1-mile walk/roll from Grisby Square. From here, a pedestrian can access Barkers Landing, Addicks Park & Ride, as well as employment and commercial destinations at the eastern edge of Grisby Road and Memorial Drive. George Bush Park and the area west of the Study Area is also reachable by foot although SH-6 does pose as a barrier for pedestrians. The Study Area has a high potential for increased accessibility/connectivity and a pleasant pedestrian experience for residents, commuters, and recreational visitors.

Although the current walkshed includes the Barkers Landing, Fleetwood, and Crossroads neighborhoods, residents are hesitant to reach Grisby Square by foot or mobility device due to the unsafe walking conditions along Memorial Drive and Addicks-Howell Road.

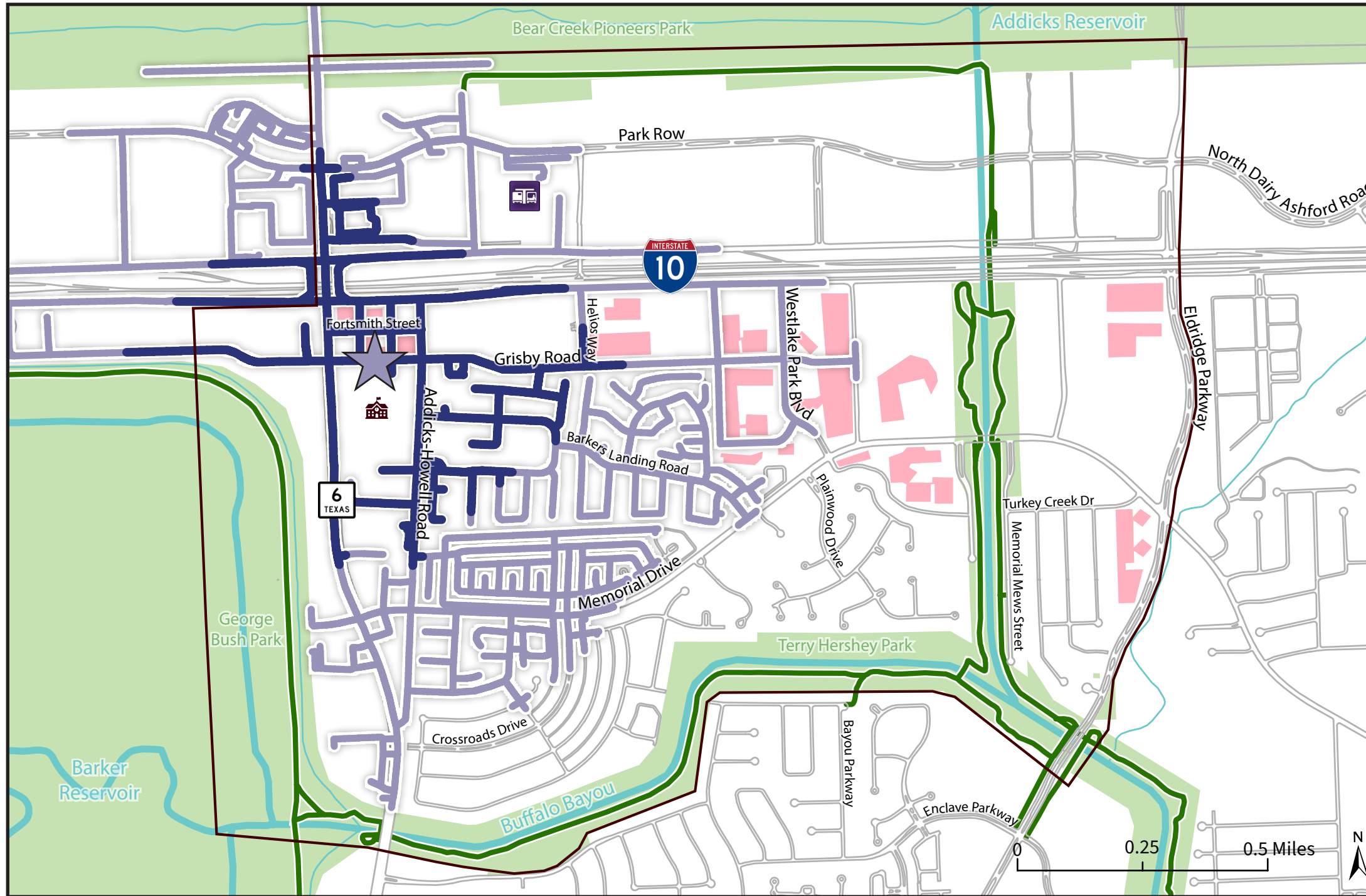


Figure 1.29 Grisby Road Walkshed

Key

- Study Area
- Parks
- Shared-Use Path
- Bayous
- ★ Wolfe Elementary
- 🚌 Addicks Park & Ride
- ★ Starting Point - Grisby Square
- Half-Mile Walk
- 1-Mile Walk

Bikeshed - Grisby Road

George Bush Park Hike and Bike Trail is a major bikeway within the Study Area that connects the area to Houston's greater bike and greenway networks. However, there is no connection to the Fleetwood and Barkers Landing neighborhoods east of SH-6, resulting in a largely disconnected bicycle network within the Study Area. The street-level bicycle network in the Study Area is mostly non-existent, so bicyclists must share lanes with vehicles without any safety buffers or dedicated space. There are no dedicated bike facilities along Grisby Road in the Study Area.

As evident in Figure 1.30, much of the West Houston region is reachable within a 3-mile bikeshed from Grisby Square. The bikeshed extends beyond the Study Area and covers the Energy Corridor and Park Ten neighborhoods to the east and west, as well as neighborhoods further east along Memorial Drive and Eldridge/West Oaks to the south. Job centers and commercial destinations in the Energy Corridor District are reachable by bike, as well as Addicks Park & Ride. The Study Area has a high potential for increased accessibility and connectivity creating a pleasant biking experience for residents, commuters, and recreational visitors.

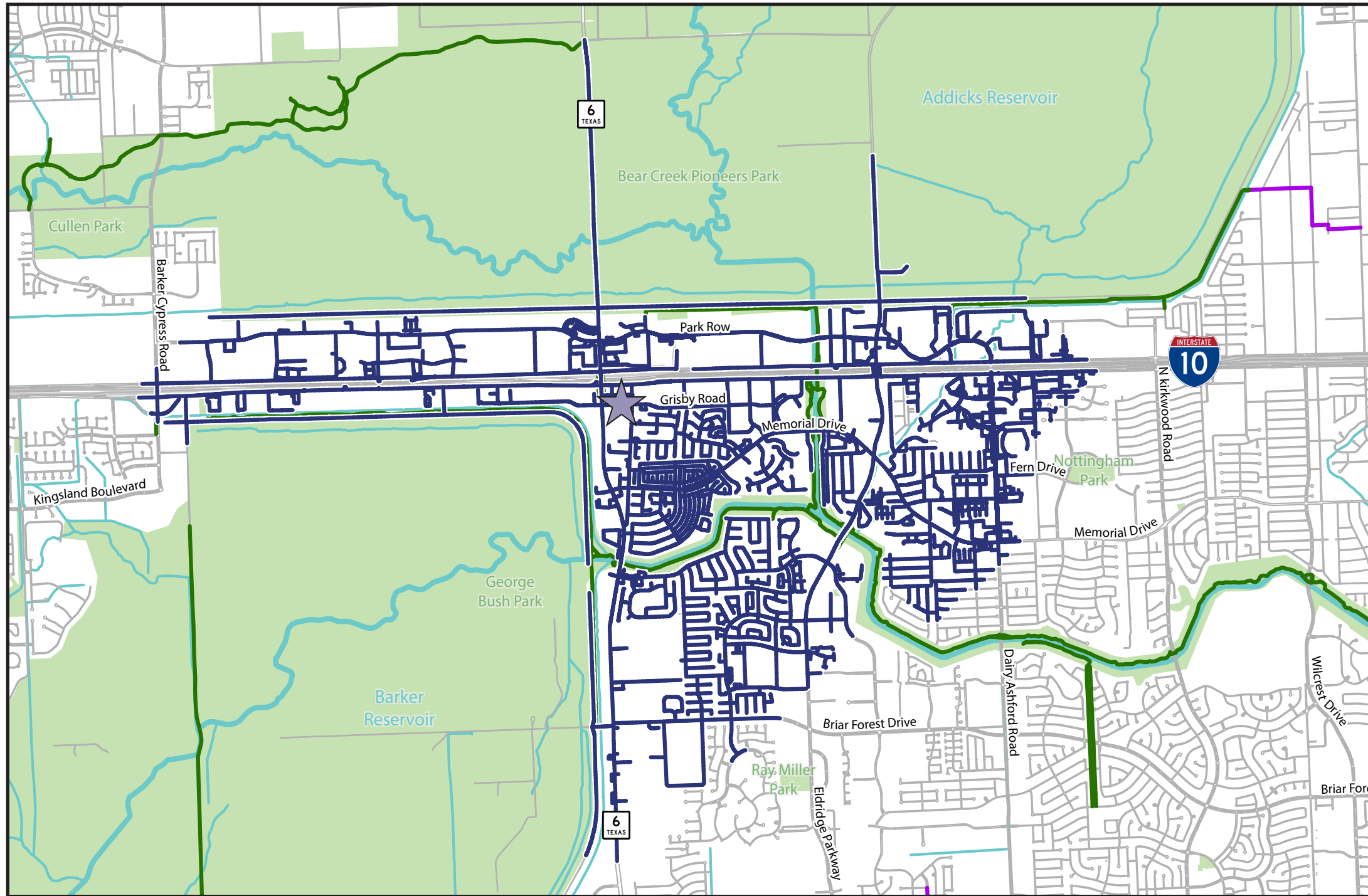


Figure 1.30 Grisby Road Bikeshed

Key

- Parks
- Shared-Use Path
- Bayous
- Starting Point - Grisby Square
- 3-Mile Bike
- Shared On-Street Bike Facility



Figure 1.31 Under Construction or Planned Land Development

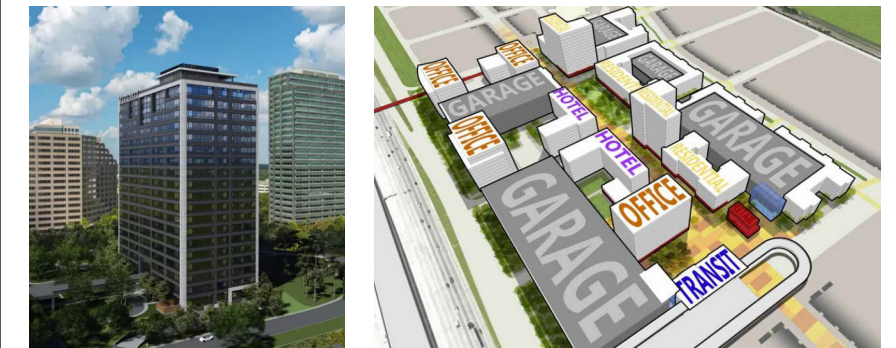
Key

- Study Area
- Primary Corridors
- Parks
- Shared-Use Path
- Bayous
- Addicks Park & Ride
- Proposed Development

Planned or Future Development

There are multiple planned or under construction developments within the Study Area. Grisby Road has multiple developments in progress or planned with the office to residential conversion of Westlake 3 Office Tower, an remodel of Westlake 4 Office Tower, and a new masterplan townhome community called Retreat at Oak Park.

Additionally, there is early planning work for Transit-Oriented Development (TOD) at Addicks Park and Ride, a new Houston Housing Authority development off Park Row, and a new large-scale mixed use development by Midway to redevelop the old ConocoPhillips Campus off North Dairy Ashford Road. Although these three developments are a bit further from Memorial Drive and Grisby Road, the residents, workers, and visitors of these developments will benefit from the enhanced connectivity and increased roadway safety from the projects.



Top left, Westlake Park Office to Residential Conversion
 Top right, Addicks Park and Ride Transit Oriented Development concept
 Bottom left, Retreat at Oak Park in Grisby Square

Access Map

The current conditions present significant challenges for pedestrian and bike access, particularly in the areas surrounding Memorial Drive. The residential subdivisions serve as major obstacles that restrict movement for residents and visitors in the area. These communities only have a few entrances/exits making it difficult to easily access certain parts of the Study Area, like Grisby Square and Westlake Park. For the Fleetwood neighborhood, the only signalized crossing along Memorial Drive is located at Crossroads Drive. Traveling across Memorial Drive, especially on foot, mobility device, or bike, can be challenging and unsafe. There is a critical need for additional crossing points across Memorial Drive to improve connectivity and safety.

Grisby Road also has both physical and safety barriers. One physical barrier exists on the south side of the street between Addicks-Howell Road and Westlake Park Boulevard. A large brick wall separates the adjacent neighborhood from Grisby Road. There is also a large brick wall surrounding the neighborhood on the east side of Addicks-Howell Road; however, there are pedestrian gates for pedestrians and cyclists to access. SH-6 is a major safety barrier for Grisby Road. The intersection at SH-6 is currently unsignalized and can be challenging to cross. Grisby Road west of SH-6 runs parallel to, but doesn't provide direct access, to the George Bush Park Hike and Bike Trail. If a shared-use path is extended along Grisby Road to connect to George Bush Park, this intersection will be an even larger safety barrier for pedestrians and bicyclists.

The George Bush and Terry Hershey paths lack connections at key points: George Bush to Grisby Road and Memorial Drive; and Terry Hershey to Addicks-Howell Road and the Fleetwood South and Memorial Thicket neighborhoods. Addressing these multimodal connectivity issues would reduce access barriers to residents and visitors in these neighborhoods.



Figure 1.32 Access and Barriers

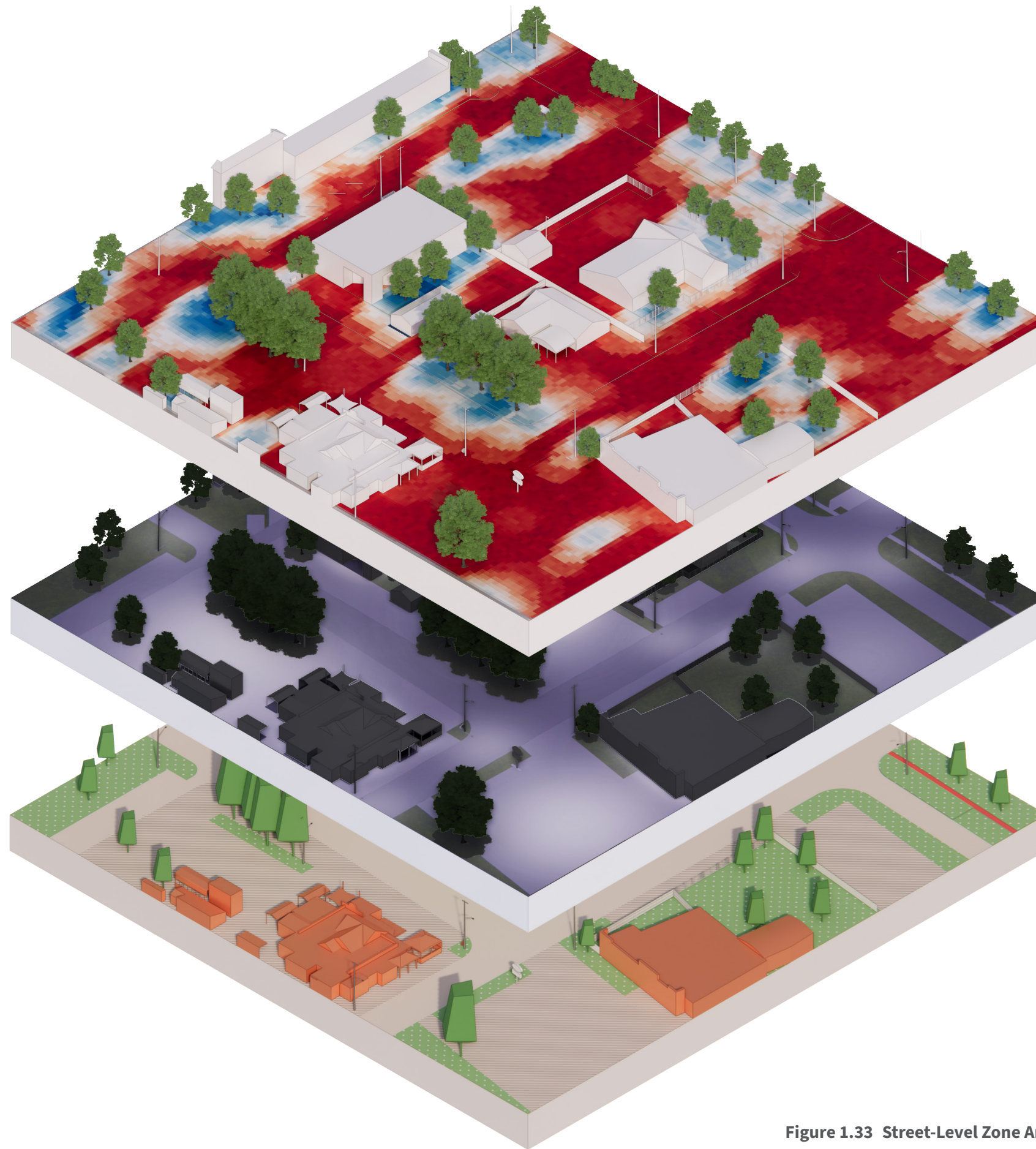
Key

	Signalized Crossing		Commercial		Public /Civic
	Unsignalized Crossing		Office		Public Park
	Barrier		Religious		Private Park
			Residential		Green Space

THERMAL STUDY

LIGHT STUDY

CHARACTER STUDY



Study Zones

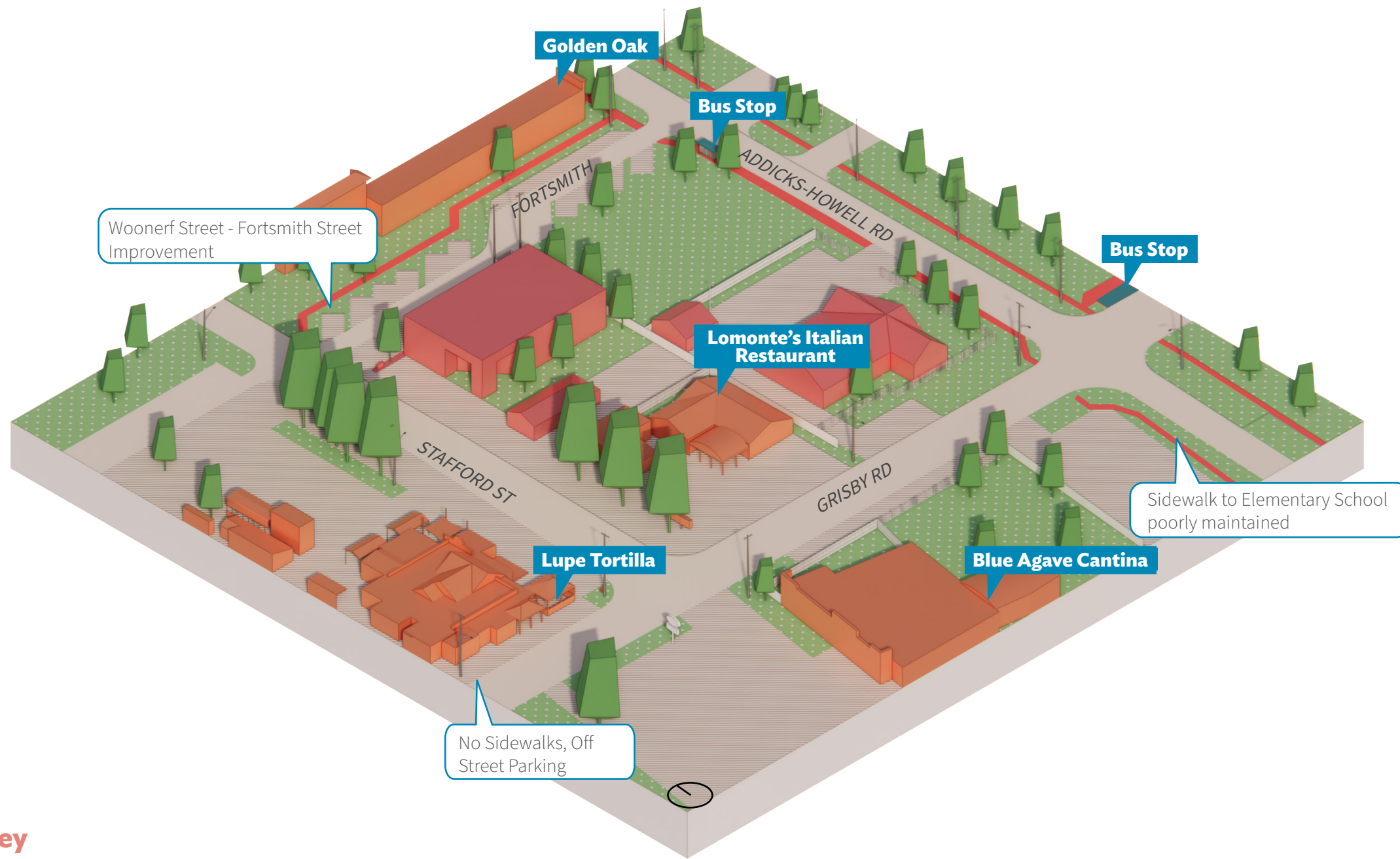
The Study Area was broken into four zones based on their intensity of use, their overall character and placemaking, and access to destinations. For each of the zones, a character, light, and thermal study was conducted.

The character study analyzes the identity of each of the zones by their physical and social elements. Character is important for a comprehensive view of the interactions between the built environment and visitors.

The light study was conducted by walking the study zones with a light meter at night and collecting the foot-candle measurements from pedestrians, street, and building lights in the area. The foot-candle data measures the amount of light that falls on a surface.

The thermal study was conducted on each zone during the hottest months of the year, from May to August. The study was performed at 1:00 PM, the peak of daytime heat. The Universal Thermal Climate Index (UTCI) was used as a measurement tool to understand the thermal comfort of pedestrians and the environmental factors influencing heat in the area.

Figure 1.33 Street-Level Zone Analysis



Key

- Commercial
- Office
- Bus Stop
- Sidewalk

Grisby Square

Character Study

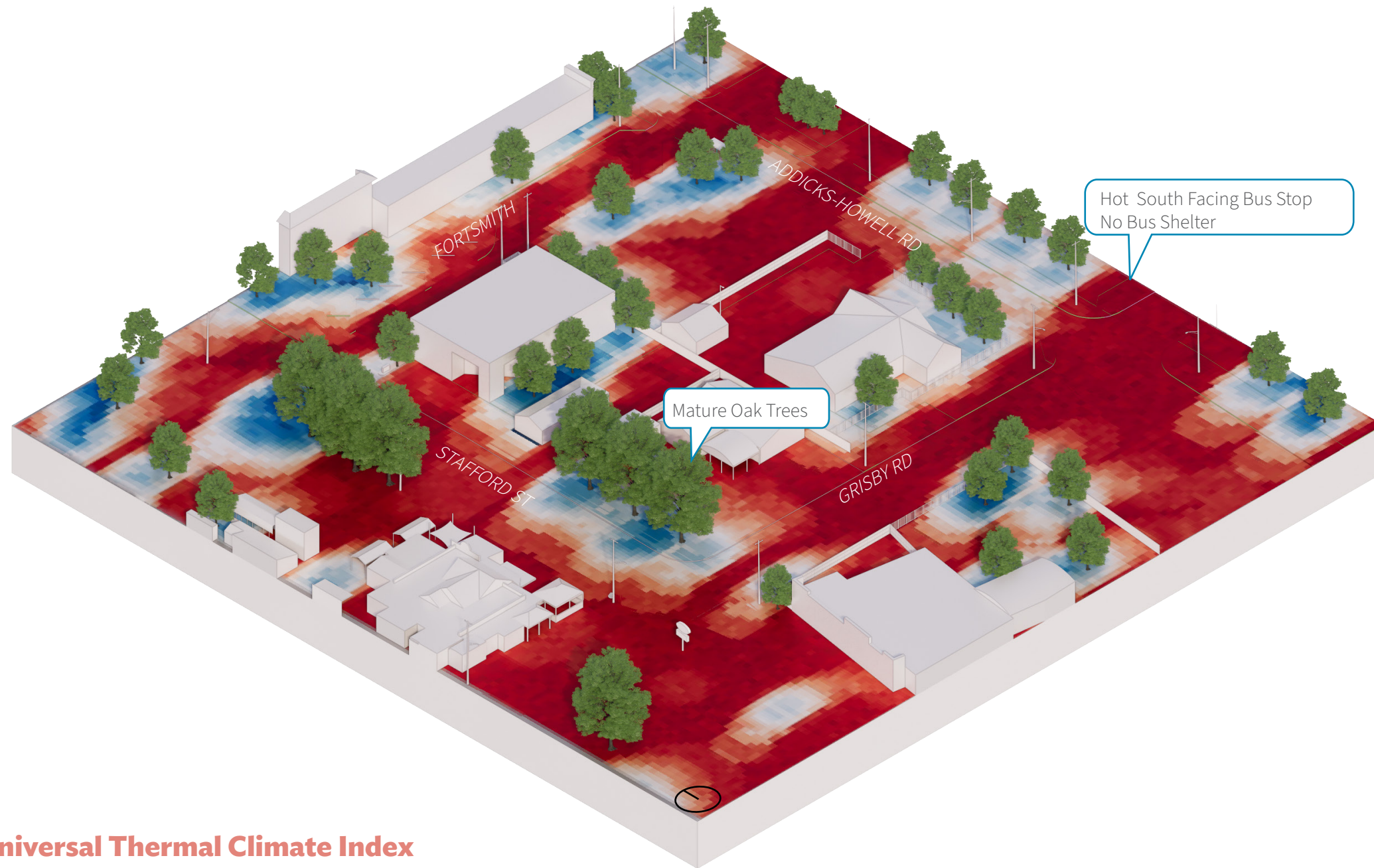
Grisby Square, located within the Energy Corridor, is a vibrant area known for its diverse selection of local dining establishments, including Lupe Tortilla, Lomonte’s Italian Restaurant, and Watson’s Grill and House of Ales. These restaurants play a significant role in the area’s popularity, attracting both local employees, residents, and visitors. As a result, the location has become a well-known destination for dining and socializing within the Energy Corridor. There have been some improvements over the years. For example, in 2015, Fortsmith Street was designed as a shared street for both vehicular and pedestrian traffic in an area where parking is more formalized.

Due to Grisby Square’s high volume of visitors, especially during peak hours, parking availability is often limited. In response, restaurants have implemented creative strategies to optimize parking space throughout the area.

Despite its popularity, pedestrian accessibility presents notable challenges. The sidewalk connecting Grisby Street to Maurice L. Wolfe Elementary is in poor condition, creating difficulties for those on foot. Additionally, a gap in pedestrian infrastructure exists between Addicks-Howell Road and SH-6, further complicating safe navigation. Parking located directly in front of restaurants force pedestrians to walk along the street, compromising safety. This portion of Grisby Road contrasts the streetscape east of Addicks-Howell Road, where the consistent landscaping and well-maintained sidewalks of the Energy Corridor campus abruptly ends at the post office.

Grisby Square also features several mature oak trees, which not only enhance the area’s aesthetic appeal but also serve as a reminder of its agricultural heritage. These trees contribute to the charm and character of the space while offering valuable shade.

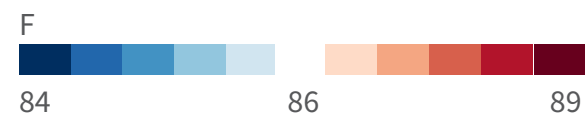
Figure 1.34 Grisby Square Character Study



Grisby Square Thermal Study

Grisby Square contains a higher concentration of parking lots than green spaces, a factor that significantly influences the area’s thermal conditions. The prevalence of paved surfaces contributes to increased heat retention, making Grisby Square a thermal “hot spot” during the summer months. Although the area includes several large oak trees that offer shade, these are predominantly situated along the perimeters of parking lots. As a result, the shade they provide primarily benefits parked vehicles rather than pedestrians. In response to Houston’s intense summer heat, most restaurants in the area have incorporated shaded canopies to accommodate outdoor seating. Despite these efforts, pedestrian infrastructure lacks consistent climate-conscious design. Only one bus stop within this zone is equipped with a shelter, while the uncovered stop along Grisby Street remains exposed to the sun due to its orientation and lack of tree coverage, further contributing to uncomfortable thermal conditions for transit users.

