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# River Oaks Boulevard Corridor Master Plan

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## ACKNOWLEDGEMENTS

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Several individuals, agencies, and organizations have provided valuable knowledge and feedback during the process of developing a vision for River Oaks Boulevard.

Contributions from the following should be noted:

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- Catalyst Urban Development

# River Oaks Boulevard Corridor Master Plan

July 20, 2016

In 2013, the City of River Oaks participated in a sub-regional planning study referred to as the Planning for Livable Military Communities (PLMC). Through that effort, River Oaks Boulevard (SH 183) was identified as an important transportation facility. This corridor master plan addresses the feasibility of strategies to support modern urban design, improve access and safety, incorporate Context Sensitive Design principles, and enhance economic development potential along the boulevard.





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# Project Summary

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**Vision Statement for the River Oaks  
Boulevard Master Plan**

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**River Oaks Boulevard  
is a multi-modal  
corridor and gateway  
to a livable community  
that cherishes the  
past and embraces  
future opportunities.**

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# 01 Project Summary

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The City of River Oaks, Texas is located just over three miles west of downtown Fort Worth. Founded in 1941, it holds a rich history and maintains a long-standing relationship with Naval Air Station Joint Reserve Base (NAS JRB).

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## 1.1 Purpose

In 2013, Tarrant County and the Cities of Benbrook, Lake Worth, Sansom Park, Westworth Village, White Settlement, and River Oaks embarked with the North Central Texas Council of Governments (NCTCOG) on a regional coordination plan called the Planning for Livable Military Communities (PLMC) study. Funded by U.S. Department of Housing and Urban Development (HUD), the PLMC set out to provide the foundation for regional coordination and inter-jurisdictional planning opportunities for the communities surrounding Naval Air Station Joint Reserve Base Fort Worth (NAS JRB Fort Worth) and local defense-related industries. Through that effort, River Oaks Boulevard (SH 183) and SH 199 (Jacksboro Highway) were identified as important transportation facilities that warranted further study. In November 2013, the City of River Oaks City Council (Resolution #786-2013) and the Tarrant County Commissioners Court both approved resolutions in support of the PLMC. See Appendix E.

The purpose of this study is to produce a corridor master plan for River Oaks Boulevard from the Trinity River on the southwest to SH 199 on the northeast, approximately 1.9 miles. (However, the project does not include the intersection of River Oaks Boulevard with SH 199.) The plan balances mobility and accessibility improvements with economic development and it identifies costs and constraints associated with implementing the concepts that were developed for the corridor during the PLMC visioning charrette. The corridor master plan addresses the feasibility of strategies to support modern urban design, improve access, incorporate Context Sensitive Design principles, and enhance economic development along River Oaks Boulevard. It is anticipated that this master plan will be the basis for preliminary design and



engineering and will be the first step in a phased approach to making improvements to the corridor.

## 1.2 Vision Statement

The NCTCOG, City of River Oaks, Texas Department of Transportation (TxDOT), Tarrant County, and other key stakeholder groups worked together to refine the overall vision of the corridor. This vision identifies a preference towards elements such as street design, access management, bicycle and pedestrian facilities, green infrastructure considerations, and desired development types adjacent to the corridor.

Input from key stakeholders was gathered and the following vision statement was realized in order to establish priorities among the existing concepts and to build consensus on the objectives of the corridor master plan:

***“River Oaks Boulevard is a multi-modal corridor and gateway to a livable community that cherishes the past and embraces future opportunities.”***

## 1.3 Planning Process

The planning process for the corridor master plan began with a kick off meeting on March 18, 2015, that included representatives from the consultant team hired by NCTCOG to conduct the study, as well as representatives from NCTCOG, City of River Oaks, TxDOT and Tarrant County. Several issues for the team to be aware of were identified along the corridor such as:

- Flooding due to surface water runoff
- Lack of adequate access control
- Castleberry Elementary located within the study area
- The availability of a stormwater fund managed by the City of River Oaks Drainage Manager
- Planned development types

Subsequent to the kick off meeting, a series of stakeholder meetings were conducted on May 12, 2015, to discuss the project with TxDOT staff, NCTCOG staff, and property and business owners along the roadway. Each meeting included the project background from the PLMC study, a description of the project goals, and a discussion of project issues and goals from each group’s perspective.

Following the initial project meetings, additional project stakeholder meetings included a town hall meeting, two community meetings, and a second developer and landowner meeting. All public meetings were held at the River Oaks Community Center.

Concurrently, NCTCOG worked with the consultant team to analyze existing conditions such as traffic congestion, physical infrastructure, and market factors to provide a framework in which to build the corridor master plan. The final corridor master plan consolidates input from all community involvement activities to inform potential courses of action

and strategic opportunities to help realize the River Oaks Boulevard vision. More detailed descriptions of the meetings can be located in Chapter 3 of this report.

## 1.4 Recommendations

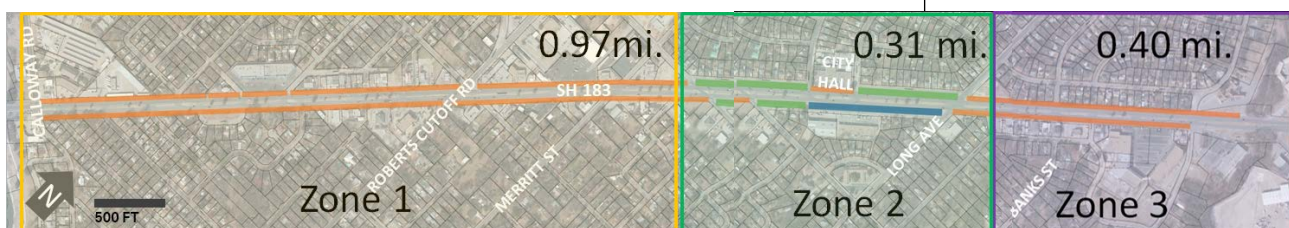
The goal of the recommendations is to expand the potential transportation options along the corridor by providing context sensitive building blocks and conceptual design rather than a detailed engineering proposal. Improvements to the corridor are broken up into three distinct design character zones defined by their character and conditions. Each of the zones has been identified through input from the public and the planning team as areas that can be improved by a cohesive vision for the corridor.

Context Zone One includes the southwest portion of the study area and extends from Sam Calloway Road to Ohio Garden Road. It is characterized by wide swaths of open space and a shoulder along the edge. Improvements for this context zone include a dedicated bicycle and pedestrian shared use path, sidewalk, and strategic placement of amenities in the medians separating the paths from automobile traffic. Improvements also include additional landscaping and vegetation to beautify the corridor.

Context Zone Two generally spans the middle portion of the study corridor from Ohio Garden Road to roughly Long Avenue and is characterized by wide drainage ditches along the edge of the corridor. Improvements in this context zone include many of the same treatments as Context Zone One, as well as additional parking spaces along the edge to better serve existing and future retail establishments.

Context Zone Three covers the northeast portion of the study corridor from roughly Long Avenue to just west of SH 199 and is characterized by a wide frontage road running along the southern side of the corridor. Behind the frontage road are a significant amount of unmarked driving and parking lanes within the public right-of-way. Improvements in Context Zone Three include many of the same treatments as Context Zone One and Two, but adds a service road design called a contra-flow lane along the edges. With this design, the frontage road flows in the opposite direction as the adjacent through lanes, and traffic turns right onto and off of the frontage roads. As a result, queuing occurs on the frontage road or side street away from the boulevard's through lanes, leaving the through lanes less affected by traffic accessing the adjacent development.

In addition to the physical design improvements proposed for the corridor, the River Oaks Boulevard Corridor Master Plan includes identifying nodes that have a high potential for redevelopment, types of uses that will best assist in revitalizing the area's economic development, and best practices for implementing a form based code for the City that encourages the desired type of uses and desired design.

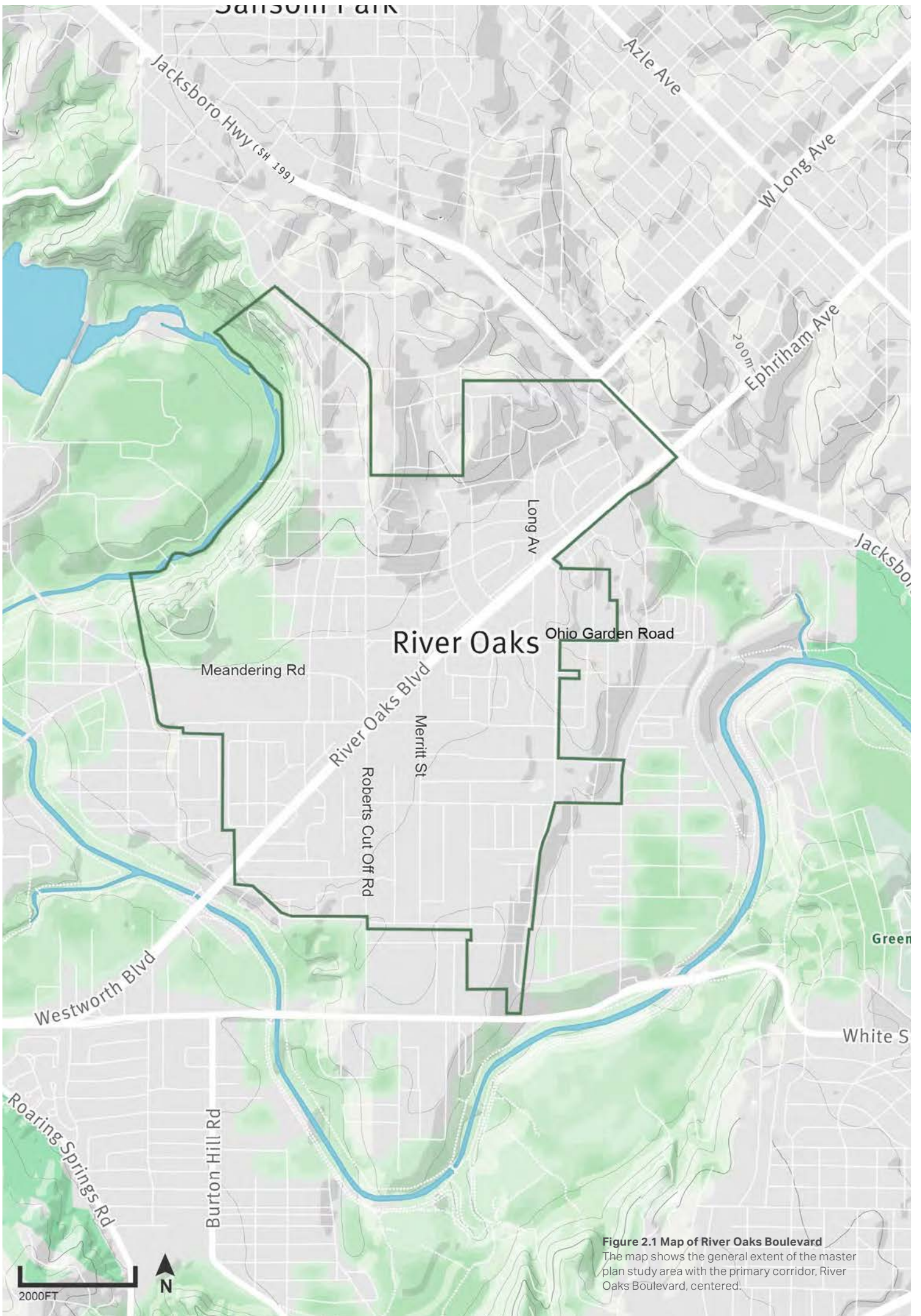




# Background and Existing Conditions

02





**Figure 2.1 Map of River Oaks Boulevard**  
 The map shows the general extent of the master plan study area with the primary corridor, River Oaks Boulevard, centered.

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## 02 Background and Existing Conditions

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The City of River Oaks was incorporated in 1941 and originally known as River Oaks Village.

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### 2.1 Area History

The City of River Oaks is approximately 1.9 square miles in area on the west side of the Dallas-Fort Worth Metroplex in North Central Texas. River Oaks is a suburban city, and is located within the five-mile radius loop defined by Interstate Loop 820 around Fort Worth, in Tarrant County, Texas. The city limits are set, since there is no extra territorial jurisdiction or unincorporated territory for expansion of the city limits.

River Oaks' proximity to Carswell Air Force Base, later designated NAS JRB, made it a prime location for base personnel to locate themselves and their families. However, it has seen a recent decrease in population. According to NCTCOG's 2016 population estimates, the population of River Oaks was 7,290. This is a decrease of 137 from NCTCOG's Census 2010 population of 7,427.

### 2.2 Existing Development and Concept Plans

#### **Joint Land Use Study (JLUS) (2008)**

The JLUS was an initiative of the cities of Benbrook, Fort Worth, Lake Worth, River Oaks, Westworth Village, White Settlement and Tarrant County. The project managers were The U.S. Department of Defense and the U.S. Office of Economic Adjustment. NCTCOG was the study's sponsor. The purpose of the JLUS was to evaluate the status of the implementation of recommendations issued in the 2002 Air Installation Compatible Use Zone Study and to make recommendations for additional actions by local governments that were designed to improve land use decisions which may affect the mission of NAS JRB.

The JLUS identified compatibility issues between the base and surrounding communities. These issues can arise when development occurs in aircraft safety zones, or when houses or other sensitive establishments are developed in high noise areas. The JLUS sought to mitigate these circumstances by developing solutions to conflicts and improve communication between NAS JRB and the neighboring communities.

The JLUS developed immediate strategies and recommendations intending to:

- Establish an oversight committee to monitor changes and to work closely with the base on land use and encroachment issues.
- Revise and continue to enforce current regulatory requirements such as zoning and building codes to minimize encroachment and noise issues.
- Institute noise level reduction measures and a sound attenuation program for those incompatible structures located in the 65dB DNL (denotes average day/night noise levels) noise contour or higher.
- Establish a real estate advisory service for the noise affected area.
- Initiate land protection and/or acquisition in the clear zone.

The study also included many recommendations for local governments that included increased communication with NAS JRB and the development of a land use oversight committee that would oversee development near the base. The JLUS will be updated in 2017.

**Planning for Livable Military Communities (PLMC) (2013)**

The PLMC conducted five major planning activities including analysis of the regional market, housing and retail sectors, transportation system, and local ordinances as well as Comprehensive Plan Vision reports for the Cities of Lake Worth, River Oaks, Sansom Park, Westworth Village, and White Settlement.

The PLMC study was funded by the U.S. Department of Housing and Urban Development in order to:

- Provide more transportation choices
- Provide equitable, affordable housing
- Enhance economic competitiveness
- Support existing communities
- Coordinate policies and leverage investment
- Value communities and neighborhoods

The coordinated planning approach utilized in the PLMC planning area enhanced the communication of goals, interests, and visions for the collaborating cities. This collaboration and information exchange was particularly important to view at a regional level due to the shared resources of the partner communities. Therefore, community participation was key to the formation of the plan.

Community involvement included open houses, public visioning workshops, city council and advisory board workshops, an online survey, and over 20 stakeholder interviews. Dedication to the public input process was key to drafting and building support for the plan.

Common goals across the six PLMC Communities included:

- Economic development
- Coordinated planning along corridors
- Enhanced roadway designs and functionality for all users and emphasis on transportation infrastructure investments
- Bicycle and pedestrian connectivity
- Mixed-uses
- Aging in place
- Land use compatibility around NAS JRB

The PLMC provided a detailed account of the demographic and economic trends in the participating cities. The PLMC also included a full market study and housing market analysis that provided an overview of challenges and opportunities facing the participating cities. Key findings from the analysis include:

- Need for affordable and quality housing options near major employers
- Substandard aging single-family and multifamily housing stock
- Land use compatibility due to proximity to NAS Fort Worth, JRB and light industrial uses
- Need for additional storm water infrastructure
- Need for additional housing options for seniors
- Impact of school district performance and perception by potential residents

The PLMC also included recommendations for land use, complete streets programs, corridor improvements, pedestrian amenity improvements, and possible opportunities to provide public transit to the cities. The document is part of the foundation for the River Oaks Comprehensive Vision Plan, and it is an important reference for future planning efforts.

### **River Oaks Comprehensive Vision Plan (2013)**

The River Oaks Comprehensive Vision Plan utilizes the broad ideas and goals set forth in the PLMC, and it provides in further detail goals, policies, and actions to address the needs of the community. The guiding principles are as follows:

- A safe community
- An efficient community
- Need to consider land use compatibility
- Attractive housing and retail choices
- Strong growth and redevelopment opportunities

The goals were developed in collaboration with local feedback obtained through numerous public workshops with feedback surveys, and an online survey.

River Oaks has a strength in its location close to the City of Fort Worth and its proximity to major highways. In the PLMC, catalyst sites were identified as potential economic development generators. For River Oaks, the sites identified are located at the intersection of Roberts Cut Off Road and Meandering Road, and at the River Oaks Boulevard and SH 199 junction. The former is in the heart of River Oaks and could potentially serve as a walkable downtown that will encourage investment into the city. The plan recommends mixed-use buildings located close to streets with quality pedestrian amenities that encourage activity.

The plan also centers on the ideas of quality neighborhoods and quality of life. The adoption of a form based zoning code is intended to ensure the quality of new development and add to the variety of housing options within the city. Quality of life improvements will be neighborhood-focused with improved safety, connectivity, and walkability.

The River Oaks Comprehensive Vision Plan provides high level goals for the city. It also provides information and public input that is essential to the development of this River Oaks Boulevard Corridor Master Plan.



**Mobility 2040: The Metropolitan Transportation Plan for North Central Texas (March 2016)**

The Mobility 2040 plan examines future transportation needs and issues throughout the NCTCOG MPO area. The plan's goals are to analyze regional transportation on the topics of:

- Mobility
- Quality of life
- System sustainability
- Implementation

The goal of the Mobility 2040 plan is to examine existing transportation systems and their ability to accommodate increased demand from growing regional populations. The plan provides projects and planning with timely considerations for implementation. Its intent is to develop cost-effective projects and programs aimed at reducing the costs associated with constructing, operating, and maintaining the regional transportation system.

The Dallas-Fort Worth-Arlington Metropolitan Planning Area was projected by NCTCOG to grow to 10.7 million residents by the year 2040, an increase of 4.2 million residents from the 2010 census. Mobility 2040 considers the implications of increased demand on the transit system and encourages the development of all modes of transportation including automobile, public transit, and walking/biking.

Changing demographics noted in Mobility 2040 suggest that people would prefer to live in walkable and liveable communities. The plan notes that millennials are driving less and prefer to live in places that offer multiple modes of transportation. These trends in behavior encourage an examination of land uses around and adjacent to transportation arterials. Mobility 2040 suggests that changes in development patterns toward walkable developments will assist in making the regional transportation system more sustainable by reducing vehicle miles travelled and improving air quality.

Mobility 2040 was drafted with consideration of existing financial resources. Federal regulation stipulates that the plan must be financially feasible. The plan notes that ideal funding compared to available funding results in a \$304.9 billion shortfall in 2040. Therefore, the plan seeks to maximize its existing funding of \$126.6 billion. A large portion of those dollars will go to infrastructure maintenance and improving the roadway system.

River Oaks Boulevard is listed in Mobility 2040 as a designated regionally significant arterial. Additionally, the Illustrative Major Corridors for Future Evaluation map included in the plan shows a north/south corridor in the general location of River Oaks Boulevard as recommended for future evaluation. However, funding for a project for River Oaks Boulevard is not currently allocated.

**City of Fort Worth Master Thoroughfare Plan (May 3, 2016)**

The City of Fort Worth is currently developing a master thoroughfare plan that will update and add information to their existing comprehensive plan. Fort Worth's plan designates River Oaks Boulevard as a major arterial, and the plan is likely to have some effect on the City of River Oaks due to its proximity and abutting boundaries. The master thoroughfare plan is being developed with consideration of:

- The City of Fort Worth Comprehensive Plan
- Future traffic capacity needs
- Environmental issues (floodplain, drainage, topographic features, etc.)
- Safe utilization by pedestrians, bicyclists, buses, and truck traffic
- Existing and planned neighborhoods
- Existing and future roadways
- Construction feasibility
- Coordination with the NCTCOG's The Regional Thoroughfare Plan, wherein River Oaks Boulevard is listed as a regional arterial.
- Coordination with adjacent cities' plans.

**SH 199 Corridor Master Plan (2015 - Ongoing)**

A similar study to the River Oaks Corridor Master Plan is currently underway, sponsored by NCTCOG, to analyze SH 199. This study will include the intersection of River Oaks Boulevard with SH 199.

The following section consists of a summary of River Oaks Boulevard’s existing conditions to the potential corridor improvements outlined by the Vision Statement and objectives of the master plan.

## 2.3 Existing Conditions

Before looking to the future of River Oaks Boulevard corridor, it is imperative that the existing conditions and current operations of the roadway be thoroughly understood. The information gathered in this existing conditions analysis provides a foundational understanding of the existing land use, traffic patterns, safety history, utility networks, and other features of the study corridor.

Overall, River Oaks Boulevard can be characterized as a major commercial and commuter corridor that serves as a primary roadway arterial for the region and is relied upon heavily by the NAS JRB community. The boulevard is comprised of TxDOT right-of-way bounded on either side by City of River Oaks’ right-of-way. NCTCOG’s Regional Thoroughfare Plan classifies the road as a Regional Arterial.

**10%**

Ten percent of the city’s population is classified as age 65 and older according to the American Community Survey for 2013.

### 2.3.1 Demographics

#### Total Population

According to NCTCOG’s population estimates, River Oaks’ total population was approximately 7,290 in 2016, a decrease from 7,427 in 2010. The American Community Survey reports that 48 percent of the population is male and 52 percent is female. Persons age 65 and older account for 10 percent of the population at 802 residents, which is higher than the City of Fort Worth at roughly 8.5 percent and Tarrant County at roughly 9 percent. The median age of citizens was 32 compared to the state median age of 34 years.

#### Income

According to the American Community Survey 2013, median household income in River Oaks was approximately \$45,802; comparatively, median household income for Tarrant County was \$56,906. The percentage of population categorized as being in poverty in River Oaks accounted for 15 percent of the total population, which is consistent with Tarrant County at 15.3 percent. Unemployment percentages for the County and River Oaks were both roughly 5 percent.

#### Industries

The most common industries in 2013 for males were in manufacturing (22.8%), retail trade (16.7%), and wholesale trade (13.3%). For females, most common industries were health care and social assistance (21.2%), manufacturing (16.2%), and other services/public administration (10.2%).

**2 mi<sup>2</sup>**

The City of River Oaks covers approximately two square miles just northwest of Downtown Fort Worth and lies directly east of NAS JRB.

### 2.3.2 Existing Land Use and Zoning

#### Overall

The City of River Oaks has a fixed boundary due to abutting city limits from the cities of Fort Worth and Sansom Park. Therefore, the overall limits of the city are unlikely to change. Commercial and retail development is concentrated along River Oaks Boulevard, with some commercial uses spread throughout the residential blocks. Industrial uses are focused on the east and south side of River Oaks along the

city's boundaries. Educational and Institutional uses are generally large parcels located near the center of the city limits. Vacant properties are scattered throughout the city. Figure 2.2 displays existing land uses for River Oaks.

River Oaks' primary land use is residential at various levels of lot sizes ranging from 1,000 x 6,000 feet to 1,500 x 10,000 feet. Mobile homes and multifamily residential are also included in the residential category. Mobile homes and multi-family are generally on the eastern and south sides of the city.

A large portion in the northwestern part of the city is dedicated to park space for the YMCA's Camp Carter, a youth camp that traverses the Trinity River. The camp is designated as a large Planned Development in River Oaks' zoning code.

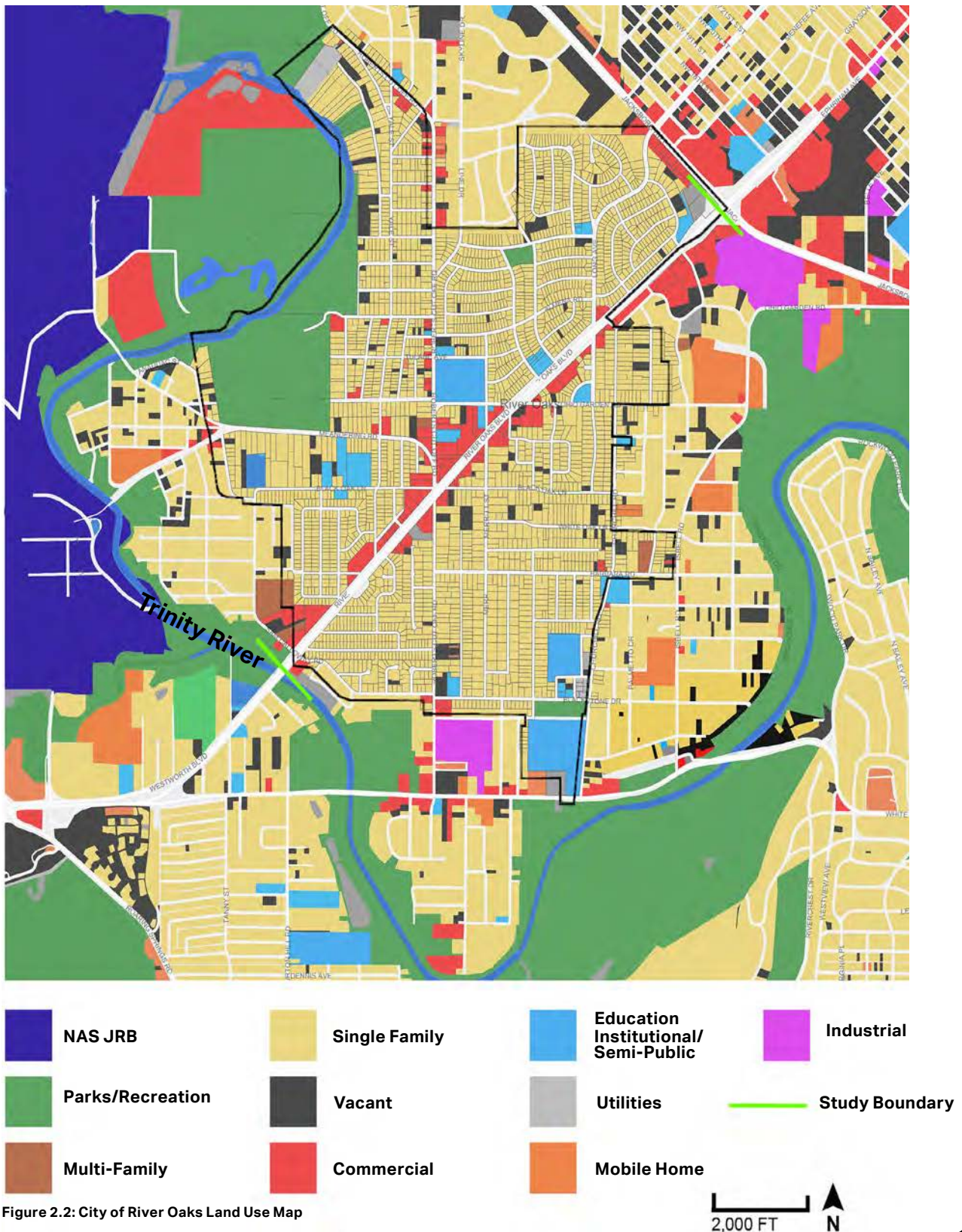


Figure 2.2: City of River Oaks Land Use Map



### Corridor

Existing land use within a 1/4-mile distance of the River Oaks Boulevard corridor and within City limits consists of the following:

- Single Family Residential = 78.86%
- Commercial/Retail/Hotel/Motel = 11.21%
- Vacant = 2.86%
- Institutional/Educational = 5.33%
- Multi-Family = 1.72%

Figure 2.4 displays the project corridor parcels within 1/4-mile of River Oaks Boulevard. The colors denote parcel by value per square foot, with higher values in darker colors. According to 2015 Tarrant County Appraisal District data, higher values seen in the larger commercial parcels along River Oaks Boulevard extend to \$42 per square foot.

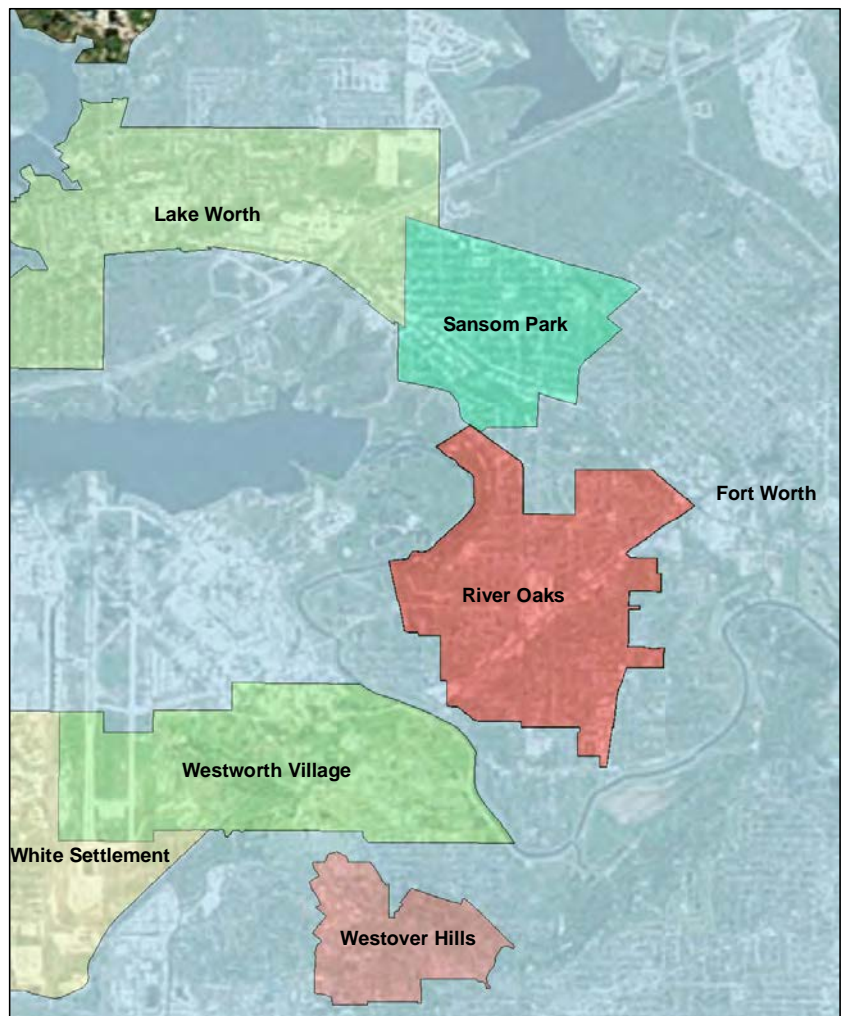
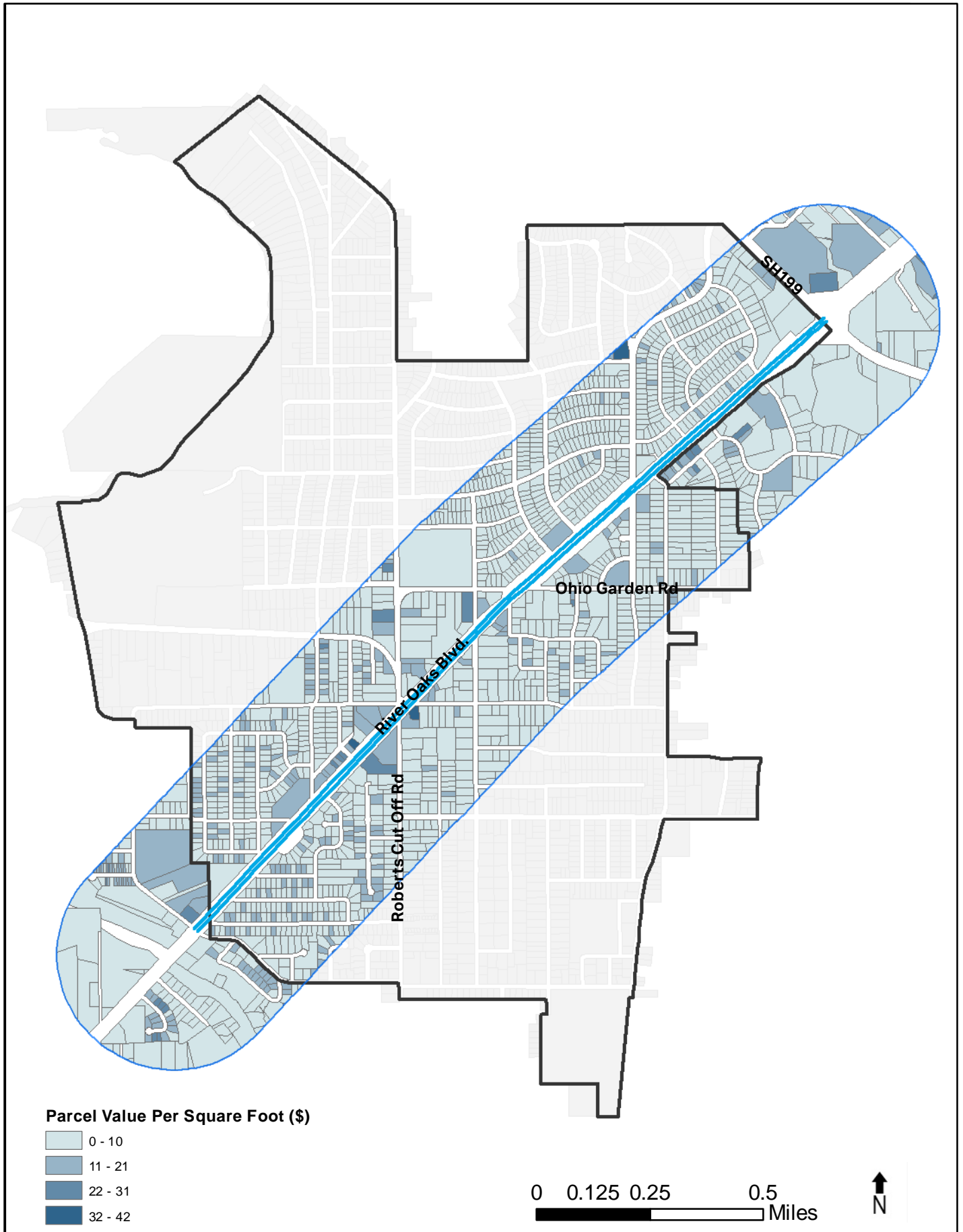


Figure 2.3: City of River Oaks City Boundaries Map



**Figure 2.4: River Oaks Boulevard Corridor Parcel Value Map.**  
**Source: Tarrant County Appraisal District 2015.**  
Parcels valued at "\$0" are due to atypical land ownership setups that make determination difficult for the appraisal district.

