

# SHARPSTOWN TRAIL

INTEGRATED PLANNING AND  
PROGRAMMING STUDY

JANUARY 2020



NOTICE  
NO TRESPASSING  
KEEP OUT  
NO DUMPING  
NO PARKING

NOTICE  
NO TRESPASSING  
KEEP OUT  
NO DUMPING  
NO PARKING

PREPARED FOR

TIRZ 20



PROJECT TEAM

**HOUSTON PARKS BOARD**

Project Management, Public Engagement, Coordination



**SWA Group**

Prime Consultant, Preliminary Design and Analysis, Public Engagement, Coordination, Cost Estimate



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# I. PROJECT BACKGROUND AND PROCESS

## PROJECT BACKGROUND & IMPORTANCE

In 2014, the City of Houston CenterPoint signed a Master License Agreement that would allow the City to build trails on CenterPoint utility corridors. This opened up the potential for a greatly expanded trail system across the city. Subsequently, the Sharpstown Civic Association identified the opportunity and importance of a trail connection in the CenterPoint corridor from Beechnut Street to Westpark Tollway. The corridor represents underutilized greenspace within the community that is convenient to many homes, schools, and businesses. Members of the Civic Association and broader community attended a workshop hosted by SWA Group in March 2019 to study the trail and programming opportunities. The workshop's resulting trail plan formed the basis of the current report and scope of work. This report documents additional community and agency engagement and further refinement of the trail alignment in the corridor. It will form the basis of the proposal for the design and construction of the project including surveying and final alignment through construction.

Additionally, the Houston Parks Board recently completed the Beyond the Bayous master plan which builds upon the Bayou Greenways 2020 regional trail network by extending trails from the bayous into the neighboring communities north and south by using CenterPoint corridors and other opportunities. The Beyond the Bayous network is shown in the map at right, overlaid on the Bayou Greenways 2020 plan.

In September 2019, the project team, led by Houston Parks Board with SWA Group and Cobb Fendley, furthered the community engagement and preliminary alignment for the project. The team identified a study area to understand the project's context and opportunities, and produced a series of analysis maps (see Appendix B: Map Atlas) that informed the project's Integrated Planning and Programming.

The team also drafted a list of goals for the project that:

- Recognizes the potential of Sharpstown Trail as a part of a **neighborhood open space and connectivity plan**
- **Leverages partnership opportunities** in developing a shared vision for a neighborhood open space and connectivity plan
- Develops the Sharpstown CenterPoint corridor into a **public amenity** that reflects the character and needs of the surrounding community

## PROJECT BENEFITS

The project will realize many benefits for the community at multiple scales. Benefits can be broadly classified within the categories of safety, health/wellness, and economic.

Safety Benefits:

The trail itself will offer a safe alternative to Gessner Road for pedestrians and cyclists moving north-south within Sharpstown. By relocating walkers and

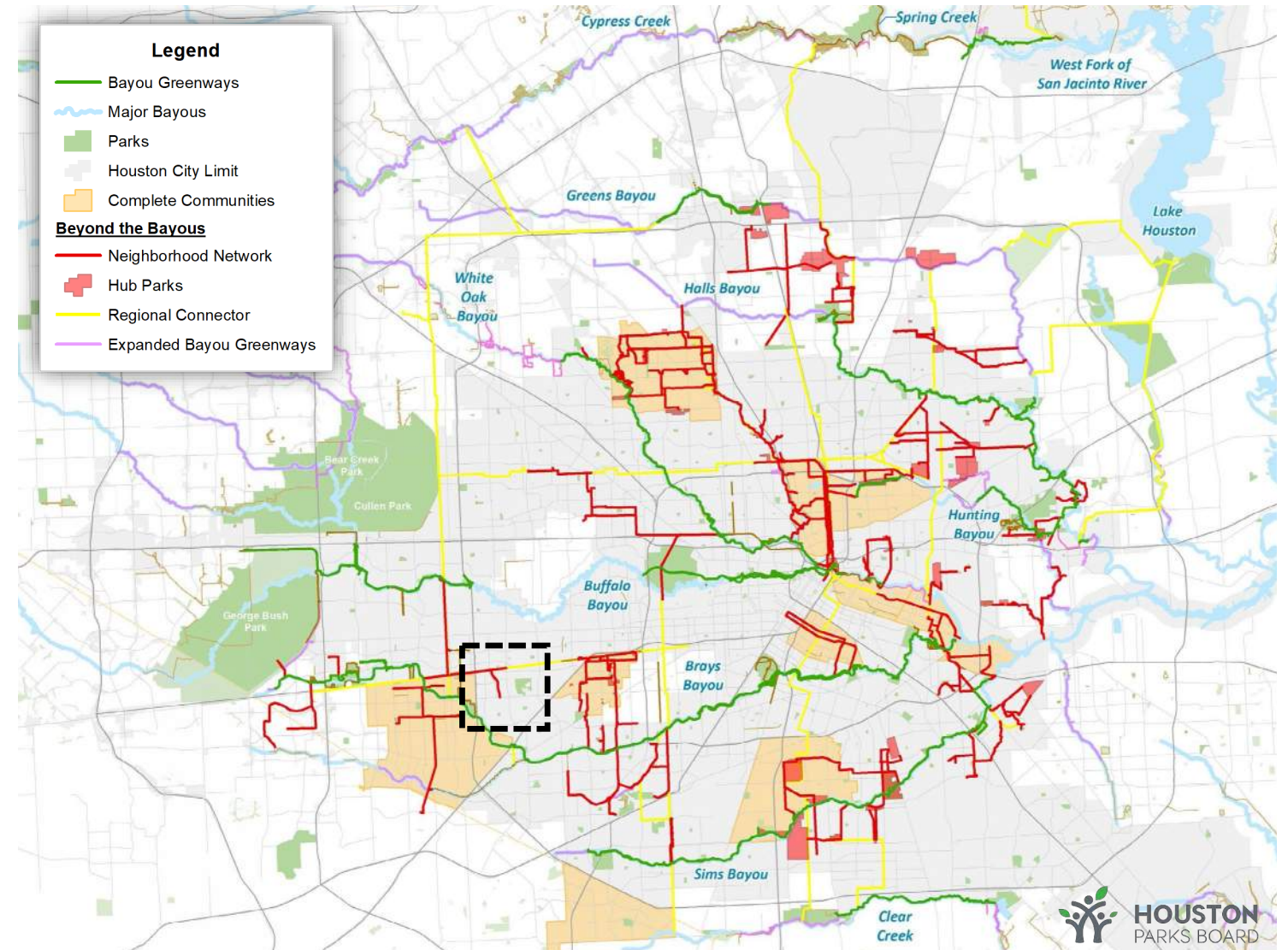
bicyclists from the very busy vehicle-dominant street to an off-street path the trail can greatly reduce the opportunity for pedestrian and vehicular conflicts. Additionally, students attending the many schools in the neighborhood can use the trail as a safe alternative for walking and biking to school.

Health/Wellness Benefits:

As Houston transitions to a more bike-friendly city, residents are increasingly using the new trails for both recreational and commuting purposes. Off-street trails expand the user group of cyclists to include casual users who otherwise do not feel comfortable on a bike in a roadway with other vehicles. These trails provide opportunities for people to walk, run, and bike in a safer environment and therefore realize the benefits of being outside in nature.

Economic Benefits

Trails have proven to increase property value in their vicinities and catalyze economic development. Businesses will tend to affiliate with and orient towards trails to take advantage of the increased volume of pedestrians and cyclists.



"BEYOND THE BAYOUS", Houston Parks Board.

## PROJECT PROCESS

The Sharpstown Trail Integrated Planning and Programming Study sought to validate the project through a robust engagement process. The team produced a series of analysis maps (see Appendix B: Map Atlas) to understand the site and context. It then used these with various groups to verify them for accuracy, identify opportunities and synergies, and educate the public about the trail project.

The consultant team used three parallel and complementary modes of engagement: agency coordination meetings, stakeholder meetings, and community meetings.

See Appendix A: Community and Agency Engagement for detailed information on the engagement process and feedback received.

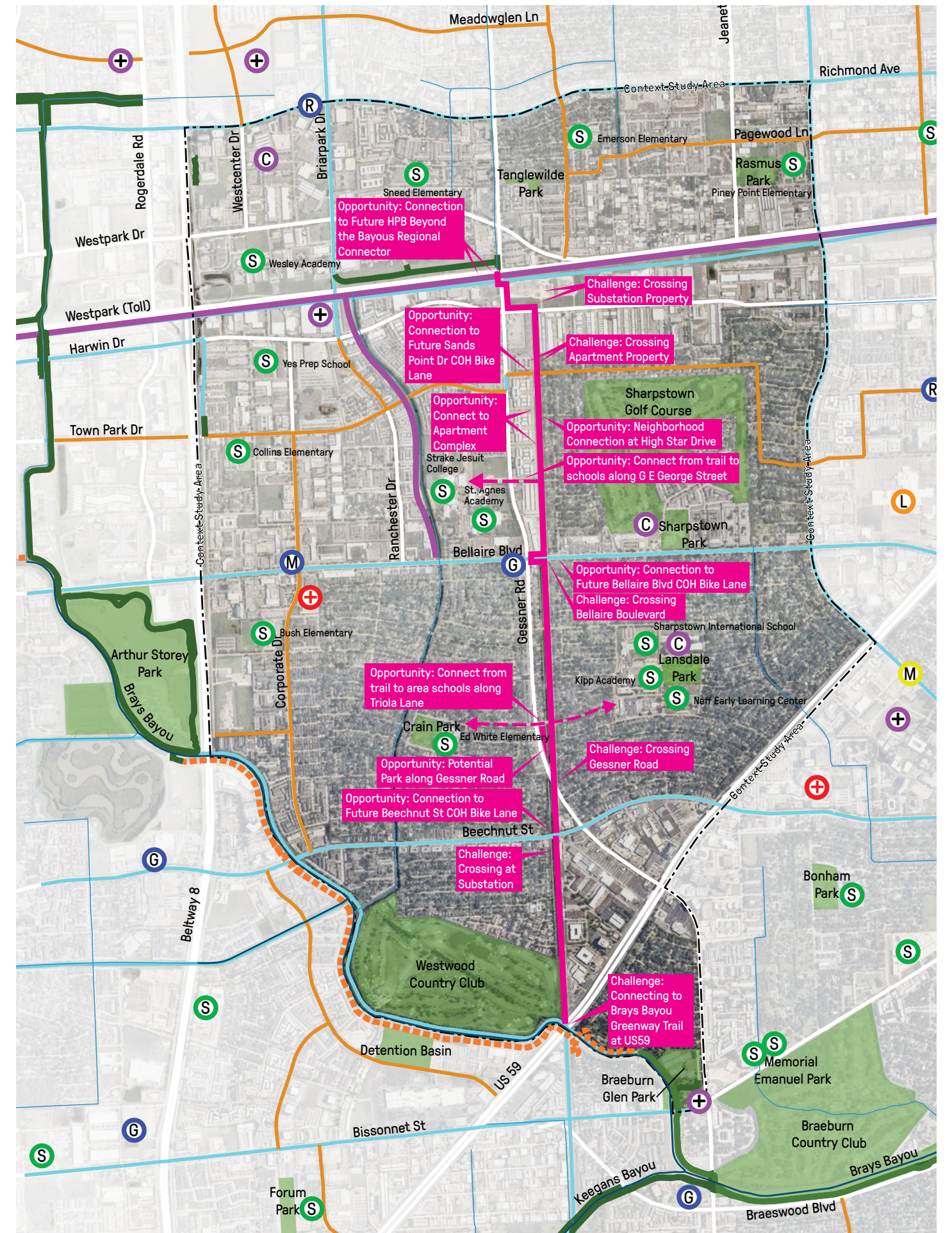
## PROJECT STUDY AREA AND CONTEXT

The map at right provides a consolidated, high-level summary of some of the most important elements of the engagement feedback (Appendix A: Community and Agency Engagement) and analysis maps (Appendix B: Map Atlas). This summary map shows the major connectivity opportunities for the trail, destinations within the neighborhood and community, and challenges and opportunities for the trail corridor itself.

Existing and proposed trails within multiple plans (Houston Bike Plan, Bayou Greenways 2020, Beyond the Bayous) are compiled into this map to show the opportunity of the fully realized network. Greenspace destinations are also noted, along with other community assets including schools, community centers, libraries, transit centers, and others.

### LEGEND

- CONNECTIVITY**
- Proposed Sharpstown Trail
  - - - Proposed Sharpstown Trail - Future Connection
  - Existing Trail
  - City of Houston Bike Plan - Proposed Short Term
  - City of Houston Bike Plan - Proposed Long Term
  - Houston Parks Board - Proposed Trail
  - - - Houston Parks Board - Proposed Brays Bayou Trail
- COMMUNITY ASSETS**
- |  |  |
|--|--|
| <span style="color: green; border: 1px solid green; border-radius: 50%; padding: 2px;">S</span> School             | <span style="color: yellow; border: 1px solid yellow; border-radius: 50%; padding: 2px;">M</span> Metro Transit Center                       |
| <span style="color: purple; border: 1px solid purple; border-radius: 50%; padding: 2px;">C</span> Community Center | <span style="color: red; border: 1px solid red; border-radius: 50%; padding: 2px;">+</span> Hospital/Clinic                                  |
| <span style="color: orange; border: 1px solid orange; border-radius: 50%; padding: 2px;">L</span> Library          | <span style="color: blue; border: 1px solid blue; border-radius: 50%; padding: 2px;">M</span> Food Source (Meat Market, Grocery, and Retail) |
| <span style="color: blue; border: 1px solid blue; border-radius: 50%; padding: 2px;">G</span>                      | <span style="color: blue; border: 1px solid blue; border-radius: 50%; padding: 2px;">R</span>  |



## II. CORRIDOR ANALYSIS

### ANALYSIS OVERVIEW

The team compiled a series of maps consisting of three scales: the corridor from Beechnut to Westpark (with a future connection south to the Brays Bayou Greenway), a context area (defined by Richmond Avenue to the north, Beltway 8 to the west, Brays Bayou to the south, and Fondren Road and US-59 to the east) and a regional area to show larger scale connections. Maps at the context and regional scale were produced using GIS data; the corridor scale analysis was conducted through a series of site visits to ascertain on-the-ground conditions affecting the preliminary alignment of the trail within the corridor.

The team also reviewed related plans and studies pertinent to the project and its geographic area.

### RELATED PLANS AND STUDIES

The Sharpstown Trail Study has been coordinated with other relevant plans and studies in the area. These include:

1. Westchase Livable Centers Study
2. International Management Livable Centers Study
3. City of Houston Capital Improvement Plan (CIP)
4. Southwest Houston Redevelopment Authority Capital Improvement Plan (CIP)
5. METRO Next
6. Houston Bike Plan
7. 2018 Major Thoroughfare and Freeway Plan (MTFP)
8. Walkable and Livable Communities Institute for AARP (American Association of Retired Persons)
9. UH Collaborative Community Design Initiative Sharpstown

Each study's purpose and relevance to the Sharpstown Trail project is summarized below:

#### 1. WESTCHASE LIVABLE CENTERS STUDY

The Westchase Livable Centers Study, guided by the U.S. Department's Livability Principles and the 2006 Westchase District Long-Range Plan, aims to provide diversified transportation choices, to improve housing options, and to enhance economic competitiveness.

The area studied covers the portion of the Westchase District between Rogerdale Road and Gessner Road. Concepts and recommendations answer questions related to implementing both major and incremental program or policy

changes, motivating the private sector by public-sector action, encouraging diversified transportation modes, and developing inclusive housing options.

The Westchase Livable Centers Study looks at the north side of the Sharpstown Trail Study with Westpark Drive as its southern boundary. The Westchase Study proposes providing a network of connected trails and open spaces and enhancing ecological and well-being aspects. Proposed "Walkable Loops" would connect the existing trail in the east-west CenterPoint corridor immediately north of Westpark Tollway between S Gessner Road and Briarpark Drive into the Westchase District up to Richmond Avenue and Westheimer Road.

#### 2. INTERNATIONAL MANAGEMENT DISTRICT LIVABLE CENTERS STUDY

The area covered by H-GAC Livable Centers Planning Study of the International Management District is west of the Sharpstown Trail. The International Management District Study aims to advance the area's goals regarding its international character, transportation choices, connectivity, safety, healthy lifestyle, economic competitiveness, and housing choice. It gives insight on the Sharpstown Study by its phasing and funding strategies along with specific guidance on implementation.

#### 3. CITY OF HOUSTON CAPITAL IMPROVEMENT PLAN (REBUILD HOUSTON)

The Capital Improvement Plan describes strategies for physical improvements to public facilities and infrastructure throughout Houston. The underlying motive is to improve safety, mobility, and lifestyles, and to promote the local economy. The ReBuild Houston plan shares part of the programs in the Capital Improvement Plan. It has an extreme focus on improving drainage systems and streets all across the city. Though there are no direct drainage or street improvement projects within the site of the Sharpstown Trail Study, the ReBuild Houston plan brings up flooding issues on the south end of the Sharpstown Trail.

#### 4. SOUTHWEST HOUSTON REDEVELOPMENT AUTHORITY CAPITAL IMPROVEMENT PLAN (CIP)

The Southwest Houston Redevelopment Authority, also known as TIRZ #20, encompasses a large area of the Southwest Management District, plus portions of the International Management District and Westchase Management District west of Beltway 8. The Capital Improvement Plan by Southwest Houston TIRZ #20 highlights the importance of addressing mobility deficiencies, providing resources and reimbursing Westchase. The Sharpstown Trail project is included in the CIP and several street improvements within the study area have been completed or are underway.

#### 5. METRO NEXT (MOVING FORWARD PLAN)

In November 2019 Houston area voters authorized METRO to borrow up to \$3.5 billion to fund their METRONext Moving Forward Plan. The Plan works to meet 500 miles of travel improvements, including expansions across several types of transportation, along with investments in service and accessibility. It enhances corridors of MetroRapid (BRT) system, regional express, metrorail (LRT), Boost and Signature network, as well as the transportation system through better access and experience.

There are three proposed BOOST corridors intersecting or aligning with the Sharpstown Trail (S Gessner Road, Bellaire Boulevard, and Beechnut Street; see "METRO MOVING FORWARD" plan in Appendix B: Map Atlas), a METRO Rapid BRT line along the north border (Westpark Dr), and an existing/programmed station, transit center or park & ride near the north end. The plan indicates the Sharpstown Trail will serve more people, be more accessible and frequently visited in the future.

#### 6. HOUSTON BIKE PLAN

The Houston Bike Plan was approved by City Council March 22, 2017. It is a component plan linked to the City of Houston's Complete Streets Executive Order with the ambitious goal of becoming a gold-level bicycle-friendly city by 2027. It establishes a framework based on policies, projects, and programs to reach this vision by multiple departments at the City of Houston, in particular, Planning and Development, Public Works and Engineering, and Parks and Recreation.

The plan has short and long term implications for the Sharpstown Trail Study. It shows the Sharpstown Trail is linked to existing (an east-west segment in the CenterPoint corridor immediately north of Westpark Tollway between S Gessner Road and Briarpark Drive) and future bike facilities (along Westpark Tollway, Sands Point Drive, Bellaire Boulevard, Triola Lane, Beechnut Street, and the Brays Bayou Greenway). The comprehensive vision of creating a comfortable and inclusive biking environment and facilities is recommended. In the long term, the plan considers getting supportive policies and programs and setting out performance metrics.

#### 7. 2019 Major Thoroughfare and Freeway Plan (MTFP)

Through a coordinated process between the city, developers and neighborhoods, the City annually produces the MTFP. This plan identifies sections of roadways that are in need of expansion, either by lengthening or widening due to such issues as congestion, mobility, and future development plans.

The plan serves as an effective instrument in guiding development, as well as providing mobility and accessibility to a large number of people in the greater

Houston area. There are no streets designated to be widened or otherwise affected by the 2019 MTFP along the Sharpstown Trail corridor.

#### 8. WALKABLE AND LIVABLE COMMUNITIES INSTITUTE FOR AARP (formerly AMERICAN ASSOCIATION OF RETIRED PERSONS)

The goal of the Walkable and Livable Communities Institute is to help create connected communities that support active and healthy living through advocating better environments that are more walkable and livable for all residents. The Sharpstown Trail Study can benefit from the Institute's website which aids local planners and leaders in their efforts to increase the livability of their communities by a number of resources.

#### 9. UH COLLABORATIVE COMMUNITY DESIGN INITIATIVE SHARPSTOWN

The Community Design Resource Center strives to enhance the quality of life in low-to-moderate income communities throughout the Houston region through design, research, education and practice. The Center addresses issues of community development, design, planning, affordable housing and civic projects in partnership with communities. The Center did a briefing book of Sharpstown and also did a study of zones in political, economic, and social perspectives of Sharpstown.

### CITY OF HOUSTON / CENTERPOINT MASTER LICENSE AGREEMENT

The ability for trail sponsors to build trails within Houston's network of power line easements is a recent development. In 2014, the City of Houston and CenterPoint Energy signed a Master License Agreement that allows for the City of Houston to build trails within CenterPoint's easements. Given the security, maintenance, drainage, and access issues unique to these corridors, CenterPoint has limited the general landscape and development opportunities on these sites. These are summarized in the graphic at right.



**2014 CITY OF HOUSTON / CENTERPOINT  
MASTER LICENSE AGREEMENT  
DESIGN CRITERIA:**

- *10' wide max. concrete trail open dawn to dusk*
- *For biking, walking, running, rollerblading, skateboarding, and dog walking only*
- *Maintenance area is the trail plus 10' either side*
- *Trail should not change drainage patterns*
- *Trail is typically located at the high point of the easement*
- *Limited planting palette and plant height*
- *No irrigation*

### III. PROPOSED TRAIL SUMMARY

After taking into account community and agency feedback (See Appendix A for details), the preliminary alignment for the Sharpstown Trail was developed. Feedback indicated the strong desire to connect from an existing trail segment north of Westpark Tollway all the way south to Brays Bayou Greenway.

Once Brays Bayou Greenway is complete it will stretch over 30 miles from Buffalo Bayou in the east to George Bush Park in the west. Connecting to this greenway would therefore open up safe hike and bike access to multiple parks and destinations for the residents of Sharpstown.

The following preliminary Sharpstown Trail alignment is annotated with factors that influenced the alignment as well as challenges and opportunities along the corridor. This overall connection is subdivided into three segments shown on the adjacent map and described as follows:

Segment 1 – North side of Westpark Tollway to the south side of Sands Point Drive (includes crossing of Sands Point Drive). This segment includes the CenterPoint substation site at Westpark as well as the privately-owned Sands Point Cove Apartment property, both of which require additional coordination and approvals before implementation can proceed.

Segment 2 – South side of Sands Point Drive to south side of Beechnut Drive at the corner of S Gessner (includes crossing at Beechnut and Gessner, and improvements at the Bellaire and Gessner intersection). This segment is recommended as the first segment for implementation based upon current funding and having the least amount of coordination issues.

Segment 3 – From Beechnut / S Gessner Drive back to the CenterPoint easement and south to Brays Bayou Greenway. This future segment has two major obstacles- the substation site immediately south of Beechnut and also connecting to the Brays Bayou Greenway. A series of outfalls under the freeway on the north bank make the connection underneath the freeway technically challenging so care will need to be given to the design at this location.

Refer to section IV and V for more information on trail alignment and cost estimates.



BRAYS BAYOU GREENWAY

BEECHNUT STREET

BELLAIRE BOULEVARD

SANDS POINT DRIVE

WESTPARK TOLLWAY

New pedestrian crossing over South Gessner Road north of Beechnut Street

Improves dangerous intersection by removing right turn only lane per suggestion of City of Houston

Easement needed at Sands Point apartments

Need CenterPoint approval to move fence at sub-station



**SEGMENT 3**  
0.83 MILES

**SEGMENT 2**  
1.82 MILES

**SEGMENT 1**  
0.47 MILES

Beechnut / S Gessner Drive back to the CenterPoint easement and south to Brays Bayou Greenway

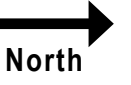
South side of Sands Point Drive to south side of Beechnut Drive at the corner of S Gessner (includes crossing at Beechnut and Gessner)

North side of Westpark Tollway to the south side of Sands Point Drive (includes crossing of Sands Point Drive)

**Segment 3 Estimated Cost:**  
= \$1,647,800

**Segment 2 Estimated Cost:**  
= \$2,809,400


**Segment 1 Estimated Cost:**  
= \$1,065,900



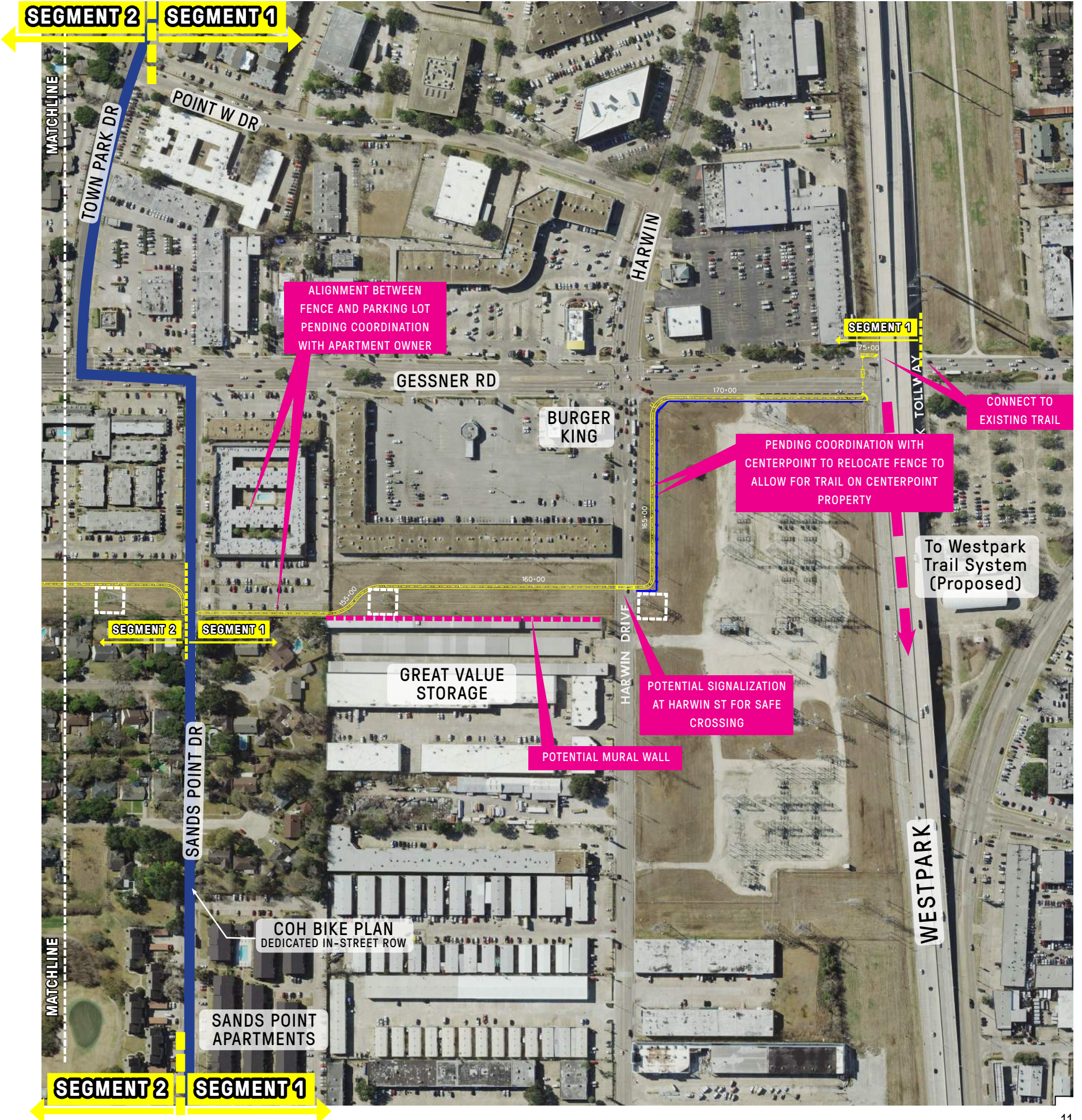
**CobbFendley**  
SHARPSTOWN TRAIL FROM I-69 TO WESTPARK TOLLWAY