Universal Thermal Climate Index



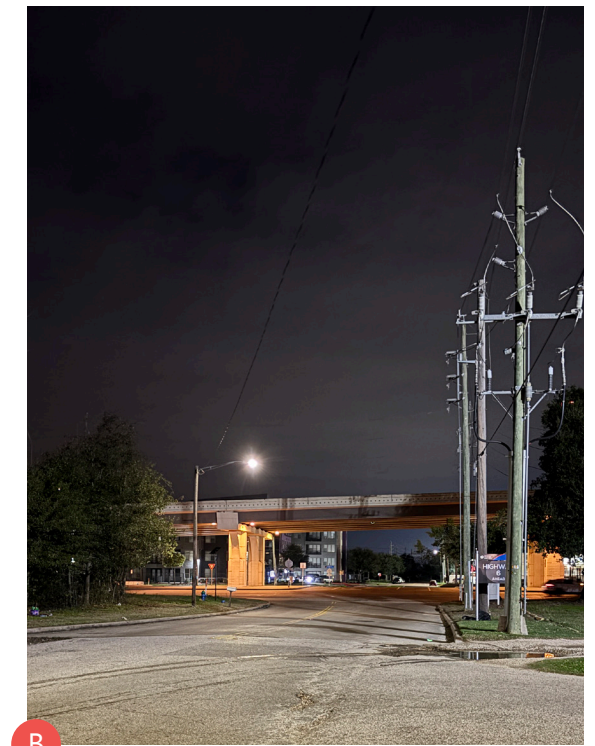
5/1 to 8/1 @1pm*

*weather data collected over 30 years creating a typical Houston weather year

Figure 1.35 Grisby Square Thermal Study



A Grisby Road near Lomonte's Italian Restaurant



B Grisby Road looking at SH-6

Grisby Square

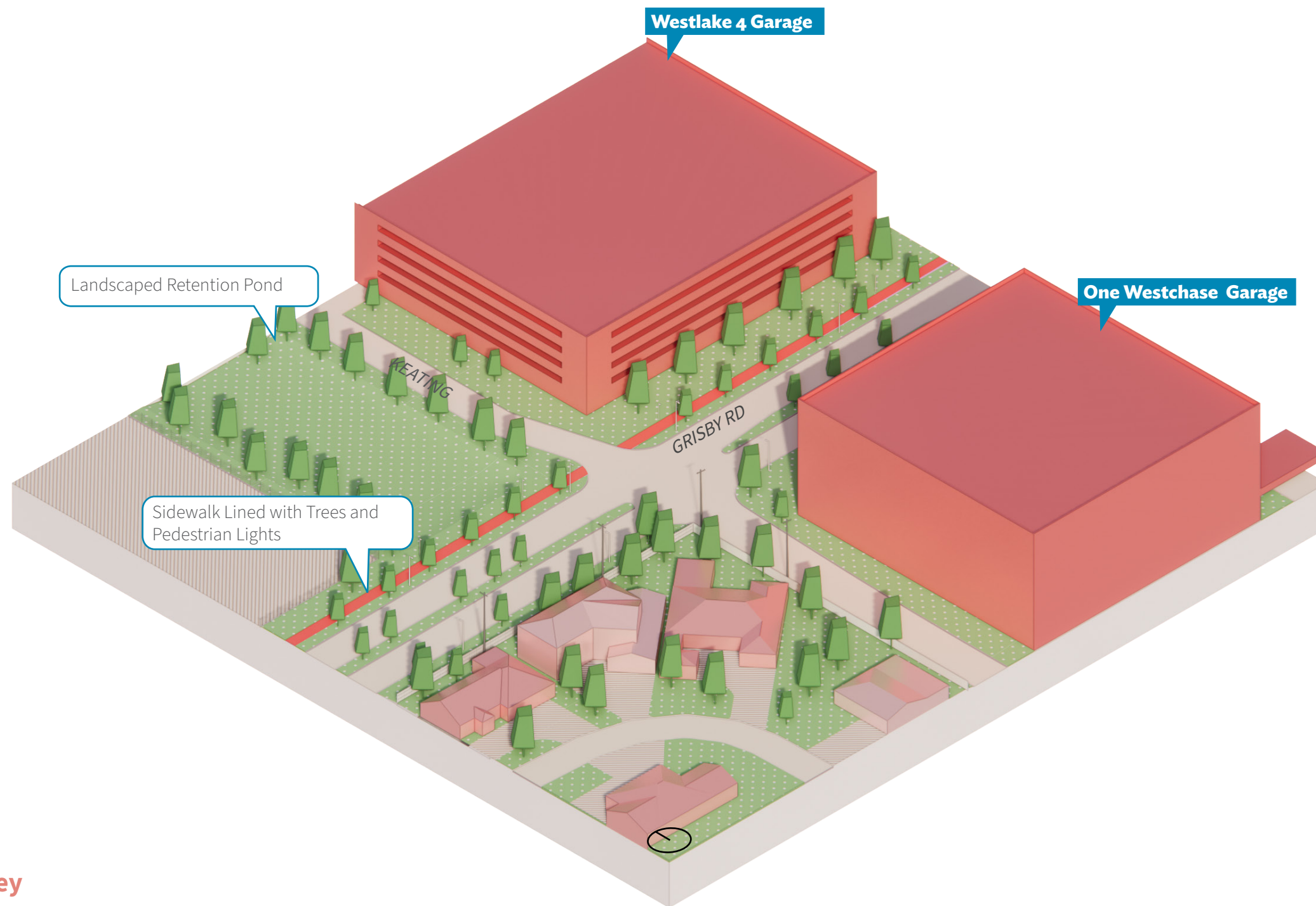
Light Study

Light meter data indicates that Grisby Square meets the recommended average foot-candle ranges for exterior applications, suggesting that the area is adequately illuminated overall. Observations confirm that the lighting throughout Grisby Square is generally sufficient, with consistent coverage across much of the space. However, the distribution of lighting appears to be concentrated primarily in parking areas, while pedestrian walkways receive comparatively less illumination. In particular, the sidewalks along Addicks-Howell Road and the adjacent METRO bus stop are underlit, raising safety concerns.

Exterior Application	Range of Footcandles (FC)
Parking	0.5- 5.0
Gas Station Canopy	10.0 - 15.0
Building Exterior	0.5 - 2.0
Streets Local	0.4-0.9
Major Streets	0.9-1.2
Sidewalks	0.5-2.0

XX FC Foot Candle Measurement (Amount of light that falls on a surface)

Figure 1.36 Grisby Square Light Study



- Key**
- Housing
 - Office
 - Sidewalk

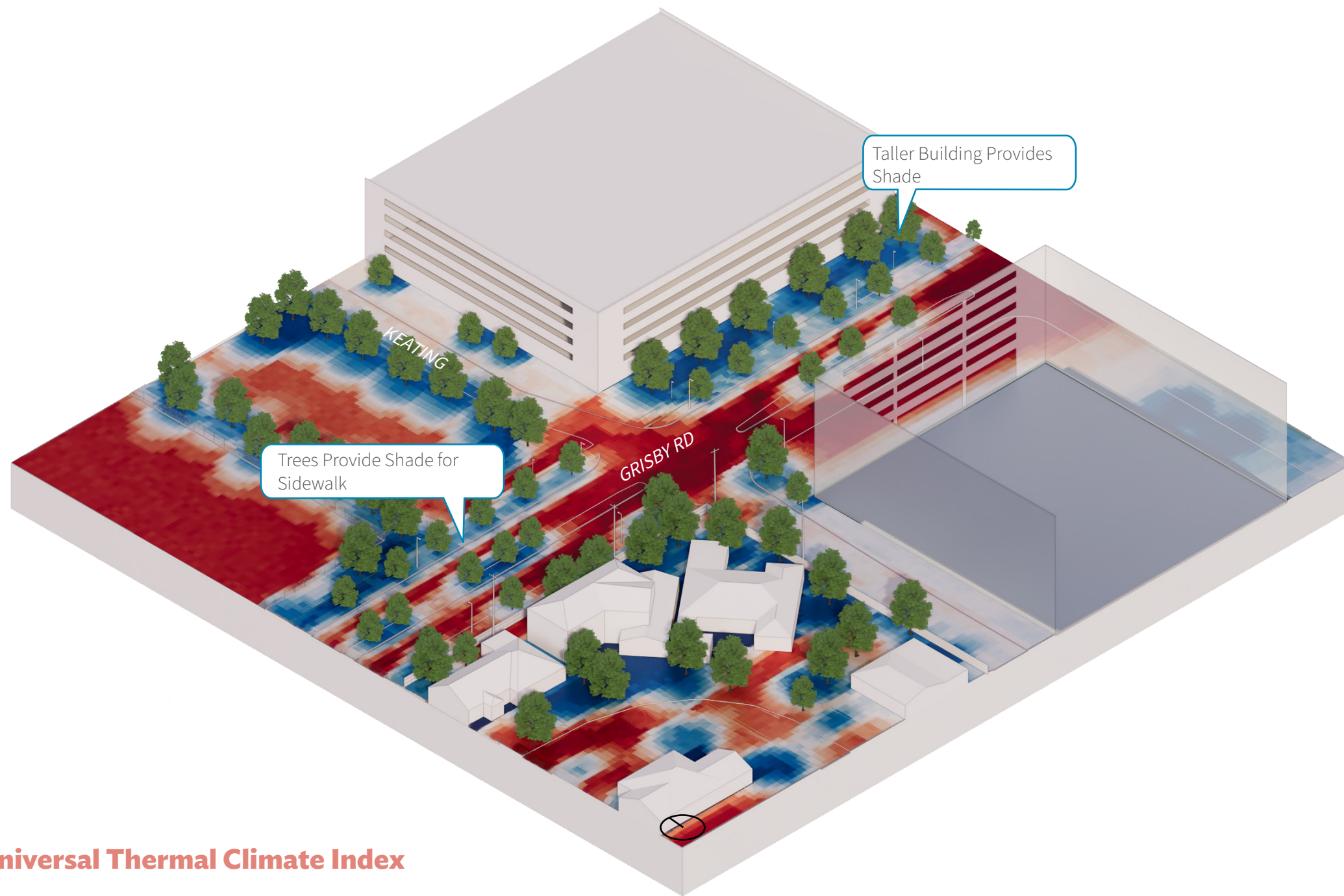
Grisby at Keating

Character Study

The intersection of Grisby Road and Keating Private Drive marks a point where the Energy Corridor meets the surrounding residential community. On the north side of Grisby Road, pedestrian infrastructure includes wide sidewalks, tree plantings, and pedestrian-scale lighting, all of which contribute to an enhanced walking experience. However, sidewalk access is limited to just the north side, with no corresponding infrastructure on the south side, restricting pedestrian connectivity. This streetscape design continues consistently along Grisby Road up to Grisby Square and similar conditions are found at the intersection of Grisby Road and Westlake Park Boulevard. A landscaped retention pond in the area serves both functional and aesthetic purposes. It supports stormwater management while simultaneously adding visual appeal and green space that benefits the local community.

There are no access points between Grisby Road and the adjacent neighborhood to the south.

Figure 1.37 Grisby Road Character Study

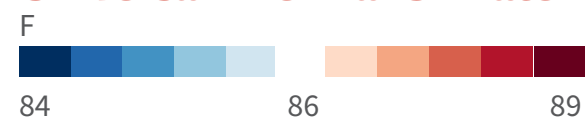


Grisby at Keating

Thermal Study

The mature trees along Grisby Road, combined with the tall parking garages in the area, provide significant shading. The shaded sidewalks improve comfort for pedestrians and reduce the urban heat island effect, making the area more pleasant for walking/rolling, especially during the summer months. The shaded sidewalk condition continues to the west of Grisby Road. This exhibit shows the hot areas in this zone are predominantly parking lots and streets.

Universal Thermal Climate Index



5/1 to 8/1 @1pm*

*weather data collected over 30 years creating a typical Houston weather year

Figure 1.38 Grisby Road Thermal Study

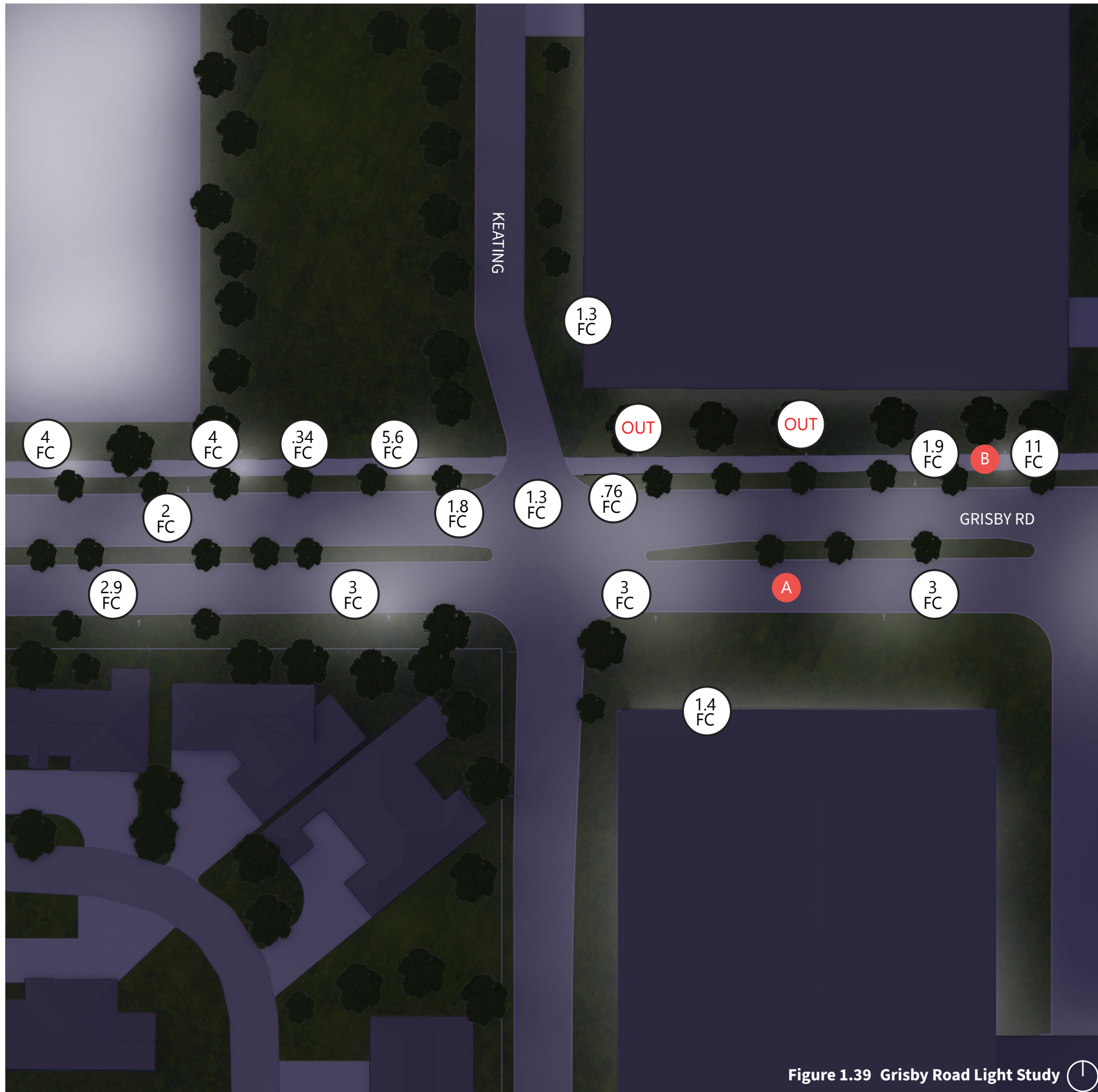
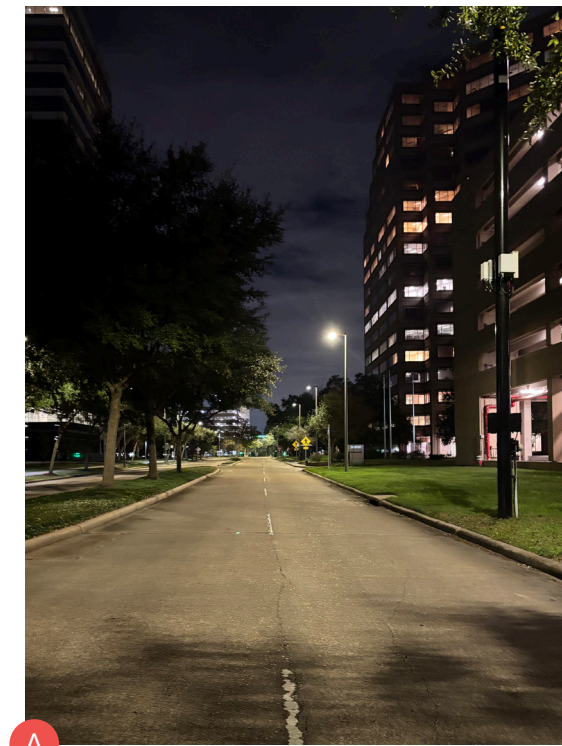
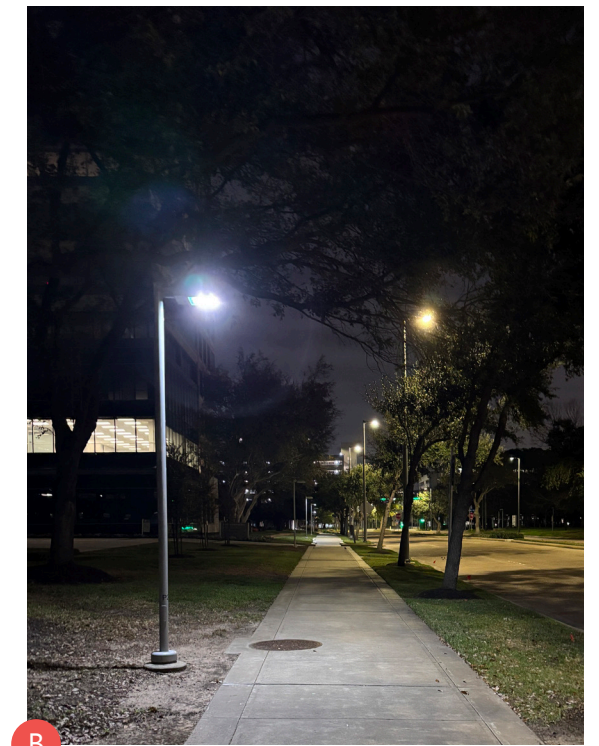


Figure 1.39 Grisby Road Light Study



A One Westlake garage on Grisby Road



B Sidewalk conditions on Grisby Road

Grisby at Keating

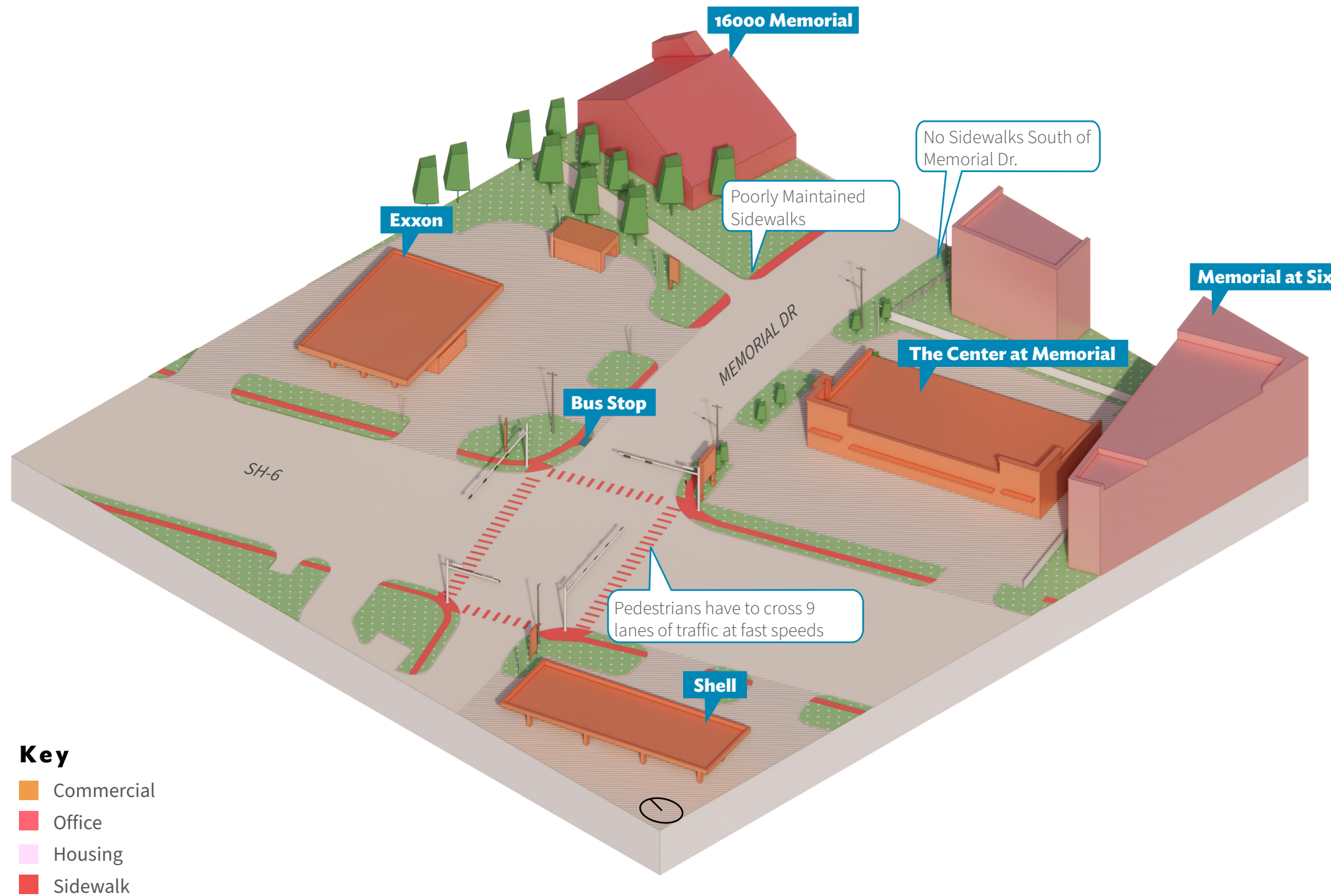
Light Study

Light meter data indicates that this zone meets the recommended average foot-candle ranges for exterior applications, with the exception of the two pedestrian lights out of service at the time of the study. The lighting throughout the Energy Corridor campus is uniform. Additionally, adjacent parking lots and parking garages contribute to the overall lighting conditions in the area. The illumination levels in these spaces vary, affecting nighttime visibility and safety.

Exterior Application	Range of Footcandles (FC)
Parking	0.5- 5.0
Gas Station Canopy	10.0 - 15.0
Building Exterior	0.5 - 2.0
Streets Local	0.4-0.9
Major Streets	0.9-1.2
Sidewalks	0.5-2.0



Foot Candle Measurement (Light Intensity)

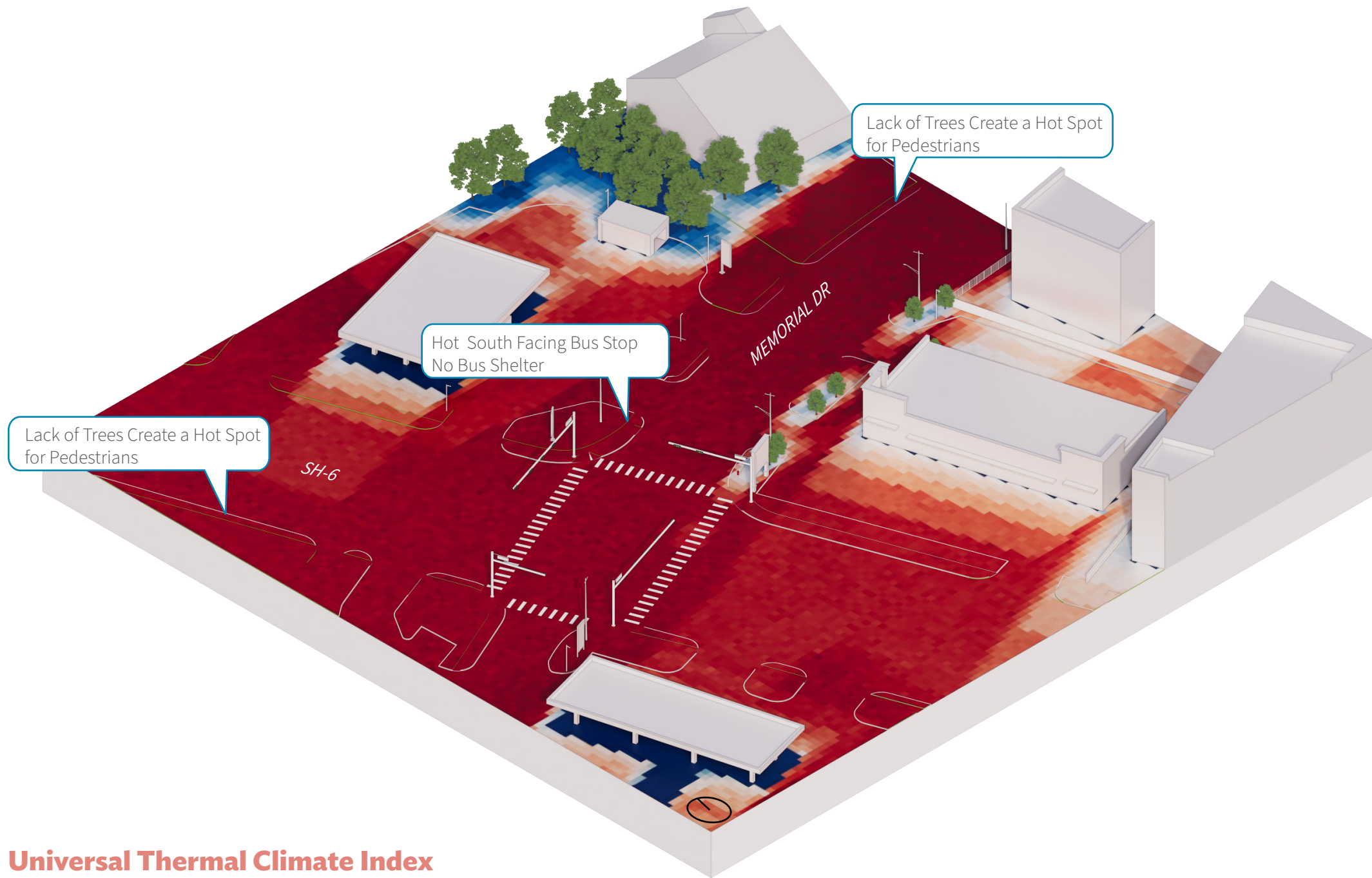


Memorial at SH-6

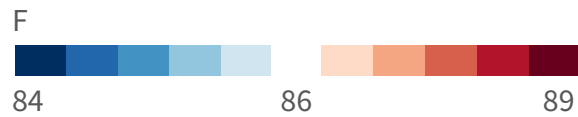
Character Study

The SH-6 commercial-lined corridor is a high-speed roadway with nine lanes, presenting significant challenges for pedestrian movement. While sidewalks are present along SH-6, there is a noticeable gap in pedestrian infrastructure along Memorial Drive. There is a lack of connectivity between the Memorial at Six Apartments and the commercial area, creating an obstacle for pedestrians trying to move between these key destinations. This gap in the pedestrian infrastructure further limits safe and efficient access for individuals walking, biking, or rolling in the area. In addition, crossing SH-6's 9 lanes can be challenging for pedestrians and cyclists.

Figure 1.40 Memorial Drive at SH-6 Character Study



Universal Thermal Climate Index



5/1 to 8/1 @1pm*

*weather data collected over 30 years creating a typical Houston weather year

Memorial at SH-6

Thermal Study

Memorial Drive at SH-6 lacks tree coverage, creating a hot spot during the summer months. The uncovered south facing bus stop on Memorial Drive experiences more heat due to its orientation and lack of shade by a bus shelter or trees. The intersection and surrounding area also is heavily paved over, increasing the thermal temperature of the area.

Figure 1.41 Memorial Drive at SH-6 Thermal Study

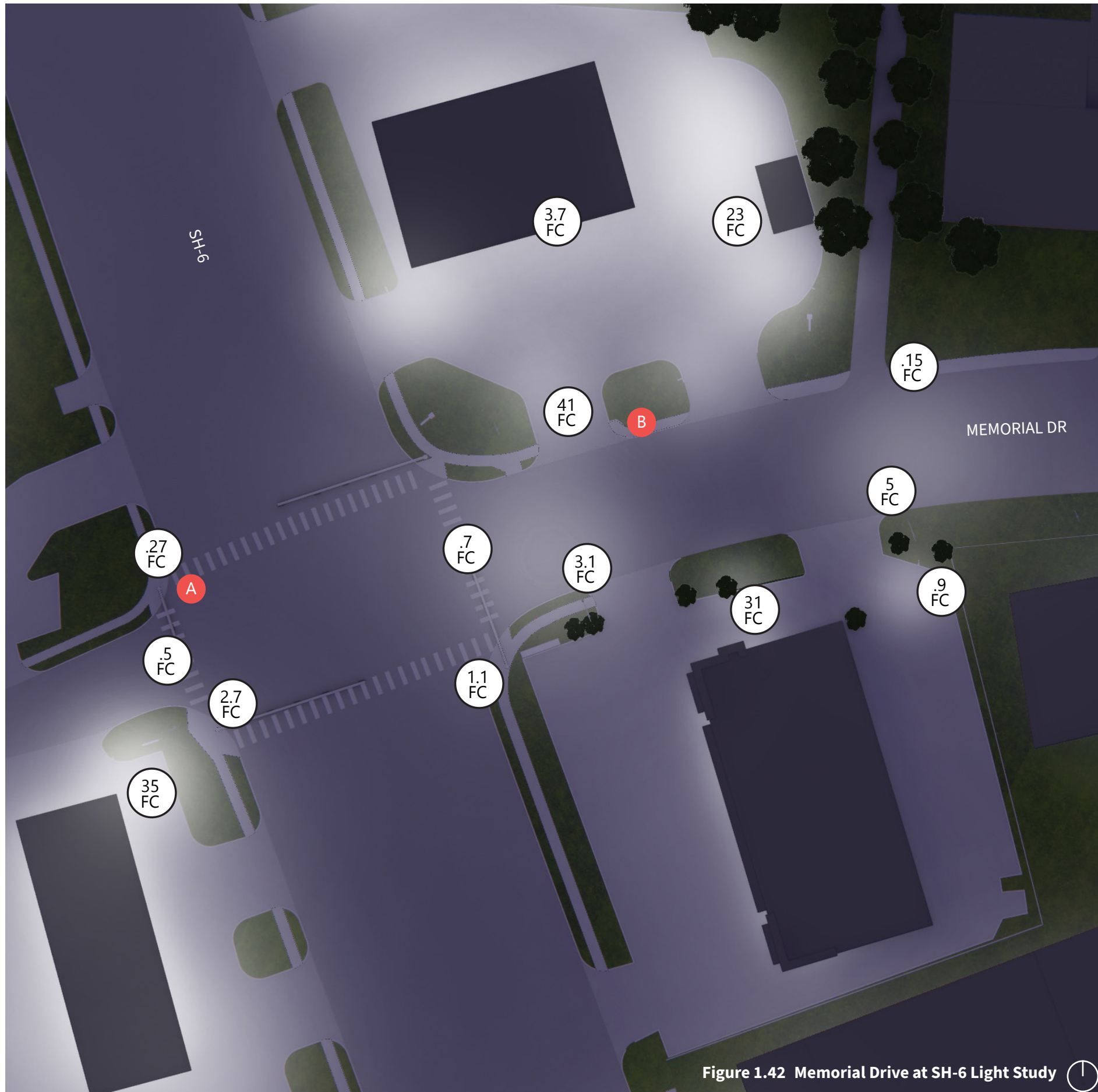
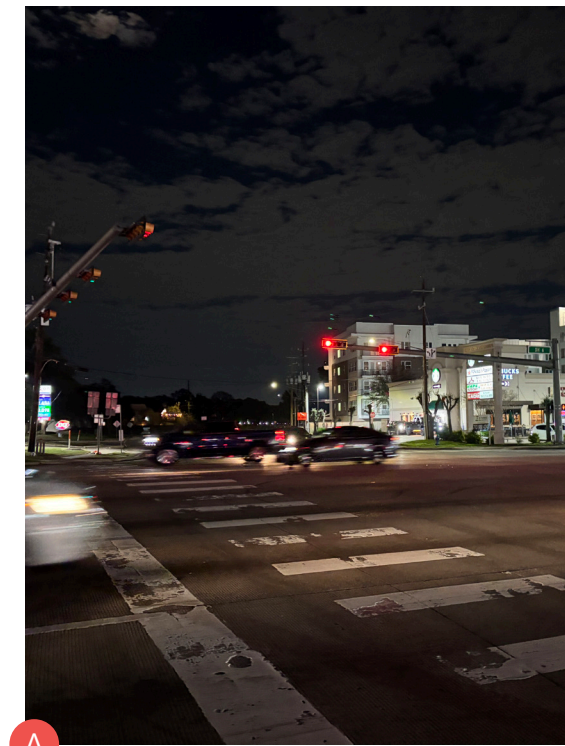


Figure 1.42 Memorial Drive at SH-6 Light Study



A SH-6 at Memorial Drive



B Memorial at Six Apartments located just east of SH-6

Memorial at SH-6

Light Study

The light meter data shows the Exxon and Shell gas stations along SH-6 as being over lit for the average gas station canopy. These gas stations provide incidental lighting to adjacent sidewalks, partially improving visibility in an area with otherwise insufficient public realm lighting. This contrast creates dark spots in the areas where people are attempting to cross, making it more challenging for pedestrians to navigate safely and hard for drivers to see. The intersection crosswalks are on the lower end of the average range for sidewalks.