## Zoning

Zoning within the City of River Oaks consists of:

- Commercial (C1, C2, C3)
- Community facilities (CF)
- Industrial
- Residential
  - R1, R2, R3, R4,
  - R5 manufactured homes
  - R6 single family
  - Multi-family homes
- Planned commercial (PC)
- Planned development (PD)

Residential zoning is the primary category for most of the city. The residential category is split into various lot sizes. R3 is the single family zoning most used throughout the city. R3 has a lot size of 1,000 x 7,500 feet.

- Commercial zoning is used almost exclusively along River Oaks Boulevard corridor with the exception of a spur of C1 travelling north on Roberts Cut Off Road and a few parcels in the south and east sides of the city.
- The northwest portion of the city is a planned development for YMCA Camp Carter. The camp is bounded by Meandering Road to the south and Roberts Cut Off Road to the east.
- Industrial zoning is consolidated on a small eastern corner of the city. It consists of a small cluster of seven parcels
- Community facilities are spread throughout the city and are generally large parcels.

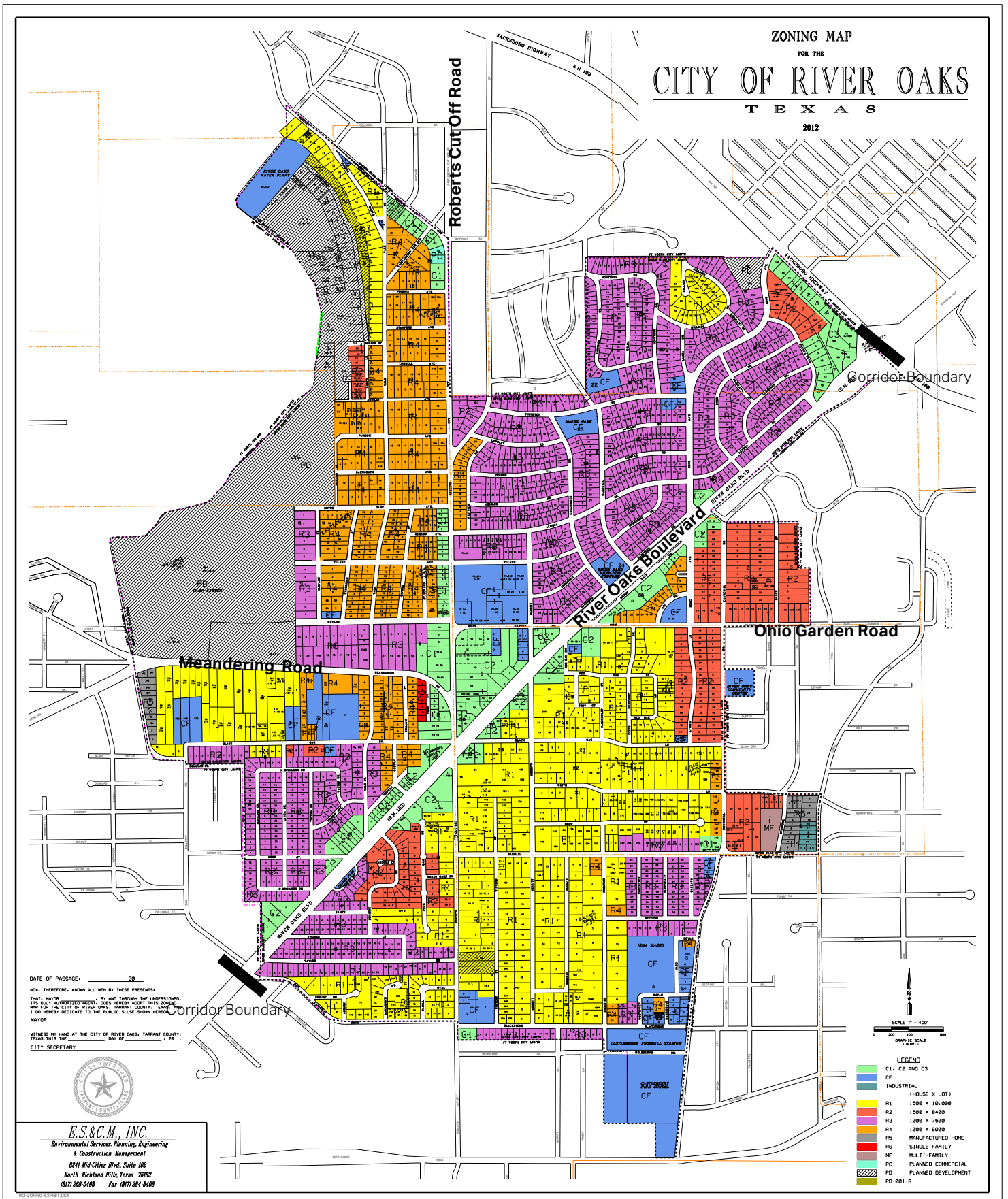


Figure 2.5: City of River Oaks Zoning Map. Source: City of River Oaks.

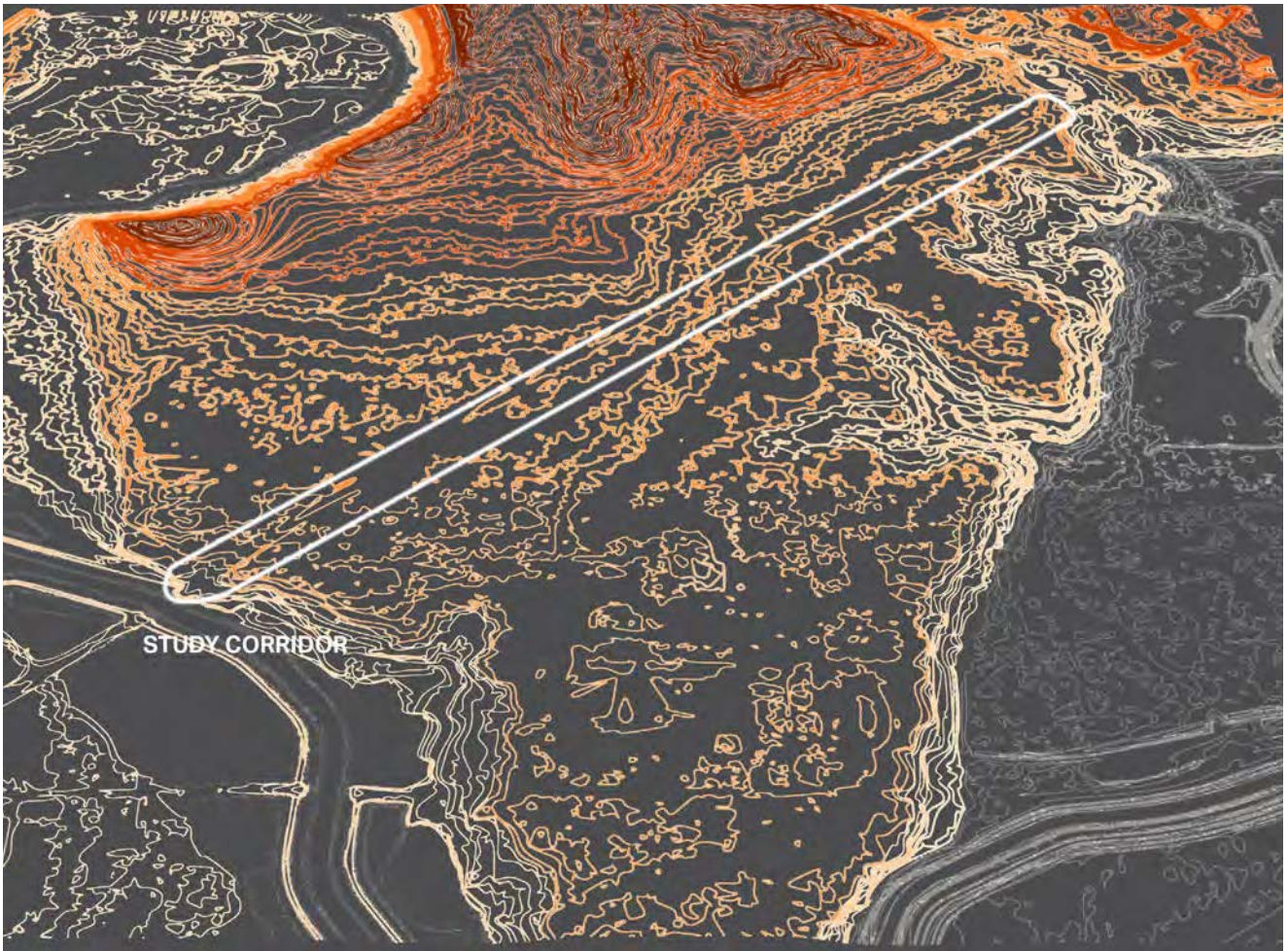


### **2.3.3 Physical and Environmental Conditions**

Topography on the southern half of the city is generally flat, but the northern side of the city, adjacent to YMCA Camp Carter and Marion Sansom Park, possesses a steep grade that accelerates stormwater runoff to River Oaks Boulevard. The soils in the city and around the study corridor are classified by the U.S. Geological Survey as "Bastil - Urban Land Complex", primarily consisting of silty clay with a stormwater runoff classification as "Very High." Combining the topography and soils with a high amount of impervious surface as a result of the development build out, there is a significant area draining towards River Oaks Boulevard from the northwest.

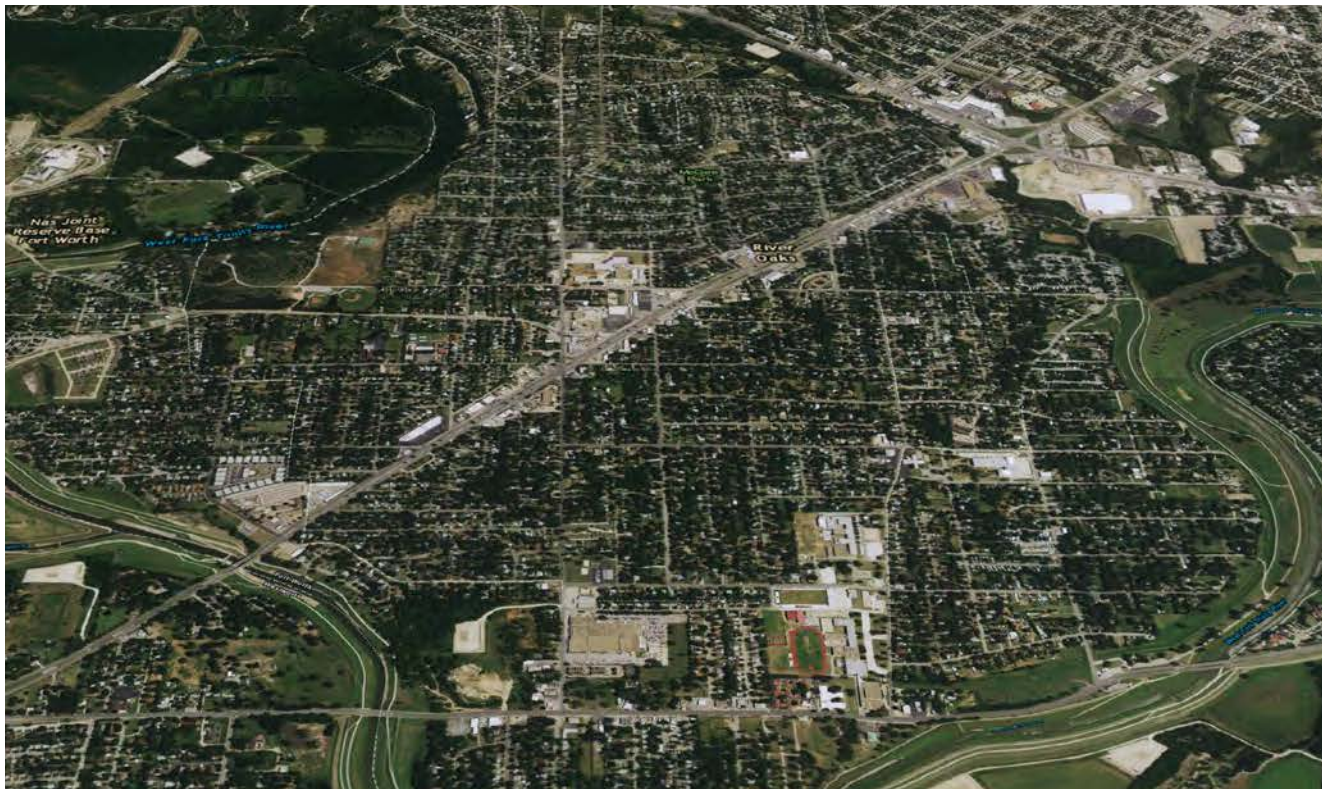
Figures 2.6 and 2.7 to the right illustrate the topography and aerial imagery of the city and its environs.





**Figure 2.6: City of River Oaks Topography**

An oblique angle view of the topography surrounding the study corridor and the City of River Oaks. The darker red gradient represents higher ground and lighter represents lower ground. The West Fork Trinity River is featured prominently in the bottom left of the map and YMCA Camp Carter is featured in the depression in the top left.



**Figure 2.7: City of River Oaks Aerial Imagery**

An oblique angle view of aerial imagery of the City of River Oaks and its surrounding environment. The extent of the image is similar as that of the topography map above.



### 2.3.4 Current Right-of-Way

Measuring from parcel edge to parcel edge, the study corridor consists of a variable corridor width from a combination of the TxDOT right-of-way and City owned land spanning between approximately 140 feet at its narrowest and 260 feet at its widest point. The corridor can be generally broken up into three distinct configurations:

- 170' context zone with shoulders
- 150'-160' context zone with service roads
- 255' context zone with drainage ditches

The shoulder configuration spans the length between the Trinity River and Ohio Garden Road, covering most of the study corridor. This section is highlighted in blue on Figure 2.8, and for this study will be called Context Zone One.

Moving further northeast along River Oaks Boulevard, the right-of-way begins to open up with either an access road or a large grassy drainage ditch located on both sides of the road. This section is highlighted in green on Figure 2.8, and for this study will be called Context Zone Two.

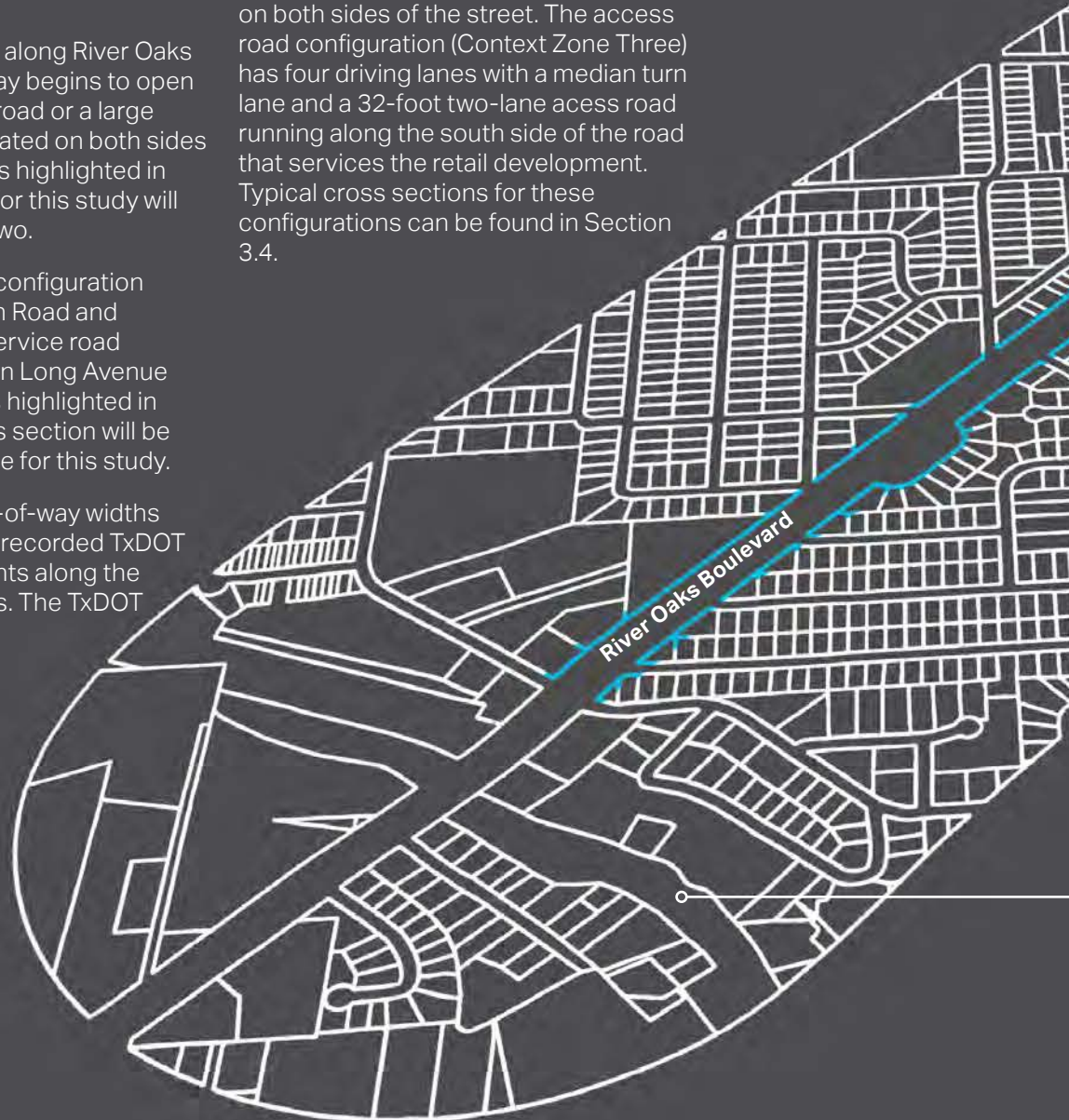
The large drainage ditch configuration lies between Ohio Garden Road and Long Avenue, while the service road configuration lies between Long Avenue and Shenna Boulevard as highlighted in orange on Figure 2.8. This section will be called Context Zone Three for this study.

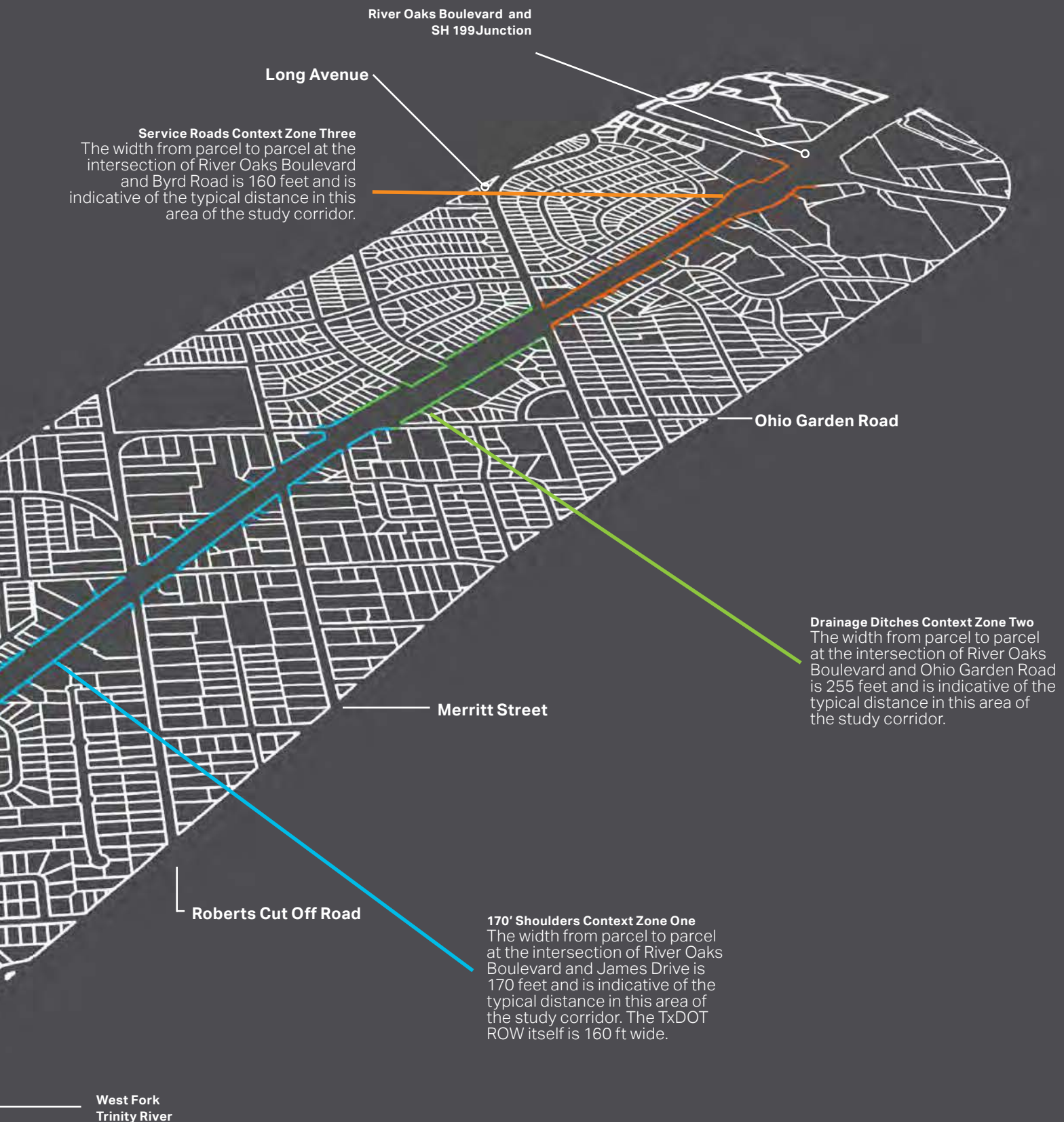
It is notable that the right-of-way widths described differ from the recorded TxDOT right-of-way measurements along the corridor at a few locations. The TxDOT

right-of-way measurements consistently record 160 feet along River Oaks Boulevard, which indicated that there probably are areas where the City owns land in between TxDOT and local property owners.

For reference, full as-built drawings for River Oaks Boulevard can be found in Appendix A.

The number of driving lanes is consistent throughout the study corridor, with four 11-foot driving lanes. The shoulder configuration (Context Zone One) has, in addition to the four driving lanes, an 11-foot median turning lane and a shoulder on both sides of the street. The drainage ditch configuration (Context Zone Two) also has four driving lanes, a median turning lane, and two shoulders, but it also has a 45-foot drainage ditch on both sides of the street. The access road configuration (Context Zone Three) has four driving lanes with a median turn lane and a 32-foot two-lane access road running along the south side of the road that services the retail development. Typical cross sections for these configurations can be found in Section 3.4.





**Figure 2.8: Illustration of Parcel Boundaries within a 1/4 Mile**  
The map shows the parcel boundaries located within a quarter mile of the study corridor. Highlighted colors represent the associated right-of-way configuration.

### 2.3.5 Existing Infrastructure Assets

River Oaks Boulevard was designed primarily to serve automobiles and its current use reflects that emphasis. The lanes are 11 feet wide with ample shoulders and 11 foot median turn lanes separating traffic lanes. As such, infrastructure related to vehicle mobility is abundant, as compared to infrastructure related to pedestrian or bicycle mobility.

#### Lighting

Tall auto-oriented overhead lighting fixtures are located in the medians along the entire study corridor. Two lights, one for each side of the road, can be found affixed to a single tall pole in the median. This type of lighting is present in the Figure 2.10 on pages 26-27. There are no pedestrian-scale lighting fixtures within the River Oaks Boulevard Corridor.

#### Sidewalks

Sidewalks are sparse and inconsistent in connectivity with the exception of recently developed properties that have installed sidewalks in response to current City of River Oaks development requirements. With just over 700 ft of sidewalk available along the entire corridor, the sidewalk coverage is approximately 7%. The primary locations with sidewalk treatments are located at the intersection of River Oaks Boulevard and Thomas Lane, the self-storage facilities and retail center on the southwestern end of the study corridor, and the intersection of River Oaks Boulevard and Jacksboro Highway, the opposite end of the study corridor. Sidewalks can be seen in Detail #1 and 7 in Figure 2.10 on pages 26-27. The entire corridor length between these two areas lacks sidewalk infrastructure despite the high number of retail establishments and homes abutting the River Oaks Boulevard.

#### Crosswalks

Crosswalks are present only on major intersections on the River Oaks Boulevard corridor as shown in Detail #3, 4, and 7 in Figure 2.10 on pages 26-27. Intersections with existing crosswalks are:

- Roberts Cut Off Road
- Merritt Street
- Ohio Garden Road

The lack of crosswalks and pedestrian refuge infrastructure for crossing River Oaks Boulevard limits pedestrian connectivity and presents hazardous conditions for pedestrians. The corridor has locations with striped pedestrian routes; however, the stripes are faded. The four locations are the only crossing areas with pedestrian signals.

Parallel crosswalks along River Oaks Boulevard are non-existent. The only curb cuts, sidewalks, and handicapped-accessible ramps are located at the River Oaks Boulevard/SH 199 intersection, which is outside this study area. The lack of adequate sidewalks for travelling parallel to River Oaks Boulevard poses problems for persons wishing to reach the more direct perpendicular crossing locations.

## Signage

Signage for River Oaks Boulevard is primarily dedicated to the movement of vehicle traffic through the corridor. Commercial signs are generally located near parcel lines and consist of pole or monument signage. Businesses in retail strips also use fascia signage. The corridor lacks pedestrian signage referring to crosswalk locations, and there are no signs warning drivers of potential pedestrians crossing the corridor. No significant gateway entrance to the corridor exists on the west side.

## Drainage

Flooding is a problem in several parts of the corridor and was a primary concern expressed by area residents and business owners at the stakeholder and community meetings. Drainage inlets and ditches can be seen in Figure 2.10. It can be seen that Details #2 and #3 have a visible lack of drainage ditches adjacent to commercial uses. Also, Details #5 and #6 have a lack of drainage infrastructure on the eastern edges of the roadway.

Curbs are present mostly on median islands throughout River Oaks Boulevard. Many edges of the roadway have conditions that transition into parking lots, drainage ditches, or driveways. Curbs can be seen in all the Details associated with Figure 2.10.





Figure 2.9: River Oaks Boulevard Study Corridor



Detail 02



Detail 04



Detail 06



Detail 07



**Figure 2.10: River Oaks Boulevard Corridor Existing Stormwater and Pedestrian Infrastructure**

The above figures display River Oaks Boulevard from the Trinity River in Detail Line 01 to the Intersection in Detail Line 07. North has been shifted slightly clockwise to view the entire corridor horizontally. The legend on page 26 shows annotation colors for stormwater and pedestrian infrastructure.



# River Oaks Boulevard at Roberts Cut Off Road and SH 199 have relatively high crash rates.



**Figure 2.11 Roberts Cut Off Road and River Oaks Boulevard Auto Crashes**  
Source: TxDOT CRIS (2010-2014)

### Level-of-service (LOS) Definition

A measure used to grade the quality of service for a specific facility (road, bike lane, or pedestrian realm). LOS grades range from letters A through F, with A being the highest LOS and F being the lowest LOS. A grade of A represents free flow traffic, which is generally observed at night in urban areas or frequently in rural areas. A grade of F indicates a facility in a constant breakdown in traffic flow, where vehicles or pedestrians move in sync with the vehicles and pedestrian ahead, and frequent braking or stopping is required.

## 2.3.6 Traffic and Crashes

### Crashes: Auto Crashes and Bike/Pedestrian Crashes

Analyzing TxDOT Crash Records Information System data within the study area from 2010 to 2014, one specific node stands out as an area that would benefit from safety improvements: River Oaks Boulevard and Roberts Cut Off Road intersection. Figure 2.11 illustrates the heat map of all auto related crashes while Figures 2.12 illustrates the location of bicycle and pedestrian related crashes. At the Roberts Cut Off Road intersection, most auto crashes occur either in the center of the intersection or along the southeast area of the intersection along River Oaks Boulevard. Bicycle and pedestrian crashes were less frequent than automobile crashes but showed a tendency to occur on the northern end of the study corridor.

Table 2.1 details the crash information in the City of River Oaks from 2010 to 2014. The crashes are sorted by crash severity, ranging from a “possible injury” to “fatality.”

**Table 2.1: River Oaks Crash Counts**

Year	Incapacitating	Non-Incapacitating	Not Injured	Possible Injury	Fatality	Unknown	Total
2010	5	15	87	30	0	16	153
2011	1	15	68	45	0	15	144
2012	2	7	18	75	2	43	147
2013	4	23	86	48	1	11	173
2014	7	23	87	32	1	13	163
<b>Total</b>	<b>19</b>	<b>83</b>	<b>346</b>	<b>230</b>	<b>4</b>	<b>98</b>	

According to the TxDOT Statewide Traffic Crash Rates in 2014, a typical urban four-lane State Highway has 133.25 crashes per 100 million vehicle miles driven. In the year 2014, SH183 in River Oaks had 69 crashes on its approximately 1.7 mile stretch. Using an average of 20,000 daily trips, that indicates that **the study corridor has over 400% of the typical expected crash count for a State Highway in this context.**

### Traffic: Existing Corridor Capacity

Daily traffic counts were collected on River Oaks Boulevard by TxDOT in May 2016 at the northern end (just south of SH 199) and at the southern end (at the Trinity River), to compare with historical traffic data on the corridor. As shown in Table 2.2, Average Daily Traffic (ADT) measured in vehicles per day (vpd) on the corridor remained steady between 2009 and 2016.

Year	ADT, vpd	
	At West Fork Trinity River	South of SH 199
1999	19,000	20,300
2004	18,000	18,700
2009	19,500	22,300
2011	N/A	20,700
2013	N/A	21,500
2016	21,300	20,600

River Oaks Boulevard is classified by TxDOT as an Urban/Suburban Minor Arterial. The type of roadway has an approximate capacity of 825-900 vehicles per hour per lane (VPHPL) per the NCTCOG Dallas-Fort Worth Regional Travel Model: Model Description Report. A traffic analysis determined the daily traffic volumes of 850 VPHPL at the southwestern end and 1,150 VPHPL at the northeastern end. These traffic volumes require two lanes in each direction, and it is recommended that the corridor remain a four-lane divided facility to adequately meet the existing traffic volumes.

Figure 2.12: City of River Oaks Traffic Incident Heat Map. Source: TxDOT Crash Records Information System (CRIS)

**Roberts Cut Off Road**

The intersection of Roberts Cut Off Road and River Oaks Boulevard is identified here as the major locations of automobile crashes in this study area.

**Jacksboro Highway**

The intersection of Jacksboro Highway (SH199) and River Oaks Boulevard is identified here as another significant location of automobile crashes near the study corridor.



**Bicycle and Pedestrian Crash Locations**

This map illustrates the locations of bicycle and pedestrian related crashes between 2010 to 2014 within River Oaks.