IV. PRELIMINARY ALIGNMENT

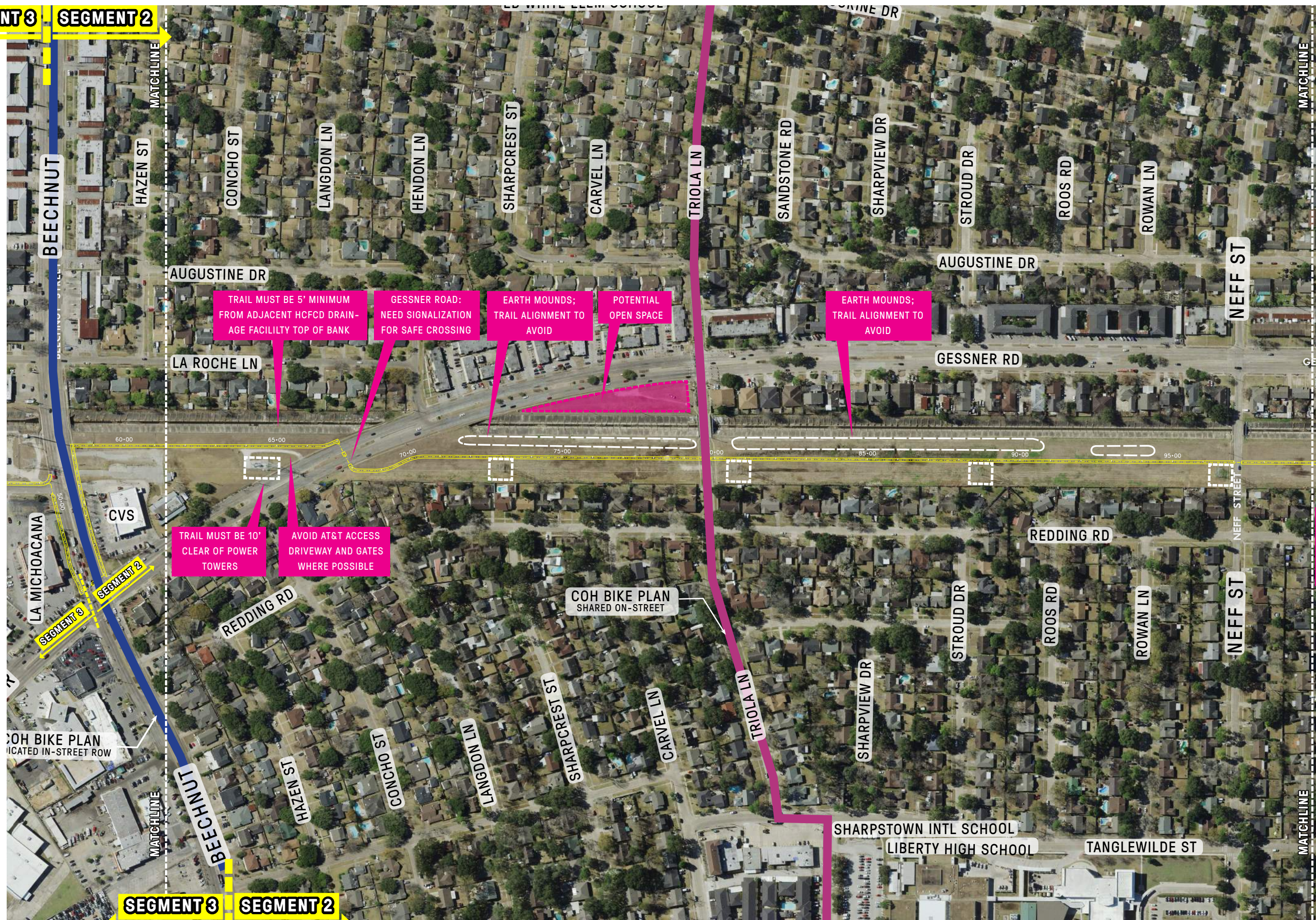
A. SEGMENT 1

North   
Scale 1" = 300'  
10

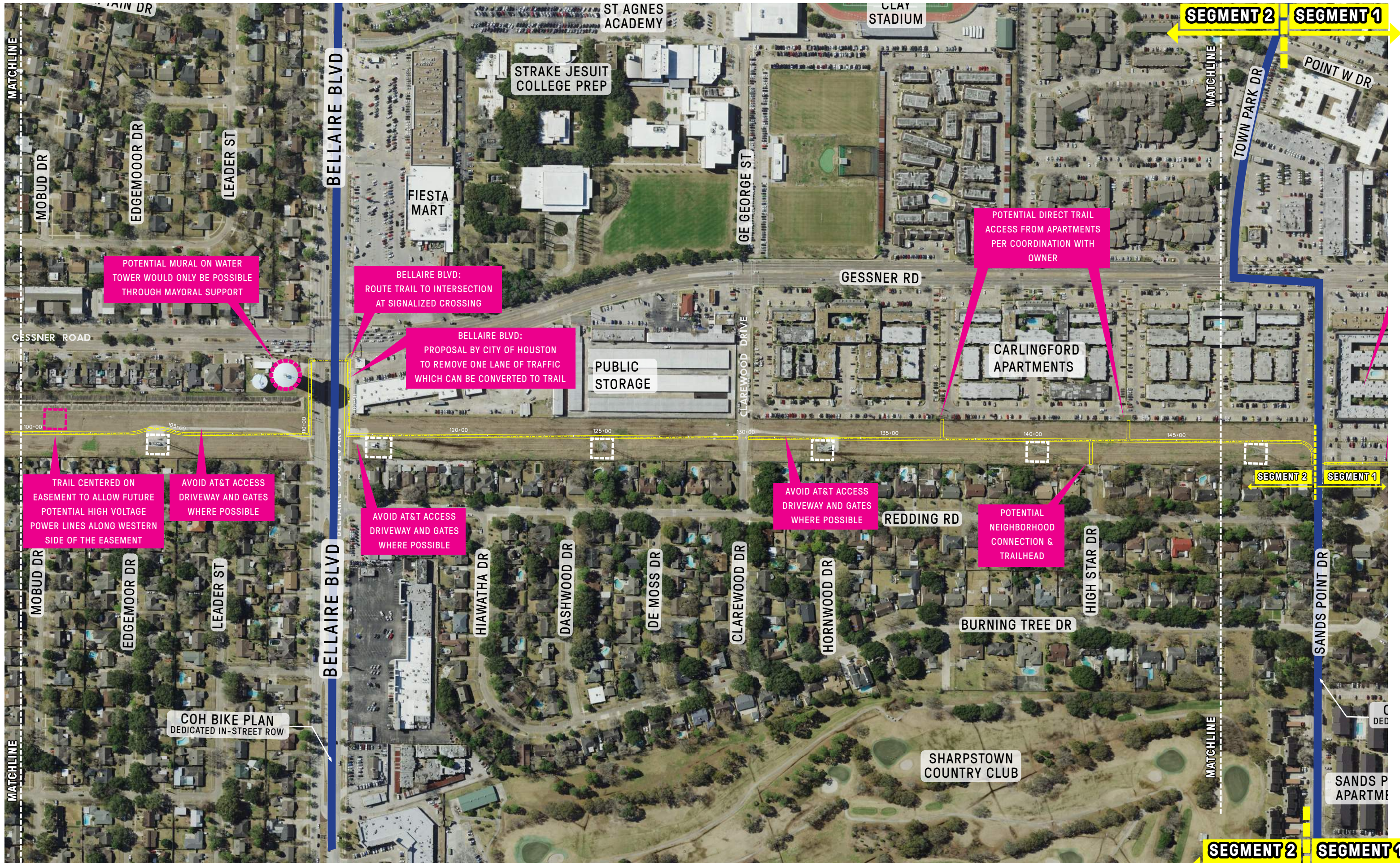
SEGMENT 2    SEGMENT 1



B. SEGMENT 2



North  
Scale 1" = 300'  
12



POTENTIAL MURAL ON WATER TOWER WOULD ONLY BE POSSIBLE THROUGH MAYORAL SUPPORT

BELLAIRE BLVD: ROUTE TRAIL TO INTERSECTION AT SIGNALIZED CROSSING

BELLAIRE BLVD: PROPOSAL BY CITY OF HOUSTON TO REMOVE ONE LANE OF TRAFFIC WHICH CAN BE CONVERTED TO TRAIL

POTENTIAL DIRECT TRAIL ACCESS FROM APARTMENTS PER COORDINATION WITH OWNER

TRAIL CENTERED ON EASEMENT TO ALLOW FUTURE POTENTIAL HIGH VOLTAGE POWER LINES ALONG WESTERN SIDE OF THE EASEMENT

AVOID AT&T ACCESS DRIVEWAY AND GATES WHERE POSSIBLE

AVOID AT&T ACCESS DRIVEWAY AND GATES WHERE POSSIBLE

AVOID AT&T ACCESS DRIVEWAY AND GATES WHERE POSSIBLE

POTENTIAL NEIGHBORHOOD CONNECTION & TRAILHEAD

COH BIKE PLAN DEDICATED IN-STREET ROW

C. SEGMENT 3



WESTWOOD  
COUNTRY  
CLUB

FUTURE BRAYS BAYOU  
GREENWAY TRAIL BY  
HOUSTON PARKS BOARD

COORDINATE TRAIL  
UNDER FREEWAY WITH  
EXISTING OUTFALLS

CONNECTION TO BRAYS  
BAYOU GREENWAY  
TRAIL

EXISTING  
CENTERPOINT  
SUBSTATION

UTILIZE EXCESS  
ROAD RIGHT OF WAY

TRAIL MUST BE 10'  
CLEAR OF POWER  
TOWERS

SEGMENT 3

SEGMENT 2

SEGMENT 3

SEGMENT 2

**IV. ESTIMATE OF PROBABLE COST**

Construction cost estimates are provided here for the three segments identified in the Preliminary Alignment section:

Segment 1 – North side of Westpark Tollway to the south side of Sands Point Drive (includes crossing of Sands Point Drive)

Segment 2 – South side of Sands Point Drive to south side of Beechnut Drive at the corner of S Gessner (includes crossing at Beechnut and Gessner)

Segment 3 – From Beechnut / S Gessner Drive back to the CenterPoint easement and south to Brays Bayou Greenway

**Houston Parks Board  
SHARPSTOWN TRAIL SEGMENT 1- WESTPARK TO SANDS POINT  
STATION 150+00 TO STATION 175+00 - 2,500 LINEAR FEET (0.47 MILES)  
PRELIMINARY CONSTRUCTION COST ESTIMATE**

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED PRICE
<b>GENERAL</b>					
	MOBILIZATION	LS	1	\$60,000.00	\$60,000.00
	CLEARING AND GRUBBING	AC	2	\$4,500.00	\$7,747.93
	EXCAVATION	CY	1,067	\$20.00	\$21,333.33
	REMOVAL OF EXIST CURB	LF	75	\$10.00	\$750.00
	REMOVAL OF EXIST PAVEMENT AND SIDEWALK (INCLUDING SAWCUT)	SY	333	\$10.00	\$3,333.33
	TRAFFIC CONTROL AND REGULATION	MO	6	\$7,500.00	\$45,000.00
	INLET PROTECTION BARRIER	EA	6	\$100.00	\$600.00
	REINFORCED FILTER FABRIC BARRIER (INSTALL & REMOVAL)	LF	2,200	\$4.00	\$8,800.00
	STABILIZED CONSTRUCTION ACCESS	SY	300	\$30.00	\$9,000.00
<b>SUBTOTAL GENERAL</b>					<b>\$156,564.60</b>
<b>TRAIL</b>					
	BIKE TRAIL 6" THICK Joint Reinforced Concrete Pavement (JRCP)	SY	2,680	\$80.00	\$214,400.00
	LIME STABILIZED SUBGRADE 6 INCH	SY	3,216	\$4.00	\$12,864.00
	LIME SLURRY (6% by Weight)	TON	43	\$195.00	\$8,466.12
	COARSE STONE BACKFILL FOR PERMEABLE STRIP (1'x2')	CY	356	\$90.00	\$32,000.00
	PAVEMENT MARKING & SIGNAGE - ENTIRE PROJECT	LS	1	\$5,000.00	\$5,000.00
	WELCOME MAT, COMPLETE IN PLACE	EA	2	\$400.00	\$800.00
	PEDESTRIAN CURB RAMPS, INCLUDING DETECTABLE WARNING	EA	4	\$1,500.00	\$6,000.00
	WOODEN BOLLARD	EA	6	\$75.00	\$450.00
	COLLAPSIBLE BOLLARD WITH FOUNDATION	EA	3	\$1,500.00	\$4,500.00
	6-FT CHAINLINK FENCE FOR CENTERPOINT SUBSTATION ( HARWIN and GESSNER)	LF	1,100	\$60.00	\$66,000.00
	MID-BLOCK HAWK SYSTEM FOR CROSSWALK SIGNALIZATION	EA	1	\$135,000.00	\$135,000.00
<b>SUB TOTAL TRAIL</b>					<b>\$485,480.12</b>
<b>LANDSCAPE</b>					
	SEEDING, INCLUDING SOIL PREPARATION, WATERING AND FERTILIZATION	AC	0.73	\$3,500.00	\$2,571.17
	SODDING, INCLUDING SOIL PREPARATION, WATERING AND FERTILIZATION	SY	444	\$5.00	\$2,222.22
	SHRUBS	EA	50	\$17.00	\$850.00
	GROUND COVER	EA	50	\$17.00	\$850.00
	PLANTING SOIL BED MIX	CY	25	\$60.00	\$1,500.00
	HARDWOOD MULCH	CY	25	\$60.00	\$1,500.00
	STEEL EDGING	LF	500	\$6.00	\$3,000.00
<b>SUBTOTAL LANDSCAPE</b>					<b>\$12,493.39</b>
<b>SUBTOTAL CONSTRUCTION ITEMS</b>					<b>\$654,538.11</b>
<b>CONTINGENCIES (~10%)</b>					<b>\$60,000.00</b>
<b>COH &amp; HCFCO PERMITTING</b>					<b>\$10,000.00</b>
<b>CASH ALLOWANCE FOR EXTRA WORK ITEMS</b>					<b>\$30,000.00</b>
<b>PROFESSIONAL SERVICES FEES (~30%)*</b>					<b>\$214,361.43</b>
<b>TOTAL TRAIL SYSTEM FROM WESTPARK TO BEECHNUT</b>					<b>\$968,899.54</b>
<b>ADMIN SERVICES FEES (10%)</b>					<b>\$96,889.95</b>
<b>TOTAL TRAIL SYSTEM FROM WESTPARK TO BEECHNUT WITH ADMIN FEES</b>					<b>\$1,065,789.50</b>

\*Professional services fees to be refined



**Houston Parks Board**  
**SHARPSTOWN TRAIL SEGMENT 2- SANDS POINT TO BEECHNUT**  
**STATION 54+00 TO STATION 150+00 - 9,600 LINEAR FEET (1.82 MILES)**  
**PRELIMINARY CONSTRUCTION COST ESTIMATE**

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED PRICE
<b>GENERAL</b>					
	MOBILIZATION	LS	1	\$150,000.00	\$150,000.00
	CLEARING AND GRUBBING	AC	7	\$4,500.00	\$29,752.07
	EXCAVATION	CY	4,451	\$20.00	\$89,022.22
	REMOVAL OF EXIST CURB	LF	800	\$10.00	\$8,000.00
	REMOVAL OF EXIST PAVEMENT AND SIDEWALK	SY	367	\$10.00	\$3,666.67
	TRAFFIC CONTROL AND REGULATIONS	LS	9	\$7,500.00	\$67,500.00
	INLET PROTECTION BARRIER	EA	5	\$100.00	\$500.00
	REINFORCED FILTER FABRIC BARRIER (install & Removal)	LF	9,500	\$4.00	\$38,000.00
	STABILIZED CONSTRUCTION ACCESS	SY	1,200	\$30.00	\$36,000.00
<b>SUBTOTAL GENERAL</b>					<b>\$422,440.96</b>
<b>TRAIL</b>					
	BIKE TRAIL 6" THICK Joint Reinforced Concrete Pavement (JRCP)	SY	10,674	\$80.00	\$853,884.44
	LIME STABILIZED SUBGRADE 6 IN	SY	12,808	\$4.00	\$51,233.07
	LIME SLURRY (6% by Weight)	TON	173	\$195.00	\$33,717.76
	COARSE STONE BACKFILL FOR PERMEABLE STRIP (1'x2')	CY	1,393	\$90.00	\$125,333.33
	PAVEMENT MARKINGS & SIGNAGE	LS	1	\$15,000.00	\$15,000.00
	WELCOME MAT, COMPLETE IN PLACE	EA	4	\$400.00	\$1,600.00
	PEDESTRIAN CURB RAMPS, INCLUDING DETECTABLE WARNING	EA	12	\$1,500.00	\$18,000.00
	WOODEN BOLLARD	EA	24	\$50.00	\$1,200.00
	COLLAPSIBLE BOLLARD WITH FOUNDATION	EA	12	\$1,500.00	\$18,000.00
	Wrought Iron Fence at Sands Point Apartments (Remove & Re-install)	LF	360	\$85.00	\$30,600.00
	MID-BLOCK HAWK SYSTEM FOR CROSSWALK SIGNALIZATION	EA	1	\$135,000.00	\$135,000.00
<b>SUBTOTAL TRAIL</b>					<b>\$1,117,968.61</b>
<b>BELLAIRE - Reclamation of Existing Exclusive Right-Turn Lane</b>					
	REMOVAL OF EXIST CURB & DISPOSE, INCLUDING SAWCUT	LF	335	\$10.00	\$3,350.00
	REMOVAL OF EXIST PAVEMENT AND SIDEWALK & DISPOSE, INCLUDING SAWCUT	SY	670	\$20.00	\$13,400.00
	6" THICK CONCRETETRAIL (HIGH EARLY STRENGTH)	SY	667	\$90.00	\$60,000.00
	CEMENT STABILIZED SUBGRADE (6 IN)	SY	800	\$25.00	\$20,000.00
<b>SUBTOTAL BELLAIRE CONSTRUCTION ITEMS</b>					<b>\$96,750.00</b>
<b>LANDSCAPE</b>					
	SEEDING, INCLUDING SOIL PREPARATION, WATERING AND FERTILIZATION	AC	3.67	\$3,500.00	\$12,855.83
	SODDING, INCLUDING SOIL PREPARATION, WATERING AND FERTILIZATION	SY	2,222	\$5.00	\$11,111.11
	SHRUB	EA	75	\$17.00	\$1,275.00
	GROUND COVER	EA	75	\$17.00	\$1,275.00
	PLANTING SOIL BED MIX	CY	10	\$60.00	\$600.00
	HARDWOOD MULCH	CY	6	\$60.00	\$360.00
	STEEL EDGING	LF	600	\$6.00	\$3,600.00
<b>SUBTOTAL LANDSCAPE</b>					<b>\$31,076.94</b>
<b>PROPERTY ACQUISITION</b>					
	PROPERTY ACQUISITION AT SANDS POINT COVE APARTMENT	SF	7,100	\$25.00	\$177,500.00
<b>SUBTOTAL PROPERTY ACQUISITION</b>					<b>\$177,500.00</b>
<b>SUBTOTAL CONSTRUCTION ITEMS</b>					<b>\$1,748,986.50</b>
<b>CONTINGENCIES (~10%)</b>					<b>\$150,000.00</b>
<b>COH &amp; HCFCO PERMITTING</b>					<b>\$10,000.00</b>
<b>CASH ALLOWANCE FOR EXTRA WORK ITEMS</b>					<b>\$75,000.00</b>
<b>PROFESSIONAL SERVICES FEES (~30%)*</b>					<b>\$569,695.95</b>
<b>TOTAL SEGMENT 2 - SANDS POINT TO BEECHNUT</b>					<b>\$2,553,682.45</b>
<b>ADMIN FEES (10%)</b>					<b>\$255,368.25</b>
<b>TOTAL SEGMENT 2 - SANDS POINT TO BEECHNUT WITH ADMIN FEES</b>					<b>\$2,809,050.70</b>

\*Professional services fees to be refined

**Houston Parks Board**  
**SHARPSTOWN TRAIL SEGMENT 3- BEECHNUT TO BRAYS BAYOU GREENWAY EXTENSION**  
**STATION 10+00 TO STATION 54+00, 4,400 LINEAR FEET (0.83 MILES)**  
**PRELIMINARY CONSTRUCTION COST ESTIMATE**

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED PRICE
<b>GENERAL</b>					
	MOBILIZATION	LS	1	\$100,000.00	\$100,000.00
	CLEARING AND GRUBBING	AC	3	\$4,500.00	\$13,636.36
	EXCAVATION	CY	1,956	\$20.00	\$39,111.11
	REMOVAL OF EXIST CURB	LF	500	\$10.00	\$5,000.00
	REMOVAL OF EXIST PAVEMENT AND SIDEWALK INCLUDING COMMERCE PARK DRIVE	SY	1,000	\$10.00	\$10,000.00
	TRAFFIC CONTROL AND REGULATIONS	LS	9	\$7,500.00	\$67,500.00
	INLET PROTECTION BARRIER	EA	6	\$100.00	\$600.00
	REINFORCED FILTER FABRIC BARRIER (instal & removal)	LF	4,000	\$4.00	\$16,000.00
	STABILIZED CONSTRUCTION ACCESS	SY	100	\$30.00	\$3,000.00
<b>SUBTOTAL GENERAL</b>					<b>\$254,847.47</b>
<b>TRAIL</b>					
	BIKE TRAIL 6" THICK Joint Reinforced Concrete Pavement (JRCP)	SY	4,335	\$80.00	\$346,800.00
	LIME STABILIZED SUBGRADE 6 IN	SY	5,202	\$4.00	\$20,808.00
	LIME SLURRY (6% by Weight)	TON	70	\$195.00	\$13,694.27
	COARSE STONE BACKFILL FOR PERMEABLE STRIP (1'x2')	CY	652	\$90.00	\$58,666.67
	PAVEMENT MARKINGS & SIGNAGE - ENTIRE PROJECT	LS	1	\$10,000.00	\$10,000.00
	WELCOME MAT, COMPLETE IN PLACE	EA	2	\$400.00	\$800.00
	PEDESTRIAN CURB RAMPS, INCLUDING DETECTABLE WARNING	EA	3	\$1,500.00	\$4,500.00
	WOODEN BOLLARD	EA	0	\$50.00	\$0.00
	COLLAPSIBLE BOLLARD WITH FOUNDATION	EA	3	\$1,500.00	\$4,500.00
	MID-BLOCK HAWK SYSTEM FOR CROSSWALK SIGNALIZATION	EA	0	\$135,000.00	\$0.00
<b>SUBTOTAL TRAIL</b>					<b>\$459,768.93</b>
<b>LANDSCAPE</b>					
	SEEDING, INCLUDING SOIL PREPARATION, WATERING AND FERTILIZATION	AC	1.62	\$3,500.00	\$5,656.57
	SODDING, INCLUDING SOIL PREPARATION, WATERING AND FERTILIZATION	SY	978	\$5.00	\$4,888.89
	SHRUB	EA	60	\$17.00	\$1,020.00
	GROUND COVER	EA	60	\$17.00	\$1,020.00
	PLANTING SOIL BED MIX	CY	7	\$60.00	\$420.00
	HARDWOOD MULCH	CY	6	\$60.00	\$360.00
	STEEL EDGING	LF	500	\$6.00	\$3,000.00
<b>SUBTOTAL LANDSCAPE</b>					<b>\$16,365.45</b>
<b>US 59 BRIDGE UNDERCROSSING/BAYOU GREENWAYS TIE-IN</b>					
	Structural Concrete (Creat Shelf, Railing, Existing Storm Outfall Modification)	LS	1	\$200,000.00	\$200,000.00
	Railing for the under US 59 crossing	LF	250	\$300.00	\$75,000.00
<b>SUBTOTAL BRIDGE</b>					<b>\$275,000.00</b>
<b>SUBTOTAL CONSTRUCTION ITEMS</b>					<b>\$1,005,981.86</b>
<b>CONTINGENCIES (~10%)</b>					<b>\$100,000.00</b>
<b>COH &amp; HCFCO PERMITTING</b>					<b>\$10,000.00</b>
<b>CASH ALLOWANCE FOR COH &amp; HCFCO PERMITTING &amp; EXTRA WORK ITEMS</b>					<b>\$50,000.00</b>
<b>PROFESSIONAL SERVICES FEES (~30%)*</b>					<b>\$331,794.56</b>
<b>TOTAL BEECHNUT TO BRAYS BAYOU</b>					<b>\$1,497,776.42</b>
<b>ADMIN FEES (10%)</b>					<b>\$149,777.64</b>
<b>TOTAL BEECHNUT TO BRAYS BAYOU WITH ADMIN FEES</b>					<b>\$1,647,554.06</b>

\*Professional services fees to be refined



# APPENDIX A: COMMUNITY AND AGENCY ENGAGEMENT



# APPENDIX A: PUBLIC ENGAGEMENT SUMMARY

## INTRODUCTION & PROCESS

The Sharpstown Trail Integrated Planning and Programming Study sought to validate the project through a robust engagement process. The team produced a series of analysis maps (see Appendix B: Map Atlas) to understand the site and context and then used these as tools for the basis of discussion with various groups to verify them for accuracy, identify opportunities and synergies, and educate the public about the trail project.

The consultant team used three parallel and complementary modes of engagement: agency coordination meetings, stakeholder meetings, and public meetings. Each mode is described here:

## 1. AGENCY MEETINGS

The Houston Parks Board and consultant team convened a group of agencies and organizations relevant to the project for vetting the preliminary alignment. At the Agency Meeting, the team presented the project, its overall relationship to other plans for the area and region, and the maps produced by the consultant team. Each agency then provided comments to the consultant team that included verifying the data presented, offering insight from their unique perspectives, and suggesting opportunities for future study where there might be gaps and/or constraints or conditions for trail development.

The team followed up with Agency input through Stakeholder Meetings. The agencies were also given a draft version of the report for comments that were incorporated into the final report.

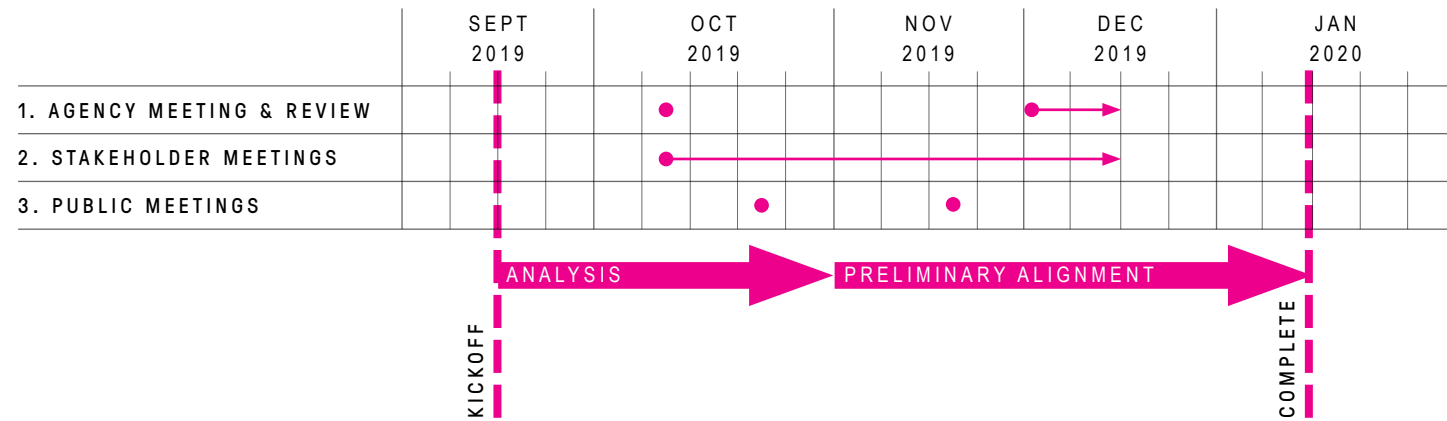
## 2. STAKEHOLDER MEETINGS

Stakeholder meetings were focused meetings to address specific issues along the trail; for example, meeting with the property owner regarding crossing the parking lot at the apartment complex at Sands Point and Gessner or meeting with a representative of the City of Houston to discuss reclaiming a lane from Bellaire to provide additional back-of-curb space for the trail.