Exterior Application	Range of Footcandles (FC)
Parking	0.5- 5.0
Gas Station Canopy	10.0 - 15.0
Building Exterior	0.5 - 2.0
Streets Local	0.4-0.9
Major Streets	0.9-1.2
Sidewalks	0.5-2.0

XX FC Foot Candle Measurement (Light Intensity)

Memorial Drive at Crossroads Drive

Character Study

The intersection of Memorial Drive and Crossroads Drive serves as a key connection point between the north and south Fleetwood residential neighborhoods. These walled-off subdivisions feature beautiful homes surrounded by abundant trees, notably lining Memorial Drive. The neighborhood itself lacks sidewalks, with sidewalks provided only along the north side of Memorial Drive separated from the neighborhood by a continuous brick wall. Bus stops in this zone are not equipped with shelters, and the bus stop on the south side of Memorial lacks a paved platform, forcing commuters to wait in the grass or mud. Furthermore, pedestrian crossings at this intersection are poorly timed, making it difficult for individuals to cross Memorial Drive safely and efficiently. These findings highlight significant gaps in pedestrian infrastructure and safety in this area.

Thermal and Light studies were not conducted for this zone, but the intersection does lack adequate lighting.

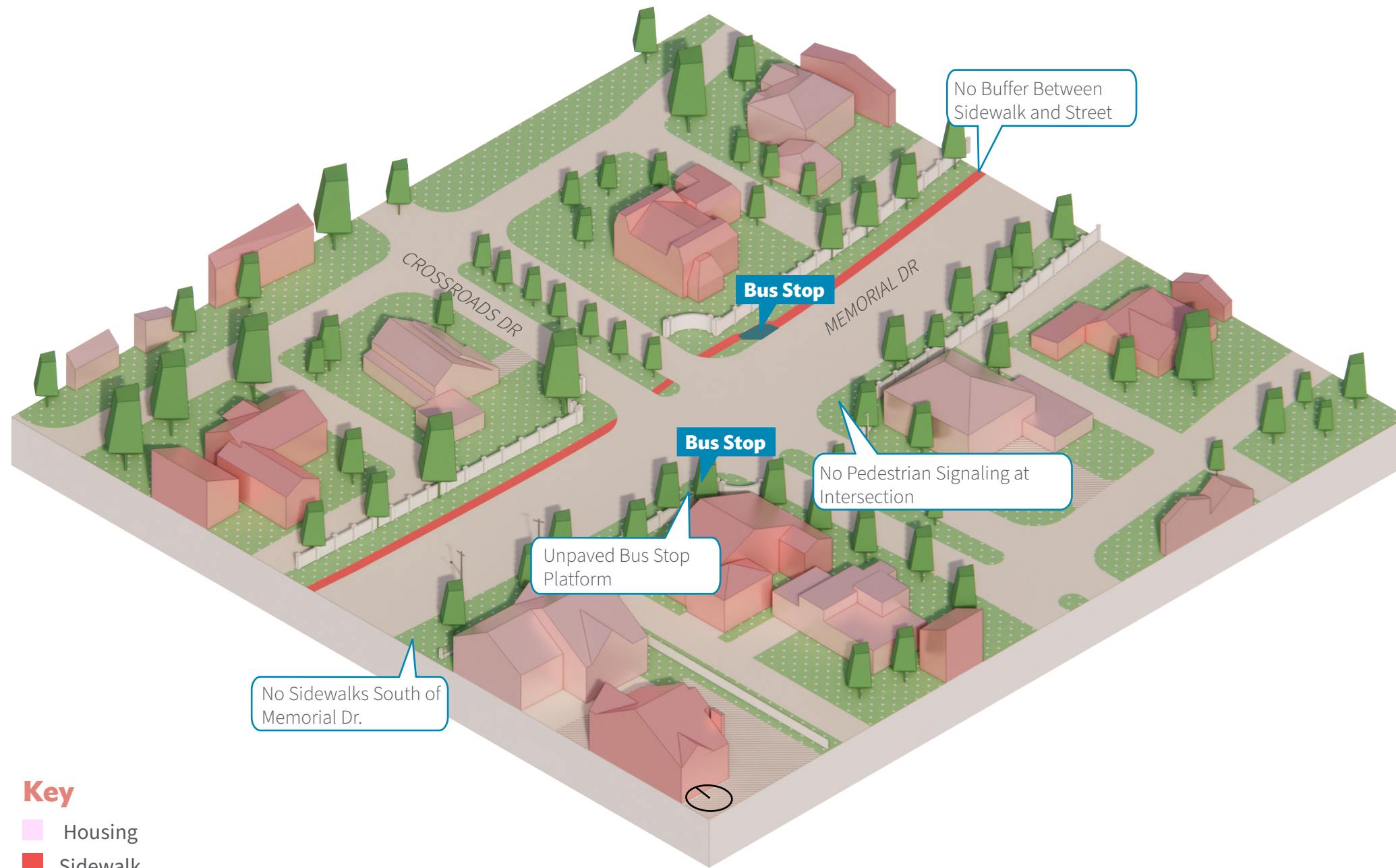
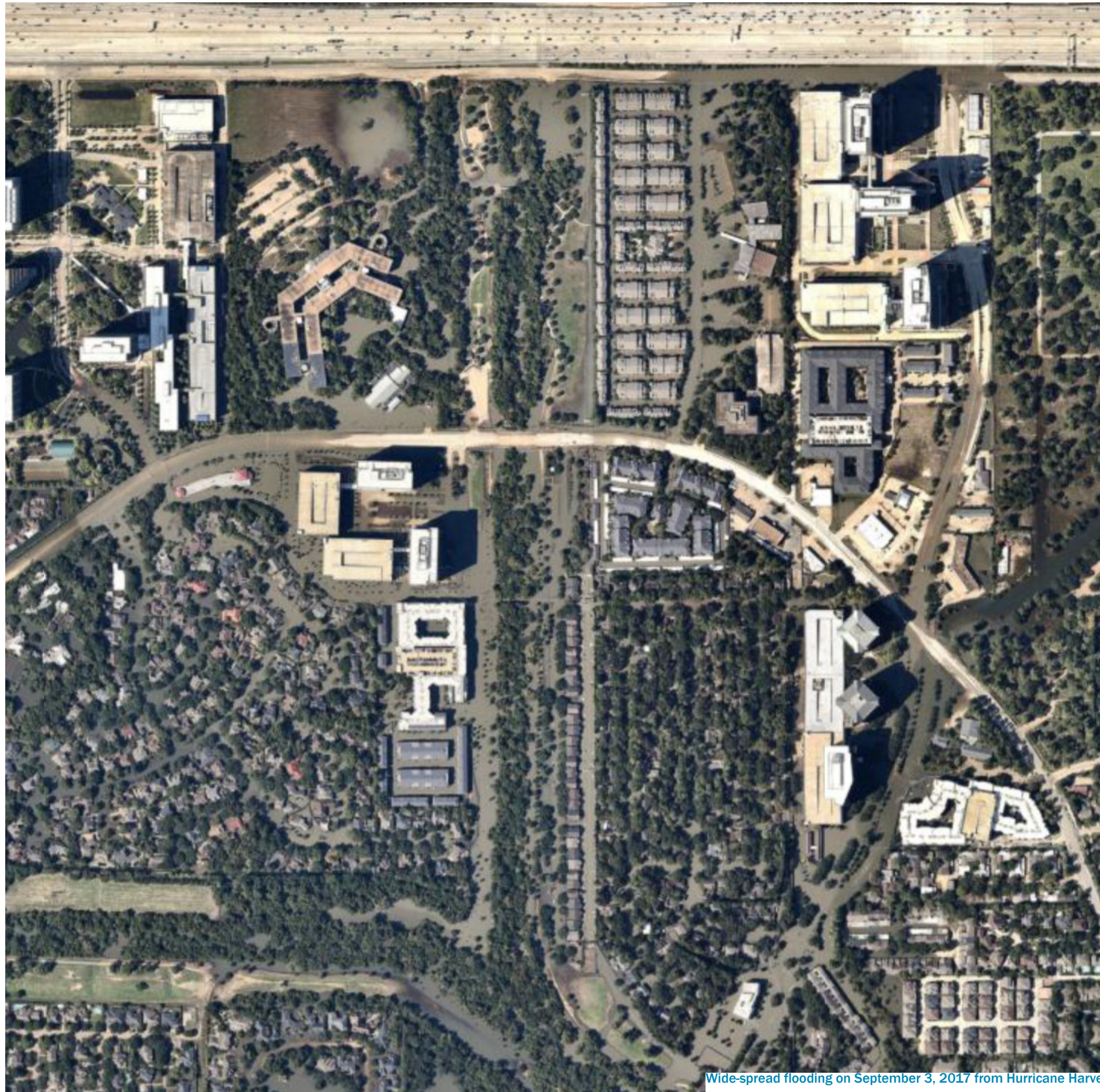


Figure 1.43 Memorial Drive at Crossroads Drive Character Study



Wide-spread flooding on September 3, 2017 from Hurricane Harvey



Memorial Drive currently has open ditch drainage



Grisby Road currently has curb and gutter drainage on a majority of the corridor

Existing Drainage Study

The proximity of Buffalo Bayou and the Addicks and Barker Reservoirs to the Study Area has contributed to significant flooding events in the recent past, most notably Hurricane Harvey in 2017. Thus, drainage is an important feature for both of the study corridors. Memorial Drive utilizes open ditches, a drainage method where water flows off the edges of the roadway and into drains situated along the roadway and ultimately into Buffalo Bayou. Grisby Road utilizes curbs and gutters to drain runoff into pipes below the roadway which drain into Buffalo Bayou. The following sections explore other components of the Study Area's existing conditions that provide context and inform the efficacy of drainage along the study corridors.

Major Water Crossings

The Study Area is located within the Buffalo Bayou Watershed, where the Harris County Flood Control District (HCFCD) and the U.S. Army Corps of Engineers (USACE) share jurisdictional authority over waterways. One major crossing, Langham Creek at Memorial Drive, is located within the Study Area. It is considered a major crossing because it is a FEMA 100-year Zone AE, services a large hydrologic area, and outflows the Addicks Reservoir which services approximately 136 square miles.

Table 1.7 Langham Creek Classification

Water Crossing Name	Crossing Roadway	FEMA Zone	Waterway Agency
Langham Creek (U100-00-00)	Memorial Drive	AE	HCFD/USACE

Review of the Harris County Flood Control Map & Model Management (M3) Inventory indicates Langham Creek is not a FEMA studied stream (not hydraulically modeled by FEMA). No analysis is available as Langham Creek is not a studied stream.

If it was a FEMA studied stream, the information would be important as it would help understand which sections of roadway flood due to riverine flooding (i.e. improving storm sewer alone would not remove flooding) and the 500-year Water Surface Elevation (WSEL) would be needed to determine limits of Floodplain Fill mitigation requirements.

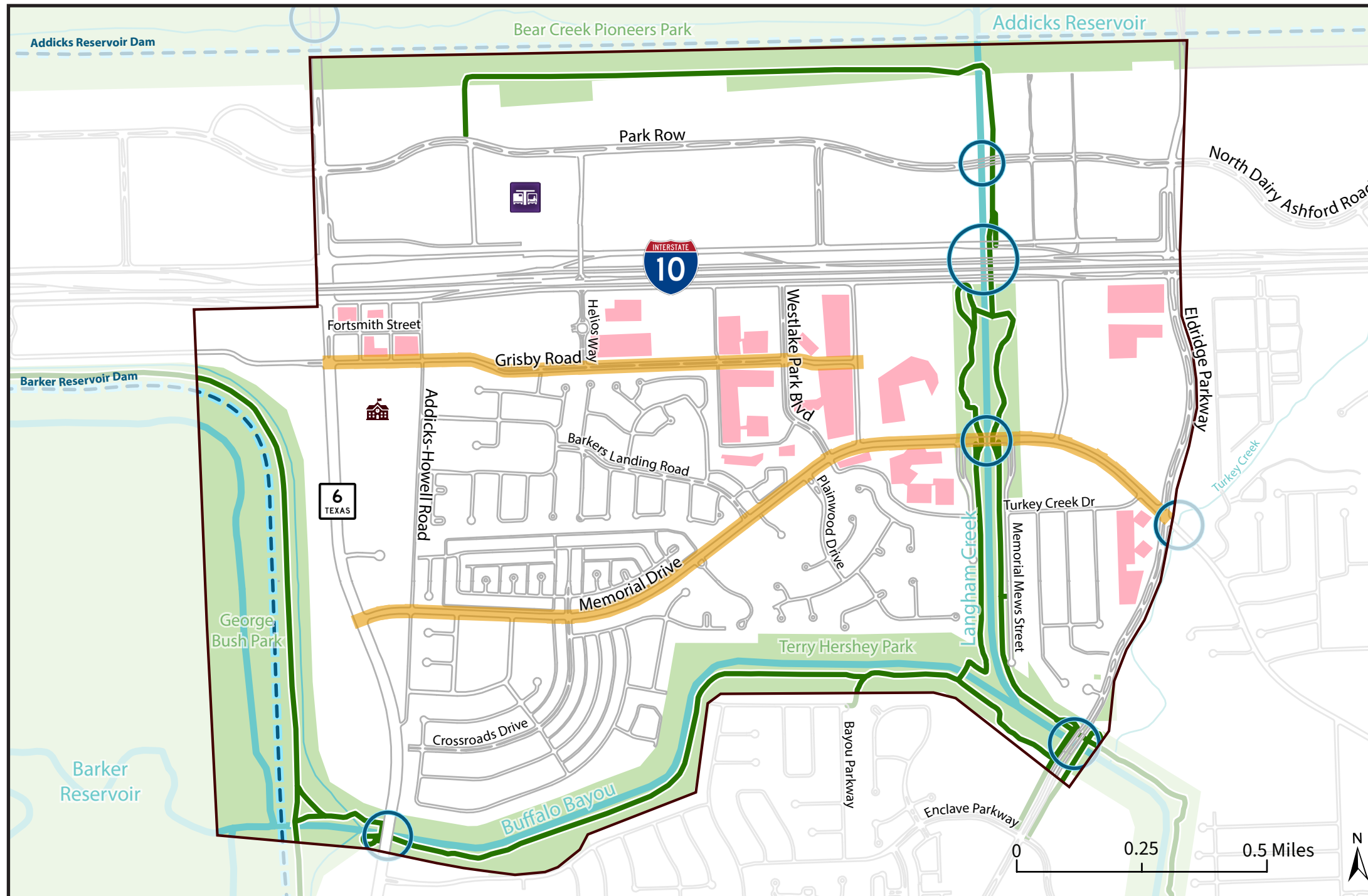
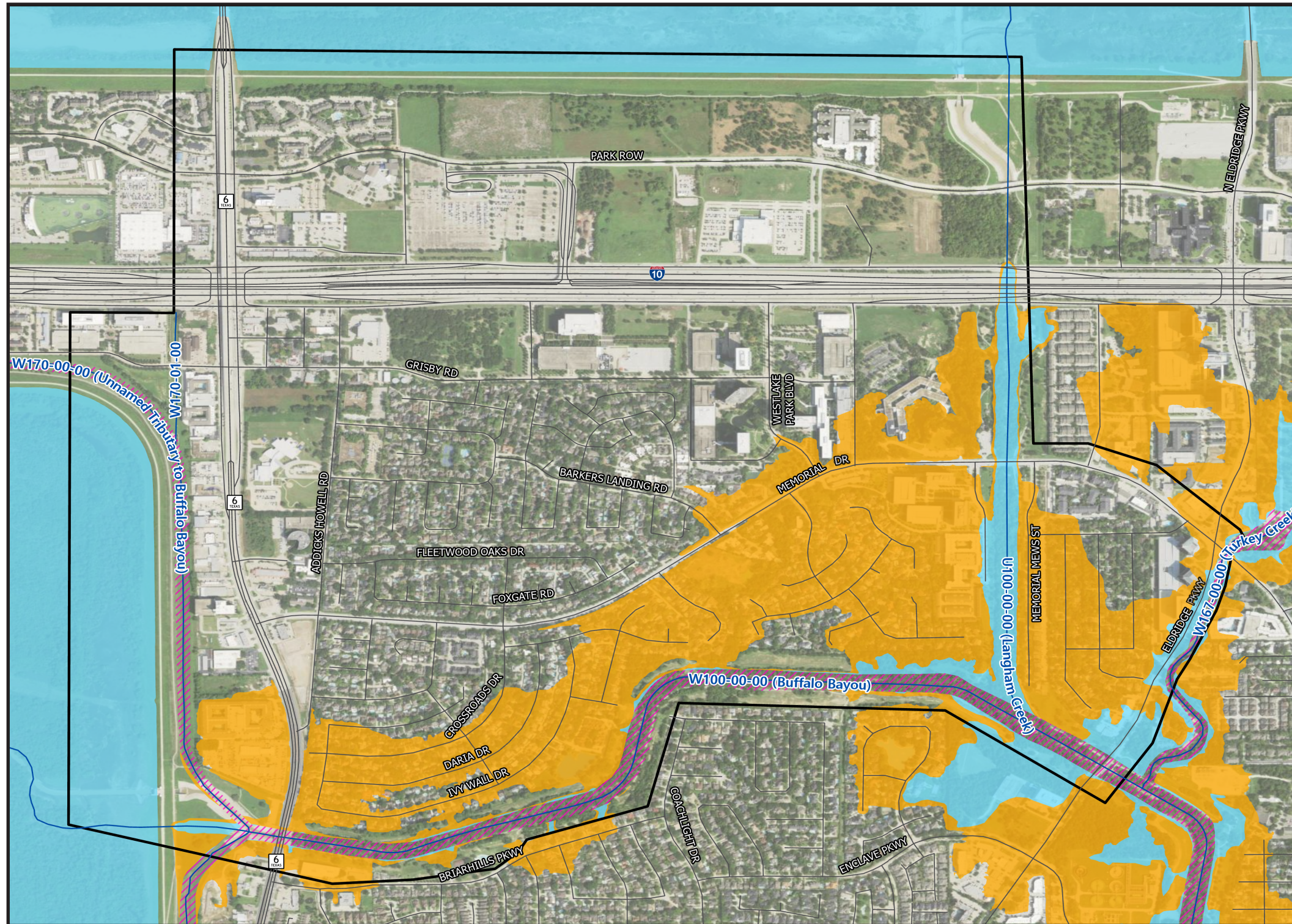


Figure 1.44 Major Waterways

Key

- Study Area
- Primary Corridor
- Parks
- Shared-Use Path
- Dams
- Addicks Park & Ride
- Key Commercial Destinations
- Waterway Crossings
- Wolfe Elementary



Floodplains

The Study Area intersects with the Federal Emergency Management Administration’s (FEMA) 100-year (Zone AE) and 500-year (Zone X) floodplains of Buffalo Bayou and Turkey Creek. Grisby Road is entirely outside of the 100-year and 500-year floodplains. Memorial Drive intersects with the 100-year floodplain at Langham Creek and with the 500-year floodplain mostly east of Barkers Landing Road. The floodplain information is shown in Figure 1.45.

As Langham Creek is not studied, the FEMA Zone AE that Memorial Drive crosses at Langham Creek is the established 100-year floodplain of another stream, in this case the adjacent Buffalo Bayou. WSEL Data:

- 100-Year WSEL (Buffalo Bayou): 75.64’
- 500-Year WSEL (Buffalo Bayou): 78.60’
- Memorial Drive Road Elevation (Within Zone AE): 79.20’

Based on elevation information, Memorial Drive in the Study Area currently clears the 100-year FEMA Water Surface Elevation (WSEL) (Buffalo Bayou). A detailed hydrologic and hydraulic study of Langham Creek would be required to assess Memorial Drive’s level of service based on Langham Creek’s flood elevations.

- Key**
- Study Area
 - FEMA Channels

- FEMA Flood Zone
- Zone AE 100-Year Floodway
 - Zone AE (100-Year Floodplain)
 - Zone X (500-Year Floodplain)

Figure 1.45 Floodplains

Existing Drainage Infrastructure

The existing drainage infrastructure along Memorial Drive is open ditches. Ditches west of Westlake Park Blvd are shallower than those east of Westlake Park Blvd, which are deeper and better defined. Where curb-and-gutter drainage exists, curbs are slotted to allow sheet flows to drain to the ditches. Stormwater on Memorial Drive ultimately drains to three independent outfalls: Buffalo Bayou, Langham Creek, and Turkey Creek.

The existing drainage infrastructure along Grisby Road is enclosed. West of Addicks-Howell Road, Grisby Road is drained by paved asphalt and dirt swales into grate inlets that lead to enclosed storm sewer systems, ultimately to Langham Creek. Swale areas near restaurants and entertainment destinations are also used for vehicle parking. A review of street-view photography indicates permanent post-rainfall ponding in various sections due to poor/distorted swale grades and dilapidated pavement conditions. East of Addicks-Howell Road, runoff on Grisby Road is drained by enclosed storm sewers via curbs and gutters, ultimately to Langham Creek. A review of street-view photography indicates some permanent post-rainfall ponding which appears to be due to sinking roadway panels.

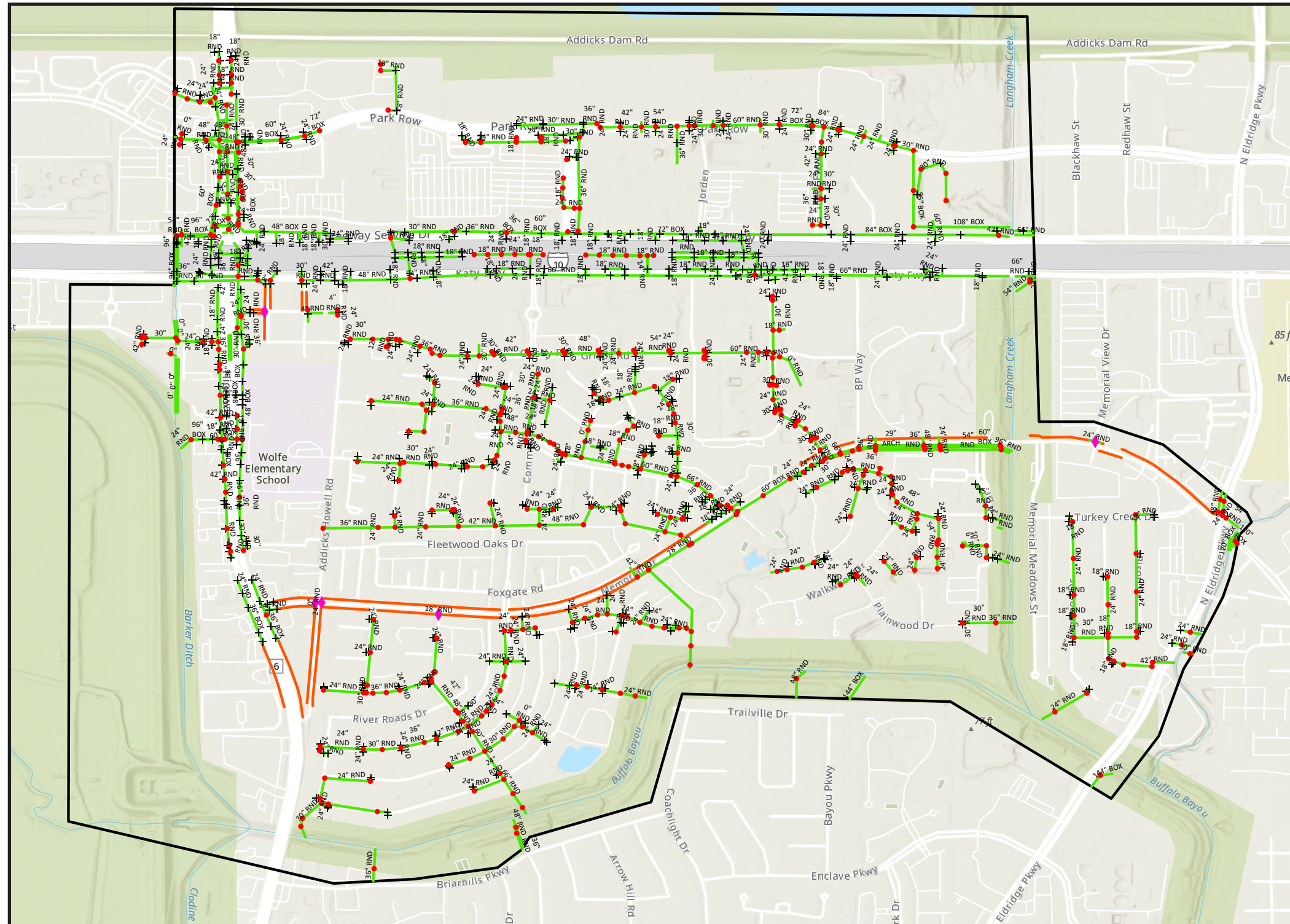


Figure 1.46 Existing Drainage Infrastructure

- Key**
- Study Area
 - ◆ Culverts
 - Storm Sewer Manholes
 - + Inlets
 - Roadside Ditches
 - Storm Sewer Gravity Mains

Existing Drainage System Level of Service

The City of Houston (COH) Infrastructure Design Manual (IDM) criteria was used to determine the level of service (LOS) of the existing drainage systems in the Study Area. This analysis helps determine the adequacy of the existing drainage infrastructure within the project area by determining whether the drainage systems meet the LOS requirements for both the 2-year design event, and 100-year check event. This evaluation is important for identifying flooding hazards and recognizing infrastructure deficiencies that may need to be addressed in future reconstruction efforts. The 2-year LOS is defined as storm drain systems containing the hydraulic grade line below the roadway, as described in COH IDM section 9.2.01.C.2.b. The 100-year LOS is defined as the maximum ponding elevation for the 100-year event at any point along the street, not to be higher than the natural ground elevation at the right-of-way (ROW) line, as described by COH IDM section 9.2.01.D.3.a. Data was collected from the previously completed "City of Houston Stormwater Infrastructure Model, Buffalo Bayou Watershed" study (Gauge Engineering, LLC, 2024) to assess LOS.

Storm drain pipes within Memorial Drive and Grisby Road meet the 2-year LOS except for one lateral pipe on Memorial Drive near Marywood Chase. Storm drain pipes that do not meet the 2-year LOS are shown in Figure 1.47 labeled Project Outfall #1.

Portions of Memorial Drive do not meet the 100-year LOS, however, all of Grisby Road meets the 100-year LOS. 100-year LOS deficiencies were identified along Memorial Drive from Ivy Wall Court to Barkers Landing Road and in the vicinity of Eldridge Parkway for two reasons: (1) Memorial Drive drainage flows extend beyond its ROW south toward the adjacent residential neighborhoods and (2) Structural flooding is observed along the northern edge of Memorial Drive for this extent. Extreme event flows on Memorial Drive pass over the roadway north to south en route to Buffalo Bayou, which poses a danger to both pedestrians and motorists on the roadway and will present challenges with reconstructing Memorial Drive in the future. Extreme event flows on Grisby Road generally flow south via Westlake Park Blvd and BP Way to the Memorial Drive Trunk Line and ultimately into Langham Creek via storm sewer.

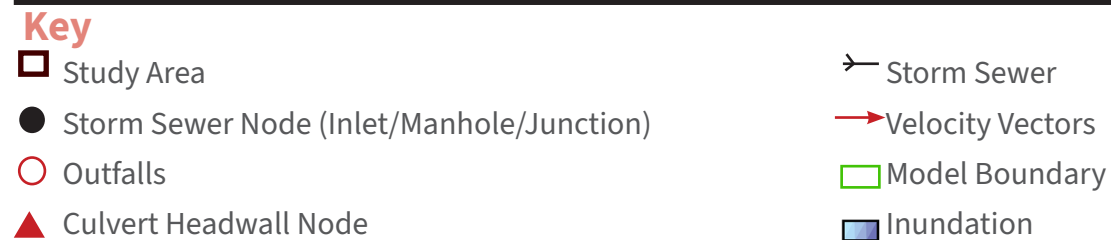
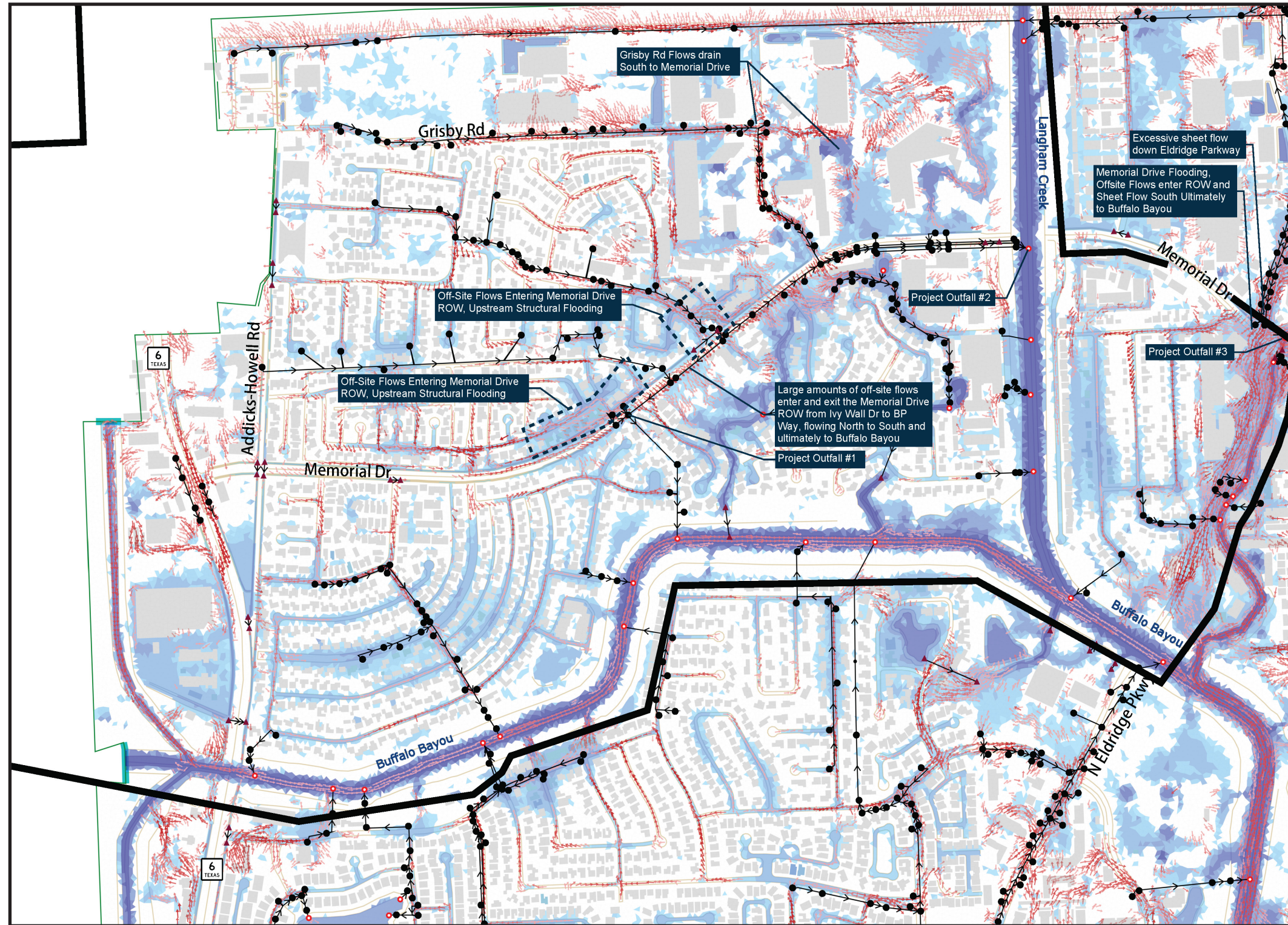


Figure 1.47 Drainage Level of Service



Public Engagement Meeting 1

As part of this first phase, the project team hosted several engagement events to gather feedback from stakeholders on their vision for the project, the Existing Conditions analysis, and the opportunities and constraints of the Study Area.