Figure 2.13: City of River Oaks Bicycle and Pedestrian Accident Map. Source: TxDOT CRIS

Peak hour turning movement counts were collected in October 2015, at Roberts Cut Off and Long Ave. A Synchro 9.0 model was developed to analyze the existing level of service (LOS) (see sidebar for a definition of LOS) at these two locations incorporating the traffic data, road geometry, and signal operations. A LOS grade B was observed for both peak hours at the Long Avenue intersection, and no geometric or signal phasing improvements are recommended at that location. However, the northbound and southbound approaches on Roberts Cut Off are congested due to the lack of dedicated left turn bays.

**Dedicated left turn bays should be introduced for the Roberts Cut Off approaches to allow protected left turn phasing rather than the existing split phasing. This will provide more efficient operations as shown by the results in Table 2.3.**

Intersection	AM Peak Hour		PM Peak Hour	
	Existing	Proposed	Existing	Proposed
Roberts Cutoff	C	C	D	C
Long Ave	B		B	

**Table 2.3: Intersection Level of Service**

## 2.3.7 Market Analysis

### Trade Area Analysis

Previous studies of River Oaks Boulevard have identified a trade area for retail uses based on a 3-mile drive network distance boundary for all retail uses around the River Oaks Boulevard and the SH 199 intersection. This study further refined this trade area to reflect a 3-mile drive time radius boundary for retail uses and a 4-mile drive time radius boundary for restaurant, housing, and office uses. The refined boundaries are the prime markets from which River Oaks will draw. The boundaries are illustrated in Figure 2.14.

### Land Use Programming - Retail, Office, Residential

#### Retail

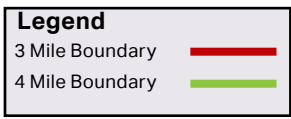
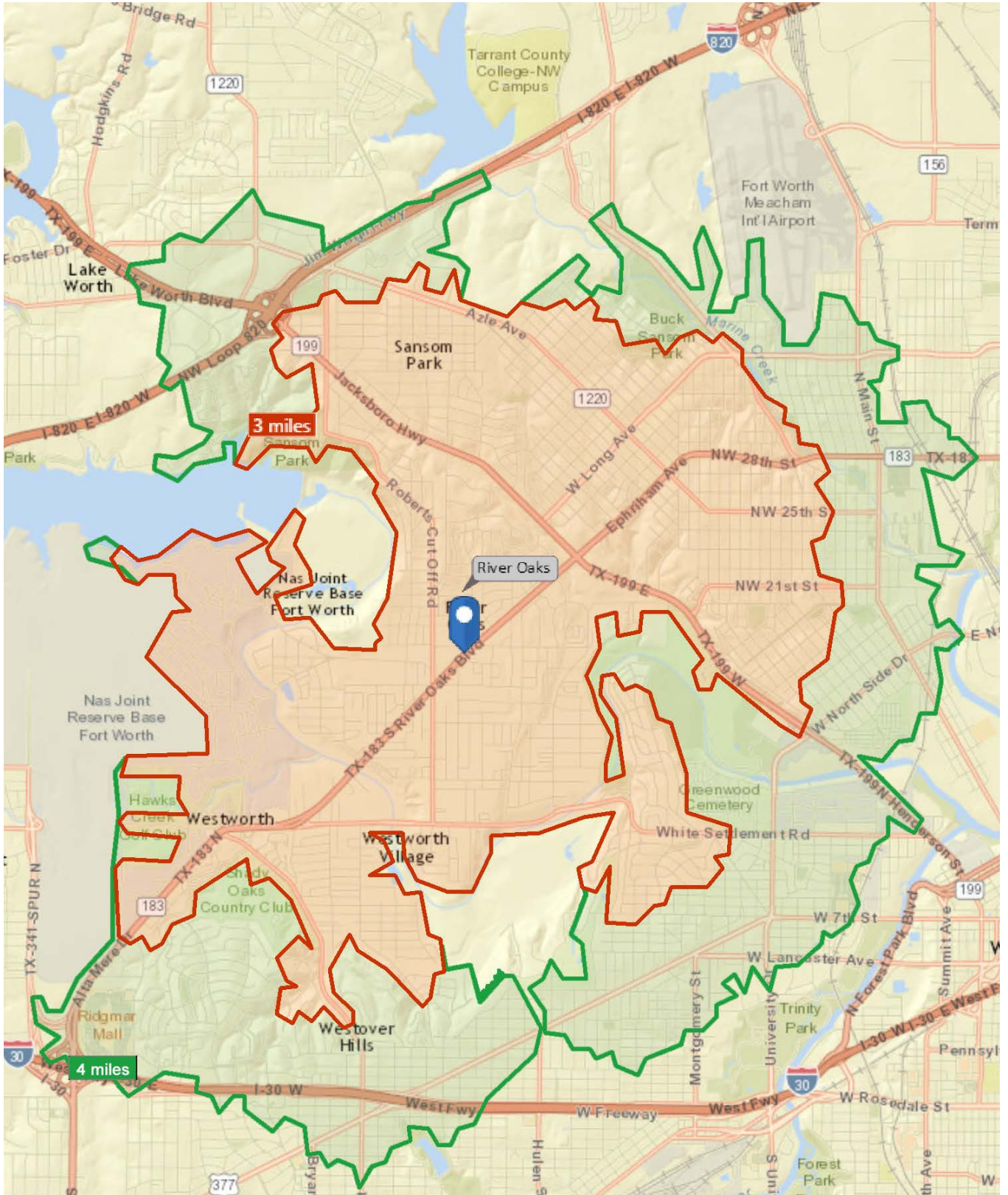
A new retail sales leakage analysis has been prepared for the identified trade area and is detailed in Table 2.4. The results of this analysis identify the specific retail categories in which retail sales are being lost to other trade areas. In an effort to understand a capture strategy, these sales amounts were converted into a potential 10-year building program by applying an industry standard sales/square footage ratio, a capture percentage for the study area, and growing these findings through the 10-year population forecasts.

The results of the analysis and conversion into a 10-year building program for retail and restaurant uses identify only a modest amount of space. The programming analysis is primarily driven by residential growth and, as the market area is substantially built out, overall capture is smaller given the need for a more complex and expensive development process that includes greater land assembly and other issues. With this said, the proper blend of residential uses within a "mainstreet feel" based development format may induce additional restaurant demand than straight demographic forecasts indicate.

Table 2.4: 10-Year Programming Capture - Retail and Restaurant

Type	Categories Showing Potential	Square Foot	Comments
Retail	Motor Vehicle & Parts Dealers	5,015	Works in retail, not Mixed-Use areas
	Furniture & Home Furnishings	2,102	Typically larger stores than this
	Building Materials, Garden Supply	12,232	Typically larger stores than this
	Food Beverage & Grocery	36,894	Focus on smaller grocery and specialty
	Clothing & Accessories	4,751	Small amount but good use
	Sporting Goods, Hobby, Book, Music	2,677	Typically larger stores than this, focus on specialty
	Electronics, Office Supplies, General	29,359	Typically larger stores than this, focus on specialty
	<b>Total</b>	90K-100K	
Restaurant	All Categories	Negative Demand	Will require Mixed-Use, Place Making to induce





**Figure 2.14: City of River Oaks Trade Area Map**  
 Trade area boundary is represented in the above map.  
 A trade area is geographic area from which a community generates the majority of its customers.

**Office**

An employment analysis associated with a 10-year growth forecast for this trade area has been prepared and is detailed in Appendix B. All categories of employment growth have been quantified over the 10-year period, and those employment types that are congruent with new office space have been measured (under the assumption that related businesses would be able to pay market lease rates justifying the cost of new construction).

Six categories of employment have been highlighted for programming purposes. These office jobs, identified in Table 2.5, were translated into building area using a job/population ratio, building area/job ratio, and capture rate with the trade area. The addition of 20,000 to 30,000 square feet in small office space would greatly impact the small-scaled, village mixed-use environment desired for River Oaks.

**Table 2.5: 10-Year Programming Capture - Office**

Type	Categories Showing Potential	Square Foot	Comments
Office	Non-Store Retailer	*	Included on-line companies, catalogues, etc. Typically small office suitable for Mixed-Use
	Information	*	Digital and logistical companies, Either call centers requiring larger land, or small office Mixed-Use
	Finance	*	Generally smaller offices. Works well in Mixed-Use and retail Setting. Can be live/work.
	Real Estate, Rental, & Leasing	*	Generally smaller offices. Can be in Mixed-Use and live/work format
	Professional, Scientific, & Tech	*	Generally in larger office formats, on larger site assemblies. This is the largest opportunity.
	Management	*	Generally in larger office formats, on larger site assemblies
	<b>Total Measured Opportunity</b>		20,000-30,000

\*Square footage calculations are a ratio of forecasted jobs and square foot per employee. A full break-down of the forecasted jobs numbers can be found in Appendix A.

\*\*The total 10-year demand forecasted for office is approximately the amount necessary to fill existing trade area vacancy to a factor necessary to allow new speculative construction. However, as not all users will desire older product if it is assumed 25% of this new demand would be customized to specific user needs. This forecast also assumes a 25% capture of this build-to-suit market would apply to the new study area.

**Residential**

The existing trade area is comprised of older residential building stock across all categories. With less than 20 percent of this stock having been constructed within the last 25 years, there is clear need for both new construction and renovation efforts to allow the trade area to meet current demand requirements. The residential analysis is associated with a 10-year growth forecast for the trade area, and all categories of residential growth were quantified over this period within the owner-occupied and renter-occupied marketplaces. The full analysis can be found in Appendix B.

Table 2.6 displays the residential capture program that is based on growth rates defined within the trade area, utilizing a capture rate within the trade area, and qualifying the forecasted population's incomes within ranges that can afford lease rates associated with new construction. This program includes 917 units across all categories. Specifically, this includes construction of new detached single family homes, new townhomes, as well as loft apartments, and senior facilities (independent living and assisted living). As a majority of the population base does not support market-rate new construction levels, there is potential for quality tax credit-enhanced multifamily development if it is carefully positioned and designed to meet the potential for creating a memorable town center/village core experience.

**Table 2.6: 10-Year Programming Capture - Residential in Trade Area**

Type	Categories Showing Potential	Dwelling Units	Comments
New Residential (New growth per forecasted household growth)	Single Family Detached	39	New Home Construction
	Single Family Attached	26	New Townhome Construction
	Multi-Family - Market Rate	131	Loft Apartments
	Multi-Family - Seniors/Affordable, Low Income	250	Independent and Assisted , Tax Credit Potential
	Multi-Family	328	
	Single Family	143	
	<b>Total Forecasted Program</b>		917

**Notes:**

A. Current Housing Stock:  
 Constructed Since 1990: 17% (of 35k dwelling units)  
 Constructed 70's – 80's: 17% (of 35k dwelling units)  
 Constructed Pre-70's 66% (23k dwelling units within 3 mi)

B. Current Values:  
 Housing Value Below \$100k: 56%  
 Area New Home Values \$180k - \$220k

C. Qualified Incomes:  
 Less than \$35,000: 44% (subsidized)  
 \$35,000 - \$75,000: 32% (market rental)  
 \$75,000 - \$150,000: 16% (1st and 2nd buyers)  
 Over \$150,000: 6% (upper products)



### Market Analysis - Catalyst Nodes

The Market Analysis identified two nodes to serve as economic development catalysts for River Oaks. These nodes were originally defined in the PLMC and they have been expanded upon in this River Oaks Boulevard Corridor Master Plan. The selected sites are highlighted in Figures 2.15 and 2.16.

Node 1 in Context Zone 2 is defined as a mixed-use village center with smaller buildings containing upper level office and loft residential above ground level retail, restaurant, live/work and office space fronting public streets. Node 2 in Context Zone 3 is a more conventional retail format of destination retail and stand-alone office and restaurant pad sites.

#### Node 1 (Context Zone 2)

Guiding principles for the zoning strategy have been provided for review and scoping purposes for Node 1. **Specifically, a form-based planned development district is proposed for the redevelopment area. This code should emphasize site and building form over building use, a build-to zone for building facades that defines maximum building setback, as well as a document that is prepared for flexibility and ease of use.**

Success of the type of village-scaled, urban mixed-use environment intended for Node 1 is based on the quality of the pedestrian experience formed by streetscapes, landscaping, and building design. Street sections and performance criteria have been offered for the two major street categories within the Node 1 area, the parking service

## Node 1: Mixed-Use Village Center

- Civic and restaurant uses
- Blend of residential uses (attached and detached) including senior housing, townhomes, lofts, and small lot single family
- Central green amenity
- Emphasis on making memorable places

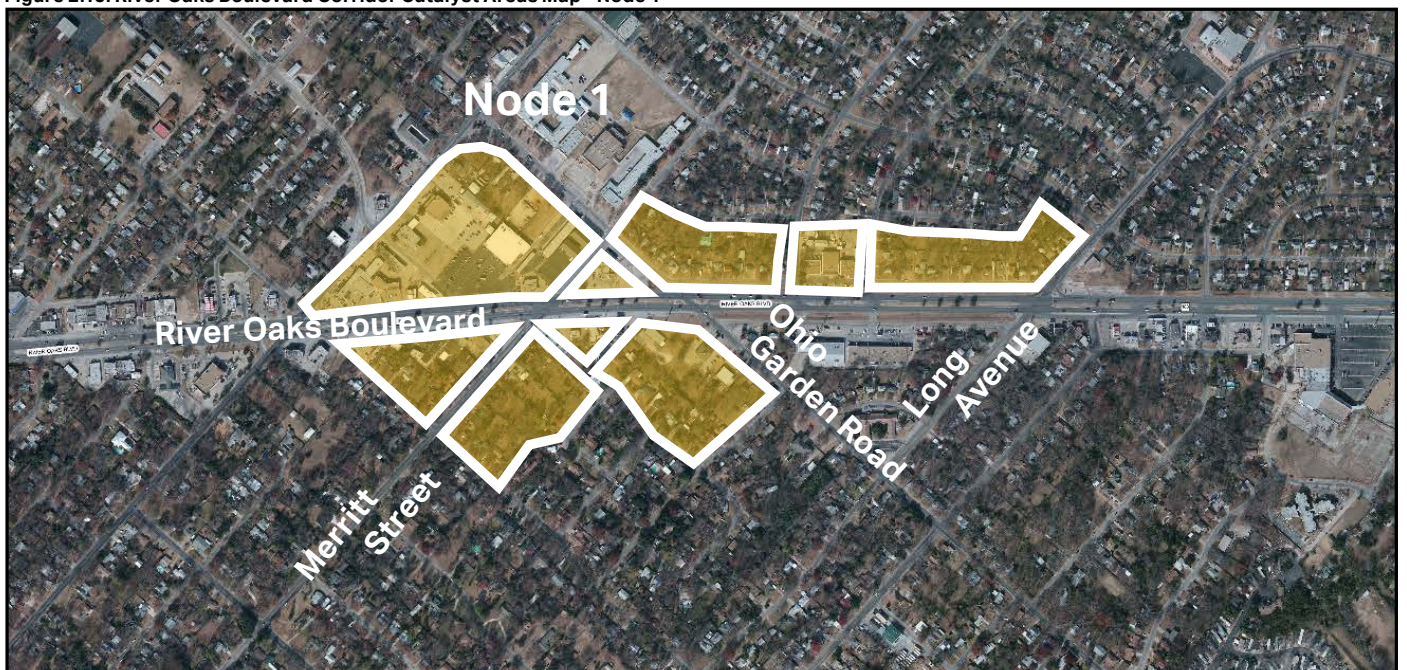
### Placemaking

**is not just the act of building or fixing up a space; it is a process that fosters the creation of vital public destinations—the kind of places where people feel a strong stake in their communities and commitment to making things better.**

Table 2.7: Node 1 Project Programming

Development Type	Node 1 Project Programming	Quantity (Net Gains)
Retail	Food, Bev. Restaurants	10,000 SF
	Neighborhood Retail	10,000 SF
	Clothing & Accessories	5,000 SF
Office	Small Office	10,000 SF
Residential	Urban Residential	380 DU
	For Sale Residential	65 DU

Figure 2.15: River Oaks Boulevard Corridor Catalyst Areas Map - Node 1





road along River Oaks Boulevard, and secondary streets running perpendicular to River Oaks Boulevard.

The visual preference survey performed at the second public meeting indicate that the community by large is attracted to "main street" development and environment types. These preferences are reinforced in the proposed development options for Node 1.



Example "main street" environment viewed very favorably in the Visual Preference Survey.

## Node 2: Commercial/ Retail Reinvestment Zone

- Restaurants, neighborhood shopping, and small service office
- Anchored by the new Walmart

Table 2.8: Node 2 Project Programming

Development Type	Node 2 Project Programming	Square Feet (Net Gains)
Retail	Motor Vehicle and Parts	5,000
	Furniture and Furnishings	5,000
	Building Materials/Supply	10,000
	Food, Beverage, Grocery	20,000
	Sporting Goods, Hobby	5,000
Office	Electronics, Office General	20,000
	Small Office	20,000

Figure 2.16: River Oaks Boulevard Corridor Catalyst Areas Map - Node 2



**Node 2 (Context Zone 3)**

Guiding principles for the zoning strategy have been provided for review and scoping purposes for Node 2 in Context Zone 3. Specifically, concepts are presented that have been endorsed by the Urban Land Institute for the development and redevelopment of the type of commercial strip development that occurs at the River Oaks Boulevard/SH 199 intersection. These principles include design strategies that are intended to be incorporated into the City's current commercial zoning districts, and outlined in the following sections of Chapter 3 detailing the context sensitive corridor zones.

**Reinvestment Strategies**

The general strategy proposed in this study is to put regulatory and economic development policies in place that help focus the market's efforts in two development areas, with Node 1 being centered on the intersection of Roberts Cut Off and River Oaks Boulevard, and Node 2 being near the intersection of River Oaks Boulevard and SH 199.

Areas shown in Figure 2.15 will likely require economic incentives due to complexity of land assembly, cost of development, and less traditional location for current market uses. Areas shown in Figure 2.16 have best potential for unassisted market-based development due to their proximity to SH 199 and adjacency to newer commercial development.



**Example retail environment viewed favorably in the Visual Preference Survey and appropriate for Node 2.**



# Recommendations

03





River Oaks Boulevard Vision Rendering from the Planning for Livable Communities plan.



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## 03 Recommendations

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River Oaks Boulevard is a multi-modal corridor and gateway to a livable community that cherishes the past and embraces future opportunities.

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### 3.1 Vision Statement

The above vision statement was formed in collaboration with stakeholders and residents of the City of River Oaks. The corridor plan was developed with the vision statement as a guide, but also to enhance the River Oaks Boulevard corridor through adding transportation options, pedestrian infrastructure and amenities, and improving stormwater infrastructure. Additionally, the plan also outlines recommendations for economic development within the city and adjacent to the right-of-way of River Oaks Boulevard.

Specifically, the plan calls for re-organization of parking and access roads, improved crosswalks and sidewalks, improved lighting and drainage, and additional landscape and signs. With many in the community expressing a need for transit on the corridor, the planned improvements would allow for bus service to be added in the future in a more ideal environment when it is warranted by demand.

### 3.2 Public and Stakeholder Input

#### 3.2.1 Public Involvement

##### Stakeholder Meetings, March 12, 2015

A series of three stakeholder meetings for the River Oaks Boulevard Corridor Master Plan was held March 12, 2015, at the River Oaks Library. The first meeting included TxDOT staff, NCTCOG staff, and consultant team members. Discussion items included the existing right-of-way, study area boundary, existing speed limits, parking, traffic calming, roundabouts, and intersections. TxDOT staff commented that TxDOT is more amenable to roundabouts and would be open to further discussion on a roundabout, if desired by the City. TxDOT would not normally fund amenities such as landscaping but would consider maintaining the facility as an on-system roadway corridor if a maintenance agreement was put in place to fund long term maintenance of the amenities not normally provided on a TxDOT facility.

The second meeting included additional NCTCOG staff members who were briefed on the background, goals and objectives of the study. Items discussed included land use policy, stormwater/flooding issues, drainage patterns, and power lines. Participants discussed current and future capacity requirements of the road and the need for safety and mobility.

The third meeting of the day included property and business owners, the President of River Oaks Economic Development Corporation, NCTCOG staff, the River Oaks City Administrator, and consultant team members. Much of the discussion included access to businesses by commercial trucks, access to parking, and the timing of any improvements.

Meeting minutes from the stakeholder meetings are included in the Appendix.

#### **Town Hall Meeting, June 29, 2015**

The June 29th Town Hall meeting was to introduce the River Oaks Boulevard Corridor Master Plan project and describe the project tasks that would be included in the planning process. The 140 attendees from the community were given a timeline of events starting with the Planning for Livable Military Communities (PLMC) study that included the City of River Oaks and how this Corridor Master Plan stemmed from that larger planning initiative. The presentation at this meeting included a brief overview of what the project is and what the project is not and a general schedule moving forward.

#### **Community Meeting #1, July 27, 2015**

The first community meeting for the River Oaks Boulevard Corridor Master Plan was held on July 27, 2015, with the intention of introducing the project, developing a vision statement in collaboration with residents, and conducting a visual preference survey.

The AECOM consultant team was introduced along with the purpose of the study as outlined in the PLMC study. An objective of the PLMC was to select a corridor for each participating city to be further studied. For the City of River Oaks, that corridor was River Oaks Boulevard. Existing demographics, land uses, and infrastructure deficiencies regarding stormwater and drainage were presented.

The final exercise during the meeting was the visual preference survey. Approximately 88 people participated to gauge attendees' preferences in development type, roadway configuration, and street amenities. Results of the survey are detailed in Table 3.1.

#### **Community Meeting #2, October 29, 2015**

Community Meeting hosted by NCTCOG for the consultant team and NCTCOG to present the Vision Statement, potential corridor design features related to parking and traffic management, context zones, and preliminary design concepts.

#### **Developer and Land Owner Roundtable, March 3, 2016**

Developer and Land Owner Meeting hosted by NCTCOG at the River Oaks Community Center for the consultant team and NCTCOG to discuss market analysis, implementation schedule, and financing opportunities. Similar to the River Oaks Comprehensive Vision Plan in 2013, two catalyst sites along the route were presented as potential economic generators: at Roberts Cut Off Road and Meandering Way in the heart of the City, and near the intersection of River Oaks Boulevard and SH 199.

#### **Community Meeting #3, June 8, 2016**

The final community meeting hosted by NCTCOG for the consultant team and NCTCOG to present the final report recommendations while providing details regarding funding strategies, improvement costs, phasing plan, and next steps for implementation.

## 3.2.2 Visual Preference Survey

### Overview

A visual preference survey is a data collection method that involved direct interaction and feedback from respondents at the community meetings. The survey presented at community meeting #1 was intended to gauge the opinion of the River Oaks community by showing example images of corridors, intersections, multi-modal transportation methods, gateway features, public art, and pedestrian amenities.

### Process and Methodology

During the presentation for Community Meeting #1, attendees were asked to participate in a visual preference survey. Attendees were given a remote control device that allowed them to respond to questions anonymously with a score of one through five. A score of five represents a very appropriate amenity or development for the River Oaks Corridor, while a score of one indicates the amenity or development was deemed very inappropriate for the corridor by the respondents. Participants were encouraged to give their "first impressions" of the image in order to obtain their opinion regarding each image.

The total score of each category was calculated by multiplying the number of votes by a score descending from five as follows:

- "Very Appropriate" -5
- "Appropriate" -4
- "Neutral"-3
- "Somewhat Inappropriate"-2
- "Very Inappropriate" -1

The total weighted votes were summed and compared to total scores of other images.

### Results







The visual preference survey was divided into 11 categories of images. The categories and top scoring images are displayed in Table 3.1. Complete results from the survey can be found in Appendix A.

Results from each category provided valuable insight into the attendees' vision for their community. An overview of the results includes:

- **Housing Development**
  - Townhomes are an acceptable residential development style for the corridor, but the overall score for townhomes ranked low on the preference scale implying that residential only is not the preferred style of development.
- **Retail Development**
  - Walkable urban retail environments are preferred.
  - Downtown feel and storefronts close to the street are preferred.
- **Office Development**
  - Office space that has a neighborhood context is preferred.
- **Mixed-Use Development**
  - Developments must be appropriately scaled to the downtown.
  - Mixed-use should be in an urban and walkable setting that blends with the neighborhood.
- **Intersections**
  - Properly marked crosswalks are important.
  - Decorative paving patterns are preferred.
  - Roundabouts were viewed negatively.
- **Streetscape Elements**
  - Decorative pedestrian lighting is preferred.



**Table 3.1: Visual Preference Survey Top Scoring Images**

Type	Image	Score (0-100)
Housing Development		35.8
Retail Development		68.2
Office Development		56
Mixed-Use Development		69.6
Intersection		74
Streetscape Elements		75.2

<p>Medians</p>		<p>69</p>
<p>Gateway Arch/Entrances</p>		<p>58.1</p>
<p>Public Art</p>		<p>52.8</p>
<p>Bicycles and Pedestrian Environment</p>		<p>62.7</p>
<p>Bicycle Environment</p>		<p>45</p>

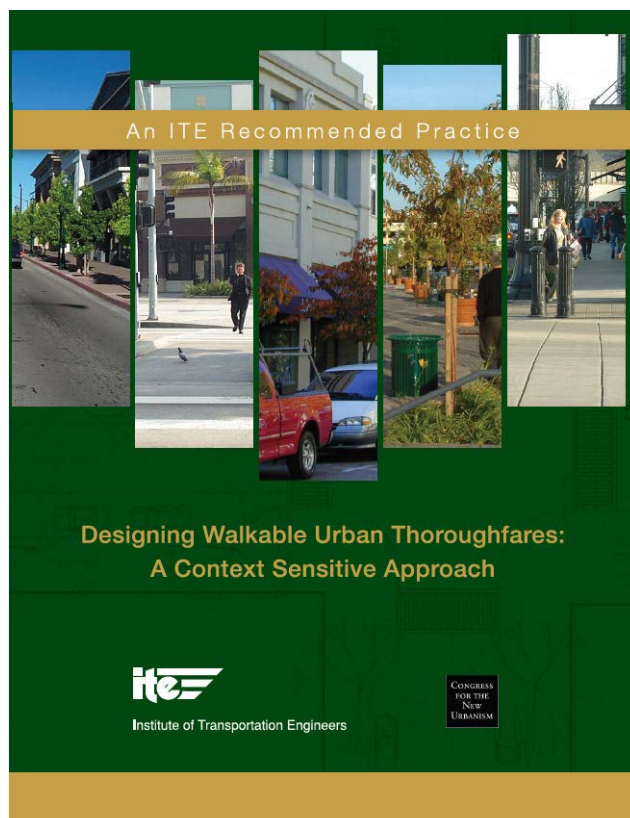
- **Medians**
  - Residents preferred beautified medians that complement the neighborhoods and provide a sense of community.
- **Gateway Arch/Entrances**
  - A defining archway or entrance for River Oaks is preferred.
- **Public Art**
  - Modest public art choices are preferred.
- **Bicycles and Pedestrian Environment**
  - Dedicated paths for bicyclists and pedestrians are preferred.
- **Bicycle (Only) Environment**
  - Bike lanes overall did not score well, but off-street facilities are preferred along the corridor.

### 3.3 Design Guidelines

There are three documents that serve as the foundation of best practices for the proposed corridor design. The first is the Institute of Transportation Engineers Manual for context sensitive solutions. This manual lists design elements that improve both mobility choices and community character through enhancing walkable communities. The second document is the TxDOT *Roadway Design Manual*. It provides TxDOT guidelines on engineering design elements from freeways to two-lane roads. The third document is the National Association of City Transportation Officials (NACTO) Urban Street Design Guideline, which discusses improvements for pedestrian oriented streets. Altogether, these best practices cover the design elements that will be identified in the corridor master plan including streets, intersections, sidewalks, and other infrastructure.

**Institute of Transportation Engineers — *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach***

While the concepts and principles of Context Sensitive Solutions are applicable to all types of transportation facilities, this manual focuses on applying the concepts and principles in an urban thoroughfare



environment. The manual describes thoroughfares as “walkable communities”, where bicycling, walking, vehicular transportation, commercial development, and residential elements are working together simultaneously.

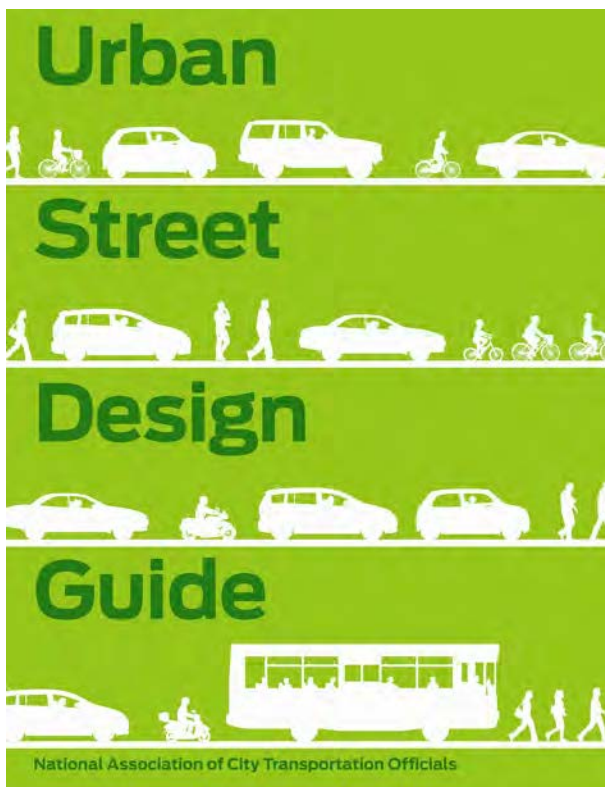
**Texas Department of Transportation – Roadway Design Manual**

The *Roadway Design Manual* was developed by the TxDOT to provide guidance in the geometric design of roadway facilities. It was chosen as a best practices manual to assist in the design of traffic management and lane widths and because River Oaks Boulevard is a TxDOT facility (State Highway 183).



**National Association of City Transportation Officials – Urban Street Design Guide**

The NACTO guide has been used in this master plan as another best practices guide to assist in the development phases and understanding of walkable urban thoroughfares. The Urban Street Design Guide focuses on the design of city streets and public spaces. More specifically, it provides guidance for elements such as traffic calming, sidewalks, intersections, and performance measures.





### 3.4 Recommendations

This section of the report details the recommended strategies and actions developed from the existing conditions data, stakeholder and public input from community meetings, and best practice guidelines. The following sections will refer to the River Oaks Boulevard corridor based on the context sensitive zones highlighted in Community Meeting #1 and the right-of-way configurations detailed in Section 2. The corresponding zones are:

#### Context Zone One

The first zone is generally defined by the entrance of River Oaks Boulevard into River Oaks at Sam Calloway Road and ending roughly by Ohio Garden Road. As shown in Figure 3.1, Zone One is characterized by primarily residential uses at the southern edge of the zone and transitioning to commercial and retail uses toward the northern end. Commercial uses in the zone consist of standalone restaurants and retail, strip malls, auto use and sales, and older big box stores with large parking areas adjacent to the roadway.

#### Context Zone Two

As shown in Figure 3.2, Context Zone Two begins at Ohio Garden Road and ends roughly at Long Avenue. Zone Two is characterized by commercial, a community facility, and some residential uses. City Hall and the River Oaks Public Library are located mid-block on the northwest side of River Oaks Boulevard. A large retail strip is located on the southeast side.

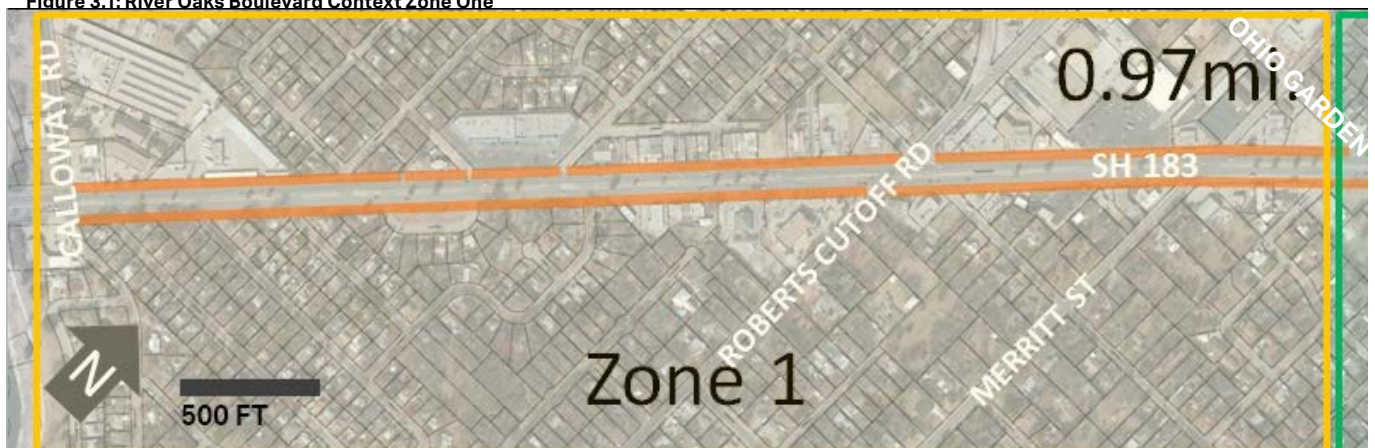
#### Context Zone Three

Also shown in Figure, 3.2 is Context Zone Three, which begins roughly at Long Avenue and ends just west of SH 199. Zone Three includes commercial uses on the south side and mostly residential along the north.

