

PARKS AND PATHWAYS MASTER PLAN

City of Fulshear, Texas



February 2019

 **BURDITT**
LandPlace

CITY OF FULSHEAR, TEXAS
Parks and Pathways Master Plan

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Photo provided courtesy of Ramona Ridge, Fulshear Parks Commission.

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INTRODUCTION

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“A park and recreation system that supports healthy lifestyles with various ways for all ages to stay active and fit.”

- Parks and Amenities Goal 1: The Fulshear Comprehensive Plan

Executive Summary

Introduction

The Benefits of Parks and Open Space

Parks and open space are key components contributing to the quality of life for any community. These elements of the public domain provide spaces for recreation and exercise, aesthetic value, as well as ecological services such as mitigating stormwater runoff, cleaning the air we breathe and providing wildlife habitat in the urban environment. Studies have also shown that parks can increase the property values of homes in a community. “The real estate market consistently demonstrates that many people are willing to pay a larger amount for a property located close to parks and open space areas than for a home that does not offer this amenity,” writes John L. Crompton, a professor at Texas A&M University who has published extensive research on parks and recreation

The Need for a Plan

The City of Fulshear, Texas is a growing community in Northwest Fort Bend County, Texas. Once a small, rural farming community, Fulshear has grown significantly in recent years as residential development has progressed westward from the Houston area. The Census recorded 716 residents in Fulshear in the year 2000, and 1,168 residents in 2010.

The 2016 Census estimate for Fulshear’s population is 7,925, although the Environmental Systems Research Institute (Esri), a leader in geographic information sciences, provides estimates of Fulshear’s population at 10,290 residents in 2017. The evidence is clear that Fulshear is growing rapidly.

In January of 2018, the City engaged Burditt Land | Place Studio to develop a *Parks and Pathways Master Plan* that would identify needs and opportunities for adding new parks, pathways and other recreation amenities to the community. Development of

the *Parks and Pathways Master Plan* included a variety of studies to identify patterns of growth and development, inventory of existing public and private recreation facilities, public demand for recreation and creative solutions for addressing an increasing demand with an understanding of the fiscal constraints and realities of land use and development in the area.

Demand Assessment

An important component of a parks and recreation planning effort is the determination of goals, needs, and desires of the public regarding parks, trails, facilities, and programs. In order to reach out to residents in the most effective manner, a variety of approaches were utilized, including the following: a public meeting, an online survey, targeted interviews, Parks Commission meetings, and ongoing collaboration with staff and elected officials.

2008 Parks Planning

In 2008, the City of Fulshear conducted several outreach activities to engage citizens in the parks planning process. Even in 2008, with a population of approximately 1,200 residents, Fulshear recognized the need to plan for the coming growth regarding parks, trails and recreation amenities.

On February 18, 2008, the City hosted a Town Hall meeting for parks planning that yielded valuable insight into what types of features and amenities were desired by residents. Notably, the results of the 2008 stakeholder input show similar needs to those of today’s residents.

Key Findings and Recommendations

The studies and stakeholder outreach have yielded a consistent message that Fulshear is in need of more recreation offerings in order to keep up with the demand of a growing community. While most of recreation services are currently being provided by other entities such as private leagues,

neighborhood and property owners associations, and school districts, there is a place for City-provided parks, facilities, and programs to complement those provided by the private sector, creating a more complete lifestyle for residents. Some of the most desired features, programs, and amenities are listed below:

Top 4 Priority Needs

1. Pedestrian Facilities
2. Community Events (and Event Space)
3. Sports Facilities
4. Bicycle Facilities

Priority Projects Identified:

1. Primrose Park- New Community/Regional Park and Sports Complex
2. Paseo Park Concept- A Concept for a Passive, Linear, Park within Future FM 1093 Esplanade
3. Frances Smart Park Renovation- Formal Event Patio and Park Improvements
4. Prototype 5-Acre Park – Design prototype for 5-Acre Community Park with typical amenities
5. Pathway Master Plan- Proposed pedestrian and bicycle pathways throughout Fulshear

“The City will continue to monitor opportunities to weave green spaces and elements into the community’s growing and redeveloping areas to meet the need for more parks, trails and preserved open spaces as desired by residents.”

- Fulshear Comprehensive Plan



Photo provided courtesy of Ramona Ridge, Fulshear Parks Commission.

Methodology

Our Approach

The Parks and Recreation Master Plan was developed using a three-fold approach that follows general methodologies accepted by TPWD for local park master plans and by the Department of the Interior for local park system Recovery Action Plans (RAP). The following approaches were implemented:

1. Standards-Based Approach – uses standards established by the City to determine the quantity of park facilities required to meet the City’s needs for a given population. Standards are usually expressed as the quantity of park facilities needed to adequately serve every 1,000 citizens of the City.

Standards are established to provide the level of service that the City believes is most responsive to the amount of use and interests of its citizens. This plan establishes individual standards for the City.

2. Demand-Based Approach – uses public meetings, participation rates, league usage data, and surveys to determine how much the population uses and also desires certain types of recreation facilities.

3. Resource-Based Approach – is based on the usefulness of available physical resources to provide recreation opportunities. For example, the City’s street rights-of-way, floodplains, and drainage corridors provide opportunities for trail connections.

All three methods are important in their own manner, but individually do not represent the entire picture. The assessment component of the project utilizes all three methods to determine what types of recreation facilities and park requirements are needed.

Typical assessments evaluate Level of Service (LOS). While this is important, we believe it is also critical to also understand and evaluate the Quality of Service. QOS evaluation requires intense community involvement and yields critical information of how the facility or park amenity is performing according to the expectations of citizens overall. Quality of Service is most easily identified through conversation. Engaging park users is the most direct

method of understanding the user experience for a given facility.

As national guidelines and standards are based on demographic trends rather than specific local desires, they must be fine-tuned to meet local conditions. It is important to recognize that national standards are simply guidelines or benchmarks that are intended to serve as a starting point for park planning. Each city has its own unique geographic, demographic, and socio-economic composition, and as such, the arbitrary application of national standards, as is often done, would not necessarily meet the needs for the City of Fulshear.

Inventory and Analysis

The first phase of the parks planning, the inventory phase, includes inspection of the City’s existing parks and recreation facilities to determine overall condition, maintenance needs, and opportunities for additions/improvements. Observations of site, equipment and facility conditions are noted.

In addition to the City’s facilities, recreational facilities provided by other entities are noted to identify service gaps, duplication of service and to gather a complete picture of recreation in Huntsville.

Demographics, Growth and Trends

A key component of any master plan is understanding patterns of growth in the community and region. Regional, state and national trends in recreation are also considered, as the types of facilities and activities desired by the public are ever-changing.

Developing Priority Projects

After analysis of existing recreation resources and demand for parks and amenities, a list of priority projects is developed for capital improvements over the next 5 to 10 years. These projects seek to provide the most desired recreation features while considering land, financial, other constraints. The resulting projects are then developed into concept drawings and statements of probable cost for use in budget planning over the coming years. Ideally, the Plan will be updated on a 5-year basis as projects are completed.



The historic 'Switch House' at Frances Smart Park.



A hand painted mural on the restroom building at Irene Stern Park.



A view of the central event room at the Irene Stern Community Center.



Fulshear Switch

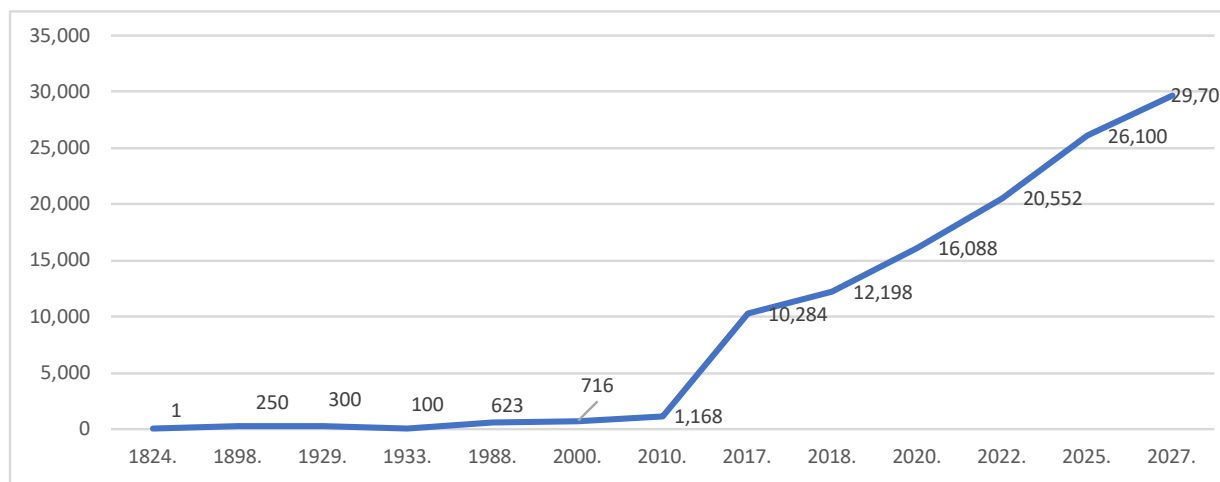
Community Profile

Planning for the Future of Fulshear

The City of Fulshear, Texas was established in 1824 through a land grant from Mexico to Churchill Fulshear. The community has strong agricultural roots that remain a part of Fulshear’s identity as the City continues to grow and develop.

One of the great challenges in providing parks and recreation amenities in a community is keeping up with a growing demand. With the rapid pace of development, the City’s two small parks and community center have not been enough to meet the needs of existing and new residents alike. In many communities, development of new parks takes place gradually as the community grows over time. In the case of Fulshear, the pace of development has been steady, however the amount of park space provided by the City has not grown at a comparable rate.

The majority of growth in Fulshear has been comprised of master planned residential communities, most of which include an offering of recreational amenities such as parks, trails, and even recreation centers that are owned and operated by Home Owner’s Associations (HOAs). These amenities were developed for the enjoyment of neighborhood residents, and for many, are meeting their daily recreation needs. Residents in these developments have paid premiums with the purchase of their homes to have access to these amenities and pay significant maintenance fees annually to ensure their upkeep. One of the challenges with parks and facilities owned by HOAs is that they are for the exclusive use of neighborhood residents, thereby leaving gaps of service in the City’s recreation system.

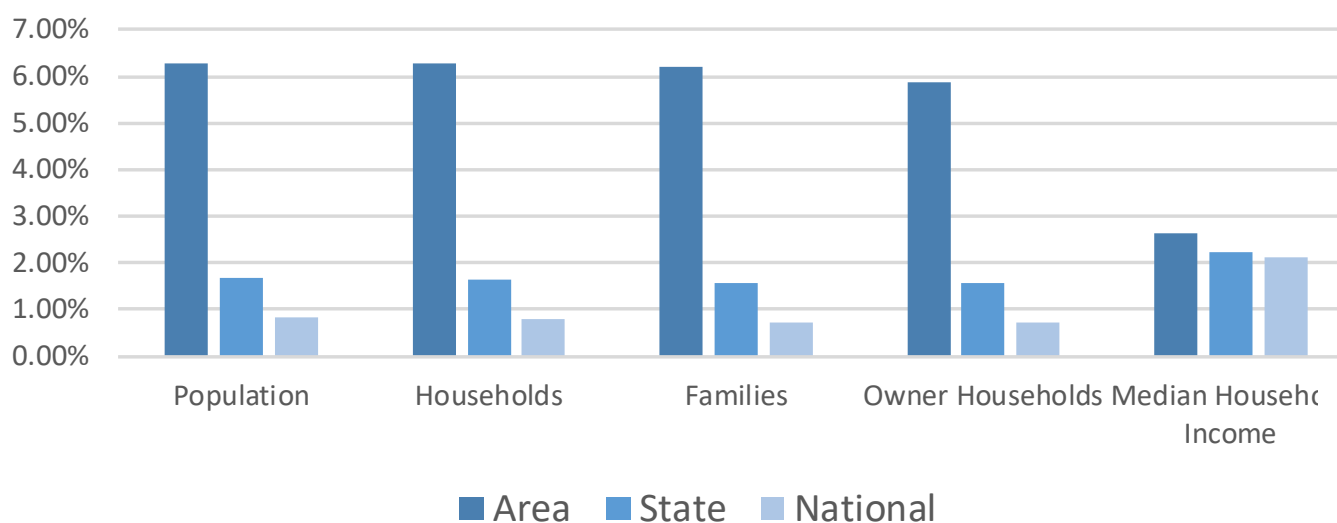


Projected Population by Jurisdiction

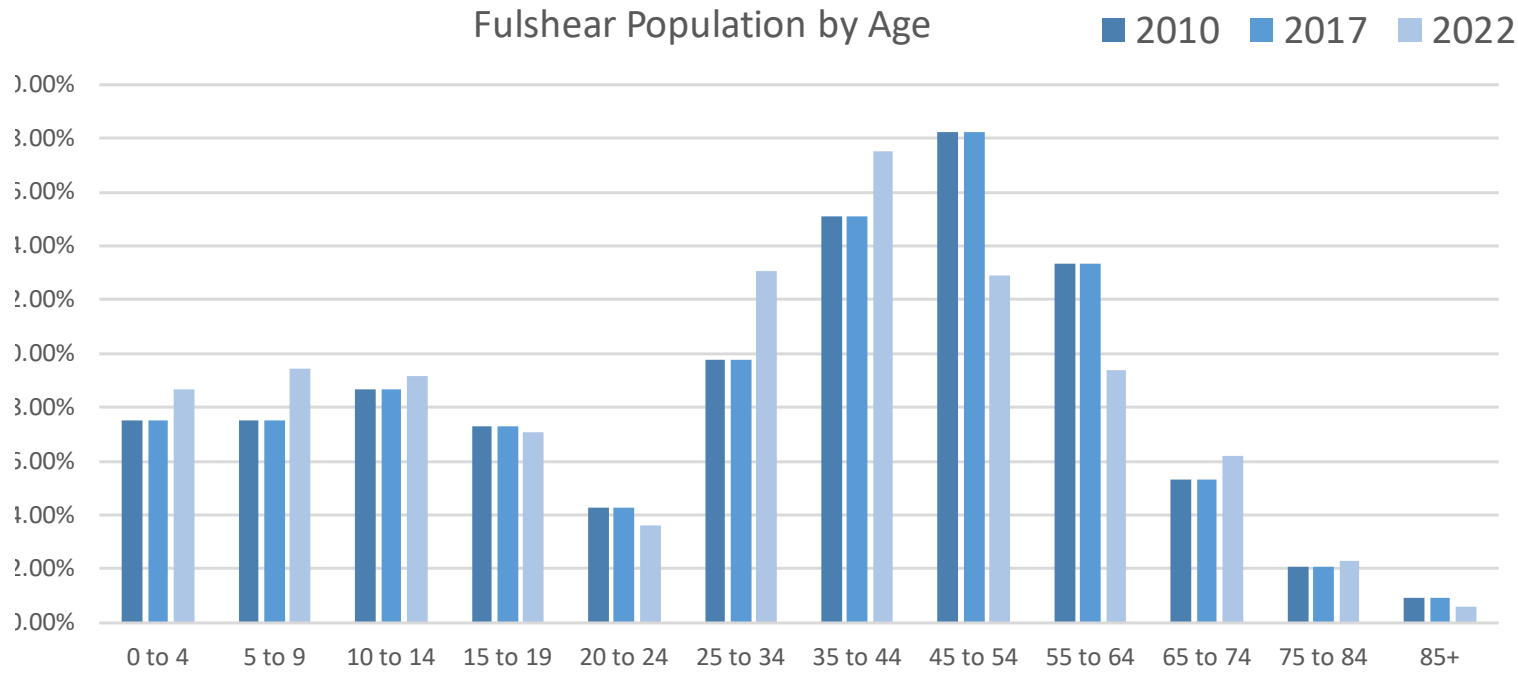
Area	Oct 2017	Oct 2018	Oct 2020	Oct 2022	Oct 2025	Oct 2027
City	10,284	12,198	16,088	20,552	26,100	29,708
ETJ	13,525	15,669	20,664	28,658	45,401	59,225
City + ETJ	23,809	27,867	36,752	49,210	71,501	88,933

*source: Population and Survey Analysts - Demographic Update Spring 2018

Demographic Trends 2017 - 2022 Annual Population Growth Forecast



Esri Demographic and Income Profile 2017

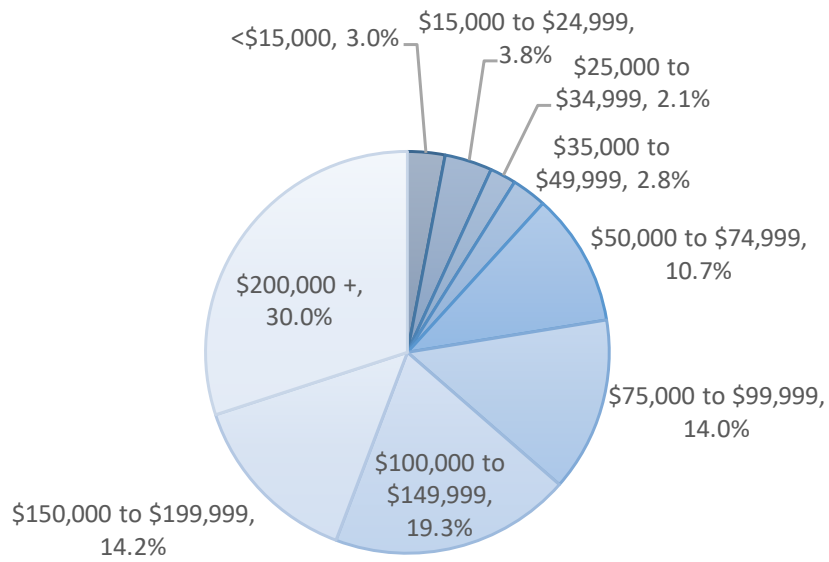


Trends in Race and Ethnicity

Race and Ethnicity	Census 2010		2017		2022	
	Number	Percent	Number	Percent	Number	Percent
White Alone	871	74.6%	7,818	76.0%	10,067	72.1%
Black Alone	179	15.3%	1,091	10.6%	1,651	11.8%
American Indian Alone	24	2.1%	84	0.8%	124	0.9%
Asian Alone	23	2.0%	487	4.7%	864	6.2%
Pacific Islander Alone	0	0.0%	25	0.2%	39	0.3%
Some Other Race Alone	56	4.8%	524	5.1%	809	5.8%
Two or More Races	15	1.3%	261	2.5%	407	2.9%
Hispanic Origin (Any Race)	203	17.4%	1,964	19.1%	3,106	22.2%

Esri Demographic and Income Profile 2017

Fulshear Households by Income





02

INVENTORY & ANALYSIS

The Fulshear Parks System

Standards Analysis

League Sports in Fulshear

Recreation by Others

Community Events and Programs

Stakeholder/Public Input

“A park and recreation system that promotes a sense of community by providing attractive and comfortable gathering places for athletic pursuits, special events and shared enjoyment of the area’s natural assets.”