See Appendix C: Road Crossings for plan annotations from the meeting with Public Works and Engineering for street crossings.

## 3. COMMUNITY MEETINGS

Community Meetings served to present the project to the broader public, educate them about CenterPoint trails generally and the Sharpstown Trail specifically, illustrate the progress of the Bayou Greenways and Beyond the Bayous plans, and present the maps and analysis that had been vetted through the Agency Meeting. The Sharpstown Civic Association, an existing recurring monthly meeting, served as the basis for this meeting type and approximately 170 community members attended the October 24 meeting. Large printed maps and exhibits were made available to gather feedback from attendees and educate them about the project and general area. At the November Civic Association Meeting on November 21, the project team followed up by showing an updated roll plot map with progress on the preliminary alignment.



**AGENCY MEETING #1**  
**OCTOBER 10, 2019**  
**HOUSTON PARKS BOARD**  
**300 NORTH POST OAK LANE, HOUSTON, TEXAS, 77024**

**MEETING SUMMARY**

- Houston Parks Board and SWA introduced and led the discussion about the Sharpstown Trail project.
- The current project phase involves soliciting agency and community feedback on existing conditions, planned projects, and needs within the identified project area.
- This agency meeting served as an information gathering session and a precursor to a future public meeting that will be part of the Sharpstown Civic Association Meeting on October 24th. The first public meeting is for project introduction and information gathering from the community
- A second community meeting will be held at the Sharpstown Civic Association Meeting on November 21st. This meeting will be to review the project vision and alignment to gather feedback.
- Final project deliverables will include a synthesis of input to identify the route for the Sharpstown Trail along with a cost estimate.
- The agencies present were all generally in favor of the project and agreeable to coordinating and/or collaborating where possible as the project moves forward.

**ACTION ITEMS**

- Project Team - Update all maps to correct spelling of Braeburn / Braeburn Glen
- Project Team - Update all maps to show Sharpstown Park on the east side of Harbor Town Drive differentiated from Sharpstown Golf Course.
- Project Team - Update Community Assets Map to include Strake Jesuit and St. Agnes Academy.
- Project Team - Show which Super Neighborhoods are inactive on the Super Neighborhood Map
- Project Team - Update Park Allocation Analysis to show service area of Sharpstown Park
- Project Team - Check for pipelines / underground utilities within the easement
- Project Team - Confirm land shown as vacant on Vacant parcels map
- Project Team - Show the Alief Complete Communities outline on the Regional Analysis slide.
- Project Team - Will consider attending Braeburn area meetings to let people in that community know about the trail and provide input.
- Project Team - Will review the trail route to see how it might be connected all the way to Brays Bayou Greenway.

**AGENCY COMMENTS**

- Council Member Mike Laster
- Sharpstown Civic Association represents 6,800 homes and is the major entity in the area as opposed to the Sharpstown Super Neighborhood.
  - Two other useful and important groups to meet with include:
    - Corporate leaders at Brays Oaks Management District
    - Braeburn Glen Neighborhood
  - Density of area is approximately 9,000 people per square mile instead of Houston's average of 3,000 people per square mile.
  - The swimming pool at Sharpstown Park was just opened. This park is adjacent to, but separate from the Sharpstown Golf Club.
  - There were recent upgrades to Lansdale Park (new spray park), and Crain Park (trails)
  - The new trail would benefit by being connected all the way to the Brays Bayou Greenway.

City of Houston Planning

- There are opportunities for bike lanes in the area that would benefit from coordination.
- Emphasized the importance of making a connection all the way to Brays Bayou.
- Noted kickoff for Alief/Westwood Complete Community is November 6.

Harris County Flood Control District (HCFCD)

- Trail needs to be 5' away from top of bank, concrete, 10' wide.
- Prior to the meeting, HCFCD discussed that HCFCD is about to take over maintenance of the drainage channel adjacent to the CenterPoint easement as part of an imminent city-wide agreement between HCFCD and the City of Houston (COH). The agreement is that HCFCD will now maintain open-channel drainage ways (previously maintained by COH) and COH will now maintain subsurface drainage ways (previously maintained by HCFCD).
- Any proposed bridges across the channel (for neighborhood connections) would require watershed department review & approval and HCFCD would have to sell an easement.

H-GAC

- Willing to set out their ped/bike counters in the area to gather data on usage.
- Two Livable Centers studies nearby - Westchase and International District. Westchase is available online, the International District is almost complete.

**GENERAL DISCUSSION**

- There is an apartment complex north of Sands Point Drive that owns the land under the CenterPoint easement. They currently have a gated parking lot in this area. The project will have to either obtain a recreation easement to go across their property, or go around it.
- The water tower at Bellaire and Gessner is visible from most places on the easement and provides an opportunity for signage / art.
- HCFCD asked about the project schedule. The project would take approximately a year to design and a year to build putting completion at the end of 2021 or beginning of 2022. HCFCD noted that Precinct boundaries are likely to change in 2022 based on the 2020 census.

**MEETING ATTENDEES**

- City of Houston Planning - Jennifer Ostlind
- City of Houston Public Works - Keri Hayes
- City of Houston District J - Council Member Mike Laster, Salatiel Rueda
- Harris County Flood Control District - Matthew Lopez, Dylan Epley
- Houston-Galveston Area Council - Kathryn Vo
- TIRZ 20 - Annie Trinh
- Houston Parks Board - Lisa Graiff, Lisa Kasianowitz
- SWA Group - Michael Robinson, James Vick



SHARPSTOWN TRAIL - LOCATION

**SHARPSTOWN TRAIL**  
**INTEGRATED PLANNING AND PROGRAMMING STUDY**  
**DRAFT GOALS**

- Recognizes the potential of Sharpstown Trail as a part of a **neighborhood open space and connectivity plan**
- **Leverages partnership opportunities** in developing a shared vision for a neighborhood open space and connectivity plan
- Develops the Sharpstown CenterPoint corridor into a **public amenity** that reflects the character and needs of the surrounding community

**COMMUNITY MEETING #1 (SHARPSTOWN CIVIC ASSOCIATION MONTHLY MEETINGS)**  
**OCTOBER 24, 2019**  
**BAYLAND COMMUNITY CENTER**  
**6400 BISSONNET STREET, HOUSTON, TEXAS, 77074**

**MEETING SUMMARY**

- This public outreach was conducted as an agenda item on the October monthly Sharpstown Civic Association Meeting.
- There were 169 attendees including - Charmaine LeBlanc and Matt Wine from the Civic Association, Alice Lee - TIRZ20, and CM Laster
- Houston Parks Board and SWA presented information about the project.
- The project team had boards and a map of the trail printed that encouraged community members to provide feedback.

**PUBLIC COMMENTS / QUESTIONS**

- Amenities: People wondered where any park amenities could be placed, HPB explained the rules of building trails within CenterPoint easements.
- 911 Call boxes: We both heard comments about people wanting this feature. Westchase trail has call boxes. HPB will look into this.
- Lighting: A few people asked if lighting was possible for safety. HPB explained that the trail goes by HPARD park rules and so is open from dawn to dusk, therefore lighting isn't typically part of these projects. The project team can look into lighting as an option for the Sharpstown trail.
- Intersection conflicts: People were concerned about the crossings not being strong enough to protect trail users. A woman mentioned wanting the hawk signal (stoplight) for pedestrians that need to crosses Bingle Road.
- A few people mentioned that the new trail would benefit by being connected all the way to the Brays Bayou Greenway. The community would like to be connected into the overall BG system and make sure there are destinations along the trail.

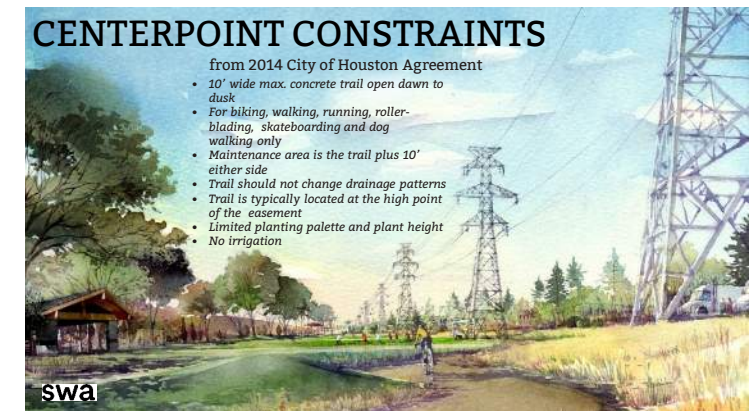
- There were questions about motorized vehicles on the trail. HPB responded that these aren't allowed. There was then a question about electric bicycles and whether those would be allowed. HPB will check whether there are rules about this.
- At the area south of Sands Point Drive where multiple apartment buildings back up to the trail, residents that live on the other side said they've had trouble with break-ins from people jumping their fences in the past. They also said that the people living in the apartment complex already use the trail as a park - they play soccer and hang out in the easement.
- Other suggestions included - adding a dog park and food truck area

**PUBLIC COMMENTS / QUESTIONS**

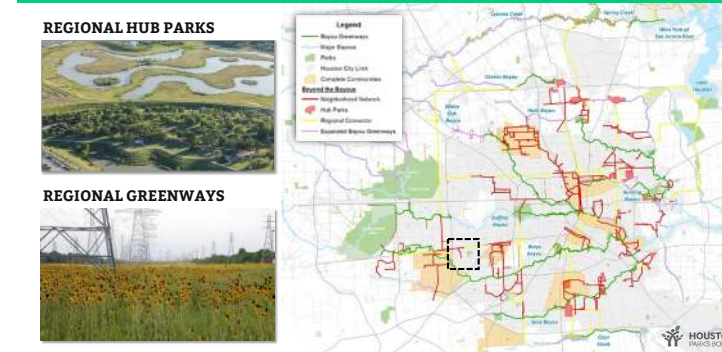
- SWA - Collect and synthesize information from the community meeting and compile into
- HPB - Check on rules for electric bikes on trails
- Project Team - Design road crossings for safety and coordinate with Houston Public Works.
- Project Team - Consider 911 call stations along trail - use Westchase as example

**MEETING ATTENDEES**

- Houston Parks Board - Lisa Graiff, Lisa Kasianowitz
- SWA Group - Michael Robinson, James Vick



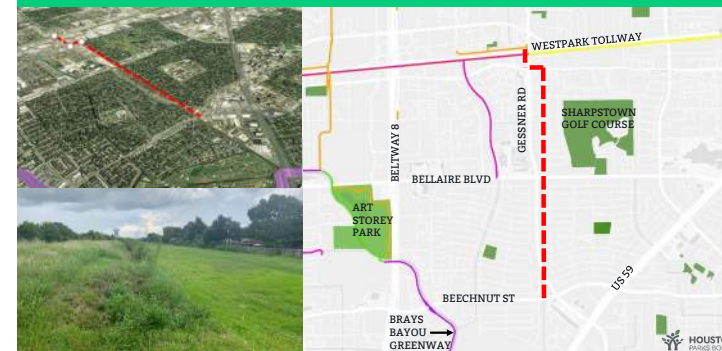
**BEYOND THE BAYOUS**



**TRAIL SAFETY FEATURES**



**SHARPSTOWN TRAIL - LOCATION**



**SHARPSTOWN TRAIL - DRAFT GOALS**

- Recognizes the potential of Sharpstown Trail as a part of a **neighborhood open space and connectivity plan**
- **Leverages partnership opportunities** in developing a shared vision for a neighborhood open space and connectivity plan
- Develops the Sharpstown CenterPoint corridor into a **public amenity** that reflects the character and needs of the surrounding community

**COMMUNITY MEETING #2 (SHARPSTOWN CIVIC ASSOCIATION MONTHLY MEETING)**  
NOVEMBER 21, 2019  
BAYLAND COMMUNITY CENTER  
6400 BISSONNET STREET, HOUSTON, TEXAS, 77074

**MEETING SUMMARY**

- This public meeting served as a followup to the October meeting. HPB and SWA presented a refined Preliminary Alignment map and summary Context Area map illustrating the updated alignment based on input at the October meeting and a site visit to the corridor by HPB, SWA, and members of the Sharpstown Civic Association Board. The Preliminary Alignment map was extended to show the potential future connection to the Brays Bayou Greenway.

**PUBLIC COMMENTS / QUESTIONS**

- Attendees reviewed the alignment updates from the previous meeting and asked for verbal updates on the project. Requests for dog parks in the corridor were reiterated from the previous meeting.

**MEETING ATTENDEES**

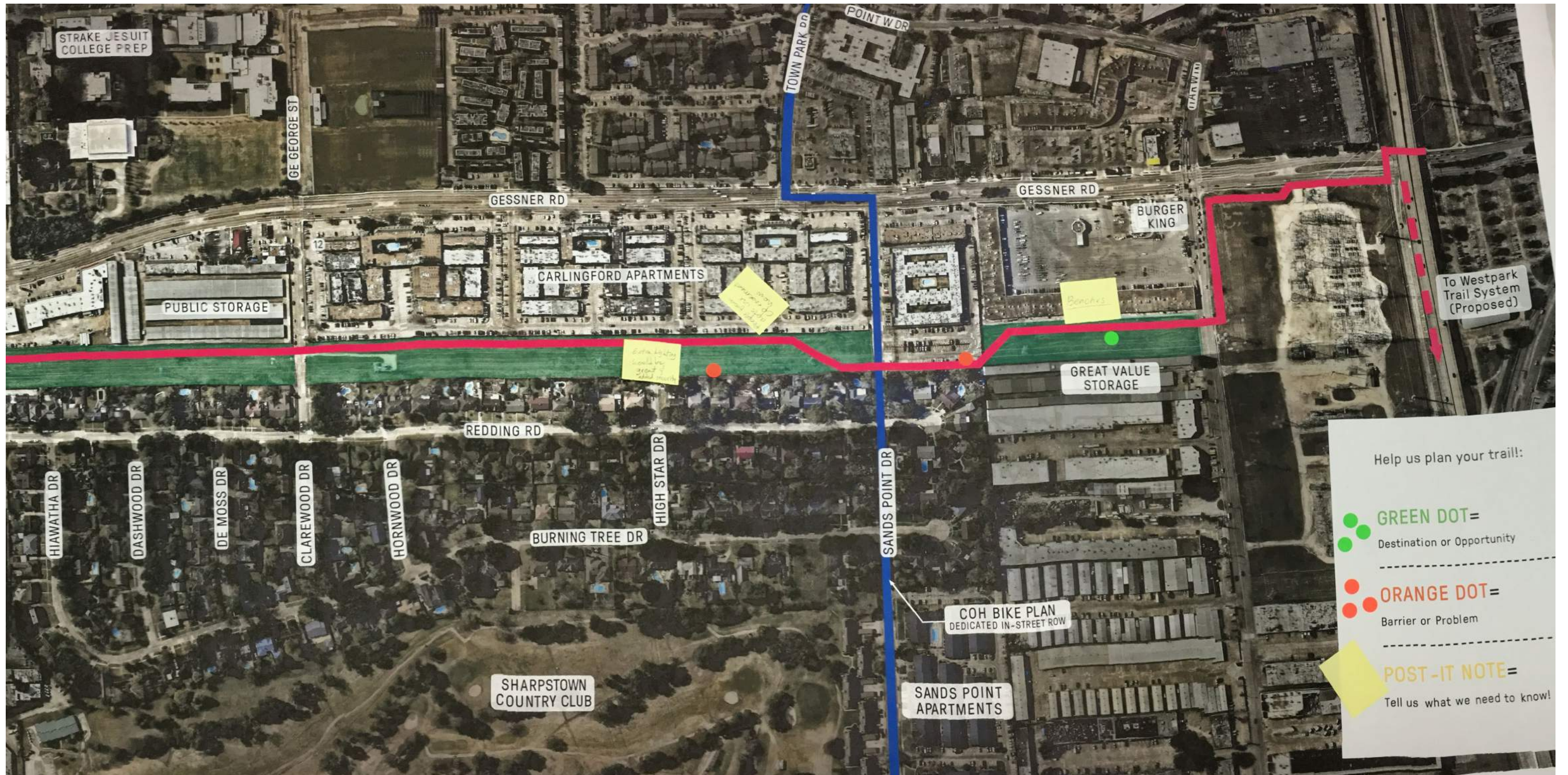
- Houston Parks Board - Lisa Graiff, Lisa Kasianowitz
- SWA Group - Michael Robinson

COMMUNITY MEETING #1  
OCTOBER 24, 2019  
BAYLAND COMMUNITY CENTER  
6400 BISSONNET STREET, HOUSTON, TEXAS, 77074



PUBLIC COMMENTS FROM PUBLIC MEETING #1 (SHARPSTOWN CIVIC ASSOCIATION)





PUBLIC COMMENTS FROM PUBLIC MEETING #1 (SHARPSTOWN CIVIC ASSOCIATION)

## CENTERPOINT MEETING

DECEMBER 04, 2019

CENTERPOINT ENERGY TOWER - ROOM 760

1111 LOUISIANA STREET, HOUSTON, TEXAS 77002

### MEETING SUMMARY

- This meeting introduced the project to CenterPoint and reviewed the project extents, alignment, and parameters governing alignment and implementation.

### PUBLIC COMMENTS / QUESTIONS

1. The Design Team reviewed the Sharpstown Trail preliminary route with CNP. CNP comments were as follows:

- a. CenterPoint substation at Harwin and Gessner –
  - i. The design team is requesting that CenterPoint allow us to set back their fence around the substation to allow room for the trail along Harwin and Gessner.
  - ii. The trail is separate from the road upgrades under coordination at the Harwin/Gessner intersection. The trail would be separate than the
  - iii. CenterPoint requested a plan with dimensions showing the proposed trail route so that they can review with their internal teams (sub-station, etc) for feasibility. The Design Team will send CNP a drawing of the proposed route. The CNP review can take a month or two.
- b. Sands Point Cove Apartments
  - i. Sands Point Cove Apartment owns land in easement north of Sands Point Drive. There is an approximately 18' strip of grass on the east side of the complex. The design team thinks we can get an 8' trail within that space and will work with the Owners to obtain a recreation easement from them that will work in conjunction with the COH/ CenterPoint Master License Agreement.
  - ii. CenterPoint noted that the outside 11' of their easements are reserved for their future use for other low voltage overhead distribution lines (wood poles), or other infrastructure.
  - iii. The Design Team will review the layout with this in mind.
- c. General Alignment
  - i. The Design Team is showing the trail aligned to one side of the easement (away from the residential neighborhood).
  - ii. CNP stated that this easement is wide enough that they might add another row of high voltage distribution lines. This would mean the trail would need to travel down the center of the easement instead to allow for future tower placement.
  - iii. The Design Team mentioned that they were

avoiding the gated access drives to minimize trail / truck access conflicts.

iv. CNP stated that they may be able to move the AT&T driveways if they conflict with a trail alignment down the center of the easement.

v. The Design Team stated that, although we do not yet have a survey, it appears that the low point of the easement is typically the center of the easement. We typically try to locate the trail at the high point to avoid water ponding.

vi. The team discussed the earthen mounds on the west side of the easement adjacent to the Harris County Flood Control ditch. It is thought that these mounds are left over from material extracted from the ditches. CNP stated that they would support the removal of these mounds.

vii. The Design Team will review and update the trail alignment to allow for a second set of towers.

d. General

i. CNP noted that the trail profile should match existing grade as much as possible to prevent water ponding at a trail edge.

ii. The Design Team mentioned that the TIRZ is interested in providing trees along the edges of the CenterPoint easement. CNP stated that they are not in favor of trees on their easements.

iii. The trail needs to be 10' from the CenterPoint towers.

e. CenterPoint substation at Beechnut / Commerce Park Drive

2. The Design Team will coordinate any required maintenance and easement documents.

3. CenterPoint Projects Process

a. Public input/complaints process –

i. HPB will be responsible for public input / complaints regarding the trail. CNP should direct any inquiries to HPB.

b. General project potential procedures

i. Pre-design review – This the review we are doing today. It is to review preliminary alignment and discuss:

1. licenses along easement
2. special concerns in area

ii. Alignment approval

1. This happens when the Design Team reaches 30% construction documents
2. CNP reviews the alignment updated per the pre-design review meeting and provides Alignment Approval

iii. Detailed comments

1. The design team will send CNP the 90% construction document set for their review and comment.

iv. Final approval happens when CenterPoint signs off on the encroachment easement documents.

4. Sharpstown Trail schedule – The project is in the preliminary design phase. It is expected to take approximately one year for design starting in January 2020, and one year for construction.

a. The Design Team will send CNP the schedule once it is confirmed.

b. The Design Team should coordinate the project through Lee Tristan as the main CenterPoint contact.

### MEETING ATTENDEES

- CenterPoint (CNP): Matt Dowell, Travis Drabeck, Sandra Goodall, Lee Tristan,
- Jasmine Black
- Houston Parks Board (HPB): Lisa Graiff
- SWA Group (SWA): Michael Robinson
- Cobb Fendley (CF): Mahmoud Salehi

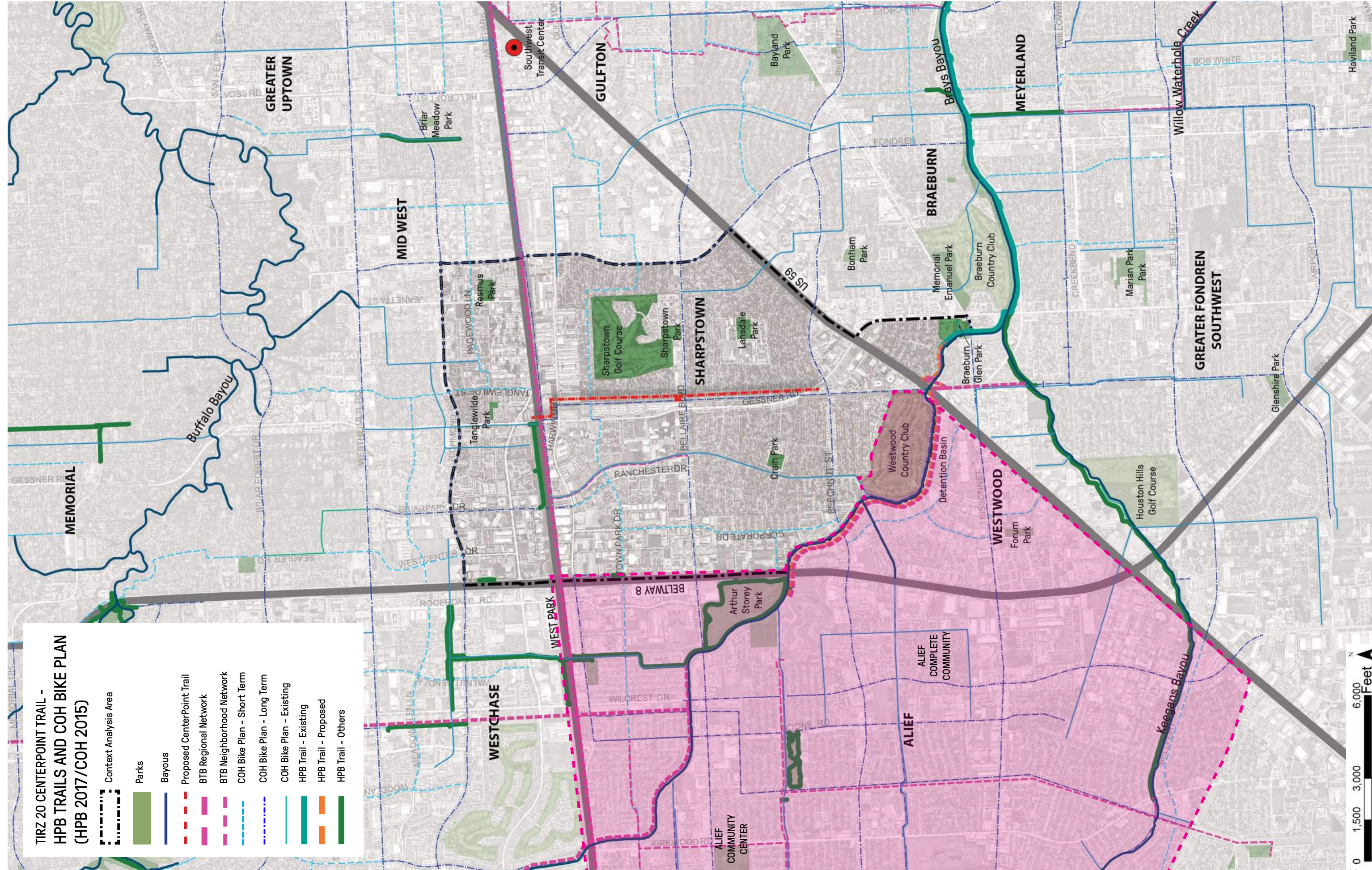
# APPENDIX B: MAP ATLAS





**TIRZ 20 CENTERPOINT TRAIL -  
HPB TRAILS AND COH BIKE PLAN  
(HPB 2017/COH 2015)**

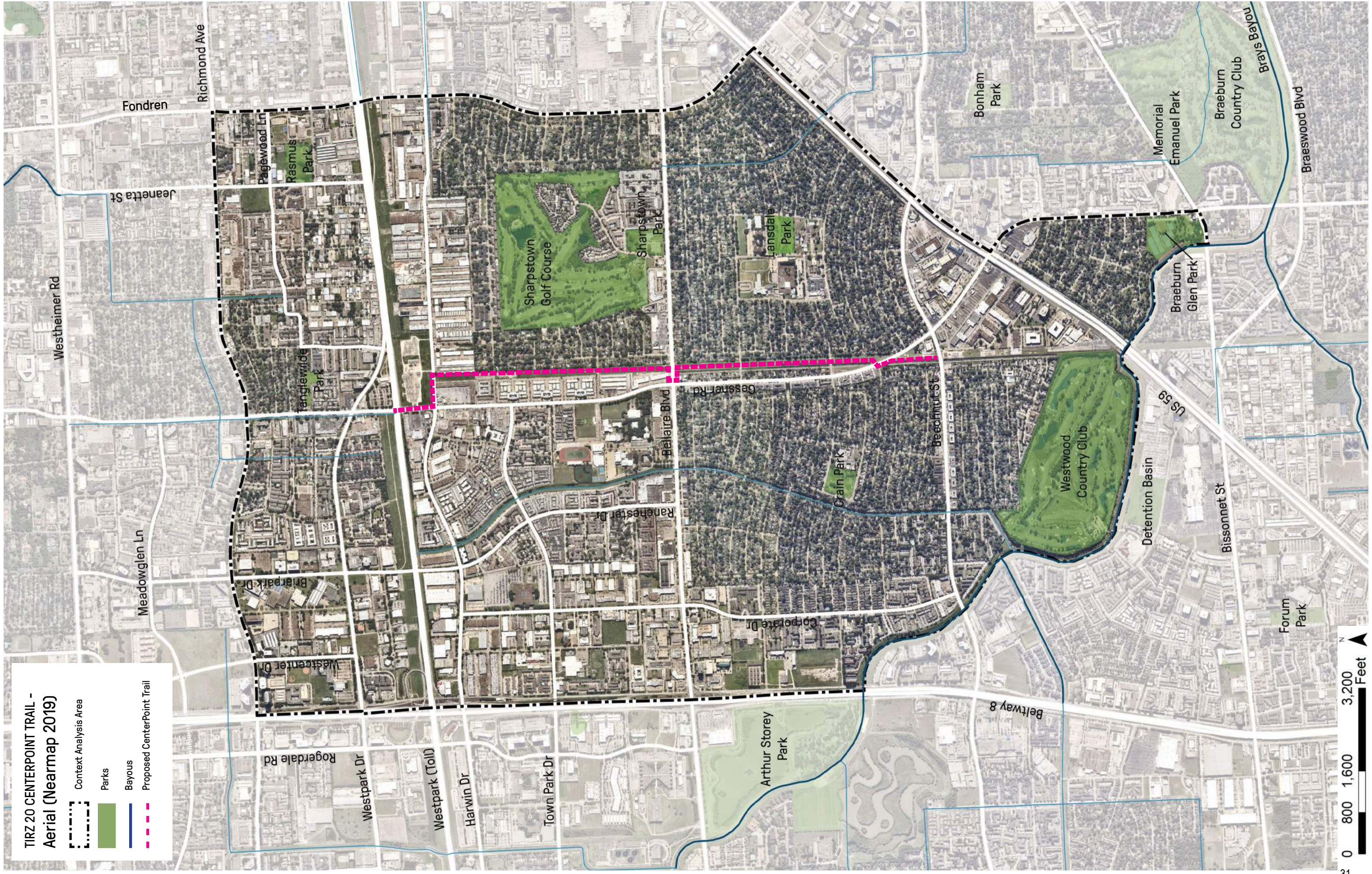
- Context Analysis Area
- Parks
- Bayous
- Proposed CenterPoint Trail
- BTB Regional Network
- BTB Neighborhood Network
- COH Bike Plan - Short Term
- COH Bike Plan - Long Term
- COH Bike Plan - Existing
- HPB Trail - Existing
- HPB Trail - Proposed
- HPB Trail - Others