#### 3.4.1 Cross Sections

Translating the corridor vision into a quantifiable design is key for the success of River Oaks Boulevard. By utilizing the vision, goals, public input, and existing conditions analysis as the foundation for design parameters, the proposed structural improvements presented in the

Figure 3.1: River Oaks Boulevard Context Zone One



River Oaks Boulevard Corridor Master Plan address vital transportation mobility issues while reflecting the desired character sought after by the community.

This section is the foundation of the corridor master plan and it provides the methods and opportunities for multi-modal transportation throughout the corridor. It is important to note that while the proposed design elements are recommended for specific parts of the corridor, it is best to treat the concepts as building blocks that can be rearranged as necessary as future conditions change or alternative scenarios arise. The goal of the master plan is to expand the possible transportation modes options along the corridor by providing context

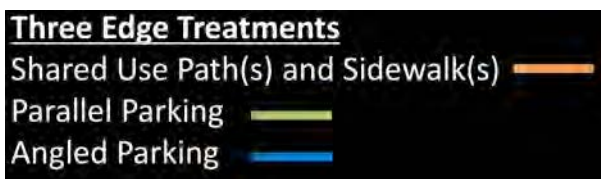


Figure 3.2: River Oaks Boulevard Context Zones Two and Three





## Context Zone One

Development in Context Zone One incorporates mobility options along the edges of the corridor and is based on the shoulder right-of-way configuration identified in Section 2. Both sides of the corridor include sidewalks and a shared-use path (trail) for bicycles and pedestrians. This will allow cyclists to move through the corridor more quickly since the majority of pedestrian traffic will occur on the sidewalk. It is also recommended that existing parking areas be demarcated as either head-in or rear-in parking as opposed to the existing unmarked parking setup.

A prototypical intersection at Roberts Cut Off Road is shown in Figure 3.17. It depicts improvements to operations that could be achieved through adjusting the turning radii and adding dedicated left turn bays that would allow protected left turn phasing rather than the existing split phasing.

Additionally, pedestrian amenities such as benches, lighting, signage, and trash receptacles will be placed throughout the entire context zone in addition to landscaping to provide a median between pedestrians and motorists. Improving the network of pedestrian and bicycle connectivity will provide access for the residential community on the southern side of the corridor, allowing them to safely access the commercial activity occurring along River Oaks Boulevard. The existing and proposed street sections are illustrated in Figures 3.4 and 3.5.



Figure 3.3: Context Zone One River Oaks Boulevard West End (N.T.S.)



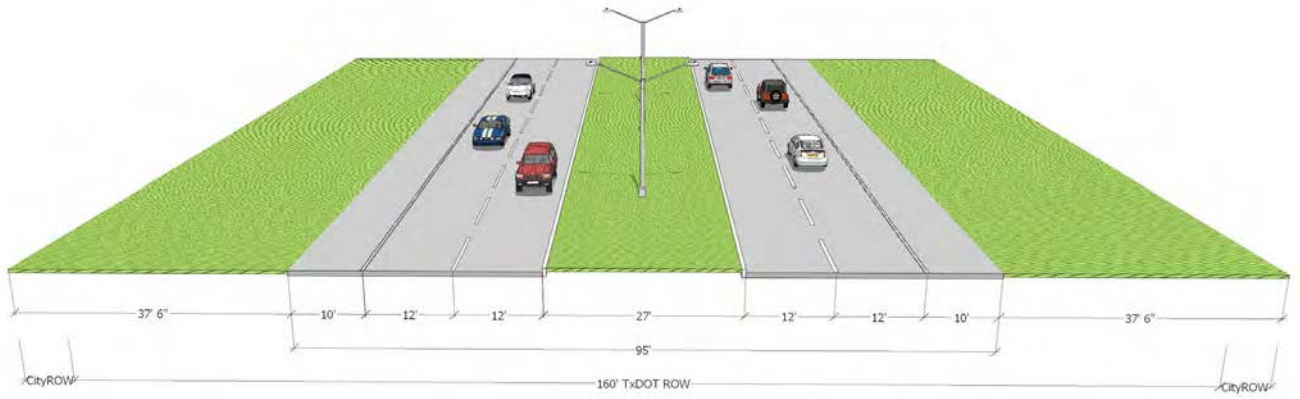


Figure 3.4: Context Zone One Existing Street Cross Section

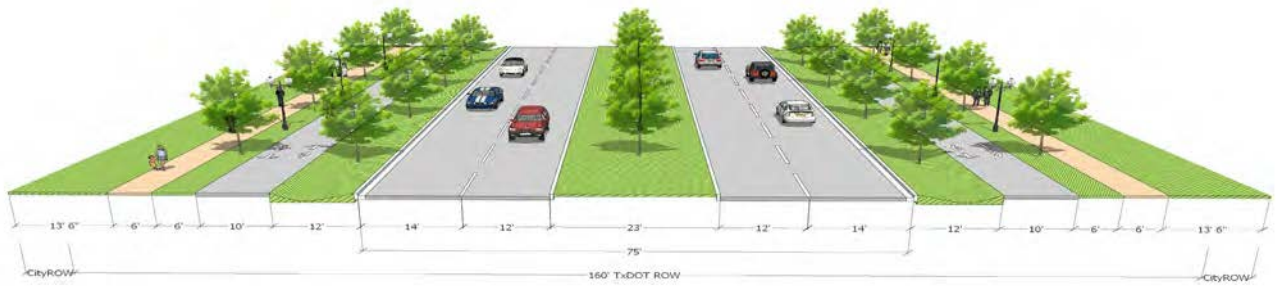


Figure 3.5: Context Zone One Proposed Street Cross Section





## Context Zone Two

Improvements in Context Zone Two maximize the use of the wide right-of-way to incorporate as many mobility options as possible, and it is based on the drainage right-of-way configuration identified in Section 2.

A prototypical intersection at Ohio Garden Road is depicted in Figure 3.16. It shows adjustments to the approaches to the intersections and their turning radii, streamlining access off of River Oaks Boulevard. Parking spots are provided and/or organized through the use of pavement striping in front of the retail stores mid block. These additional parking spaces could either be head-in or rear-in parking, depending on the City's preference.

Similar to Context Zone One, sidewalks and a shared-use path (trail) is proposed on both sides of the corridor. Additionally, there is enough right-of-way in this context zone to add either parallel or angled parking on both sides of the corridor. Similar to other context zones, pedestrian amenities such as benches, lighting, signage, and trash receptacles, and landscaping should be placed through the context zone.

While this road configuration has benefits, there are also problems related to intersections. Assume that the frontage roads are one-way and flowing in the same direction as the adjacent through lanes. The

side streets are effectively three intersections in close succession; one with a frontage road, a second with the through lanes, and then the third with the other frontage road. Most traffic using the frontage roads come from, and then return to the through lanes. That traffic has to turn left from the side street onto the frontage road and, when leaving, turn left from the frontage road onto the side street, as shown on Figure 3.15. Because the left turns are in such close proximity to the through lanes, any blockage or queuing backs up cars into the through lanes.

To solve this problem and to allow multi-way boulevards to be built effectively, in Context Zone Two and Three, the plan proposes a "clockwise frontage road" or contra-flow lane, as depicted in Figures 3.12, 3.13, and 3.14. Contra-flow frontage roads flow in the opposite direction as the adjacent through lanes. Traffic turns right onto and off of the frontage roads (i.e., clockwise). Consequently, any queuing occurs on the frontage road or side street, away from the boulevard's through lanes, leaving the through lanes unencumbered. Another benefit of contra-flow frontage roads is better sight lines while leaving the frontage roads as depicted on the illustrations on Figures 3.13 and 3.14. Additionally, the proposed lanes provide for flexibility in parking style and arrangement (parallel, front end, and back in) while leaving the existing slip roads behind the retail establishments available for commercial traffic.



Figure 3.6: Context Zone Two River Oaks Boulevard Central (N.T.S)



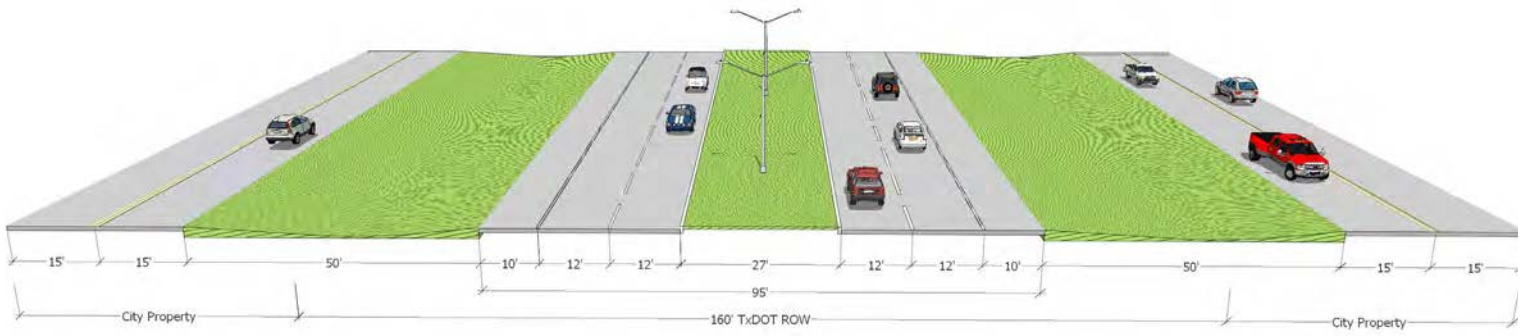


Figure 3.7: Context Zone Two Existing Street Section

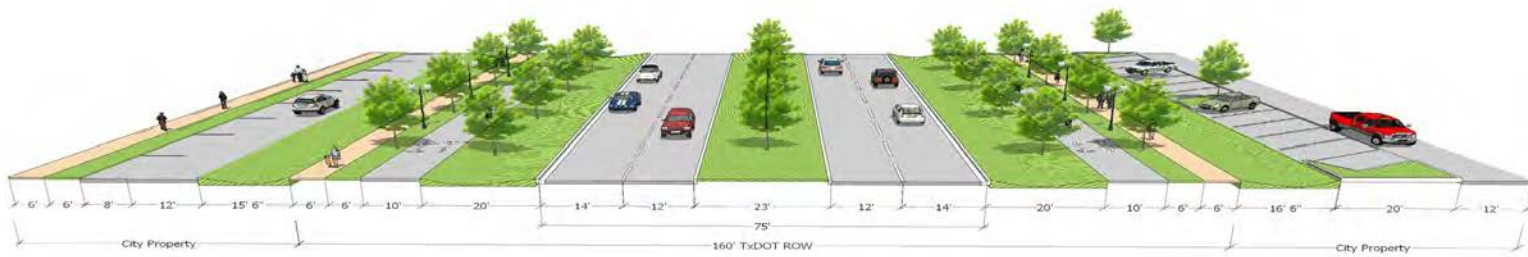


Figure 3.8 Context Zone Two Proposed Street Section





## Context Zone Three

Like the other context zones, Context Zone 3 maximizes the use of the wide right-of-way to incorporate as many mobility options as possible.

Context Zone Three also includes a proposed contra-flow frontage road that solves several common problems of a multi-way boulevard, and it is centered around the service road right-of-way configuration outlined in Section 2. Multi-way boulevards are functional as frontage roads and provide addresses for buildings, on-street parking, access to front doors, slow speeds, and spaces to walk. The boulevards also allow motorists to use higher speeds in through-lanes located between the frontage roads. The concept allows large streets to carry high traffic counts, in a context-sensitive way, through neighborhoods, downtowns, or other districts.



Figure 3.9: Context Zone Three River Oaks Boulevard East End (N.T.S.)



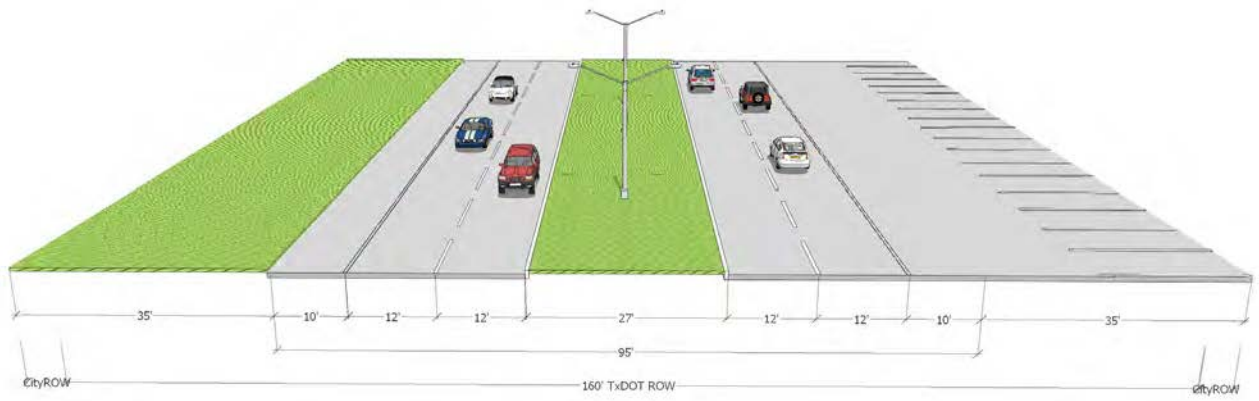


Figure 3.10: Context Zone 3 Existing Street Section



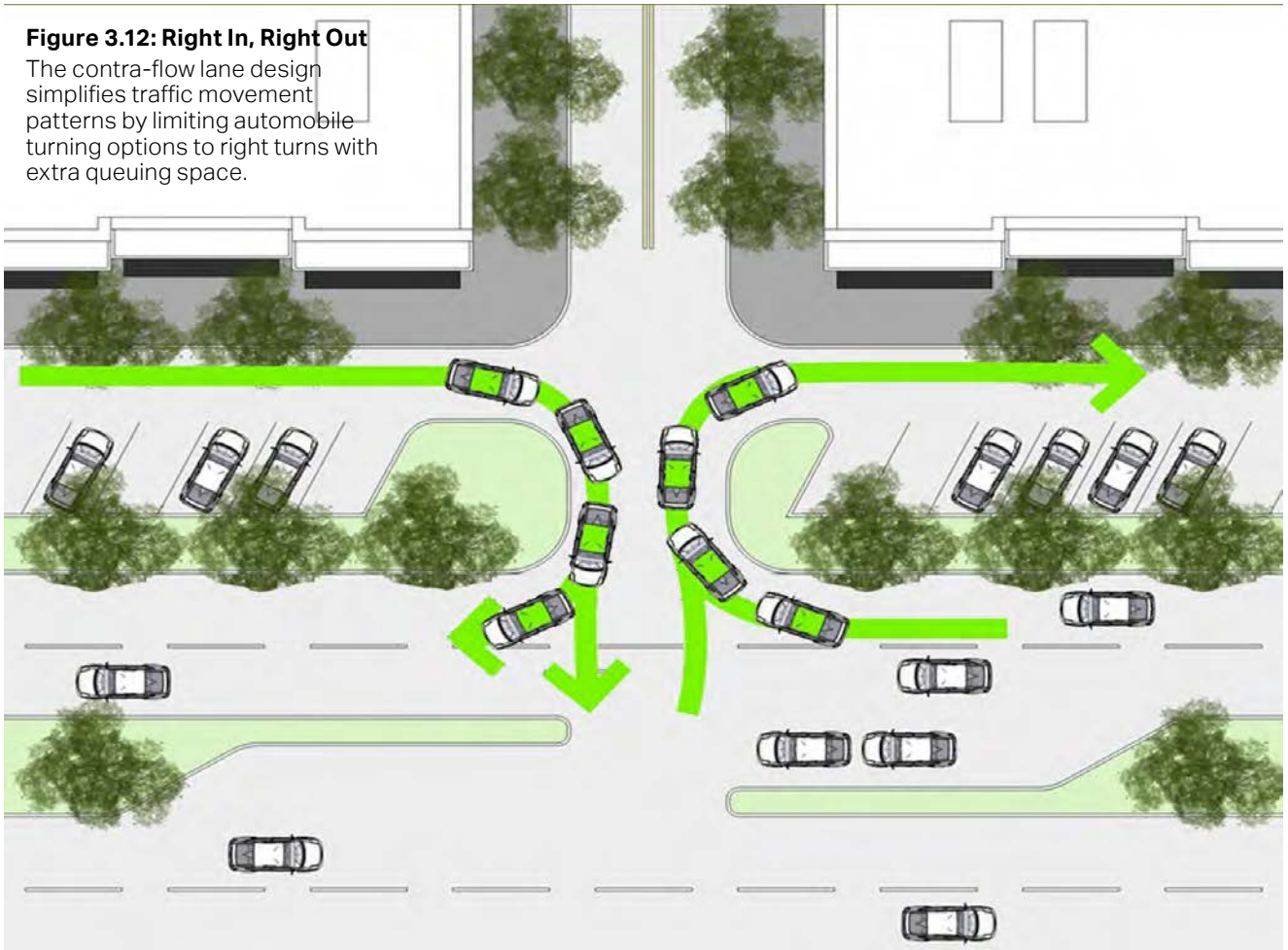
Figure 3.11: Context Zone 3 Proposed Street Section





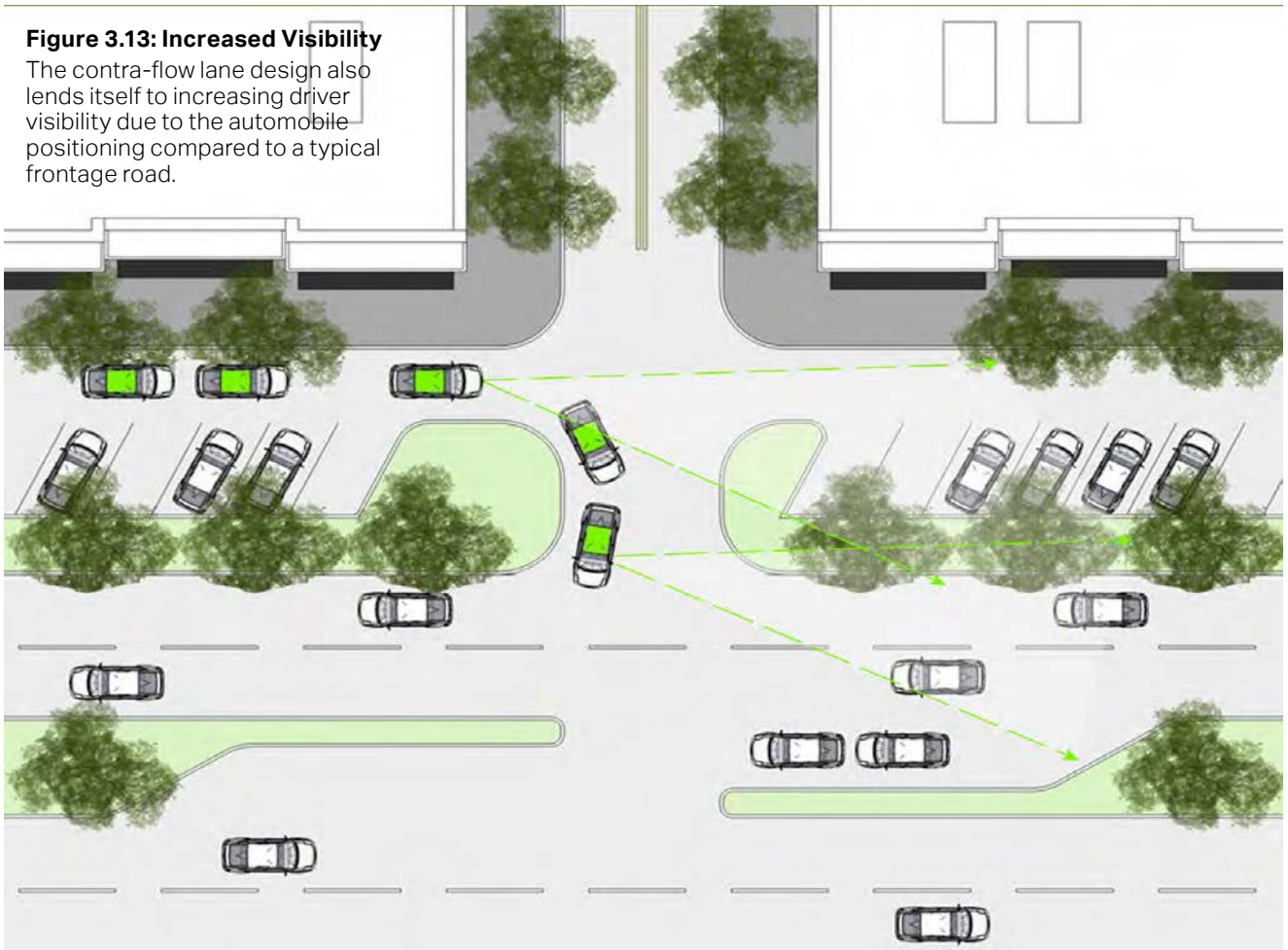
**Figure 3.12: Right In, Right Out**

The contra-flow lane design simplifies traffic movement patterns by limiting automobile turning options to right turns with extra queuing space.



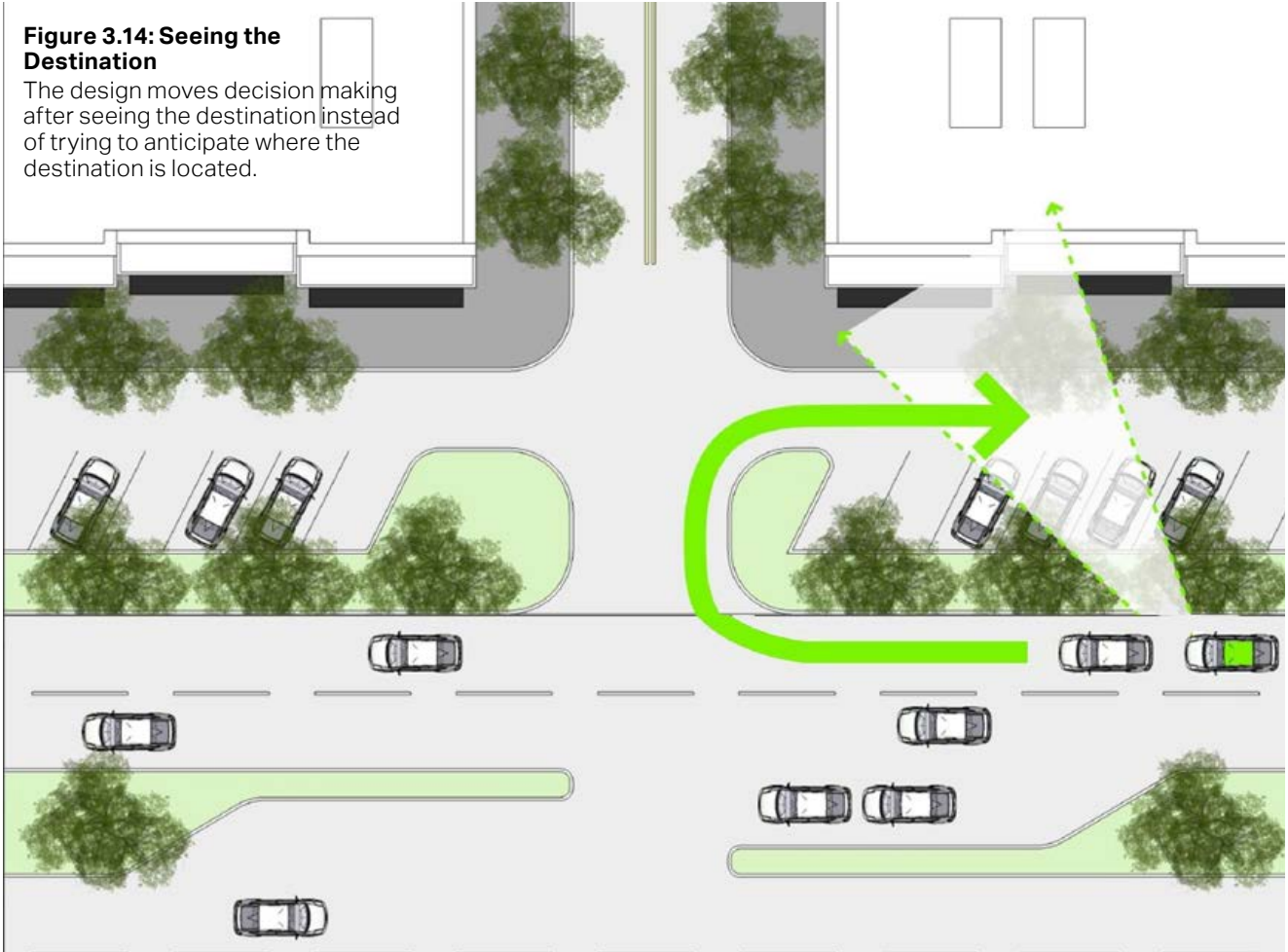
**Figure 3.13: Increased Visibility**

The contra-flow lane design also lends itself to increasing driver visibility due to the automobile positioning compared to a typical frontage road.



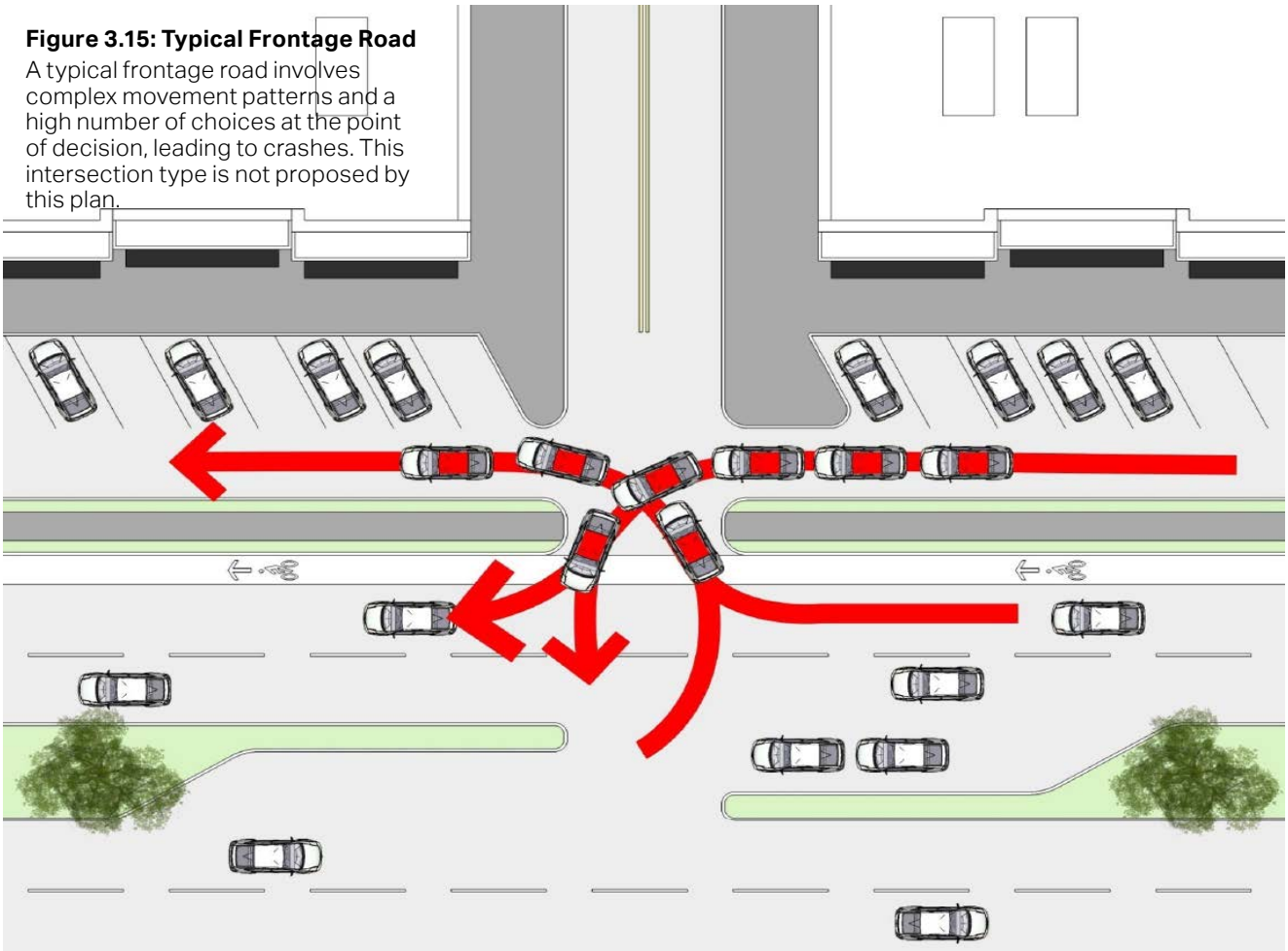
**Figure 3.14: Seeing the Destination**

The design moves decision making after seeing the destination instead of trying to anticipate where the destination is located.



**Figure 3.15: Typical Frontage Road**

A typical frontage road involves complex movement patterns and a high number of choices at the point of decision, leading to crashes. This intersection type is not proposed by this plan.





# Prototypical Intersections

The study corridor contains several intersections that have design elements that are skewed crossings, making them difficult to navigate. By adjusting the approach of various intersecting roads and their turning radii, and streamlining access off of River Oaks Boulevard by better controlling ingress and egress, significant improvements in operations can be achieved.