- Parks and Amenities Goal 2: The Fulshear Comprehensive Plan

The Fulshear Parks System

Existing Parks and Recreation Facilities

Frances Smart City Park

Frances Smart City park is a 0.87 acre park located just north of Downtown Fulshear along FM 359. The park is named after Mrs. Frances Smart in honor of her dedication to public service in Fulshear, having served two terms as Mayor and later as Planning Commissioner. The triangle-shaped parcel of land is adjacent to single family houses. Existing structures at the park include a Gazebo, the recently re-located “Fulshear Switch House”, a historical building that has served in numerous capacities over the years, four concrete picnic tables, two grills, three benches and two bird nests. Live Oak trees provide shade in the park.

Observations:

Frances Smart Park is a small but prominently located feature in Fulshear. Situated along Main Street (FM 359), the park has the potential to attract visitors as they travel to and from the Downtown Fulshear area.

The recently-added, historic Switch House offers an opportunity for a variety of future uses if carefully restored. With renovation, the structure could provide rentable space for events such as club meetings, weddings, and other such gatherings. Additional features that would improve visitor experience include formal plaza space for outdoor events, landscaping, and other passive elements.



Size:

0.87 Acres

Amenities

- Gazebo
- Picnic Tables
- Grills
- Historical Structure
- Parking

Existing City Park Amenities	Size (acres)	Gazebo	Historical House	Picnic Table	Grill	Trees	Parking	Kitchen	Restroom	Bird House	Play Structure	Butterfly Garden
Frances Smart City Park	0.87	1	1	1	2	3	0			2		
Irene Stern Community Center	1.45					2	45-60	1				
Irene Stern Park	0.76			3	1		10		1	1	3	1



Irene Stern Community Center and Park

Irene Stern Community Center

Irene Stern Community Center has about 20 parking spaces, and could accommodate up to 225 people. The community center has a full kitchen and meeting room with stage that facilitate events and meeting. The Fort Bend Senior Citizens Meals on wheel program is regularly meeting in the community center.

Irene Stern Park

Irene Stern Park together with the community center is a 2.2 acres pocket park located next to the Irene Stern Community Center. The park has one restroom with sinks, and is decorated with a hand painted mural on all sides. There are two play structures and one swing in the park. A butterfly garden with native plants, butterfly box and a small water feature was installed for educational purposes. Other amenities include a see-saw, bike rack, picnic areas, and a grill. The butterfly and pollinator garden

Size:

2.235 Acres

Amenities:

- Community Center
- Playground
- Garden w/ educational features
- Bicycle racks
- Picnic areas
- Restrooms
- Parking

in the park was an project that received Honorable Mention recognition by the Houston-Galveston Area Council in 2015.

Observations:

Irene Stern Park is currently in excellent condition, with relatively new amenities. The site is well-maintained and offers a nice selection of passive recreation opportunities. There are no current additions or needs within the park area.

The Irene Stern Community Center is a well-used facility that serves as the only City-owned meeting space. The Center offers approximately 5,000 square feet of space including a large central activity room, restrooms, a kitchen, and storage rooms. Community meetings are held here, as well as the local Meals on Wheels daily service, various club meetings, and more.

The City has identified the need to build a new, larger Community Center on the site and has budgeted \$6,000,000 in the 5-Year Capital Improvement Plan for Fiscal Year 2020-2021.



Standards Analysis

National Standards and Level-of-Service

The National Recreation and Park Association (NRPA) published Recreation, Park and Open Space Standards and Guidelines which includes criteria for the provision of parks and recreation facilities and open space. The criteria are based on a national survey of municipalities of all sizes and geographic regions.

These standards offer guidance to municipalities for parks and recreation planning. The NRPA offers these standards and guidelines as a starting point and benchmark for communities to plan from. As with all communities, Fulshear has unique characteristics that require consideration of local demand for parks and recreation facilities that reflects the values and interests of residents in addition to the recognized standards.

The National Recreation and Park Association (NRPA) recommends creating a park classification system that categorizes parks based on use, size, and service area. Examples include Neighborhood parks with 1/4 mile service areas (5-10 minute walk) versus City parks with 1 mile or more in service area.

Parks Level of Service

The two existing city parks together comprise a total of 3.08 acres of developed park land. The non-city owned parks total about 20 acres, which is all provided by the new developments in the City of Fulshear in the last ten years. The National Recreation and Park Association released the 2018 newest park metrics. According to the National Recreation and Park Associate report, there is a nationwide median of one park for every 2,114 residents and 10.1 acres of park land for every 1,000 residents. The report also specified the standards on a sliding scale for jurisdictions with different populations. The City of

Fulshear’s current population of 10,290 residents falls under the “Less than 20,000” category with a nationwide median of 1,318 residents per park and 10.8 acres of park land per 1,000 residents.. The City of Fulshear’s currently provides a total of 3.07 acres of developed park land and owns an additional 25.17 acres of undeveloped park land. This translates to an approximate 2.74 acres per 1,000 residents, falling short of the national standard and trends for communities of similar size. Combining the park land provided by private HOAs brings the total available developed park land to 23.07 acres. The conclusion is that more park space is needed in the community.

The 2018 NRPA Agency Performance Review and Park and Recreation Agency Performance Benchmarks identified key benchmarks to aide agencies in planning of parks and recreation programs and budgets. The following nationwide benchmarks are useful for comparison of key metrics of parks systems:

- The typical park and recreation agency has 7.9 FTEs on staff for each 10,000 residents in the jurisdiction served by the agency.
- The typical park and recreation agency has annual operating expenses of \$78.26 on a per capita basis.
- The typical parks and recreation agency has 2,114 residents per park.

Comparison of NRPA Standards for Fulshear

NRPA Recommended Acreage		
	Low	High
NRPA Recommended Acreage per 1,000 Residents	6.25	10.5
Fulshear’s Developed Park Supply (Based on 10,290 Population)	0.29 Acres per 1,000 Residents	
Fulshear’s Developed Park Needs (recommended acres)	64.3	108.0
Developed Park Supply	3.07 acres	
Non-City Developed Park Space	20 Acres	
Combined Public and Private Park Supply per 1,000 Residents	2.24 Acres per 1,000 Residents	

Level of Service Compared to Other Cities (in order of Level of Service)			
City	Developed Park Acreage	Acres per 1,000 Residents	Population
Fulshear	28.24	2.74	10,290
Georgetown	756.00	11.87	63,716
Pflugerville	500.00	8.75	57,122
Cedar Park	500.00	7.58	65,945
Huntsville	183.20	6.70	27,312
Friendswood	234.00	6.03	38,800
Alvin	127.85	5.28	24,236
La Porte	178.00	5.06	35,148
Conroe	325.00	4.74	68,602
Deer Park	139.36	4.35	33,806
Pearland	458.40	4.21	108,821
San Marcos	246.00	4.05	60,684
Stafford	32.63	1.77	18,459
*Populations and acreage reported from U.S. Census and City Websites.			

Using the NRPA recommended acreage for population, the above table offers a comparison of Fulshear's Level of Service compared to other parks cities' parks systems.

FEATURE	NRPA STANDARD (UNITS PER POPULATION)	CURRENT INVENTORY (INCLUDING PRIVATE/HOA AMENITIES)	TOTAL NEED BASED ON POPULATION	ADDT'L FACILITIES NEEDED
PLAYGROUNDS	1 PER 2,000	12	5	-
BASKETBALL COURTS	1 PER 5,000	1	2	1
SHELTER/PAVILION / GAZEBOS	1 PER 2,000	19	5	-
SOFTBALL GAME FIELDS	1 PER 5,000	0	2	2
FOOTBALL GAME FIELDS	1 PER 4,000	0	3	3
BASEBALL GAME FIELDS	1 PER 5,000	0	2	2
SOCCER GAME FIELDS	1 PER 10,000	0	1	1
SWIMMING POOLS	1 POOL PER 20,000	10	1	-
MULTI-PURPOSE TRAIL SYSTEM	1 MILE/3,000	1	3	2
TENNIS COURTS	1 PER 2,000	9	5	-
VOLLEYBALL COURT	1 PER 5,000	1	2	1
*Number of fields varies depending on age group and marked dimensions				

Comparison of NRPA standards for selected park amenities. This analysis includes both City and private facilities in Fulshear. It is important to note that national standards may not reflect true demand of local residents, and should therefore be used as a benchmark but not an absolute metric.

League Sports in Fulshear

Team sports such as Baseball, Softball, Football, and Soccer are some of the most popular recreation activities for youth, and in some cases, adults across the State of Texas. These sports are commonly provided by either a municipal program or private league organization using fields that are provided by one or more entities. In small communities, leagues often have to get creative when it comes to finding space for their programs, practicing on school and church properties, renting game fields from municipalities and school districts, or even providing their own fields on private property.

Interest in team sports in Fulshear is growing as fast as the City's population, creating the need to provide facilities for practice and game play. Currently, teams are playing on fields provided by other entities such as school districts, or homeowners associations, or even in other communities rather than in Fulshear, due to a lack of available fields.

The school districts have reportedly high demand for use of fields and facilities when they are not being used by school programs, and they are having to turn down requests due to full scheduling of resources.

Athletic practice fields are always in demand in any community. In Fulshear, as elsewhere, available space on private properties such as churches are utilized where available. The Cross Creek Ranch subdivision provides practice field space as well on a limited basis. Currently, Kids in Fulshear go to the sports leagues in Katy and other communities to play. Two sports leagues are currently using facilities in Fulshear. Besides the proximity to Katy, a lack of facilities and fields is the major reason for the sports travel. Among the 13 leagues reported to be serving the Fulshear area, 4 of them are using school fields, 5 use the public fields in the parks in Katy, 3 leagues

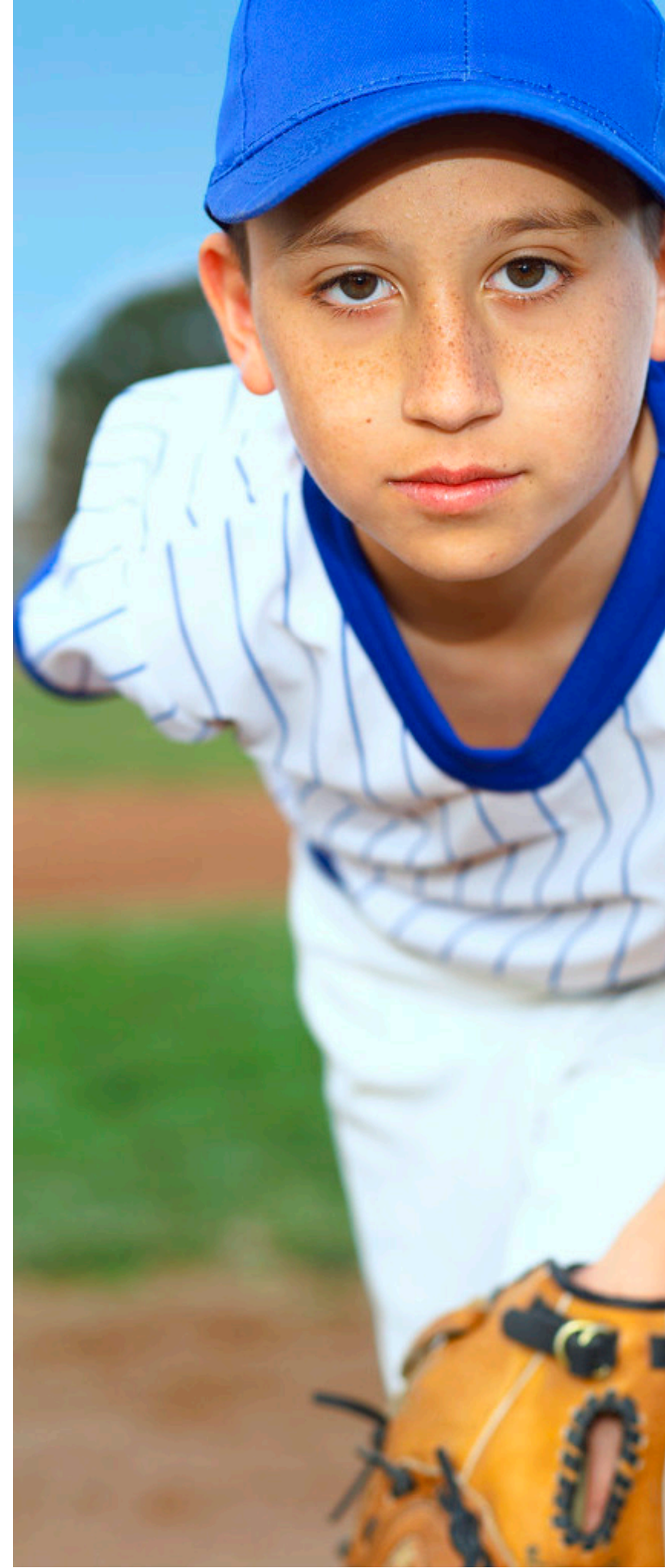
have their own fields, and one is using church fields.

A multi-sport league located in Fulshear, *One Sports Nation*, was founded in 2017. The league has been renting the school facilities and the fields in Cross Creek Ranch for games, but already faces challenges with finding practice space according to the league. The other league is *Dynamo / Dash Youth West*, which is currently using the practice field at River Bend Church.

Other leagues that are in the Katy area are all using the facilities in Katy including public sports fields, private development fields, and some other private fields. Public sports fields play a very important role in facilitating the sports leagues in the Katy area.

The National Recreational and Park Association (NRPA) guidelines recommend "1 field per 5,000 of population for both diamond and rectangular fields". Many communities use an adjusted standard ranging from 1 diamond field and rectangular field per 2,000 to 6,000 of population. Given the local unmet demand for game fields, it is recommended that Fulshear use most aggressive standard of 1 field per 2,000 resident

Using the number of all fields in the Fulshear Extra-Territorial Jurisdiction, the current Level of Service (LOS) of fields in Fulshear is one rectangular field per 2,657 residents and one diamond field per 7,086 residents. This LOS analysis includes all open fields and game fields. If not considering the open space for practicing, but only the game fields, the LOS is one rectangular field per 7,086 residents and one diamond for 10,629 residents.



League Sports Inventory in Fulshear Area

Name	Age Group	Current enrollment	Schedule	Fields
Katy Pony Baseball	4 to 18	1,000 +	Fall/Spring	8 fields in Harris County Four Seasons Park
Katy American Little League(baseball)	4 to 18	800+		Harris County Katy Park 7 fields
Katy National Little League(baseball)	4 to 18	420+		Katy Park 9 fields
One Sports Nation Katy South		200-300 per sport (flag football, soccer, basketball and volleyball)	Fall/Spring	CCR field and ISD
Soccer	3 to 12	Not available	Fall/Spring	Dean Leaman Jr High 2 fields
Grid Iron Flag Football	5 to 15	Not available	Fall/Spring	Dean Leaman Jr High 2 fields
Legends Basketball	5 to 15	Not available	Fall/Spring	Fulshear High School; Dean Leaman Jr High gym 3 courts; Lindsey Elementary -2 courts
Volleyball	9 to 16	Not available	Fall/Spring	Dean Leaman Jr High
Katy Girls Softball Association	6 to 18	900+ players (Fall/ Spring) (40-45 teams)	Fall/Spring	Paul D Rushing Park 6 fields
Tukas Soccer Academy	4 to 17	Not available		private field
CF10 Soccer Academy				Seven Lake high school Soccer Field
Pro's Katy Indoor Soccer	6 to 12			private indoor field
Katy Youth Soccer Club	4 to 18	900+ (Spring 2018)(100 teams)	Fall/Spring	Katy Park 21 fields
Fun Fair Positive Soccer Fulshear League	4 to 18	Not available		Huggins Elementary School
Dynamo/Dash Youth(West Houston)	3 years old to college		Fall/Spring	Riverbend Baptist Church
Strikers football Club(soccer)	4 to 10			SFC Facility (Rosenberg)
Quad Sports Youth Sports League	3 to 14			Briscoe Junior High School

Recreation by Others

Private Recreation Facilities and Services

Parks, facilities, and programs provided by other entities such as private service providers, residential developments, and groups are an important component of Fulshear’s recreation tapestry. Commercial recreation providers offer Gym and yoga studios and other fitness programs, while the Homeowners Associations within residential developments provide their’ residents with a wide range of offerings. For example, the Cross Creek Ranch development has more than 20 parks with play structures, picnic area, a community recreation

center with a three-story observation tower, pools with water slide, indoor gym, multi-use studio and splash pad, among other amenities for its residents.

The City recognizes these as an important part of the recreation system and seeks to complement them with appropriate parks and amenities in Fulshear rather than duplicate what is offered. For example, HOA’s do not provide large event spaces, sports complexes, and community-wide connectivity; which would be best provided by the City.

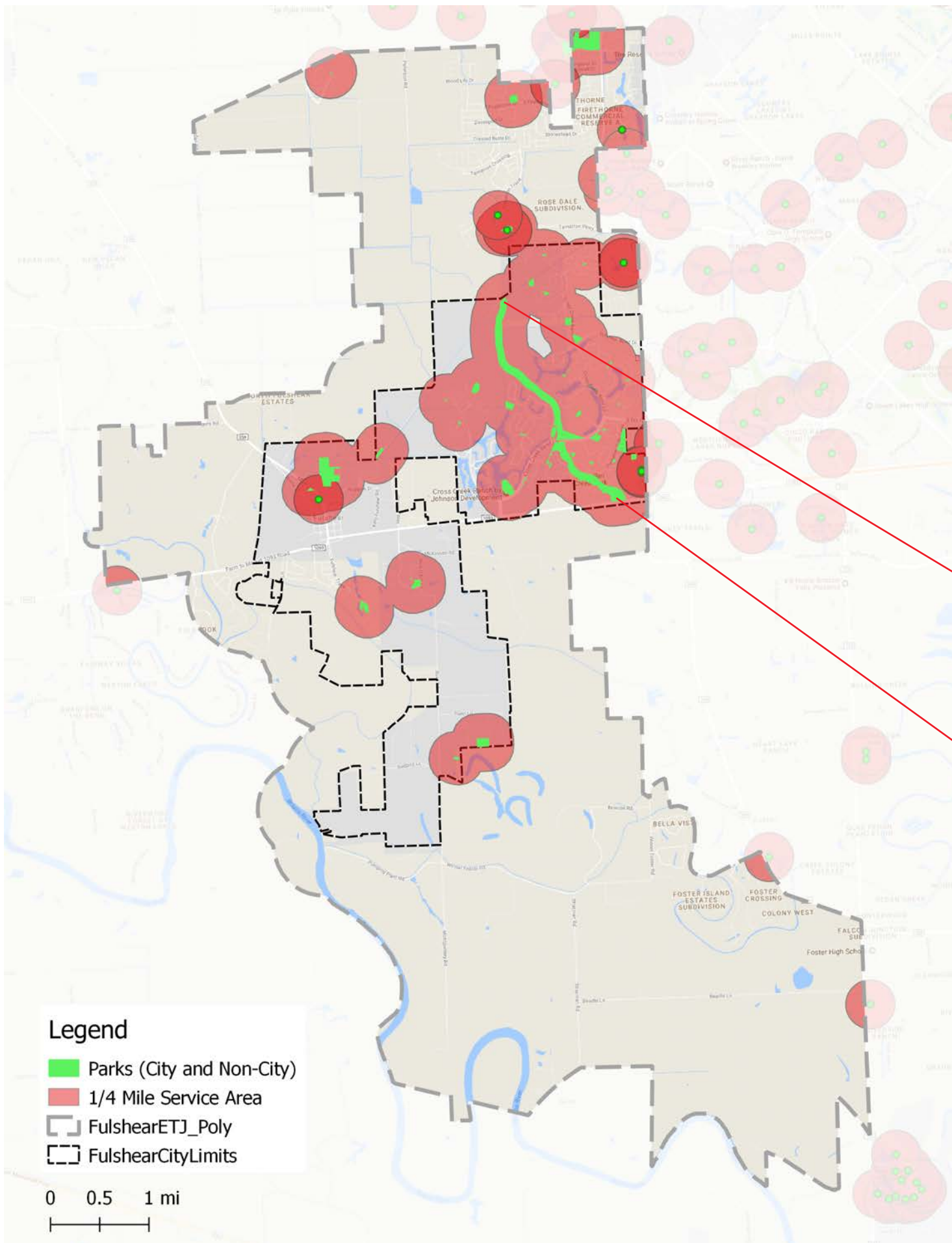


Cross Creek Ranch Community Recreation Center.