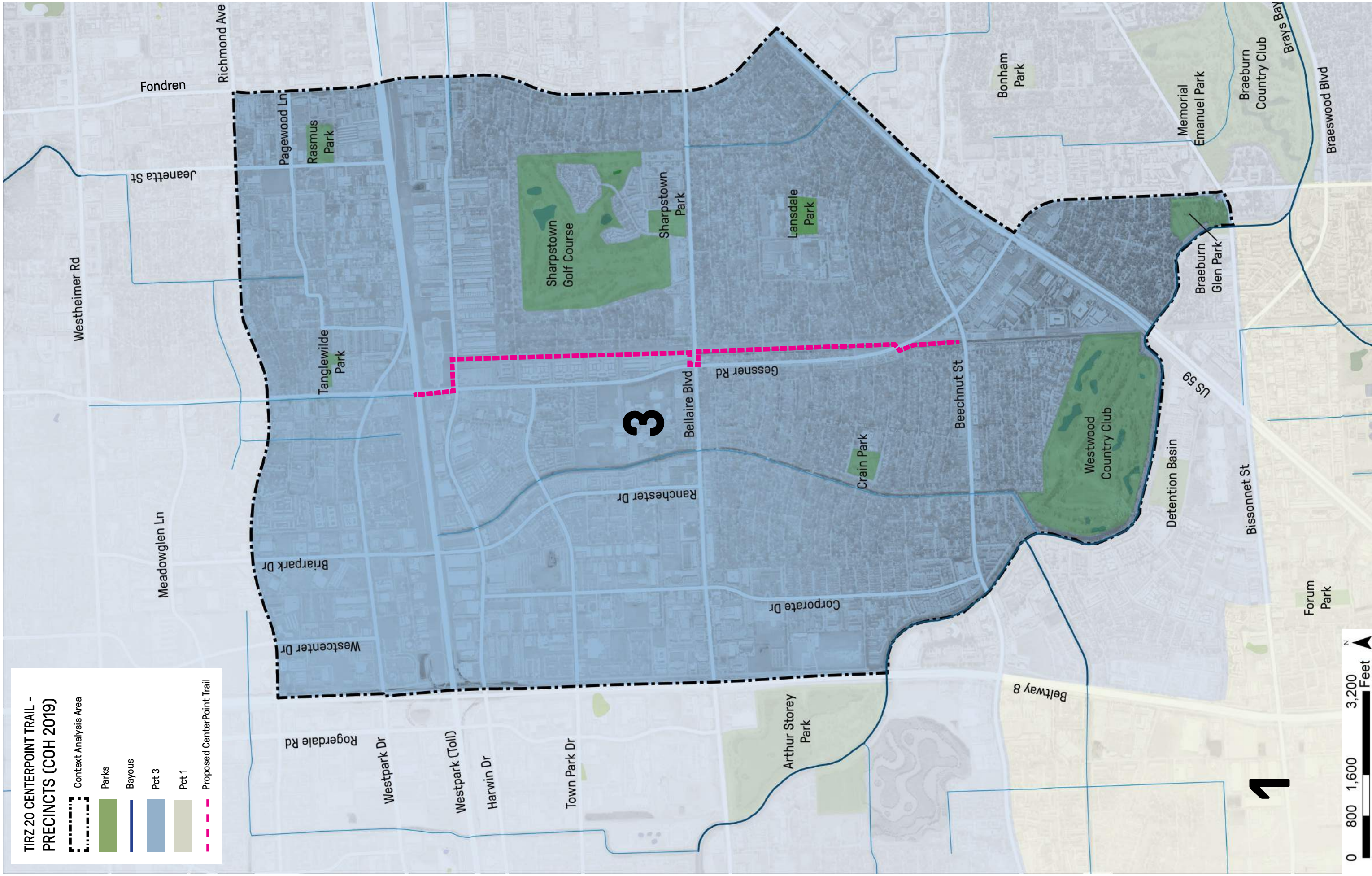
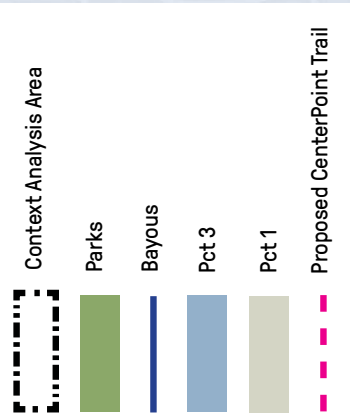


TIRZ 20 CENTERPOINT TRAIL -  
Aerial (Nearmap 2019)

- Context Analysis Area
- Parks
- Bayous
- Proposed CenterPoint Trail










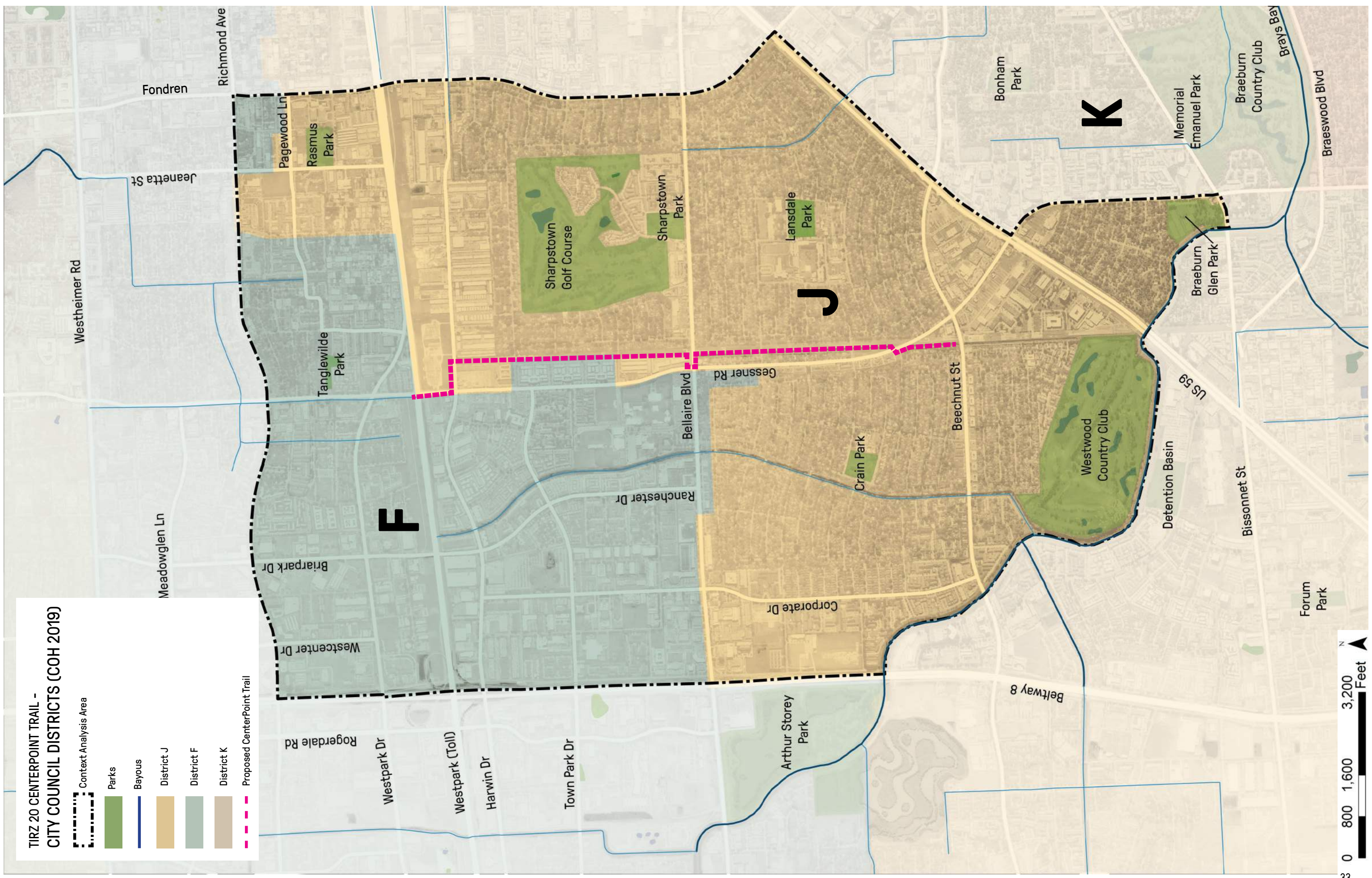
### TIRZ 20 CENTERPOINT TRAIL - PRECINCTS (COH 2019)



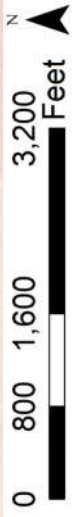
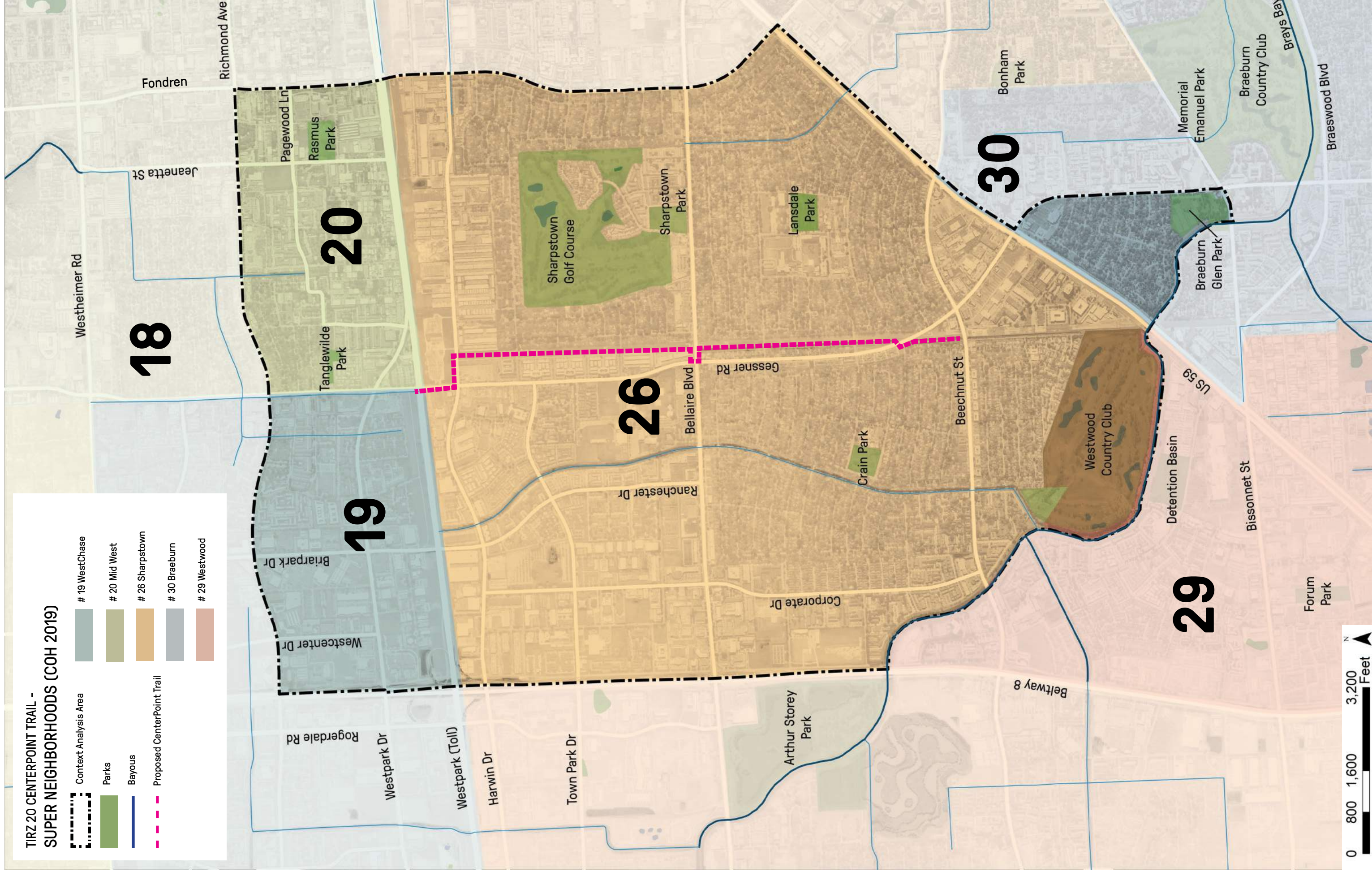
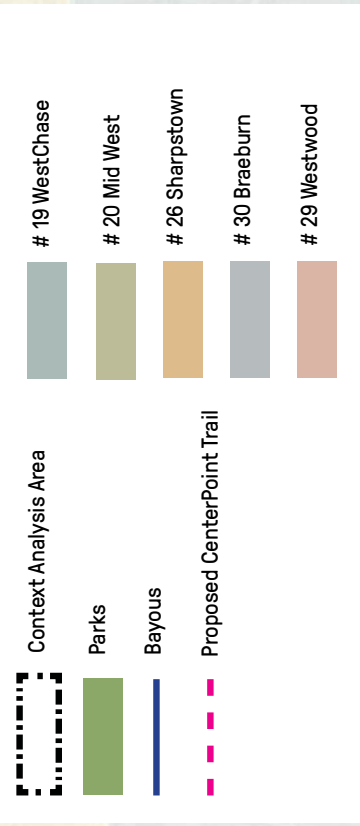


TIRZ 20 CENTERPOINT TRAIL -  
CITY COUNCIL DISTRICTS (COH 2019)

-  Context Analysis Area
-  Parks
-  Bayous
-  District J
-  District F
-  District K
-  Proposed CenterPoint Trail

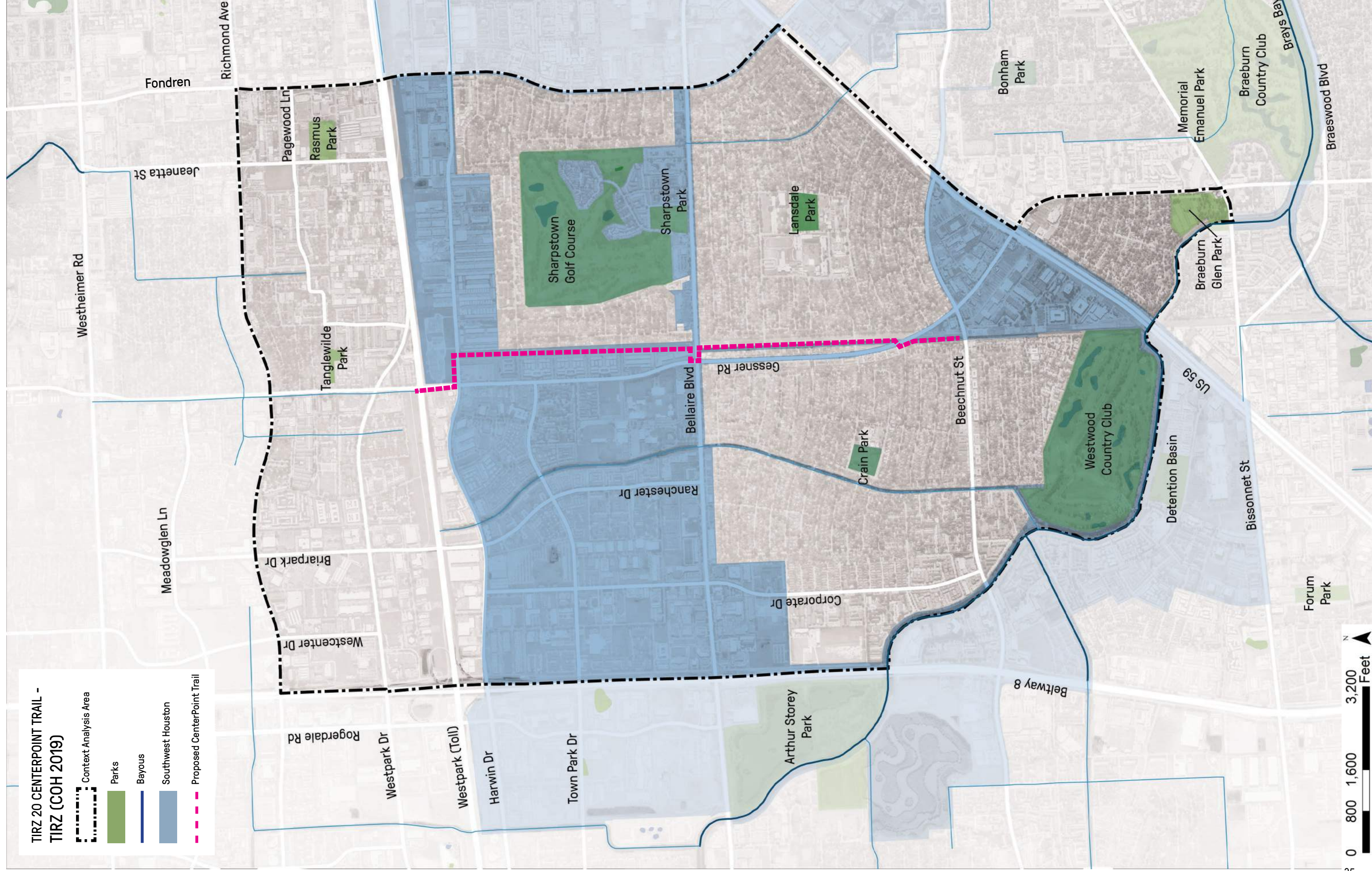


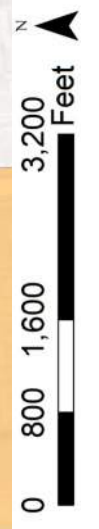
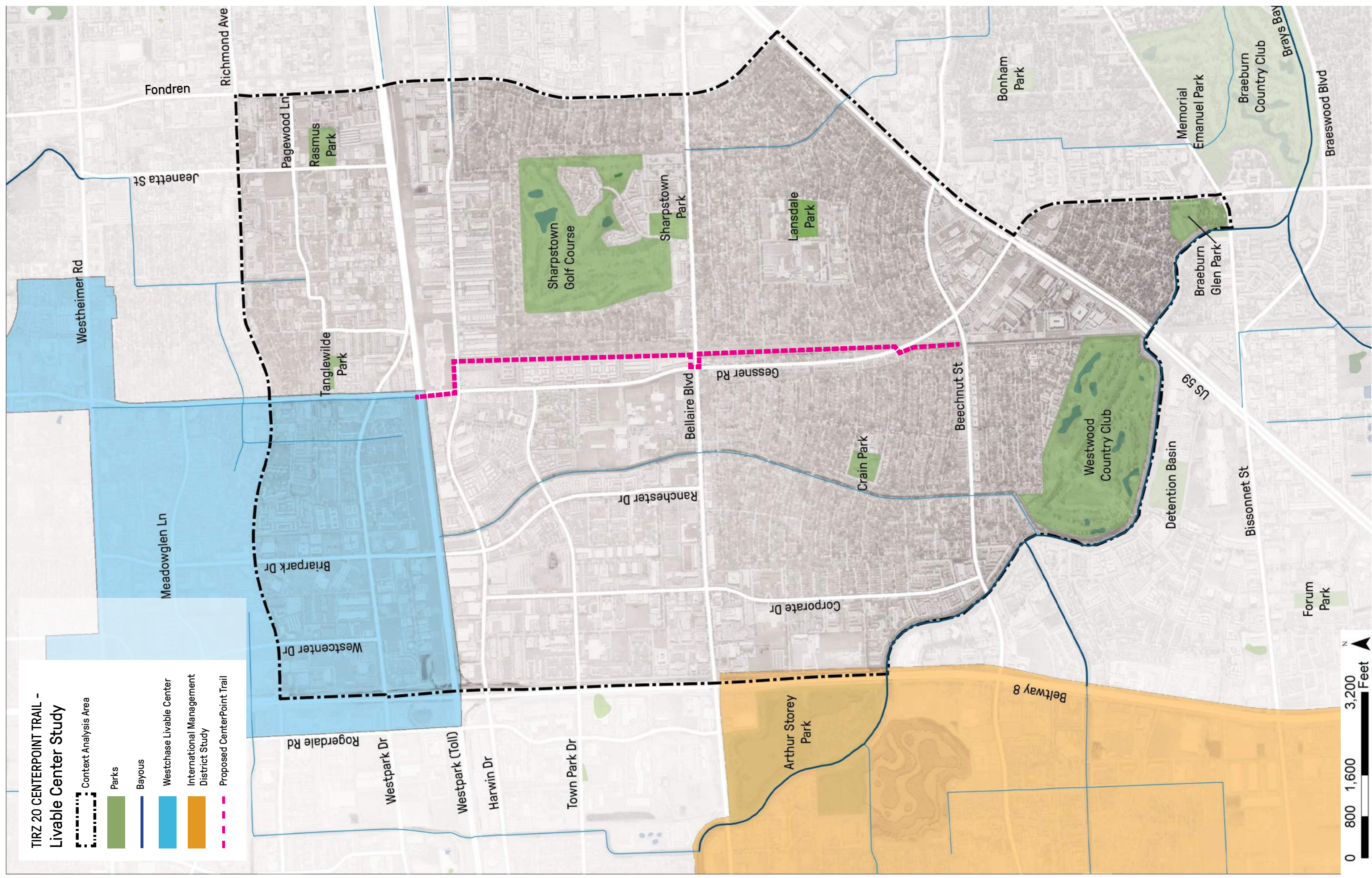
### TIRZ 20 CENTERPOINT TRAIL - SUPER NEIGHBORHOODS (COH 2019)








TIRZ 20 CENTERPOINT TRAIL -  
TIRZ (COH 2019)

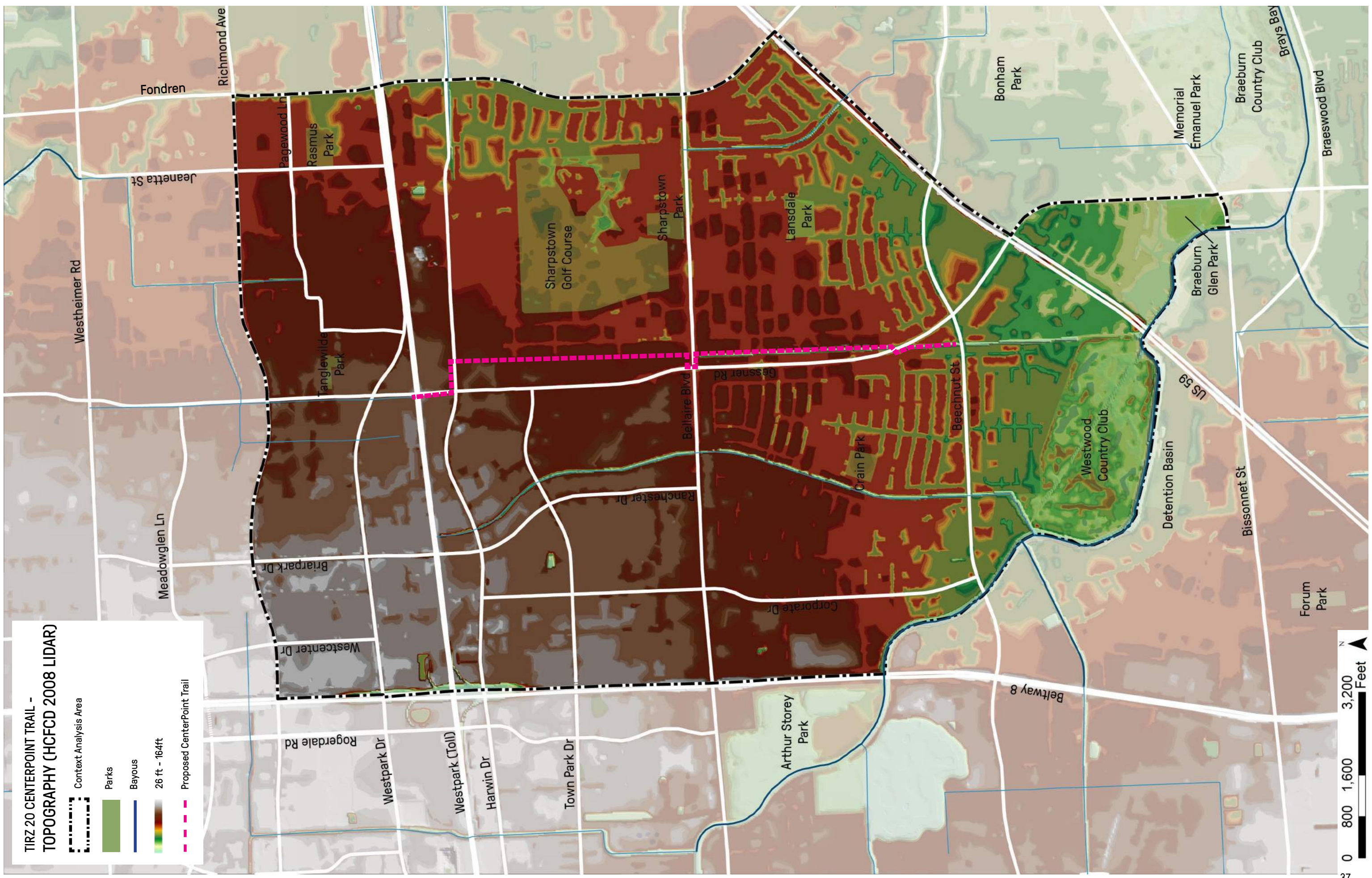
- Context Analysis Area
- Parks
- Bayous
- Southwest Houston
- Proposed CenterPoint Trail





TIRZ 20 CENTERPOINT TRAIL -  
TOPOGRAPHY (HCFC 2008 LIDAR)