Two prototypical intersections are provided in Figures 3.18 and 3.19. They are based on River Oaks Boulevard, Roberts Cut Off Road, and Ohio Garden Road. Both feature alternative alignments as Roberts Cut Off Road and Ohio Garden Road approach River Oaks Boulevard and clearly defined curbs with dedicated pedestrian crossing lanes. **It is intended that these prototypes serve as a model for intervention along the entire corridor.**

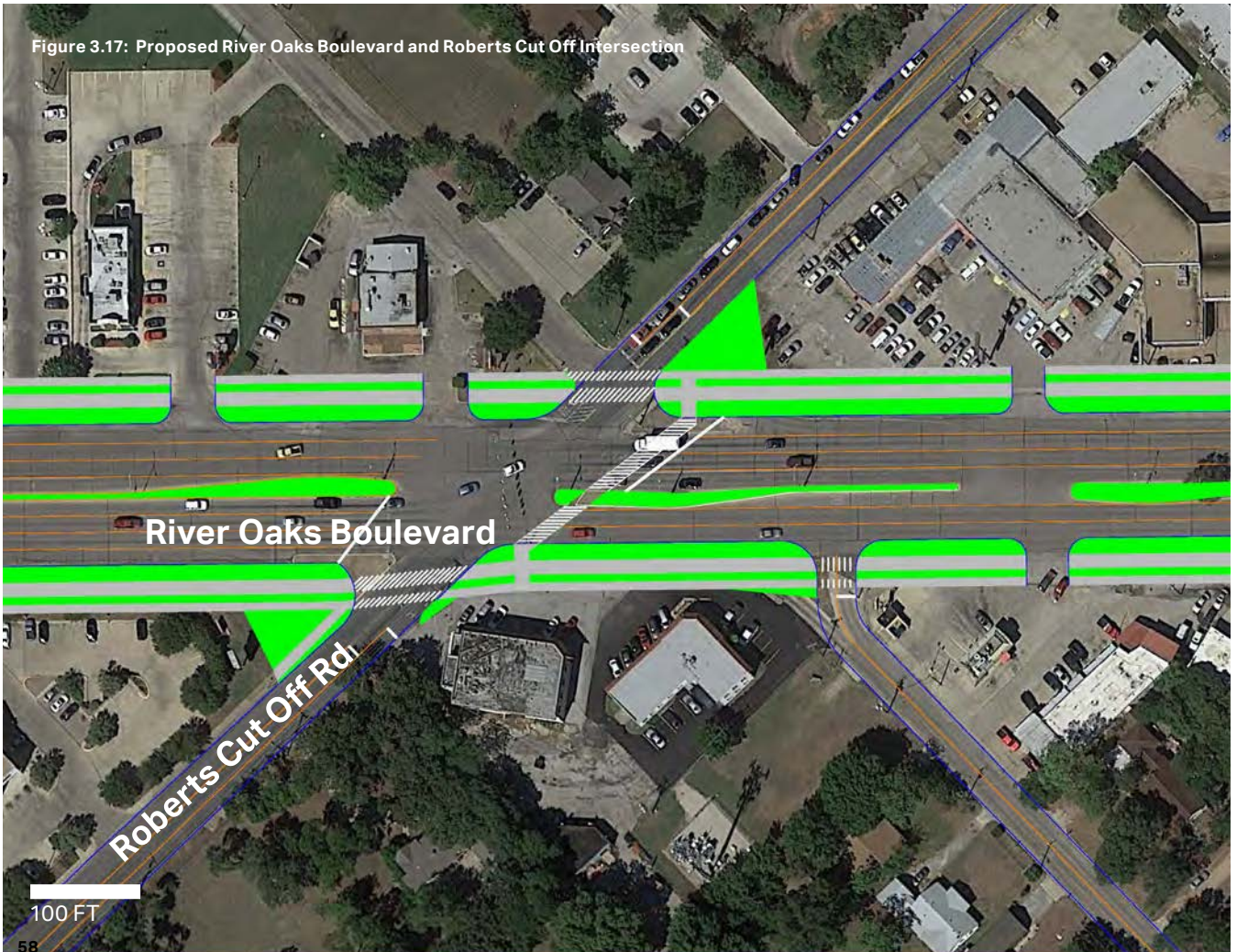
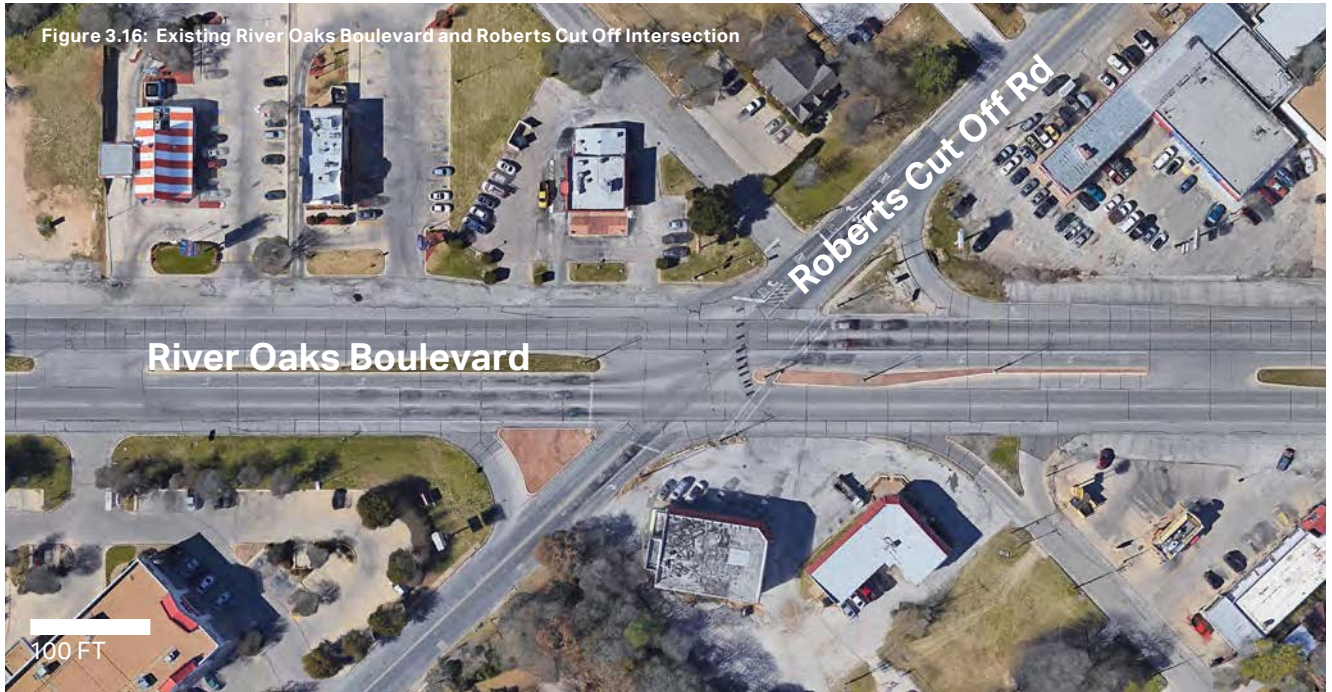




Figure 3.18: Existing River Oaks Boulevard and Ohio Garden Intersection



Figure 3.19: Proposed River Oaks Boulevard and Ohio Garden Intersection





sensitive building blocks and conceptual design rather than a detailed engineering proposal.

### 3.4.2 Stormwater Considerations

Flooding has been an issue along River Oaks Boulevard and SH 199 for many years, and the drainage issues and flooding identified by stakeholders as prevalent along the corridor are not unique to River Oaks Boulevard. Flooding is an area problem that needs to be studied in detail and analyzed to identify long term solutions to floodplain management.

The current drainage pattern is for runoff to flow from the City of Fort Worth watersheds on the northeast of River Oaks to the south and west across the City to the Trinity River, which is also located in the City of Fort Worth. As such, it is recommended that the City of River Oaks, with the support of other cities in the North Tarrant Alliance, coordinate with the City of Fort Worth's Floodplain Administrator to be included in the City's Floodplain Management Plan, which is currently in draft form.

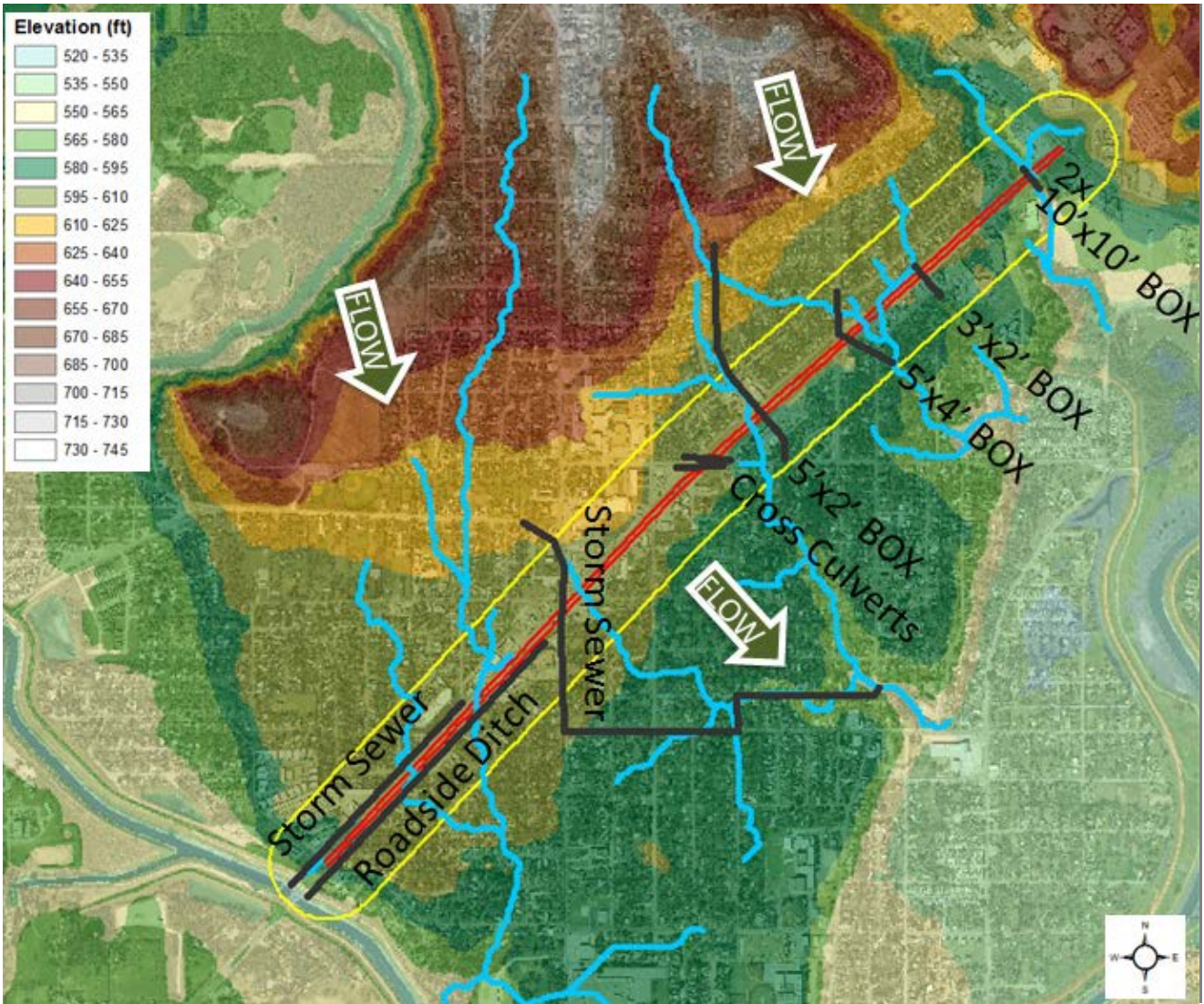
**In the near term, it is recommended that the City make a request to TxDOT to deploy maintenance forces to regrade ditches and clean out gutters and culverts along River Oaks Boulevard.** This effort would seek to maximize performance of the existing infrastructure to the extent possible.

**It is also recommended that the City coordinate with the Tarrant Regional Water District and Tarrant County to seek funding for a drainage study to be conducted within the next five years.** The purpose of the study would be to document the issues and make additional recommendations for improvements to area flooding problems. Tarrant County is currently planning the budget for the next fiscal year and could possibly identify funding for the study.

In the long term (five to ten years), reconstruction of the River Oaks Boulevard corridor offers numerous opportunities to improve stormwater management. Addressing drainage challenges with innovative solutions can reduce the frequency and severity of flooding along the corridor and improve the quality of stormwater runoff.

Currently, the corridor is characterized by wide swaths of impervious cover, consisting of roadway pavement and parking areas, which limit infiltration of stormwater and generate both high volumes of stormwater runoff and high loadings of stormwater pollutants. In addition, in certain locations, box culverts or storm sewers crossing under River Oaks Boulevard may be undersized, limiting the conveyance of water under the roadway and causing elevated water surface elevations on the upstream side of the roadway that may contribute to both roadway and structural flooding during severe rain events. Existing internal drainage along the corridor typically consists of incised roadside or median ditches, connected across intersections and driveways by culverts. In certain locations, storm sewer exists. As shown on Figure 3.20, there are multiple existing storm sewer or culvert crossings which these internal drainage systems outfall to.

The proposed approach to stormwater management along the corridor includes reducing the extent of impervious cover and decentralizing stormwater management by incorporating drainage features into the aesthetic landscaping for the corridor to maximize both the infiltration/treatment and the available surface storage for detaining/retaining stormwater runoff. This approach is known as Low Impact Development (LID), Green Infrastructure (GI), and/or Integrated Stormwater Management (iSWM). Upon further study, it may be that LID/GI/iSWM



**Figure 3.20: Overland Flow/Drainage**

The map above illustrates the drainage patterns and overland flow of the area surrounding the study corridor and the identified issue areas.



features can reduce the volume/rate of runoff in both smaller and larger storm events in the corridor. Due to the available landscape areas and median, the proposed corridor layouts provides opportunities to maximize the use of innovative stormwater management practices in all three context sensitive zones (Zone One, Zone Two, Zone Three).

Specifically for this project, the approach could include the addition of bio-swales or bio-retention, or other similar features, into the landscaped median areas to collect, detain/infiltrate, and treat stormwater runoff. Runoff would be typically directed into these features through curb-cuts or false-back curb inlets. Underdrains and overflow systems would likely be necessary to connect these drainage features to the primary conveyance system (storm sewer). It is anticipated that a storm sewer trunk line would be required on each side of the road for the entire length of the project. The bio-retention underdrains would connect to this storm sewer.

Additionally, the storm sewer will provide conveyance for runoff from extreme events which surcharge the LID/GI/iSWM features. The storm sewer should be designed to meet all City and TxDOT hydraulic criteria. Other opportunities to improve stormwater management could include use of permeable pavements, such as porous concrete, for low-demand surfaces such as sidewalks or shared-use paths.

As part of the roadway reconstruction, cross drainage systems should also be analyzed and if necessary improvements developed to provide the desired hydraulic level of service. These improvements could include enlarging existing storm sewer/culvert crossings or adding additional barrels to existing culvert crossings. These improvements would need to be coordinated with other downstream improvements to ensure the downstream conveyance systems have adequate capacity to carry additional runoff. Detailed cost estimates for improvements are provided in the Appendix.

Drainage improvements should be phased according to each outfall. Outfall improvements, if necessary, should be constructed first, followed by incremental drainage improvements working from the outfall upstream to the drainage boundary. Typically, the primary conveyance system (storm sewer), is added first. The LID/GI/iSWM features would then be added as construction of adjacent improvements (roadway, pedestrian/amenities, drainage) are concluded, in order to limit introduction of silts and other sediments into the bio-

retention systems and to prevent the need for heavy equipment within the footprint of the LID/GI/ISWM features, which would compact soils and limit infiltration capacity.

### 3.4.3 Aesthetic Analysis

#### Landscape and Signage Elements

Corridor beautification through landscaping and green open space influences the economic productivity of an area. The addition of trees and ground cover add to a resident's sense of community and place.

**This plan recommends the addition of street trees planted along sidewalks and shared paths and in the medians.** A mix of ornamental landscape trees and larger six-to-eight foot evergreen trees would be planted every 20 feet on center. Trees would be planted such that they do not impede visibility for motorists, but in a way that they can provide shade for pedestrians and cyclists.

Additional signage would be added in conjunction with new shared use paths and sidewalks. Currently, there are three pedestrian crossings along River Oaks Boulevard and within this study area: at Roberts Cut Off Road, Ohio Garden Road, and Merritt Street, as identified in Figure 2.10 of the existing conditions section. **These crossings would be supplemented with improved pedestrian crossing signage and striping that increase motorist visibility.** Immediate locations suitable for additional striping include the Roberts Cut Off and Long Ave intersections.

#### Lighting and Pedestrian Amenities

Throughout the corridor, pedestrian infrastructure and safety would be improved. Existing lighting along River Oaks Boulevard serves only vehicle travel, and sidewalks are non-existent for the majority of the corridor. **Infrastructure improvements would include new sidewalk or shared use paths, and the new lighting would be installed to serve those paths.** Additional lighting throughout River Oaks would encourage walking in the community for recreation and exercise, and also as a transportation choice. Raising walkability standards in River Oaks has the potential to increase economic investment, improve health, and additional lighting can help reduce crime in some areas.

In addition to sidewalks, **shared-paths, and lighting, amenities would be added throughout the corridor that add to the aesthetic of River Oaks. Features should include trash receptacles and benches along pedestrian routes.**

#### Community Gateway Features

**The River Oaks Comprehensive Plan Vision recommends the development of an entry gateway feature on the River Oaks Boulevard corridor that would help define the City.** In the first community meeting, attendees were shown examples of gateway entry features. The top scoring feature is shown in Section 3.2.2 in Table 3.1.



Example of Pedestrian Friendly Corridor



Example of Pedestrian Lighting



Example of Trash Receptacle and Bench



A gateway feature near downtown would help drive financial investment by giving a sense of identity to the area. In addition, the replacement of the existing metal sign on the west side of River Oaks with an entry monument similar to the one on the east side of town would draw attention to the west entrance to the City via River Oaks Boulevard.

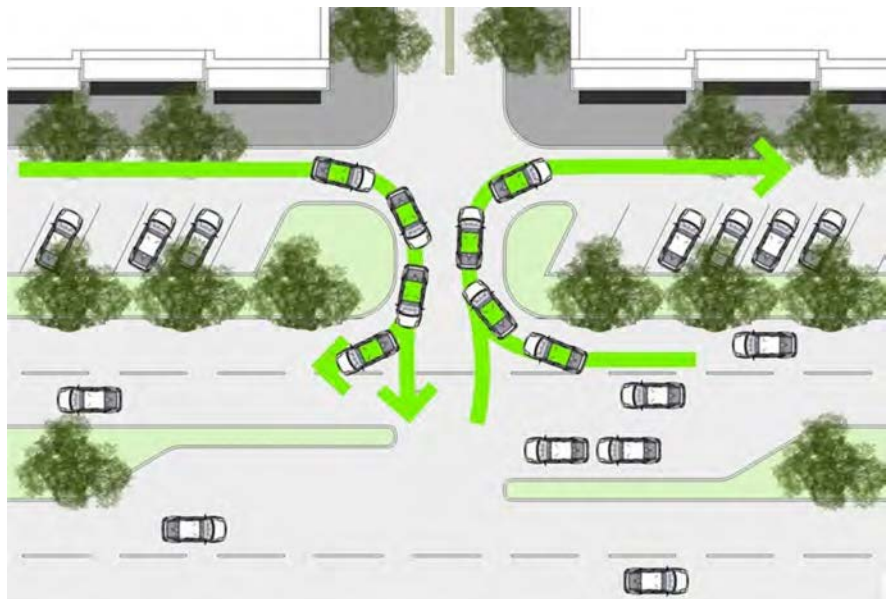
### 3.4.4 Safety and Operation

#### Pedestrian Accommodations

The existing corridor provides little to no accommodations for pedestrians, making intersections risky for foot traffic. Furthermore, the intersections do not meet current Americans with Disabilities Act (ADA) requirements as no pedestrian ramps are provided at the corners. With no pedestrian poles, push-buttons, or crosswalks pedestrians must cross the roadway at their own risk. The proposed plan provides shared use paths which would continue through the intersections and greatly improve pedestrian safety. **It is recommended that the traffic signals be redesigned to incorporate modern pedestrian safety features such as countdown pedestrian signals, accessible pedestrian push-buttons, and ramps to safely accommodate anticipated pedestrian growth on this new walkable corridor. Suitable locations for immediate implementation include Roberts Cut Off Road and Long Ave.**

#### Contra-flow Roads and Parking

As shown in the proposed plan, the service roads would flow in the opposite direction of the River Oaks Boulevard main lanes. This allows for right-in, right-out turns at the cross streets and reduces vehicular conflicts on the cross streets at the parking lots as shown in Figure 3.21. Because the service roads are one way, left turn conflicts would be eliminated for vehicles entering the service road. Instead, drivers would see their destination as they travel the main corridor, pass it temporarily, and then enter at the next downstream access to circle back to the adjacent parking lot. **The plan recommends a buffer between the parking lot and the main road to allow space for the right turn maneuver.** This median between the main lanes and the parking lots/ service roads provides a separation that increases safety as well as opportunity for pedestrian amenities. The plan also provides back-in parking which includes numerous benefits such as better visibility



when exiting, increased capacity over parallel parking, and a potentially safer experience for other road users. However, parking is flexible, the proposed plan would not remove any existing parking, and spaces can be traditional front-in parking if necessary.

### **Figure 3.21: Proposed Contra-flow Side Roads**

#### **Driveway Spacing**

**The plan also provides an opportunity to reduce the number of driveways and median cuts clogging the existing corridor, as shown in Figures 3.16 and 3.17.** With the current condition, parking lots directly adjacent to the roadway allow drivers to turn into parking lots from any point on the roadway and vice versa. In addition, some businesses have driveways spaced within a few dozen feet of each other. According to *TxDOT's Access Management Manual*, driveways should be spaced a minimum 305 feet apart on a 40 mph roadway to meet stopping sight distance requirements.

### **3.4.5 Form Based Zoning Implementation Strategies**

Implementing a form based code is a process which is unique for each community. The political climate, economic conditions, local culture, key stakeholders, and the ultimate goals of the new code all have an effect on implementing a Form Based Code. While an exact recipe for implementation cannot be formed to work across all communities, similar processes have been successfully implemented when led by an internal city planning staff or professional planners in close conjunction with City Council.

#### **3-Step Process for Implementation**

Implementing a form based code requires three primary phases: Documentation Phase, Visioning Phase, and Assembly Phase. The Documentation Phase includes reviewing the existing regulating code and determining the framework for districts, neighborhoods, and corridors. This phase will also examine the fine-grain elements which add to the character of the built environment, such as block and lot types, building siting, frontage design, and streetscape elements.

The Visioning Phase includes community engagement and provides a platform for the public to actively participate in forming a new code through designing an illustrative plan and forming a regulating plan. The Assembly Phase includes the process of formatting the new code content into a desired structure and inserting it into the existing code.

This project and plan have initiated work in two of the three phases of the implementation process, the Documentation Phase (existing code review, preliminary community framework and character analysis) and the Visioning Phase (community workshops). The next section will focus on strategies for incorporating (Assembly Phase) the Form Based Code into the existing regulating code.

#### **Form Based Code Assembly Methods**

Several methods are available for introducing a form based code into a community with an established regulating ordinance. Most methods can be grouped into three categories: full replacement, hybrid, and optional. Choosing the most suitable method depends on the amount of change demanded by the community and an honest understanding of the political and economic feasibility.

### **Replacement of Existing Code**

This method completely replaces the existing conventional zoning code for all, or part, of a community. All new developments must abide by the new form based code as they are implemented, while existing developments would be grandfathered in. This approach creates the most opportunities for transforming a community, while maintaining the integrity of established areas. This method also provides consistent regulatory vocabulary and procedures, which can alleviate administrative challenges. In order for this method to be successful, the community's desire for change, and political will, must be high.

### **Hybrid Code**

This assembly method combines form based code with conventional zoning code. The two codes can be merged through the development of a new chapter within the existing conventional code. This method is typically used when overlay districts or special districts are designated under the conventional code. Within the new form base code chapter, references to the conventional code are used when development standards do not differ from the existing code, such as parking regulations and landscape requirements. Many communities adopt this method of assembly because it is usually quicker to implement than a complete replacement. This approach can also be used to ease a community into a full code replacement by testing phased code replacements in selected areas where change has been demanded by the public.

### **Optional Code**

An optional code provides a separate form based code along with the conventional zoning code. Under this implementation method, specific areas are designated in the form based code for a developer to choose between the two development approaches. The property does not have to be rezoned, but once the choice is made by the developer the remainder of the development project must abide by the approach selected. There are some advantages of this implementation method, such as providing developers maximum flexibility; however, the challenges presented by this method may result in confusion between which code is desired by the community and developers picking only the code requirements which are more beneficial to their interest.

### **City of River Oaks Existing Zoning Ordinance**

River Oaks' existing zoning ordinance is based on separating uses in relation to other incompatible uses. Zoning based on these assumptions and modern planning techniques can present challenges to redevelopment districts. The city's existing zoning categories are as follow:

- Commercial (C1, C2, C3)
- Community facilities (CF)
- Industrial



- Residential
  - R1, R2, R3, R4,
  - R5 manufactured homes
  - R6 single family
  - Multi-family homes
- Planned commercial (PC)
- Planned development (PD)

**Table 3.2: Zoning Comparison Example**

Design Standard	Existing Code	Form Based Code (EXAMPLE)
<b>Setbacks</b>	Minimum	Maximum
<b>Height</b>	Maximum for abutting uses	Generally set by context of the area
<b>Parking</b>	Minimum Requirements	Maximum Requirements
<b>Masonry Requirement</b>	75 % Masonry requirements	Generally flexible within neighborhood context
<b>Yard Requirements</b>	Minimum standards	Maximum
<b>Uses</b>	Proscribed	Mix

River Oaks Boulevard is represented by primarily commercial zoning on the northwestern edge, and a mix between residential and commercial on the southeastern edge. The needs of stakeholders must be accommodated, but for the corridor to be attractive to development designated nodes should be implemented that have flexible design standards. Existing code examples that pose as obstacles to investment can be seen in Table 3.2. A summary table of the existing zoning code can be found in Appendix D.

**Implementation Recommendations and Gap Analysis**

**Based on the existing conditions and visioning elements already examined and produced under this project, this plan recommends using the hybrid code approach for Node 1.** The hybrid approach would allow River Oaks to implement the form based code more quickly than a full replacement, but also require developers to abide by the form based code, instead of having a choice, as allowed by the optional code method. Also, because the River Oaks Boulevard corridor is a large and significant area within the community, this project would serve as an ideal testing ground for developing under a form based code. Successful developments under the form based code would support the community’s demand for change and could encourage implementing a full replacement of the conventional zoning code at a later time.

The neighboring City of Fort Worth has implemented form based districts with zoning regulations that could be replicated along the corridor in conjunction with the proposed cross sections to create vibrant, unique, and pleasant urban environments. The form based codes could encourage mixed-use streetscapes that are aesthetically pleasing and would help support and develop a sense of place. Many

communities, including Fort Worth, have implemented form based codes as part of the zoning ordinance to assist in the creation of healthy and unique urban environments.

Highlighting where the existing zoning code and proposed form based code are not compatible will make the Assembly Phase more efficient. Gaps identified between the two codes include:

- **Minimum versus maximum setbacks:** Form based codes use maximum setbacks in order to bring buildings and amenities closer to the street.
- **Site design and building form versus specific parameters:** The existing code uses specific measures, such as density or floor area ratio, to shape and site buildings. Form based code uses form standards which provides more flexibility for developers, but still maintains the character of a neighborhood or district.
- **Landscape requirements:** Form based code would present the landscaping elements required to complement existing character and emphasize a "sense of place." The existing code only requires submission of a landscaping plan and does not present elements required to enhance the character of a place.
- **Parking regulations:** The existing code prescribes parking regulations by facility type. Form based code would condense these regulations to fit specific places or neighborhoods.
- **Stormwater management:** The existing code only discusses stormwater management in reference to parking facilities and refers the design to the city engineer. The form based code would provide guidance to reduce the extent of impervious cover and decentralize stormwater management by incorporating drainage features into the landscaping through syncing stormwater management requirements to landscaping requirements.
- **Pedestrian realm regulations:** The existing code does not require sidewalks and generally does not provide for required pedestrian amenities, such as lighting. Lighting is mostly regulated to not be a nuisance, rather than required as an amenity. A form based code would regulate lighting depending on the needs of a particular area. Additionally, a form based code provides requirements for particular pedestrian amenities based on a specific area.

#### **Form Based Zoning Code Development Standard Examples**

The City of Fort Worth has instituted form based code districts that are designed to encourage a mix of housing types among neighborhood-serving retail, commercial, and institutional uses while promoting an overall pedestrian-oriented and urban form. The Mixed-Use 1 (MU-1) and Mixed-Use 2 (MU-2) districts are mixed-use in nature and feature development standards that help create vibrant, pedestrian-friendly streetscapes. A few of the noteworthy development standards that are required include:

- **Setback:** Buildings can be placed a maximum of 20 feet from the right-of-way. This relatively short setback encourages walkability and creates a more urban atmosphere.
- **Height:** The MU-1 district requires that buildings be at least 18 feet tall and no more than 5 stories (60 feet) tall and the MU-2 district mandates that buildings be at least 2 stories tall but not more than 5

stories (60 feet) tall. The minimum and maximum height restrictions are designed to create an appropriately scaled urban streetscape.

- **Landscaping:** Both the MU-1 and MU-2 districts require that buildings meet a minimum set of landscape and streetscape requirements. The minimums are based on a point system. These requirements and corresponding point system would help make the area aesthetically pleasing while remaining unique in character by allowing flexibility in design.
- **Parking (Bicycle):** The bicycle parking requirements are under the same restrictions and standards that are applicable throughout the entire City of Fort Worth.
- **Parking (Automobile):** Surface parking is not permitted between a building front and the street unless it is deemed on-street parking. There are exceptions to this standard found in both MU-1 and MU-2 districts. Joint-use parking facilities are allowed to be used to meet minimum parking requirements; however, the total number of spaces cannot exceed the sum of the maximum total allowed for all individual uses that share the parking facility. These standards broadly support a streetscape that places a priority on the pedestrian experience.
- **Density:** A maximum number of 40 units per acre exist within the MU-1 district and a maximum of 70 units per acre exist within the MU-2 district.

Use of development standards in a form based code over time can have a transforming affect on developments adjacent to the River Oaks Boulevard Corridor. While existing structures would be grandfathered into the code, new developments would adhere to the defined standards implemented by the City.





# Financial Analysis and Implementation

04

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# 04 Financial Analysis and Implementation

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Street and streetscape design costs are organized into Immediate Improvements, Context Zone Improvements and Phasing.

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## 4.1 Street and Streetscape Design Costs, and Implementation

Because River Oaks Boulevard is on the state highway system, **the City would, with TxDOT, develop a strategy and assess partnership opportunities for a phased approach for improvements.** The following sections provide details on the proposed near term and long term improvements for each Context Zone described in Chapter 3. The corridor plan has been separated into zones that could potentially be constructed individually in phases as funding becomes available.

### 4.1.1 Near Term Implementation and Cost

The River Oaks Boulevard Corridor Master Plan is intended to provide the City of River Oaks with strategies to enhance and encourage development, mobility, and aesthetics in the corridor. The following are near term steps that River Oaks can undertake to enhance the boulevard within five years. Long term improvements as described in Section 4.1.2 reflect a five to ten year implementation time period or as funding becomes available.

**It is recommended that the City, County and TxDOT continue to champion the need for long term infrastructure improvements along the corridor to improve economic development and mobility as well as within in the region to address flooding.** The next step, with a TxDOT on-system facility such as this one, is to produce a schematic-level engineering design (30 percent design), including a hydraulics and hydrology study, and environmental document.

**Additionally, it is recommended that a River Oaks Boulevard Coalition be formed to bring together the necessary parties and resources to continue to encourage implementation of the plan and to identify funding and other resources.**

#### Mobility

Pedestrian mobility can immediately be improved along River Oaks Boulevard through re-striping and re-painting of the pavement along the entire roadway or, at a minimum, at the signalized intersections to include crosswalks. Re-striping can also be done to formally delineate parking spaces often resulting in an increase in available parking. Painting and striping is a near term solution that can be achieved at a



low cost, but have an impact on circulation and mobility throughout the corridor.

**The proposed plan recommends installing upgraded traffic signals at Roberts Cutoff Road and Long Avenue that include pedestrian poles and ADA ramps that add to pedestrian safety when crossing the street. It is recommended that the City coordinate with TxDOT and NCTCOG to investigate re-timing the signals along the corridor to improve traffic flow.** Dedicated left turn bays should also be introduced for the Roberts Cut Off approaches to allow protected left turn phasing. Upgraded signals will provide more efficient operations at these two intersections.

**Aesthetics**

Landscaping and updated gateway signage are immediate improvements River Oaks can undertake to improve the aesthetics of the corridor by planting additional street trees (perhaps one-fourth of the total street trees recommended in the overall plan) in the existing center medians or potentially as an entry gateway for the City. **The City should also work with TxDOT to preserve the existing oak trees in the median.** These trees were purchased by River Oaks residents many years ago through a beautification effort. Improved gateway signage at the west entry to River Oaks along the corridor can improve the overall aesthetic of the city and help delineate the City to visitors. Currently, River Oaks has an entry monument on the east end of River Oaks Boulevard and a metal sign on the west. **The installation of an additional monument on the west entry of the city is recommended.**

**Pedestrian amenities can be improved along the corridor in the limited locations where sidewalks are currently present - from Sam Calloway Road to South Schilder Drive on the north side of River Oaks Boulevard and from Long Avenue to Shenna Boulevard on the south side of River Oaks Boulevard.** Given the short stretches of sidewalk, it appears that three benches and trash bins could be provided in each section. Benches and trash bins can assist in creating a pedestrian friendly environment to walk. Items like these can encourage walkability that can potentially turn into economic value for commercial businesses adjacent to River Oaks Boulevard. The proposed strategies for the previously mentioned context zones include the addition of these amenities along paths and improved sidewalks. **However, in the near term, the City can begin implementing them on areas that currently have existing sidewalk.**

**Total cost for the near term improvements for all three zones is \$692,000.** Costs per zone for the items listed in Table 4.1:

- Zone 1 - \$379,000
- Zone 2 - \$214,000
- Zone 3 - \$69,000
- Form Based Code - ~\$30,000

**Zoning**

Immediate improvements can also be undertaken in the City of River Oaks' zoning ordinance. River Oaks can implement zoning that encourages favorable aspects of development. These can be done in measures that increase landscaping standards, or items that remove minimums on parking lot standards. The city may choose to implement code that prohibits parking adjacent to the corridor to encourage storefronts that abut River Oaks Boulevard and encourage a walkable



River Oaks Gateway Sign West Entry



River Oaks Gateway Sign East Entry

Table 4.1: Near Term Improvements Cost Estimate

Near Term Improvements	Cost (EA)
Re-striping	\$0.35/LF
Traffic Signal w/ Pedestrian Signal	\$150,000
Street Tree	\$1,100
Gateway Signage	\$10,000
Pedestrian Bench	\$1,500
Reshaping and Maintenance of Drainage Ditches and Culverts	TxDOT
Trash Receptacle	\$300
Turn Lanes at Roberts Cutoff	\$114,000
Hybrid Zoning Overlay	\$20k-\$55k
Signal Retiming	TxDOT

pedestrian experience. Implementing development standards such as these, over time, can greatly change the aesthetic, economic value, and safety of River Oaks Boulevard. **A form-based planned development district is proposed for Node 1.** This code should emphasize site and building form over building use, a build-to zone for building facades that defines maximum building setback, as well as a document that is prepared for flexibility and ease of use.