Recreation Provided by Homeowner’s Associations (HOAs)	Dog Park	Gym/Fitness Center	Tennis Courts	Playgrounds	Event Facilities	Pool	Splash Pad	Trails System	Parks	Disc Golf	Sand Volleyball	Basketball	Pavilions	Restrooms	Golf Course	Sports Fields
Firethorne and Jordan Ranch		1	4	1	1	1		1	3				3			2
Cross Creek Ranch Area	1	1	5	5		4	1	1	9	1	1	1	12	1		
Fulshear Run				1												
Fulbrook on Fulshear Creek (In-City)		1				2										
Original Fulbrook (ETJ)				2				1					1			
Cinco Ranch II (immediate area)									11							
Fulshear farms																
Churchill Farms				2		2							2			
Weston Lakes															1	
Tamarron				1	1	1	1									
Total	1	3	9	12	2	10	2	3	23	1	1	1	18	1	1	2

Level of Service Mapping

One measure of the level of service provided by a community's parks is to evaluate how many areas are within a 1/4 mile (15 minute) walk of a park. Using this radius, one can clearly see gaps in the coverage where there are no parks within that distance. Shown in red on the left, Cross Creek Ranch is an example of an area with significant park service, whereas many areas within the southern portion of the City Limits are more rural in nature and have much fewer parks. While not an absolute measure, this exercise is helpful in planning where future park land acquisition may be warranted.



Cross Creek Ranch's trail and pathway system provides a total of more than 28 miles of pedestrian and bicycle connections within the community. Connecting this network to the rest of Fulshear will be important for creating a complete recreation system and more walkable city.

Community Events and Programs

Events are an important part of what makes a community special. Festivals, concerts, and other gatherings bring the community together for entertainment as well as provide economic activity from tourism.

The Fulshear Chamber of Commerce currently holds four annual community festivals:

- St. Patrick's Day Shamrock Shindig,
- Keep Fulshear Beautiful Spring and Fall,
- 4th of July Freedom Fest, and
- Festival of Lights.

The most popular event is the 4th of July Freedom Fest that attract 10,000 people gather every year. The St Patrick's Day Shamrock Shindig and the Festival of Lights during Christmas bring about 35,00 people to Fulshear every year. Those events have parades, local vendors and food trucks in downtown area.

Besides, the Chamber of Commerce also holds some events in cooperation with local business, such as Food Truck Friday and other catering events in local restaurants. The Chamber also holds events at available indoor venues; for instance, the Texas Opry at Fulshear High School Auditorium, and other events at Irene Stern Community Center.

The School Districts have seasonal sports games that attract crowds such as Fulshear High School baseball games that are quite popular for local families.

As one of the largest developments in Fulshear, Cross Creek Ranch hosts a variety of events within the community including: the Color Run, Triathlon and Duathlon Events, Kayaking on the Lake, Kite Festival, and various outdoor music performances.

While Cross Creek Ranch organizes events exclusively for their residents, they also facilitate and sponsor public events on their open space. The Scarecrow Festival is one of the most popular events that takes place in Cross Creek Ranch every year, and draws large crowds with a variety of activities, food, and entertainment.



A town hall meeting at the Irene Stern Community Center.



4th of July Freedom Fest.



The Cross Creek Ranch Scarecrow Festival has become a popular annual event offered by the HOA.



Festival of Lights in Fulshear.

Stakeholder Input

Identifying Recreation Needs

A key component to parks and recreation planning is the identification of park, facility, and programs desired by residents. National and regional standards are important benchmarks, however, even the National Recreation and Parks Association (NRPA) recommends tailoring a parks system to meet the desires and needs of local residents. Cultural, economic, and lifestyle characteristics vary greatly from community to community, so it is important to reach out to stakeholders to identify specific needs.

Stakeholder input was gathered through a variety of processes including:

- Focus Group Meetings
- Online Survey
- Staff Guidance
- Parks Board Meetings

Focus Groups

On April 4, 2018 a series of meetings were held with selected representatives of various interests in the community to provide a broad perspective on topics ranging from athletics to events to natural spaces, and much more. The following Focus Groups were assembled to participate in selected topics:

- HOAs/Development Community
- Athletic Groups & School Districts
- Civic Groups, Non-Profits, & Other Governments
- Runners, Cyclists, & Equestrians

A wealth of information was gathered during the Focus Group meetings, with some clear priorities that were shared by most participants. Among the top 3 most important priorities identified were:

- Event Space
- Athletic Facilities
- Trails for Pedestrian and Bicycle Activities

Online Survey

One of the most effective outreach methods in the internet age is the use of online surveys to gather input from residents with busy lives. During the month of April 2018, a survey was hosted online with links available on the City's website. The survey received a total of 433 responses during this period. Where appropriate, the results of survey questions were weighted by neighborhood/area to address disproportionate participation rates by some areas of the community. The results of the survey provided some key priorities and clear direction for the development of the *Parks and Pathways Master Plan*.

Survey participants provided clear direction on the park and recreation facility needs for the community. The most important features and amenities identified through this process are as follows:

1. Pedestrian
2. Community Events
3. Bicycling
4. Field Sports (athletic fields)
5. Aquatics





Focus Group Meeting Summary
Fulshear Parks and Pathways Master Plan

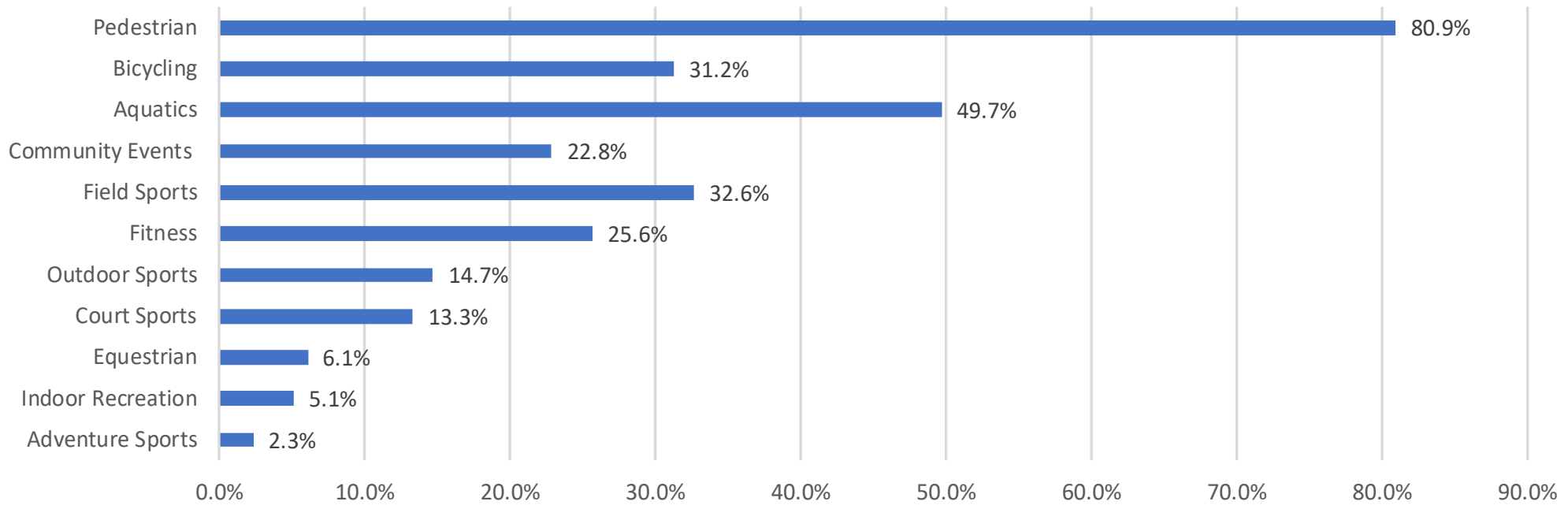
	Strengths	Weaknesses	Opportunities	Threats	Needs	Summary	Conclusion
People Activities Events	<ul style="list-style-type: none"> Farmer’s market events have up to 700 visitors on a given morning; In Fulshear Run trails are enormously popular; Fulshear Run residents have a strong connection to Fulshear as a community; LCISD and KISD both have online tool for determining facility availability; Texas Opry at LCISD Fulshear High School Auditorium; St. Patrick’s Day, Christmas Parade and another one. St. Patrick’s Day attract about 35,000 people this year. Christmas -3500 people and 4th July for 10,000 people; FFA and 4H are very active 200 to 500 people every Saturday cycling in Fulshear; Lions club has annual motorcycle ride for charity 	<ul style="list-style-type: none"> Soccer teams do not have enough space to practice and always constrained by the weather; Basketball demand is very high, space is tight for games and practice; Youth sports programs are facing difficulties because lacking of space; Do not have year-round swimming program; Fulshear does not have girls’ softball, girls need to drive 40 mins to play softball; Golf program is difficult to find a home for, expensive access of golf; No electrical facilities for events currently Fulshear doesn’t have a “destination event”; Duplication of events between CCR and City/Chamber; Runner and cyclists having problems sharing narrow ROW on the road; 	<ul style="list-style-type: none"> People like to get together, need more place and events to gather people; KISD could run tournaments every weekend if they wanted, demand is high; Fulshear is on YMCA’s top list for new campus locations; An arena would be nice; There is a huge polo and dressage community here; Circus and carnival events 	<ul style="list-style-type: none"> Large leagues can tend to monopolize use of facilities. 	<ul style="list-style-type: none"> Community gathering space for farmer’s market, special event; food truck; Need adults sports leagues ; Event center (capacity 500+) and outdoor lawn seating type of amphitheater; Need a mechanism for managing programs (e.g.: a Sports Authority); Space for events that attract people from bigger area; Need electrical service for event facilities, stage Amphitheatre; Events space near downtown and festivals that can keep the small-town characters; Need to tap into our roots/history, western 	<ul style="list-style-type: none"> The citizens in Fulshear appreciate and are passionate about the small-town characters, historical and culture heritage of Fulshear, as well as community life. The desire of community events and sports programs is increasing, the space and facilities to hold the events and sports programs can not meet the growing needs. Creating more available space to facilitate the existing events and programs is the first priority, and developing new ones based on the growing needs. 	<ul style="list-style-type: none"> Need more available space for sports leagues and programs to meet the existing needs; Consider multi-purpose space to facilitate different events and programs; More community events enhance the identity and traditions to gather people together.
Site Environment Facilities	<ul style="list-style-type: none"> The Cross-Creek Ranch currently has pocket parks, lake, trails and good mobility future; small-town atmosphere and the traditions; ISD open fields are open to public as available (those not fenced), with no reservation needed; Lamar ISD will have new aquatic center coming soon; Irene Stern Center has been utilized a lot; The runners, cyclists and equestrians are willing to volunteer and help with the maintenance, and donate money to help with the maintenance. Massive demand for every sports field; 	<ul style="list-style-type: none"> Difficulties with north to south connections across FM1093; Limited options for east to west connections; Not many destinations in town; Larger recreation facilities aren’t economically feasible in Fulshear Run; Two golf clubs just closed, no public golf course within 15 miles drive; No Space for running, ISD buses kids to Seymour Park to run; No 50 meters pool in Fulshear; There’s no space for equestrians activities; Dense foliage near trails discourages runners ; Lack of signage and markers on the trails and roads; Runners and cyclists have no access to restrooms; Disconnected trails, trails do not go any where and have no loop (e.g.: Fry Rd); 	<ul style="list-style-type: none"> Need more access to restaurants Fulshear Run is concentrate on intensifying the open space, pocket park and trails Prefer more quiet trails with less traffic; Flewellen Creek could become channelized major drainage for the area; An aquatic center that can hold year-round swimming program; A combination with indoor multi-use space with 500 capacity and outdoor open space; An multi-use sculpture studio Pavilion in the new park, could be the first one in Texas and in the Country; Sculpture in the park as art display or monument; County could fund project in the City but the maintenance has to be handled by the City; Extending along willow fork drainage channel connecting George Bush Park; Fulshear Lake area easements for trail opportunities; Old Katy Fulshear road for bike and trail opportunities; Opportunities for trails next to all new highways. 	<ul style="list-style-type: none"> Concerns over future stormwater requirements; ISD facilities are full, can not start a new program; Traffic is not safe for triathletes and cyclists. 	<ul style="list-style-type: none"> Needs more place and events; Adequate facility maintenance; Start and stop points for bike and run events needed; A master event facility that benefit all groups; Need aquatic facilities for kids and family; Need facilities for kids for example soccer fields with lights; Pavilion with restroom and parking for special events; Need facilities and lights allow runners to use, such as public restroom; Need wayfinding signage, emergency number and lights on the running trails; water fountain on the side of the trails; Need parking at the trail head; Need more shade in parks and community; Need safety education for runners and cyclists 	<ul style="list-style-type: none"> The existing recreational facilities provided by public and private sectors are imbalanced, the resources that are open to the public are limited both in quality and quantity. The existing public facilities have been fully utilized and can not meet the demand. The community is disconnected in many ways. The existing public roads and facilities are not walk and bike friendly and the community in high demand of bike and hike trails. The City lacks of destinations in the communities. The inadequate facilities constrained the growth of programs. The maintenance of existing and future facilities is a problem. 	<ul style="list-style-type: none"> A complete bike and hike trail system that connects the destinations in the City is in need. Public road safety education for different users, runners, cyclists and equestrians. Upgrade existing and future facilities with lighting, restrooms and other amenities to improve safety and user experience. Partner with other entities like ISD, non-profit and other civic group to balance residents’ access to recreational facilities. The City needs to provide more facilities, space and other recreational access for all citizens at all age groups.
ECONOMY Budget Operating Costs Costs Partnership	<ul style="list-style-type: none"> Katy ISD receiving 3 million dollars rental fee every-year for non-school district tournament on the weekend; Fulshear Parkway trail will be paid largely by the developers; The county has many funding sources 	<ul style="list-style-type: none"> Developer agreements are limiting the City’s ability to collect tax revenue; Inability to issue public debt. Sales tax is just not there County cannot fund project that is not county owned 	<ul style="list-style-type: none"> The county has 1.5 million funding to build a library and park ; \$15M for library earmarked \$2M for adjacent park 		<ul style="list-style-type: none"> County looking for a deal to collect sales tax outside of City limits and split with the county/City; County commissioner wants to broker deal with development community/county/City for joint project 	<ul style="list-style-type: none"> Lack of dynamic funding mechanism is limiting the City’s ability to provide resources; The City does not have partnership experience with other entities 	<ul style="list-style-type: none"> Consider seeking more funding opportunities; Looking for opportunities for partnership with ISD, private development and other potential partners on recreational resources.

Focus Group Meeting Summary: the above matrix organizes Focus Group meeting results into a logical order that focuses on People, Site and Economy.

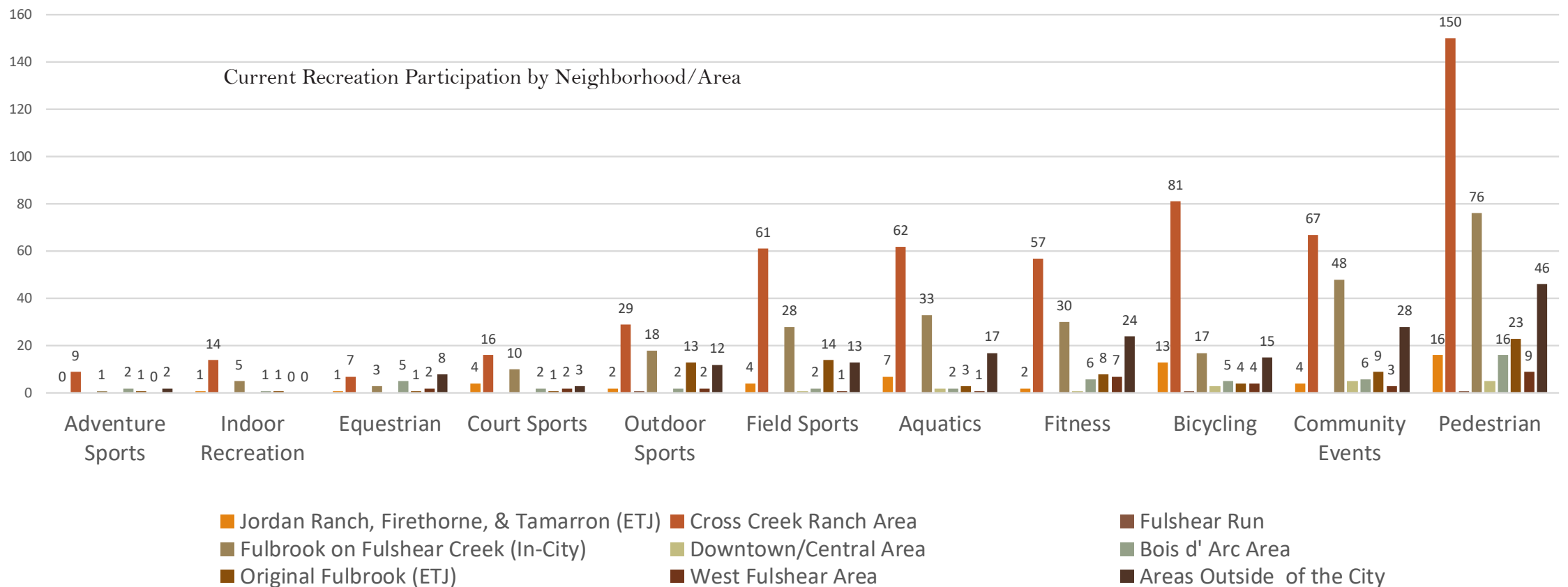
Stakeholder Input

Parks Master Plan Survey

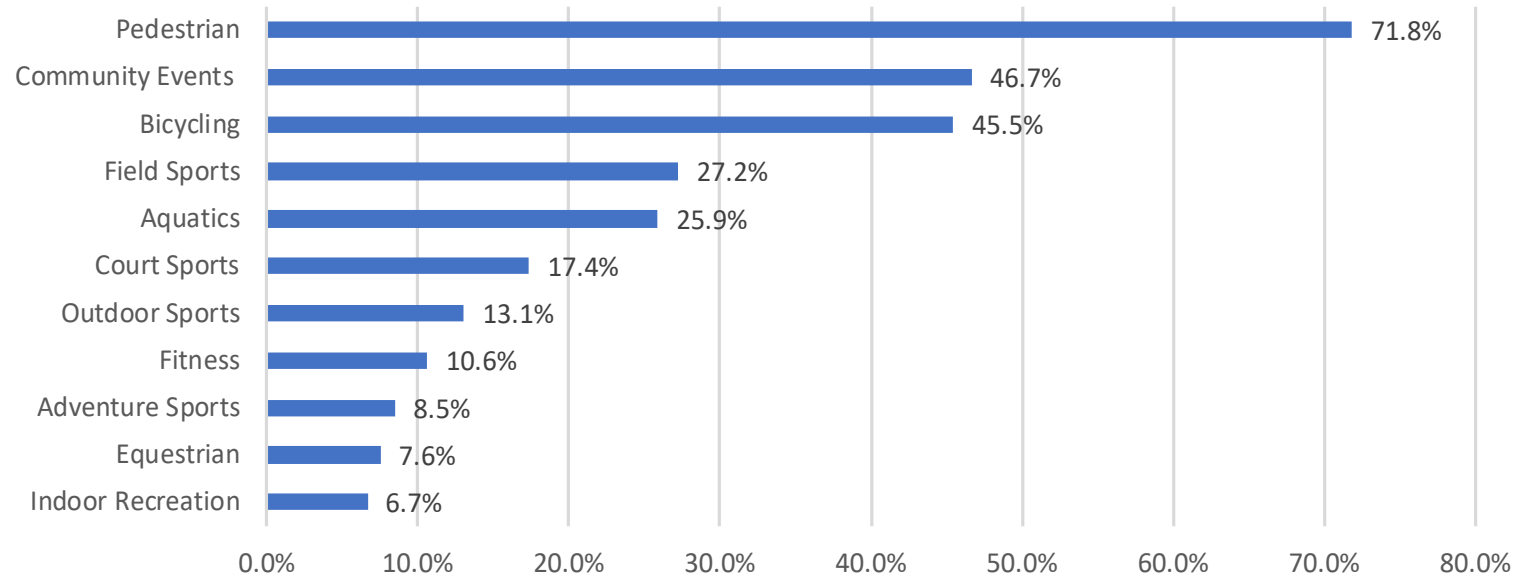
Current Recreation Participation in Fulshear (% of survey responses)