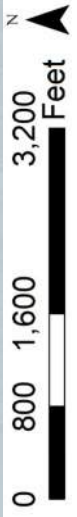
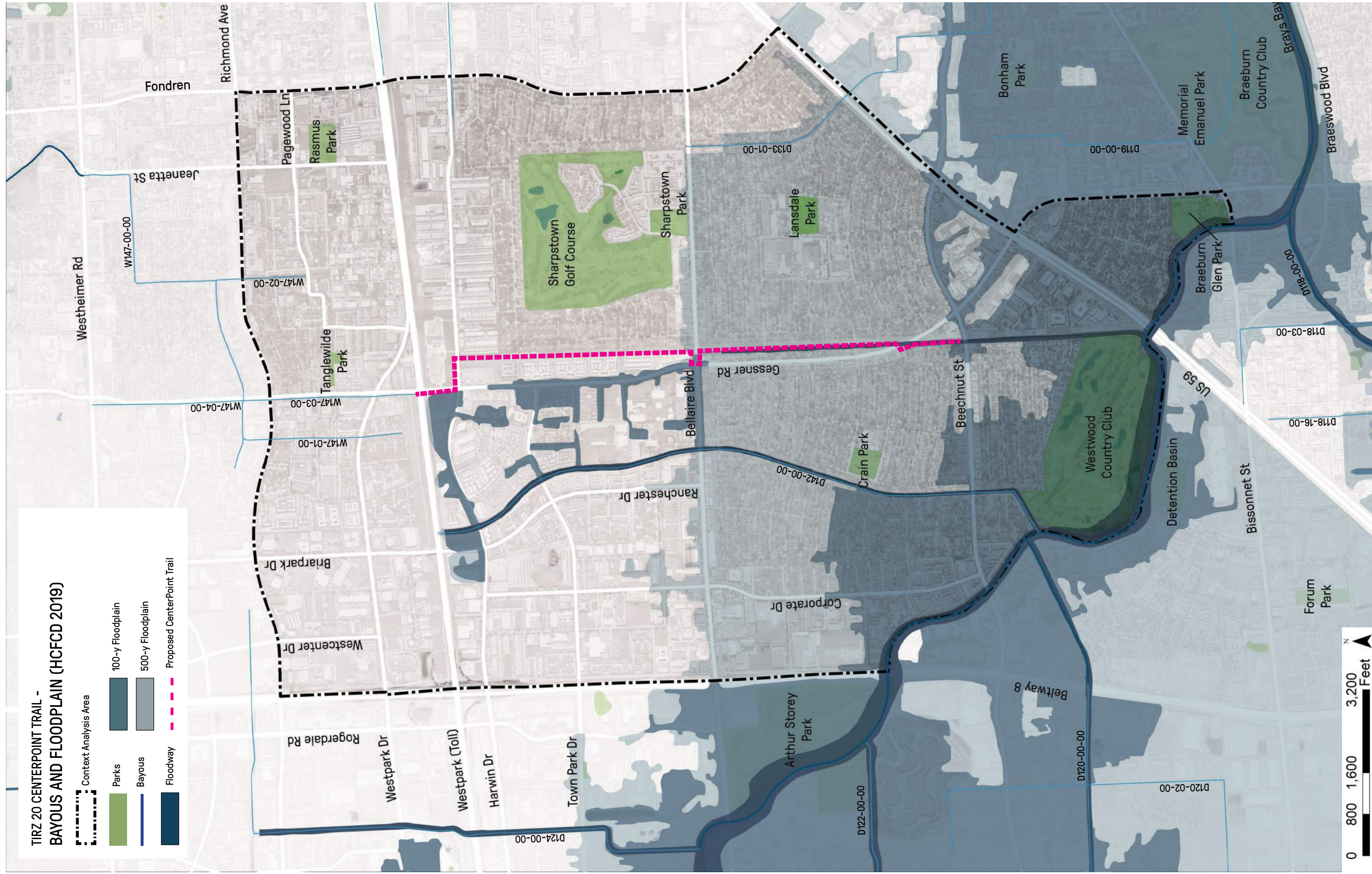
-  Context Analysis Area
-  Parks
-  Bayous
-  26 ft - 164ft
-  Proposed CenterPoint Trail



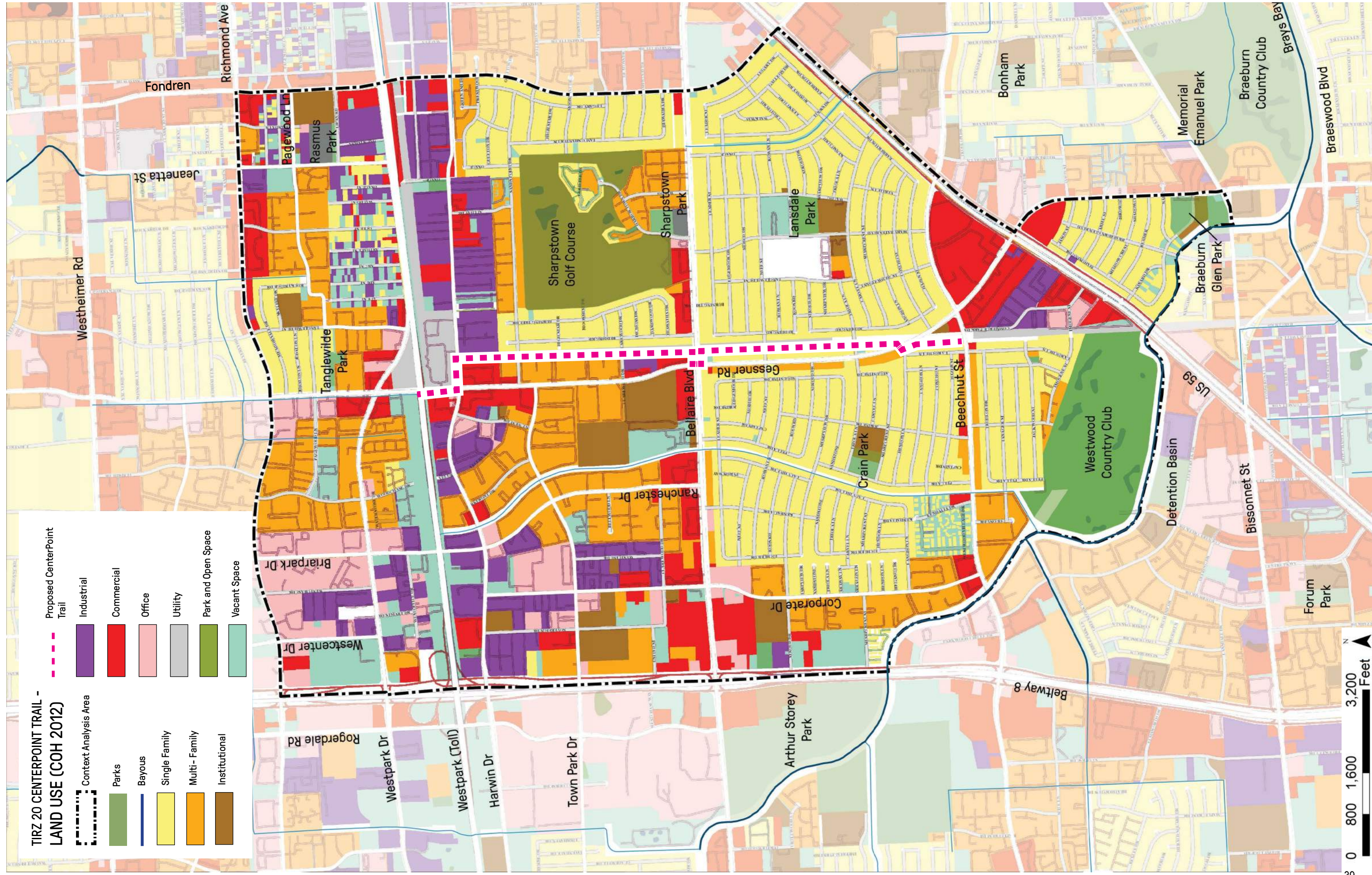
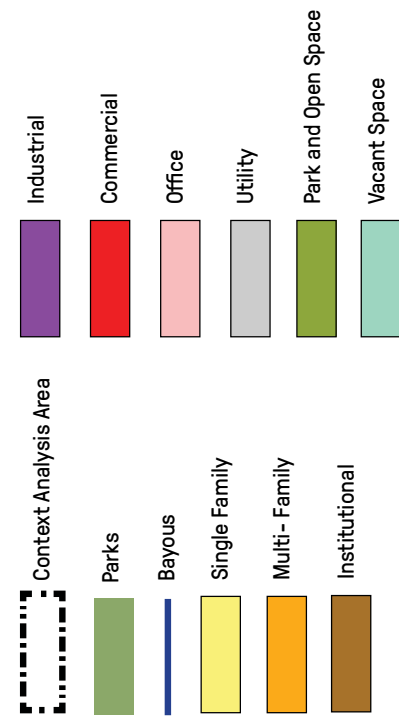
### TIRZ 20 CENTERPOINT TRAIL - BAYOUS AND FLOODPLAIN (HCFCD 2019)

**Context Analysis Area**









- Parks
- Bayous
- Floodway
- 100-y Floodplain
- 500-y Floodplain
- Proposed CenterPoint Trail

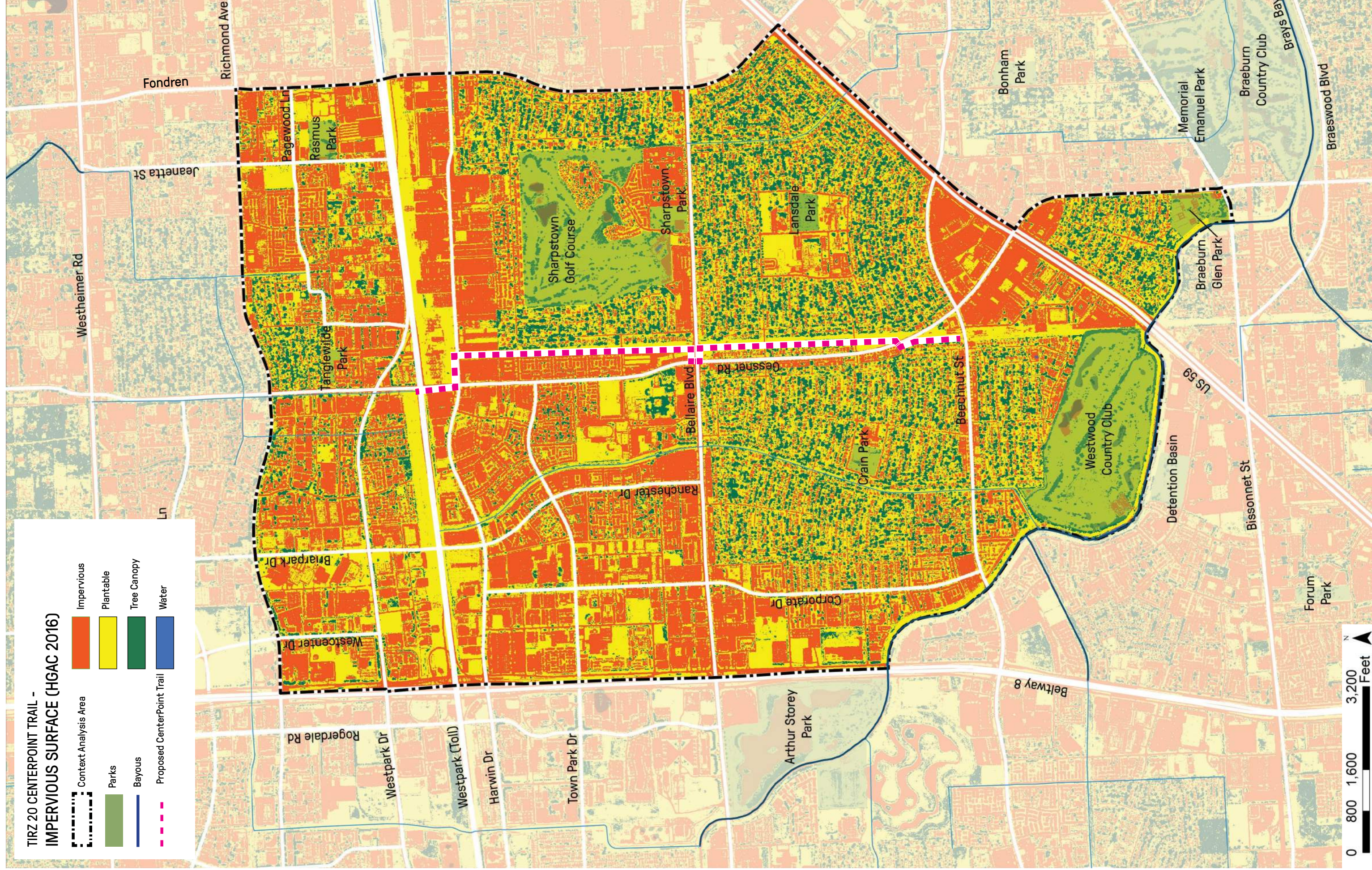


TIRZ 20 CENTERPOINT TRAIL -  
LAND USE (COH 2012)



### TIRZ 20 CENTERPOINT TRAIL - IMPERVIOUS SURFACE (HGAC 2016)

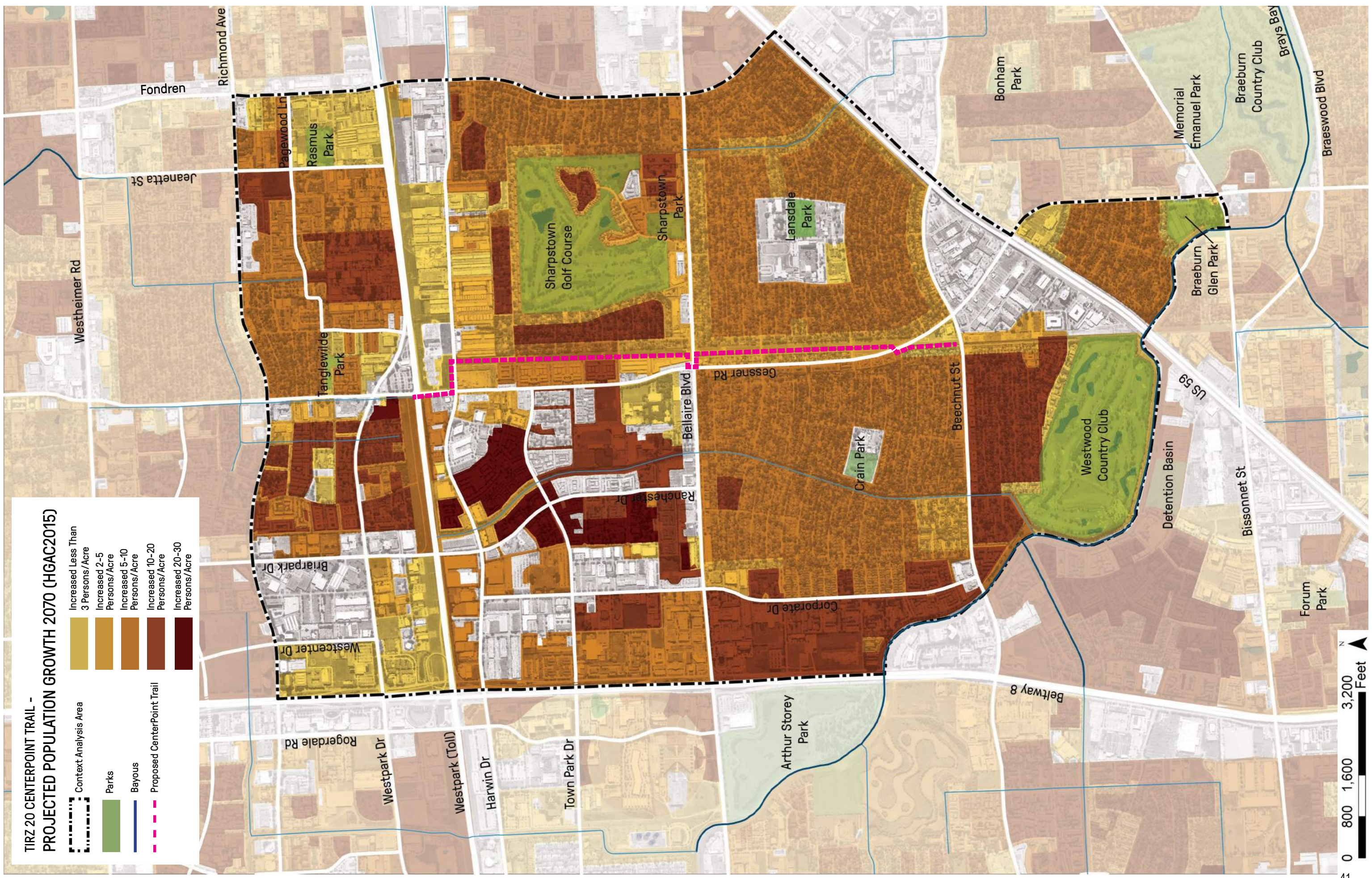
	Context Analysis Area		Impervious
	Parks		Plantable
	Bayous		Tree Canopy
	Proposed CenterPoint Trail		Water





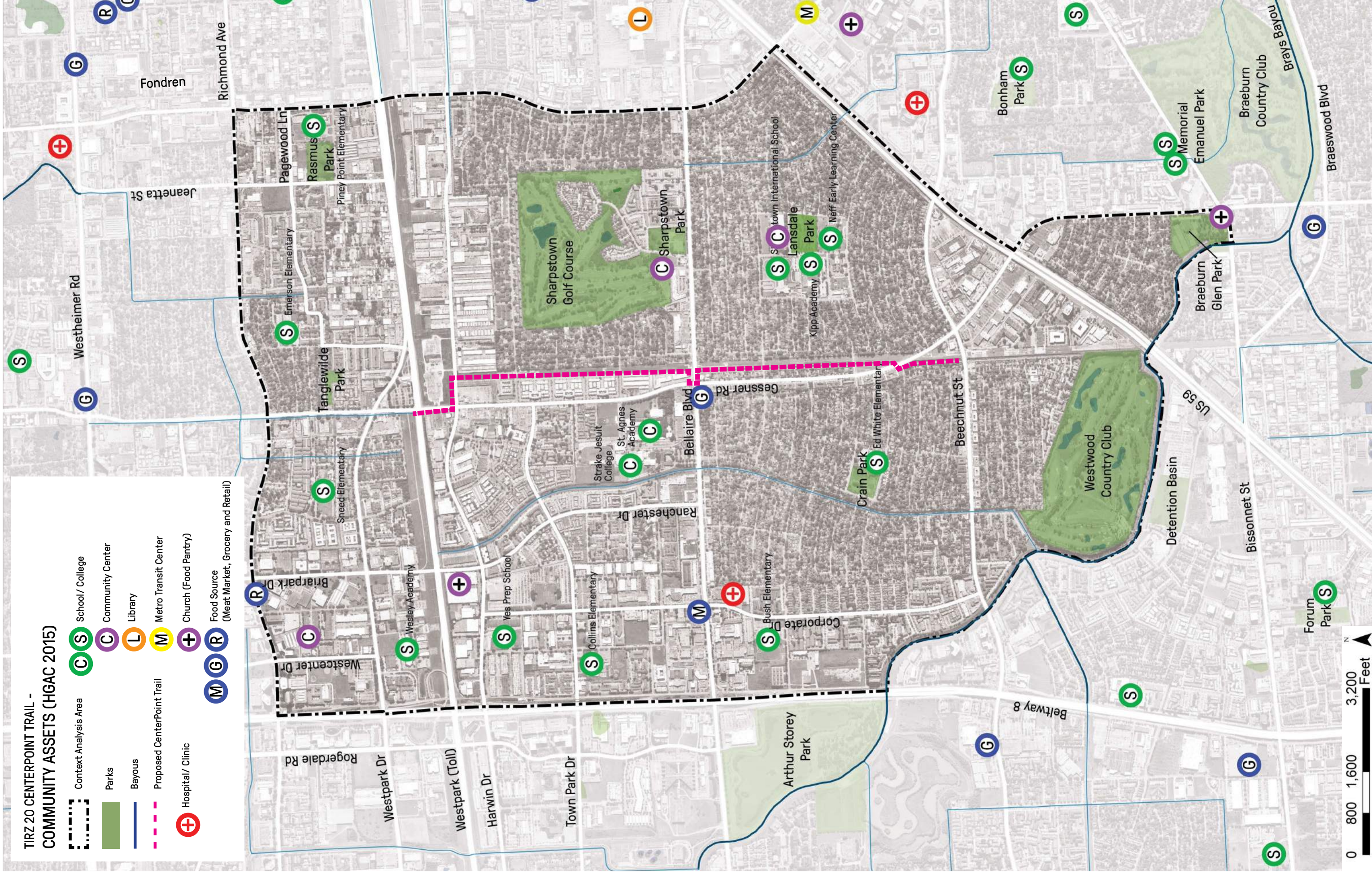
TIRZ 20 CENTERPOINT TRAIL -

PROJECTED POPULATION GROWTH 2070 (HGAC2015)



TIRZ 20 CENTERPOINT TRAIL -  
COMMUNITY ASSETS (HGAC 2015)

  Context Analysis Area  
 Parks  
 Bayous  
 Proposed CenterPoint Trail  
+ Hospital/ Clinic  
S School/ College  
C Community Center  
L Library  
M Metro Transit Center  
+ Church (Food Pantry)  
R Food Source (Meat Market, Grocery and Retail)

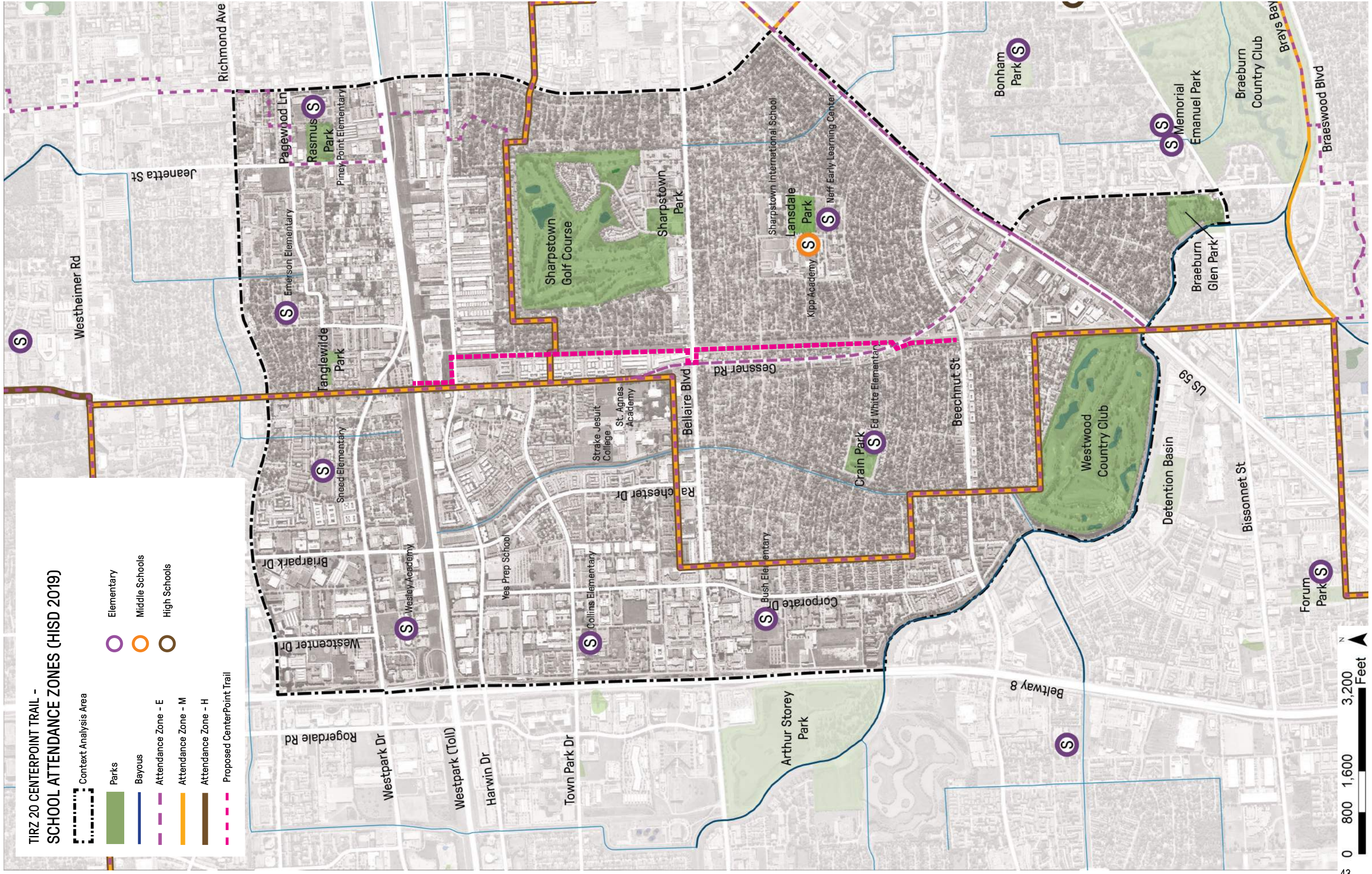


TIRZ 20 CENTERPOINT TRAIL -  
SCHOOL ATTENDANCE ZONES (HISD 2019)

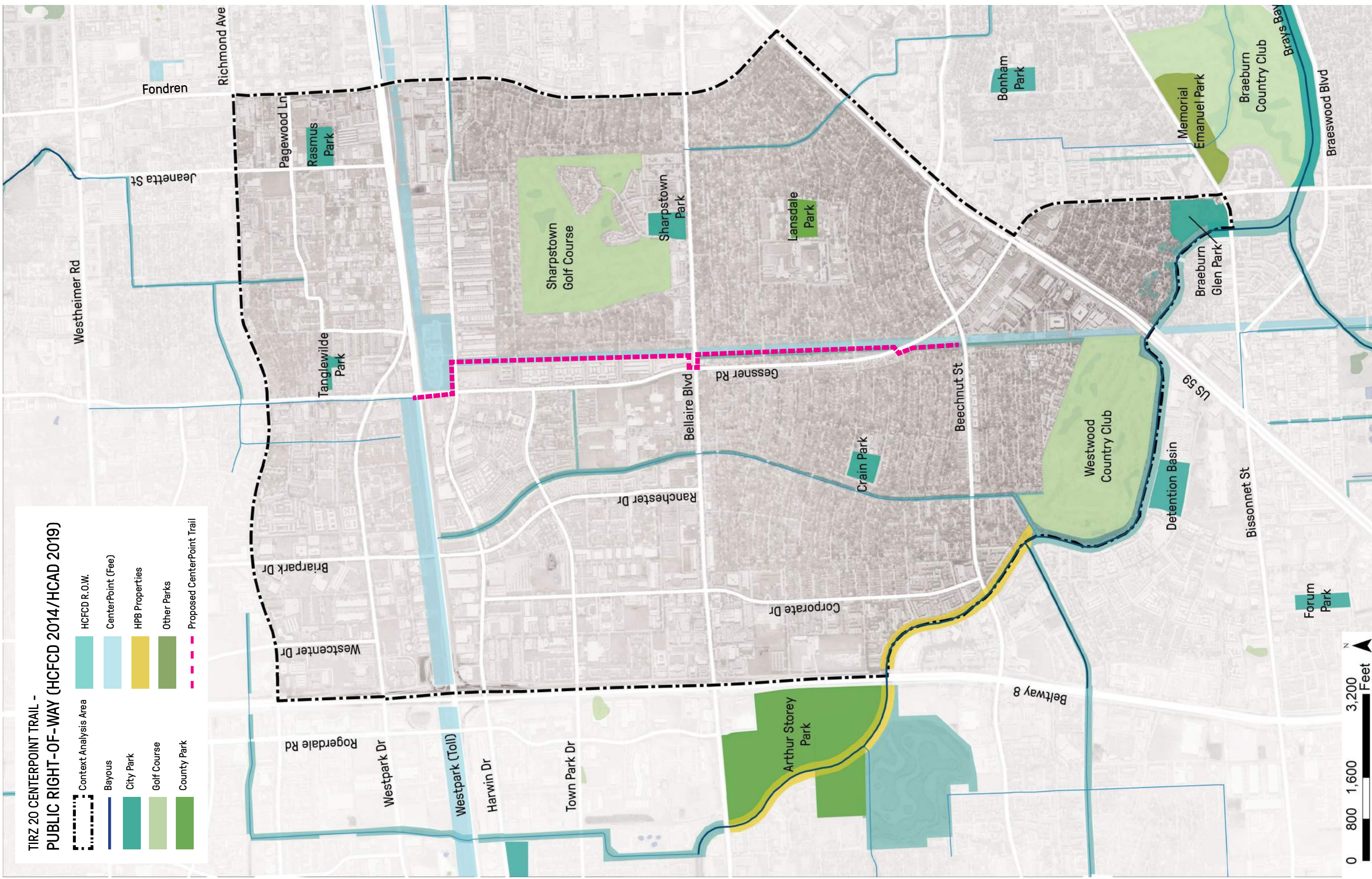
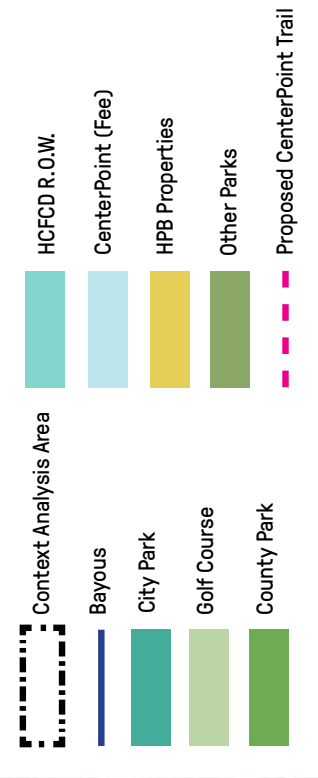
**Context Analysis Area**