**Table 4.2: Zone One Existing and Proposed Long Term Corridor Improvements**

Features	Zone One Existing	Zone One Proposed, Long Term
Primary Vehicle Travel Lanes	4	4
Access Lanes	N/A	N/A
Parking	Not Present	Proposed
Stormwater Management	Not Present	Curb & Gutter, Stormdrain System,
Street Lighting	Exists	Exists
Pedestrian Lighting	Not Present	Proposed
Landscaping	Not Present	2 in cal. Tree; 6-8' Evergreen
Shared Use Sidewalk/Bicycle Path	Not Present	Proposed
Dedicated Sidewalk	Not Present	Proposed
Pedestrian Amenities	Not Present	Proposed

**Table 4.3: Zone Two Existing and Proposed Corridor Improvements**

Features	Zone Two Existing	Zone Two Proposed, Long Term
Primary Vehicle Travel Lanes	4	4
Access Lanes	3	2
Parking	Not Present	On-Street Parallel & Angled
Stormwater Management	Not Present	Curb & Gutter, Stormdrain System,
Street Lighting	Exists	Exists
Pedestrian Lighting	Not Present	Proposed
Landscaping	Not Present	2 in cal. Tree; 6-8' Evergreen
Shared Use Sidewalk/Bicycle Path	Not Present	Proposed
Dedicated Sidewalk	Not Present	Proposed
Pedestrian Amenities	Not Present	Proposed

**Table 4.4: Zone Three Existing and Proposed Corridor Improvements**

Features	Zone Three Existing	Zone Three Proposed, Long Term
Primary Vehicle Travel Lanes	4	4
Access Lanes	N/A	N/A
Parking	Existing 90°	Proposed Angled
Stormwater Management	Not Present	Curb & Gutter, Stormdrain System,
Street Lighting	Existing	Existing
Pedestrian Lighting	Not Present	Proposed
Landscaping	Not Present	2 in cal. Tree; 6-8' Evergreen
Shared Use Sidewalk/Bicycle Path	Not Present	Proposed
Dedicated Sidewalk	Not Present	Proposed
Pedestrian Amenities	Not Present	Proposed

## Maintenance

The City of River Oaks should coordinate with TxDOT on maintenance, such as reshaping of ditches and cleaning of culverts, which could improve drainage. While not a long term solution to the area’s flooding problems, maintenance would help the existing stormwater system operate closer to full capacity during rain events.

### 4.1.2 Long Term Context Zone Improvements

The following section provides an overview of existing conditions and proposed improvements for River Oaks Boulevard. Proposed Context Zone improvements were chosen based on available right-of-way, and edge conditions that existed in each area. Tables 4.2- 4.4 display those conditions side-by-side for a simple comparison.

### 4.1.3 Long Term Implementation and Cost

A phased implementation plan in which each zone would be constructed incrementally over five to ten years or as funding becomes available is recommended.

The City of River Oaks, in conjunction with TxDOT, can decide the order of the Context Zones to be implemented based on available funding and developer interest. One zone may be more financially feasible than others depending on the will of developers and potential financing strategies that River Oaks may employ to assist in offsetting the cost of the capital improvements.

Tables 4.5-4.7 show preliminary estimates of probable cost for implementing the full River Oaks Boulevard Corridor Master Plan per Context Zone. Detailed estimates are presented in Appendix C.

Table 4.5: Context Zone One (0.97 miles) Cost Estimate

Description	Amount
Roadway	\$4,260,840
Bicycle Facility	\$1,700,000
Drainage	\$815,654
Lighting	\$925,000
Landscaping	\$497,900
Traffic Signal	\$250,000
Additional Items (Erosion Control, Maintenance of Traffic, Utility Modification, Mobilization)	\$1,277,259
Special Feature - Gateway Arch	\$0
Contingency (20%)	\$1,958,465
<b>Total</b>	<b>\$11,750,788</b>

Table 4.6: Context Zone Two (0.31 miles) Cost Estimate

Description	Amount
Roadway	\$2,341,750
Bicycle Facility	\$545,000
Drainage	\$416,996
Lighting	\$400,000
Landscaping	\$257,775
Traffic Signal	\$0
Additional Items (Erosion Control, Maintenance of Traffic, Utility Modification, Mobilization)	\$598,336
Special Feature - Gateway Arch	\$0
Contingency (20%)	\$917,449
<b>Total</b>	<b>\$5,504,695</b>

Table 4.7: Context Zone Three (0.52 miles) Cost Estimate

Description	Amount
Roadway	\$3,084,950
Bicycle Facility	\$915,000
Drainage	\$539,660
Lighting	\$375,000
Landscaping	\$231,625
Traffic Signal	\$0
Additional Items (Erosion Control, Maintenance of Traffic, Utility Modification, Mobilization)	\$776,781
Special Feature - Gateway Arch	\$10,000
Contingency (20%)	\$1,193,064
<b>Total</b>	<b>\$7,158,382</b>



## 4.2 Funding Strategies

A combination of funding sources is necessary for the reinvention of River Oaks Boulevard. As is typical in any infrastructure improvement project, a myriad of options are available, including both public and public/private partnership sources. There are also many funding sources available that help develop funding strategies for the present and the near future.

The following paragraphs represent a series of approaches that can serve as catalysts to secure the necessary funding for corridor improvements.

### **Bonds**

Municipal bonds are issued by municipalities to raise funds necessary to pay for desired infrastructure and other capital improvements. Bonds are attractive to investors because they offer tax-free interest and are guaranteed investments. A bond could be a creative solution to fund the cost of infrastructure improvements along the River Oaks Boulevard corridor.

### **Public Improvement District**

A Public Improvement District (PID) is a special assessment area created so that property owners finance specific types of maintenance or improvements. A PID can fund supplemental improvements (including infrastructure, landscaping, and design elements) that would not otherwise be constructed. In general, a PID needs to be self-sufficient and not impact the standard services that are provided by the City and should also serve a very specific purpose. PIDs should only be implemented in select and targeted areas of a community.

The creation of a PID around the 1.9 mile River Oaks Boulevard corridor would help fund the infrastructure improvements and help the area achieve unique aesthetic, design, and character-making goals.

Due to the limited size of the corridor and the lack of other PIDs within River Oaks, a PID would likely be successful if the business owners, land owners, and other stakeholders agreed that its creation would spur positive change along the corridor and to their properties as well.

### **Stormwater Revenues**

In 2012, the City amended Chapter 13 "Utilities" of the River Oaks Code of Ordinances by adding a stormwater utility fee. For residential properties, a fee of \$4.00 per dwelling unit per month was established; for non-residential properties, the fee is assessed for each improved parcel based on the stormwater potential caused from the construction of the new development. These fees assist the City substantially in mitigating the hazardous effects of stormwater runoff. The lack of existing stormwater infrastructure along this corridor and the significant grade and high runoff classification on the northern boundaries make the City's stormwater fee revenues viable options to assist in the funding of the revitalization of the corridor, specifically in regards to drainage improvements.

### **TAP Grants**

The Federal Highway Administration (FHWA) funds a program designed to support multi-modal corridors called the Transportation Alternative Program (TAP). Specifically, the FHWA describes TAP grants as "funding for programs and projects defined as transportation alternatives, including on-and-off road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement

activities, and environmental mitigation; recreational trail projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former divided highways.”

The addition of shared use bicycle paths, additional pedestrian amenities, and the general details of the River Oaks Boulevard improvements make the project a prime candidate for submission for a TAP grant because of the transportation alternatives that would be created within the existing right-of-way.

### **Tax Increment Financing District**

A Tax Increment Financing (TIF) District is a special area where the increment in tax revenue is utilized within the district for capital improvement projects. The goal of a TIF is to stimulate new private investment while simultaneously increasing property taxes. Any increase in the tax revenues is paid into the TIF fund that is used to finance improvements such as landscaping, lighting, renovations, demolitions, etc. TIFs are creative ways for a community to invigorate a specific area without drawing funds from other municipality coffers.

### **Transportation Investment Generating Recovery Grant**

The Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant program is a grant program managed by the U.S. Department of Transportation to build and repair freight and passenger networks. The River Oaks Boulevard improvement project may qualify for TIGER funding since it meets the program goals in that it is intended to generate economic development and improve access to safe transportation facilities for the River Oaks community. The 2016 grant applications were due in April 2016, so it is recommended that the City register with Grants.gov and begin preparations to apply for a grant in 2017.





**Conclusion**

**05**

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# 05 Conclusion

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**River Oaks Boulevard is a multi-modal corridor and gateway to a livable community that cherishes the past and embraces future opportunities.**

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## 5.1 Next Steps

The River Oaks Boulevard Corridor Master Plan seeks to fulfill the needs of the River Oaks Community, improve safety, mobility, and stormwater drainage throughout the corridor, and to drive economic development that encourages a walkable “downtown” feel. The accomplished vision will encourage residents of River Oaks to take ownership of their downtown and their community.

The information on Table 5.1 organizes key recommendations by time frame and order of magnitude in costs in order to help the City organize follow up action items. Key near term action items include:

- Creation of an improvement district, whether TIF or PID or variation.
- Creation of a River Oaks Boulevard Coalition
- Examine future bond program for areas of opportunity.
- Begin the process of local branding and placemaking.
- Creation of a hybrid Form Based Code district.
- Adjust existing zoning ordinance to encourage development types identified in Node 1 and 2.
- Update pedestrian and traffic signal infrastructure at Long Ave and Roberts Cut Off Road, including re-timing the existing traffic signals.
- Coordinate with TxDOT regarding maintaining and cleaning inlets and culverts while regrading ditches, as well as advising on the next steps of design and environmental review.

Long term improvements largely revolve around the full implementation of the Context Zone conceptual designs, including capital improvements to both the roadway and stormsewer systems. Also included in the long term improvements is coordination with TxDOT and Tarrant County on an area hydraulics and hydrology study.

Implementation of the plan is key, and it is vital that the City investigate all previously mentioned sources of funding and encourage developers to locate in the corridor. The local government should also actively pursue the implementation of enhanced zoning techniques as described in Section Three.

However, the ultimate future for River Oaks Boulevard depends on the citizens of River Oaks. Implementation requires collaboration, cooperation, and at times compromise. This plan can serve as guide to the future, and a key first step in the improvement of River Oaks Boulevard.

Table 5.1: Recommendations

<b>Recommended Actions</b>				
<b>Project/Priority</b>	<b>Responsible Entity</b>	<b>Partners</b>	<b>Time Frame</b>	<b>Order of Magnitude Cost</b>
<b>Economic Development</b>				
Creation of a TIF or PID District	City of River Oaks	Local Businesses, Private Developers	Short Term	Low
Ongoing pursuit of local, regional, state, and federal grant funding for transportation improvements	City of River Oaks	NCTCOG	On-Going	Low
Examine future bond program for potential opportunities to include funding for transportation improvements	City of River Oaks		Short Term	Low
Creation of a local branding and place making initiative.	City of River Oaks	Local Businesses, Private Developers	Short Term	Low
<b>Land Use and Zoning</b>				
Creation of a hybrid Form Based Code district that serves as an overlay to existing zoning.	City of River Oaks	Local Businesses, Private Developers	Short Term	Low
Retool zoning ordinance to encourage development types identified as ideal for Nodes 1 and 2.	City of River Oaks	Local Businesses, Private Developers	Short Term	Low
<b>Transportation and Urban Design</b>				
Dedicated left turn bays should be introduced for the Roberts Cut Off approaches to allow protected left turn phasing rather than the existing split phasing.	TxDOT	City of River Oaks	Long Term	Medium
Structural rebuild of SH183 with all proposed improvements, including contra-flow lanes and new additional parking.	City of River Oaks	TxDOT	Long Term	High
Update streetscape infrastructure at Roberts Cut Off Rd and Long Ave to incorporate modern pedestrian safety features such as crosswalks and pedestrian push-buttons.	City of River Oaks	TxDOT, Private Developers	Short Term	Medium
<b>Storm Water and Flooding Relief</b>				
Deploy maintenance forces to regrade ditches and clean out gutters and culverts.	TxDOT	City of River Oaks	Short Term	Low
Schematic level engineering design of roadway	Private Engineering Firm	TxDOT, City of River Oaks	Long Term	Medium
Regional Hydraulics and Hydrology Study	Private Engineering Firm	TxDOT, City of River Oaks, Tarrant Regional Water District, Tarrant County	Long Term	Medium





# Appendices

# 06

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# Appendix A - Context Zone Cost Estimate Tables

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**RIVER OAKS BLVD (SH 183) CORRIDOR MASTER PLAN**  
**Preliminary Cost Estimate**  
**Zone 1**

<b>Highway:</b>	RIVER OAKS BLVD (SH 183) CORRIDOR MASTER PLAN				
<b>County:</b>	Tarrant				
<b>CSJ:</b>					
<b>Filename:</b>	HW183 ZonedCost Estimate AECOM.xls				
<b>Description:</b>	Zone 1				
<b>Limits:</b>	East of edge of Calloway Rd to West edge of Ohio Garden Rd				
<b>Length:</b>	5145.0 ft = 0.97 mi				
<b>Estimate By:</b>	J. Yeow				
<b>Date:</b>	5/23/2016				
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>UNITS</b>	<b>EST. QTY.</b>	<b>UNIT COST</b>	<b>AMOUNT</b>
<b>Roadway</b>					
100-6002	Preparing ROW	STA	50	\$5,000	\$250,000
104-6001	Removing Conc (Pav)	SY	46800	\$7	\$327,600
110-6001	Excavation (Roadway)	CY	31500	\$9	\$286,650
260-6002	Lime (Hydrated Lime (Slurry))	Ton	870	\$150	\$102,750
260-6027	Lime Trt (Exst Matl) (8")	SY	5200	\$4	\$164,400
305-6003	Salv, Haul & Stkpl Rcl Aph Pv (2 to 4")	SY	46800	\$6	\$246,600
341-6008	D-GR HMA Ty-B PG64-22 (See Note 1)	Ton	10800	\$70	\$632,940
360-6004	Concrete Pavement (Cont Reinf - CRCP) (10")	SY	46800	\$53	\$2,480,400
423-6004	Concrete Block Retaining Wall (3 ft high)	SF	1000	\$51	\$51,000
529-6005	Concrete Curb Mono (Ty II)	LF	13400	\$5	\$67,000
530-2010	Driveways (Concrete)	SY	5400	\$71	\$383,400
531-6001	Shared Use Path (4")	SY	18200	\$50	\$910,000
531-6004	Curb Ramp (TY 1)	EA	35	\$1,660	\$58,100
<b>Drainage</b>					
462	Box culverts (crossing SH183)	EA	2	\$108,000	\$216,000
464-6008	RC Pipe (CL III) - 36 IN (trunk lines)	LF	3800	\$120	\$456,000
465	Inlets (Approx. cost per LF mainlane)	LF	3800	\$33	\$126,654
	Storm Water Pollution Prevention Plan (SW3P)	LS	1	\$17,000	\$17,000
<b>Signs</b>					
	Small signs	EA	85	\$250	\$21,250
<b>Lighting</b>					
	Street Light pole & luminaire (Pedestrian)	EA	185	\$5,000	\$925,000
	Street Light pole & luminaire (Roadway)	EA	0		\$0
<b>Pavement Markings</b>					
666-6003	Refl Pav Marking TY I (W)4"(BRK)(100MIL)	LF	10200	\$0.44	\$4,488
666-6012	Refl Pav Marking TY I (White) 4"(SLD)(100MIL)	LF	9300	\$0.31	\$2,883
666-6126	Refl Pav Marking TY I (Yellow) 4"(SLD)(100MIL)	LF	5000	\$0.29	\$1,450
	Thermoplastic Pavement Marking Symbol Trail	EA	80	\$250	\$20,000
666-6054	Left Turn Arrow	EA	45	\$133	\$5,985
666-6078	Refl Pav Marking TY I (W)(WORD)(100MIL) ("ONLY")	EA	45	\$163	\$7,335
666-6147	Refl Pav Marking TY I (Y)24"(SLD)(100MIL) (Stop bar)	LF	430	\$5	\$2,279
<b>Landscaping</b>					
	Street Tree	EA	340	\$1,100	\$374,000
160-6003	Furnishing and placing Topsoil (4")	SY	28000	\$3	\$70,000
	Turfgrass Establishment	SY	28000	\$2	\$42,000
<b>Traffic Signal</b>					
	Signal pole @ Roberts Cut Off Rd	LS	1	\$150,000	\$150,000
<b>Special feature</b>					
	Gateway arch	EA	1	\$10,000	\$10,000
<b>Subtotal before Misc &amp; Contingency</b>					<b>\$8,413,164</b>
<b>Additional Items</b>					
Miscellaneous	Maintenance of Traffic (Low - 5%)	LS	1	\$420,158	\$420,158
	Utility Modifications (Low - 5%)	LS	1	\$420,158	\$420,158
	Mobilization (5%)	LS	1	\$420,158	\$420,158
Sub Total (Used for Calculating Misc Additional Items)					\$8,403,164
<b>Sub Total</b>					<b>\$9,673,639</b>
	<b>Contingency (20%)</b>	<b>LS</b>	<b>1</b>	<b>\$1,934,728</b>	<b>\$1,934,728</b>
<b>Total Cost for Current FY</b>					<b>\$11,608,366</b>

Note 1: Item 341 is the assumed 4 inches of underlayment between the subgrade and concrete pavement. It is assumed that the proposed pavement section for the River Oaks project uses the typical TxDOT pavement section which is concrete pavement over 4" HMAC underlayment over lime treated subgrade.

Unit Legend	
CY	Cubic Yard
EA	Each
LF	Linear Foot
LS	Lump Sum
MI	Mile
SY	Square Yard
TON	TON (1 ton = 2,000 lb)



**RIVER OAKS BLVD (SH 183) CORRIDOR MASTER PLAN**  
**Preliminary Cost Estimate**  
**Zone 2**

<b>Highway:</b>	RIVER OAKS BLVD (SH 183) CORRIDOR MASTER PLAN				
<b>County:</b>	Tarrant				
<b>CSJ:</b>					
<b>Filename:</b>	HW183 ZonedCost Estimate AECOM.xls				
<b>Description:</b>	Zone 2				
<b>Limits:</b>	East of edge of Ohio Garden Rd to West edge of Long Ave				
<b>Length:</b>	1654 ft = 0.31 mi				
<b>Estimate By:</b>	J. Yeow				
<b>Date:</b>	5/23/2016				
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>UNITS</b>	<b>EST. QTY.</b>	<b>UNIT COST</b>	<b>AMOUNT</b>
<b>Roadway</b>					
100-2001	Preparing ROW	STA	15	\$5,000	\$75,000
104-6001	Removing Conc (Pav)	SY	24700	\$7	\$172,900
110-6001	Excavation (Roadway)	SY	18500	\$9	\$168,350
260-6002	Lime (Hydrated Lime (Slurry))	Ton	500	\$150	\$75,000
260-6027	Lime Trt (Exst Matl) (8")	SY	29800	\$4	\$119,200
305-6003	Salv, Haul & Stkpl Rcl Aph Pv (2 to 4")	SY	24700	\$6	\$148,200
341-6008	D-GR HMA Ty-B PG64-22 (See Note 1)	Ton	5700	\$70	\$399,000
360-6004	Concrete Pavement (Cont Reinf - CRCP) (10")	SY	24700	\$53	\$1,309,100
423-6004	Concrete Block Retaining Wall (3 ft high)	SF	0	\$51	\$0
529-2004	Concrete Curb and Gutter (Type II)	LF	10500	\$5	\$52,500
530-2010	Driveways (Concrete)	SY	600	\$71	\$42,600
531-2015	Shared Use Path (4")	SY	6000	\$50	\$300,000
531-6004	Curb Ramp (TY 1)	EA	15	\$1,660	\$24,900
<b>Drainage</b>					
462	Box culverts (crossing SH183)	EA	2	\$108,000	\$216,000
464-6008	RC Pipe (CL III) - 36 IN (trunk lines)	LF	1200	\$120	\$144,000
465	Inlets (Approx. cost per LF mainlane)	LF	1200	\$33	\$39,996
	Storm Water Pollution Prevention Plan (SW3P)	LS	1	\$17,000	\$17,000
<b>Signs</b>					
	Small signs	EA	40	\$250	\$10,000
<b>Lighting</b>					
	Street Light pole & luminaire (Pedestrian)	EA	80	\$5,000	\$400,000
	Street Light pole & luminaire (Roadway)	EA	0		\$0
<b>Pavement Markings</b>					
666-6003	Refl Pav Marking TY I (W)4"(BRK)(100MIL)	LF	3200	\$0.44	\$1,408
666-6012	Refl Pav Marking TY I (White) 4"(SLD)(100MIL)	LF	8700	\$0.31	\$2,697
666-6126	Refl Pav Marking TY I (Yellow) 4"(SLD)(100MIL)	LF	6600	\$0.29	\$1,914
	Thermoplastic Pavement Marking Symbol Trail	EA	35	\$250	\$8,750
666-6054	Left Turn Arrow	EA	5	\$133	\$665
666-6078	Refl Pav Marking TY I (W)(WORD)(100MIL) ("ONLY")	EA	5	\$163	\$815
666-6147	Refl Pav Marking TY I (Y)24"(SLD)(100MIL) (Stop bar)	LF	215	\$5	\$1,140
<b>Landscaping</b>					
	Street Tree	EA	145	\$1,100	\$159,500
160-6003	Furnishing and placing Topsoil (4")	SY	23300	\$3	\$58,250
	Turfgrass Establishment	SY	23300	\$2	\$34,950
<b>Traffic Signal</b>					
	Signal pole @ Long Ave	LS	1	\$150,000	\$150,000
<b>Special feature</b>					
	Gateway arch	EA	0	\$10,000	\$0
<b>Subtotal before Misc &amp; Contingency</b>					<b>\$4,133,835</b>
<b>Additional Items</b>					
Miscellaneous	Maintenance of Traffic (Low - 5%)	LS	\$1	\$206,692	\$206,692
	Utility Modifications (Low - 5%)	LS	\$1	\$206,692	\$206,692
	Mobilization (5%)	LS	\$1	\$206,692	\$206,692
Sub Total (Used for Calculating Misc Additional Items)					\$4,133,835
<b>Sub Total</b>					<b>\$4,753,910</b>
	<b>Contingency (20%)</b>	LS	1	\$950,782	\$950,782
<b>Total Cost for Current FY</b>					<b>\$5,704,692</b>

Note 1: Item 341 is the assumed 4 inches of underlayment between the subgrade and concrete pavement. It is assumed that the proposed pavement section for the River Oaks project uses the typical TxDOT pavement section which is concrete pavement over 4" HMAC underlayment over lime treated subgrade.

Unit Legend	
CY	Cubic Yard
EA	Each
LF	Linear Foot
LS	Lump Sum
MI	Mile
SY	Square Yard
TON	TON (1 ton = 2,000 lb)

**RIVER OAKS BLVD (SH 183) CORRIDOR MASTER PLAN**  
**Preliminary Cost Estimate**  
**Zone 3**

<b>Highway:</b>	RIVER OAKS BLVD (SH 183) CORRIDOR MASTER PLAN				
<b>County:</b>	Tarrant				
<b>CSJ:</b>					
<b>Filename:</b>	HW183 ZonedCost Estimate AECOM.xls				
<b>Description:</b>	Zone 3				
<b>Limits:</b>	West edge of Long Ave to west of SH 199				
<b>Length:</b>	2757 ft = 0.52 mi				
<b>Estimate By:</b>	J. Yeow				
<b>Date:</b>	5/23/2016				
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>UNITS</b>	<b>EST. QTY.</b>	<b>UNIT COST</b>	<b>AMOUNT</b>
<b>Roadway</b>					
100-2001	Preparing ROW	STA	25	\$5,000	\$125,000
104-6001	Removing Conc (Pav)	SY	35000	\$7	\$245,000
110-6001	Excavation (Roadway)	SY	26200	\$9	\$238,420
260-6002	Lime (Hydrated Lime (Slurry))	Ton	650	\$150	\$97,500
260-6027	Lime Trt (Exst Matl) (8")	SY	40700	\$4	\$162,800
305-6003	Salv, Haul & Stkpl Rcl Aph Pv (2 to 4")	SY	35000	\$6	\$210,000
341-6008	D-GR HMA Ty-B PG64-22 (See Note 1)	Ton	8000	\$70	\$560,000
360-6004	Concrete Pavement (Cont Reinf - CRCP) (10")	SY	35000	\$53	\$1,855,000
423-6004	Concrete Block Retaining Wall (3 ft high)	SF	0	\$51	\$0
529-2004	Concrete Curb and Gutter (Type II)	LF	13000	\$5	\$65,000
530 2010	Driveways (Concrete)	SY	230	\$71	\$16,330
531-2015	Conc Sidewalks (4") & Shared Use Paths	SY	8000	\$50	\$400,000
531-6004	Curb Ramp (TY 1)	EA	15	\$1,660	\$24,900
<b>Drainage</b>					
462	Box culverts (crossing SH183)	EA	2	\$108,000	\$216,000
464-6008	RC Pipe (CL III) - 36 IN (trunk lines)	LF	2000	\$120	\$240,000
465	Inlets (Approx. cost per LF mainlane)	LF	2000	\$33	\$66,660
	Storm Water Pollution Prevention Plan (SW3P)	LS	1	\$17,000	\$17,000
<b>Signs</b>					
	Small signs	EA	35	\$250	\$8,750
<b>Lighting</b>					
	Street Light pole & luminaire (Pedestrian)	EA	75	\$5,000	\$375,000
	Street Light pole & luminaire (Roadway)	EA	0		\$0
<b>Pavement Markings</b>					
666 6003	Refl Pav Marking TY I (W)4"(BRK)(100MIL)	LF	3200	\$0.44	\$1,408
666-6012	Refl Pav Marking TY I (White) 4"(SLD)(100MIL)	LF	17300	\$0.31	\$5,363
666-6126	Refl Pav Marking TY I (Yellow) 4"(SLD)(100MIL)	LF	8000	\$0.29	\$2,320
	Thermoplastic Pavement Marking Symbol Trail	EA	35	\$250	\$8,750
666-6054	Left Turn Arrow	EA	15	\$133	\$1,995
666-6078	Refl Pav Marking TY I (W)(WORD)(100MIL) ("ONLY")	EA	15	\$163	\$2,445
666-6147	Refl Pav Marking TY I (Y)24"(SLD)(100MIL) (Stop bar)	LF	240	\$5	\$1,272
<b>Landscaping</b>					
	Street Tree	EA	135	\$1,100	\$148,500
160 6003	Furnishing and placing Topsoil (4")	SY	19600	\$3	\$49,000
	Turfgrass Establishment	SY	19600	\$2	\$29,400
<b>Traffic Signal</b>					
	Signal pole	LS	0	\$150,000	\$0
<b>Special feature</b>					
	Gateway arch	EA	0	\$10,000	\$0
<b>Subtotal before Misc &amp; Contingency</b>					<b>\$5,173,813</b>
<b>Additional Items</b>					
Miscellaneous	Maintenance of Traffic (Low - 5%)	LS	\$1	\$258,691	\$258,691
	Utility Modifications (Low - 5%)	LS	\$1	\$258,691	\$258,691
	Mobilizaton (5%)	LS	\$1	\$258,691	\$258,691
Sub Total (Used for Calculating Misc Additional Items)					\$5,173,813
<b>Sub Total</b>					<b>\$5,949,885</b>
	<b>Contingency (20%)</b>	<b>LS</b>	<b>\$1</b>	<b>\$1,189,977</b>	<b>\$1,189,977</b>
<b>Total Cost for Current FY</b>					<b>\$7,139,862</b>

Note 1: Item 341 is the assumed 4 inches of underlayment between the subgrade and concrete pavement. It is assumed that the proposed pavement section for the River Oaks project uses the typical TxDOT pavement section which is concrete pavement over 4" HMAC underlayment over lime treated subgrade.