Steering Committee



Virtual Focus Group



Open House Workshop

Key Themes

Everyone agrees—

- This area has **great assets** for home, work, and recreation!
- There are many **opportunities to link those assets** by creating a network.
- Biking, walking, and/or rolling across the Study Area can feel **very unsafe**.

There is hope for making it even better—

While the area has great biking, walking, and rolling infrastructure in Terry Hershey Park, there are **significant gaps and/or barriers** in connecting to everyday destinations.

There is strong desire to be able to comfortably **get places without a car**—to Wolfe Elementary, Grisby Square, nearby parks.

Memorial Drive is a top priority for safe connections.

There are some concerns—

Some people expressed **concerns about considering on-street bike facilities** due to safety and traffic concerns.

Without action-oriented recommendations, this plan will not be successful.

Engagement Results Summary

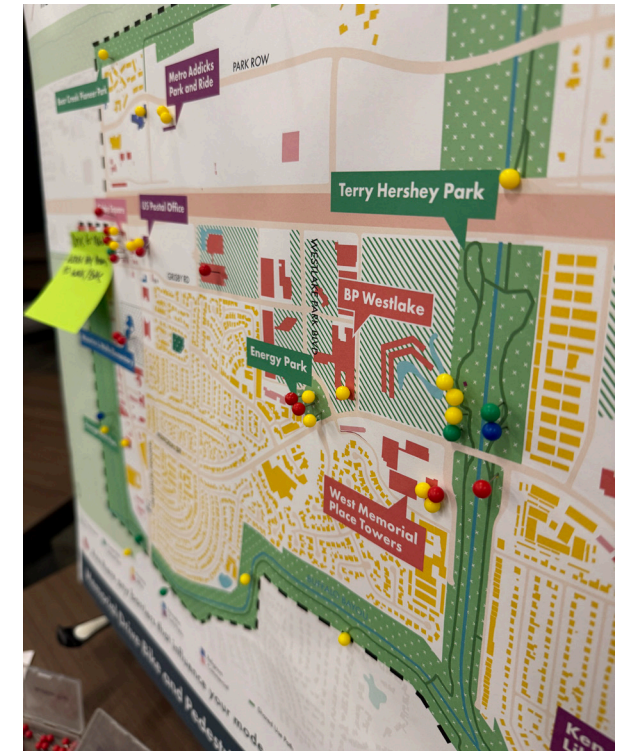
Multimodal Connectivity

- People would like to walk and bike here, but do not feel safe
- People WILL walk/bike to trails (i.e. for exercise, but not for everyday activities)
- Should create a network, with interconnected routes
- Need to fix sidewalk gaps and connections, especially across Memorial Drive
- Improve multimodal access and safe routes to Grisby Square and Wolfe Elementary for kids and families
- SH-6 is a big barrier
- Would like to see bike infrastructure on Memorial Drive and Addicks-Howell Drive, with Memorial Drive being the top priority
- How about a shared use path on the north side of Memorial Drive?



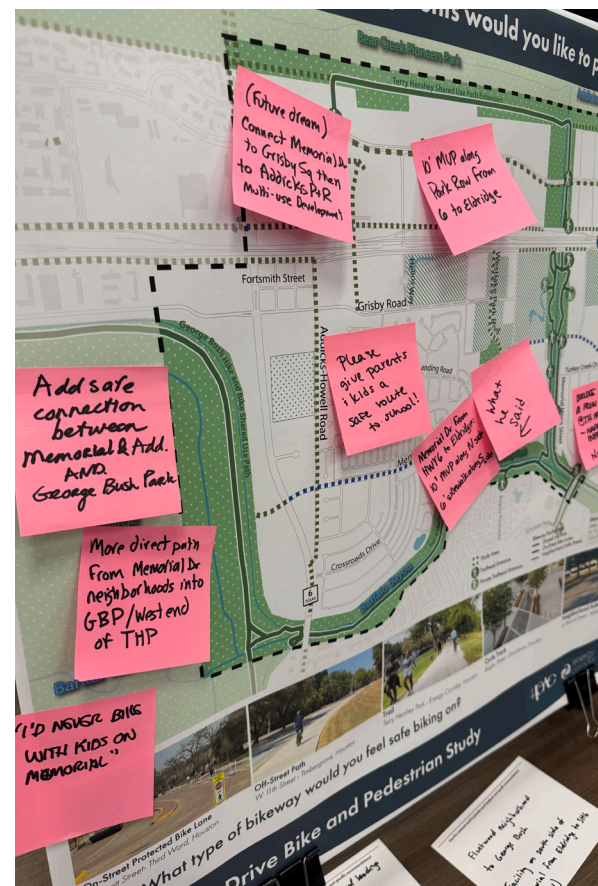
Placemaking

- There are great places and elements to this neighborhood and it has a strong identity as a place to live and/or work
- Create hubs connected by the network
- Focus on microclimate and experience—more trees, shade, lighting, and public art
- Add clear and consistent wayfinding
- Make this place even more beautiful!



Multimodal Safety

- Look to create accessible, high comfort bike facilities for all ages, all abilities
- The goal should be: “I would let my kid bike here!”
- Memorial Drive feels the most unsafe
- Crossings and amenities (such as bus stops) should be ADA accessible and comfortable
- Speeding is a serious concern, consider speed reduction and enforcement
- Buffers from cars are really important
- There is openness to biking on Memorial Drive if there are safe options, and “Safe bike [facilities]” ranked highly on desired improvements
- Grisby has a lot of concerns related to parking—the surface and informality are problematic
- Addicks-Howell Road—lot of safety concerns, although some people currently bike along it
- Ensure that infrastructure is right-sized (e.g. the bridge at Terry Hershey Park is too small, and other places need fire access)

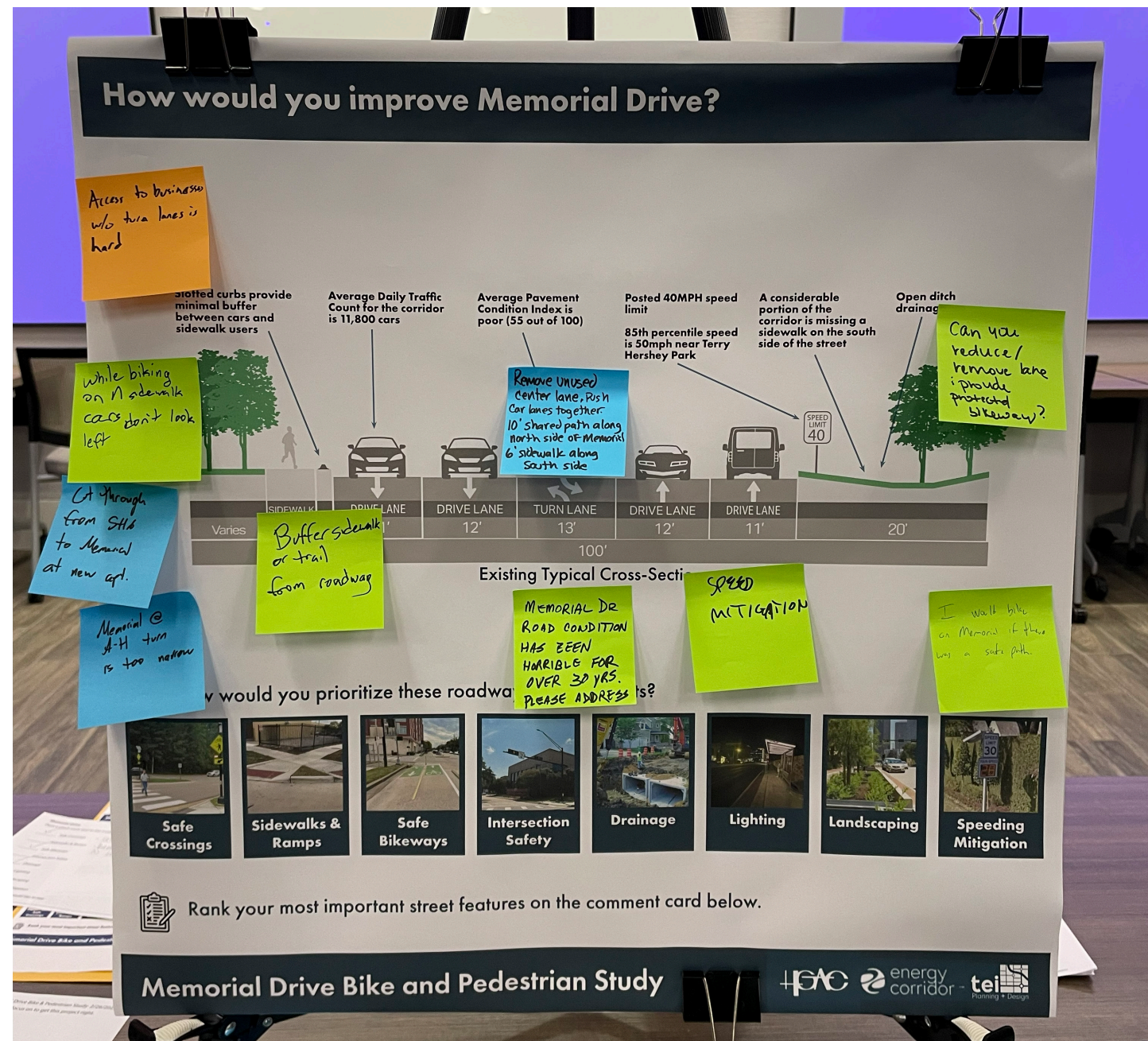


We asked the Steering Committee:
What is the ONE THING we must get right in order for this project to be successful?



Conclusion

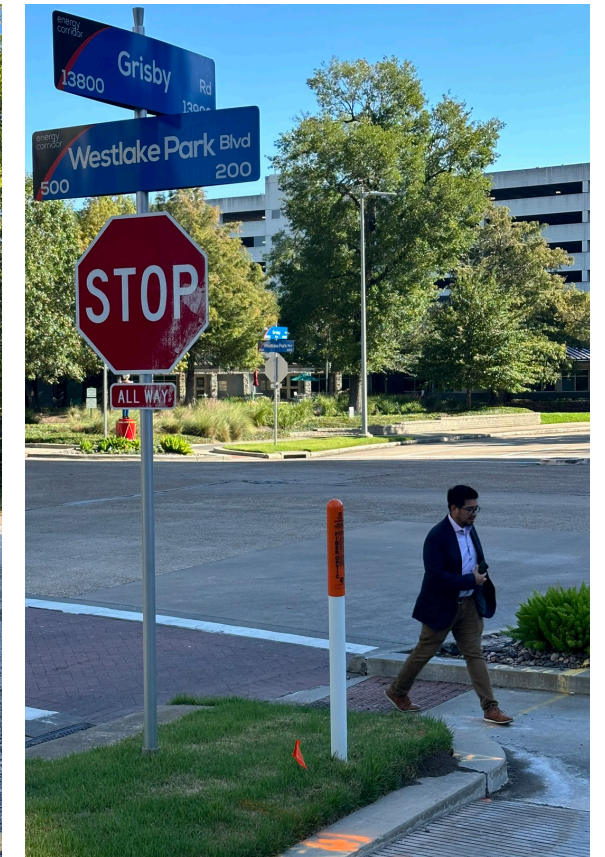
The existing conditions report showcases how key demographics, travel patterns, existing infrastructure elements, placemaking, and drainage elements will be considered and inform the recommendations created in this study. Through detailed analysis of these existing conditions, Memorial Drive, Grisby Road, and the other corridors in the Study Area have great potential to be safe, accessible, and easy to travel along for pedestrians, cyclists, and drivers. Transforming these corridors with elements of safety, mobility, and placemaking in mind will compliment the existing efforts from the Energy Corridor District to make the area a place where people want to live, work, and visit. Although there are so many great assets in the Study Area, the next steps will consider how to make a solid network connecting the destinations safely and logically for those who bike, walk, and travel along Memorial Drive and Grisby Road.



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Chapter 2 Opportunities Analysis



Opportunities Analysis Introduction

Building on the Existing Conditions assessment, this chapter explores potential strategies and streetscape enhancements that improve mobility, safety, access, and resiliency within the Study Area. Memorial Drive and Grisby Road present strong opportunities to evolve into safer, more connected corridors that not only serve daily mobility needs but also enhance local identity, economic vitality, and green space connections.

A key part of the opportunities analysis is understanding the surrounding neighborhood context. This is more than just a transportation exercise, it is a chance to reimagine these corridors as community assets that balance local access with broader mobility. The Project Team is focused on identifying solutions that support both neighborhood livability and regional connectivity.

The concepts presented in this chapter were shared with the public through an in-person meeting and through the project's website. Community feedback on these concepts directly inform which features and alternatives are refined and prioritized in the Plan's final recommendations.

The following pages outline a vision for the Study Area, including three alternatives for Memorial Drive and two for Grisby Road. These options integrate multimodal enhancements, safety features, and drainage improvements, all aimed at creating a safer, more comfortable environment for people walking, biking, driving, and accessing transit.

Project Vision

The Memorial Drive Bicycle and Pedestrian Study supports a vision for a vibrant, connected Memorial Drive corridor where people of all ages and abilities can travel safely.

Project Goals

Memorial Drive will include **continuous sidewalks** and a **high-comfort bikeway** that connect to schools, parks, and bayou greenway shared-use paths.

Access to Grisby Square will be improved with new sidewalks, safe intersections, and improved parking conditions.

Terry Hershey Park and the regional park and trail system will be more accessible to the surrounding homes, jobs, and destinations.

Stormwater infrastructure will be upgraded through roadway projects to improve safety and quality of life.

A stronger sense of place and community will be achieved through design that includes more **landscaping and placemaking**.

By prioritizing multimodal safety, community access, and resilient design, this project helps shape a **healthier, more livable future** for everyone.

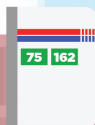
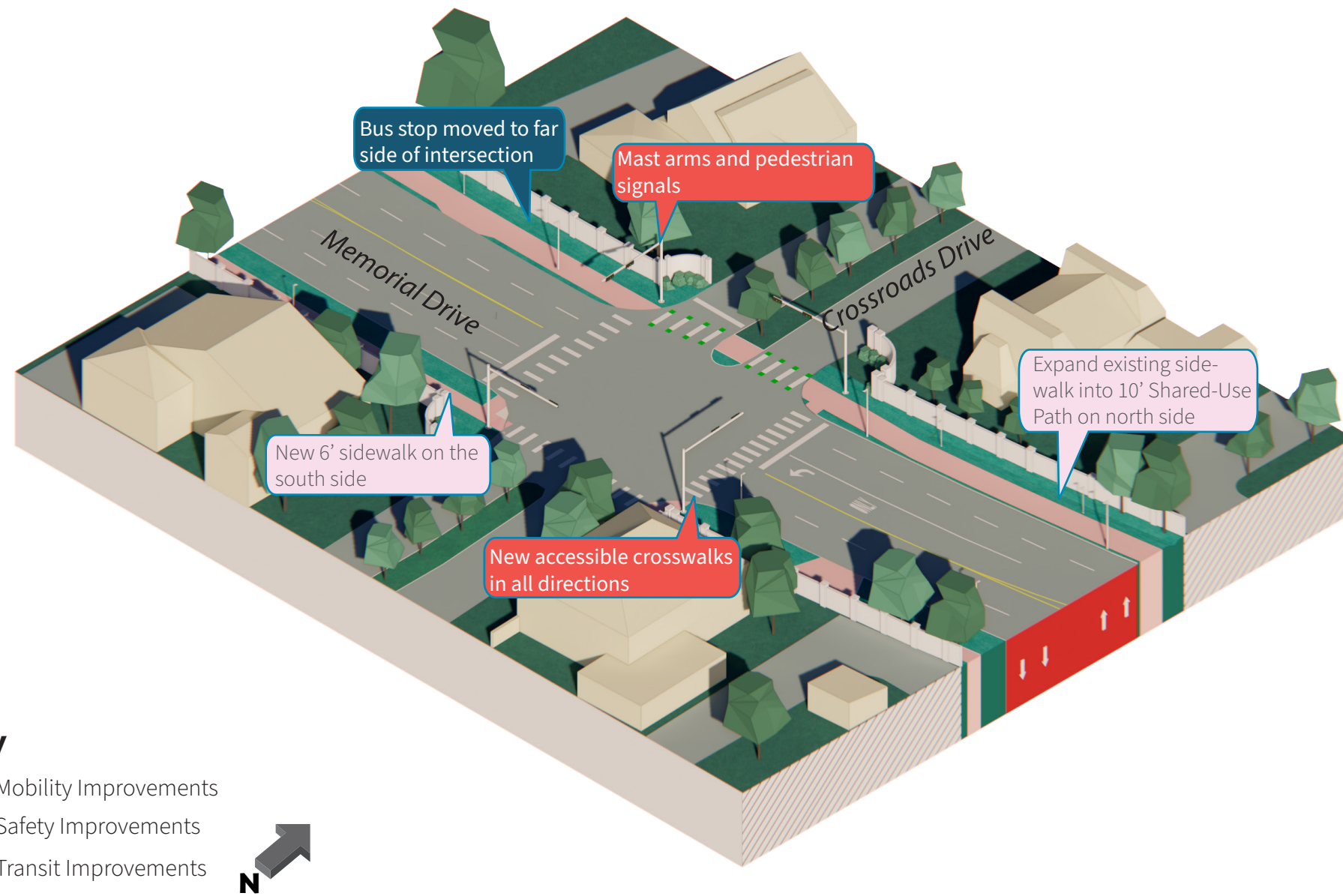


Figure 2.1 Memorial Drive at Crossroads Drive Retrofit



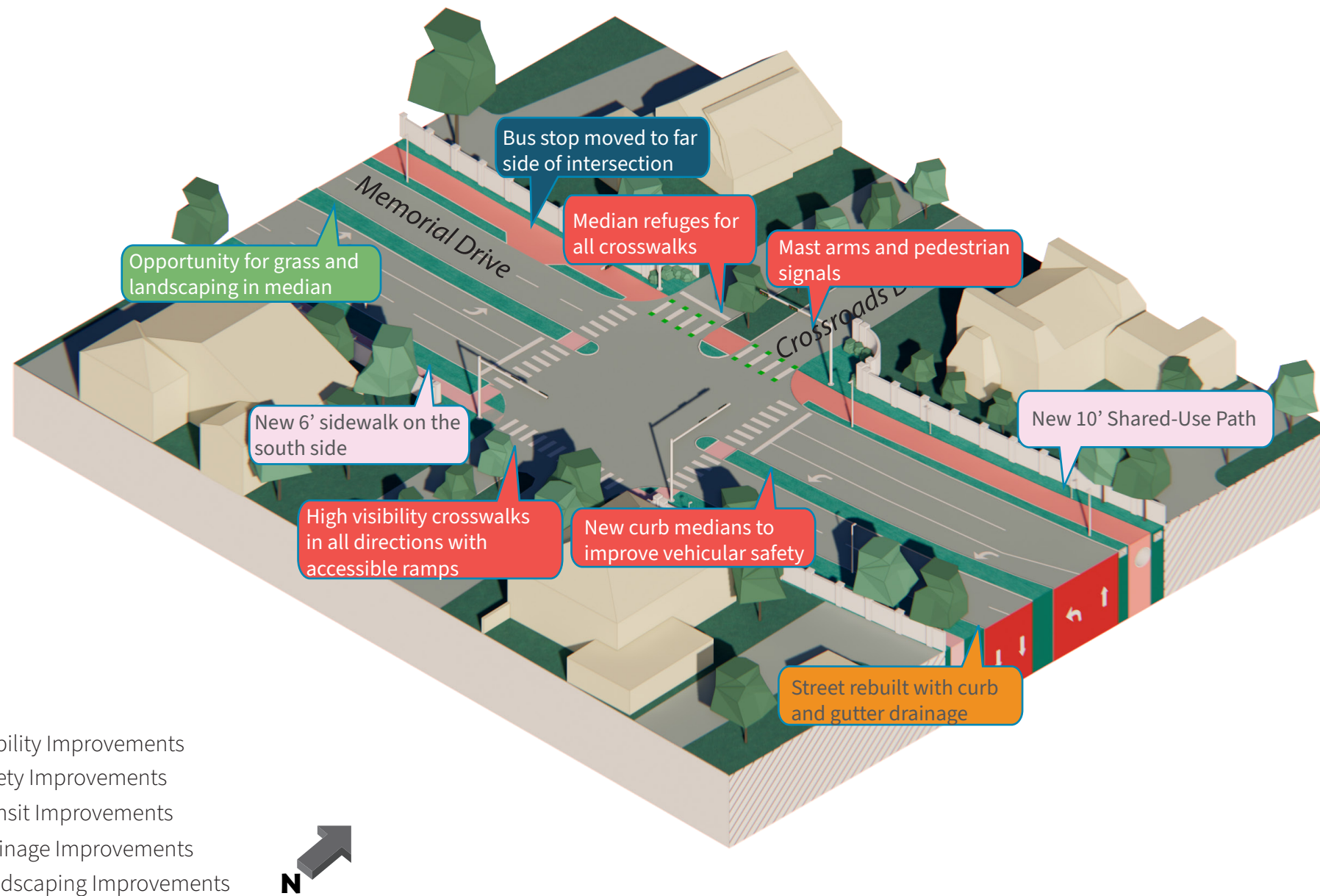
Memorial Drive at Crossroads Drive - Retrofit

The Memorial Drive Retrofit is reimagined to serve a diverse range of users better while improving safety and accessibility. On the north side, the existing sidewalk is transformed into a 10-foot shared-use path, providing a comfortable, continuous corridor for both pedestrians and cyclists. This encourages active transportation and contributes to a more inviting public realm. A new 6-foot sidewalk on the south side addresses existing gaps in pedestrian infrastructure, offering a safe and defined space for foot traffic along both sides of the street. Intersection upgrades will include pedestrian signals and ADA-compliant curb ramps, ensuring safer and more accessible crossings for all users. Collectively, these improvements enhance walkability, support multimodal mobility, and create a more inclusive, human-scaled streetscape, while maintaining existing vehicular movement. Retrofit improvements do not incorporate significant drainage modifications; however, drainage considerations are provided later in the chapter. The retrofit improvement would be implemented sooner and at lower cost compared to a reconstruction.



Figure 2.2 Rendering of Proposed Memorial Drive at Crossroads Drive Retrofit

Figure 2.3 Memorial Drive at Crossroads Drive 4-Lane Reconstruction



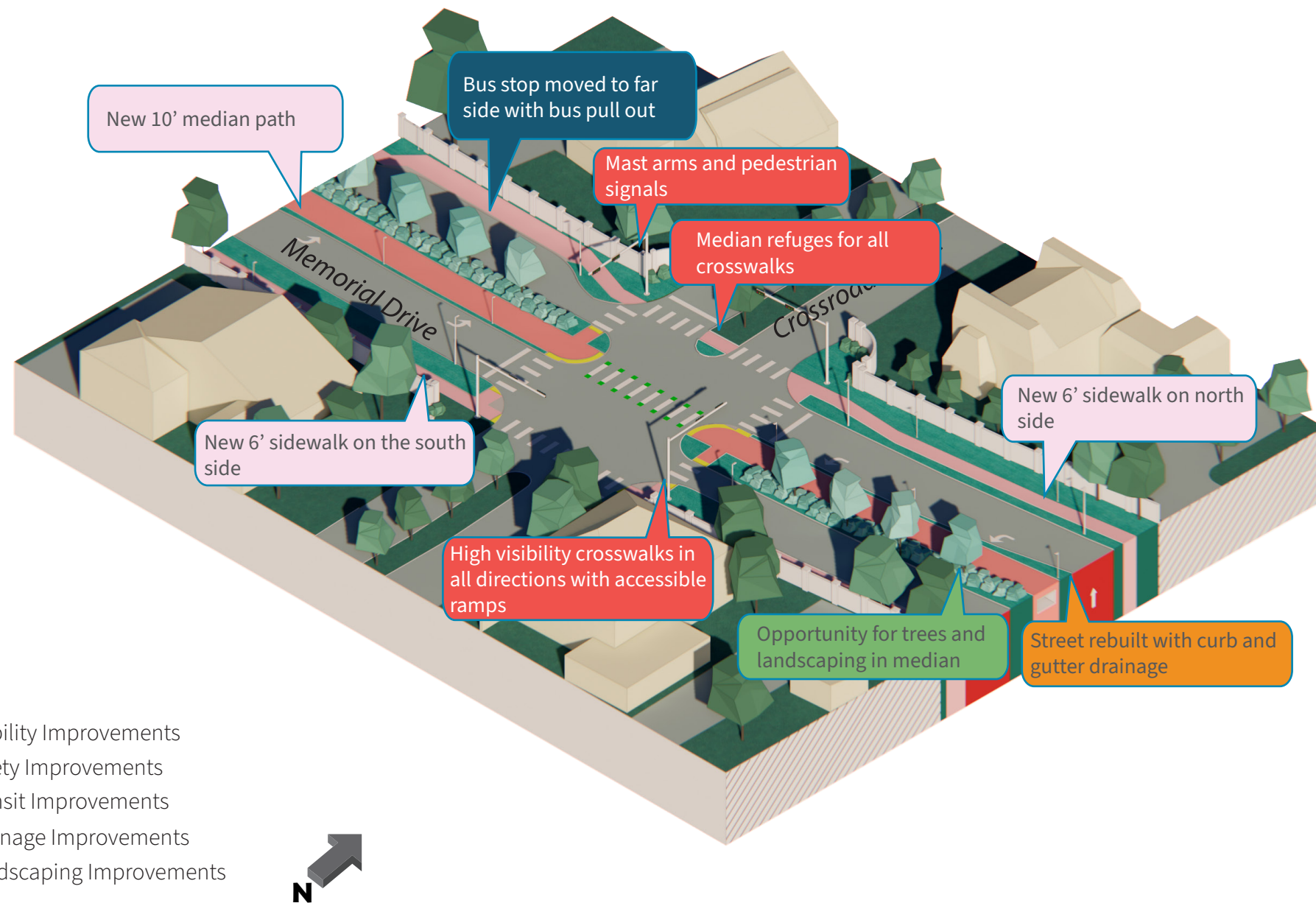
Memorial Drive at Crossroads Drive - 4-Lane Reconstruction

The Memorial Reconstruction with 4 Lanes design enhances safety, comfort, and accessibility for all users. A 10-foot shared-use path on the north side creates a dedicated space for pedestrians and cyclists, separated from traffic by a buffer zone that improves comfort and reduces perceived exposure to vehicles. On the south side, a continuous sidewalk fills critical gaps in pedestrian infrastructure, ensuring safer and more connected movement along the corridor. Intersections will be upgraded with pedestrian signals, ADA-compliant wheelchair curb ramps, and high-visibility crosswalks, improving safety and visibility for those crossing Memorial Drive. The existing center turn lane will be converted into a raised median with dedicated left turn lanes at intersections. The raised median could have greenery and landscaping. It would also serve as a traffic calming measure to reduce vehicle speeds. The street trees that line the neighborhood walls will also be preserved. The street will be reconstructed from open ditch drainage to curb and gutter drainage. A more detailed analysis can be found on later in the chapter. These improvements create a more pleasant, inclusive, and multimodal street experience while maintaining traffic flow.



Figure 2.4 Rendering of Proposed Memorial Drive at Crossroads Drive 4-Lane Reconstruction

Figure 2.5 Memorial Drive at Crossroads Drive 2-Lane Reconstruction



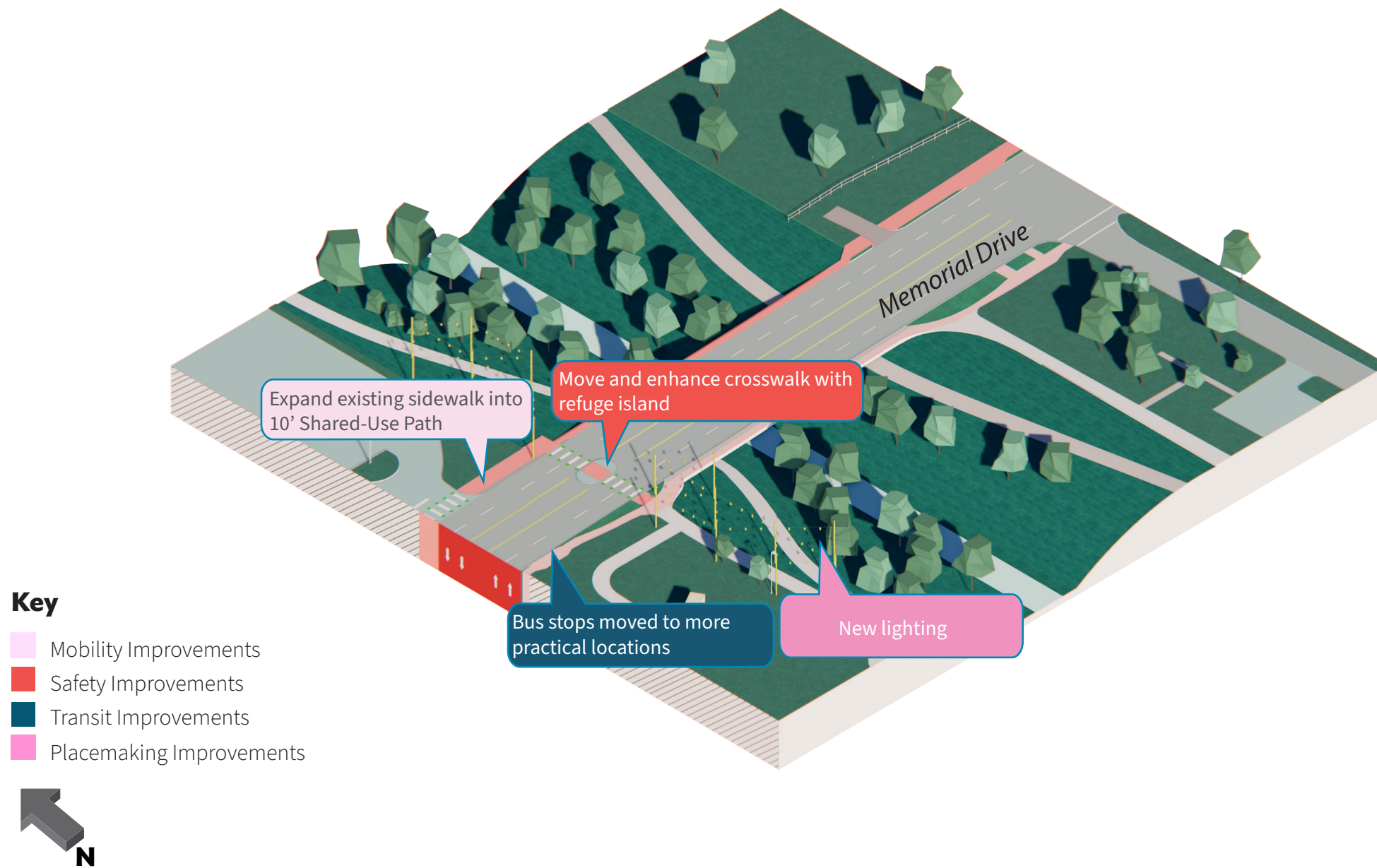
Memorial Drive at Crossroads Drive - 2-Lane Reconstruction

The Memorial Drive Reconstruction with 2 Lanes design reduces the roadway to two lanes, which helps lower vehicle speeds and creates a safer, more comfortable environment for pedestrians and cyclists. This design reconstructs a larger median in the center with a 10-foot shared-use path, along with dedicated left turn lanes at intersections and other appropriate locations. Shaded by trees and surrounded by vegetation, this central path offers a unique, park-like experience for pedestrians and cyclists, separated from traffic in both directions. The trees not only provide cooling benefits and improve the visual quality of the corridor but also serve as a natural traffic calming measure by narrowing sightlines and encouraging slower driving. The trees that line the neighborhood walls will also be preserved. Sidewalks are also provided on both the north and south sides of Memorial Drive, improving pedestrian access and connectivity. Intersections will be upgraded with high-visibility crosswalks, ADA-compliant wheelchair curb ramps, and improved pedestrian signals, ensuring safe and accessible crossings for all users. The street will be reconstructed from open ditch drainage to curb and gutter drainage. A description of drainage considerations can be found later in the chapter. This option prioritizes a human-centered approach to mobility, transforming Memorial into a safer, greener, and more inclusive street.