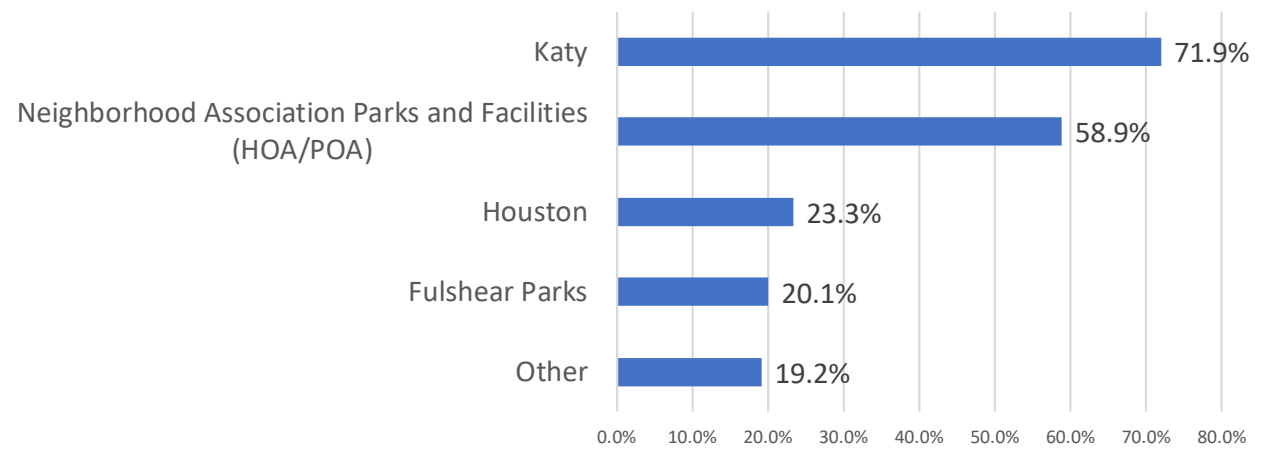
Current Recreation Participation by Neighborhood/Area



Top 3 Features Residents Would Like to See in Existing or Future City Parks



Where Fulshear Residents Currently go for Recreation Activities



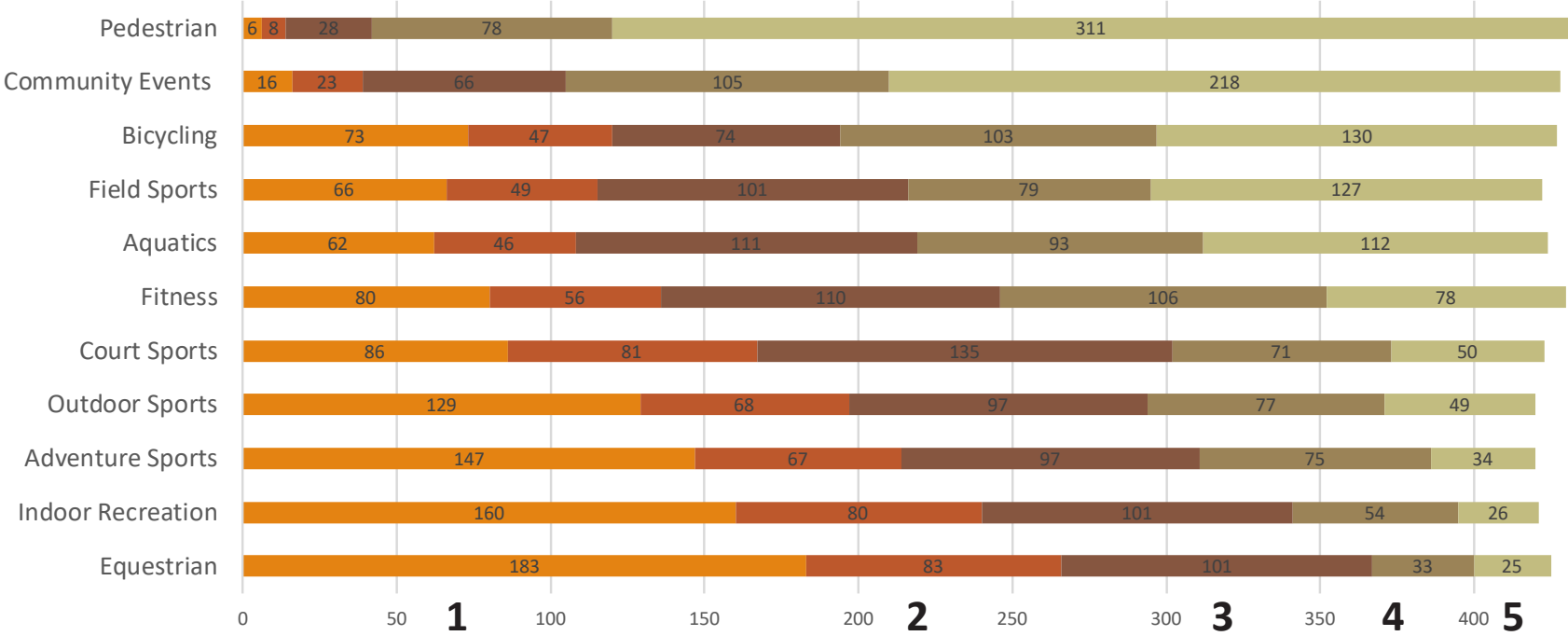
Stakeholder Input

Parks Master Plan Survey

Additional Comments/Observations on Open Space, Parks, Trails, Recreation Facilities and Programs Provided by Fulshear ?



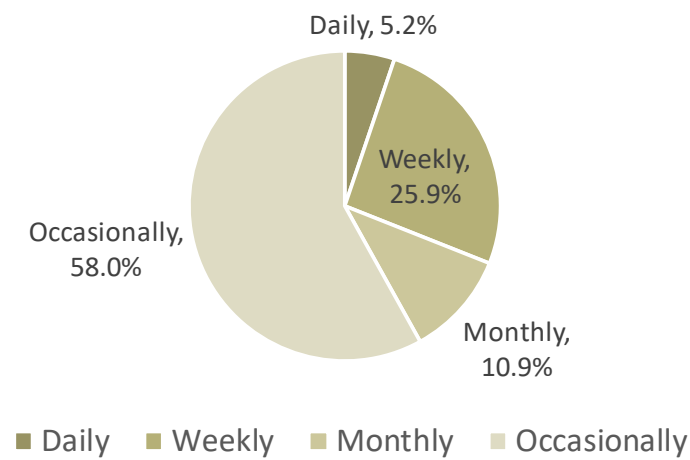
*Comments displayed by word frequency



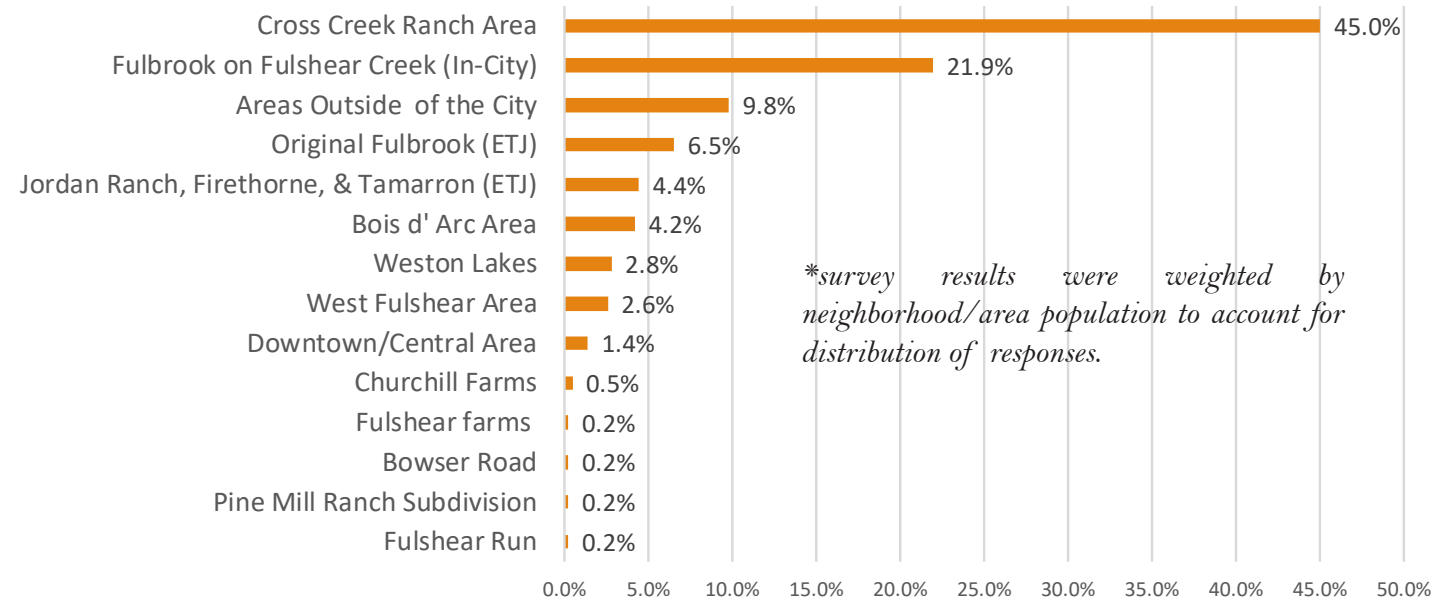
Importance of Selected Parks and Recreation Features

1 Not Very Important ← → Very Important 5

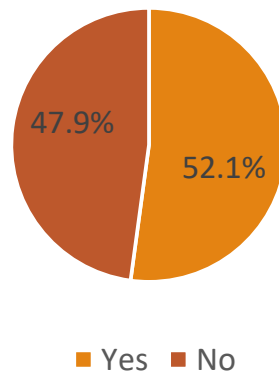
How often do you participate in cycling activities?



Location of Survey Respondents



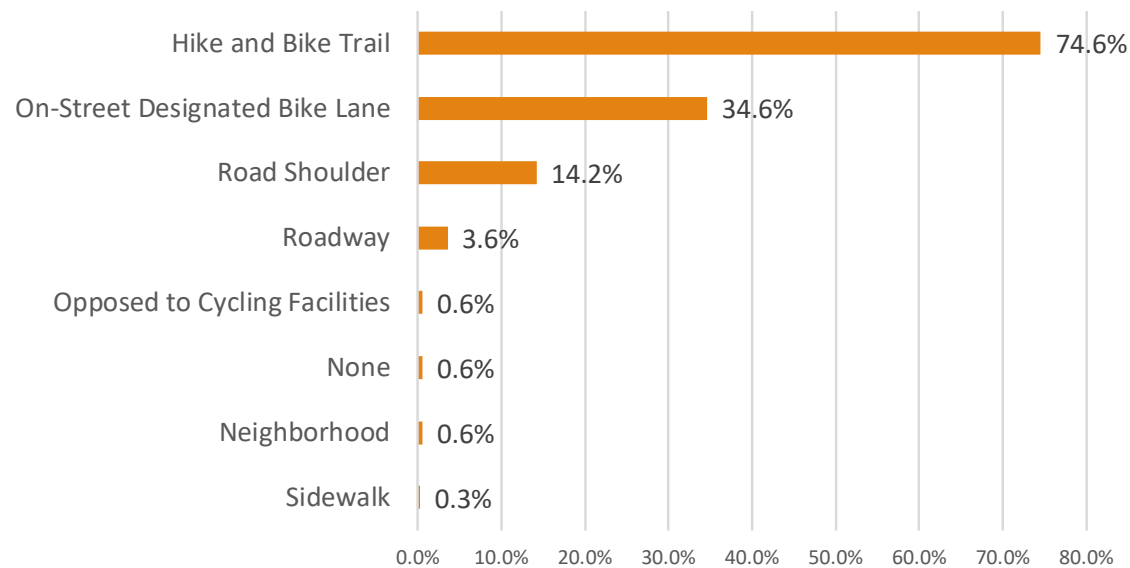
Have you ever biked in Fulshear and the surrounding area?



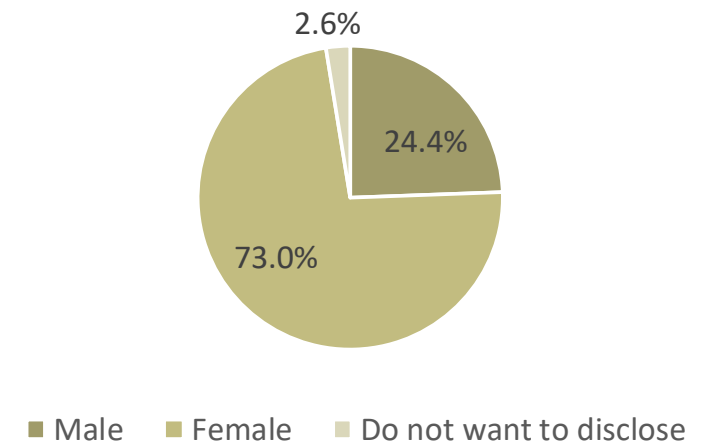
What concerns do you have regarding cycling in Fulshear?

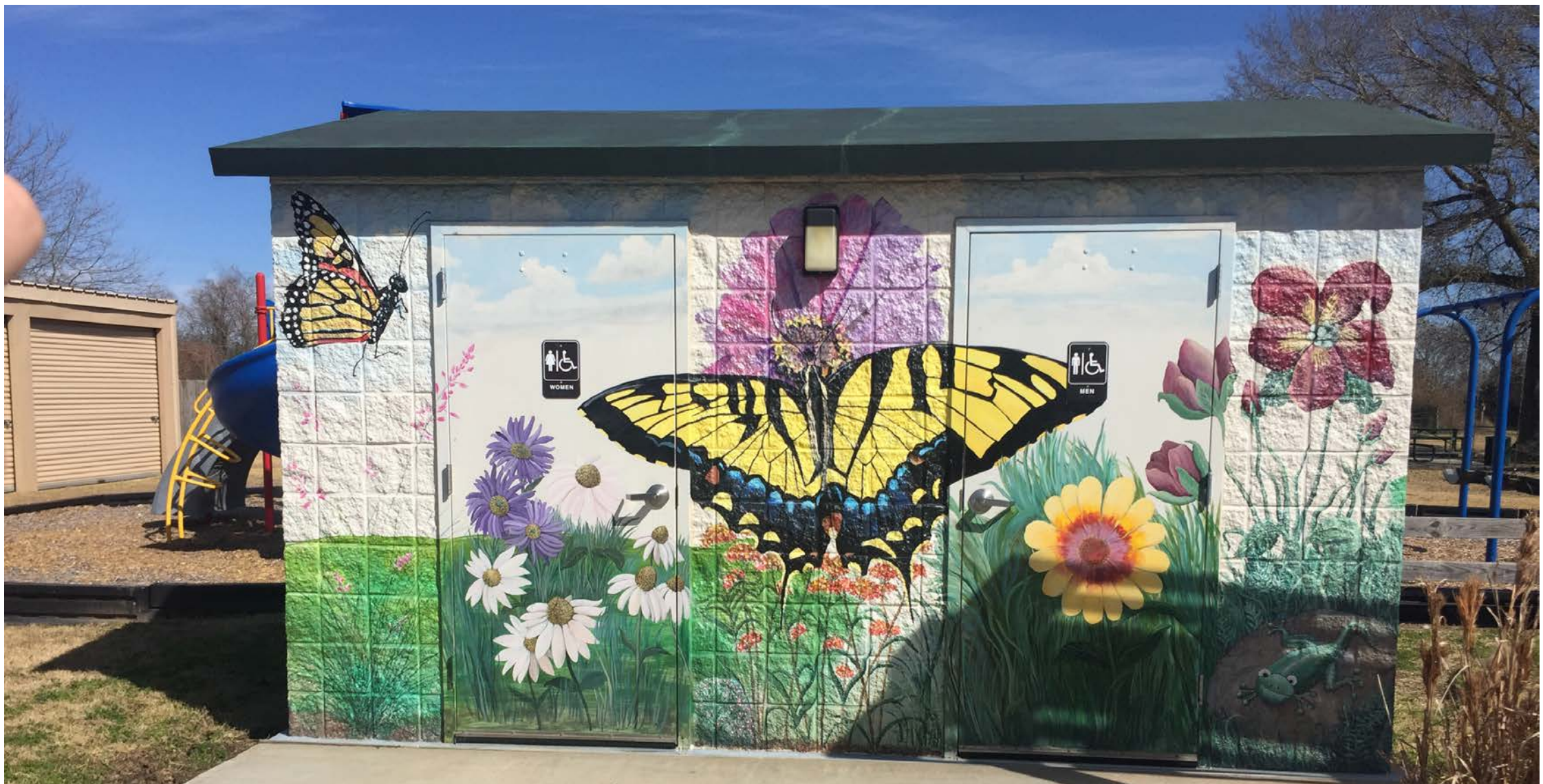
Response Category	# of Responses	% of Responses
Traffic Issues	169	43.8%
Safety for Cyclists	238	61.7%
No Significant Concerns	19	4.9%
Other	24	6.2%

What type of facilities do you prefer while cycling?