Unit Legend	
CY	Cubic Yard
EA	Each
LF	Linear Foot
LS	Lump Sum
MI	Minute
SY	Square Yard
TON	TON (1 ton = 2,000 lb)

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# Appendix B - Visual Preference Survey Results

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**Session Name**

New Session 7-27-2015 7-36 PM

**Date Created**

7/27/2015 6:22:13 PM

**Active Participants**

88

**Average Score**

0.00%

**Questions**

38

**Results by Question**

**1. TEST QUESTION (Multiple Choice)**

Responses		
	Percent	Count
Answer A	43.53%	37
Answer B	14.12%	12
Answer C	11.76%	10
Answer D	10.59%	9
Answer E	20.00%	17
<b>Totals</b>	<b>100%</b>	<b>85</b>

**2. For the SH183 Corridor, this type of housing development is: (Multiple Choice)**

Responses		
	Percent	Count
Very Appropriate	3.75%	3
Somewhat Appropriate	15.00%	12
Neutral	12.50%	10
Somewhat Inappropriate	18.75%	15
Very Inappropriate	50.00%	40
<b>Totals</b>	<b>100%</b>	<b>80</b>



**3. For the SH183 Corridor, this type of housing development is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	3.70%	3
Somewhat Appropriate	17.28%	14
Neutral	11.11%	9
Somewhat Inappropriate	18.52%	15
Very Inappropriate	49.38%	40
<b>Totals</b>	<b>100%</b>	<b>81</b>

**4. For the SH183 Corridor, this type of housing development is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	7.32%	6
Somewhat Appropriate	14.63%	12
Neutral	6.10%	5
Somewhat Inappropriate	18.29%	15
Very Inappropriate	53.66%	44
<b>Totals</b>	<b>100%</b>	<b>82</b>

**5. For the SH183 Corridor, this type of housing development is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	11.11%	9
Somewhat Appropriate	8.64%	7
Neutral	14.81%	12
Somewhat Inappropriate	18.52%	15
Very Inappropriate	46.91%	38
<b>Totals</b>	<b>100%</b>	<b>81</b>

**6. For the SH183 Corridor, this type of housing development is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	11.11%	9
Somewhat Appropriate	14.81%	12
Neutral	7.41%	6
Somewhat Inappropriate	17.28%	14
Very Inappropriate	49.38%	40
<b>Totals</b>	<b>100%</b>	<b>81</b>

**7. For the SH183 Corridor, this type of retail/multi-family housing development is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	12.35%	10
Somewhat Appropriate	27.16%	22
Neutral	8.64%	7
Somewhat Inappropriate	19.75%	16
Very Inappropriate	32.10%	26
<b>Totals</b>	<b>100%</b>	<b>81</b>

**8. For the SH183 Corridor, this type of retail development is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	46.25%	37
Somewhat Appropriate	41.25%	33
Neutral	6.25%	5
Somewhat Inappropriate	5.00%	4
Very Inappropriate	1.25%	1
<b>Totals</b>	<b>100%</b>	<b>80</b>

**9. For the SH183 Corridor, this type of retail development is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	32.93%	27
Somewhat Appropriate	32.93%	27
Neutral	10.98%	9
Somewhat Inappropriate	7.32%	6
Very Inappropriate	15.85%	13
<b>Totals</b>	<b>100%</b>	<b>82</b>

**10. For the SH183 Corridor, this type of retail development is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	29.63%	24
Somewhat Appropriate	22.22%	18
Neutral	22.22%	18
Somewhat Inappropriate	8.64%	7
Very Inappropriate	17.28%	14
<b>Totals</b>	<b>100%</b>	<b>81</b>

**11. For the SH183 Corridor, this type of retail development is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	48.15%	39
Somewhat Appropriate	16.05%	13
Neutral	17.28%	14
Somewhat Inappropriate	6.17%	5
Very Inappropriate	12.35%	10
<b>Totals</b>	<b>100%</b>	<b>81</b>

**12. For the SH183 Corridor, this type of retail development is: (Multiple Choice)**

Responses		
	Percent	Count
Very Appropriate	15.00%	12
Somewhat Appropriate	18.75%	15
Neutral	15.00%	12
Somewhat Inappropriate	11.25%	9
Very Inappropriate	40.00%	32
<b>Totals</b>	<b>100%</b>	<b>80</b>

**13. For the SH183 Corridor, this type of retail development is: (Multiple Choice)**

Responses		
	Percent	Count
Very Appropriate	23.46%	19
Somewhat Appropriate	30.86%	25
Neutral	14.81%	12
Somewhat Inappropriate	12.35%	10
Very Inappropriate	18.52%	15
<b>Totals</b>	<b>100%</b>	<b>81</b>

**14. For the SH183 Corridor, this type of retail development is: (Multiple Choice)**

Responses		
	Percent	Count
Very Appropriate	42.50%	34
Somewhat Appropriate	17.50%	14
Neutral	20.00%	16
Somewhat Inappropriate	6.25%	5
Very Inappropriate	13.75%	11
<b>Totals</b>	<b>100%</b>	<b>80</b>



**15. For the SH183 Corridor, this type of retail development is: (Multiple Choice)**

Responses		
	Percent	Count
Very Appropriate	43.90%	36
Somewhat Appropriate	28.05%	23
Neutral	12.20%	10
Somewhat Inappropriate	7.32%	6
Very Inappropriate	8.54%	7
<b>Totals</b>	<b>100%</b>	<b>82</b>

**16. For the SH183 Corridor, this type of retail development is: (Multiple Choice)**

Responses		
	Percent	Count
Very Appropriate	39.51%	32
Somewhat Appropriate	22.22%	18
Neutral	19.75%	16
Somewhat Inappropriate	9.88%	8
Very Inappropriate	8.64%	7
<b>Totals</b>	<b>100%</b>	<b>81</b>

**17. For the SH183 Corridor, this type of retail development is: (Multiple Choice)**

Responses		
	Percent	Count
Very Appropriate	19.51%	16
Somewhat Appropriate	21.95%	18
Neutral	15.85%	13
Somewhat Inappropriate	12.20%	10
Very Inappropriate	30.49%	25
<b>Totals</b>	<b>100%</b>	<b>82</b>

**18. For the SH183 Corridor, this type of office development is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	25.61%	21
Somewhat Appropriate	32.93%	27
Neutral	14.63%	12
Somewhat Inappropriate	10.98%	9
Very Inappropriate	15.85%	13
<b>Totals</b>	<b>100%</b>	<b>82</b>

**19. For the SH183 Corridor, this type of office development is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	17.50%	14
Somewhat Appropriate	12.50%	10
Neutral	18.75%	15
Somewhat Inappropriate	15.00%	12
Very Inappropriate	36.25%	29
<b>Totals</b>	<b>100%</b>	<b>80</b>

**20. For the SH183 Corridor, this type of retail/office development is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	24.69%	20
Somewhat Appropriate	25.93%	21
Neutral	18.52%	15
Somewhat Inappropriate	9.88%	8
Very Inappropriate	20.99%	17
<b>Totals</b>	<b>100%</b>	<b>81</b>

**21. For the SH183 Corridor, this type of retail/restaurant development is: (Multiple Choice)**

Responses		
	Percent	Count
Very Appropriate	70.00%	56
Somewhat Appropriate	13.75%	11
Neutral	3.75%	3
Somewhat Inappropriate	6.25%	5
Very Inappropriate	6.25%	5
<b>Totals</b>	<b>100%</b>	<b>80</b>

**22. For the SH183 Corridor, this type of retail/multi-family housing development is: (Multiple Choice)**

Responses		
	Percent	Count
Very Appropriate	17.07%	14
Somewhat Appropriate	20.73%	17
Neutral	10.98%	9
Somewhat Inappropriate	9.76%	8
Very Inappropriate	41.46%	34
<b>Totals</b>	<b>100%</b>	<b>82</b>

**23. For the SH183 corridor, this type of intersection is: (Multiple Choice)**

Responses		
	Percent	Count
Very Appropriate	30.86%	25
Somewhat Appropriate	38.27%	31
Neutral	18.52%	15
Somewhat Inappropriate	4.94%	4
Very Inappropriate	7.41%	6
<b>Totals</b>	<b>100%</b>	<b>81</b>

**24. For the SH183 corridor, this type of intersection is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	12.35%	10
Somewhat Appropriate	6.17%	5
Neutral	4.94%	4
Somewhat Inappropriate	2.47%	2
Very Inappropriate	74.07%	60
<b>Totals</b>	<b>100%</b>	<b>81</b>

**25. For the SH183 corridor, this type of intersection is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	67.07%	55
Somewhat Appropriate	19.51%	16
Neutral	10.98%	9
Somewhat Inappropriate	2.44%	2
Very Inappropriate	0.00%	0
<b>Totals</b>	<b>100%</b>	<b>82</b>

**26. For the SH183 corridor, this type of intersection is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	1.25%	1
Somewhat Appropriate	12.50%	10
Neutral	18.75%	15
Somewhat Inappropriate	28.75%	23
Very Inappropriate	38.75%	31
<b>Totals</b>	<b>100%</b>	<b>80</b>



**27. For the SH183 corridor, this type of intersection is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	35.37%	29
Somewhat Appropriate	31.71%	26
Neutral	17.07%	14
Somewhat Inappropriate	7.32%	6
Very Inappropriate	8.54%	7
<b>Totals</b>	<b>100%</b>	<b>82</b>

**28. For the SH183 corridor, this type of streetscape element is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	73.17%	60
Somewhat Appropriate	18.29%	15
Neutral	4.88%	4
Somewhat Inappropriate	1.22%	1
Very Inappropriate	2.44%	2
<b>Totals</b>	<b>100%</b>	<b>82</b>

**29. For the SH183 corridor, this type of streetscape element is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	7.50%	6
Somewhat Appropriate	10.00%	8
Neutral	11.25%	9
Somewhat Inappropriate	21.25%	17
Very Inappropriate	50.00%	40
<b>Totals</b>	<b>100%</b>	<b>80</b>

**30. For the SH183 corridor, this type of streetscape element is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	55.56%	45
Somewhat Appropriate	27.16%	22
Neutral	11.11%	9
Somewhat Inappropriate	4.94%	4
Very Inappropriate	1.23%	1
<b>Totals</b>	<b>100%</b>	<b>81</b>

**31. For the SH183 corridor, this type of streetscape element is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	53.66%	44
Somewhat Appropriate	26.83%	22
Neutral	8.54%	7
Somewhat Inappropriate	8.54%	7
Very Inappropriate	2.44%	2
<b>Totals</b>	<b>100%</b>	<b>82</b>

**32. For the SH183 corridor, this type of streetscape element is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	45.78%	38
Somewhat Appropriate	15.66%	13
Neutral	22.89%	19
Somewhat Inappropriate	4.82%	4
Very Inappropriate	10.84%	9
<b>Totals</b>	<b>100%</b>	<b>83</b>

**33. For the SH183 corridor, this type of streetscape element is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	77.22%	61
Somewhat Appropriate	12.66%	10
Neutral	5.06%	4
Somewhat Inappropriate	1.27%	1
Very Inappropriate	3.80%	3
<b>Totals</b>	<b>100%</b>	<b>79</b>

**34. For the SH183 corridor, this type of streetscape element is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	29.63%	24
Somewhat Appropriate	30.86%	25
Neutral	19.75%	16
Somewhat Inappropriate	6.17%	5
Very Inappropriate	13.58%	11
<b>Totals</b>	<b>100%</b>	<b>81</b>

**35. For the SH183 corridor, this type of streetscape element is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	8.75%	7
Somewhat Appropriate	12.50%	10
Neutral	25.00%	20
Somewhat Inappropriate	23.75%	19
Very Inappropriate	30.00%	24
<b>Totals</b>	<b>100%</b>	<b>80</b>

**36. For the SH183 corridor, this type of streetscape element is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	35.00%	28
Somewhat Appropriate	32.50%	26
Neutral	11.25%	9
Somewhat Inappropriate	6.25%	5
Very Inappropriate	15.00%	12
<b>Totals</b>	<b>100%</b>	<b>80</b>

**37. For the SH183 corridor, this type of streetscape element is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	37.50%	30
Somewhat Appropriate	31.25%	25
Neutral	10.00%	8
Somewhat Inappropriate	7.50%	6
Very Inappropriate	13.75%	11
<b>Totals</b>	<b>100%</b>	<b>80</b>

**38. For the SH183 corridor, this type of streetscape element is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	50.00%	2
Somewhat Appropriate	25.00%	1
Neutral	25.00%	1
Somewhat Inappropriate	0.00%	0
Very Inappropriate	0.00%	0
<b>Totals</b>	<b>100%</b>	<b>4</b>

Steven, the next box on the list could be the box below because this question only had 4 total responses.



For the SH183 corridor, this type of streetscape element is: (Multiple Choice)

Responses		
	Percent	Count
Very Appropriate	49.00%	39
Somewhat Appropriate	21.00%	17
Neutral	15.00%	12
Somewhat Inappropriate	5.00%	4
Very Inappropriate	10.00%	8
<b>Totals</b>	<b>100%</b>	<b>80</b>

For the SH183 corridor, this type of streetscape element is: (Multiple Choice)

Responses		
	Percent	Count
Very Appropriate	36.00%	29
Somewhat Appropriate	30.00%	24
Neutral	19.00%	15
Somewhat Inappropriate	5.00%	4
Very Inappropriate	10.00%	8
<b>Totals</b>	<b>100%</b>	<b>80</b>

For the SH183 corridor, this type of streetscape element is: (Multiple Choice)

Responses		
	Percent	Count
Very Appropriate	27.00%	22
Somewhat Appropriate	15.00%	12
Neutral	23.00%	18
Somewhat Inappropriate	7.00%	6
Very Inappropriate	27.00%	22
<b>Totals</b>	<b>99%</b>	<b>80</b>

**42. For the SH183 corridor, this type of streetscape element is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	40.00%	32
Somewhat Appropriate	32.00%	26
Neutral	12.00%	10
Somewhat Inappropriate	4.00%	3
Very Inappropriate	12.00%	10
<b>Totals</b>	<b>100%</b>	<b>80</b>

**43. For the SH183 corridor, this type of median for River Oaks Blvd is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	49.00%	39
Somewhat Appropriate	26.00%	21
Neutral	8.00%	6
Somewhat Inappropriate	8.00%	6
Very Inappropriate	10.00%	8
<b>Totals</b>	<b>101%</b>	<b>80</b>

**44. For the SH183 corridor, this type of median for River Oaks Blvd is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	59.00%	47
Somewhat Appropriate	24.00%	19
Neutral	9.00%	7
Somewhat Inappropriate	6.00%	5
Very Inappropriate	1.00%	1
<b>Totals</b>	<b>99%</b>	<b>80</b>

**45. For the SH183 corridor, this type of median for River Oaks Blvd is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	9.00%	7
Somewhat Appropriate	14.00%	11
Neutral	27.00%	22
Somewhat Inappropriate	19.00%	15
Very Inappropriate	32.00%	26
<b>Totals</b>	<b>101%</b>	<b>80</b>

**46. For the SH183 corridor, this type of median for River Oaks Blvd is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	26.00%	21
Somewhat Appropriate	26.00%	21
Neutral	20.00%	16
Somewhat Inappropriate	6.00%	5
Very Inappropriate	21.00%	17
<b>Totals</b>	<b>99%</b>	<b>80</b>

**47. For the SH183 corridor, this type of median for River Oaks Blvd is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	11.00%	9
Somewhat Appropriate	9.00%	7
Neutral	17.00%	14
Somewhat Inappropriate	17.00%	14
Very Inappropriate	46.00%	37
<b>Totals</b>	<b>100%</b>	<b>80</b>

**48. For the SH183 corridor, this type of median for River Oaks Blvd is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	51.00%	41
Somewhat Appropriate	25.00%	20
Neutral	9.00%	7
Somewhat Inappropriate	4.00%	3
Very Inappropriate	12.00%	10
<b>Totals</b>	<b>101%</b>	<b>80</b>

**48. For the SH183 corridor, this type of public art is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	35.00%	28
Somewhat Appropriate	19.00%	15
Neutral	21.00%	17
Somewhat Inappropriate	8.00%	6
Very Inappropriate	18.00%	14
<b>Totals</b>	<b>101%</b>	<b>80</b>

**48. For the SH183 corridor, this type of public art is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	14.00%	11
Somewhat Appropriate	9.00%	7
Neutral	16.00%	13
Somewhat Inappropriate	11.00%	9
Very Inappropriate	49.00%	39
<b>Totals</b>	<b>99%</b>	<b>80</b>



**48. For the SH183 corridor, this type of public art is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	30.00%	24
Somewhat Appropriate	21.00%	17
Neutral	18.00%	14
Somewhat Inappropriate	11.00%	9
Very Inappropriate	20.00%	16
<b>Totals</b>	<b>100%</b>	<b>80</b>

**48. For the SH183 corridor, this type of gateway arch is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	53.00%	42
Somewhat Appropriate	10.00%	8
Neutral	6.00%	5
Somewhat Inappropriate	8.00%	6
Very Inappropriate	24.00%	19
<b>Totals</b>	<b>101%</b>	<b>80</b>

**48. For the SH183 corridor, this type of gateway entrance is: (Multiple Choice)**

<b>Responses</b>		
	<b>Percent</b>	<b>Count</b>
Very Appropriate	33.00%	26
Somewhat Appropriate	20.00%	16
Neutral	21.00%	17
Somewhat Inappropriate	6.00%	5
Very Inappropriate	20.00%	16
<b>Totals</b>	<b>100%</b>	<b>80</b>

48. For the SH183 corridor, this type of environment for bicycles and pedestrians is: (Multiple Choice)

Responses		
	Percent	Count
Very Appropriate	51.00%	41
Somewhat Appropriate	24.00%	19
Neutral	5.00%	4
Somewhat Inappropriate	6.00%	5
Very Inappropriate	14.00%	11
<b>Totals</b>	<b>100%</b>	<b>80</b>

48. For the SH183 corridor, this type of environment for bicycles and pedestrians is: (Multiple Choice)

Responses		
	Percent	Count
Very Appropriate	41.00%	33
Somewhat Appropriate	16.00%	13
Neutral	18.00%	14
Somewhat Inappropriate	3.00%	2
Very Inappropriate	23.00%	18
<b>Totals</b>	<b>101%</b>	<b>80</b>

48. For the SH183 corridor, this type of environment for bicycles is: (Multiple Choice)

Responses		
	Percent	Count
Very Appropriate	23.00%	18
Somewhat Appropriate	16.00%	13
Neutral	18.00%	14
Somewhat Inappropriate	4.00%	3
Very Inappropriate	40.00%	32
<b>Totals</b>	<b>101%</b>	<b>80</b>

**48. For the SH183 corridor, this type of environment for bicycles is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	4.00%	3
Somewhat Appropriate	8.00%	6
Neutral	8.00%	6
Somewhat Inappropriate	11.00%	9
Very Inappropriate	70.00%	56
<b>Totals</b>	<b>101%</b>	<b>80</b>

**48. For the SH183 corridor, this type of environment for bicycles is: (Multiple Choice)**

	Responses	
	Percent	Count
Very Appropriate	20.00%	16
Somewhat Appropriate	20.00%	16
Neutral	11.00%	9
Somewhat Inappropriate	10.00%	8
Very Inappropriate	40.00%	32
<b>Totals</b>	<b>101%</b>	<b>80</b>

**VISUAL PREFERENCE-  
DEVELOPMENT TYPES**


**For the SH183 Corridor, this type of housing development is:**



Industrial Loft Apartments

- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

**For the SH183 Corridor, this type of housing development is:**



Dense Single Family

- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate


**For the SH183 Corridor, this type of housing development is:**



Residential Lofts

- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

**For the SH183 Corridor, this type of housing development is:**



Large Lot Single Family

- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

**For the SH183 Corridor, this type of housing development is:**



Townhomes

- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate



For the SH183 Corridor, this type of retail/multi-family housing development is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

13

For the SH183 Corridor, this type of retail development is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

14

For the SH183 Corridor, this type of retail development is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

15

For the SH183 Corridor, this type of retail development is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

16

For the SH183 Corridor, this type of retail development is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

17

For the SH183 Corridor, this type of retail development is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

18

**For the SH183 Corridor, this type of retail development is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

29

**For the SH183 Corridor, this type of retail development is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

30

**For the SH183 Corridor, this type of retail development is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

31

**For the SH183 Corridor, this type of retail development is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

32


**For the SH183 Corridor, this type of retail development is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

33

**For the SH183 Corridor, this type of office development is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

34



For the SH183 Corridor, this type of office development is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

25

For the SH183 Corridor, this type of retail/office development is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

26

For the SH183 Corridor, this type of retail/restaurant development is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

27

For the SH183 Corridor, this type of retail/multi-family housing development is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

28

**VISUAL PREFERENCE-  
TRANSPORTATION ELEMENTS**

For the SH183 corridor, this type of intersection is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

29

For the SH183 corridor, this type of intersection is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

31

For the SH183 corridor, this type of intersection is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

32

For the SH183 corridor, this type of intersection is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

33

For the SH183 corridor, this type of intersection is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

34

For the SH183 corridor, this type of streetscape element is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

35

For the SH183 corridor, this type of streetscape element is:



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

36




**For the SH183 corridor, this type of streetscape element is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

37


**For the SH183 corridor, this type of streetscape element is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

38

**For the SH183 corridor, this type of streetscape element is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

39


**For the SH183 corridor, this type of streetscape element is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

40

**For the SH183 corridor, this type of streetscape element is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

41

**For the SH183 corridor, this type of streetscape element is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

42

**For the SH183 corridor, this type of streetscape element is:**



A. Very Appropriate  
B. Somewhat Appropriate  
C. Neutral  
D. Somewhat Inappropriate  
E. Very Inappropriate

43

**For the SH183 corridor, this type of streetscape element is:**



A. Very Appropriate  
B. Somewhat Appropriate  
C. Neutral  
D. Somewhat Inappropriate  
E. Very Inappropriate

44

**For the SH183 corridor, this type of streetscape element is:**



A. Very Appropriate  
B. Somewhat Appropriate  
C. Neutral  
D. Somewhat Inappropriate  
E. Very Inappropriate

45

**For the SH183 corridor, this type of streetscape element is:**



A. Very Appropriate  
B. Somewhat Appropriate  
C. Neutral  
D. Somewhat Inappropriate  
E. Very Inappropriate

46

**For the SH183 corridor, this type of streetscape element is:**



A. Very Appropriate  
B. Somewhat Appropriate  
C. Neutral  
D. Somewhat Inappropriate  
E. Very Inappropriate

47

**For the SH183 corridor, this type of streetscape element is:**




A. Very Appropriate  
B. Somewhat Appropriate  
C. Neutral  
D. Somewhat Inappropriate  
E. Very Inappropriate

48



**This type of median for River Oaks Blvd is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

48


**This type of median for River Oaks Blvd is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

50

**This type of median for River Oaks Blvd is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

51


**This type of median for River Oaks Blvd is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

52


**This type of median for River Oaks Blvd is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

53


**This type of median for River Oaks Blvd is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

54


**This type of public art is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

55


**This type of public art is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

56


**This type of public art is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

57


**This type of gateway arch is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

58

**This type of gateway entrance is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

59

**This type of environment for bicycles and pedestrians is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

60



**This type of environment for bicycles and pedestrians is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

63

**This type of environment for bicycles is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

62

**This type of environment for bicycles is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

63

**This type of environment for bicycles is:**



- A. Very Appropriate
- B. Somewhat Appropriate
- C. Neutral
- D. Somewhat Inappropriate
- E. Very Inappropriate

64



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# Appendix C - Market Analysis Tables

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Table 2.4: River Oaks Trade Area - Retail and Restaurant Programming

River Oaks Trade Area -- Retail and Restaurant Programming

Industry Group	3-Mile (Retail)		4-Mile (Restaurants)		Avg Sales/sf	2015		2025		Average Store Size	2015		2025	
	2015 Population	2015 Demand (Retail Potential)	2015 Population	2015 Demand (Retail Potential)		2015 Supply (Retail Supply)	2015 Demand (Retail Potential)	2015 Demand (Retail Potential)	2015 Demand (Retail Potential)		2015 Demand (Retail Potential)	2015 Demand (Retail Potential)	2015 Demand (Retail Potential)	2015 Demand (Retail Potential)
Motor Vehicle & Parts Dealers	\$98,125,448	\$1,860,97	\$106,483,842.35	\$1,860,97	\$131,617,231	\$131,617,231	\$131,617,231	\$131,617,231	\$131,617,231	\$131,617,231	\$131,617,231	\$131,617,231	\$131,617,231	\$131,617,231
Automobile Dealers	\$80,581,254	\$1,528	\$87,445,221.62	\$1,528	\$117,458,497	\$117,458,497	\$117,458,497	\$117,458,497	\$117,458,497	\$117,458,497	\$117,458,497	\$117,458,497	\$117,458,497	\$117,458,497
Other Motor Vehicle Dealers	\$10,978,689	\$208	\$11,913,861	\$208	\$6,899,199	\$6,899,199	\$6,899,199	\$6,899,199	\$6,899,199	\$6,899,199	\$6,899,199	\$6,899,199	\$6,899,199	\$6,899,199
Auto Parts, Accessories & Tire Stores	\$6,565,506	\$125	\$7,124,760	\$125	\$7,259,535	\$7,259,535	\$7,259,535	\$7,259,535	\$7,259,535	\$7,259,535	\$7,259,535	\$7,259,535	\$7,259,535	\$7,259,535
Furniture & Home Furnishings Stores	\$11,723,732	\$222	\$12,722,368	\$222	\$10,822,721	\$10,822,721	\$10,822,721	\$10,822,721	\$10,822,721	\$10,822,721	\$10,822,721	\$10,822,721	\$10,822,721	\$10,822,721
Furniture Stores	\$7,717,026	\$146	\$8,374,368	\$146	\$9,207,793	\$9,207,793	\$9,207,793	\$9,207,793	\$9,207,793	\$9,207,793	\$9,207,793	\$9,207,793	\$9,207,793	\$9,207,793
Home Furnishings Stores	\$4,006,705	\$76	\$4,347,999	\$76	\$1,614,928	\$1,614,928	\$1,614,928	\$1,614,928	\$1,614,928	\$1,614,928	\$1,614,928	\$1,614,928	\$1,614,928	\$1,614,928
Bldg Materials, Garden Equip. & Supply	\$19,122,950	\$363	\$20,751,856	\$363	\$14,782,923	\$14,782,923	\$14,782,923	\$14,782,923	\$14,782,923	\$14,782,923	\$14,782,923	\$14,782,923	\$14,782,923	\$14,782,923
Bldg Material & Supplies Dealers	\$17,360,368	\$329	\$18,839,136	\$329	\$14,410,611	\$14,410,611	\$14,410,611	\$14,410,611	\$14,410,611	\$14,410,611	\$14,410,611	\$14,410,611	\$14,410,611	\$14,410,611
Lawn & Garden Equip & Supply	\$1,762,582	\$33	\$1,912,720	\$33	\$372,312	\$372,312	\$372,312	\$372,312	\$372,312	\$372,312	\$372,312	\$372,312	\$372,312	\$372,312
Food & Beverage Stores	\$79,206,946	\$1,502	\$85,953,849	\$1,502	\$57,635,573	\$57,635,573	\$57,635,573	\$57,635,573	\$57,635,573	\$57,635,573	\$57,635,573	\$57,635,573	\$57,635,573	\$57,635,573
Grocery Stores	\$70,613,686	\$1,339	\$76,628,609	\$1,339	\$47,367,205	\$47,367,205	\$47,367,205	\$47,367,205	\$47,367,205	\$47,367,205	\$47,367,205	\$47,367,205	\$47,367,205	\$47,367,205
Specialty Food Stores	\$4,995,592	\$95	\$5,421,120	\$95	\$5,167,530	\$5,167,530	\$5,167,530	\$5,167,530	\$5,167,530	\$5,167,530	\$5,167,530	\$5,167,530	\$5,167,530	\$5,167,530
Beer, Wine & Liquor Stores	\$3,597,668	\$68	\$3,904,120	\$68	\$5,100,837	\$5,100,837	\$5,100,837	\$5,100,837	\$5,100,837	\$5,100,837	\$5,100,837	\$5,100,837	\$5,100,837	\$5,100,837
Health & Personal Care Stores	\$22,908,591	\$434	\$24,859,961	\$434	\$30,361,981	\$30,361,981	\$30,361,981	\$30,361,981	\$30,361,981	\$30,361,981	\$30,361,981	\$30,361,981	\$30,361,981	\$30,361,981
Gasoline Stations	\$30,642,654	\$581	\$33,252,817	\$581	\$42,962,699	\$42,962,699	\$42,962,699	\$42,962,699	\$42,962,699	\$42,962,699	\$42,962,699	\$42,962,699	\$42,962,699	\$42,962,699
Clothing & Clothing Accessories Stores	\$18,339,874	\$348	\$19,902,077	\$348	\$13,051,477	\$13,051,477	\$13,051,477	\$13,051,477	\$13,051,477	\$13,051,477	\$13,051,477	\$13,051,477	\$13,051,477	\$13,051,477
Clothing Stores	\$12,340,623	\$234	\$13,391,806	\$234	\$8,943,898	\$8,943,898	\$8,943,898	\$8,943,898	\$8,943,898	\$8,943,898	\$8,943,898	\$8,943,898	\$8,943,898	\$8,943,898
Shoe Stores	\$2,237,289	\$42	\$2,427,863	\$42	\$2,775,091	\$2,775,091	\$2,775,091	\$2,775,091	\$2,775,091	\$2,775,091	\$2,775,091	\$2,775,091	\$2,775,091	\$2,775,091
Jewelry, Luggage & Leather Goods	\$3,761,962	\$71	\$4,082,409	\$71	\$1,332,489	\$1,332,489	\$1,332,489	\$1,332,489	\$1,332,489	\$1,332,489	\$1,332,489	\$1,332,489	\$1,332,489	\$1,332,489
Sporting Goods, Hobby, Book & Music	\$12,031,436	\$228	\$13,056,282	\$228	\$13,827,219	\$13,827,219	\$13,827,219	\$13,827,219	\$13,827,219	\$13,827,219	\$13,827,219	\$13,827,219	\$13,827,219	\$13,827,219
Sporting Goods/Hobby/Musical Instr	\$9,453,776	\$179	\$10,259,055	\$179	\$13,171,944	\$13,171,944	\$13,171,944	\$13,171,944	\$13,171,944	\$13,171,944	\$13,171,944	\$13,171,944	\$13,171,944	\$13,171,944
Book, Periodical & Music Stores	\$2,577,661	\$49	\$2,797,228	\$49	\$655,276	\$655,276	\$655,276	\$655,276	\$655,276	\$655,276	\$655,276	\$655,276	\$655,276	\$655,276
General Merchandise Stores	\$83,791,289	\$1,589	\$90,928,690	\$1,589	\$242,768,691	\$242,768,691	\$242,768,691	\$242,768,691	\$242,768,691	\$242,768,691	\$242,768,691	\$242,768,691	\$242,768,691	\$242,768,691
Department Stores Excl. Leased Depts.	\$62,716,090	\$1,189	\$68,058,399	\$1,189	\$151,690,392	\$151,690,392	\$151,690,392	\$151,690,392	\$151,690,392	\$151,690,392	\$151,690,392	\$151,690,392	\$151,690,392	\$151,690,392
Other General Merchandise Stores	\$21,075,199	\$400	\$22,870,399	\$400	\$91,078,300	\$91,078,300	\$91,078,300	\$91,078,300	\$91,078,300	\$91,078,300	\$91,078,300	\$91,078,300	\$91,078,300	\$91,078,300
Miscellaneous Store Retailers	\$18,749,853	\$356	\$20,346,979	\$356	\$12,545,384	\$12,545,384	\$12,545,384	\$12,545,384	\$12,545,384	\$12,545,384	\$12,545,384	\$12,545,384	\$12,545,384	\$12,545,384
Florists	\$709,931	\$13	\$770,403	\$13	\$1,003,894	\$1,003,894	\$1,003,894	\$1,003,894	\$1,003,894	\$1,003,894	\$1,003,894	\$1,003,894	\$1,003,894	\$1,003,894
Electronics & Appliance Stores	\$20,170,829	\$383	\$21,888,994	\$383	\$8,212,378	\$8,212,378	\$8,212,378	\$8,212,378	\$8,212,378	\$8,212,378	\$8,212,378	\$8,212,378	\$8,212,378	\$8,212,378
Office Supplies, Stationery & Gift Stores	\$3,184,226	\$60	\$3,455,461	\$60	\$1,145,798	\$1,145,798	\$1,145,798	\$1,145,798	\$1,145,798	\$1,145,798	\$1,145,798	\$1,145,798	\$1,145,798	\$1,145,798
Used Merchandise Stores	\$3,471,893	\$66	\$3,767,631	\$66	\$5,308,601	\$5,308,601	\$5,308,601	\$5,308,601	\$5,308,601	\$5,308,601	\$5,308,601	\$5,308,601	\$5,308,601	\$5,308,601
Other Miscellaneous Store Retailers	\$11,383,802	\$216	\$12,353,482	\$216	\$5,087,090	\$5,087,090	\$5,087,090	\$5,087,090	\$5,087,090	\$5,087,090	\$5,087,090	\$5,087,090	\$5,087,090	\$5,087,090
Nonstore Retailers	\$8,712,379	\$165	\$9,454,506	\$165	\$1,429,559	\$1,429,559	\$1,429,559	\$1,429,559	\$1,429,559	\$1,429,559	\$1,429,559	\$1,429,559	\$1,429,559	\$1,429,559
Electronic Shopping & Mail-Order Houses	\$5,777,311	\$110	\$6,269,426	\$110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Vending Machine Operators	\$635,137	\$12	\$689,238	\$12	\$439,025	\$439,025	\$439,025	\$439,025	\$439,025	\$439,025	\$439,025	\$439,025	\$439,025	\$439,025
Direct Selling Establishments	\$2,299,932	\$44	\$2,495,842	\$44	\$29,991	\$29,991	\$29,991	\$29,991	\$29,991	\$29,991	\$29,991	\$29,991	\$29,991	\$29,991
Food Services & Drinking Places	\$91,556,650	\$1,736	\$155,379,594.69	\$1,736	\$247,749,019	\$247,749,019	\$247,749,019	\$247,749,019	\$247,749,019	\$247,749,019	\$247,749,019	\$247,749,019	\$247,749,019	\$247,749,019
Full-Service Restaurants	\$48,801,810	\$926	\$82,820,914.24	\$926	\$163,420,647	\$163,420,647	\$163,420,647	\$163,420,647	\$163,420,647	\$163,420,647	\$163,420,647	\$163,420,647	\$163,420,647	\$163,420,647
Limited-Service Eating Places	\$37,676,408	\$715	\$63,940,139.84	\$715	\$72,091,116	\$72,091,116	\$72,091,116	\$72,091,116	\$72,091,116	\$72,091,116	\$72,091,116	\$72,091,116	\$72,091,116	\$72,091,116
Special Food Services	\$1,002,342	\$19	\$1,701,061.51	\$19	\$2,372,765	\$2,372,765	\$2,372,765	\$2,372,765	\$2,372,765	\$2,372,765	\$2,372,765	\$2,372,765	\$2,372,765	\$2,372,765
Drinking Places - Alcoholic Beverages	\$4,076,091	\$77.30	\$6,917,480.79	\$77.30	\$9,864,491	\$9,864,491	\$9,864,491	\$9,864,491	\$9,864,491	\$9,864,491	\$9,864,491	\$9,864,491	\$9,864,491	\$9,864,491

2015 Program Area Potential (all categories)	76,618 sf	2015 Potential Store Count	5 stores	2025 Program Area Potential (all categories)	94,030 sf	2025 Potential Store Count	6 stores
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River Oaks Trade Area -- Office Programming

Trade Area Population Forecast (1)	2015 Total Population	2020 Total Population	2025 Total Population	Employee/Population
	82,460	85,972	89,484	0.6:1
<b>Trade Area Employment Category (SIC Codes)</b>	<b>2015 Trade Area Jobs</b>	<b>Percentage of Jobs</b>	<b>Forecasted 2020 Jobs (2)</b>	<b>Forecasted 2025 Jobs (2)</b>
Agriculture, forestry, fishing & hunting	14	0.0%	14	15
Mining	234	0.5%	242	252
Utilities	33	0.1%	34	36
Construction	1,430	2.9%	1,479	1,543
Manufacturing	2,602	5.2%	2,692	2,807
Wholesale trade	1,236	2.5%	1,279	1,333
Transportation and warehousing	474	1.0%	490	511
Retail trade	8,242	16.5%	8,527	8,890
Nonstore retailers	57	0.1%	59	61
Information	470	0.9%	486	507
Finance and Insurance	2,085	4.2%	2,157	2,249
Real estate, rental and leasing	1,133	2.3%	1,172	1,222
Professional, scientific and tech services	8,967	18.0%	9,277	9,672
Management	11	0.0%	11	12
Administrative, support, waste management & remediation	1,198	2.4%	1,239	1,292
Educational services	2,712	5.4%	2,806	2,925
Health care & social assistance	4,425	8.9%	4,578	4,773
Arts, entertainment and recreation	1,107	2.2%	1,145	1,194
Accommodation and food services	6,111	12.3%	6,322	6,592
Automotive repair and maintenance	675	1.4%	698	728
Other services	2,883	5.8%	2,983	3,110
Public administration	3,558	7.1%	3,681	3,838
Unclassified establishments	201	0.4%	208	217
	49,858	100.0%	51,583	53,780
<b>Office-Oriented Jobs</b>	<b>2015 Trade Area Jobs</b>	<b>Forecasted 2020 Jobs</b>	<b>Forecasted 2025 Jobs</b>	<b>Building SF/Employee</b>
White Collar Jobs	12,723	13,163	13,724	330
<b>Office Space Programming</b>	<b>2015 Total Office Need</b>	<b>Forecasted 10 Year Net Add</b>	<b>2015 Vacancy Rate (3)</b>	<b>10 Year Programming (4)</b>
White Collar Office Space	4,198,590	330,309.07	17.6%	<b>21,497</b>