Figure 2.6 Rendering of Proposed Memorial Drive at Crossroads Drive 2-Lane Reconstruction

Figure 2.7 Memorial Drive at Terry Hershey Park Retrofit



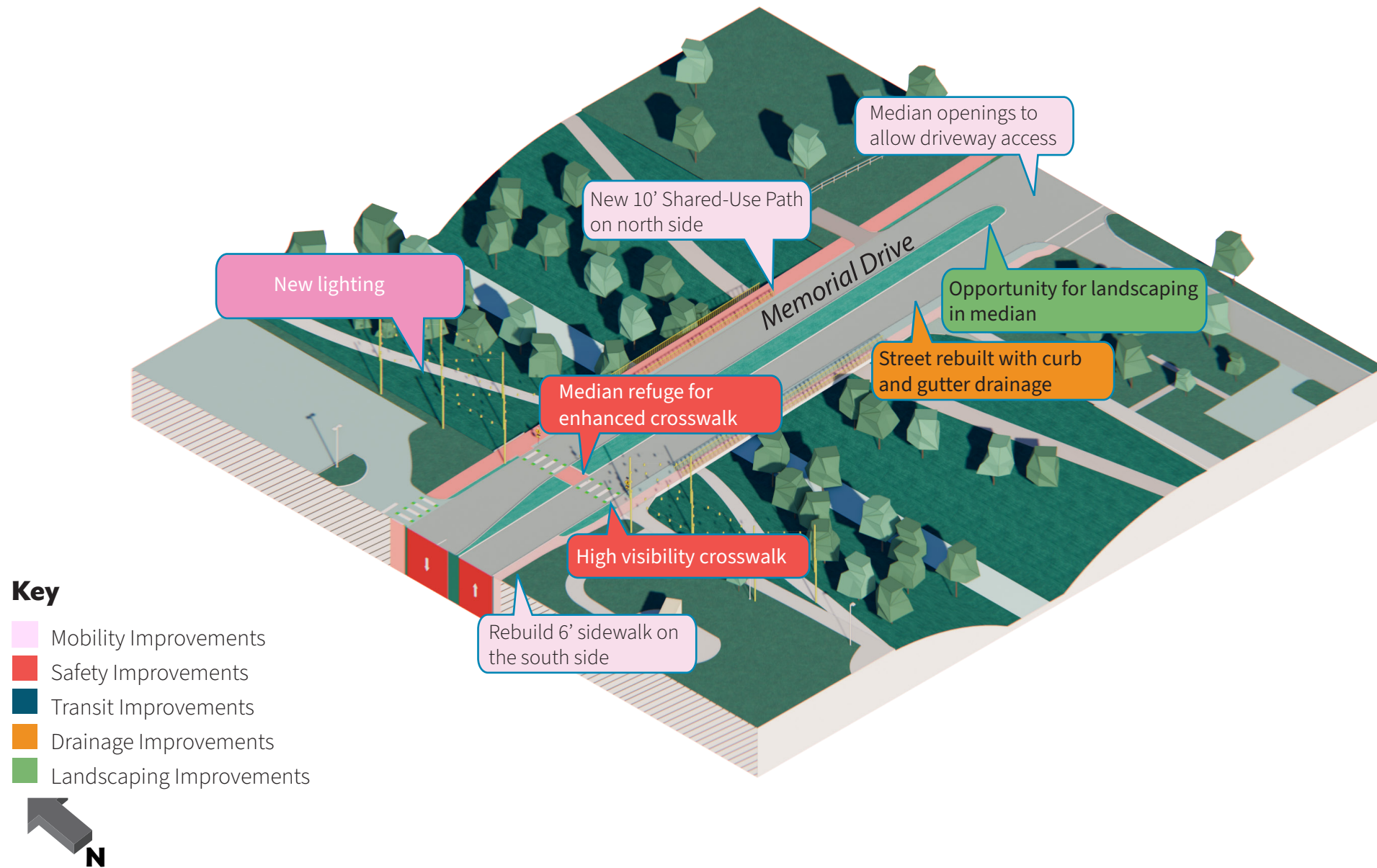
Memorial Drive at Terry Hershey Park - Retrofit

The Terry Hershey Retrofit focuses on significantly improving the user experience for pedestrians and cyclists. The 10-foot-wide shared-use path on the north side of Memorial Drive enhances accessibility and safety for pedestrians and cyclists. The pedestrian crossing in this intersection is updated with a new refuge island, allowing users to cross in two stages and reduces conflict with vehicular traffic. In addition, placemaking lighting has been introduced across the corridor. These lights are scaled to the surrounding buildings and serve a dual purpose: enhancing visibility and creating a stronger sense of place since the lighting acts as a visual cue. These improvements draw attention to the crosswalk and improve wayfinding, reinforcing Terry Hershey Park's identity while ensuring a more comfortable and intuitive experience for all users. Retrofit improvements do not incorporate significant drainage modifications; however, drainage considerations are provided later in the chapter.



Figure 2.8 Rendering of Proposed Memorial Drive at Terry Hershey Park Retrofit

Figure 2.9 Memorial Drive at Terry Hershey Park 4-Lane Reconstruction



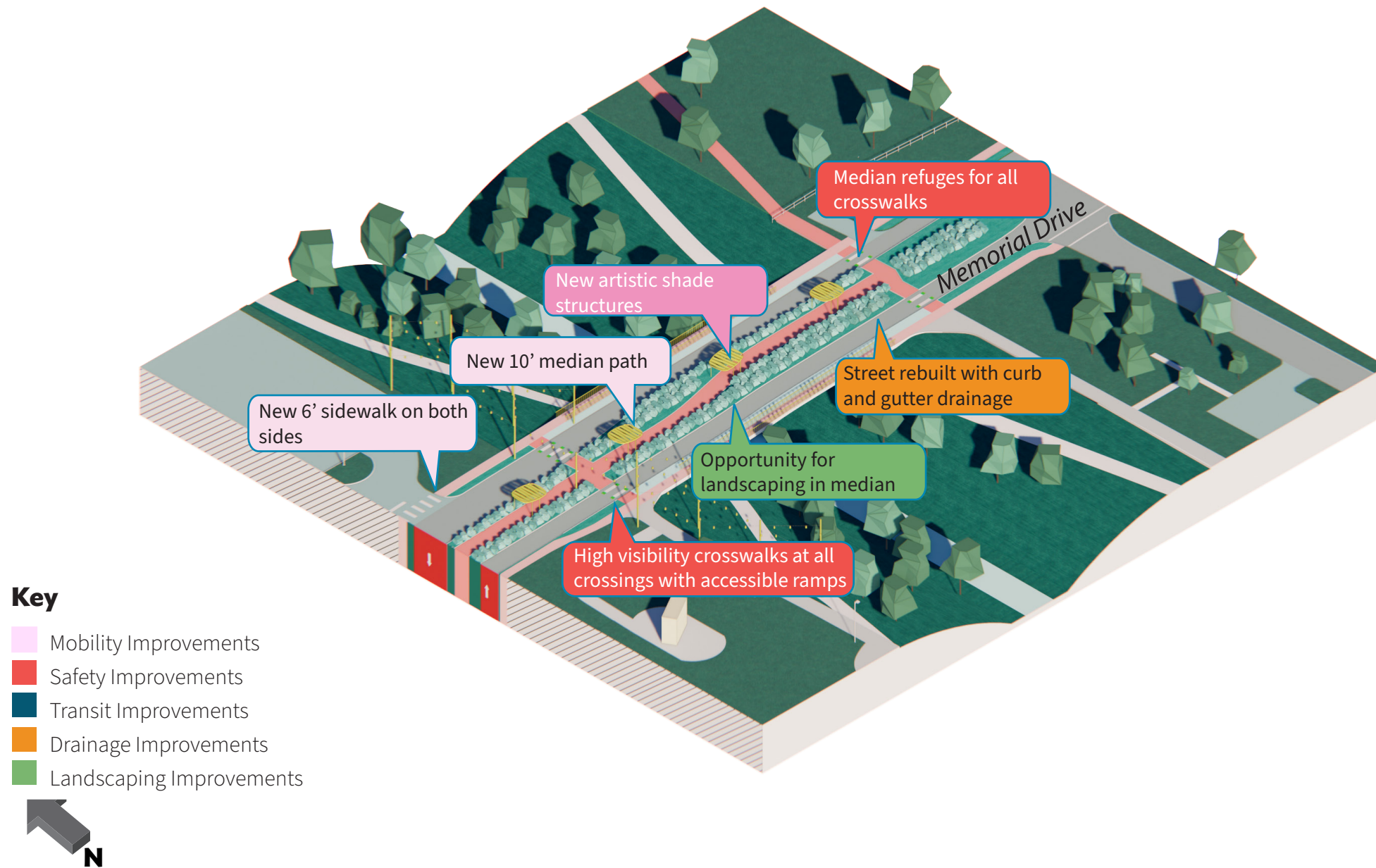
Memorial Drive at Terry Hershey Park - 4-Lane Reconstruction

The Memorial Drive at Terry Hershey 4-Lane Reconstruction is designed to improve safety, connectivity, and the overall user experience along Memorial Drive. A key transformation is the conversion of the center turning lane into a landscaped median that acts as a refuge island. This not only promotes safer pedestrian crossings but also enhances the visual appeal of the corridor, contributing to the neighborhood’s character. In order to maintain the landscaping, irrigation will need to be included in the design. A 10-foot-wide shared-use path on the north side of Memorial provides a dedicated, comfortable space for both pedestrians and cyclists, improving non-vehicular access to Terry Hershey Park. Placemaking lighting scaled to the built environment draws attention to pedestrian crossings and marks the entry points to Terry Hershey Park, strengthening the park’s identity and improving visibility, especially in the evening hours. These improvements support a safer, more inviting, and connected public realm for all users. The street will be reconstructed from open ditch drainage to curb and gutter drainage. More details on drainage considerations can be found later in the chapter.



Figure 2.10 Rendering of Proposed Memorial Drive at Terry Hershey Park 4-Lane Reconstruction

Figure 2.11 Memorial Drive at Terry Hershey Park 2-Lane Reconstruction



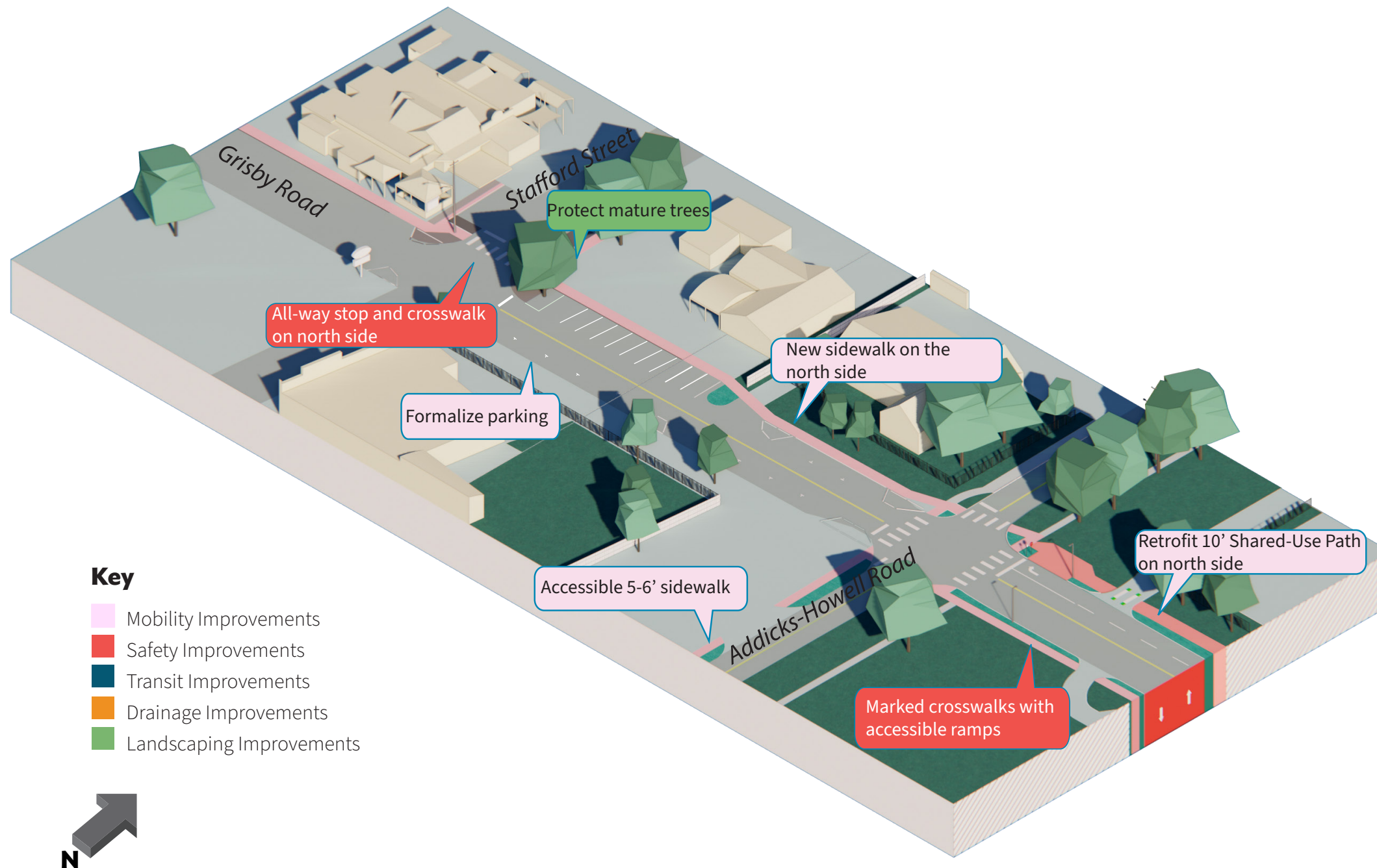
Memorial Drive at Terry Hershey Park - 2-Lane Reconstruction

The Memorial Drive 2-Lane Reconstruction proposes reducing the roadway to two lanes, which can help calm traffic by encouraging people to drive slower, making it safer and easier for people to cross Memorial Drive to access Terry Hershey Park. This design also creates space for a wide, 10-foot shared-use path and a robust, landscaped median. The added greenspace not only improves safety by offering two protected crossing points but also enhances the visual quality and character of the neighborhood. On the bridge, where tree planting is not feasible, shade structures will be installed to provide comfort and a cooler environment for pedestrians and cyclists using the shared path. Placemaking lighting scaled to the built environment draws attention to pedestrian crossings and marks the entry points to Terry Hershey Park, strengthening the park's identity and improving visibility, especially in the evening hours. These improvements support a safer, more inviting, and connected public realm for all users. The street will be reconstructed from open ditch drainage to curb and gutter drainage. More details on drainage considerations can be found later in the chapter.



Figure 2.12 Rendering of Proposed Memorial Drive at Terry Hershey Park 2-Lane Reconstruction

Figure 2.13 Grisby Road at Grisby Square Retrofit



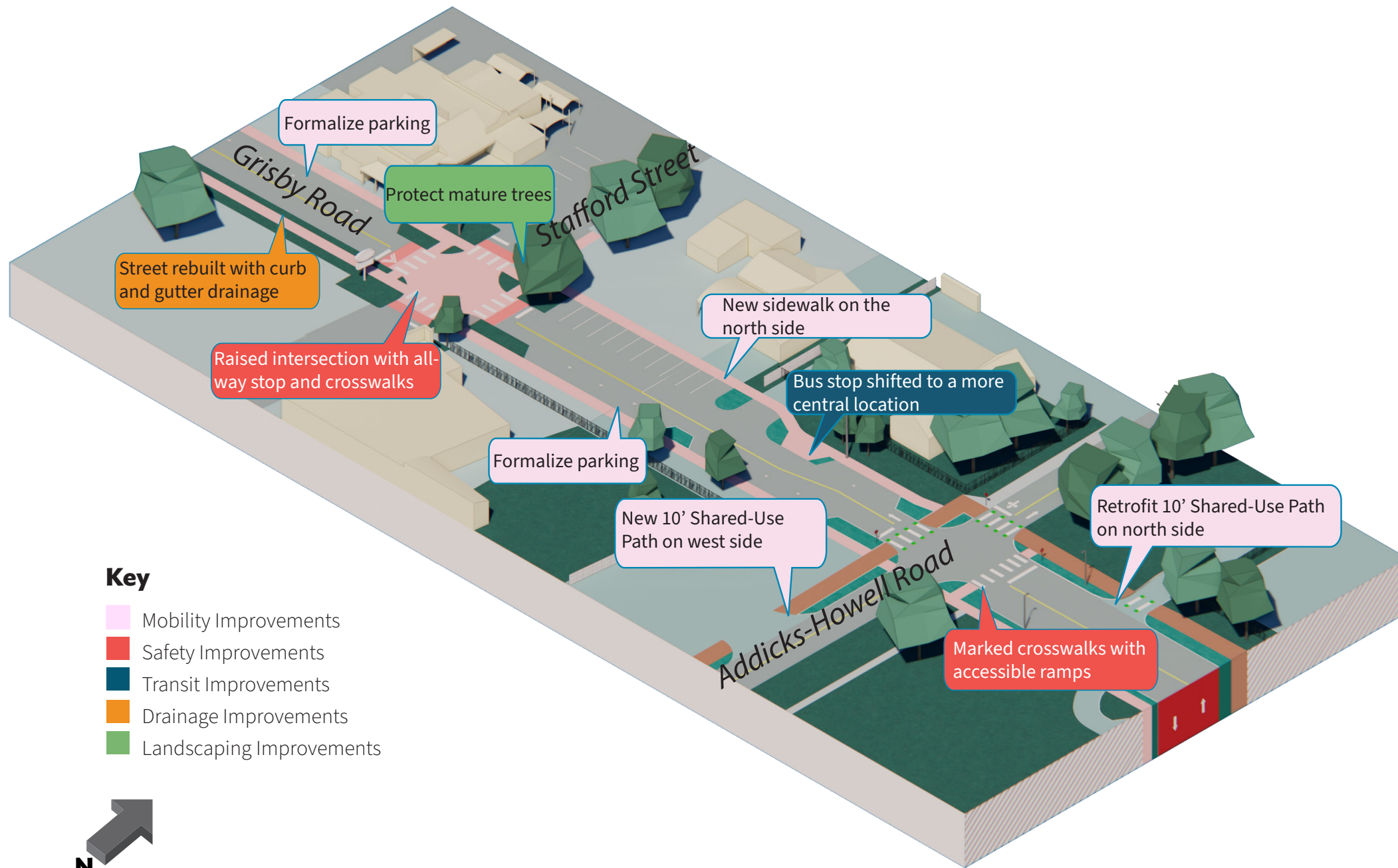
Grisby Road at Grisby Square - Retrofit

The Grisby Road Retrofit prioritizes pedestrian and cyclist comfort, safety, and accessibility. A 10-foot-wide shared-use path will be added along the north side of Grisby Road, extending the existing shared-use path that ends at Helios Way to Addicks-Howell Road. West of Addicks-Howell Road, there will be a new 6-foot sidewalk to SH-6. This path creates a continuous, dedicated route for both cyclists and pedestrians, enhancing active transportation options in the area and connecting the Energy Corridor to Grisby Square. At intersections, new crosswalk markings and ADA-compliant wheelchair curb ramps will improve accessibility and make crossings safer and more visible for all users. Additionally, sidewalks along the corridor will be protected by parking, creating a buffer between pedestrians and moving vehicles. This design not only enhances safety but also contributes to a more comfortable and inviting pedestrian environment. Retrofit improvements do not incorporate significant drainage modifications; however, drainage considerations are provided later in the chapter.



Figure 2.14 Rendering of Proposed Grisby Road at Grisby Square Retrofit

Figure 2.15 Grisby Road at Grisby Square Reconstruction



Grisby Road at Grisby Square - Reconstruction

The Grisby Road Reconstruction is designed to enhance pedestrian and cyclist safety, accessibility, and neighborhood connectivity. A 10-foot-wide shared-use path will be added along the north side of Grisby Road, extending from Helios Way to Addicks-Howell Road. This path creates a continuous and protected corridor for non-automobile users. Additionally, a new 10-foot shared-use path along the west side of Addicks-Howell Road will connect Grisby Square to Wolfe Elementary School, supporting safe routes to school and promoting active transportation for students and families. Intersection enhancements will include new crosswalk markings and ADA-compliant wheelchair curb ramps to improve accessibility and visibility for all users. West of Addicks-Howell Road, Grisby Road will be upgraded with formalized on-street parking and newly constructed 5- to 6-foot sidewalks on both sides. These sidewalks are protected by the street parking, creating a safer and more comfortable pedestrian environment by providing a buffer from moving traffic. These improvements support a safer, more accessible, and connected neighborhood environment for pedestrians, cyclists, and families. The street will have updated drainage enhancements. More details on drainage considerations can be found later in the chapter.



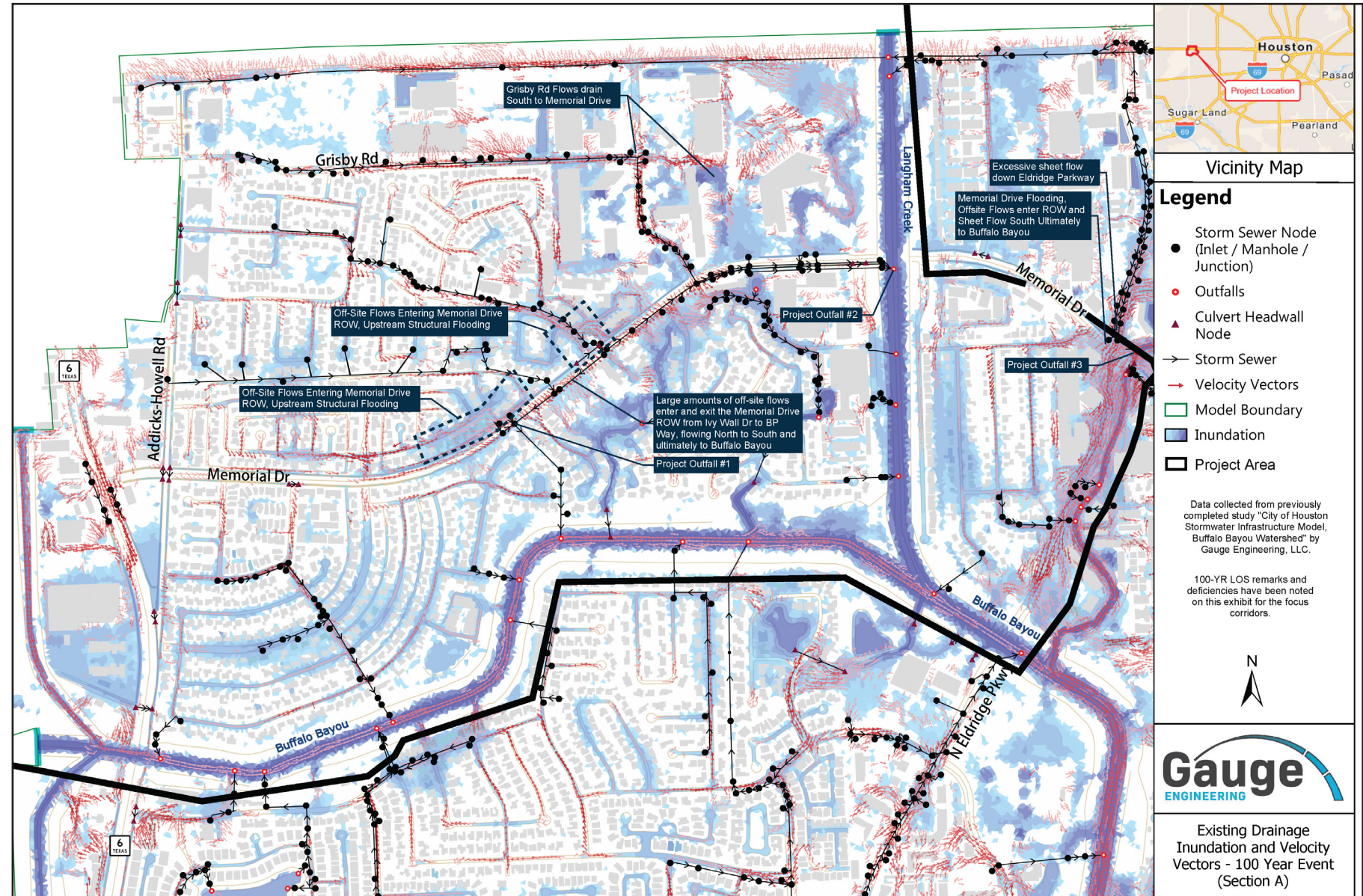
Figure 2.16 Rendering of Proposed Grisby Road at Grisby Square Reconstruction

Drainage Considerations and Opportunities

The Existing Conditions chapter provides a high-level analysis of the existing drainage system and level of service in the Study Area. Based on that analysis, flooding on Memorial Drive may contribute to ponding or flooding in neighborhoods such as Marywood Chase, Barkers Landing, and Westlake Park Blvd if the roadway is blocking stormwater flows south to Buffalo Bayou. However, a focused subregional drainage study would provide deeper, more granular details on the Study Area's drainage system and the effects of Memorial Drive on flooding in the area. This study recommends having the appropriate jurisdictions perform a comprehensive subregional drainage study in this area that could inform implementation of this study's recommendations and other future roadway or drainage improvements.

As for the Memorial Drive and Grisby Road alternatives presented in this chapter, the retrofit options will allow for smaller-scale drainage improvements, while the reconstruction options present opportunities to address identified drainage needs in a more holistic way. Drainage considerations for the different roadway improvement scenarios are included in the next sections. However, these are high-level planning drainage considerations; more detail will be provided in the design and engineering process for any implemented recommendations.

Figure 2.17 Existing Drainage Level of Service



Memorial Drive

Memorial Drive in its current state is a 4-lane roadway with a 100-ft right-of-way divided into 67-ft pavement and 33-ft green space. The roadway has a center turn lane and a sidewalk on the north side. Five storm sewer laterals connect to the Memorial Drive Trunkline from the adjacent neighborhoods and commercial areas and should be further analyzed in coordination with the City of Houston under a City Subdivision Drainage Study for potential upsizing.

Memorial Drive Retrofit

The Memorial Drive Retrofit Option improves the current 4-lane roadway with the addition of a center turn lane and a 10-foot shared-use path and 6-foot sidewalk on the north and south sides respectively.

The Memorial Drive Retrofit would **maintain the current open drainage ditch design** and drainage improvements would include **new ditch grading on the north and south side, and storm sewer with ditch collection points** on the south side where the available ditch cross section is reduced from 20 feet to 8 feet. The north side ditch remains unchanged and would not be expected to require storm sewer to maintain existing level of service, however, further evaluation of enhancement opportunities during detailed design is recommended. The proposed 1.75-mile corridor enhancement increases impervious cover by approximately 2.12 acres, requiring an estimated 1.60 acre-feet of detention storage based on the City of Houston’s minimum detention criteria of 0.75 acre-feet per acre of impervious cover. Additional detention may be required to mitigate floodplain fill and conveyance improvements. Detention storage may be obtained by oversizing the drainage trunk line above the size required for conveyance necessary to meet capacity criteria.

Memorial Drive 4-Lane Reconstruction

The Memorial Drive 4-Lane Reconstruction Option maintains the 4-lane layout and ROW, reconstructing the roadway to have a ROW of 64-foot pavement and 36-foot green space with a 10-foot shared-use path on the north side and a 6-foot sidewalk on the south side.