- Parks
- Bayous
- Attendance Zone - E
- Attendance Zone - M
- Attendance Zone - H
- Proposed CenterPoint Trail

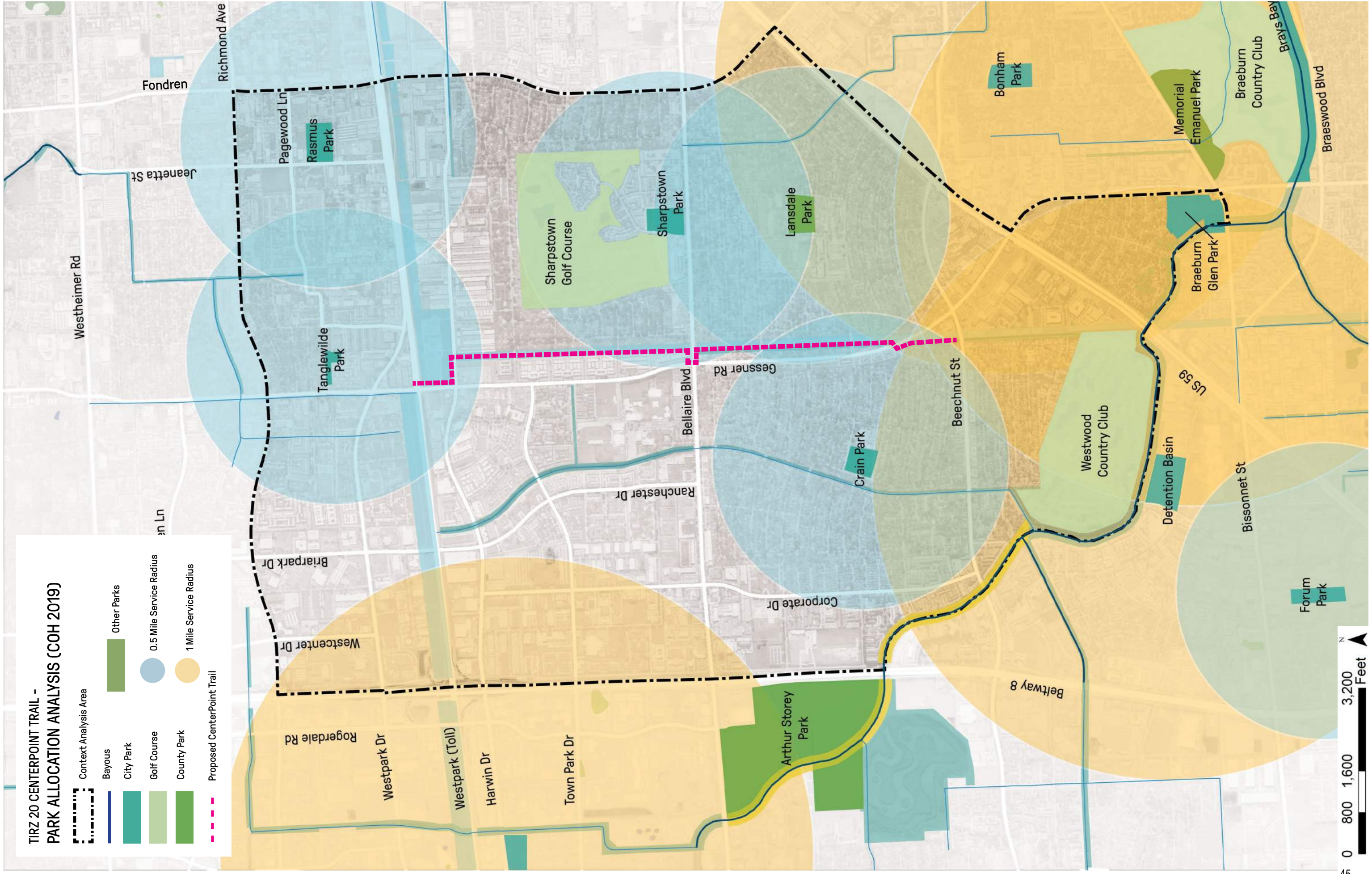
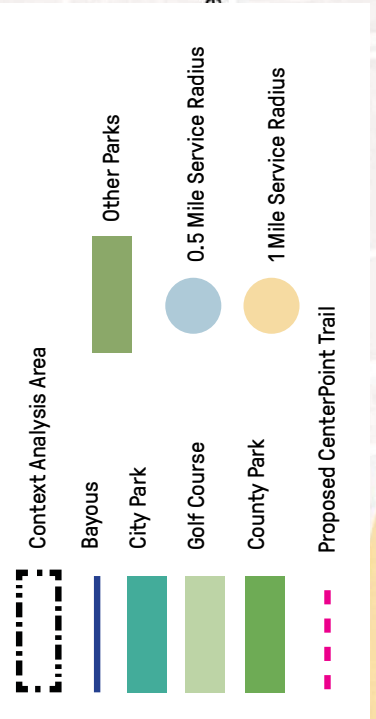
- Elementary
- Middle Schools
- High Schools



TIRZ 20 CENTERPOINT TRAIL -  
PUBLIC RIGHT-OF-WAY (HCFCFD 2014/HCAD 2019)



TIRZ 20 CENTERPOINT TRAIL -  
PARK ALLOCATION ANALYSIS (COH 2019)



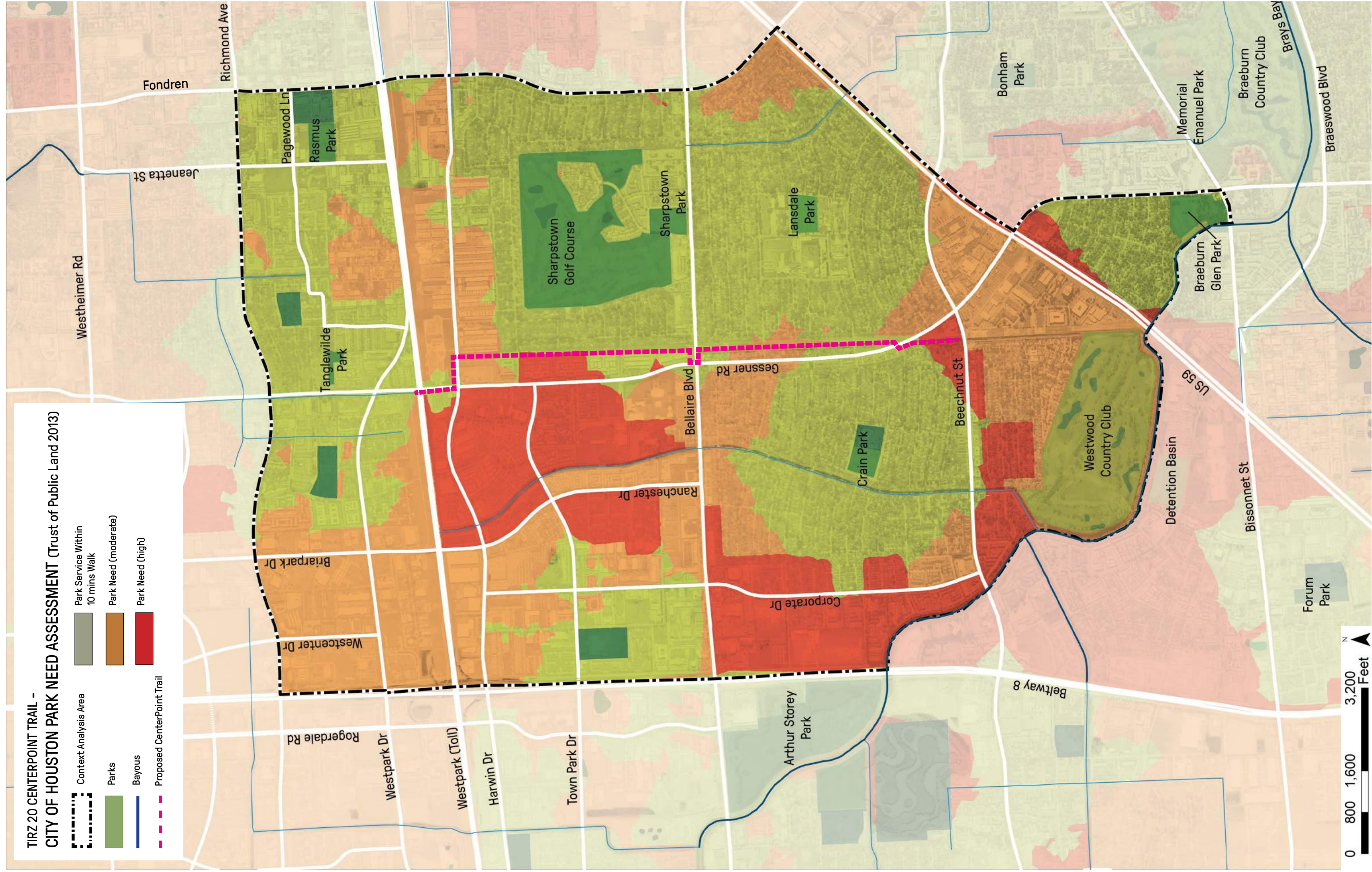
TIRZ 20 CENTERPOINT TRAIL - CITY OF HOUSTON PARK NEED ASSESSMENT (Trust of Public Land 2013)

**Context Analysis Area**






- Park Service Within 10 mins Walk
- Park Need (moderate)
- Park Need (high)

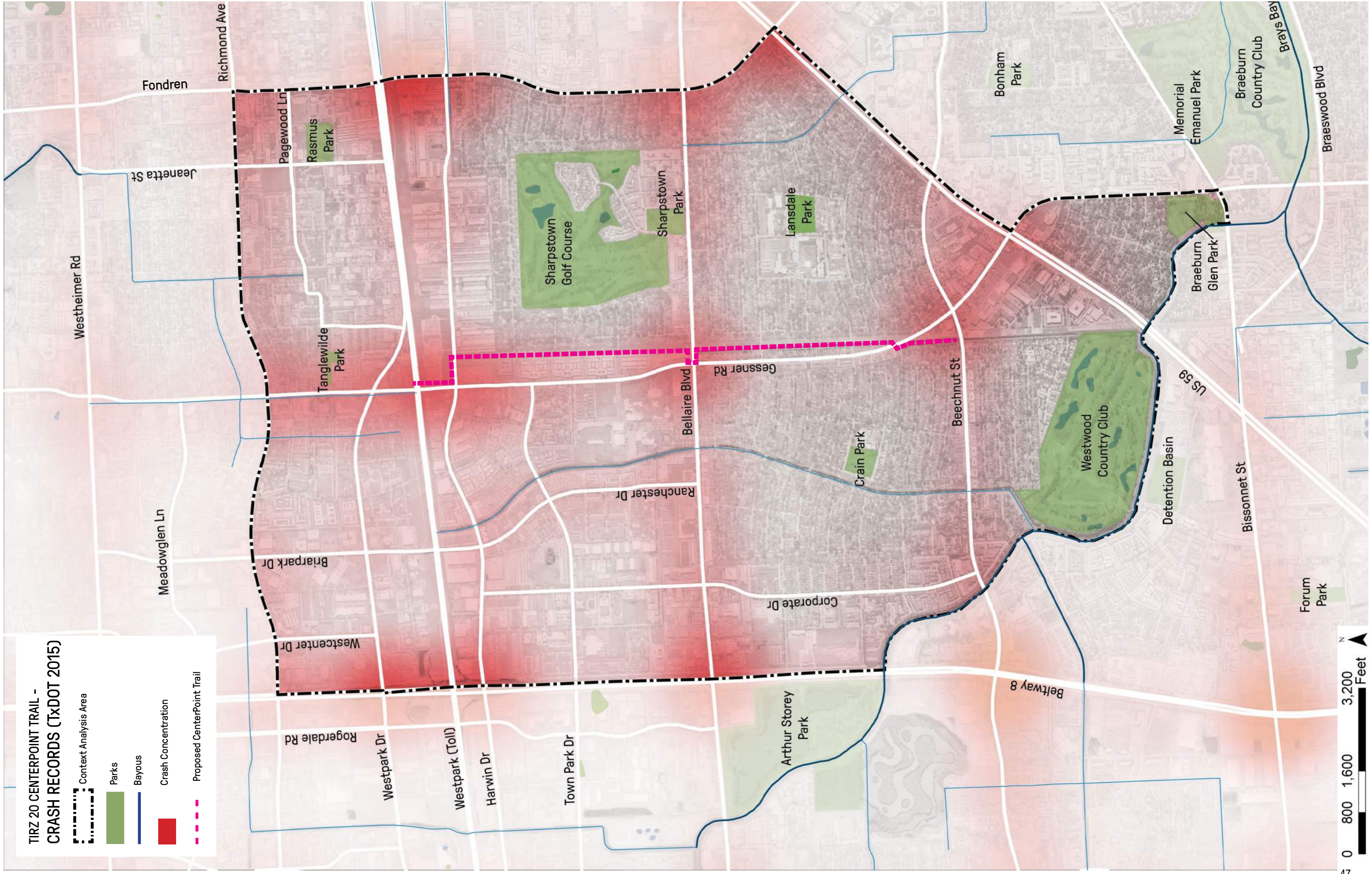
**Parks**

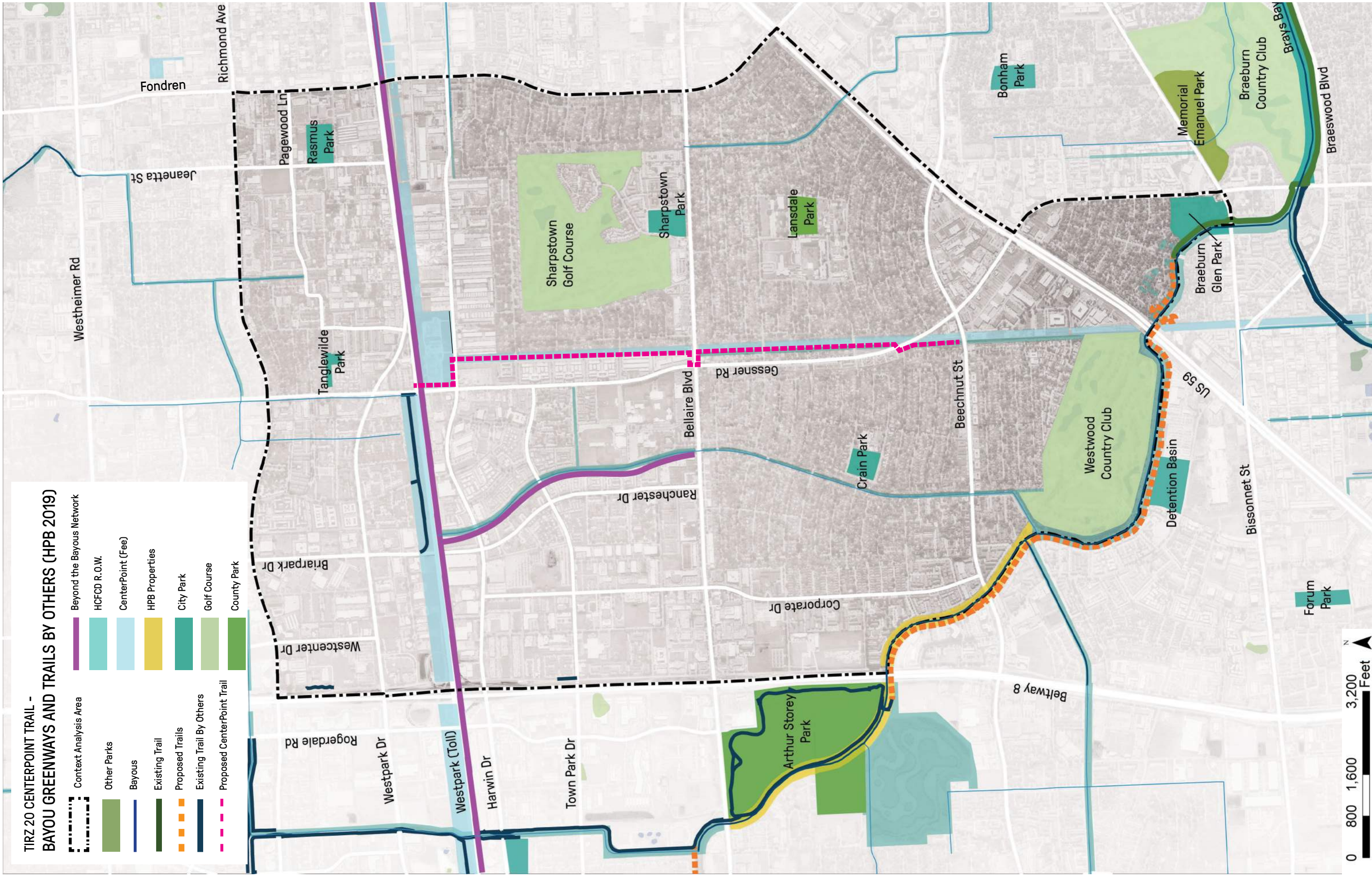
- Bayous
- Proposed CenterPoint Trail



TIRZ 20 CENTERPOINT TRAIL -  
 CRASH RECORDS (TXDOT 2015)




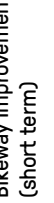









-  Context Analysis Area
-  Parks
-  Bayous
-  Crash Concentration
-  Proposed CenterPoint Trail

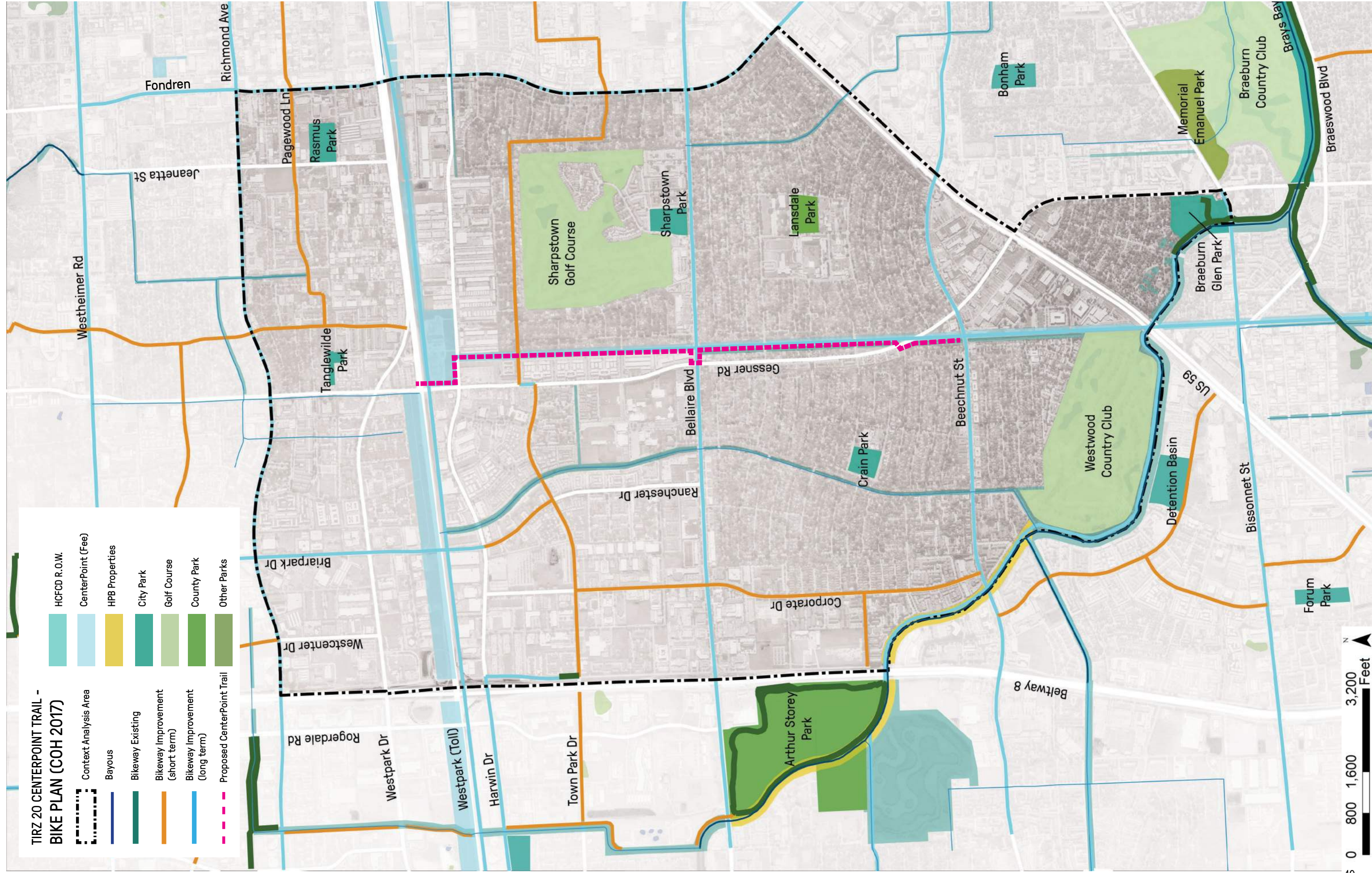


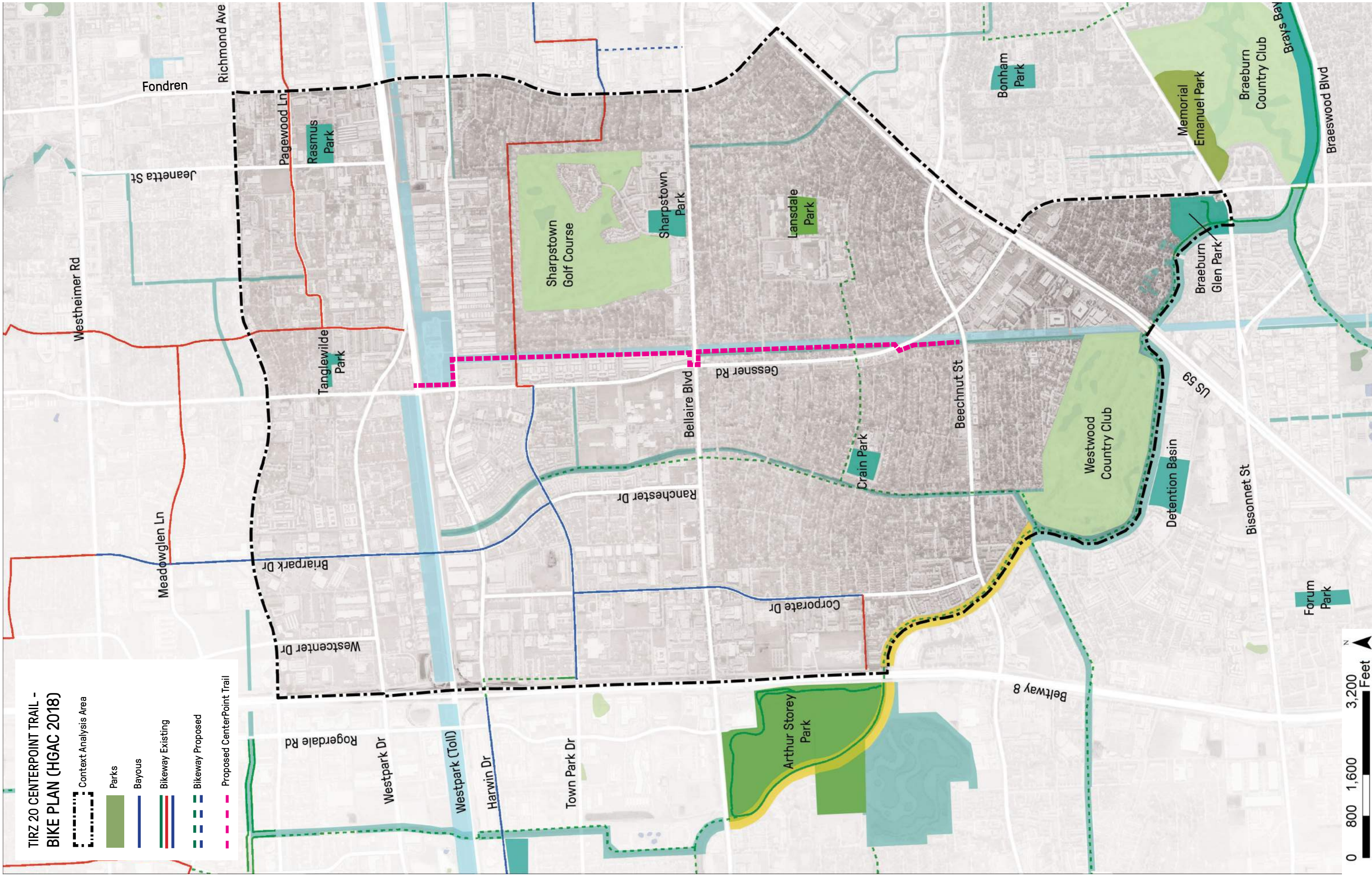

















TIRZ 20 CENTERPOINT TRAIL -  
BIKE PLAN (COH 2017)