Gender of Survey Participants





03

PRIORITY PROJECTS

Primrose Park

Frances Smart Park

Paseo Park Concept

A Prototype for Future Parks

Creating a Walkable Community

“A park and recreation system that provides quiet places to connect with nature and the area’s rural heritage.”

- Parks and Amenities Goal 3: The Fulshear Comprehensive Plan

- Park Features
- Baseball/Softball 4-Plex
 - Multi-purpose Fields (soccer/football/lacrosse)
 - Basketball Courts (2)
 - Amphitheater
 - Walking Trails
 - Playgrounds (2)
 - Amenity Pond
 - Pavilion



Conceptual Site Plan - Primrose Park

*not to scale

*not to scale

Primrose Park

New Regional Park and Sports Complex

Provisions for Park Land

The City of Fulshear, recognizing the value of park land and the need to provide for park land acquisition and development, adopted an ordinance in 2013 that would require dedication of park land as a part of planned residential developments. The *Division 3. - Park Land Dedication Requirements* establishes a requirement of park land dedication at a rate of 1 acre per 60 dwelling units for all single-family, duplex, and multi-family developments.

The Ordinance offers the option for developers to pay a cash fee in lieu of land dedication at a rate of \$350 per dwelling unit for situations where it is desirable not to provide park land. An additional fee of \$440 per dwelling units is also required for regional park development.

It is with these funds that the City purchased 15 acres of park land that would be come part of the new Primrose Park. The Cornelius family, long-time leaders of the community and supporters of recreation, donated an additional 10 acres of land to become the southern half of Primrose Park.

A New Regional Park

The 25- acre Primrose Park will offer the opportunity to provide a variety of recreational amenities that are not being provided by other entities such as HOAs and the private marketplace. One of the most desired recreational amenities identified through public input was a gather space for community events. A large public space for festivals, concerts and other activities isn't currently available in Fulshear and will be an excellent addition to the parks system. An amphitheater, athletic fields, basketball courts, and picnic areas are among the amenities that

would also be offered at the park. The land is situated in an ideal, central location to be highly accessible to the community from any direction.

Phase 1 Development

The master plan for Primrose Park shown on the left represents the vision for the park at complete build-out, with all desired amenities included. While the City is committed to the vision, phased development of park features will provide the most feasible approach to the project. Key park amenities that the City would like to begin using soon include the Amphitheater, Walking Trails, parking, and multi-use athletic fields would be included in the first phase of construction.

Subsequent design and construction would complete the project with the development of baseball/softball fields and associated amenities, restrooms/concession building, dog park, playgrounds, and additional parking.

View of the Primrose Park property from an Unmanned Aerial Vehicle (UAV). The site is primarily comprised of open pasture land with scattered trees.



Phase 1 Development Scenario including a walking path and small temporary parking lot. The proposed Phase 1 pathway will remain as a permanent feature in the park, while the parking lot will be replaced by a permanent entrance road and landscaping during future phases.



Conceptual Site Plan - Primrose Park Phase 1 Development

Phase 2 Development Scenario including an amphitheater, parking, trails, and multi-use fields. Also shown in this drawing is the proposed restroom/concession building, which is considered optional and may be built in subsequent phases. The multi-use fields in the northern portion of the site will eventually be replaced by baseball and softball fields.

Natural Heritage

Fulshear has a rich history of farming and land stewardship. This area, known as the Katy Prairie, is part of the Western Gulf Coastal Grasslands ecosystem. Located within the flight path of migratory waterfowl and songbirds, and home to a diverse range of wetland and grassland habitats, the land in Fulshear should be preserved where possible for the benefit of both ecological and recreational purposes.

Park development can be highly compatible with conservation goals when implemented using low-impact development techniques to limit the impacts of construction. Areas of the property can be preserved and enhanced as wildflower meadows and preserves, while providing recreational and educational opportunities as well. Interpretive signs and other elements can educate visitors to the park, and trails can facilitate access to meadows and other features.



In addition to preservation of existing natural elements, landscape enhancements can be added to offset the impacts of development and create a more sustainable space. Bioswales, similar to drainage ditches, utilize selected vegetation to filter and slow down stormwater runoff prior to its drainage into the water shed. These bioswales can be designed using native vegetation adapted to the area, requiring minimal maintenance.

**Conceptual Site Plan - Primrose Park
Phase 2 Development**

*not to scale



Conceptual Site Plan - Frances Smart Park Renovation

*not to scale

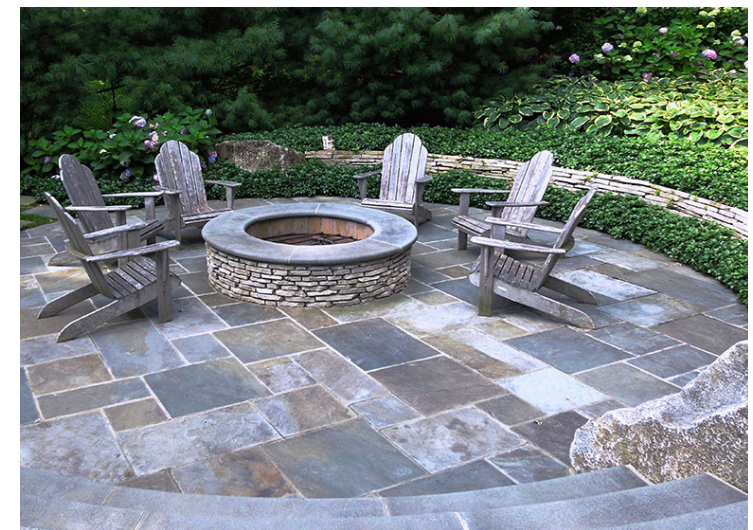
Frances Smart Park Renovation

Creating a Destination

Frances Smart Park is a passive park space located in the heart of Fulshear. Aside from occasional use for picnics under the existing gazebo, the approximate 1- acre park is largely underutilized. The recent addition of the historic 'Switch House' presents an opportunity for breathing new life into the park, by creating a destination for events and activities such as weddings, club meetings, art exhibits and more.

To create a destination for small gatherings that utilizes the Switch House will require reconstruction of the existing structure, which has been evaluated and determined to be more feasible to replace than to repair. The form of the structure could be honored in the new building, along with incorporation of non-structural elements such as wood planking, windows frames, etc to retain the historic character where feasible and appropriate.

The concept drawing on the left illustrates a proposed formal plaza that creates an event space around the back side of the building. Utilizing stone masonry seat walls, decorative paving, and attractive landscaping, the plaza would create an inviting outdoor venue for events during pleasant weather, and a compliment to activities hosted indoors. Other site amenities would include a decomposed granite walking trail, shade trees, additional parking, and site lighting.



Park Features

- Paved Promenade
- Wildflower/Butterfly Meadow
- Picnic Areas
- Parking (7 spaces per section)
- Pavilions/Picnic Shelters
- Lighting and Landscaping



Conceptual Site Plan - Paseo Park Concept

*not to scale, approximately 2,000 linear feet of section shown

Paseo Park Concept

A Linear Park and Downtown Destination

The Spanish word ‘paseo’ translates to mean ‘a leisurely walk’ or ‘promenade’, depending on the context. This concept has been utilized in other communities to create a pedestrian promenade along corridors, adding recreation and aesthetically pleasing landscapes to the environment.

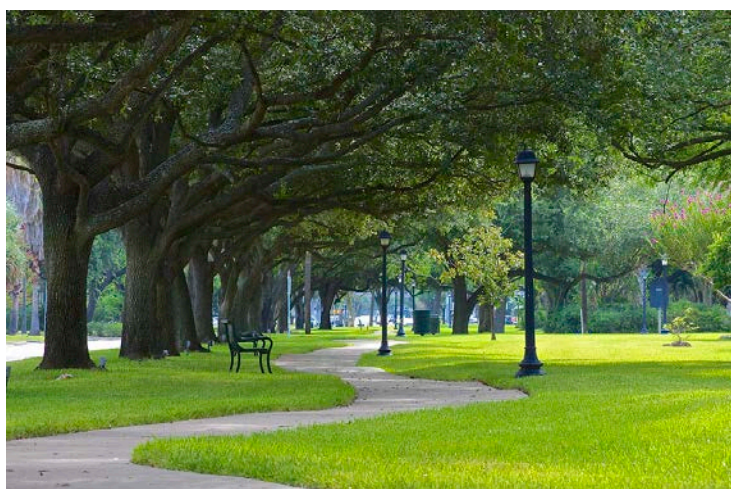
The FM 1093 corridor, currently a two-lane highway, is planned to be expanded into a divided highway as a part of the Westpark Tollway extension to the City Limits. This expansion of the roadway will include a significant median with an average width of approximately 200 feet. This median will provide ample space for a linear park including a paved promenade of walking paths, formal landscaping, wildflower meadows, and picnic areas. Small parking lots will provide access in addition to pedestrian connections at road intersections. The proposed pathways are planned as an integrated component of the planned city-wide pathway network.



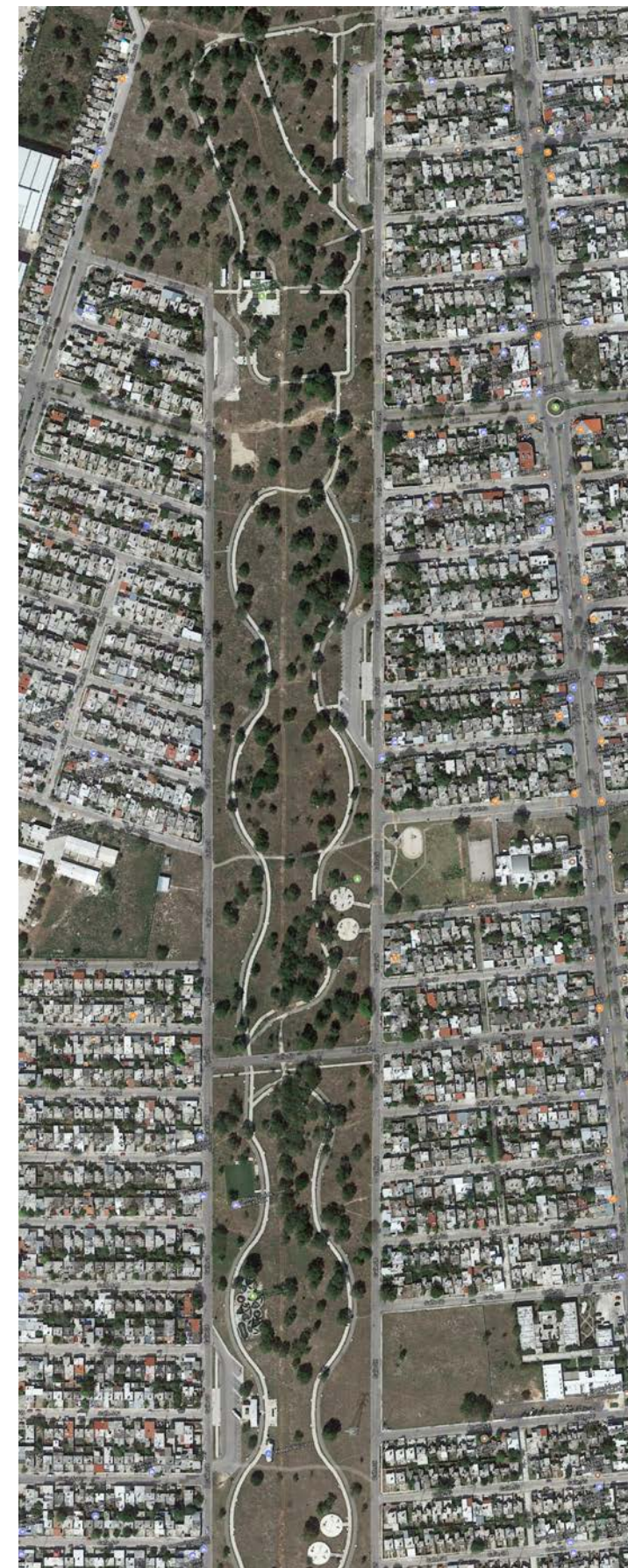
El Paseo Verde en la Historia De Mérida on the Yucatan Peninsula in Mexico.

A PASEO PARK PRECEDENT

El Paseo Verde en la Historia De Mérida (The Green Walk in the History of Mérida), located in the City of Mérida, Yucatan, Mexico is 450' wide linear park that transect the City. This paseo park offers meandering trails, plazas, exercise spaces, event spaces, basketball courts, open space, and more. The park spans 4.1 miles of the City, connecting neighborhoods and public places, and has a long history in its development over time.



View of Paseo Park in Bellaire, Texas. The park includes pathways, shade, open space, public art, and a historic trolley exhibit.





*note: allowances for stormwater detention may be required, that will be site-specific and are not included in this prototype.

Conceptual Site Plan - Prototypical 5-Acre Community Park

*not to scale

Prototypical 5-Acre Community Park

A Template for Growth Planning

As Fulshear continues to grow and develop, the need for additional park space will grow proportionally. This additional park space will either be acquired through park land dedication from private development, or through purchase of land using funds collected via the fee-in-lieu of park land dedication as dictated by City Ordinance. Without knowing yet which properties will be acquired in the future, it is helpful to have a model or template for what should be considered in a typical park of a given size.

It is common for park land dedicated by developers to primarily consist of small neighborhood parks of 1 acre or less in size, distributed throughout the development. Larger parks will likely be developed by the City in the future. The drawing on the left is a concept for a prototypical 5-acre community park that would serve a range of activities and uses that are not provided by most smaller neighborhood parks.

Park Features

- Basketball Courts (2)
- Tennis Court
- Large Group Pavilion
- Parking (40 spaces)
- Playground (multi-age)
- Walking Path
- Multi-purpose Athletic Practice Field (football/baseball/soccer)
- Small Pavilion
- Wildflower/Butterfly Garden/Nature Reserve



Creating a Walkable Community

Pedestrian Paths and Trails

Defining Walkability

Walkability is defined in many ways, but is almost always based on three principles:

- Physical Access
- Places
- Proximity

“**Physical Access**” refers to the infrastructure available to facilitate safe pedestrian travel to a destination. This can take the form of sidewalks, trails, open space and corridors.

“**Places**” refers to the presence of public destinations such as schools, work, shopping, food service, parks and other recreational activities.

“**Proximity**” refers to the walkable distance to destinations. An acceptable distance to a variety of destinations would be approximately one mile or 10 to 15 minute walk from a given location.

The Need

As a rural community, Fulshear traditionally has had limited sidewalks and trails, except within master-planned communities. As the City continues to grow, the need to maintain connectivity increases as well.

New residents in Fulshear are often bringing with them an expectation for more recreation amenities, and chief among them is the desire for more pathways that connect neighborhoods to parks, schools, and public spaces. This need is clearly evident in the stakeholder input gathered during development of this plan. The highest rated need for Fulshear’s parks and recreation system is pedestrian pathways.

Existing Conditions

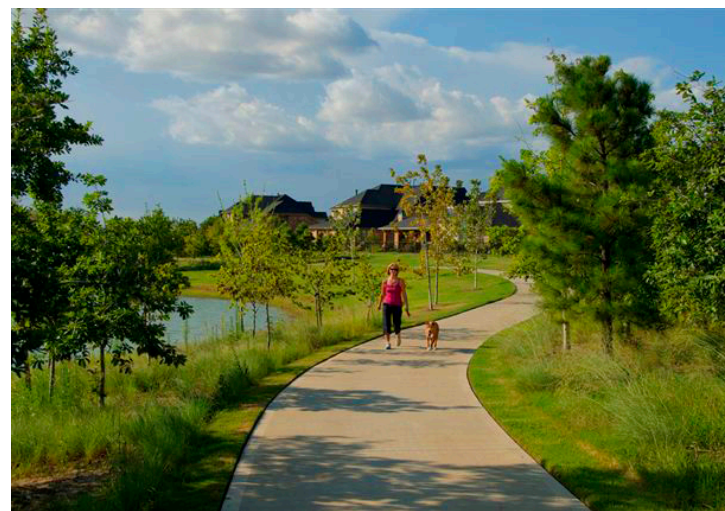
The existing pedestrian pathways in the City of Fulshear include approximately 123.43 miles of sidewalks and multi-use pathways, primarily located within new residential developments.

The Cross Creek Ranch subdivision has an extensive pedestrian pathway network with more than 28 miles of sidewalks and trails that connects every home to the HOA’s recreational amenities such as the Community Recreation Center, playgrounds, pocket parks, lakes, and open spaces. The trails include alignments along drainage corridors and pipeline rights-of-way in addition to those along roadways.

The Fulbrook on Fulshear Creek subdivision has a system of sidewalks on both sides of the roads within the community that connect the homes, pocket parks, and community activity center. Fulbrook has both concrete and natural trails in the community, with the natural trails in the southeastern part of the community providing access to Bessie’s Creek, which offers a scenic, natural path along the creek.



Pathway along Fulshear Trace Blvd. within Fulbrook on Fulshear Creek.



Pathway within Cross Creek Ranch subdivision.



Natural trail within Fulbrook on Fulshear Creek.

Developing subdivisions including Firethorne, Tamarron, Fulshear Run, Jordan Ranch, and Churchill Farms are also providing trails and sidewalks within their communities as they continue to build out.