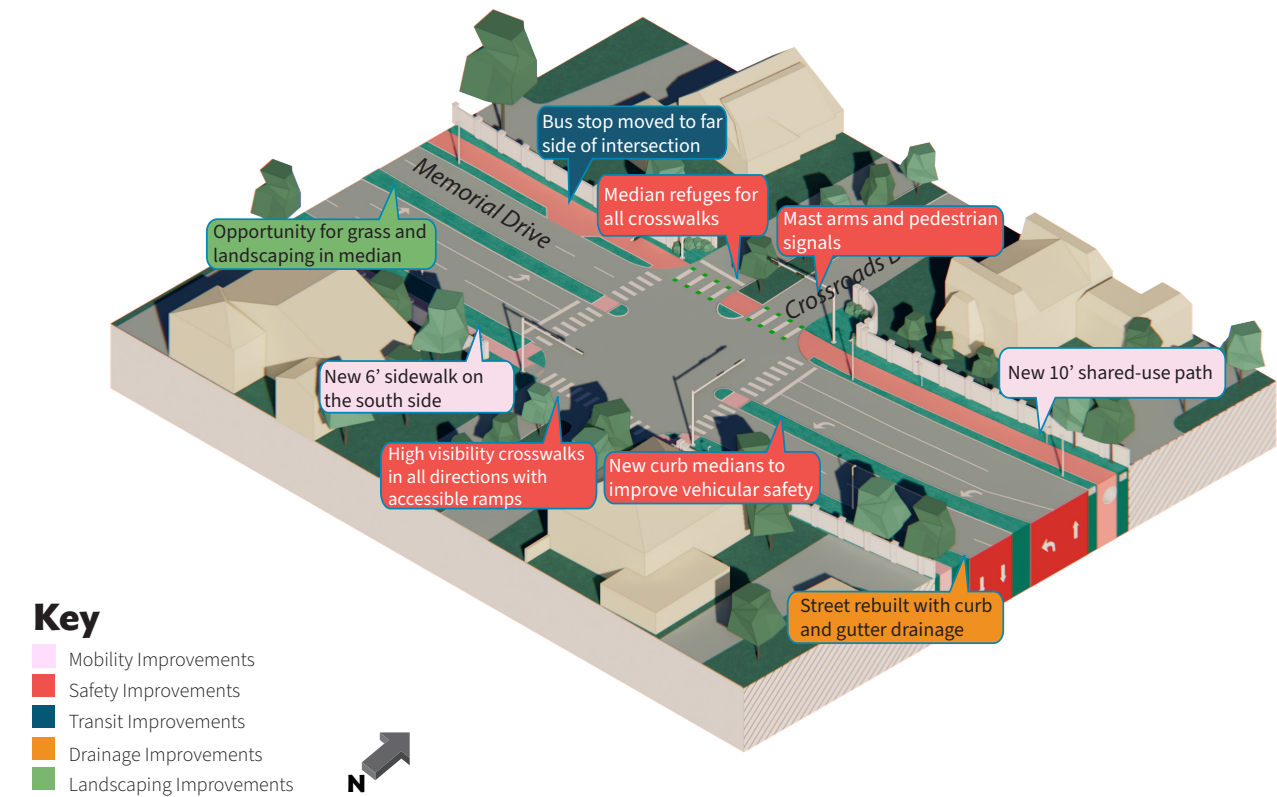
Drainage improvements would include **complete reconstruction of the storm sewer system to a curb and gutter system with inlets and removal of the ditches** along the corridor. The storm sewer trunkline is recommended to be designed for a 2-year flood event and 100-year extreme event inundation is maintained within the right-of-way. Reconstruction of the roadway would allow for further assessment of roadway profile grade line to eliminate “dam” locations where the existing road impedes larger rainfall events, and further opportunity to lower or longitudinally grade the roadway to service extreme event flows. Consideration should be given to prevent increases in overland flow downstream of any portions of the roadway that are proposed to be lowered. **The proposed 1.75-mile corridor enhancement reduces impervious cover by approximately 0.64 acres, requiring no minimum detention.** Additional detention may be required to mitigate floodplain fill and conveyance improvements.

Memorial Drive 2-Lane Reconstruction

The Memorial Drive 2-Lane Reconstruction Option reconstructs the roadway as a 2-lane roadway with wide center median. The ROW would be 48-foot pavement and 52-foot green space with a 10-foot shared-use path in the median and two 6-foot sidewalks on the north and south sides.

Drainage improvements would include **complete reconstruction of the storm sewer system to a curb and gutter system with inlets and removal of the ditches in the corridor.** The storm sewer trunkline is recommended to be designed for a 2-year flood event and 100-year extreme event inundation maintained within the right-of-way. Reconstruction of the roadway would allow for further assessment of roadway profile grade line to eliminate “dam” locations where the existing road impedes larger rainfall events, and further opportunity to lower or longitudinally grade the roadway to service extreme event flows. Consideration should be given to prevent increases in overland flow or downstream flow of any portions of the roadway that are proposed to be lowered. **The proposed 1.75-mile corridor enhancement reduces impervious cover by approximately 4.03 acres, requiring no minimum detention.** Additional detention may be required to mitigate floodplain fill and conveyance improvements.

Figure 2.18 Memorial Drive at Crossroads Drive 4-Lane Reconstruction



Grisby Road

East of Addicks-Howell Road, Grisby Road is a 4-lane roadway with 80-foot right-of-way that is occupied by a center planted median and a sidewalk on the north side of the street. West of Addicks-Howell Road, Grisby Road is a 2-lane roadway with 50-foot right-of-way that has parallel or perpendicular parking and no green space.

Grisby Road Retrofit

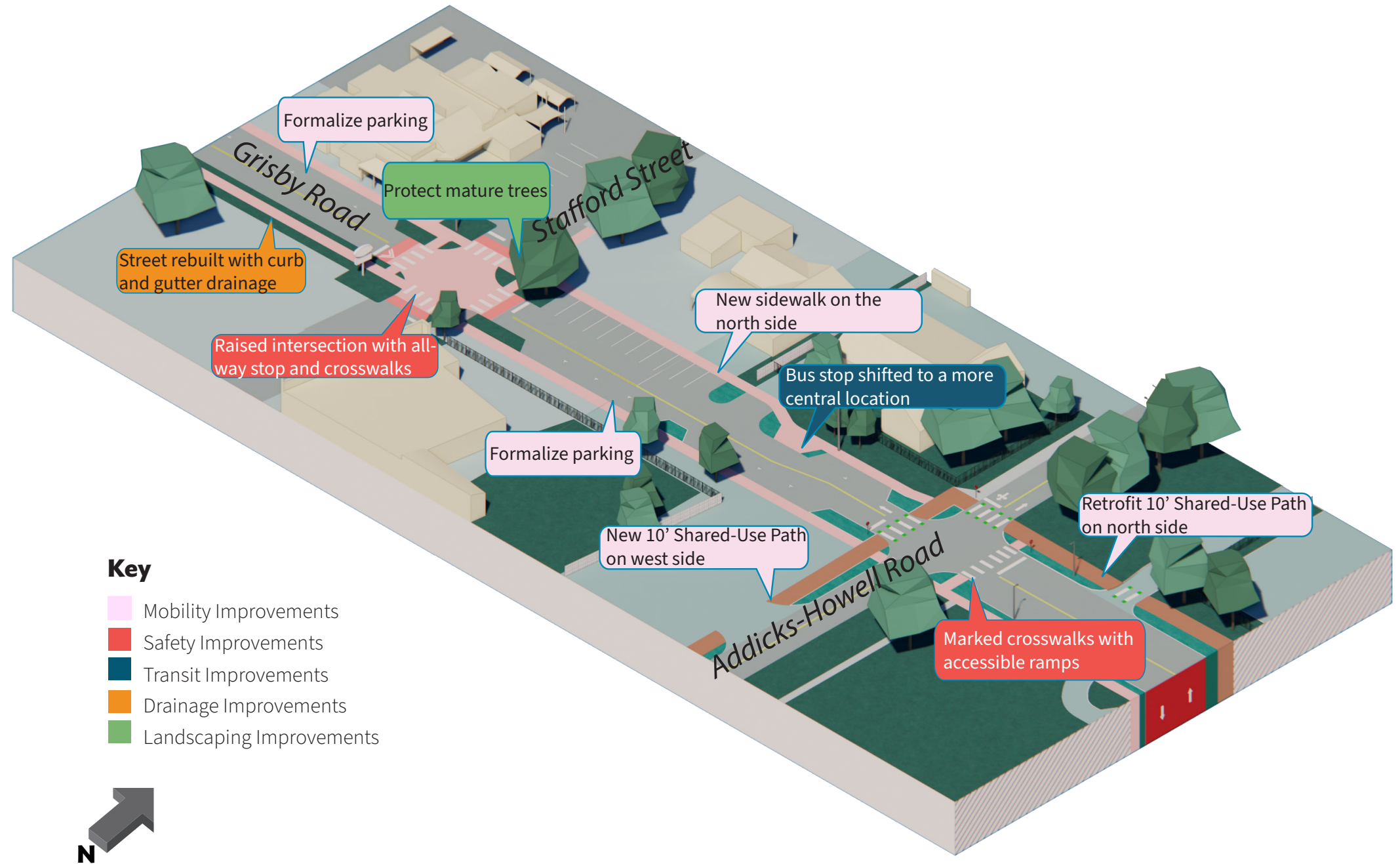
The Grisby Road Retrofit focuses mainly on improvements behind the curb, like sidewalks and curb ramps. The roadway may be widened in some places to incorporate formalized parking, but there are **no drainage improvements**.

Grisby Road Reconstruction

The Grisby Road Reconstruction Option maintains the 2-lane layout and ROW, reconstructing the roadway to have a ROW of 34-foot pavement and 16-foot green space with 6-foot sidewalks on both sides. Parallel or perpendicular parking can be selected based on which configuration works with the adjacent properties and drainage infrastructure.

Drainage improvements would include **reconstruction of the storm sewer system to a curb and gutter system with inlets**. The existing trunk line in the corridor would be evaluated for capacity and existing structural condition and kept or replaced as appropriate. The storm sewer trunkline is recommended to be designed for a 2-year flood event and 100-year extreme event inundation maintained within the right-of-way. Reconstruction of the roadway will allow for further assessment of the roadway profile grade line to inform recommendations on lowering and/or adjusting longitudinal grades to eliminate any extreme rainfall event conveyance deficiencies. The proposed 0.16-mile corridor enhancement **reduces impervious cover by approximately 0.31 acres, requiring no minimum additional detention**. Consideration should be given to prevent increases in overland flow or downstream flow of any portions of the roadway that are proposed to be lowered. **The proposed 1.75-mile corridor enhancement reduces impervious cover by approximately 4.03 acres, requiring no minimum detention**. Additional detention may be required to mitigate floodplain fill and conveyance improvements.

Figure 2.19 Grisby Road at Grisby Square Reconstruction





Summary of In-Person Engagement Event #2

As part of the Opportunities Analysis phase of the project, two in-person engagement events took place. The alternatives created during the Opportunities Analysis were presented to both to the Steering Committee on May 15, 2025, and to the general public on June 11, 2025. Around 40 members of the public attended the meeting. The purpose of the meetings were to showcase a range of options for Memorial Drive and Grisby Road, and gather feedback on what design approaches people prefer.



Steering Committee



Open House Workshop

Engagement Key Themes

Participants Support:

- Shared-use paths for people walking, biking, and rolling on Memorial Drive, Grisby Road, and Addicks-Howell Road
- Sidewalk connectivity and pedestrian safety
- Memorial Drive rebuild with curb and gutter drainage

Balance of Improvements

Residents and Steering Committee members recognize that there are multiple physical barriers to getting around, both in terms of neighborhood brick walls, SH-6, and Buffalo Bayou. Breaking down these barriers through improvements to Memorial Drive and Grisby Road are recognized as ways to increase connectivity. However, for local residents, Memorial Drive is generally the only accessible route out of neighborhoods along the corridor, especially via automobile or public transit. As such, there must be a balance between creating spaces where people feel safe walking, biking, and rolling, while still allowing vehicles to efficiently travel in the area.

More input on this balance is provided on the following pages, specific to weighing the benefits of the 4-lane and 2-lane concepts.

General Concerns: Drainage and Trees

The general public is still very concerned with drainage. Although they are happy to hear drainage is incorporated, some would like to see more drainage in the project.

The public would also like to see all existing trees along the corridor remain and not be disturbed during any future construction progress.

Project Vision

At the public meeting, one of the first input stations asked for people’s thoughts on the project’s Vision Statement. Participants were asked the following:

Which three aspects of the vision are important to you?

- Continuous sidewalks
- High-comfort bikeway
- Access to Grisby Square
- Terry Hershey Park
- Stormwater infrastructure
- Landscaping and placemaking
- A healthier, more livable future

A total of 97 dots were placed. As shown in Figure 2.20, the top three aspects were Continuous Sidewalks with 20 dots (21%), High-Comfort Bikeways with 18 dots (19%), and Stormwater Infrastructure with 17 dots (18%). The public overwhelmingly supports projects including improvements for safer and more comfortable pedestrian and cyclist facilities as well as drainage considerations.

THE MEMORIAL DRIVE BICYCLE AND PEDESTRIAN STUDY SUPPORTS A VISION FOR A VIBRANT, CONNECTED MEMORIAL DRIVE CORRIDOR WHERE PEOPLE OF ALL AGES AND ABILITIES CAN TRAVEL SAFELY.

THE CORRIDOR WILL INCLUDE **CONTINUOUS SIDEWALKS** AND A **HIGH-COMFORT BIKEWAY** THAT CONNECT TO SCHOOLS, PARKS, AND TRAILS.

ACCESS TO GRISBY SQUARE WILL BE IMPROVED WITH NEW SIDEWALKS, SAFE INTERSECTIONS, AND IMPROVED PARKING CONDITIONS.

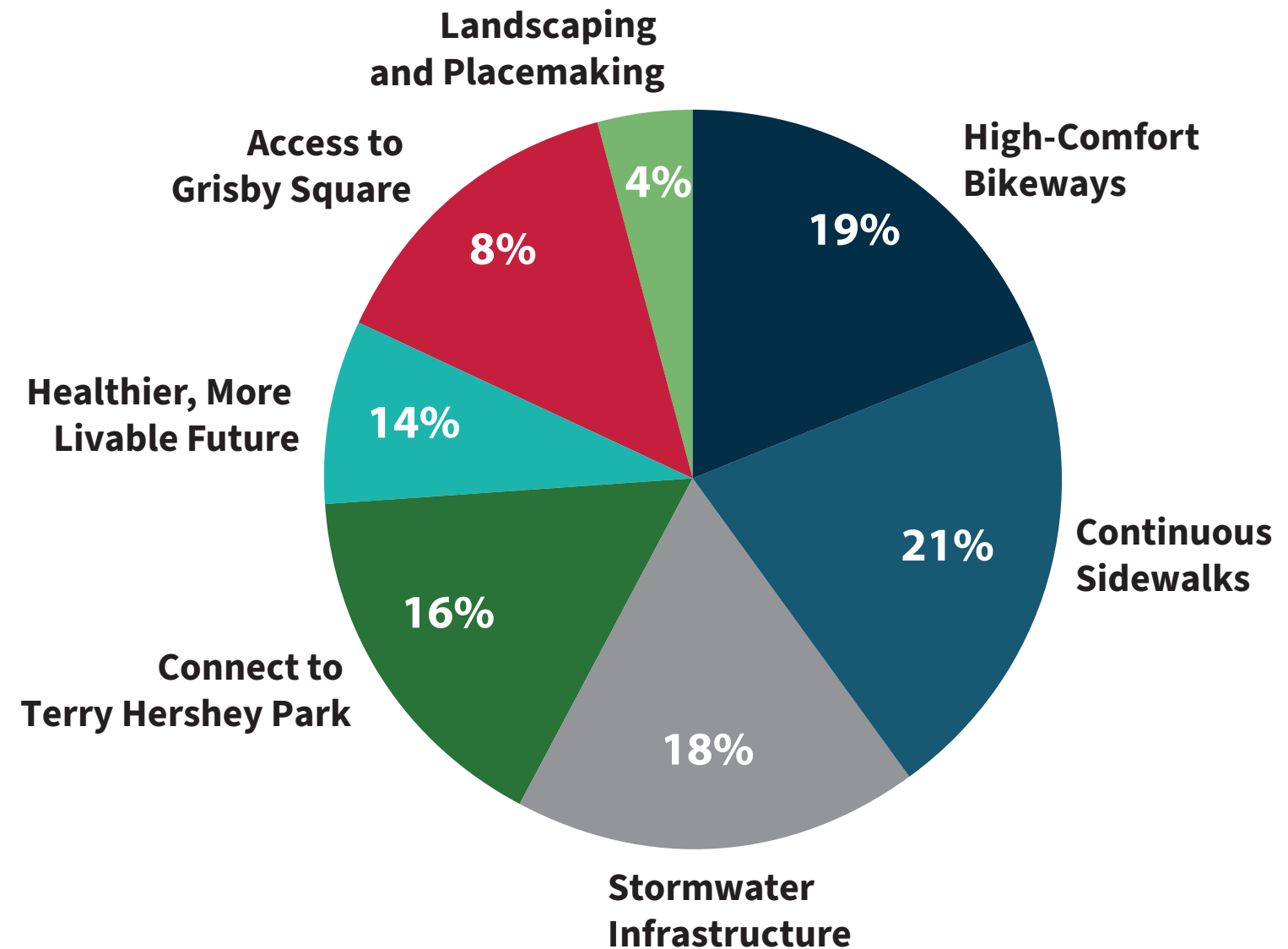
TERRY HERSHEY PARK AND THE REGIONAL PARK AND TRAIL SYSTEM WILL BE MORE ACCESSIBLE TO THE SURROUNDING HOMES, JOBS, AND DESTINATIONS.

STORMWATER INFRASTRUCTURE WILL BE UPGRADED THROUGH ROADWAY PROJECTS TO IMPROVE SAFETY AND QUALITY OF LIFE.

A STRONGER SENSE OF PLACE AND COMMUNITY WILL BE ACHIEVED THROUGH DESIGN THAT INCLUDES MORE **LANDSCAPING AND PLACEMAKING**.

BY PRIORITIZING MULTIMODAL SAFETY, COMMUNITY ACCESS, AND RESILIENT DESIGN, THIS PROJECT HELPS SHAPE A **HEALTHIER, MORE LIVABLE FUTURE** FOR EVERYONE.

Figure 2.20 Vision Results



Engagement Results Summary

Memorial Drive Retrofit

The following features received support from participants:

- 10' Shared-Use path on the north side of Memorial Drive
- Upgrading the existing signal at Crossroads Drive with mast arms, new pedestrian signals, and push buttons
- More marked crosswalks and safe crossings
- Median refuge at the Terry Hershey crossing
- More lighting along the corridor, especially at Terry Hershey crossing

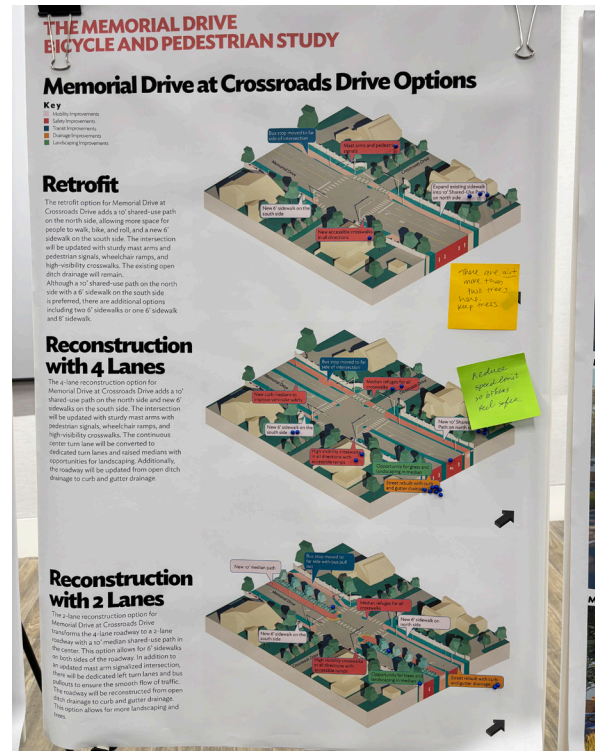


Figure 2.21 Memorial Drive at Crossroads Drive Axon Board

Memorial Drive 4-Lane Reconstruction

The following features received support from participants:

- Rebuilding the corridor with curb and gutter drainage
- 10' Shared-Use path on the north side with substantial buffer room between the roadway and path
- Continuous 6' sidewalk on the south side
- High visibility crosswalk, push buttons, and new pedestrian signals at the signalized intersections
- Dedicated left turn lane at intersections
- Median refuge at marked crosswalks
- Maintain the 4-lane cross-section



Figure 2.22 Memorial Drive at Terry Hershey Park Axon Board

Memorial Drive 2-Lane Reconstruction

The following features received support from participants:

- Rebuilding the corridor with curb and gutter drainage
- Median shared-use path
- More landscaping in the median
- Reduce the cross-section from 4-lanes to 2-lanes
- Artistic shade structures
- Addition of new crosswalks and median refuges
- 6' sidewalks on both sides of Memorial Drive

Grisby Road Retrofit

The following features received support from participants:

- All-way stop at the Grisby Road and Stanford Street intersection
- Formalized parking along Grisby Road
- Sidewalk on north side from Addicks-Howell Road to SH-6
- 10' Shared-Use path on the north side of Grisby Road from Helios Way to Addicks-Howell Road

Grisby Road Reconstruction

The following features received support from participants:

- 10' Shared-Use path on the west side of Addicks-Howell Road
- Raised intersection and all-way stop at Grisby Road and Stanford Street.
- Protecting the mature trees
- Street being rebuilt with curb and gutter drainage
- Sidewalk on north side from Addicks-Howell Road to SH-6
- 10' Shared-Use path on the north side from Helios Way to Addicks-Howell Road



Figure 2.23 Public interacts with Memorial Drive boards



Figure 2.24 Public comments on Grisby Square board

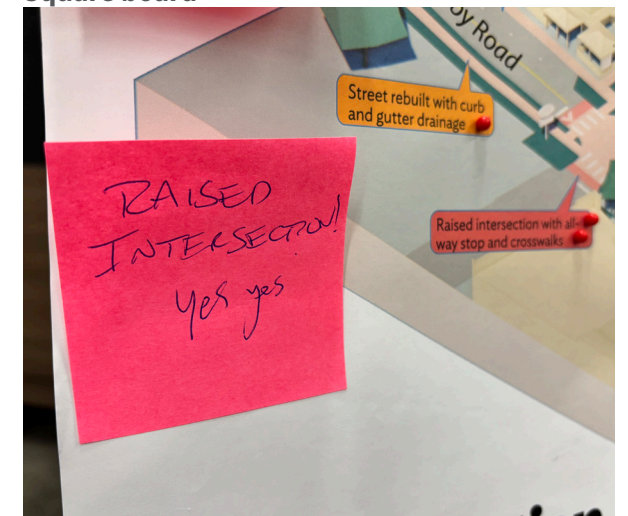


Figure 2.25 Public comment on Grisby Square board

Engagement Results - Drainage

General Themes

Many residents were seeking a clearer understanding of the existing drainage issues. Through discussions with the drainage consultant team members, many questions were asked and concerns were addressed.

A few meeting attendees were unsure of the study scope, objective, and limits of the study as a broader planning study effort prior to attending the public meeting. The individuals concerned with flooding from the bayous and reservoirs had hesitations on whether the study could help their concerns.

The drainage improvements can be designed with two goals in mind: 1) Supporting 2-year storm design to handle smaller, more frequent storms so that roads stay passable, especially for residents and emergency vehicles and 2) Supporting 100-year storm design that will ensure for larger, less frequent storms to make sure that floodwaters stay within the road ROW and reduce the risk of houses flooding.

Residents were generally happy to have their drainage concerns addressed and pleased to hear that this project is providing a path toward improving drainage issues in the area.

What Was Shared

Most of the drainage concerns from the public were at the regional level. However, these drainage concerns can still be addressed with drainage improvement recommendations through partnerships with Harris County and/or Harris County Flood Control District (HCFCD). This allows for a regional approach to a solution for Memorial Drive rather than an approaching it as an isolated drainage improvement.

Full reconstruction presents more opportunities to correct identified drainage issues along Memorial Drive. This would allow for full reconstruction of existing drainage features as needed and roadway profile grade line (PGL) adjustments which can improve extreme event flooding.

For street flooding concerns on nearby neighborhood streets, flooding issues could be improved by trunkline and roadway PGL adjustments. This study would recommend a City-Level Subdivision Drainage Study to take a regional approach to solving flooding issues in the area.

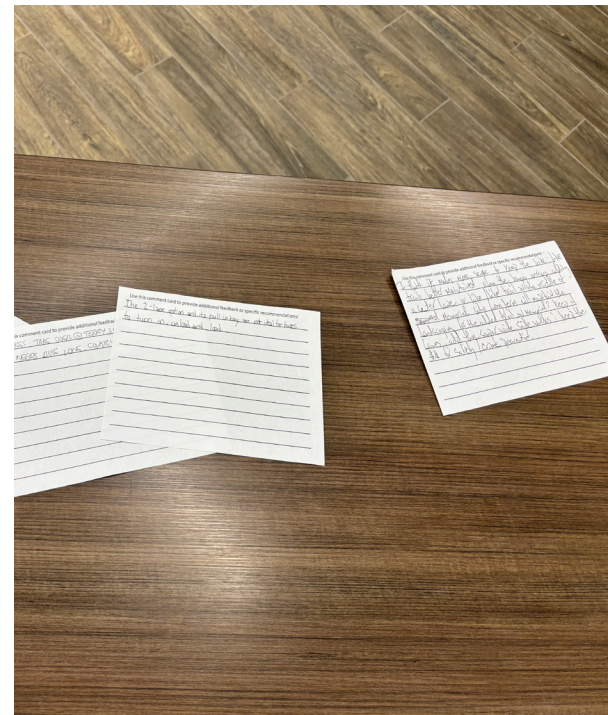


Figure 2.26 Comments cards submitted during the public meeting

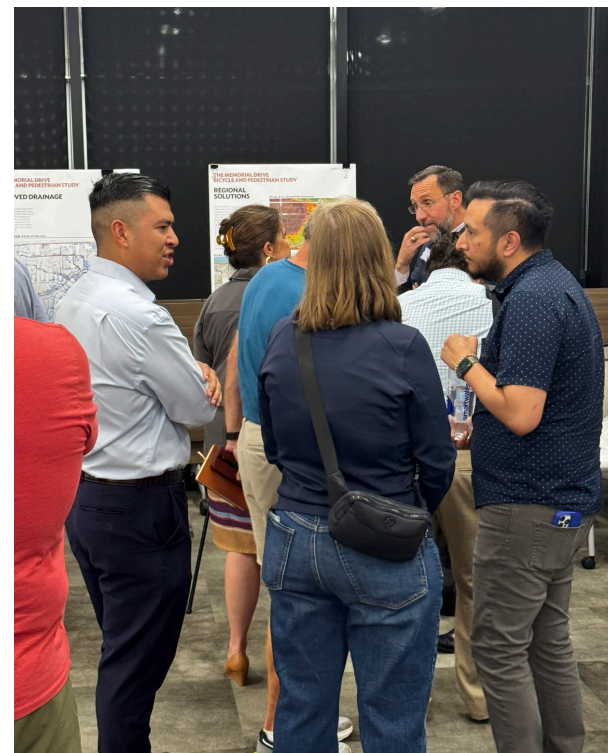


Figure 2.27 Group gathers around the Drainage Board at the public meeting

Additional Notable Comments

In addition to comments and feedback on the boards presented, the Project Team noted other concerns from the public. The following are comments the public shared with the Project Team.

Protect trees along Memorial Drive. A lot of the residents voiced concerns to protect the trees along Memorial Drive. It was noted that an existing tree inventory would be conducted during the design and construction phases of project implementation.

Talk to business owners. Many residents asked if business owners have been involved in the process. Although there have been Steering Committee Meetings and Stakeholder Meetings, there has not been a direct meeting with stakeholders about proposed recommendations. It was noted that, if funding is secured for project implementation, the Energy Corridor District would conduct a meeting with business owners and other stakeholders in the area during the design phase of the process.

Conduct traffic signal warrant analysis. Residents asked what other intersection improvements would be considered, especially at current unsignalized intersections. They were informed that, based on crash data and traffic count analysis, new signals at these intersections may be proposed as part of the recommendations. If implementation moves forward, this would require the City of Houston to conduct a traffic signal warrant analysis during the design phase.

Connect to George Bush Hike and Bike shared-use path via Grisby Road. Residents noted that Terry Hershey Hike and Bike shared-use paths will be well connected through the proposed improvements, but voiced concerns on how to connect to George Bush Park with safe crossings across SH-6. SH-6 is noted as a barrier and connections to the George Bush Park shared-use path will be included in the recommendations.



Figure 2.28 Public discusses Grisby Square Board

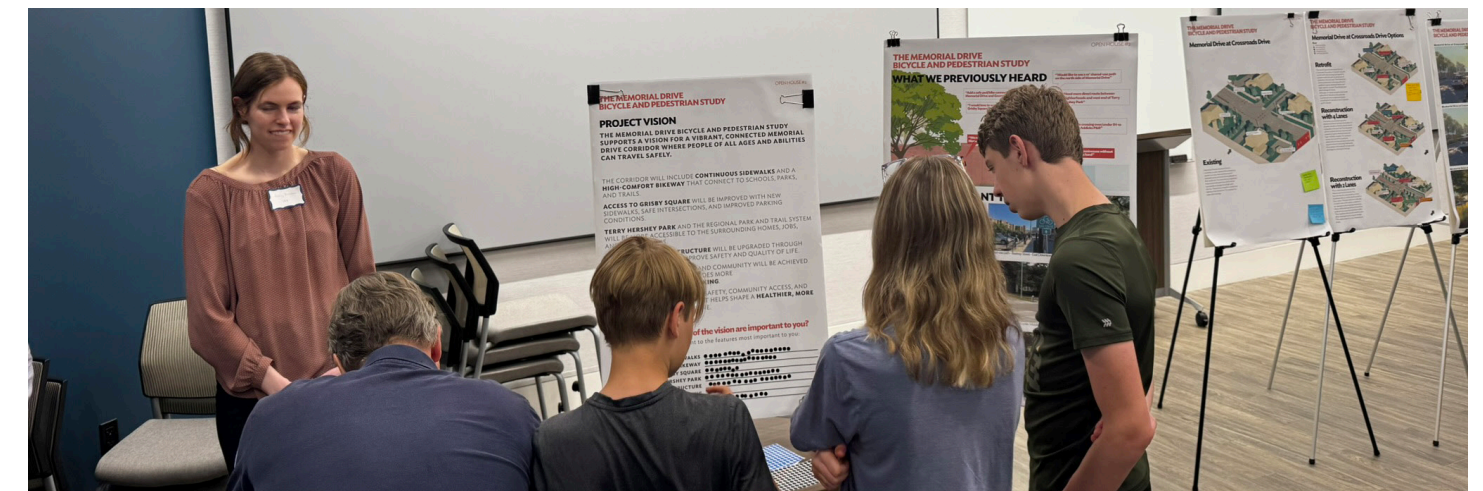


Figure 2.29 Group gathers around the Project Vision Board

Comments from the Public

“I believe the reconstruction while maintaining 4 traffic lanes best suits the needs of all the neighborhoods along the street while limiting the amount of push-back from motorists. It’s very important that the trees along the brick walls are left alone however, in any design. It’s also very important any new median constructed must contain grass, wildflowers or naturally grasses, and trees.”

“The retrofit designs seem best. I currently live in Fleetwood and crossing Memorial to use the sidewalks is scary. There is no crosswalk signal and people run the red lights frequently making it difficult to know when it’s safe to cross. I have a kid that will eventually go to Wolfe Elementary and would love to walk him to school safely. Better sidewalks and signals are much needed to make the area safer to walk/bike and I hope to see one of these improved designs come to life.”

“As someone who regularly traverses the sidewalk along the north side of Memorial between Barker’s Landing Rd and Terry Hershey Park, I have to say that these concepts are very exciting. The current sidewalk barriers may as well be non-existent, with just a couple of feet separating pedestrians/cyclists from cars that are typically going 40+ mph. Of the three designs presented, I believe the “Reconstruction with 4 Lanes” proposal offers the best balance of pedestrian/cyclist safety while minimizing traffic disturbances. As painful as the construction phase of the project would be (especially given the current state of the Eldridge & Memorial intersection), the upgrades to that section of Memorial would be greatly appreciated!”