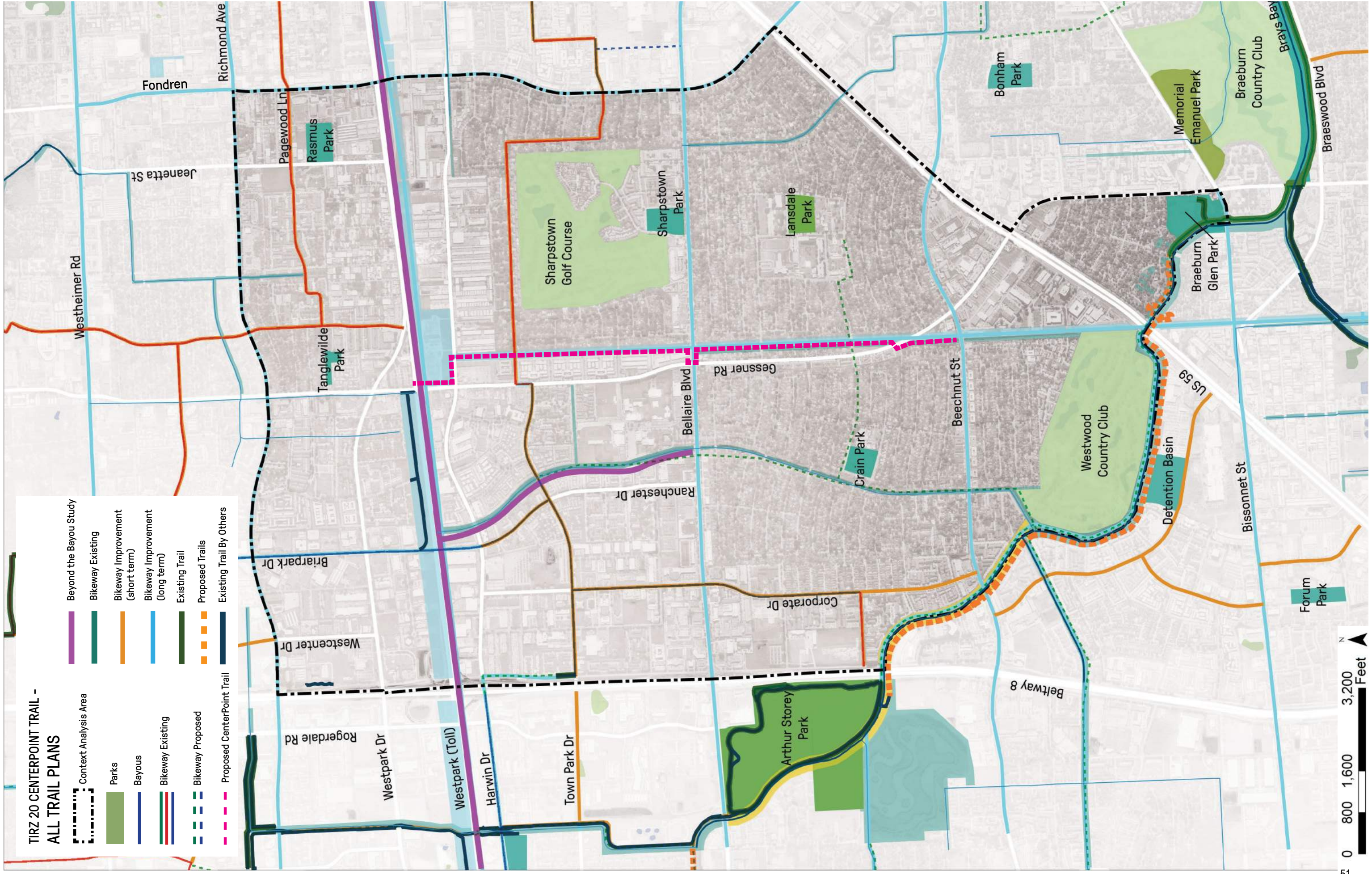
-  Context Analysis Area
-  Bayous
-  Bikeway Existing
-  Bikeway Improvement (short term)
-  Bikeway Improvement (long term)
-  Proposed CenterPoint Trail
-  HCFCD R.O.W.
-  CenterPoint (Fee)
-  HPB Properties
-  City Park
-  Golf Course
-  County Park
-  Other Parks

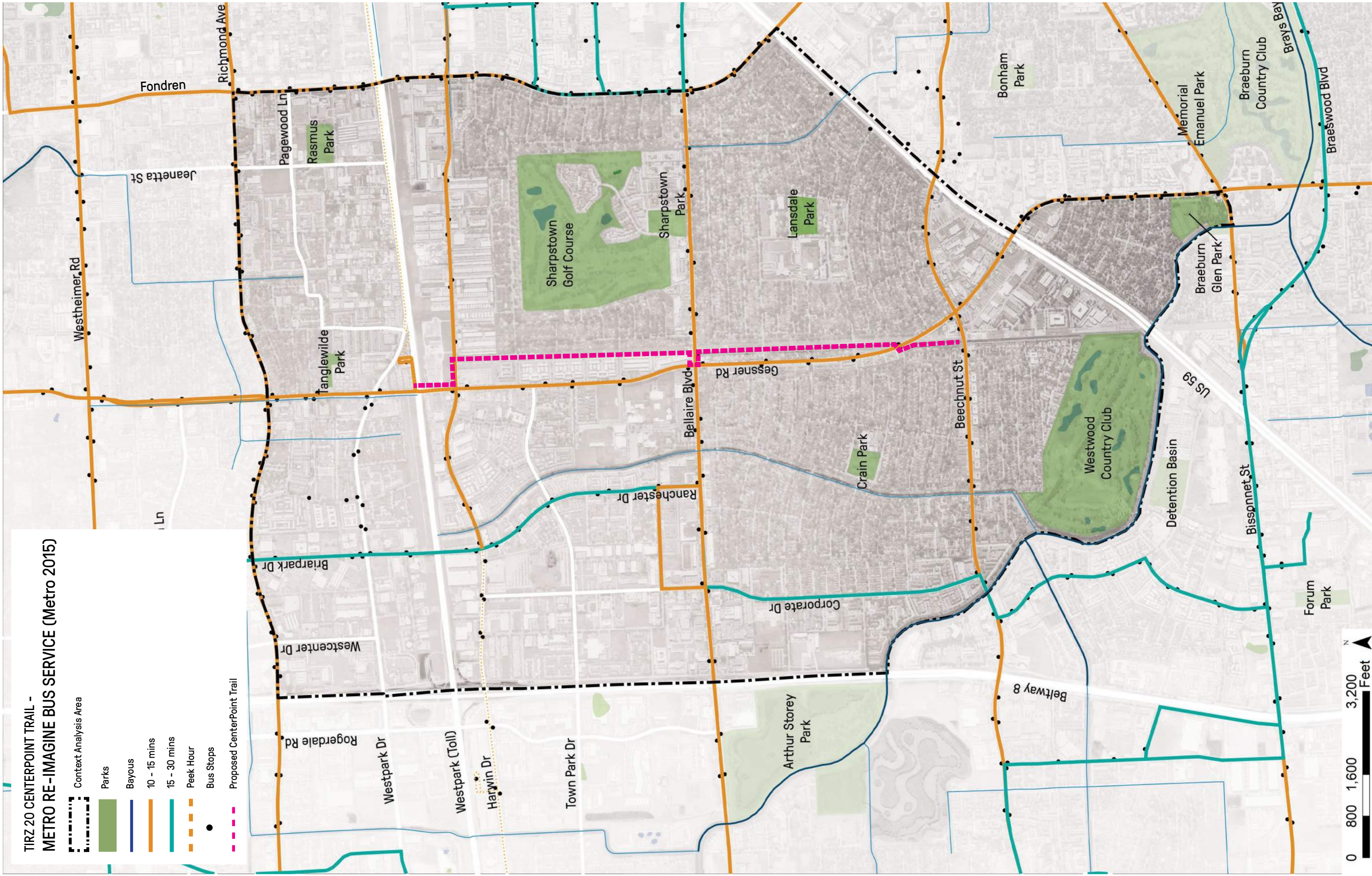













TIRZ 20 CENTERPOINT TRAIL - ALL TRAIL PLANS

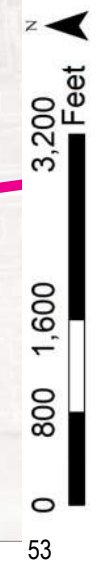
-  Context Analysis Area
-  Parks
-  Bayous
-  Bikeway Existing
-  Bikeway Proposed
-  Proposed CenterPoint Trail
-  Beyond the Bayou Study
-  Bikeway Existing
-  Bikeway Improvement (short term)
-  Bikeway Improvement (long term)
-  Existing Trail
-  Proposed Trails
-  Existing Trail By Others













TIRZ 20 CENTERPOINT TRAIL -  
METRO MOVING FORWARD PLAN (9/26/2019)

-  Context Analysis Area
-  METRORapid (BRT) Corridor
-  BOOST Corridor
-  Proposed Regional Express Network
-  Proposed METRORail/METRORapid End of Line
-  Existing Transit Center or Park & Ride
-  Parks
-  Bayous
-  Proposed CenterPoint Trail




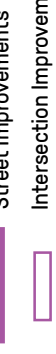
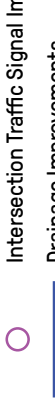
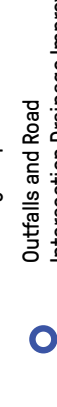

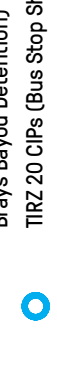

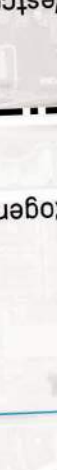



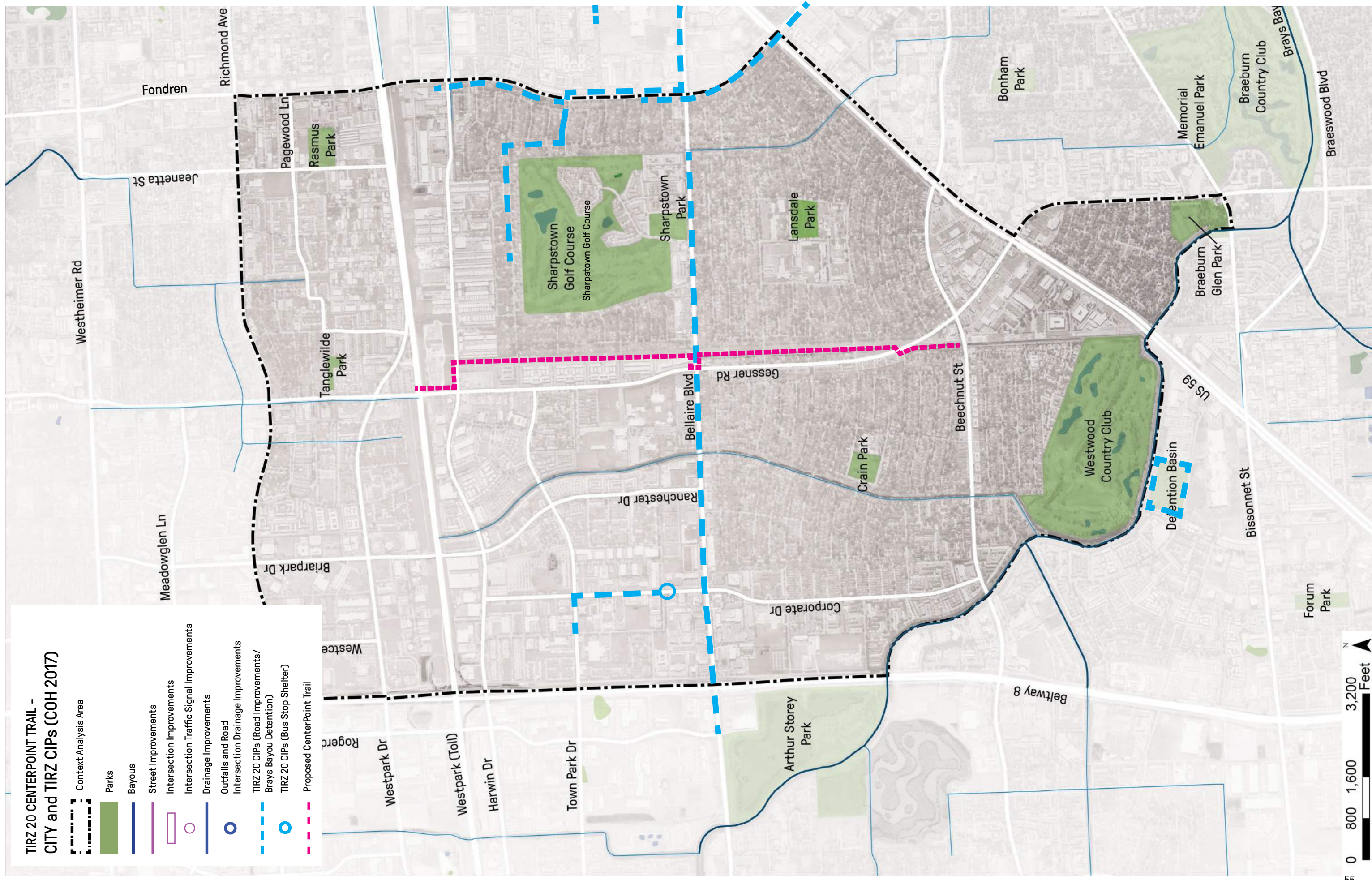
**TIRZ 20 CENTERPOINT TRAIL -  
HCFCD BOND PROGRAM AND CIP (2019)**

-  Context Analysis Area
-  Parks
-  Bayous
-  Proposed CenterPoint Trail
-  Investigation of Channel Improvements Upstream of Fondren Road
-  R.O.W. Acquisition, Design and Construction of Channel Conveyance Improvements on Keegans Bayou
-  Storm Repair
-  Community Input Project



**TIRZ 20 CENTERPOINT TRAIL -  
CITY and TIRZ CIPs (COH 2017)**

-  Context Analysis Area
-  Parks
-  Bayous
-  Street Improvements
-  Intersection Improvements
-  Intersection Traffic Signal Improvements
-  Drainage Improvements
-  Outfalls and Road Intersection Drainage Improvements
-  TIRZ 20 CIPs (Road Improvements/  
Brays Bayou Detention)
-  TIRZ 20 CIPs (Bus Stop Shelter)
-  Proposed CenterPoint Trail

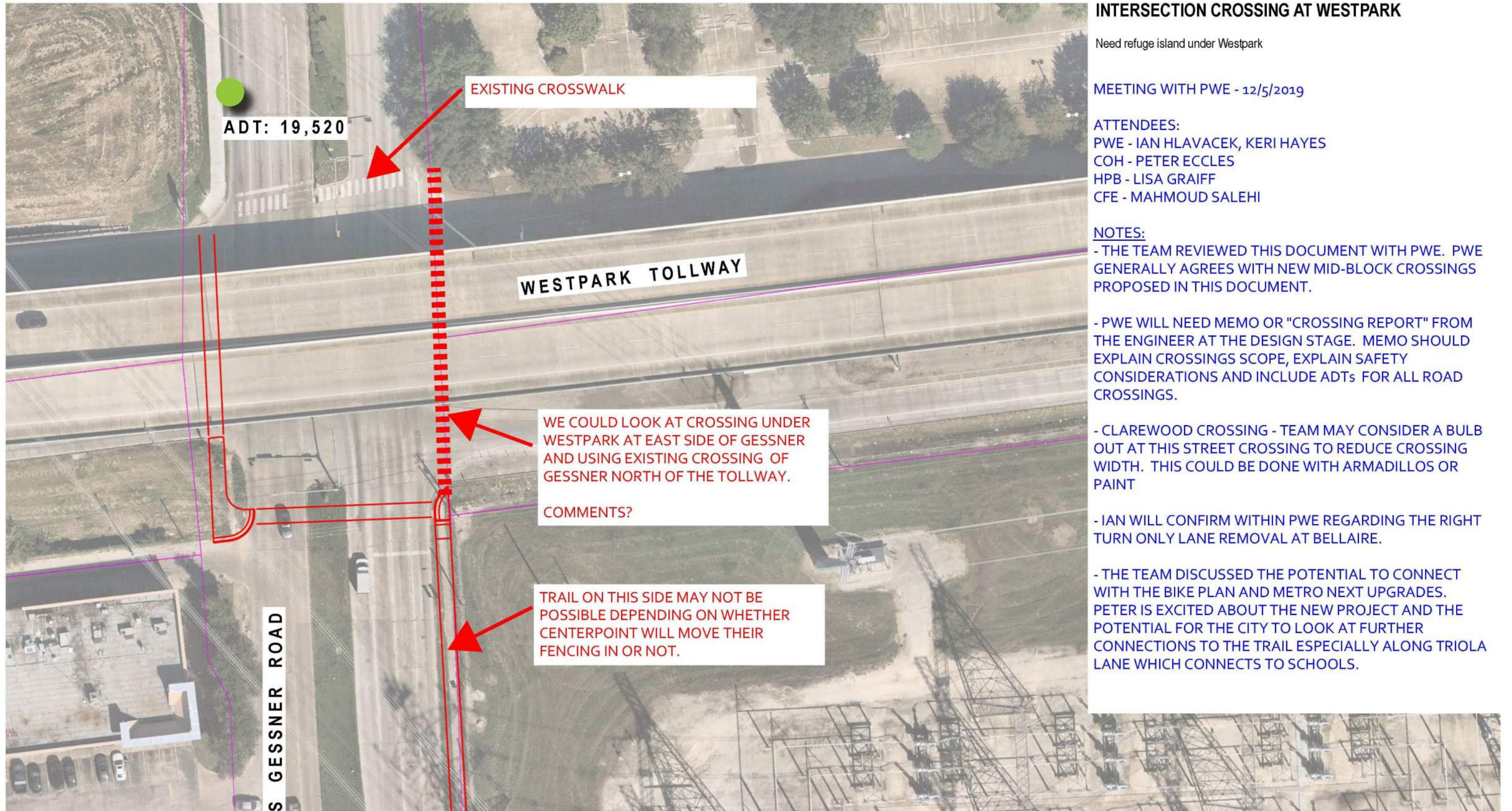






# APPENDIX C: ROAD CROSSINGS





**INTERSECTION CROSSING AT WESTPARK**

Need refuge island under Westpark

MEETING WITH PWE - 12/5/2019

**ATTENDEES:**

- PWE - IAN HLAVACEK, KERI HAYES
- COH - PETER ECCLES
- HPB - LISA GRAIFF
- CFE - MAHMOUD SALEHI

**NOTES:**

- THE TEAM REVIEWED THIS DOCUMENT WITH PWE. PWE GENERALLY AGREES WITH NEW MID-BLOCK CROSSINGS PROPOSED IN THIS DOCUMENT.

- PWE WILL NEED MEMO OR "CROSSING REPORT" FROM THE ENGINEER AT THE DESIGN STAGE. MEMO SHOULD EXPLAIN CROSSINGS SCOPE, EXPLAIN SAFETY CONSIDERATIONS AND INCLUDE ADTs FOR ALL ROAD CROSSINGS.

- CLAREWOOD CROSSING - TEAM MAY CONSIDER A BULB OUT AT THIS STREET CROSSING TO REDUCE CROSSING WIDTH. THIS COULD BE DONE WITH ARMADILLOS OR PAINT

- IAN WILL CONFIRM WITHIN PWE REGARDING THE RIGHT TURN ONLY LANE REMOVAL AT BELLAIRE.

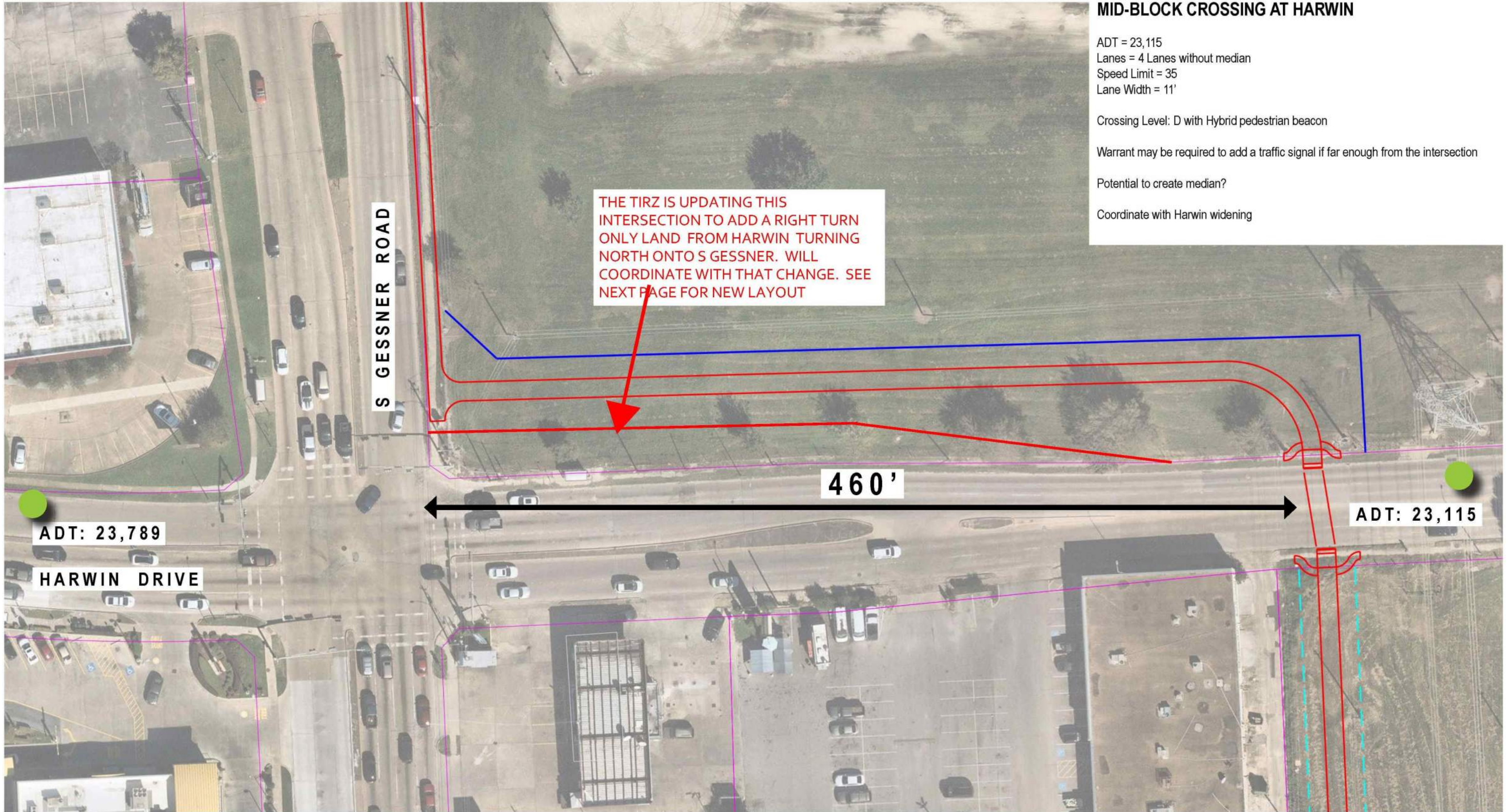
- THE TEAM DISCUSSED THE POTENTIAL TO CONNECT WITH THE BIKE PLAN AND METRO NEXT UPGRADES. PETER IS EXCITED ABOUT THE NEW PROJECT AND THE POTENTIAL FOR THE CITY TO LOOK AT FURTHER CONNECTIONS TO THE TRAIL ESPECIALLY ALONG TRIOLA LANE WHICH CONNECTS TO SCHOOLS.

1"=50'-0"

12/04/2019

**SHARPSTOWN TRAIL**  
STREET CROSSINGS



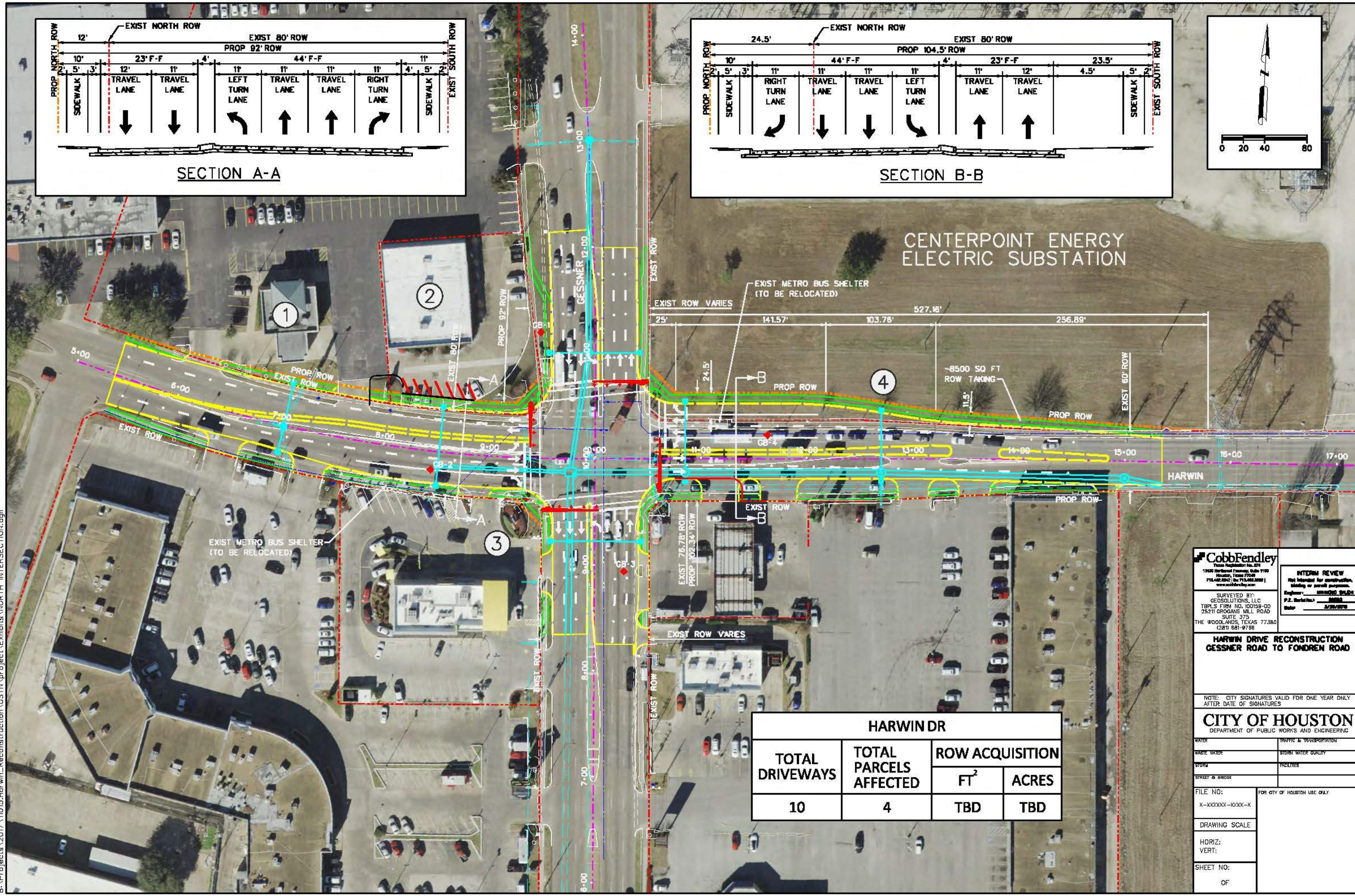
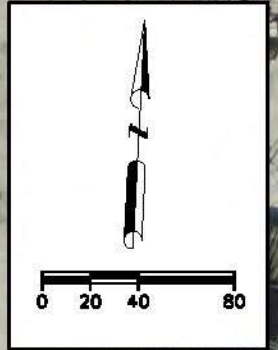
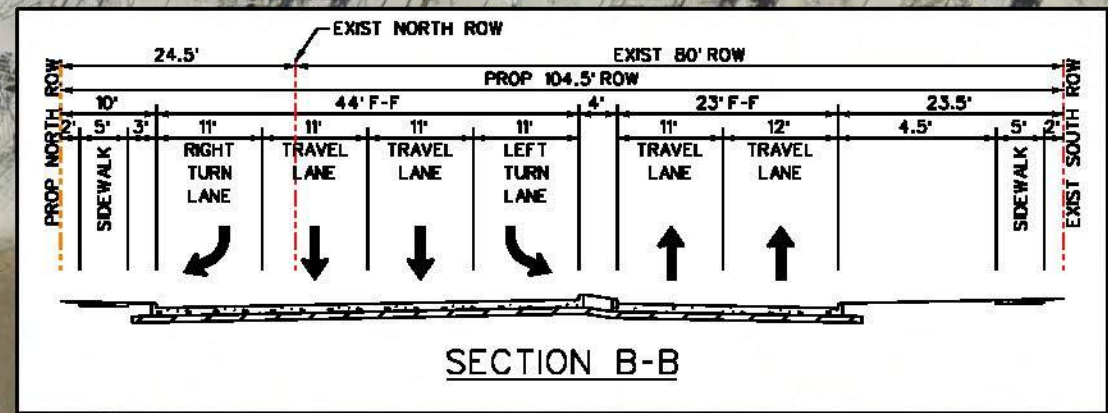
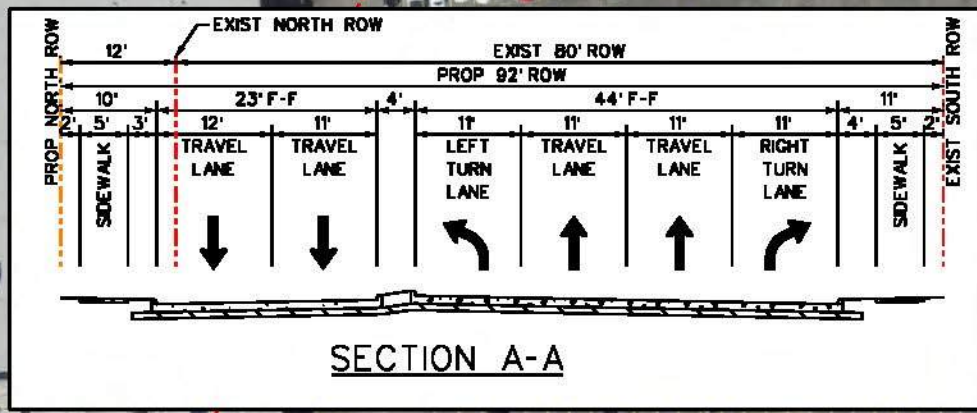