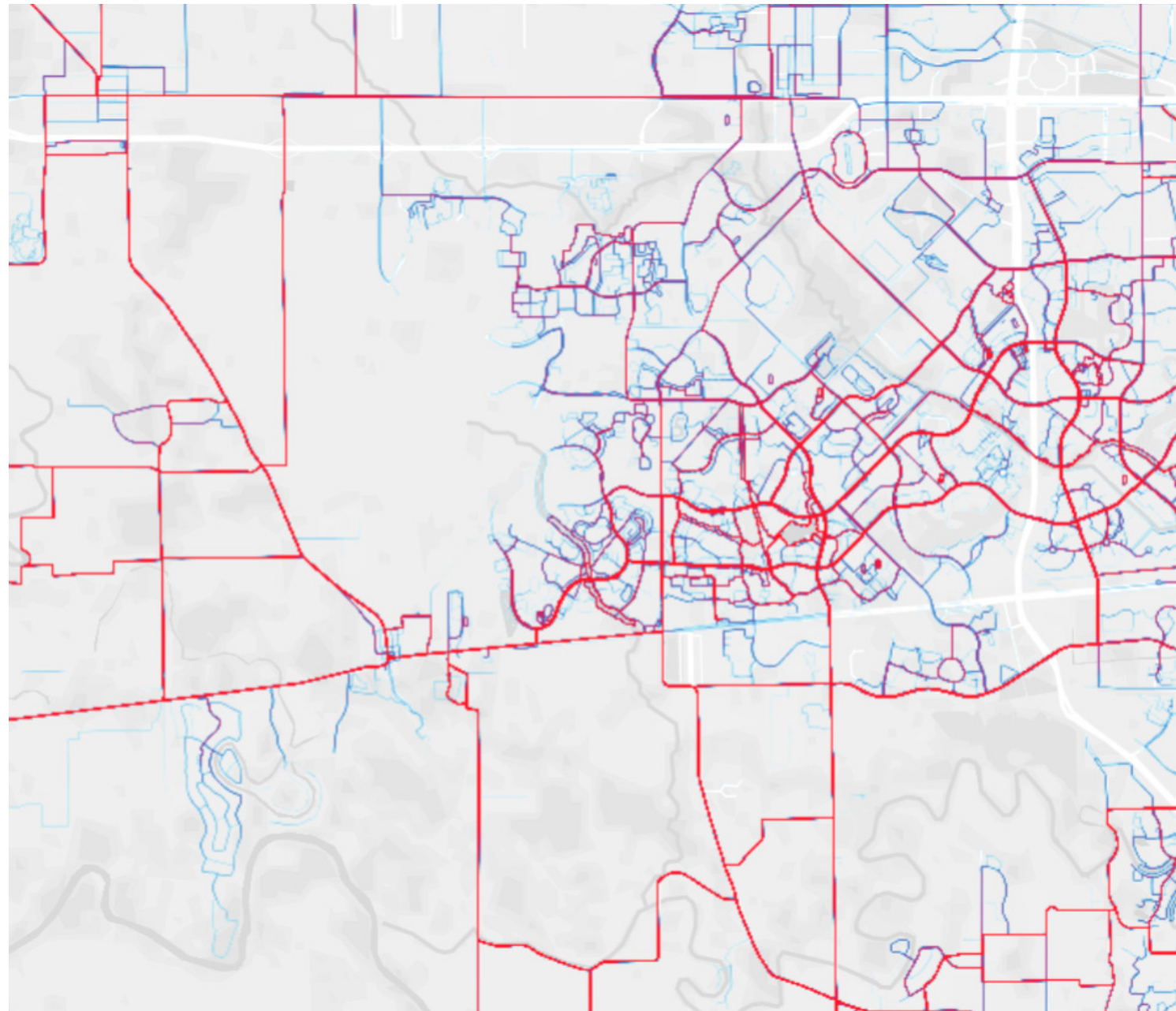
Running and Cycling

Running and cycling are popular activities in Fulshear for residents and visitors alike. Runners also use the road shoulders along FM 359 and FM 1093 as well as neighborhood streets. Cycling has been a popular activity for at least a decade, with visitors coming in from Houston and even further to take advantage of the quiet, scenic country roads. Area cycling groups organize regular weekend rides and events in Fulshear, utilizing the major roads in and around town. Some local residents have expressed concerns over safety with cyclist using roadways that have narrow shoulders or heavy traffic.

Using the Strava™ mapping service, a popular GPS-based activity tracking platform, running and cycling activities in the Fulshear area can be easily visualized. The Strava™ heat map shows levels of activity from users' devices with a gradient of colored lines in blue and red.



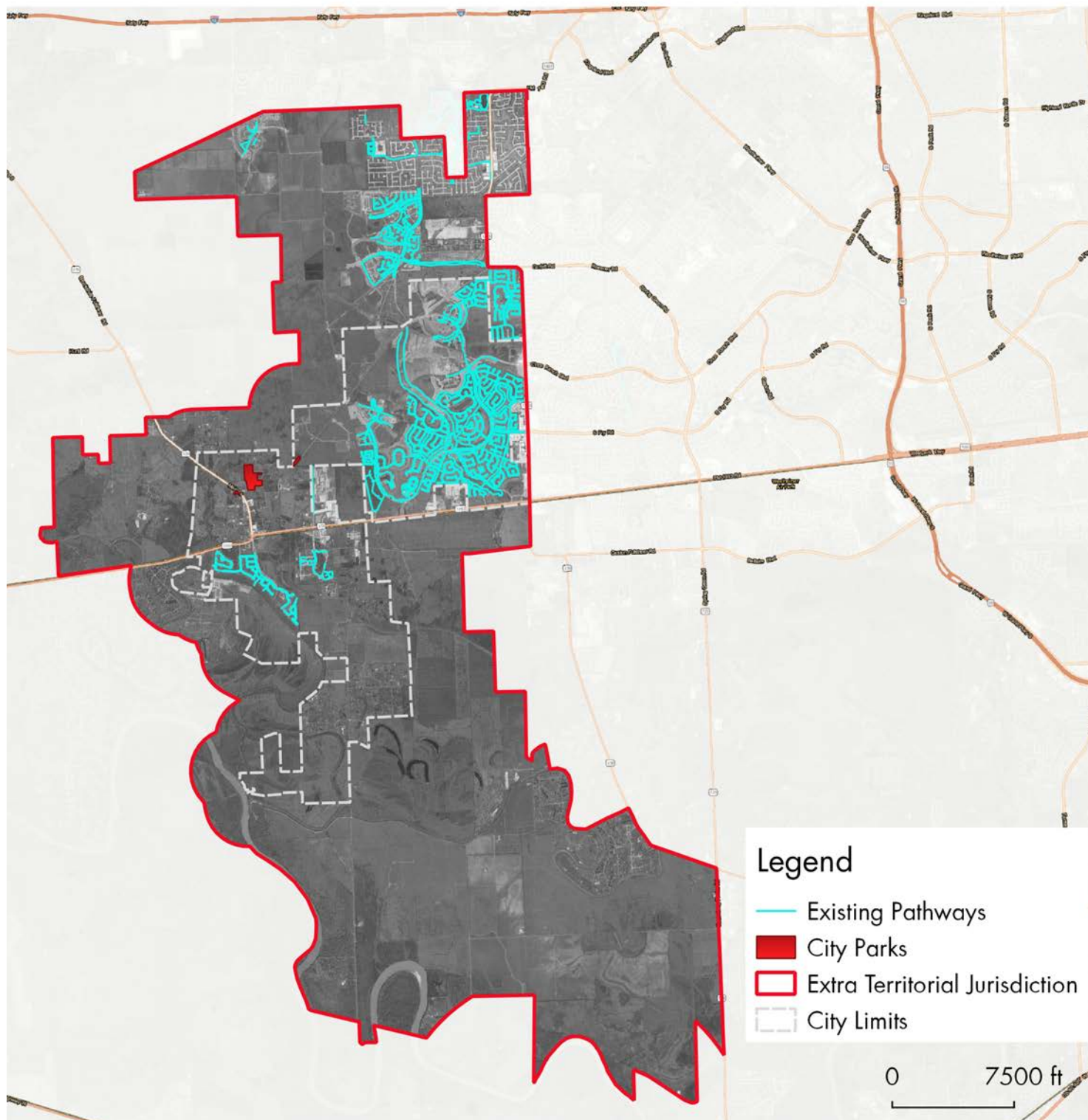
A closer look at Downtown Fulshear indicates that there is a significant volume of pedestrian and bicycle traffic on the streets, indicating a need for dedicated facilities.



The Strava™ activity tracking service allows users to upload their GPS activity from running and cycling trips for online visualization on maps. The red areas show where users have been running and cycling the most followed by varied shades of blue representing lower activity levels. .

Creating a Walkable Community

Existing Pathways in Fulshear



Expanding the Pathway Network

To date, the majority of sidewalks pathways in and around Fulshear have been developed as a result of residential development. Some neighborhoods are building sidewalks and multi-use pathways along major thoroughfares and collector roads, while other neighborhoods are putting sidewalks on every street. This has created connectivity within the subdivisions, but these connections stop at the edge of the development.

Expanding the pathway network to connect neighborhoods to each other and to public places such as Downtown Fulshear, schools, shopping areas and parks will require a multi-faceted approach including participation of not only the developers, but also the City and County in order to achieve a complete system.

Regional Transportation

The proposed Texas Heritage Parkway will be a 6.5 mile regional road improvement project that will relieve growing traffic pressure as the area continues to develop. This route will be built with the participation of eight private entities (developers) and the cities of Katy and Fulshear, along with County funding. This 4-lane divided roadway will include a pedestrian trail along one side, with underground crossings at the proposed roundabout intersections. The participation of developers will not only provide necessary funding, but will ensure that the future pedestrian pathway connect to the communities larger road network.

Demand for Pathways

The online Parks and Recreation Survey identified a clear pattern of demand by residents for more pathways for pedestrian and bicycle activities. When asked what activities survey participants currently participate in, pedestrian activities (hiking/jogging/walking/running) was ranked the highest with a

Texas Heritage Parkway Funding
 50% Landowners (\$24,431,370)
 27% Fort Bend County (\$13,285,674)
 12% City of Fulshear (\$5,693,860)
 11% City of Katy (\$5,451,836)

participation rate of 80.9%. Bicycling participation rates were reported at 31.2%. When survey participants were asked to rate their top three features that they would like to see in existing or future parks, Pedestrian facilities was the highest rated feature at 71.8%, followed in third place by Bicycling at 45.5%.

Digging further into the potential need for pathways, survey participants were asked about their bicycling activity to which they responded with the following participation rates”

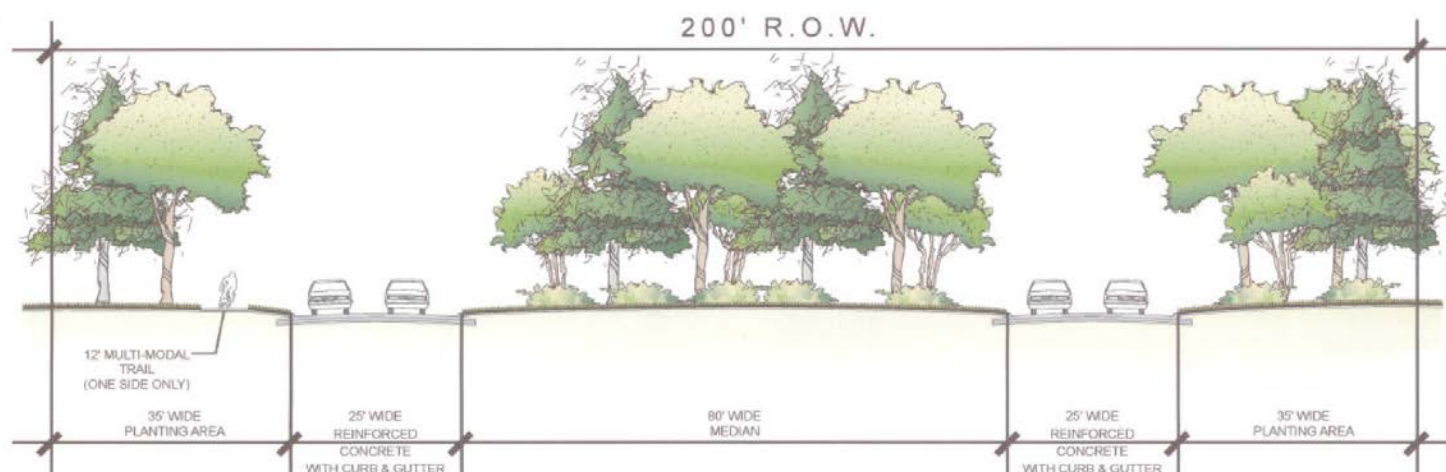
- Occasionally - 58.0%
- Weekly - 25.9%
- Monthly - 10.9%
- Daily - 5.2%

Even further inquiry reveals that cyclists prefer the following types of bicycle facilities:

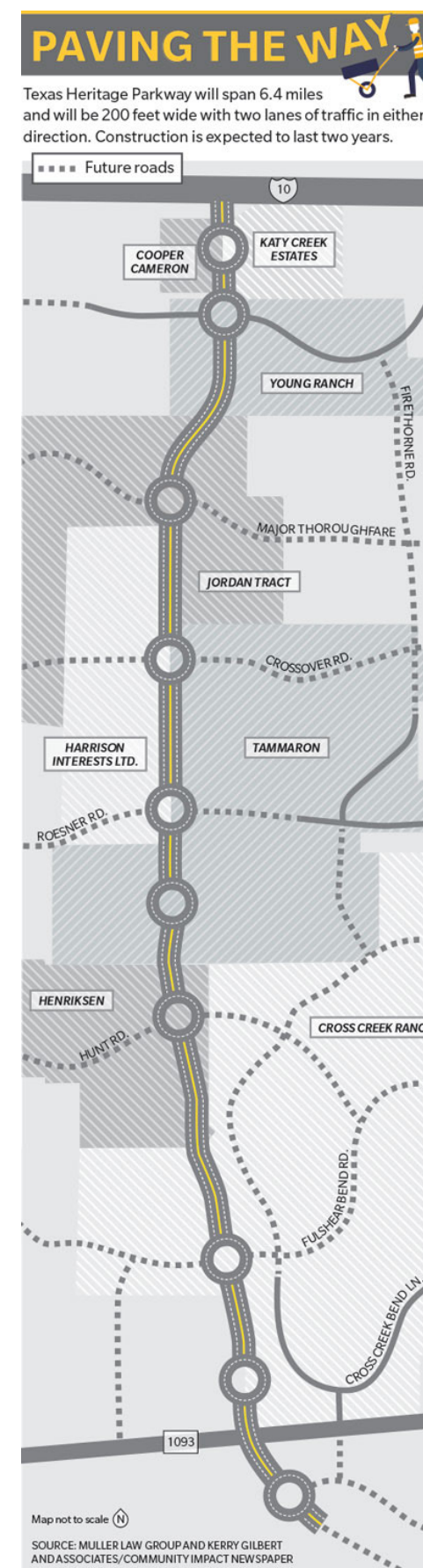
- Hike and Bike Trail - 74.6%
- On-Street Designated Bike Lane - 34.6%
- Road Shoulder - 14.2%
- Roadway - 3.6%

These survey results indicate that there are a variety

of types of cyclists with different behaviors and preferences. The large percentage of participants who prefer Hike and Bike Trails suggests casual riders, mountain bikers, and families rather than traditional competitive cyclists (road bikes). However, with a total of 34.6% of participants desiring bike lanes, combined with the land-use patterns in the area (limited office or commercial) suggests that traditional cyclists are still an important segment to consider. In conclusion, it makes the most sense to provide a variety of bicycle facilities that accommodate both user segments where facilities are feasible.



The City of Fulshear’s Comprehensive Plan identifies 12’ wide, multi-modal trails along one side of proposed Parkways. This standard is to be implemented on the proposed Texas Heritage Parkway. source: *Fulshear Comprehensive Plan, Adopted May 6, 2014.*



The proposed Texas Heritage Parkway will provide a 6.5 mile long trail that connects area neighborhoods to each other and to Downtown.

Creating a Walkable Community

Proposed Pathways

The primary means of pathway development throughout the City will be through the installation of pathways in conjunction with road reconstruction or new road construction and continued development of residential subdivisions. The proposed pathway system is focused on primary connections along existing and proposed roadways, with the expectation that new residential development will provide the neighborhood connections. The proposed pathway system is generated based on considerations as below:

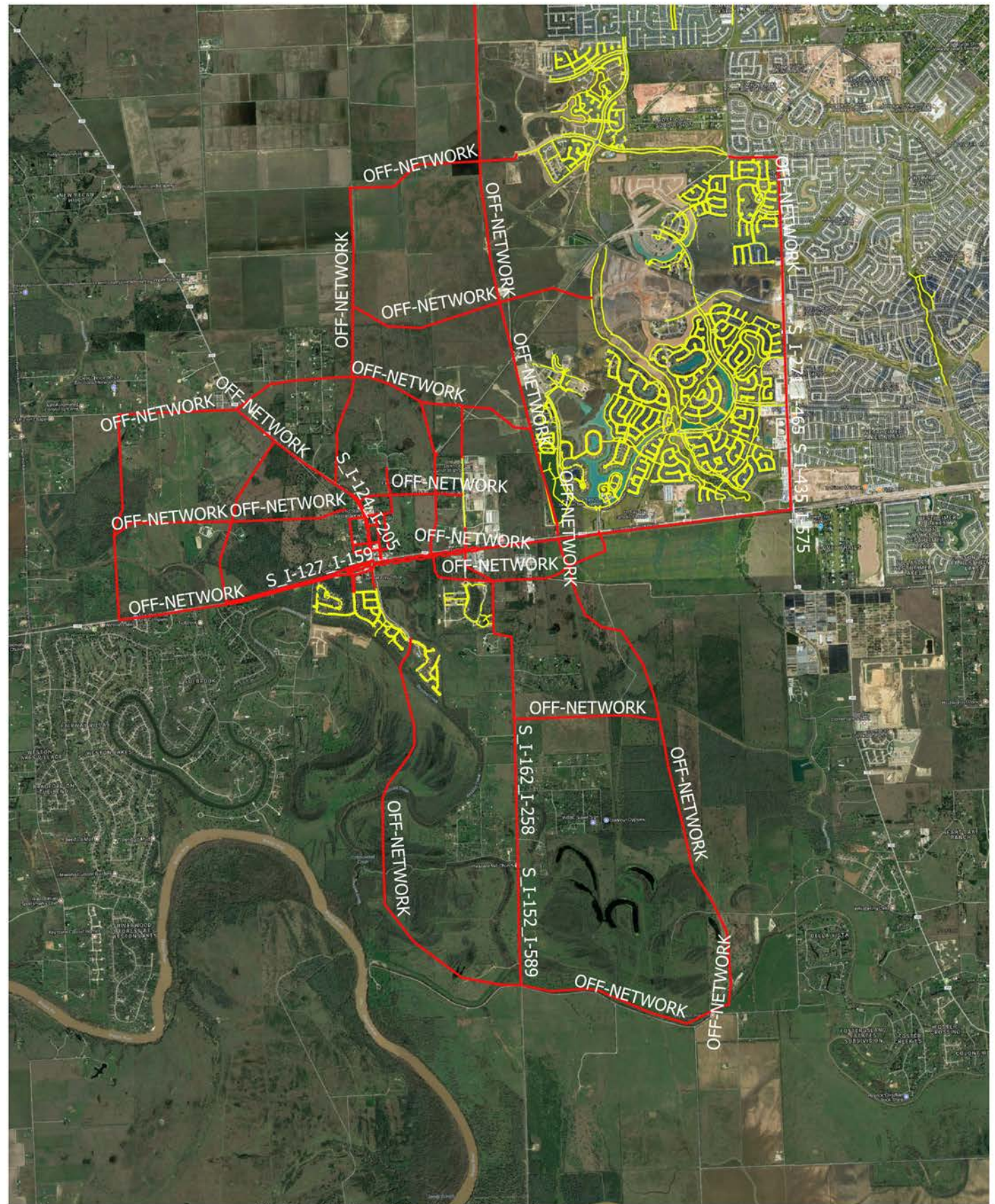
- Available existing and future road rights-of-way;
- Choosing shortest route for connections;
- Creating circulations that connects destinations;
- Meeting the needs for both transportation and recreational purposes;
- Accessible to all kinds of users (pedestrian, runners, cyclists, and, where feasible, equestrians)

Pathway Development with Road Infrastructure

A common method of implementation of a city's pathways plan is to incorporate the design and construction of pathway with road construction and reconstruction projects. There is usually some economy of scale gained by having the pathways built while construction crews and equipment are already being mobilized for the road project.