“Please Reconstruction with 4 lanes”

During the 2 week online engagement (June 25-July 9):

23 Total Contributions

13 New Registrations

Top Day: June 30, 2025 with 82 Visits

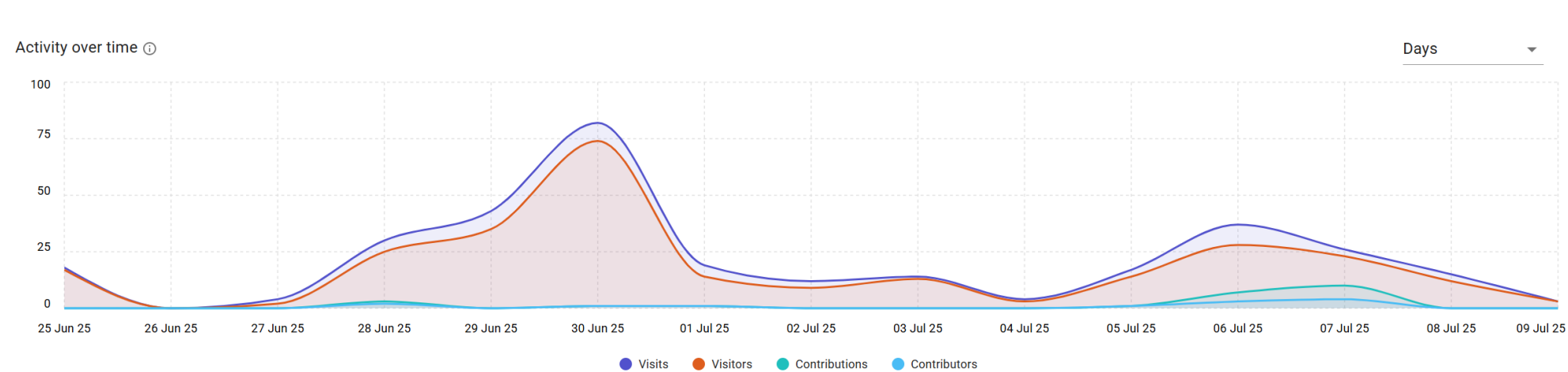


Figure 2.30 Activity Over Time Engagement Results

Online Engagement

The Public had two weeks to submit virtual public comments about the concepts shown in the In-Person Public Meeting on June 11, 2025. In total, 8 comments were made.

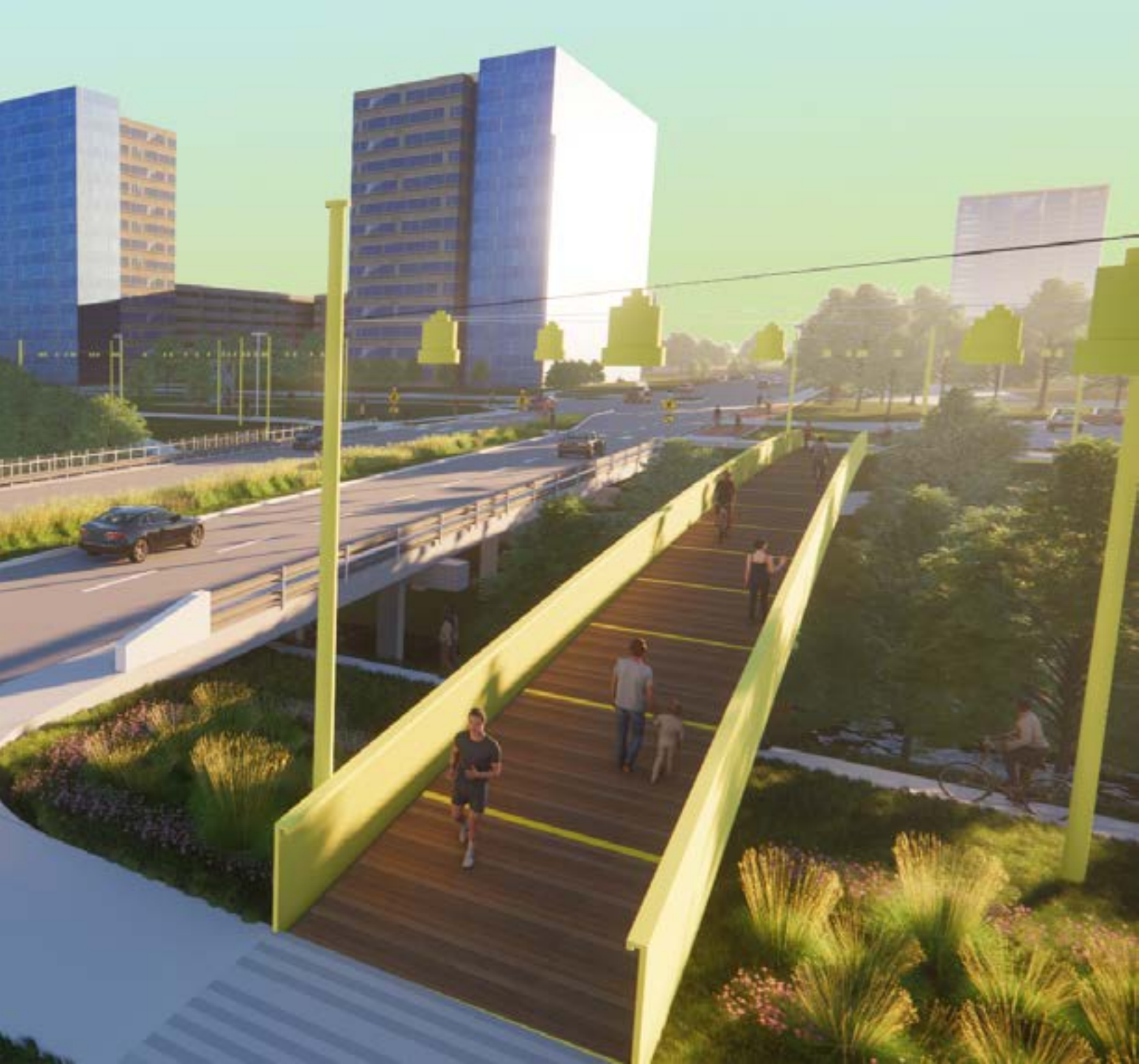
What we heard:

- Support for Retrofit or 4-Lane Reconstruction. Less support for the 2-Lane Reconstruction.
- Support for safe pedestrian and bike crossings across Memorial Drive.
- Support for improved drainage.
- Support for Grisby Square improvements and Ad-dicks-Howell Road shared-use path.
- Support for placemaking throughout the corridors.

Comments from the public are shown to the left. In addition to the above themes, there were other comments to make note of. One individual would like to see bike lanes along Grisby Road and Westlake Park Boulevard, one individual would like to see the trees protected, and one individual was concerned with the amount of drainage improvements - they were worried it was not enough and would like to see more.

Most of the comments aligned with what the Project Team saw during the June 11, 2025 Public Meeting.

The total results are shown in the figure on the left. This shows that the online forum had 23 total contributions, which includes written comments, written replies, and “likes”. Through this engagement process, the project page received 13 new registrations where individuals signed up for updates. The project page’s top performing day was June 30, 2025 with a total of 82 visits. There were a total of 314 visits during those two weeks.



Chapter 3

Recommendations & Implementation



Recommendations Overview

The Memorial Drive Bicycle and Pedestrian Study recommendations focus on key projects that will be vital enhancements to the mobility network for the neighborhood and address needs for improved mobility and safety throughout the Study Area. The recommendations align with the goals presented in the Opportunities Analysis and support mobility, resiliency, and quality of life benefits. The high-level recommendations overview is presented below, with more details and implementation considerations for each project on the following pages.

- Memorial Drive will include continuous sidewalks and a 10' shared-use path that connect to schools, parks, and the Terry Hershey Park shared-use paths.
- Access to Grisby Square will be improved with new ADA compliant sidewalks, improved drainage, safe intersections, and improved parking conditions.
- Terry Hershey Park and the regional park and trail system will be more accessible to the surrounding homes, jobs, and destinations.
- Stormwater infrastructure will be upgraded through sidewalk and roadway projects to improve safety, resiliency, and quality of life for the area.
- Landscaping and placemaking features will be added to the Study Area, providing a stronger sense of place, enhancing the overall community.
- All recommendations prioritize multimodal safety, community access, and resilient design that will shape a healthier, more livable future for everyone.

The recommendations are presented with cost estimates, potential partnerships, funding strategies, and a general focus on priority vs. longer-term projects for consideration.

Overall Connections

The map in Figure 3.1 illustrates the range of improvements where key recommendations are made to support overall mobility in the Study Area.

There are two primary corridor recommendations: Memorial Drive from Eldridge Parkway to SH-6 and Grisby Road from Westlake Park Boulevard to SH-6. The two east-west corridor recommendations are presented with more detail than the other recommendations, as they were the basis for this ped-bike study. These improvements can significantly help mobility and access in the area while enhancing safety for all road users.

Addicks-Howell Road and Westlake Park Boulevard are highlighted as north-south potential future corridors for improvements and are included as high-level recommendations. However, further study and analysis will be needed to provide detailed recommendations.

Other recommendations not included in Figure 3.1 include potential partnership projects that will need further refinement, targeted business engagement, and/or regional perspectives and analysis. These projects include trailhead improvements, a Regional Drainage Study, and a Grisby Square Parking Study. These projects are identified through existing condition observations and concerns from the public, but are too large to create detailed recommendations under this project.

In addition to the recommendations above, the Study has outlined quick win projects that could be implemented within a year. Memorial Drive will be receiving mill and overlay upgrades in 2026 through the City of Houston. With this pavement improvement, there are opportunities to update and/or add pavement markings. For example, the existing crosswalk at Terry Hershey Park at Memorial Drive could have a painted median refuge with flex posts, providing a mid-block refuge for pedestrians and cyclists. Crosswalks could also be enhanced at the intersection of Memorial Drive and Crossroads Drive. Additional pavement marking recommendations could include new crosswalks at the all-way stop at Grisby Road and Addicks-Howell Road. Enhanced crosswalk signage, such as the “Stop Here for Pedestrians” sign, for the school crosswalks can be added on Addicks-Howell Road near Wolfe Elementary to improve safety for school children walking to and from school.

Summary of Recommendations

- 1 Improve North Eldridge Parkway crossing conditions to increase access to Memorial Drive Improvements
- 2 Create a confluence of shared-use paths at the entrance of Terry Hershey Park
- 3 Improve intersection safety at Memorial Drive and Westlake Park Boulevard with new signals and crosswalks
- 4 Evaluate a new traffic signal at Memorial Drive and Barkers Landing Road
- 5 Upgrade traffic signal and pedestrian crossings at Memorial Drive and Crossroads Drive
- 6 Improve Memorial Drive crossing at Addicks-Howell Road and access to Wolfe Elementary
- 7 Coordinate with TxDOT to improve Memorial Drive and SH-6 intersection and access to George Bush Park
- 8 Improve Grisby Road and Addicks-Howell Road intersection crossings
- 9 Create a walkable intersection with enhanced placemaking within Grisby Square at Stafford Street
- 10 Coordinate Grisby Road at SH-6 intersection safety with TxDOT

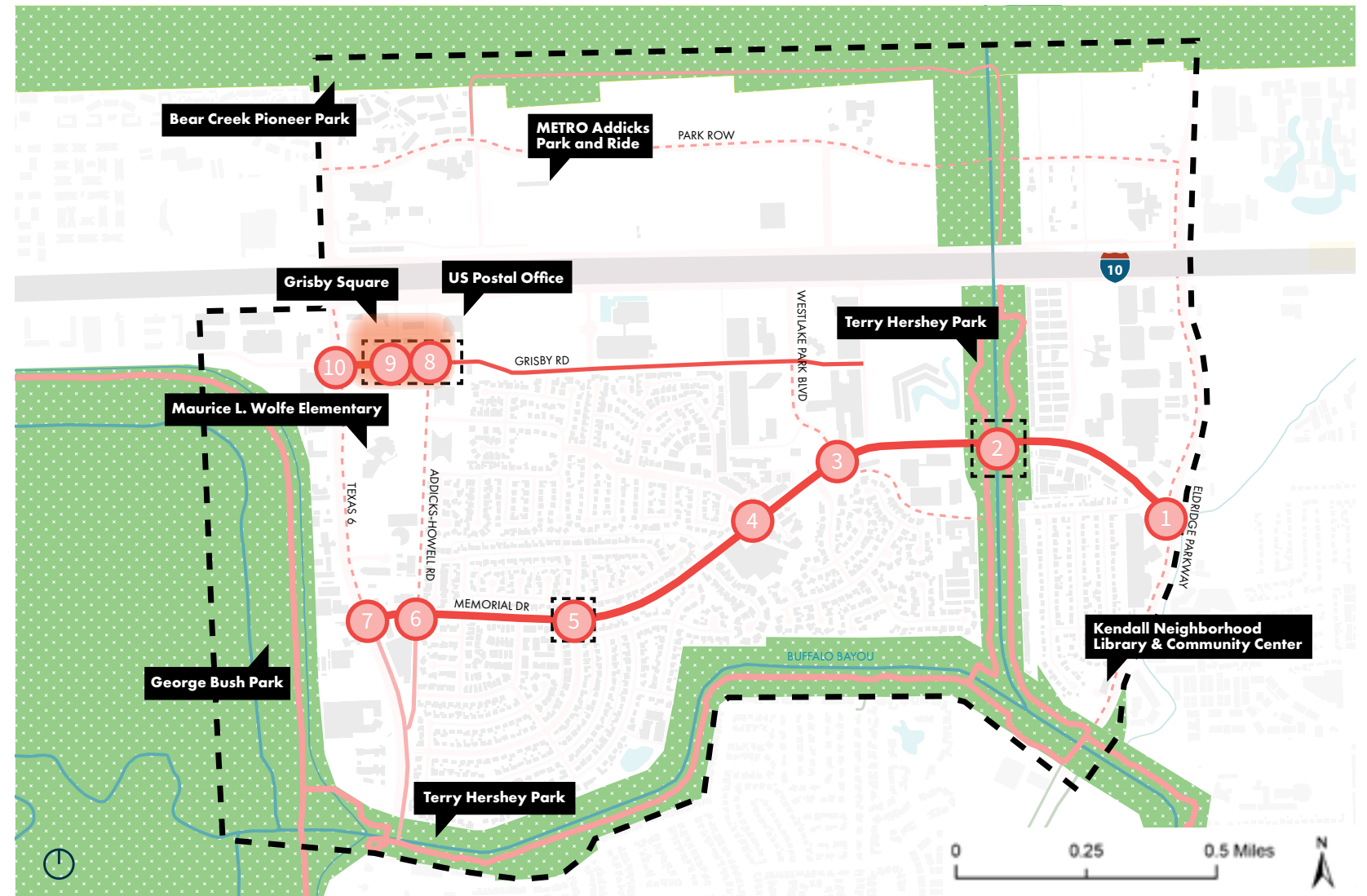


Figure 3.1 Summary of Recommendations

Key

- Primary Corridor
- - - Potential Future/Partnership Corridor
- ⊗ Intersection Improvement
- Study Area
- Grisby Square

Memorial Drive



Figure 3.2 Conceptual Rendering of Proposed Memorial Drive at Crossroads Drive
156 H-GAC Memorial Drive Bicycle & Pedestrian Study

Memorial Drive

The recommended design for Memorial Drive includes a full reconstruction of the roadway while maintaining four vehicle travel lanes. This design also includes an enhanced pedestrian realm with safety elements for all modes, enhanced drainage improvements, a new landscaped median, and improved connectivity and access for those who travel to Terry Hershey Park and trails. With any redesign, maintaining existing mature trees will be a primary goal.

The recommended roadway reconstruction includes curb and gutter drainage, which could help with minor flooding during heavy rain events. A new landscaped median will also offset some of the impervious cover, helping with drainage. Additionally, the reconstruction will improve the road quality for cars, trucks, and buses.

One main element of the recommendation is to build a ten-foot shared-use path on the north side of the roadway from Eldridge Parkway to SH-6. This will allow for residents, workers, and visitors to be able to safely and easily walk, bike, and roll along the corridor. A six-foot sidewalk is proposed on the south side of the street.

All existing signalized intersections along the corridor will be reconstructed from span wires to mast arms with modern pedestrian signals. The mid-block crosswalk at Terry Hershey Park will also be improved with additional lighting. Unsignalized intersections, like at Addicks-Howell Road and Barkers Landing Road, would receive a traffic signal warrant analysis with relevant safety recommendations incorporated based off the analysis.

METRO should be included in the final design process to determine final bus stop locations and bus stop improvements.

Community Feedback

In both public meetings, the community requested safer and easier ways to reach Terry Hershey Park via walking and biking. They also requested drainage improvements, signal improvements, and pavement quality improvements. All of these concerns would be improved through the proposed design approach.

Why a Shared-Use Path?

In the Houston Bike Plan, Memorial Drive is identified as a future bikeway. The community also voiced support for having biking facilities along Memorial Drive. According to The Federal Highway Administration's (FHWA) Bikeway Selection Guide (image below), separated bike facilities or shared-use paths are recommended for Memorial Drive based on the corridor speed and number of vehicles per day. A shared-use path is desirable in this location as it would benefit connections to and from the Terry Hershey Hike and Bike Trail and could act as an extension of the trail into the neighborhoods like Barkers Landing and Fleetwood, which lack access to Terry Hershey now.

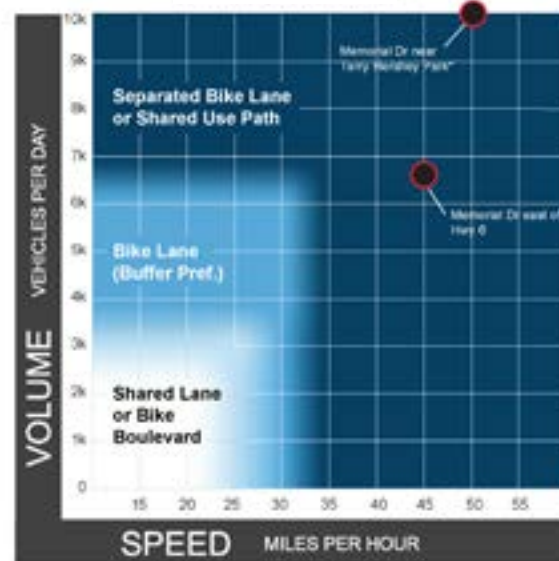


Figure 3.3 FHWA Bikeway Selection Guide

Figure 3.4 Memorial Drive at Crossroads Drive

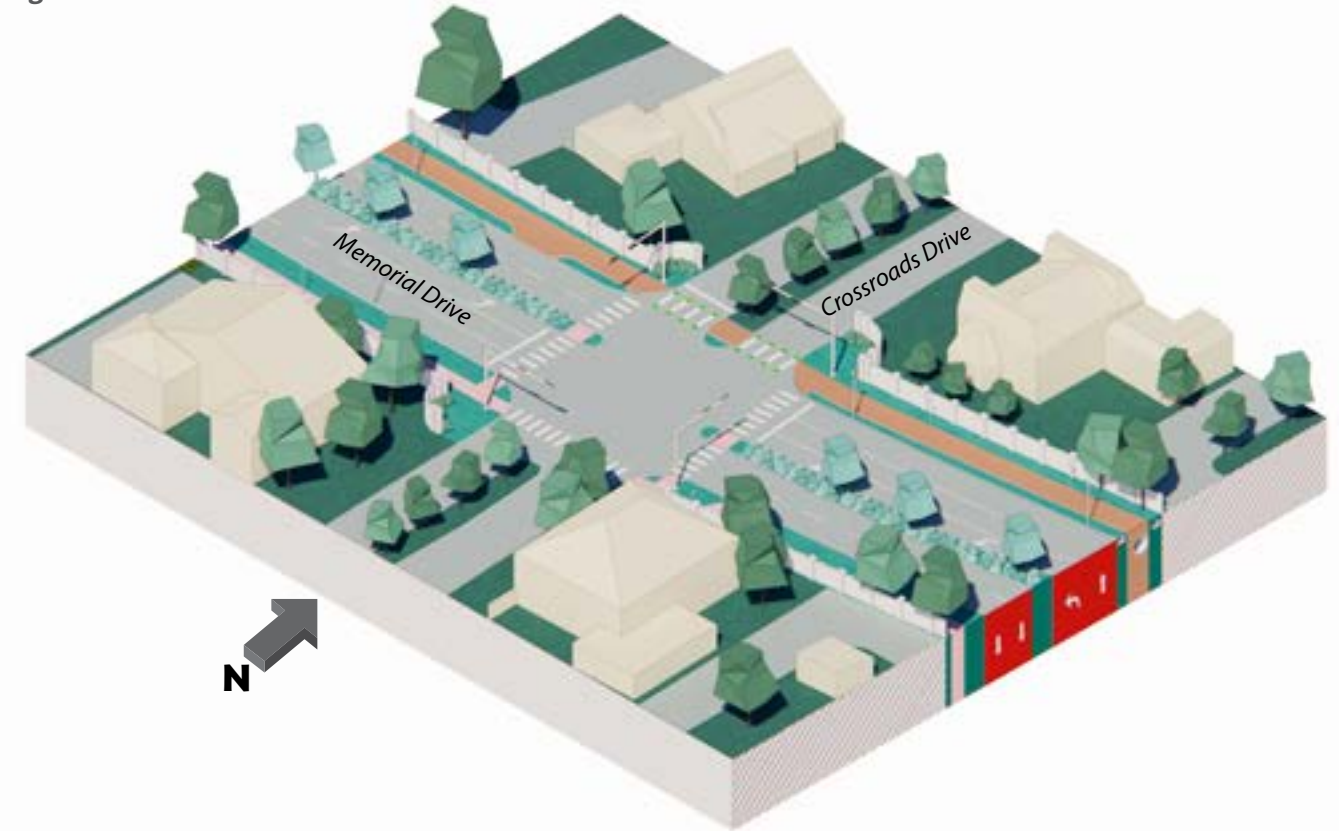
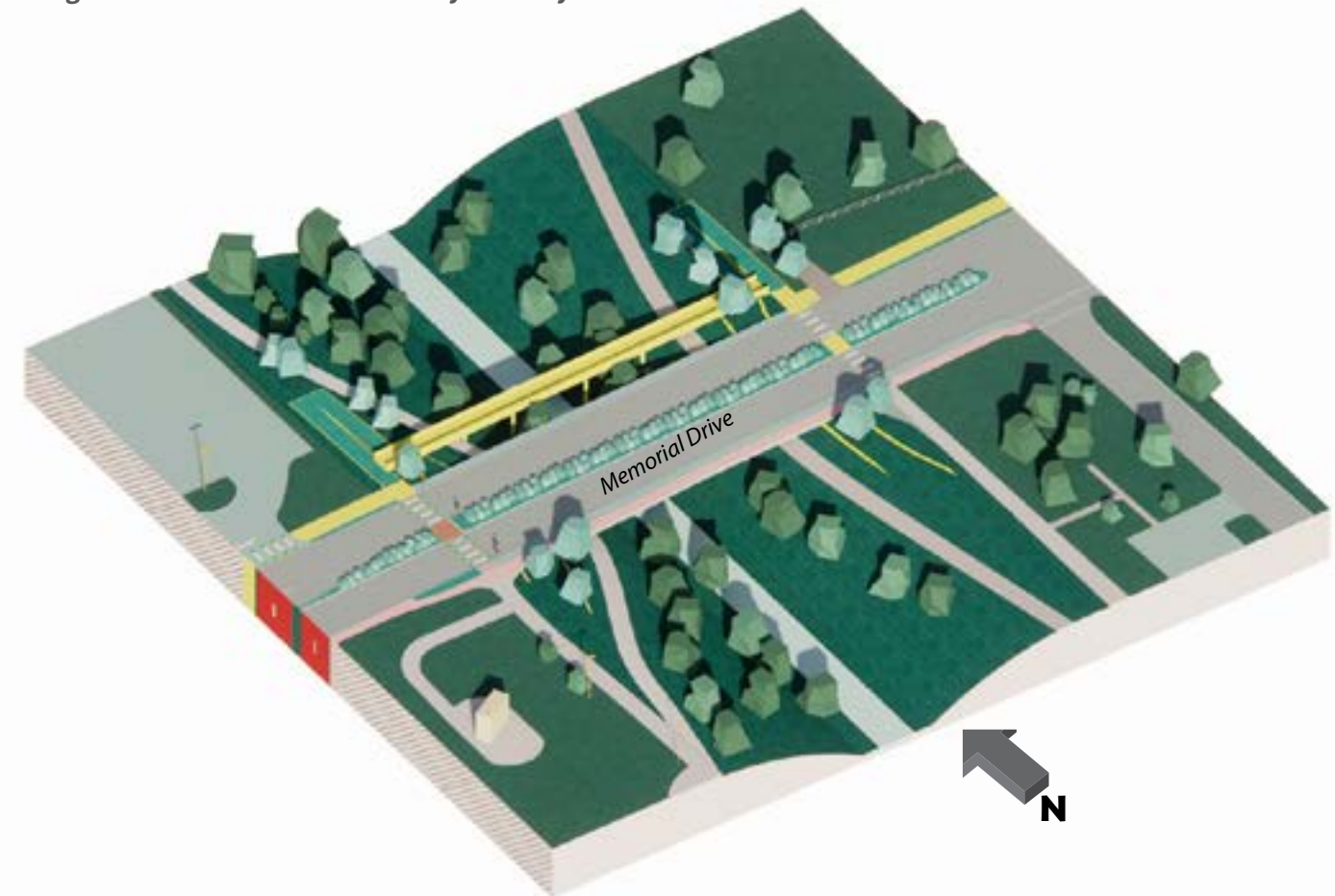


Figure 3.5 Memorial Drive at Terry Hershey Park



Memorial Drive: Shared-Use Path

A major component of the Memorial Drive four-lane design recommendation is a 10-foot shared-use path on the north side of the road to provide a critical east-west connection across the Study Area. Although the extents may change during funding and design, the proposed recommendation is for the shared-use path to be built from Eldridge Parkway to SH-6. The following presents the support for the shared-use path.

Support Project Vision

A shared-use path was one of the features that received positive support from the majority of participating community members. During the first public meeting, multiple comments were made by neighbors wanting to reach Terry Hershey Park and the greenways by bike, but felt uncomfortable riding on the existing sidewalk or in mixed traffic along Memorial Drive. During the second public meeting, over half of the vision votes went towards pedestrian and bike infrastructure that would support a shared-use path (21% Continuous Sidewalks, 19% High-Comfort Bikeways, 16% Connect to Terry Hershey Park) among the wide range of attributes participants voted on.

Lack of Parallel Routes

Memorial Drive is the only viable alignment to accomplish the goal of providing an east-west spine for bicycling in the Study Area. The surrounding neighborhoods have circuitous roadways that frequently dead end. Many of the subdivisions have their own walls and fences that also prevent through travel. Memorial Drive is the only continuous east-west mobility spine in the vicinity.



Figure 3.6 Houston Bike Plan

Enhance Neighborhood Infrastructure and Connectivity

The neighborhoods surrounding this portion of Memorial Drive lack the infrastructure and connectivity to safely walk, bike, or roll. For residents in the Barkers Landing, Fleetwood North, Fleetwood South, and Memorial Thicket neighborhoods, Memorial Drive is their only way to reach Terry Hershey Park. These neighborhoods do not currently have sidewalks and a shared-use path along Memorial Drive would allow these neighborhoods to be safely connected to Terry Hershey Park and George Bush Park.

Support Previous Plans

The Houston Bike Plan identifies Memorial Drive as a long-term vision, east-west bikeway spine to connect the adjacent community to the regional bayou greenway system and other bike facilities in the area. The Bike Plan recommended on-street facilities, however, based on comments from both the community and stakeholders, a shared-use path seemed to be more feasible along the corridor. As shown on the previous page, the FHWA's Bikeway Selection Guide recommends a separated bike facility along this stretch of Memorial Drive due to the corridor's traffic counts and speed. The north side of the corridor has less conflicts with roadway and driveway entrances than the south (19 driveways on the north side as opposed to 26 on the south side), so the north side is the ideal side for the shared-use path.

Meet Existing Demand

In addition to verbal and written support from the community, available user data from Strava indicated that there is already existing demand for biking along this portion of Memorial Drive. As shown in Figure 3.7, many users bike along Memorial Drive to reach the trails in Terry Hershey Park.



Figure 3.7 Strava User Data

Memorial Drive: Stormwater Improvements

The neighborhood communities within the Study Area were adversely affected by the flooding from Hurricane Harvey in 2017. Although the amount of rainfall that occurred and the release of stormwater from the nearby reservoirs were unprecedented and cannot be fully mitigated against, the community is concerned about their resiliency to flooding in future storm events. As a part of this planning effort, drainage was considered in all recommendations as to not adversely affect the area. A regional drainage study is recommended to look at the drainage issues and determine appropriate prevention and mitigation measures for the Study Area and beyond.

The existing drainage along the Memorial Drive Corridor consists of one trunk line with two outfalls: one near Marywood Chase and an east outfall to Langham Creek. Generally, storm sewers will have only one outfall, so this adds to the uncertainty of providing accurate sizing without a more advanced analysis. The west outfall is generally a 78" pipe at a 0.15% slope based on COH GIMS Data (Geographic Information Management System - now called GeoLink). The pipe material is unknown but is assumed as RCP (reinforced concrete cylinder pipe). The east outfall is generally a 2-5x5 RCP at 0.25% slope based on COH GIMS Data.

The proposed planning level improvement calls for improving the west outflow since the outfall appears to be undersized. To improve this undersized outflow, it is recommended to add an additional 78" RCP barrel for a final 2-78" RCP configuration. The existing east outflow at Langham Creek appears to be acceptable capacity for now.

Although these are preliminary recommendations, these proposed improvements will help mitigate any drainage concerns with the recommended redesign of the Memorial Drive corridor. As noted, a more thorough drainage study will be done during the final design process.