1"=50'-0"

12/04/2019

**SHARPSTOWN TRAIL**  
 STREET CROSSINGS





CENTERPOINT ENERGY  
ELECTRIC SUBSTATION

HARWIN DR			
TOTAL DRIVEWAYS	TOTAL PARCELS AFFECTED	ROW ACQUISITION	
		FT <sup>2</sup>	ACRES
10	4	TBD	TBD

**CobbFendley**  
1900 Westwood Freeway, Suite 1100  
Houston, Texas 77060  
713.442.5900 | www.cobbendley.com

SURVEYED BY:  
GEO SOLUTIONS, LLC  
TBP'S FIRM NO. 100159-05  
25211 GROCANS MILL ROAD  
SUITE 375  
THE WOODLANDS, TEXAS 77380  
(281) 661-8788

**INTERIM REVIEW**  
Not intended for construction, bidding or permit purposes.  
Engineer: [Signature]  
P.E. Number: 00000  
Date: 2/28/2019

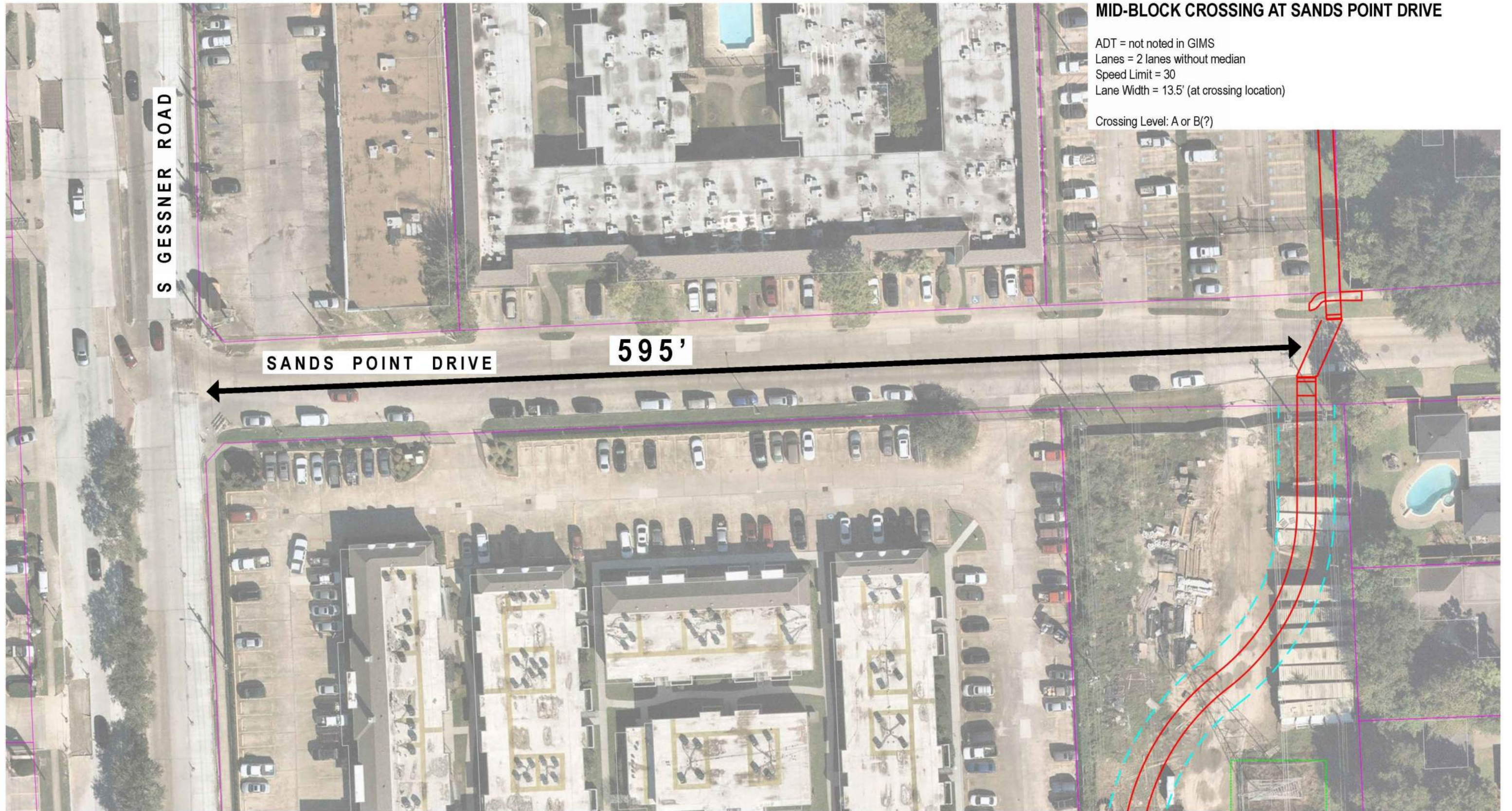
**HARWIN DRIVE RECONSTRUCTION  
GESSNER ROAD TO FONDREN ROAD**

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

**CITY OF HOUSTON**  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	HAZARDOUS WASTE
WASTE WATER	STORM WATER QUALITY
STORM	FACILITIES
STREET & BRIDGE	
FILE NO: X-XXXXXX-XXXX-X	FOR CITY OF HOUSTON USE ONLY
DRAWING SCALE	
HORIZ: VERT:	
SHEET NO: OF	

8:54:09 AM  
 3/29/2019  
 B:\Projects\2017\11015\_Harwin\_Reconstruction\USTN\project\Exhibits\NORTH\_INTERSECTION.dgn



**MID-BLOCK CROSSING AT SANDS POINT DRIVE**

ADT = not noted in GIMS  
Lanes = 2 lanes without median  
Speed Limit = 30  
Lane Width = 13.5' (at crossing location)  
Crossing Level: A or B(?)

1"=50'-0"

12/04/2019  
**SHARPSTOWN TRAIL**  
STREET CROSSINGS





**MID-BLOCK CROSSING AT CLAREWOOD DRIVE**

ADT = not noted in GIMS  
 Lanes = 2 lanes without median  
 Speed Limit = no signage on street and not noted in GIMS; 30(?)  
 Lane Width = 20' (40' FOC to FOC; parallel parking on each side)

Crossing Level: A or B(?)

Mid Block control needed

1"=50'-0"

12/04/2019

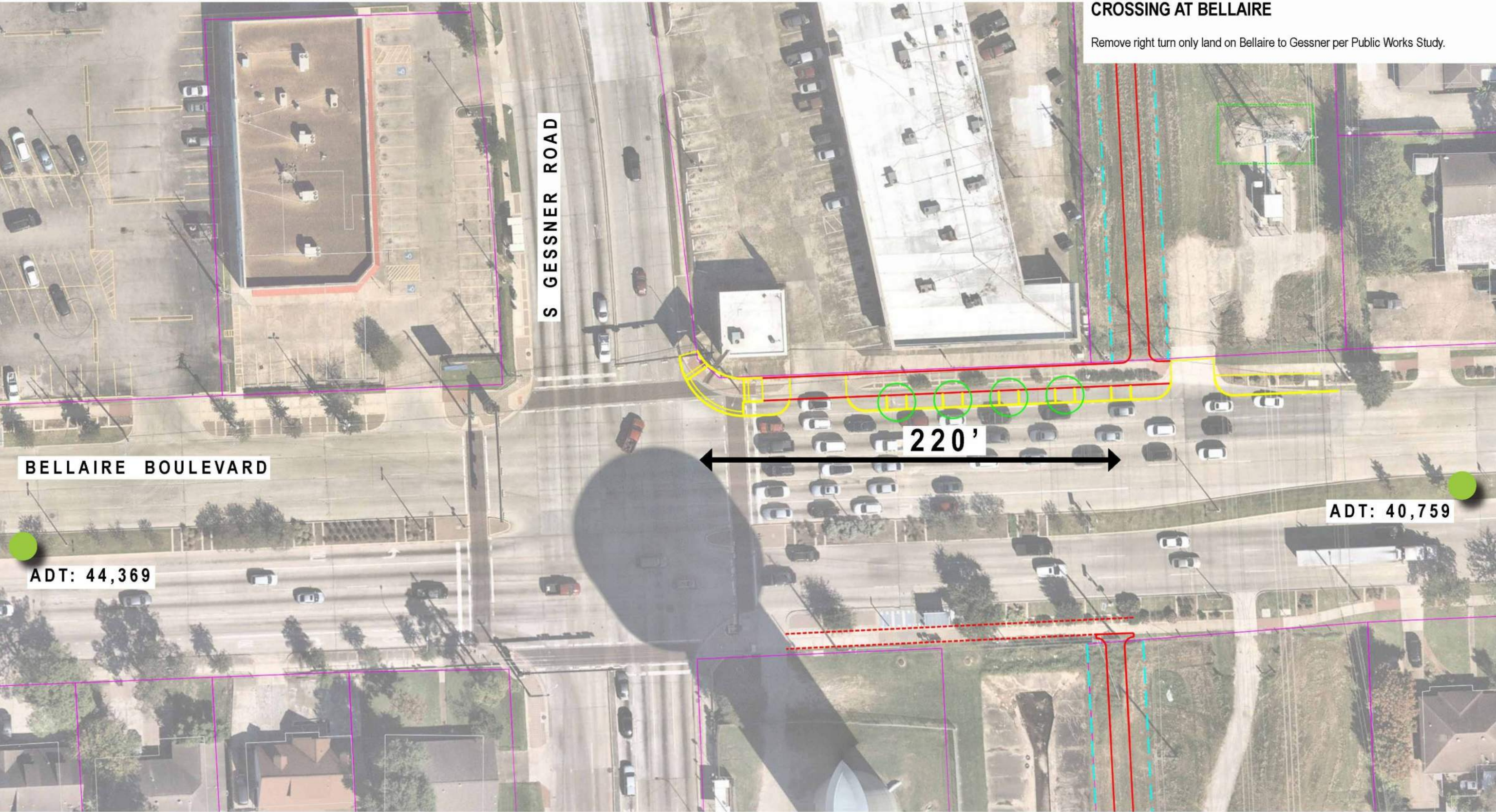
**SHARPSTOWN TRAIL**

STREET CROSSINGS



**CROSSING AT BELLAIRE**

Remove right turn only land on Bellaire to Gessner per Public Works Study.



**BELLAIRE BOULEVARD**

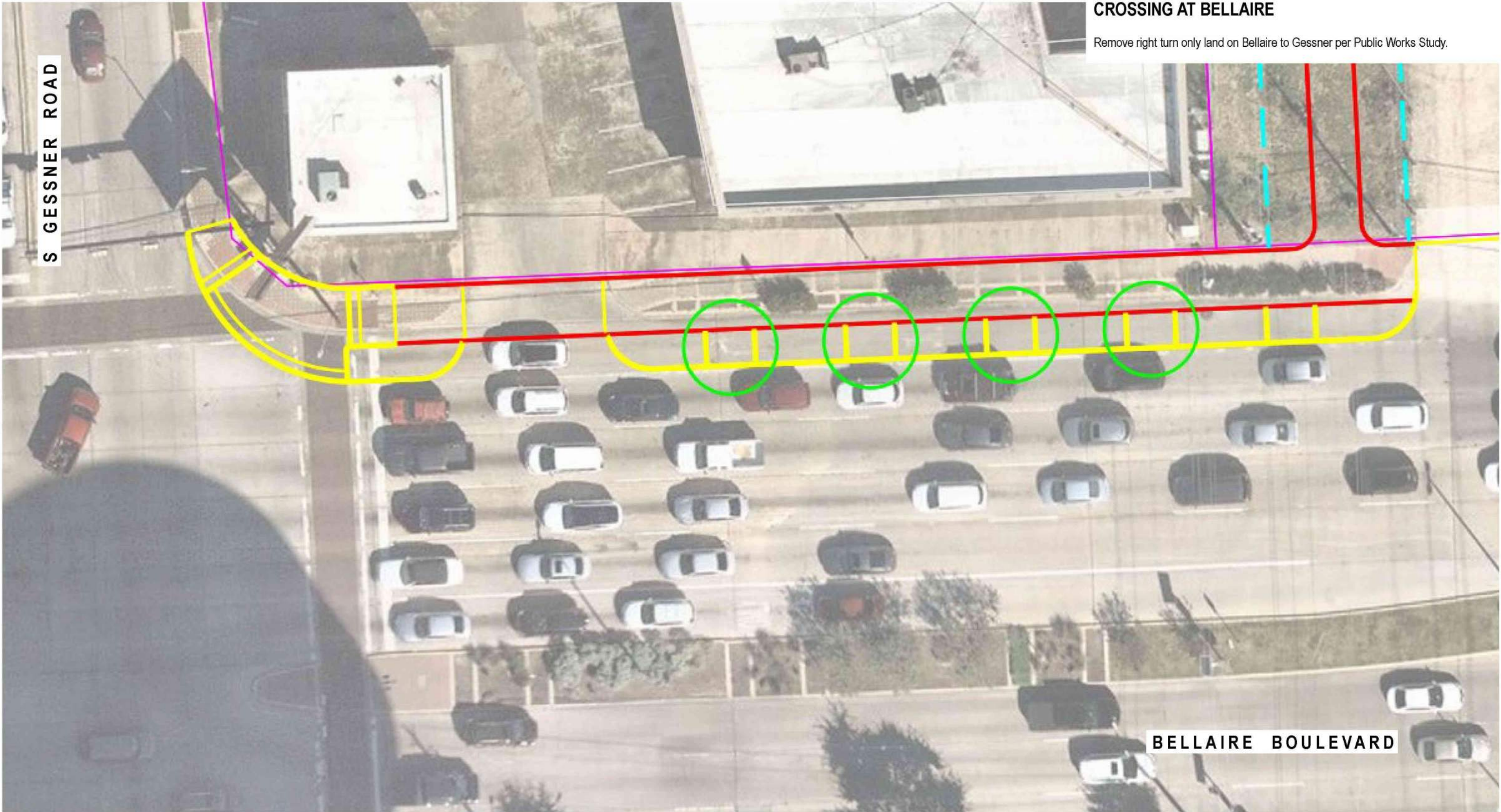
**S GESSNER ROAD**

**220'**

**ADT: 44,369**

**ADT: 40,759**

1"=50'-0"



**CROSSING AT BELLAIRE**

Remove right turn only land on Bellaire to Gessner per Public Works Study.

S GESSNER ROAD

BELLAIRE BOULEVARD

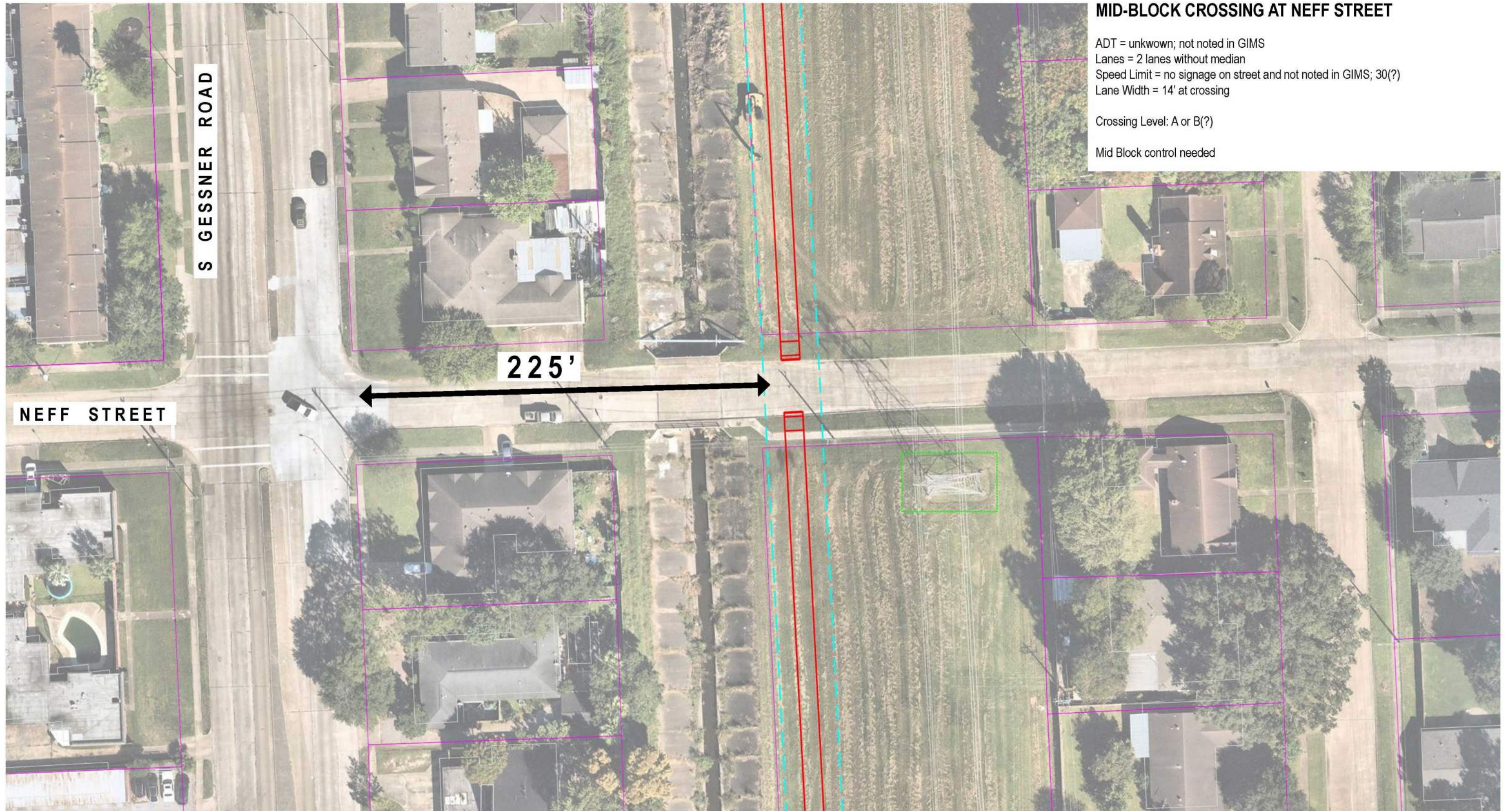
1"=20'-0"

12/04/2019

**SHARPSTOWN TRAIL**  
STREET CROSSINGS







### MID-BLOCK CROSSING AT NEFF STREET

ADT = unknown; not noted in GIMS  
Lanes = 2 lanes without median  
Speed Limit = no signage on street and not noted in GIMS; 30(?)  
Lane Width = 14' at crossing

Crossing Level: A or B(?)

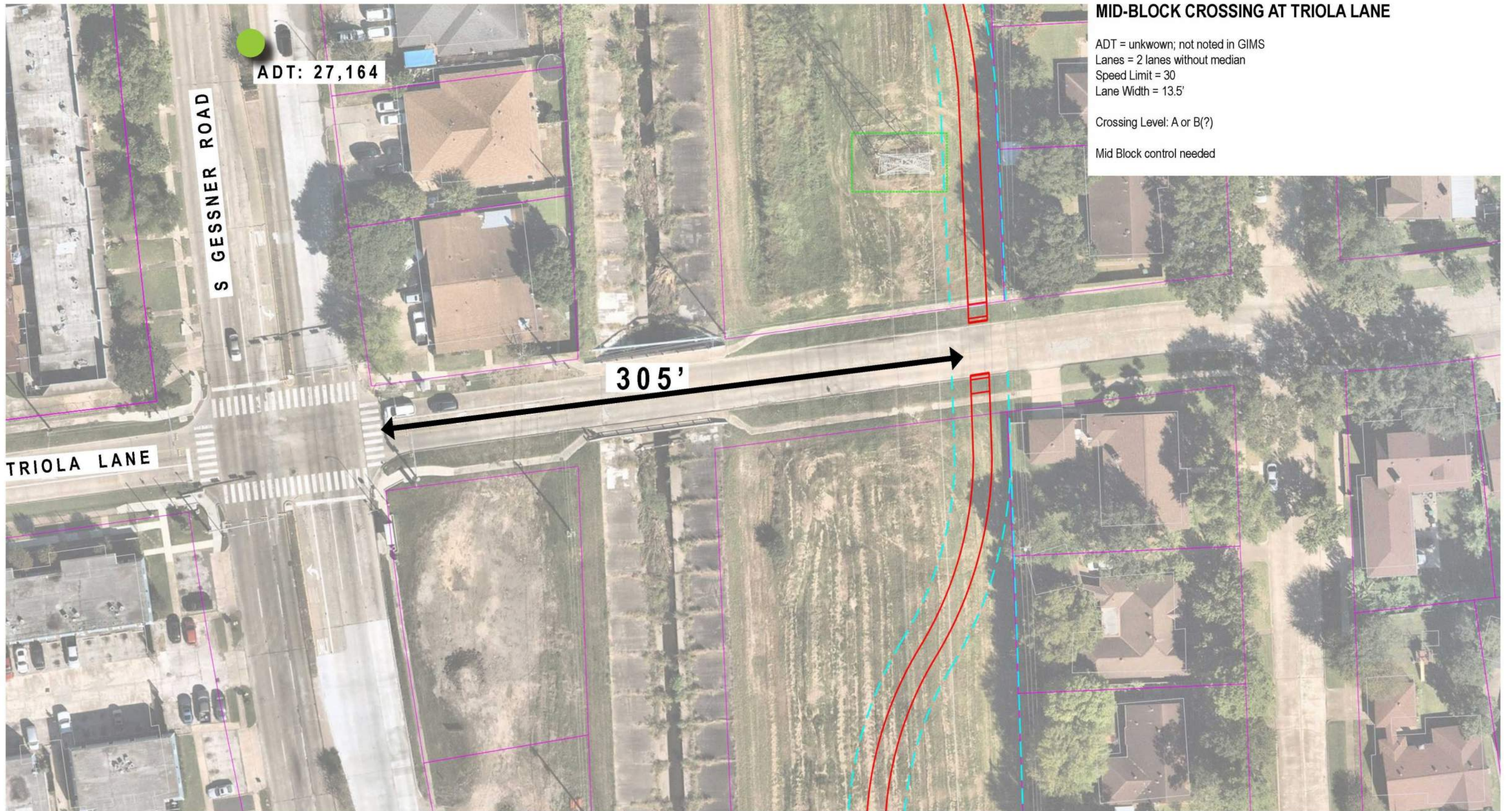
Mid Block control needed

1"=50'-0"

12/04/2019

**SHARPSTOWN TRAIL**  
STREET CROSSINGS





**MID-BLOCK CROSSING AT TRIOLA LANE**

ADT = unknown; not noted in GIMS  
Lanes = 2 lanes without median  
Speed Limit = 30  
Lane Width = 13.5'

Crossing Level: A or B(?)

Mid Block control needed

305'

ADT: 27,164

S GESSNER ROAD

TRIOLA LANE

1"=50'-0"

12/04/2019

**SHARPSTOWN TRAIL**

STREET CROSSINGS





ADT: (27,164)

**MID-BLOCK CROSSING AT S GESSNER ROAD**

ADT = 27,164  
Lanes = 6 Lanes with median  
Speed Limit = 35  
Lane Width = 10.5'

Crossing Level: D with Hybrid pedestrian beacon

Warrant may be required to add a traffic signal if far enough from the intersection

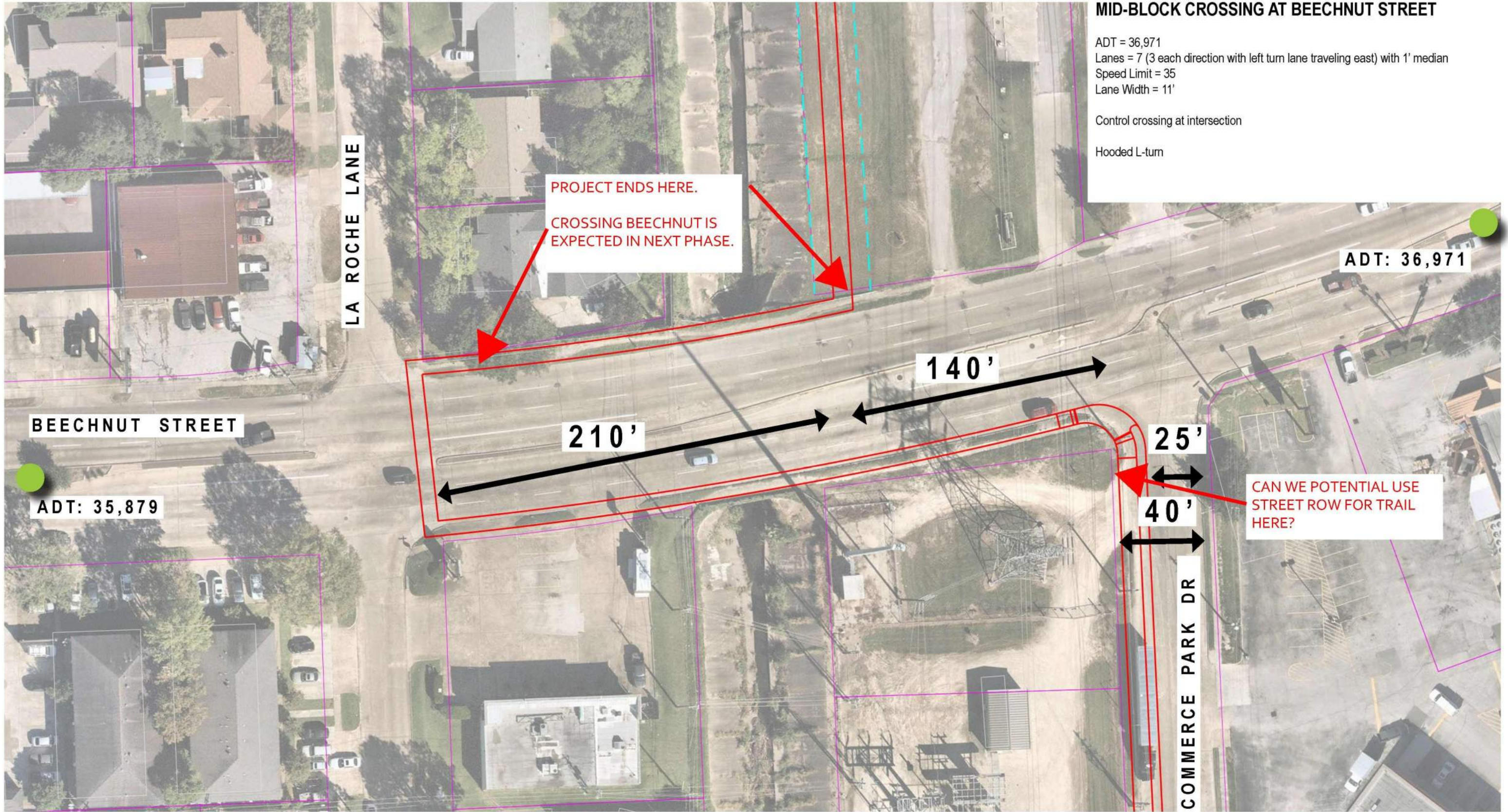
Other suggestions?

S GESSNER ROAD

1"=50'-0"

**12/04/2019**  
**SHARPSTOWN TRAIL**  
STREET CROSSINGS





1"=50'-0"

12/04/2019

**SHARPSTOWN TRAIL**  
 STREET CROSSINGS