Proposed Pathway System

A total of 47.17 miles of proposed pathway alignments have been identified along existing and proposed roadways. Some of these pathways will create loops for circulation through the community that connect multiple points of interest such as neighborhoods, parks, public spaces, and commercial areas. Other alignments will serve to create intermediate connections within the pedestrian system.



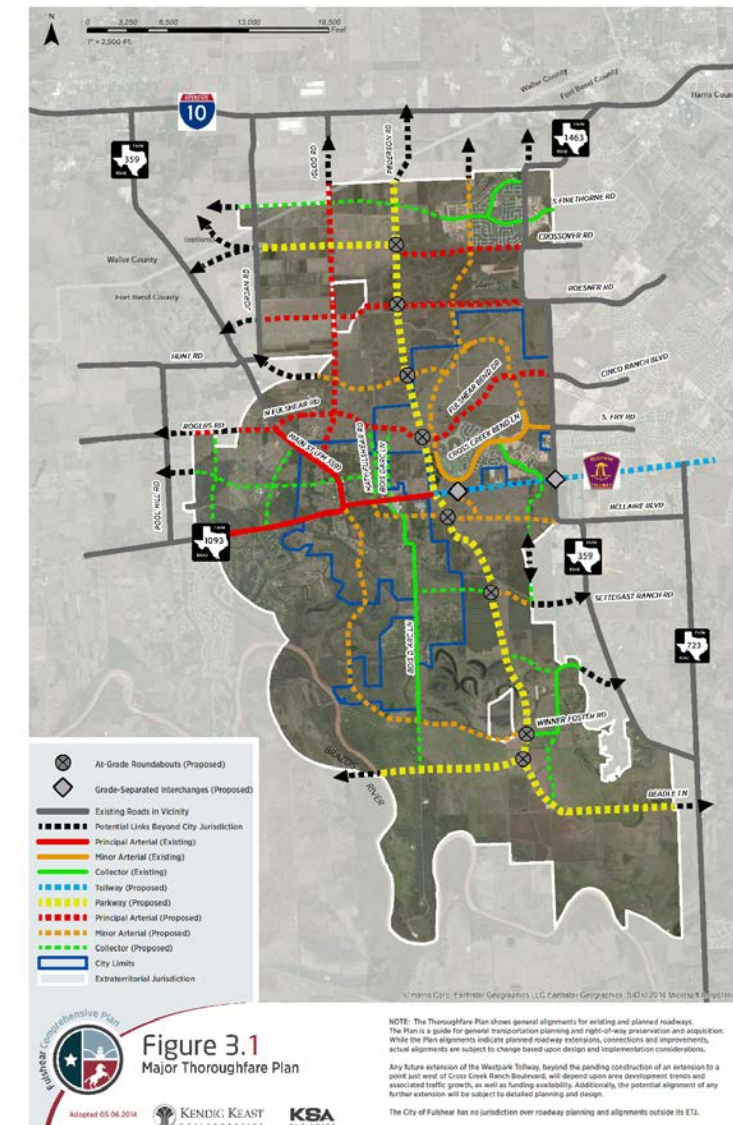
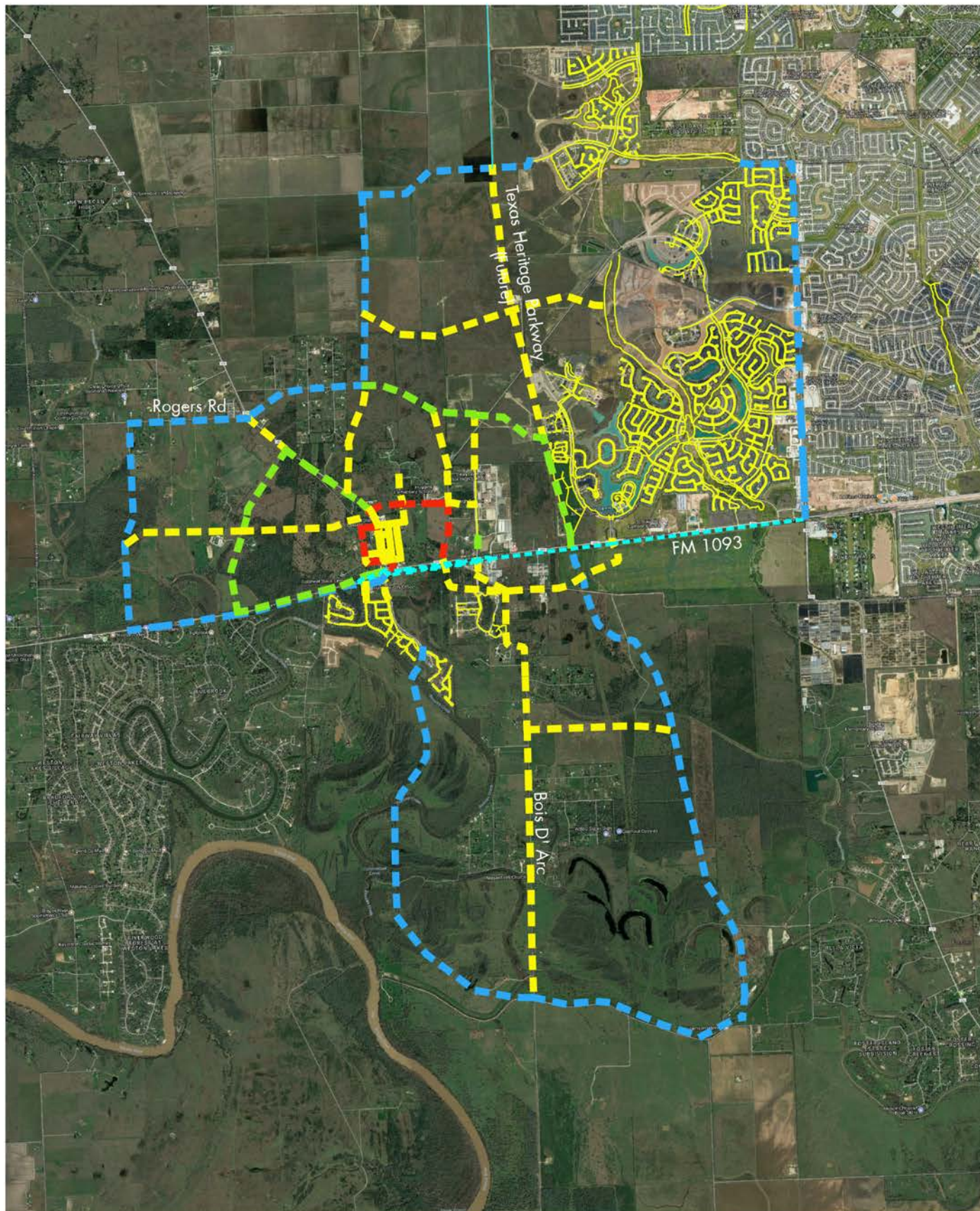
— Proposed Pathways by Road Segment

— Existing

Proposed Pathways Fulshear Parks and Pathways Master Plan

* road sections in this view have been labelled by segment ID numbers that are used in infrastructure planning.

The proposed pathway network shown on the left illustrates proposed routes by function. Each color represents a function such as a circulation loop, connection between loops, existing trail or special purpose route. The routes take advantage of existing and future roadways as identified in the Thoroughfare Plan below



Transportation Planning Precedents
The City's Major Thoroughfare Plan, defined within the Fulshear Comprehensive Plan, will provide the most logical location for inter-neighborhood connections.



04

IMPLEMENTATION

Resources
Phase I

“A park and recreation system that contributes to a more connected community through trail networks, greenways and other off-street links between neighborhoods and popular destinations.”

- Parks and Amenities Goal 4: The Fulshear Comprehensive Plan

Where to Begin

The Parks and Pathways Master Plan identifies the priority projects and justification through stakeholder input. However, the timing of project implementation is largely a function of funding, land availability, and other economic constraints.

Priority Projects

The following Priority Projects have been identified as part of this planning process:

1. Primrose Park- New Community/Regional Park and Sports Complex
2. Paseo Park Concept- A Concept for a Passive, Linear, Park within Future FM 1093 Esplanade
3. Frances Smart Park Renovation- Formal Event Patio and Park Improvements
4. Prototype 5-Acre Park – Design prototype for 5-Acre Community Park with typical amenities
5. Pathway Master Plan- Proposed pedestrian and bicycle pathways throughout Fulshear

To fund any major improvements to the parks and recreation system the City may elect to use a municipal bond, Economic Development Corporation funds or general fund revenues. The system-wide proposed goals for improvements include significant expenditures if all proposed projects were to be implemented.

Project Costs

On the adjacent page is a summary table of probable costs and projected investment by the community. An annual debt service rate was calculated using 2016 taxable property values and City rates for guidance. With an assumption of 15 year bond periods and an annual debt service of 3%, the table on the following page illustrates the level of investment per household projected for key property value categories.

Next Steps

The list of proposed projects for the parks and recreation system offer individual opportunities for addressing current and future demand of recreation facilities. Each project profile in the previous chapter provides a conceptual design and Opinion of Probable Costs for the purpose of planning and budgeting.

Design Development

Upon deciding to implement a project, the next step is to move into the Design Development/Preliminary Design phase to refine the details of desired amenities, site layout, material choices and many other items. This process will include several iterations of projected costs, revisions and refinements that ultimately will be turned into construction documents. It is important during Design Development to continue to gather input from stakeholders throughout the process to ensure that key details are not left out.

Final Design, Bidding and Construction

After the City has committed to the program elements and details through the Design Development phase, the process enters Final Design. This phase takes the concept into final construction drawings that will be used to solicit bids for construction of the project. Drawings will likely be prepared at the 60%, 70%, 90%, and 100% completion levels with statements of probable cost at each level. Upon approval of 100% drawings, the design is packaged with a set of specifications and contract documents for the bidding and construction process.

Funding Opportunities

As the City continues with improvements and additions to the parks system, funding is often the key player in the decision making process. On the following pages are a variety of State and Federal grant programs available to aid cities in the enhancement of parks and recreation facilities and other public space projects.

Land Acquisition

As the City continues to grow and develop, it will be important to continue acquiring additional lands for parks and open space. Based on NRPA standards for park space, Fulshear will need between 64 and 108 acres of developed park space in order to keep up with current standards and trends. Even with the provision of park land by private development, the total available park land is insufficient.

Some park space will be provided by subdivision development under the auspices of the Park Land Dedication Ordinance. This will usually take the form of smaller neighborhood parks. Land acquisition efforts should focus on larger community parks rather than small neighborhood parks, thereby providing a resource that is not already provided by residential development.

Regional Planning Considerations

Other governmental agencies in the region, such as Fort Bend County, the Cities of Katy and Simonton, and the Houston Galveston Area Council, have current or potential future planning documents that could influence decisions for parks and recreation in Fulshear. For example, amenities such as hike and bike trails tend to provide connection opportunities to neighboring jurisdictions and warrant consideration and coordination with those entities during implementation.

Proposed Parks and Pathways Capital Projects - Cost Per Property Valuation

Capital Project	Project Cost Estimate (avg. low-high)			Annual Cost per Valuation			
	Probable Cost	Annual Debt Svc	I&S Rate per \$100 Value	\$200,000	\$300,000	\$500,000	\$800,000
Primrose Park- New Community/Regional Park and Sports Complex	\$6,375,923	\$614,271	0.046	\$93	\$139	\$232	\$372
Paseo Park Concept– A Concept for a Passive, Linear, Park within Future FM 1093 Esplanade	\$592,864	\$57,118	0.004	\$9	\$13	\$22	\$35
Frances Smart Park Renovation- Formal Event Patio and Park Improvements	\$220,445	\$21,238	0.002	\$3	\$5	\$8	\$13
Prototype 5-Acre Park – Design prototype for 5-Acre Community Park with typical amenities	\$1,552,582	\$149,579	0.011	\$23	\$34	\$57	\$91
Pathway Master Plan- Proposed pedestrian and bicycle pathways throughout Fulshear	\$15,133,400	\$1,457,986	0.110	\$221	\$331	\$551	\$882

*The table above represents probable costs per property valuation for projects identified in this plan. The table utilizes total taxable property valuation within the City Limits (current available is 2017) to determine the approximate tax impact on a given property if a given project were to be funded by public debt. The total 2017 taxable value for property within the City of Fulshear was \$1,322,226,927. The assumption above considers payments for a 15-year bond with a debt service of 3%.

**source: <https://comptroller.texas.gov/taxes/property-tax/rates/>



Funding Opportunities

As the City continues with improvements and additions to the parks system, funding is often the key player in the decision making process. The following are funding mechanisms identified to assist in funding the priority projects identified during this planning process:

Hotel/ Motel Occupancy Tax

These are proceeds from local hotel occupancy tax revenues received during the year. Expenditures from this fund are restricted, but could fund the following:

- *Tourism/Special Events*-Paying for advertising, solicitations and promotions that attract tourists and convention delegates to the City or its vicinity.
- *Public Art*-Expenditures that promote the arts
- *Wayfinding*-Signage directing tourists to sights and attractions that are visited frequently by hotel guests to the municipality.

TRPA Grants Program

-potential funding: \$500,000 (match grant)

The Texas Recreation and Parks Account (TRPA) is funded by a portion of Texas sales tax received on selected sporting goods. These grants are awarded to applicants annually at varied levels depending on project type and available resources for the funding cycle. These funds are administered by the Texas Parks and Wildlife Department's Recreation Grants Branch for five programs including 1) Outdoor Recreation 2) Indoor Recreation 3) Small Community 4) Regional 5) Community Outdoor Outreach Program. Expenditures from this fund could be used to fund the following:

- *Trails*-Paying for motorized and non-motorized recreational trail projects.

- *Park Facility Improvements*-Expenditures that related to the acquisition, and/or development of public recreation areas in the State of Texas.

Land and Water Conservation Fund

-\$2.4 million apportioned to Texas in 2014

The Land and Water Conservation Fund (LWCF) is a program of the National Park Service that provides matching grants to local governments for acquisition of park land and development of park facilities. Expenditures from this fund could be used to fund the following:

- *Trails*-Paying for recreational trail projects.
- *Park Facility Improvements*-Expenditures that related to the acquisition, and/or development of public recreation areas.

Transportation Equity Act (SAFETEA-LU) - Recreation Trails Program

The Transportation Safety Act, also known as the Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users (SAFETEA-LU), provides for the distribution of funds from the Federal Highway Administration (FHWA). The Federal Highway Administration is the largest source of funding for shared use paths, trails and related projects. The Recreational Trails Program, an assistance program to FHWA, distributes funds for a range of activities including:

- *Trails*-Paying for recreational trail projects.

Department of Transportation TIGER

TXDOT has funding annually which can assist local communities in constructing transportation facilities within the community. Expenditures from this fund are restricted, but could fund the following:

- *Community Connections*-Paying for sidewalks, trails and bike land development in the community.

Wells Fargo

Wells Fargo Community Giving program in Texas can assist communities with community development, arts and culture and civic engagement projects. Expenditures from this fund could be used to fund the following:

- *Public Art*-Paying for public art acquisition and installation.
- *Bike Facilities*-Expenditures related to installing bike racks, parking, repair stations and storage facilities for bicycles.
- *Park Projects*-Expenditures related to the development of park and recreation facilities open to the public.

Kaboom!

Kaboom! is an organization which supports playground projects in the US. Expenditures from this fund could be used to fund the following:

- *Playgrounds*-Paying for playground acquisition and installation.
- *Planning*-Expenditures related to playground planning activities involving the community.

People For Bikes

The People For Bikes is a non-profit which funds bicycle infrastructure. Expenditures from this fund could be used to fund the following:

- *Community Connections*-Paying for bike paths, lanes, trails and bridges.
- *Bike Facilities*-Expenditures related to installing bike racks, parking, repair stations and storage facilities for bicycles.

Texas Commission on the Arts

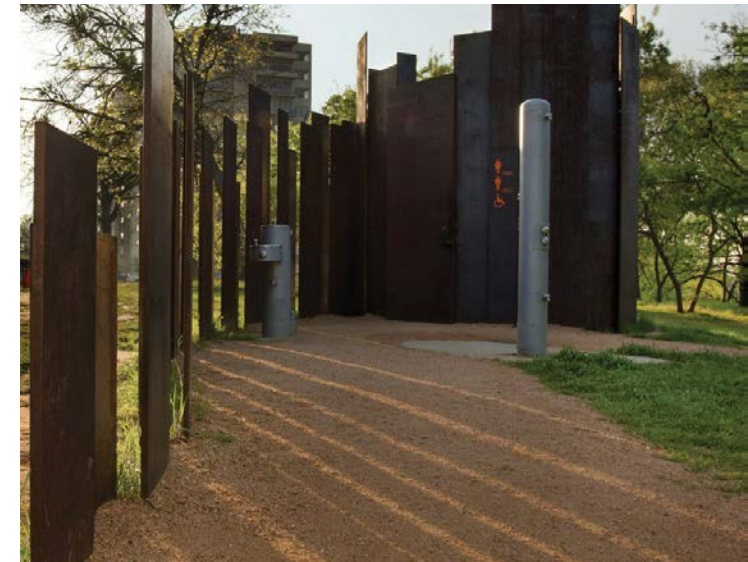
These funds are for the purpose of promoting the Arts in Texas. Expenditures could fund the following:

- *Public Art*-Expenditures that promote the arts which include art acquisition, installation and/or programs and events.

National Endowment for the Arts

These funds are for the expansion of art in communities, specifically strengthening of communities through art. Expenditures from this fund could be used to fund the following:

- *Public Art and Events*-Paying for art pieces, acquisition and/or programs and events which promote the arts in a community.





05

APPENDICES

Opinions of Probable Costs
Estimated Annual Maintenance and Operation Costs

“A park and recreation system that keeps pace with Fulshear’s expected rapid growth through ongoing City investment in new and improved sites and facilities.”

- Parks and Amenities Goal 5: The Fulshear Comprehensive Plan

Statement of Opinion of Probable Costs

Explanation of Cost Estimates

The priority projects identified in this plan were developed with schematic drawings to a level of detail sufficient for evaluating feasibility and the probable level of investment for implementation.

The concept drawings are not to be construed as 'shovel-ready', rather they provide a vision for the improvements, illustrating the layout of elements and the scale of the given project. The statements of Opinion of Probable Costs (OPCs) provide direction as to the order of magnitude of cost for each itemized feature, as well as provide for general site work, contractor mark-up, overhead, contingencies, and professional fees.