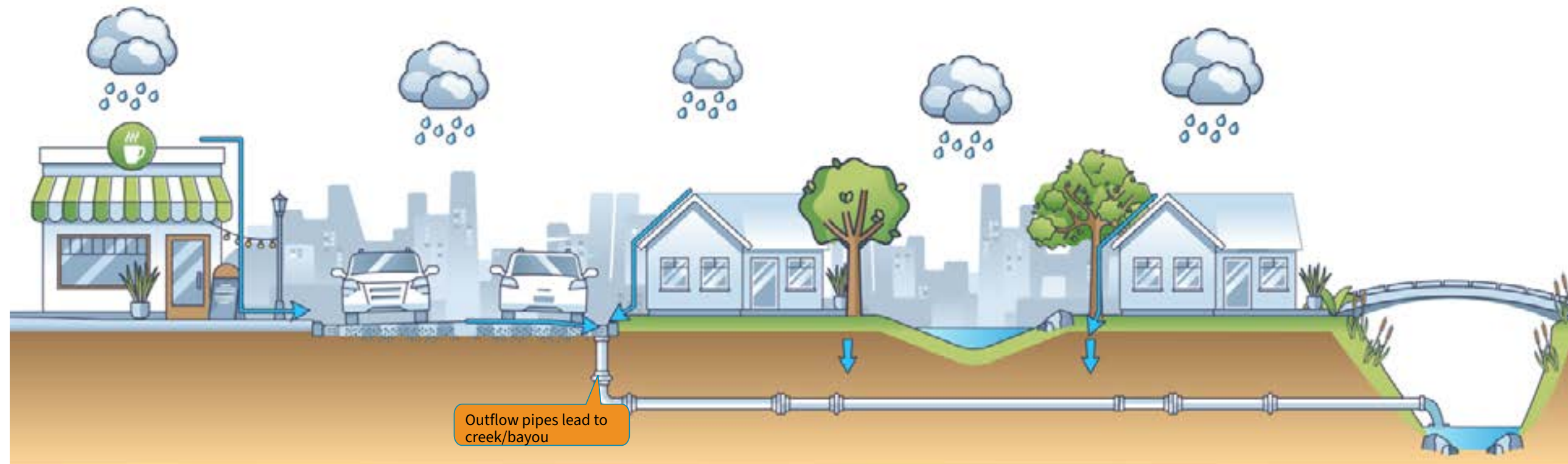


Figure 3.8 Stormwater Outflow Diagram

Memorial Drive: Placemaking + Landscaping

The Stream, The Street, and The Skyline

The placemaking strategy is poised to create a cohesive environment that strengthens connections within the Energy Corridor District. At the intersection of Terry Hershey Park with Memorial Drive, there are great opportunities to provide placemaking that includes shade, lighting, landscaping, and clearer pedestrian and bicycle access. The placemaking concept incorporates a variety of features including catenary lighting that brings safety and visibility to shared-use paths that connects over a new pedestrian bridge. These elements work together to extend both functional and aesthetic enhancements to *The Stream, The Street, and The Skyline*.

The first theme: **The Stream** (Buffalo Bayou), marks the connectivity and movement within the park. The lighting elevates the identity of the park, and signals community, leisure and healthy activity. The lighted pathways and tree canopies provide a safe and visually appealing experience and further encourages the community to enjoy the park safely in early and later hours. The new pedestrian street network reinforces this idea by threading pedestrian traffic into the park's core and promoting exploration, new uses, and shared identity to invigorate the district with a renewed sense of place and shared purpose.

The second theme is **The Street**. The street is not only a vehicular conduit, but canvas and catalyst. The street's tangible form has the potential to shape the area's local vibrancy by bringing together natural and public life. Residents associate the area's sense of place with Memorial Drive at Terry Hershey Park. Memorial Drive has already inspired public art as well as walking and gathering. This study found ways to extend the best moments into intersections and pathways to nurture pride and collective investment. This study is interested in ensuring these streets are not a route through to somewhere else, but a signal of arrival to the Energy Corridor District.

Lastly, **The Skyline** connects the placemaking strategy that re-framed the street from above as a collection of elements. The lighting needs to be significantly scaled to not only illuminate the park but further become an architectural feature among the larger scale office buildings and residences. The bridge has the potential to become architecturally distinct in color, lighting (under, around and through), and material. It can also be a landmark in how it connects with each side of the Bayou; blurring the bridge as a piece of infrastructure to a greater monument representing Terry Hershey Park and the Energy Corridor District. This bridge would not only be an important piece of transportation infrastructure, but can also be a landmark to the surrounding neighborhoods, businesses and the City of Houston.



Figure 3.9 Conceptual Rendering of Proposed Memorial Drive at Terry Hershey Park

- 1 Enhanced path crossing signage to improve safety and visibility
- 2 Marked crosswalks to improve safety and visibility
- 3 A new 10-foot pedestrian and bike bridge across Langham Creek
- 4 Raised median along roadway bridge with natural landscaping
- 5 Placemaking lighting to define the area
- 6 Artwork or lighting under the bridge to improve experience for trail users

Grisby Road



Figure 3.10 Conceptual Rendering of Grisby Road at Addicks-Howell Road

Grisby Road

The recommended approach for Grisby Road is a reconstruction of the roadway within Grisby Square with safety, drainage, connectivity, and access improvements for all visitors to Grisby Square.

From Addicks-Howell Road to SH-6, the roadway is recommended to be entirely reconstructed with curb and gutter drainage, which can help with minor flooding during heavy rain events. Additionally, the reconstruction will allow for on-street parking to be formalized.

Grisby Road at Addicks-Howell Road will see updated pavement markings to make it easier for pedestrians to cross. Grisby Road at Stafford Street will have an all-way stop and a raised intersection to enhance safety for all road users.

METRO should be included in the final design process to determine final bus stop locations and bus stop improvements near Grisby Square.

Another enhancement is formalizing on-street parking. Currently, Grisby Square visitors park wherever they want and it can be confusing. This recommendation includes a mixture of marked parallel spaces and head-in parking spaces allowing visitors to easily and safely park. This would also prevent drivers from parking in muddy ditches, which they have to today.

To support walking and bicycling east of Grisby Square, the study recommends that the existing eight-foot shared-use path eventually be widened to 10 feet from Addicks-Howell Road to Helios Way. This will allow for residents, workers, and visitors to be able to safely and easily walk, bike, and roll along the corridor and reach the businesses in Grisby Square. In addition to this shared-use path, a 10-foot shared-use path is recommended on the west side of Addicks-Howell Road. This path would connect Grisby Square with Wolfe Elementary School.

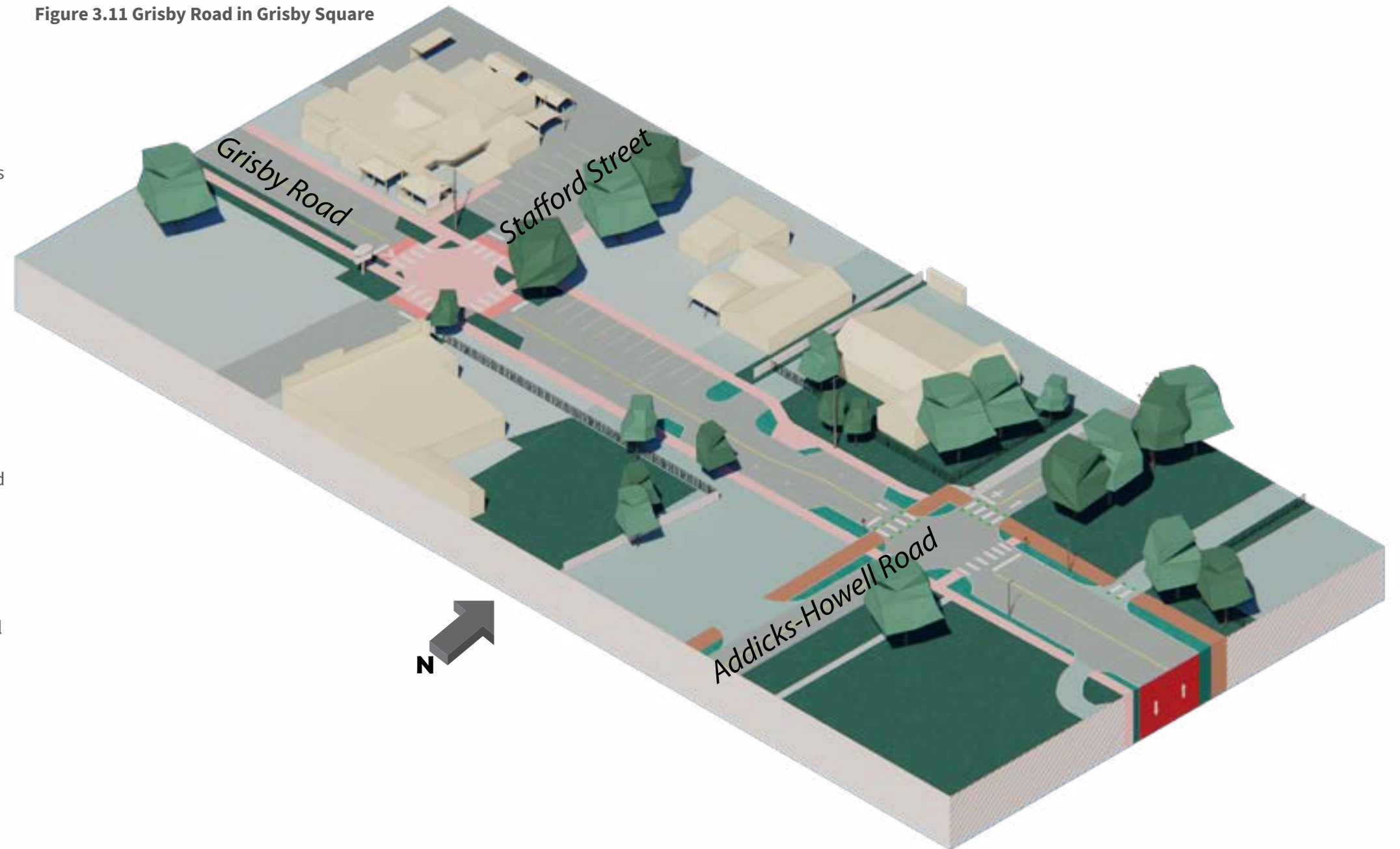
Community Feedback

In both public meetings, the community requested better parking and safer ways to reach Wolfe Elementary. They were very excited about the potential shared-use path along Addicks-Howell Road and voiced support for the Stafford Street intersection improvements and parking enhancements. There was also feedback expressing a desire to see a traffic signal at Grisby Road and SH-6. It was noted that a signal would have to be in partnership with TxDOT.

Why a Shared-Use Path?

Grisby Road currently has a shared-use path on portions of it east of Helios Way. Extending the path to Grisby Square is recommended to enhance connectivity. According to the FHWA's Bikeway Selection Guide, buffered bike facilities or a back-of-curb shared-use path is recommended to provide a safe and comfortable biking experience along Grisby Road. The community also voiced support for biking facilities along Addicks-Howell Road, providing a safer north-south spine between Grisby Square and the neighborhoods to the south.

Figure 3.11 Grisby Road in Grisby Square



Future Study Area Considerations

In addition to the major roadway recommendations for Grisby Road and Memorial Drive, the study also looked into improvements along other roadways in the Study Area. The following should be considered when planning for a complete network of safe, connected roadways for all road users.

Addicks-Howell Road

Addicks-Howell Road is currently a two-lane open ditch drainage roadway with sidewalks on the west side. Wolfe Elementary is also located on the west side of Addicks-Howell Road. Residents would like to see improvements to the pedestrian and bike infrastructure along the roadway so they can access Wolfe Elementary School and Grisby Square. Although there is not a detailed rendering, the study recommends constructing a 10-foot shared-use path along the west side of the roadway from Memorial Drive to Grisby Road. This would connect to the other shared-use paths along Memorial Drive and Grisby Road, creating a cohesive and connected pedestrian and bike network for the area. Additionally, the existing marked crosswalks at Fleetwood Oaks Drive and Barkers Landing Road should be enhanced with new marked crosswalks, new signage, and wayfinding signage. To accomplish this, a corridor study should be completed to better understand utility implications and determine if the roadway needs to be reconstructed to accomplish these goals.

Westlake Park Boulevard

The other roadway supporting and completing the pedestrian and bike network in the Study Area is Westlake Park Boulevard. The current four-lane boulevard with a landscaped median has sufficient sidewalks for pedestrians but lacks safety features for cyclists. This section of Westlake Park Boulevard is a major collector, so speed cushions would not be installed; however, bike signage, such as “Bike May Use Full Lane” and “Bike Route” signs can help create a space for cyclists to use the road to connect to Terry Hershey Park. This would allow cyclists to safely reach the shared-use paths on Grisby Road and Memorial Drive. Additionally, the Energy Corridor District can work with property owners to designate Westlake Park Boulevard from Memorial Drive to S Mayde Creek Drive as a bike route to help improve connectivity and wayfinding to the trails.



Figure 3.12 Existing Sidewalk on Addicks-Howell Road

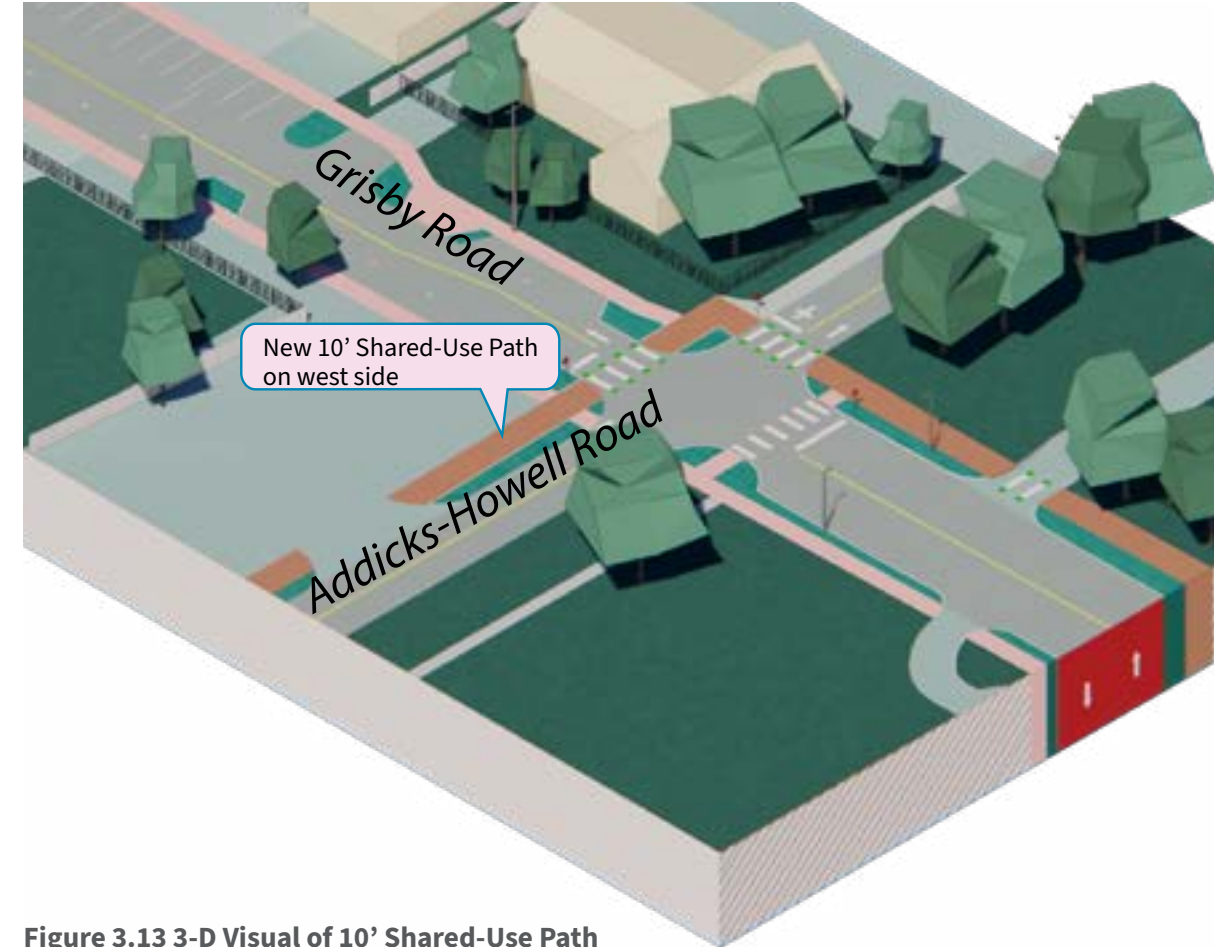


Figure 3.13 3-D Visual of 10' Shared-Use Path



Figure 3.14 Exterior of Wolfe Elementary School



Figure 3.15 Bike signage example for potential Westlake Park Boulevard

Partnership Projects

The purpose of this ped-bike effort was to create a walk and bike vision for Memorial Drive and Grisby Drive; however, the Study Area encompasses more than those corridors. Through this mobility planning effort, there are projects and recommendations that should be pursued to enhance this area's overall connectivity, safety, livability, and high quality of life. The following partnership projects are broader concepts that could be considered for further refinement and next steps with entities such as Harris County, the City of Houston, Houston Parks Board, or the Energy Corridor District.

Regional Drainage Study

Drainage and resiliency were commonly brought up in every public meeting including multiple public comments outside of the public meetings. Although roadway reconstruction of Memorial Drive will support drainage enhancements, flooding can still occur along the bayous. Therefore, a larger, more regional drainage study should be conducted between Harris County Flood Control District, the Army Corps of Engineers, and the City of Houston. The study could examine potential improvements targeting wide-scale catastrophic flooding events.

Trail Access Improvements

Within the Study Area, there are several entrances to the bayou trails. To improve the experience for people walking, rolling, and biking on the trails, it is recommended to install new trail access signage. This signage can improve placemaking in the area and inform facility users of critical information like trail length and other trail connections. Additionally, these access points can have seating, water fountains, and a bike repair station. The improvements to the entrances will complement the proposed improvements along Memorial Drive and Grisby Road by making it easier and safer to walk, bike, and roll throughout the Study Area.

SH-6 Safety Improvements

Through observations and crash data analysis, SH-6 needs a more detailed examination to provide enhanced safety improvements. For example, SH-6 at Grisby Road is a high crash unsignalized intersection that is extremely difficult to cross by any mode. The study recommends working with TxDOT to improve the intersections of SH-6 at Grisby Road, and SH-6 at Memorial Drive.

Access to George Bush Park

George Bush Park is just west of the Study Area, but lacks street-level connectivity to the area. There is currently only one connection to the area via Terry Hershey Trail's terminus. The study recommends coordination between the County and Houston Parks Board to create new connections at Memorial Drive and at Grisby Road just west of Neo at Ten Apartments (14805 Grisby Road). These new connection points will allow the community to be connected to two regional parks and trail networks.

Grisby Square Study

The improvements along Grisby Road could lead to additional improvements in the area. The area has a lot of potential with a few vacant lots ripe for development, and a need to centralize parking and placemaking strategies. This study recommends that the Energy Corridor District meet with the businesses in Grisby Square to create an economic development guide to help drive additional investment, both private and public, into the area. It will also allow for Grisby Square to have a vision of being a cohesive district where visitors can shop, play, and eat, while supporting the needs of individual stakeholders.

Continue Engagement in the Area

The project went through multiple rounds of community engagement. It is evident that the community wants to be included throughout the design process. The study recommends that the Energy Corridor District include the community in future updates and ensure they can provide feedback on the design. In addition to Memorial Drive, there should be a more robust community engagement event for Grisby Square. The Grisby Square business owners were informed of this study but additional engagement with them is recommended.

Economic Benefits

All proposed project recommendations will provide economic benefits to the area.

Retain and Attract Major Employers

The Energy Corridor is home to multiple major oil and gas firms with thousands of employees. It is important to provide amenities that will make these employers want to stay in the area. Having pedestrian and cyclist facilities for commuting or recreational activity can be attractive for employees in the Study Area. Creating safe facilities for people to walk, bike, and roll along Memorial Drive and Grisby Road will be an important asset the Energy Corridor can leverage to retain its existing large corporations and attract new ones to the area.

Reimagining Grisby Square

Grisby Square is a commercial destination for the residents and employees in the Study Area. Upgrading Grisby Road to have sidewalks and formalized parking will allow Grisby Square to stay popular among visitors. These improvements could also attract new businesses to the area. Additionally, the new facilities will allow people to reach Grisby Square via modes beyond a car. This can increase the number of customers for businesses.

Improvements for Existing and Future Residents

Through stakeholder engagement with neighborhood leaders and apartment management firms, residents in the area view Terry Hershey Park and its trail network as a very important amenity. People are willing to pay more money to buy or rent housing near the trail. Expanding the access to the trail network by building pedestrian and bike facilities along Memorial Drive and Grisby Road can improve property values in the area.

Adapting to Growth and Development

The Energy Corridor and greater West Houston is continuing to grow. The District must be able to adapt to the changing needs of residents and business owners. Giving people mobility options outside their cars can help reduce congestion and allow people to reach their destinations safely, efficiently, and easily, regardless of what mode they use.

Implementation Considerations

Overview

To implement the projects presented in this study, both funding and partnerships will be needed. This section presents implementation considerations for moving the project recommendations forward. The Implementation Table on the next spread presents the projects separated by near-term priority (top five rows) versus those that are for future consideration (or potential future). The Implementation Table outlines a proposed framework for the Energy Corridor District to explore potential funding and partnership opportunities to bring these projects to fruition. The high level cost estimates are for the year 2025, not including future inflation. The cost estimates may change during the design and implementation phases for these projects.

Implementation Entity and Partners

In the Implementation Table on the next spread, the lead entity is listed under column “Project Lead” and includes both the Energy Corridor District as well as the City of Houston. For any project to be implemented, there would need to be local or regional partner engagement to support project success. The potential partners are presented with abbreviated text that are spelled out below, in alphabetical order. This list is not exhaustive, and other partners could be considered.

- **BP** - International energy company headquartered in the Study Area
- **Business Owners** - Adjacent business owners within or to the Grisby Square area
- **COH** - City of Houston
- **Harris County Precinct 4** - Out of the four Harris County precincts; all projects are located within Precinct 4
- **HCFCD** - Harris County Flood Control District
- **H-GAC** - Houston-Galveston Area Council - the regional planning agency
- **Houston Parks Board** - A Houston-area non-profit dedicated to improving, protecting and advocating for public greenspaces.
- **Katy ISD** - Katy Independent School District
- **METRO** - Harris County Transit Authority
- **Neighborhood Reps.** - Neighborhood or civic association representatives - could be multiple
- **Scenic Houston** - Local Houston-area organization focused on supporting livability and quality of public spaces
- **TxDOT** - Texas Department of Transportation
- **Wolfe Elementary School** - Local elementary school located along Addicks-Howell Road (Katy ISD)

Funding Sources

In the Implementation Table on the following spread, there are potential funding sources listed for project implementation. These are grant opportunities that can be leveraged by the Energy Corridor District or the City of Houston, depending on who the lead entity is. Abbreviations or shortened versions of the grant opportunities are provided in the table. The shortened version with a brief explanation is provided below in alphabetical order.

- **CDBG** - Community Development Block Grant through the U.S. Department of Housing and Urban Development that supports community development activities for stronger and resilient communities. Grant opportunities may focus on different areas including disaster recovery, hazard mitigation, and more. There are statewide CDBG opportunities as well that can be explored through Texas CDBG.
- **City of Houston Economic Development Grant (380 agreement)** - This is an economic development tool that has been used by management districts within Houston. This could be explored to support redevelopment of the Grisby Square area supporting local businesses and the supporting infrastructure.
- **Community Placemaking Grant** - Through the Project for Public Spaces, there are Community Placemaking Grants that can assist communities and local governments with creating or transforming public spaces.
- **Congressional Opportunity** - Shortened for “Congressionally Directed Spending Opportunity” which allows members of Congress the opportunity to support or fund projects within their district using discretionary funds.
- **FHWA - RAISE Grant** - Federal Highway Administration (FHWA) grant that stands for “Rebuilding American Infrastructure with Sustainability and Equity”. This grant can fund capital and planning projects supporting surface transportation improvements.
- **FHWA - SS4A** - Federal Highway Administration (FHWA) grant that stands for “Safe Streets and Roads for All”. This is a US Department of Transportation opportunity under FHWA that provides funding for a Safety Action Plan and/or implementation projects that aim to reduce or eliminate roadway deaths or serious injuries through infrastructure improvements.
- **FTA 5310** - Federal Transit Administration’s 5310 program is known as the “Enhanced Mobility of Seniors and Individuals with Disabilities Program”. This program can support services, equipment purchases, training, and physical projects that can enhance access to transit and mobility for seniors and individuals with disabilities. Sidewalk and ADA enhancements are qualified projects under this program.
- **H-GAC TIP** - Houston-Galveston Area Council’s Transportation Improvement Program (TIP) provides funding opportunities to pay for infrastructure projects for all modes. There are specific “calls for projects” that may target specific modes or projects of certain magnitudes. Local government entities such as City of Houston and ECD are eligible recipients of these funds.
- **Precinct 4** - Harris County Precinct 4 offers a variety of grant or partnership opportunities supporting local programs, infrastructure, and other community enhancements.
- **FHWA - PROTECT Grant** - Through FHWA, the “Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation Program” or PROTECT offers different grants including one for planning and one for resilience improvements that could be relevant to the drainage project recommendation.
- **Texas Parks & Wildlife** - Through the Texas Parks & Wildlife Department, there are multiple grant opportunities offered throughout the year. The two specific grant opportunities most relevant to these project recommendations are the “Local Parks Grants” and the “Recreational Trails Grants”. There are a few other opportunities that could be explored in partnership with other local or regional efforts.
- **TxDOT TA** - The Texas Department of Transportation, Transportation Alternatives Set-aside Program (TA) offers funding opportunities to support locally sponsored bicycle and pedestrian infrastructure projects and planning efforts.

It is important to note that this list is not exhaustive of all potential grant or partnership opportunities. These are the most relevant and applicable at the time this report was created. Once projects are in a place to seek funding, this list can be used as a baseline to explore further opportunities.

Implementation Table

Project	Priority	Elements	Cost Estimate	Project Lead	Potential Partners	Potential Funding Sources	
Memorial Drive Westlake Park Blvd to N Eldridge Pkwy	Priority Primary Corridor	<ul style="list-style-type: none"> 10' Shared-Use Path on N side 6' Sidewalks on S side Intersection Improvements Landscaping + Median Lighting Stormwater Improvements 	\$15.2 million (includes cost of bridge + placemaking)	Energy Corridor District (ECD)	<ul style="list-style-type: none"> COH Harris County Precinct 4 H-GAC TxDOT METRO 	<ul style="list-style-type: none"> H-GAC TIP FTA 5310 TxDOT HSIP TxDOT TA CDBG FHWA - SS4A 	<ul style="list-style-type: none"> Precinct 4 Texas Parks & Wildlife FHWA RAISE Grant Congressional Opportunity
Memorial Drive SH 6 to Westlake Park Blvd	Priority Primary Corridor (outside Energy Corridor District)	<ul style="list-style-type: none"> 10' Shared-Use Path on N side 6' Sidewalks on S side Intersection Improvements Landscaping + Median Lighting Stormwater Improvements 	\$19.8 million	City of Houston (COH) & Energy Corridor District (ECD)	<ul style="list-style-type: none"> COH Harris County Precinct 4 H-GAC TxDOT METRO 	<ul style="list-style-type: none"> H-GAC TIP FTA 5310 TxDOT HSIP TxDOT TA CDBG FHWA - SS4A 	<ul style="list-style-type: none"> Precinct 4 Texas Parks & Wildlife FHWA RAISE Grant Congressional Opportunity
Memorial Drive: New Terry Hershey Bridge + Placemaking	Priority Enhancements	<ul style="list-style-type: none"> New Shared-Use Path Bridge Landscaping + Lighting 	\$1 million	Energy Corridor District (ECD)	<ul style="list-style-type: none"> COH Harris County Precinct 4 Scenic Houston H-GAC HCFC 	<ul style="list-style-type: none"> H-GAC TIP TxDOT TA 	<ul style="list-style-type: none"> Precinct 4 Texas Parks & Wildlife
Grisby Road SH 6 to Westlake Park	Priority Primary Corridor	<ul style="list-style-type: none"> Continue 10' Shared-Use Path on N side from Helios to Addicks Howell 6' Sidewalks West of Helios Way Stormwater Improvements Placemaking 	\$4 million	Energy Corridor District (ECD)	<ul style="list-style-type: none"> COH Harris County Precinct 4 H-GAC TxDOT METRO 	<ul style="list-style-type: none"> H-GAC TIP FTA 5310 TxDOT TA 	<ul style="list-style-type: none"> Precinct 4 Congressional Opportunity
Regional Drainage Study	Priority Study	<ul style="list-style-type: none"> Drainage Study (approximately 8-month timeframe) Public Engagement 	\$300,000	City of Houston (COH)	<ul style="list-style-type: none"> COH Harris County Precinct 4 HCFC 	<ul style="list-style-type: none"> CDBG FHWA -PROTECT Grant 	<ul style="list-style-type: none"> FHWA - RAISE Grant
Addicks-Howell Corridor Study	Potential Future	<ul style="list-style-type: none"> Shared-Use Path Providing Access to Wolfe Elementary School Sidewalks Stormwater Improvements Landscaping & Lighting 	\$175,000	Energy Corridor District (ECD) & City of Houston (COH)	<ul style="list-style-type: none"> COH H-GAC Harris County Precinct 4 Wolfe Elementary School Katy ISD Neighborhood Reps. 	<ul style="list-style-type: none"> SRTS H-GAC TIP TxDOT TA 	<ul style="list-style-type: none"> Precinct 4 Congressional Opportunity
Westlake Park Blvd Study	Potential Future	<ul style="list-style-type: none"> Signage for Share the Road Bikeway Long-term Opportunity for Sidewalk Widening 	\$175,000	Energy Corridor District (ECD)	<ul style="list-style-type: none"> COH Harris County Precinct 4 BP 	<ul style="list-style-type: none"> H-GAC TIP TxDOT TA 	<ul style="list-style-type: none"> Precinct 4
Grisby Square Study	Potential Future	<ul style="list-style-type: none"> Business Owner Engagement Parking Management Landscaping Street Improvements 	\$150,000	Energy Corridor District (ECD)	<ul style="list-style-type: none"> COH Harris County Precinct 4 Business Owners H-GAC METRO 	<ul style="list-style-type: none"> H-GAC TIP TxDOT TA Precinct 4 Community Placemaking Grant 	<ul style="list-style-type: none"> City of Houston Economic Development Grant (380 agreement)
Trailhead Improvements Terry Hershey, Langham Creek, and George Bush Park	Potential Future Enhancements	<ul style="list-style-type: none"> Trees Trailhead Designation Trail Amenities: Seating, Lighting, Water Fountains, etc. 	\$200,000	Energy Corridor District (ECD)	<ul style="list-style-type: none"> COH Harris County Precinct 4 Houston Parks Board HCFC H-GAC 	<ul style="list-style-type: none"> H-GAC TIP TxDOT TA Precinct 4 	<ul style="list-style-type: none"> Texas Parks & Wildlife Community Placemaking Grant

Conclusion

The Memorial Drive Bicycle and Pedestrian Study lays out a clear path toward safer, more connected, and more resilient infrastructure for the Energy Corridor District. By addressing immediate safety needs, enhancing drainage, and creating multimodal connections to parks, schools, and businesses, the recommendations in this plan not only respond to community priorities but also align with broader regional goals for improved mobility, livability, and resiliency. Investments in Memorial Drive, Grisby Road, and the surrounding transportation network represent more than infrastructure improvements; they are an opportunity to strengthen quality of life, retain and attract employers, and create vibrant, accessible destinations that serve residents, workers, and visitors alike.

Looking ahead, the Energy Corridor District can now use this study as a roadmap for action, working closely with local partners, regional agencies, and the community to advance projects over time. With a mix of quick wins, priority projects, and long-term strategies, this plan provides an adaptable framework for implementation as funding and partnership opportunities arise. By moving forward with thoughtful design, sustained engagement, and strategic investment, the District can transform its streets and trails into a connected system that reflects the community's vision and secures a healthier, more resilient future.