Primrose Park - Preliminary Opinion of Probable Costs

Qty.	Unit	Description	Unit Cost	Subtotal
Site				
1	allow	Clearing, Grubbing, Disposal	\$104,000	\$104,000
1	allow	Strip, Stockpile, Grade Site	\$150,000.00	\$150,000
23,516	cy	Detention/Retention Pond (10' deep) Excavation (63,495sf)	\$5	\$117,580
25	ac	Herbicide	\$4,500	\$112,500
1	allow	SWPPP Erosion Control	\$15,000	\$15,000
Parking				
115,005	sf	Pavement (parking lots & driveways, 6" conc fly ash/lime) (162 spaces)	\$7.00	\$805,035
1	allow	Parking Lot Striping & Signage (HC markings)	\$2,000	\$2,000
Structures				
550	sf	Restroom Building	\$250	\$137,500
550	sf	Concession Building	\$300	\$165,000
2	allow	Group Pavilions	\$50,000	\$100,000
Play Amenities / Hardscape				
4	ea	200 ft Baseball Field w/ lighting, sod, earthwork, drainage, fencing, backstop and netting, dugouts, covered stadium style bleacher system	\$350,000	\$1,400,000
2	ea	Basketball Courts - full size, goals, play surface	\$40,000	\$80,000
1	ea	Covered Basketball Option	\$500,000	\$500,000
3	allow	Batting Cages 24 ft x 70 ft	\$7,500	\$22,500
1	allow	Dog Park - fencing and gates	\$45,000	\$45,000
1	ea	Play ground(2 to 5 and 5 to 12 yr old)	\$60,000	\$60,000
1	ea	Play ground(2 to 5 and 5 to 12 yr old) w/ seats	\$350,000	\$350,000
1	ac	Multi-Use Field (game field, fine graded, sodded)	\$87,500	\$87,500
300	sf	Amphitheater Stage	\$250	\$75,000
2,222	cy	Amphitheater Berming and Turf (10,000sf, 6' height)	\$8	\$17,776
3,990	sf	Trails- 5 ft wide-decomposed granite	\$5	\$19,950
4,540	sf	Sidewalk	\$5	\$22,700
Landscape				
1	allow	Trees, Mulching, Grass Seeding, Beds	\$200,000	\$200,000
Utilities				
1	allow	Utilities Extension	\$100,000	\$100,000

Base Construction Cost	4,689,041
General Conditions, Contingency and G.C. Markup	
10% Contingency	468,904
12.5% G.C. Markup, Overhead and Profit	586,130
Total Construction	5,744,075
Surveying (1%)	57,441
GeoTech (1%)	57,441
Professional Service Fees (9%)	516,967
Total Opinion of probable Costs	6,375,923

**Primrose Park - Phase 1 Development - Trail and Temporary Parking Lot
Preliminary Opinion of Probable Costs**

Qty.	Unit	Description	Unit Cost	Subtotal
1,400	LF	Primrose Park Trail (8' wide)(\$6.50/SF)	\$52	\$72,800
9,125	SF	Gravel Parking Lot and Driveway (18 spaces)	\$4.00	\$36,500

Base Construction Cost **109,300**

General Conditions, Contingency and G.C. Markup

10% Contingency 10,930
12.5% G.C. Markup, Overhead and Profit 13,663

Total Construction **133,893**

Surveying (1%) 1,339
GeoTech (1%) 1,339
Professional Service Fees (9%) 12,050
Total Opinion of probable Costs **133,893**

**Paseo Park Concept - Preliminary Opinion of Probable Costs
(Typical 1,000 Foot Section)**

Qty.	Unit	Description	Unit Cost	Subtotal
Site				
4.40	ac	Clearing/grubbing/disposal	\$3,600	\$15,840.00
1	allow	Strip, Stockpile, Grade Site	\$10,000	\$10,000
Parking				
1	allow	Parking Lot Striping & Signage (HC markings)	\$2,000.00	\$2,000
3,283	sf	Pavement (parking lots & driveways, 6" conc fly ash/lime) (7 spaces)	\$7.00	\$22,981
Play Amenities / Hardscape				
27,000	sf	Concrete Walks	\$7.00	\$189,000
1	allow	Site Furniture	\$40,000	\$40,000
10	ea	Site Lighting - single arm/fixture	\$6,000	\$60,000
Structures				
3	ea	Picnic Shelter/Pavilions	\$15,000	\$45,000
Landscape				
10	ea	Trees - Large Shade Trees	\$450	\$4,500
40	ea	Trees - Medium/Small Shade Trees	\$300	\$12,000
10	ea	Trees - Flowering Trees	\$145	\$1,450
3.50	ac	Grass - Fine Grading, Seeded	\$3,200	\$11,200
1	allow	Wildflower Beds	\$10,000	\$10,000
Utilities				
1	allow	Utilities extension	\$60,000	\$60,000

Base Construction Cost	483,971
General Conditions, Contingency and G.C. Markup	
10% Contingency	48,397
12.5% G.C. Markup, Overhead and Profit	60,496
Total Construction	592,864
Surveying (1%)	5,929
GeoTech (1%)	5,929
Professional Service Fees (9%)	53,358
Total Opinion of probable Costs	592,864

France Smart Park Renovation - Preliminary Opinion of Probable Costs

Qty.	Unit	Description	Unit Cost	Subtotal
Site				
0.50	allow	Clearing/grubbing/disposal	\$3,600	\$1,800.00
Parking				
1	allow	Parking Lot Striping & Signage (HC markings)	\$2,000	\$2,000
7,109	sf	Pavement (parking lots & driveways, 6" conc fly ash/lime) (17 spaces)	\$7.00	\$49,763
Hardscape				
1,570	sf	Specialty Pavement (Plaza)	\$20	\$31,400
556	lf	Decomposed Granite Trails (5'wide)	\$20.00	\$11,120
1	allow	Site Furniture	\$10,000	\$10,000
5	ea	Site Lighting - single arm/fixture	\$6,000	\$30,000
1	allow	Plaza Seat Wall	\$12,000	\$12,000
Landscape				
0.68	ac	Grass - Fine Grading, Seeded	\$3,200	\$2,176
10	ea	Trees - Large Shade Trees	\$450	\$4,500
5	ea	Trees - Medium/Small Shade Trees	\$300	\$1,500
29,620	sf	Irrigation - Grass Lawns	\$0.80	\$23,696

Base Construction Cost **179,955**

General Conditions, Contingency and G.C. Markup

10% Contingency 17,996
12.5% G.C. Markup, Overhead and Profit 22,494

Total Construction **220,445**

Surveying (1%) 2,204

GeoTech (1%) 2,204

Professional Service Fees (9%) 19,840

Total Opinion of probable Costs **220,445**

Note: The Opinion of Probable Costs statement above includes the itemized estimate for improvements to the outdoor portions of the site only. Renovation or replacement costs related to the Switch House are beyond the scope of this study and will require architectural analysis and design work.

Prototypical 5-Acre Park Concept - Preliminary Opinion of Probable Costs

Qty.	Unit	Description	Unit Cost	Subtotal
Site				
5	ac	Clearing/grubbing/disposal	\$3,600	\$18,000.00
Structures				
3,000	sf	Large Pavilion	\$80	\$240,000
800	sf	Small Pavilion	\$80	\$64,000
1	ea	Picnic Shelter	\$15,000	\$15,000
Parking				
1	allow	Parking Lot Striping & Signage (HC markings)	\$2,000.00	\$2,000
14,920	sf	Pavement (parking lots & driveways, 6" conc fly ash/lime) (40 spaces)	\$7.00	\$104,440
Play Amenities / Hardscape/Landscape				
1,812	lf	Decomposed Granite Trails	\$20.00	\$36,240
8,314	sf	Concrete Walks	\$7.00	\$58,198
1	allow	Playgrounds	\$300,000	\$300,000
1	ea	Tennis Courts	\$42,000	\$42,000
2	ea	Basketball Courts	\$40,000	\$80,000
39,600	sf	Multi-Purpose Field (practice field, fine Grading, sodded) Backstop	\$0.32	\$12,672
39,600	sf	Athletic Field Irrigation	\$0.80	\$31,680
5	ea	Workout Stations		
1	allow	Educational Signage	\$12,000	\$12,000
1	allow	Site Furniture	\$40,000	\$40,000
10	ea	Site Lighting - single arm/fixture	\$6,000	\$60,000
1	allow	Landscape Improvements	\$45,000	\$45,000
1	allow	Wildflower Meadow/Butterfly Reserve	\$25,000	\$25,000
7	ea	Trees - Large Shade Trees	\$450	\$3,150
30	ea	Trees - Medium/Small Shade Trees	\$300	\$9,000
10	ea	Trees - Flowering Trees	\$145	\$1,450
2	ac	Grass - Fine Grading, Seeded	\$3,200	\$7,584
Utilities				
1	allow	Utilities extension	\$60,000	\$60,000

Base Construction Cost	1,267,414
General Conditions, Contingency and G.C. Markup	
10% Contingency	126,741
12.5% G.C. Markup, Overhead and Profit	158,427
Total Construction	1,552,582
Surveying (1%)	15,526
GeoTech (1%)	15,526
Professional Service Fees (9%)	139,732
Total Opinion of probable Costs	1,552,582

Trail Alignment Summaries by Road Segment
Preliminary Opinion of Probable Costs

Road Segment	Length (feet)	Unit	Description	Unit Cost	Subtotal
OFF-NETWORK Total	181,058	lf	8' Wide, Concrete	\$52	\$9,415,000.40
S_I-018_I-088 Total	725	lf	8' Wide, Concrete	\$52	\$37,715.60
S_I-018_I-189 Total	1,180	lf	8' Wide, Concrete	\$52	\$61,344.40
S_I-018_I-584 Total	785	lf	8' Wide, Concrete	\$52	\$40,840.80
S_I-021_I-022 Total	330	lf	8' Wide, Concrete	\$52	\$17,180.80
S_I-021_I-078 Total	316	lf	8' Wide, Concrete	\$52	\$16,452.80
S_I-021_I-081 Total	339	lf	8' Wide, Concrete	\$52	\$17,602.00
S_I-022_I-079 Total	193	lf	8' Wide, Concrete	\$52	\$10,010.00
S_I-022_I-132 Total	595	lf	8' Wide, Concrete	\$52	\$30,940.00
S_I-022_I-133 Total	348	lf	8' Wide, Concrete	\$52	\$18,116.80
S_I-025_I-026 Total	323	lf	8' Wide, Concrete	\$52	\$16,785.60
S_I-025_I-127 Total	711	lf	8' Wide, Concrete	\$52	\$36,977.20
S_I-026_I-131 Total	345	lf	8' Wide, Concrete	\$52	\$17,940.00
S_I-030_I-100 Total	2,345	lf	8' Wide, Concrete	\$52	\$121,945.20
S_I-068_I-098 Total	329	lf	8' Wide, Concrete	\$52	\$17,102.80
S_I-068_I-111 Total	270	lf	8' Wide, Concrete	\$52	\$14,029.60
S_I-076_I-077 Total	313	lf	8' Wide, Concrete	\$52	\$16,250.00
S_I-076_I-101 Total	313	lf	8' Wide, Concrete	\$52	\$16,291.60
S_I-076_I-110 Total	326	lf	8' Wide, Concrete	\$52	\$16,972.80
S_I-077_I-102 Total	317	lf	8' Wide, Concrete	\$52	\$16,478.80
S_I-078_I-079 Total	575	lf	8' Wide, Concrete	\$52	\$29,920.80
S_I-078_I-101 Total	318	lf	8' Wide, Concrete	\$52	\$16,530.80
S_I-078_I-118 Total	660	lf	8' Wide, Concrete	\$52	\$34,299.20
S_I-079_I-102 Total	302	lf	8' Wide, Concrete	\$52	\$15,724.80
S_I-081_I-099 Total	325	lf	8' Wide, Concrete	\$52	\$16,900.00
S_I-088_I-090 Total	348	lf	8' Wide, Concrete	\$52	\$18,070.00
S_I-090_I-091 Total	359	lf	8' Wide, Concrete	\$52	\$18,662.80
S_I-090_I-098 Total	331	lf	8' Wide, Concrete	\$52	\$17,191.20
S_I-091_I-099 Total	331	lf	8' Wide, Concrete	\$52	\$17,227.60
S_I-091_I-124 Total	407	lf	8' Wide, Concrete	\$52	\$21,148.40
S_I-099_I-125 Total	338	lf	8' Wide, Concrete	\$52	\$17,565.60
S_I-100_I-584 Total	797	lf	8' Wide, Concrete	\$52	\$41,454.40
S_I-100_I-598 Total	1,671	lf	8' Wide, Concrete	\$52	\$86,912.80
S_I-105_I-110 Total	689	lf	8' Wide, Concrete	\$52	\$35,843.60
S_I-105_I-202 Total	325	lf	8' Wide, Concrete	\$52	\$16,905.20
S_I-106_I-295 Total	1,708	lf	8' Wide, Concrete	\$52	\$88,790.00

*Note: The proposed pathways shown on the preceding maps are part of a system of loops and connections throughout the community. In the table below, the routes have been broken into Road Segments that correspond the the City's road segment system. This allows for planning pathway improvements in conjunction with street reconstruction projects.

S_I-106_I-436 Total	1,843	lf	8' Wide, Concrete	\$52	\$95,830.80
S_I-111_I-133 Total	237	lf	8' Wide, Concrete	\$52	\$12,344.80
S_I-118_I-125 Total	475	lf	8' Wide, Concrete	\$52	\$24,684.40
S_I-124_I-125 Total	641	lf	8' Wide, Concrete	\$52	\$33,347.60
S_I-124_I-202 Total	229	lf	8' Wide, Concrete	\$52	\$11,923.60
S_I-124_I-205 Total	2,795	lf	8' Wide, Concrete	\$52	\$145,324.40
S_I-126_I-127 Total	1,358	lf	8' Wide, Concrete	\$52	\$70,590.00
S_I-127_I-159 Total	2,438	lf	8' Wide, Concrete	\$52	\$126,750.00
S_I-151_I-205 Total	1,865	lf	8' Wide, Concrete	\$52	\$96,980.00
S_I-151_I-582 Total	1,133	lf	8' Wide, Concrete	\$52	\$58,910.80
S_I-152_I-258 Total	2,794	lf	8' Wide, Concrete	\$52	\$145,288.00
S_I-152_I-589 Total	5,103	lf	8' Wide, Concrete	\$52	\$265,345.60
S_I-159_I-578 Total	7,302	lf	8' Wide, Concrete	\$52	\$379,709.20
S_I-162_I-174 Total	4,005	lf	8' Wide, Concrete	\$52	\$208,254.80
S_I-162_I-258 Total	938	lf	8' Wide, Concrete	\$52	\$48,796.80
S_I-174_I-295 Total	2,371	lf	8' Wide, Concrete	\$52	\$123,307.60
S_I-205_I-206 Total	1,902	lf	8' Wide, Concrete	\$52	\$98,919.60
S_I-225_I-585 Total	745	lf	8' Wide, Concrete	\$52	\$38,729.60
S_I-271_I-287 Total	2,206	lf	8' Wide, Concrete	\$52	\$114,732.80
S_I-271_I-465 Total	1,840	lf	8' Wide, Concrete	\$52	\$95,664.40
S_I-287_I-577 Total	1,398	lf	8' Wide, Concrete	\$52	\$72,716.80
S_I-435_I-575 Total	1,738	lf	8' Wide, Concrete	\$52	\$90,370.80
S_I-436_I-580 Total	778	lf	8' Wide, Concrete	\$52	\$40,466.40
S_I-465_I-466 Total	734	lf	8' Wide, Concrete	\$52	\$38,162.80
S_I-466_I-575 Total	1,279	lf	8' Wide, Concrete	\$55	\$70,367.00
Grand Total	249,092				\$16,496,677.00

Priority Trail System Alignments - Preliminary Opinion of Probable Costs

Qty.	Unit	Description	Unit Cost	Subtotal
8,932	LF	Circulation 1 (8' wide, concrete)	\$52	\$464,464
30,295	LF	Circulation 2 (8' wide, concrete)	\$52	\$1,575,340
107,455	LF	Circulation 3 (8' wide, concrete)	\$52	\$5,587,660
90,891	LF	Connectors (8' wide, concrete)	\$52	\$4,726,332

The table on the left is an opinion of probable costs for the complete construction of all proposed pathways identified in this plan. Though unlikely to be developed all at once, the cost estimations are useful in understanding the potential investment.

Base Construction Cost	12,353,796
General Conditions, Contingency and G.C. Markup	
10% Contingency	1,235,380
12.5% G.C. Markup, Overhead and Profit	1,544,225
Total Construction	15,133,400
Surveying (1%)	151,334
GeoTech (1%)	151,334
Professional Service Fees (9%)	1,362,006
Total Opinion of probable Costs	15,133,400

note: Probable costs above do not included estimates for the Paseo Park trail alignments, which are of provided in the park profile section on a per 1,000 typical section of park space.

**Estimated Annual Maintenance and Operation Costs
for Priority Project Identified in this Plan**

Priority Project	Maintenance Task	Area	SF/Hour	Rate	Total Time (per visit)	Total Cost (Visit)	# of Visits	Annual Cost
Primrose Park	Sports Fields Mowing	196,218	33,000	\$45.50	6	\$273.00	40	\$10,920
	Common Area Mowing	682,655	51,750	\$35.00	13	\$455.00	52	\$23,660
	Landscape & Irrigation			\$15.00	8	\$120.00	52	\$6,240
	Restrooms & Trash Pickup			\$15.00	3	\$45.00	52	\$2,340
	Expendables							
	Fuel		Per Visit	\$30.00	1	\$30.00	52	\$1,560
	General Maintenance		Per Visit	\$30.00	1	\$30.00	52	\$1,560
Total								\$46,280
France Smart Park	Common Area Mowing	28,380	51,750	\$35.00	0.55	\$19.19	52	\$998.10
	Landscape & Irrigation		Per Visit	\$15.00	0.5	\$7.50	52	\$390.00
	Expendables							
	Fuel		Per Visit	\$5.00	1	\$5.00	52	\$260.00
	General Maintenance		Per Visit	\$10.00	1	\$10.00	52	\$520.00
Total								\$2,168.10
Paseo Park	Common Area Mowing	152,460	51,750	\$35.00	2.95	\$103.11	52	\$5,361.88
	Landscape & Irrigation		Per Visit	\$15.00	1	\$15.00	52	\$780.00
	Trash Pickup			\$15.00	1	\$15.00	52	\$780.00
	Expendables							
	Fuel		Per Visit	\$5.00	1	\$5.00	52	\$260.00
	General Maintenance		Per Visit	\$10.00	1	\$10.00	52	\$520.00
Total								\$7,701.88
Prototypical 5-Acre Park	Sports Fields Mowing	39,600	33,000	\$45.50	1	\$45.50	40	\$1,820
	Common Area Mowing	87,120	51,750	\$35.00	2	\$70.00	52	\$3,640
	Landscape & Irrigation			\$15.00	2	\$30.00	52	\$1,560
	Restrooms & Trash Pickup			\$15.00	1	\$15.00	52	\$780
	Expendables							
	Fuel		Per Visit	\$10.00	1	\$10.00	52	\$520
	General Maintenance		Per Visit	\$10.00	1	\$10.00	52	\$520
Total								\$8,840