Sources: ESRI Business Analyst, ACS, Catalyst

Notes:

1. Forecast based on ACS year-on-year growth factor of 4.2% for trade area population

2. Employee/population ratio applied to forecasted residential growth to arrive at trade area job growth within ESRI calculated SIC employment code percentages

3. Vacancy rate per CBRE DFW Office Marketview Q4 2015 for Fort Worth B-Class

4. The total 10-year demand forecasted for office is approximately the amount necessary to fill existing trade area vacancy to a factor necessary to allow new speculative construction. However, as not all users will desire older product, it is assumed 25% of this new demand would be customized to these specific users needs. This forecast also assumes a 25% capture of this build-to-suit market would apply to the study area

Table 2.6: Programming River Oaks Trade Area - Office Programming

River Oaks Trade Area -- Residential Programming

Trade Area Household Growth Forecast (1)	2015 Trade Area Households 29,898	2025 Trade Area Households 32,751	10 Year Net Growth (w/25% Capture) 713	Growth Percentage 0.9%
Trade Area Household Types (2)	2025 Owner-Occupied Units 57%	10 Year Net (O-O) Demand 406	2025 Renter-Occupied Units 43%	10 Year Net (R-O) Demand 307
Qualified Households -- Owner Occupied New Construction (3)	10 Year Net (O-O) Demand 406	Qualified Percentage of Demand 16%	10-Year SF Detached Program (60%) 39	10-Year SF Attached Program (40%) 26
Qualified Households -- Renter Occupied New Construction (4)	10 Year Net (R-O) Demand 307	Qualified Percentage of Demand 43%	10-Year MF Market Program 131	10-Year MF Seniors/LIHTC Program (5) 250
Households not Qualified for Rates Required for New Construction (6)	Vacancy Rate for MF (7) 9.3%	Availability Rate for SF (8) 10%	Study Area MF Vacancy Capture 328	Study Area SF Availability Capture 143
Sources: ESRI Business Analyst, ACS, Catalyst	Total Potential Housing Units over 10 Years -- All Categories 918			
Notes:				
1. Forecast based on ACS year-on-year growth factor of 0.9% for the trade area households				
2. Owner-occupied and renter-occupied percentages based on ACS reporting for trade area				
3. Qualifying incomes for owner-occupied based on income of \$100k and above to qualify for mortgage for new construction cost for both single family homes and townhomes				
4. Qualifying incomes for renter-occupied based on income range of \$35k to \$100k to be able to pay rental rates required for new construction cost for both market-rate apartments and senior living				
5. 41.4% of forecasted households fall below market-rate qualification threshold. This provides opportunities for tax-credit senior and LIHTC housing.				
6. Those households that are not able to qualify for new construction lease rates or new mortgages have existing vacant stock to choose from				
7. Vacancy rate of 9.3% per CBRE DFW Multifamily Marketview Q3 2015 for Fort Worth West Sub-market allows favorable underwriting for new construction loans. Assume 25% capture for study area.				
8. Assumption of 5% of River Oaks single family housing stock vacant or available for sale or lease at any one time				

Table 2.8: River Oaks Trade Area - Residential

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# Appendix D - Existing Zoning Summary Table

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**Table 1 - Development Configuration Regulations**

District	Floor Space (Livable)	Height	Setbacks		Lot Area/Density; Width/Depth	Exterior Construction/ Special Regulations	Primary Uses
			Front	Side/Rear			
CF Community Facilities	Governed by the regulations of the contiguous district which has the less restricted height, area, yard, and lot coverage.					Approved site plan is a prerequisite for granting CF zoning and issuance of a building permit.	Institutions, health-care facilities and related facilities established in response to health, safety, educational, and welfare needs of the community.
R-1 Single-family residential	1,500 sq.ft. minimum	2.5 stories 35' maximum	40'	10'/20' <sup>1</sup>	10,000 sq.ft. 75'/120' minimum	Minimum 75% masonry construction for all new construction.	Low density residential uses and open space. Most restrictive. This district should be applied to conservation areas.
R-2 Single-family residential	1,500 sq.ft. minimum	2.5 stories 35' maximum	40' minimum	10'/20' minimum	8,400 sq.ft. 70'/120' minimum	Minimum 75% masonry construction for all new construction	Low density residential uses and open space. This district should be applied to conservation areas.
R-3 Single-family residential	1,000 sq.ft. minimum	2.5 stories 35' maximum	30' minimum	5'/20' <sup>1</sup> minimum	7,500 sq.ft. 60'/120' minimum	Minimum 75% masonry construction for all new construction.	Low density residential uses and open space. Allows greater design flexibility. This district is applied to smaller lots and structures and in areas of transition between nonresidential and R-1 and R-2.
R-4 Single-family residential	1,000 sq.ft. minimum	2.5 stories 35' maximum	25' minimum	5'/20' <sup>1</sup> minimum	6,000 sq.ft. 50'/110' minimum	Minimum 75% masonry construction for all new construction.	Low density residential uses and open space. Allows greater design flexibility. This district is applied to smaller lots and structures and in areas of transition between commercial and single-family residential.
R-5 Single-family residential	1,000 sq.ft. minimum	2.5 stories 35' maximum	25' minimum	5'/20' <sup>2</sup> minimum	6,000 sq.ft. 50'/110' minimum	Minimum 75% masonry construction for all new construction.	Low density residential uses and open space. Least restrictive. This district is applied to smaller lots and structures and in areas of transition between commercial and single-family residential.
R-6 Two-family	750 sq.ft. minimum	2.5 stories 35' maximum	25' minimum	5'/20' <sup>1</sup> minimum	6,000 sq.ft. 60'/100' minimum	Minimum 75% masonry construction for all new construction.  See notes below for dwelling unit separation	Moderately low-density residential uses and open space. The district serves as a transitional zone between single-family zones and higher density multiple-family and commercial zones.

						and design and construction criteria. <sup>3,4</sup>	
MF Multiple-family residential	750 sq.ft. minimum	Within 100' of single-family: 2 stories & 35' maximum  Outside 100' of single-family: 3 stories & 45' maximum	Not less than the requirements for adjacent residential zone  30' if abutting other zones	Abutting single-family: 25'/40'  Abutting other zones: 15'/20'	9,000 sq.ft. 20 units per acre 75' wide No depth mentioned	Minimum 75% masonry construction for all new construction.  Approved site plan is a prerequisite for granting MF zoning and issuance of a building permit.  See notes for thoroughfare siting and open space. <sup>5,6</sup>	Medium to high-density multiple-family units on larger tracts of land designed to supply total residential amenities. This district is intended to be located near high-volume thoroughfares.
C-1 Commerical	N/A	Within 100' of single-family: 2.5 stories & 35' maximum  Outside 100' of single-family: 3.5 stories & 45' maximum	Not less than the requirements for adjacent residential zone  25' if abutting other zones  Corner lots: 15' second front yard	Abutting single-family: 10'/20'  Abutting other zones: 3'/20' <sup>7</sup>	No lot area or density requirements. 70' wide No depth mentioned	Minimum 75% masonry construction for all new construction.  Approved site plan is a prerequisite for granting C-1 zoning and issuance of a building permit.  Screening is required if property abuts residential use zones.	Retail shopping facilities. This is the most restrictive commercial zoning district.
C-2 Commerical	N/A	Within 100' of single-family: 2.5 stories & 35' maximum  Outside 100' of single-family: 3.5 stories & 45' maximum	Not less than the requirements for adjacent residential zone  25' if abutting other zones  Corner lots: 15' second front yard	Abutting single-family: 10'/20'  Abutting other zones: 3'/20' <sup>7</sup>	No lot area or density requirements. 70' wide No depth mentioned	Minimum 75% masonry construction for all new construction.  Approved site plan is a prerequisite for granting C-2 zoning and issuance of a building permit.  Screening is required if property abuts residential use zones.	Medium intensity retail shopping facilities.
C-3 Commerical	No limit	Within 100' of single-family: 2.5 stories &	Not less than the requirements	Abutting single-family: 10'/20'	No lot area or density requirements.	Minimum 75% masonry construction for all new construction.	Least restrictive commercial zone providing greatest number and mix of retail and commercial uses.



		35' maximum Outside 100' of single-family: 3.5 stories & 45' maximum	for adjacent residential zone 25' if abutting other zones  Corner lots: 15' second front yard	Abutting other zones: 3'/20' <sup>7</sup>	70' wide No depth mentioned	Approved site plan is a prerequisite for granting C-3 zoning and issuance of a building permit.  Screening is required if property abuts residential use zones.	
P-C Planned commercial	1,500 sq.ft. Principal building	The city council specifies density, area, and height requirements at the time of approval and indicated in the Development Plan. Any future must follow the Development Plan unless a revised plan is approved by the city council.				Minimum 75% masonry construction for all new construction.  Application for a P-C must include a Development Plan. Approved site plan is a prerequisite for granting P-C zoning and issuance of a building permit.	May include a combination of commercial types and/or variety of land uses which complement each other and harmonize with existing and proposed land uses.
I Industrial	N/A	Adjacent to residential: 40' <sup>8</sup>  Adjacent to other uses: 75' <sup>8</sup>	Not less than the requirements for adjacent residential zone 25' if abutting other zones  Corner lots: 15' second front yard	Abutting single- family: 10'/20'  Abutting other zones: 3'/20' <sup>7</sup>  Fire Marshall can require additional space for emergency access.	N/A	Approved site plan is a prerequisite for granting I zoning and issuance of a building permit.	Uses involving manufacturing, assembly, processing, storage, and/or distribution, sale and repair of materials, goods, parts, products, equipment, machinery, and other operations incidental to industrial uses.
PD Planned Development	Development requirements are set by the plan for the proposed PD and approved by the city council.					Mixture of land uses to be planned and developed as a whole or a definitely programmed series of phases. A PD may contain a single land use.	

**Notes**

<sup>1</sup>Accessory structures cannot occupy over 40% of the rear yard.

<sup>2</sup>Accessory structures cannot occupy over 60% of the rear yard.

<sup>3</sup>Units shall be separated from each other by wall and/or floor assemblies having not less than 1-hour fire resistance rating when tested in accordance with ASTM E 119. Fire-resistance rate floor-ceiling and wall assemblies shall extend to and be tight against the exterior wall, and wall assemblies shall extend to the under side of the roof sheathing.

<sup>4</sup>Units must be designed and constructed in accordance to the most recently adopted edition of the International Residential Code as adopted by the city.

<sup>5</sup>All property in MF zoning category shall be situated contiguous to a thoroughfare with a minimum of 40' roadway within a 60' right-of-way.

<sup>6</sup>All MF residential uses shall provide and maintain a minimum of 250 sq.ft. of usable open space for each dwelling unit. Private courtyards or balconies may constitute up to 30% of the total required space.

<sup>7</sup>No side yard is required if property abuts nonresidential buildings. If a side yard is provided it shall be no less than 3'.

<sup>8</sup>Height may be increased one foot for each additional one foot increase in the required yard.

**Parking Requirements – General Requirements**

Location: Parking in all residential zones shall be provided behind the front building line.

Size: Parking requirements in all commercial districts shall be as follows:

- Off-street parking shall be a minimum of nine feet in width and eighteen feet in length, plus maneuvering space.
- For a single row of 90-degree head-in parking, the minimum width for a parking space plus aisle shall be 38 feet. For two rows of 90-degree head-in parking using the same aisle, the minimum width for parking spaces plus aisle shall be 56 feet.
- For a single row of 60-degree head-in parking, the minimum width for parking space plus aisle shall be 34 feet. For two rows of 60-degree head-in parking, using the same aisle, the minimum width for parking spaces plus aisle shall be 52 feet.
- For a single row of 45-degree head-in parking the minimum width for parking space plus aisle shall be 30 feet. For two rows of 45-degree head-in parking, using the same aisle, the minimum width for parking spaces plus aisle shall be 48 feet.

Total Spaces In Lot	Number of Handicapped Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
150 to 200	6
201 to 300	7
301 to 400	8

401 to 500	9
501 and over	2 percent of total

**Parking Requirements by Facility Type**

Facility	Parking Spaces
<b>Single-Family Dwelling</b>	One space for each 1,500 square feet of livable floor area or fraction thereof up to four spaces. Minimum of two spaces required.
<b>Multiple-Family Dwelling(s)</b>	Two spaces for each dwelling unit.
<b>Boarding or Roominghouse</b>	One space for proprietor plus one space for each sleeping unit.
<b>Hotel, Motor Motel</b>	1.25 spaces for each bedroom unit plus one space per 200 square feet of display room, meeting room, or ballroom area or fraction thereof Restaurant parking requirements - see below.
<b>Day Care Nursery Kindergarten</b>	One space per employee plus one space per ten (10) children or fraction thereof based on occupant load.
<b>Church</b>	One space for each four seats in the auditorium or fraction thereof.
<b>Auditorium Theater</b>	One space for each four seats or fraction thereof, plus one space for each two hundred 200 square feet or fraction thereof of lobby and concession area.
<b>Restaurant, Cafeteria</b>	One space for each 100 square feet of gross floor area or fraction thereof.
<b>General Hospital</b>	One space for each 1.5 beds
<b>Nursing and Care Home</b>	One space for each two beds, based on licensed capacity.
<b>Office, Bank &amp; Professional Bldg.</b>	One space for each 400 square feet of gross floor area or fraction thereof.
<b>Medical &amp; Dental Office or Clinic</b>	One space for each 200 square feet of gross floor area or fraction thereof.

Facility	Parking Spaces
<b>Commercial Building</b>	One space for each 200 square feet of gross floor area or fraction thereof. Minimum of two spaces required.
<b>Mini Warehouse</b>	One space for each 20 storage units or fraction thereof. Minimum of three spaces required.
<b>Industrial Bldg. – Manufacturing</b>	One space per employee for a maximum possible employment of two shifts combined or one space per 500 square feet or fraction thereof of manufacturing space, whichever is greater. Other areas of building by use.
<b>Industrial Bldg. - Warehouse</b>	One space for each 1,000 square feet or fraction thereof of warehouse area, provided that the spaces for any warehouse shall not be less than four. Other areas of building by use.
<b>Elementary, Middle School, Public, Parochial and Private</b>	One space for each faculty member and one space for each person employed on the premises In addition, in cases where buses for the transportation of children are kept at the school, one off-street bus parking space shall be provided for each bus. Parking shall also be provided for auditorium and assembly areas to a ratio of one parking space per four seats or fraction thereof.
<b>Senior High School Public, Parochial and Private</b>	One space for each faculty member and one space for each person employed on the premises, plus one additional space for each four students enrolled. In addition, if buses for the transportation of children are kept at the school one off-street bus parking space shall be provided for each bus.
<b>Colleges and Universities</b>	One space for each faculty member plus one space for each employee on the premises, plus one space for each four day students not residing on campus.

Facility	Parking Spaces
<b>Outdoor Manufacturing</b>	One space for each 7,500 square feet of work area or fraction thereof not counting parking, buildings or required parking for buildings, with a minimum of three spaces.
<b>Outdoor Recreation Activities</b>	One space shall be provided to meet the greatest average peak hour trips per land area presented for the most appropriate land use in the latest edition of Trip Generation published by the Institute of Transportation Engineering, with a minimum of four spaces.
<b>Outdoor Sales</b>	One space per 2,500 square feet or fraction thereof of land area net of any building, with a minimum of eight spaces. Any buildings by use. All parking spaces to be in addition to sales inventory area.
<b>Showroom Warehouse</b>	Minimum of one space per 500 square feet of gross floor area or fraction thereof. A minimum of three parking spaces shall be provided per unit in multiple unit developments.
<b>Carwash</b>	Minimum of one space for each washing stall, in addition to the washing stall.
<b>Bowling Alley</b>	Minimum of five spaces for each bowling lane, plus any restaurant, office, pro shop, etc. by use.
<b>Commercial Amusement Centers, Games, Arcade Parlors, Recreation area.</b>	One space for each 100 square feet or fraction thereof of gross floor, with a minimum of four spaces.
<b>Mobile Home</b>	One space for each 1,500 square feet of livable floor area or fraction thereof up to four spaces. A minimum of two spaces is required.

Facility	Parking Spaces
<b>Utility Facility</b>	Parking for approved utility facilities, the purpose of which does not include or require vehicular access by the public, shall be adequate for a specific facility, but in no case be less than two spaces. Parking maneuvering and drive space for such facilities, under the above circumstances, may be other than hard surface and dust free.
<b>Riding Stable Riding Hall, or Horse Track</b>	All parking requirements for such facility shall be determined by the planning and zoning commission in conjunction with and as a condition of each specific Use approval.
<b>Helistop</b>	All parking requirements for such facilities shall be determined by the city council in conjunction with a special use permit
<b>Funeral Home</b>	One space per four seats in chapel or fraction thereof.
<b>Museum</b>	One space per 400 square feet of gross floor area or fraction thereof.
<b>Service Station</b>	One space per 200 square feet of gross floor area or fraction thereof, with a minimum of four spaces not counting area at pump island or in service bays.

Facility	Parking Spaces
<b>Repair Garages</b>	One space per 200 square feet of gross floor area or fraction thereof, with a minimum of five spaces not counting space in building.
<b>Library</b>	One space per 200 square feet of gross floor area or fraction thereof.
<b>Barber/Beauty Shop</b>	One space per 50 square feet of gross floor area or fraction thereof.
<b>Laundry-Self Service</b>	One space per 50 square feet of gross floor area or fraction thereof.
<b>Community Center</b>	One space per 200 square feet of gross floor area or fraction thereof.
<b>Lodge/Fraternity Hall</b>	One space per 200 square feet of gross floor area or fraction thereof.
<b>Trade/Business School</b>	One space per 200 square feet of gross floor area or fraction thereof.
<b>Recreation and Amusement Assembly</b>	One space for each four seats or fraction thereof, plus one space for each two hundred (200) square feet or fraction thereof of lobby and concession area.



### **Landscape Requirements (City of River Oaks)**

- Landscaping shall be designed to maintain and preserve as many trees as possible.
- 10% of the next area shall be landscaped.
- All landscaping materials shall be installed prior to issuance of any completed certificate of occupancy.

#### Maintenance

- The owner shall maintain all landscape areas and vegetation in good condition in accordance to all applicable codes and ordinances as adopted and amended by the City of River Oaks.
- In addition to all required trees and shrubs all of the required landscape area must be covered with grass or live groundcover.
- Landscape areas must be kept free of trash, litter, weeds, and other materials or plants not a part of the landscaping.
- When possible all newly planted trees and shrubs should be native, zero-landscaping plants in order to promote water conservation.
  - Synthetic or artificial lawn or plant material shall not be used to satisfy the landscape requirements.

#### Landscaping For Single-Family And 2-Family Uses.

- Minimum of one canopy tree located in any required front yard.
- Canopy Tree shall be a minimum of 3 caliper inches.
- Existing trees of equal or greater size may be counted toward this requirement.
- The City Official may waive this requirement if it can be shown a tree cannot be reasonably placed on the lot due to size, configuration, or slope.
- Required landscape area must be covered with grass or live groundcover.

#### Landscaping In Multiple-Family, Industrial, Commercial, Planned Development And Overlay Planned Development Districts.

- For every 500 square feet, or fraction thereof, of required landscape area, 1 tree of 3-inch caliper or larger is required. Up to 50% of the required number of trees may be replaced by 5 gallon shrubs, at the rate of 1 tree equals 10 shrubs.
- For every 50 square feet, or fraction thereof, of required landscape area, 1 shrub at a minimum of five 5 gallons in size is required. Up to 50% of the required number of shrubs may be replaced by 3-inch caliper trees at the rate of 10 shrubs equals one 1 tree.
- A minimum of 40% of all required landscape areas shall be located in the front of the property as approved by the Public Works Director.
- All landscaping plans will accompany Site Approval Plans and will require Public Hearings in accordance to the Local Government Code first before the planning and Zoning Commission. The Planning and Zoning Commission will make a recommendation to the City Council to approve, modify or deny the Landscape Plan.
- The City Council following the hearing before the Planning and Zoning Commission will hold another Public Hearing on the Site Plan and Landscape Plan. Following the Public Hearing the City Council will vote to approve, modify or deny the Plan as presented.
- Public Hearings will require publication in the official city newspaper and property owner notification within 200 feet of the property requesting Site Plan and Landscape Plan approval in any of these zoning districts.
- All landscaping shall be permanently maintained. Should any plant material used in any landscaping required and approved die, the owner of the property shall have 90-days after notification by the City to obtain and install a suitable replacement plant material. Landscaped area shall be kept free of trash, litter, weeds and other material or plants not a part of the landscaping.
- A permanently installed irrigation system shall be installed and tested annually in accordance to T.C.E.Q. (Texas Commission on Environmental Quality) Rules and Regulations unless otherwise approved by the City once the applicant verifies the type of vegetation to be planted and the amount of water required to support the life of such vegetation.

Landscaping Adjacent To Public Right-Of-Way.

- A minimum 5-foot landscaped green space shall be provided to all public and private right-of-way on lots with an area of less than one-acre.
- A minimum 10-foot landscaped green space shall be provided to all public and private right-of-way on lots greater than one-acre.
- Landscape area must be covered with grass, trees, shrubs, flowering and nonflowering plants.
- When Evergreen Shrubs are planted the average density of 5-gallons for each 5 lineal feet cannot exceed the 36" height requirement as provided for in the Zoning Ordinance.

Landscaping Of Developed Sites.

- 10% of total lot area shall be devoted to landscaping.
- Landscape area must be covered with grass, trees, shrubs, flowering and nonflowering plants.

**Accessory Uses**

Accessory Buildings.

- An accessory building shall be erected no closer than 5 feet to a property line located in the rear or side yard.
- No accessory building shall be erected within a utility easement.
- No accessory building shall be erected within 10 feet of any other building, except that detached residential garages may be located not closer than five feet to the main dwelling.
- No accessory building shall be constructed upon a lot until the construction of the principal building or use has actually been commenced, and no accessory building shall be used unless the main building on a lot is completed and used.
- An accessory building shall not exceed one story or 14 feet in height.
- No accessory building shall be located forward of the principal building on the lot.

		<b>Accessory Use</b>	<b>District Where Permitted</b>
1		Accessory buildings enclosing equipment or activities in conjunction with the permitted principal uses. No accessory use shall be construed to permit the keeping of articles or materials in the open or outside the building unless specifically permitted in this Ordinance.	ALL
2		Accessory buildings, subject to the following:	"R-1" through "R-6"
	a.	a person may have a maximum number of three accessory buildings on a lot, each separated by at least ten feet;	
	b.	the accessory building may not exceed the as-built single-story foot-print floor plan in square-feet of the principle structure on any individually platted residential lot and shall meet all other applicable zoning requirements for accessory buildings.	
	c.	the accessory building must be anchored in compliance with the building code;	

	d.	an approved site plan pursuant to Section 25 of the Comprehensive Zoning Ordinance is a condition for approval of a building permit application for construction of all Accessory Buildings in any commercial, industrial, Multi Family and Planned Zoning Districts.	"C-1," "C-2," "C-3," "I," "MF" & "PD"
3		Antenna - Residential not more than 35 feet in height.	"R-1" through "R-6," "M-F"
4		Antennas, satellite dishes, telecommunication facilities or towers as follows:	"C-1," "C-2," "C-3," "I," "CF"
	a.	It shall not exceed 35 feet in height where attached or affixed to the structure in which the principal permitted use is located.	
	b.	Installation of an antenna on an existing structure other than a tower (such as a building, sign, light pole, water tower, or other freestanding nonresidential structure), as long as the additional antenna and the combined height of the existing structure tower does not exceed 60 feet.	
	c.	Installation of an antenna on an existing tower of any height if:	
	i.	the addition of the antenna adds no more than 20 feet to the height of the existing tower;	
	ii.	the height of the antenna and structure does not exceed 60 feet; and	
	iii.	no buildings or supporting equipment will be added in connection with the antenna.	
5		Carpports, subject to the following requirements:	"R-1" through "R-6"
	a.	The carport must be designated to shelter not more than two vehicles and shall not exceed 24 feet on its longest dimension;	
	b.	The carport shall be placed on a concrete surface;	
	c.	A carport greater than 576 square feet is not allowed;	
	d.	A carport built integrally to the existing structure and of the same construction material and design as that of the principle structure shall not extend past the front building line for that particular zoning district;	
	e.	A metal carport or freestanding carport may not extend past the front of the principle structure. A freestanding carport is a carport that is not built integrally to the existing structure and is not of the same construction material and design of the principle structure;	
	f.	Carpports must meet all setback requirements for the applicable zoning district; and	
	g.	A carport is permitted in the second front yard of a corner lot provided that the setback from the prevailing edge of the street is a minimum of fifteen (15) feet.	
6		Garage sales or yard sales, subject to compliance with applicable ordinances.	"R-1" through "R-6"

7	Gasoline sales facilities if utilized in conjunction with an otherwise permitted use in this zoning category. A gasoline sales facility must be self-service in nature and is to include the gasoline sales activity frequently conducted as an accessory use to "drive-in" food stores. Any gasoline sales facility under this provision shall have the design and number of gasoline delivery stations or pumps be preapproved by the City's Fire Inspector.	"C-2," "C-3," "I"
8	Home occupation uses, subject to the following conditions:	"R-1" through "R-6"
a.	No persons other than members of the family residing on the premises shall be engaged in such occupation;	
b.	The use of the dwelling unit for the home occupation shall be clearly incidental and subordinate to its use for residential purposes by its occupants, and not more than 250 square feet of floor area of the dwelling unit shall be used in the conduct of the home occupation;	
c.	There shall be no change in the outside appearance of the building or premises, or other visible evidence of the conduct of such home occupation. No sign advertising a home occupation shall be placed on property where a home occupation is conducted;	
d.	No home occupation shall be conducted in any accessory building;	
e.	Any sales in connection with such home occupation shall be clearly secondary. There shall be no sales from the dwelling;	
f.	No traffic shall be generated by such home occupation in greater volumes than would normally be expected in a residential neighborhood, and any need for parking generated by the conduct of such home occupation shall be met off the street and other than in a required front yard;	
g.	No equipment, process or work shall be used or conducted in such home occupation which creates noise, vibration, glare, fumes, odors, or electrical interference detectable to the normal senses off the lot. In the case of electrical interference, no equipment, process or work shall be used or conducted which creates visual or audible interference in any radio or television receivers off the premises, or causes fluctuations in line voltage off the premises;	
h.	The operation of beauty culture schools, beauty parlors, barber shops, lawn mower or other small or large engine repair, and any boardinghouse/roominghouse shall not be permitted as a home occupation or as an accessory use; and	
i.	No outdoor storage of any type shall be permitted with any home occupation.	
9	Lanais, gazebos greenhouses, garden and patio shelters, sundecks, and children's playhouses, provided the privacy enjoyed by adjacent residents is not impaired.	"R-1" through "R-6"
10	Model and/or sample homes for the purpose of promoting sales shall be permitted, provided these structures are located on and within the same tract or subdivision of land being developed for sale.	"R-1" through "R-6"
11	Office or administrative areas and activities supportive of the permitted principal uses.	"I"
12	On-site storage of records or file materials which are ancillary to or a portion of the office or business activities conducted within the principal office use (an example of this activity would be	"C-1," "C-2," "C-3," "I," "CF"



	the file storage and records required by a title company operation).	
13	One temporary construction facility and/or one temporary sales facility by a developer not to exceed 500 square feet per facility, only during actual construction for a period not to exceed two years and located on property being developed.	ALL
13.5	Outdoor portable food stands (to include snow cone stands and other food vending stands) are prohibited except that during special events the business owner obtains permit approval not to exceed 5-days out of any 180-day period from the City Council. Snow cone stands previously approved by the City Council shall be permitted to operate subject to City Council approval each year for a period not to exceed 180-days and they must be removed from the property at the end of the 180-day period. Any previously approved snow cone stands are not allowed to continue once there has been a change of ownership or proprietorship involving that particular snow cone stand.	"C-1," "C-2," "C-3,"
14	Outside display or retail sales, subject to the following conditions:	"C-1," "C-2," "C-3,"  "P-C"
	a. The business displaying the merchandise must have a valid certificate of occupancy;	
	b. The merchandise must be new merchandise traditionally marketed outdoors;	
	c. The merchandise must not be left outdoors overnight;	
	d. Total outside display must not exceed five percent of the indoor floor area of the business; and	
	e. Outside display of items not for sale or for the purpose of manufacturing or assembly is not permitted.	
15	Outside RV Storage.	"C-3"
16	Parking and storage of private boats, camper trailers or other recreational vehicles in conformance with Section 20.	"R-1" through "R-6"
17	Private swimming pool, wading pools, and game courts (lighted and unlighted), provided that:	"R-1" through "R-6"
	a. If lighted, the lighting shall be so directed and shielded so not to shine directly on any adjacent residential property;	
	b. Any such pool or game court is for the private use of the site occupants and their guests, and not operated as a business;	
	c. All "at grade" swimming pools with a water depth greater than 18" and "above grade" swimming pools having a water depth 18" or more, except for portable tot pools, shall be enclosed by a fence and gate in accordance with the city building code or other applicable ordinances;	
	d. Ornamental pools or ponds designed for decorative purposes and having a depth less than 18" are not subject to a special fencing requirement and may be located within the required	

		front or rear yards provided that they maintain a minimum 10 feet setback from the closest property line; and	
	e.	All other pools may be located in a side or rear yard, but not within a front yard nor forward of the principal building on the lot, and shall not be located closer than five feet to any side or rear property line nor be located any closer than five feet to another structure.	
18		Public, semi-public and private parks; recreation and open space including playgrounds, parkways, greenbelts, ponds and lakes, botanical gardens, pedestrian paths, bicycle paths, equestrian bridle trails, nature centers, bird and wildlife sanctuaries.	ALL
19		Required off-street parking and loading space.	ALL
19.5		Existing accessory buildings designed for residential human occupation may be used for human occupation, limited to family members as defined by this Ordinance providing they existed prior to the adoption of the zoning ordinance and are registered as a legal nonconforming structure.	"R-1" through "R-6"
20		Retail activity of a service nature designed to provide direct service support to the businesses and employees who occupy the remainder of the office complex. This is limited to those activities which are clearly supportive of office operations, such as food service in the nature of cafeterias or snack bars, newsstands or gift shops providing reading material and small, consumable sundries, pharmacies or drug stores, particularly when co-located with medical or medial related office facilities, office supply stores or outlets providing support to businesses within the complex itself. Stores operating under this provision shall not be limited only to sales within the office complex, but should clearly be aimed at marketing primarily within the immediate vicinity of the complex site.	"C-1," "C-2," "C-3," "I," "CF"
21		Retail uses which are reasonably related to the principal uses within the structure provided they do not exceed 15 percent of the floor area of the building.	"C-1," "C-2," "C-3," "I," "CF"
22		Signs for advertising uses on the premises.	"MF," "C-1," "C-2,"  "C-3," "I," "CF"
23		Such other service activities as are clearly found to be directed at supporting the employees or business operations of the office complex. In no event shall the area allocated to retail sales exceed 15 percent of the net usable square footage of each office structure. All retail operations undertaken pursuant to this provision shall involve no outdoor storage or sales and all signage for such activities shall be contained wholly within the office structure in which the retail operation is established. No outside advertising shall be permitted.	"C-1," "C-2," "C-3," "I," "CF"
24		Temporary buildings including temporary carports, subject to the following conditions:	ALL
	a.	To be used for construction purposes only, and upon issuance of a permit by the zoning administrator, and to be removed upon completion or abandonment of construction work or removed upon request of the zoning administrator; and	
	b.	Permits shall be issued for such temporary buildings for a period of six months only.	
25		Tennis courts, health clubs, and related recreation facilities provided they are for the primary use of guests, customers or person associated with the principal use.	"MF," "C-1," "C-2," "C-3," "I," "CF"

5	Tents for the purpose of promoting retail sales for a period not exceeding 23 days. This use shall require a permit and shall be subject to the provisions of the Uniform Fire Code, Art. 32, as amended. It shall also meet the development regulations of the zoning district in which it is being placed. No more than two permits may be issued in any one-year period, with a 60-day separation between uses.	"CF," "C-1, 2,"  "C-3," "I,"
7	Temporary Uses are permitted as long as they are seasonal sales, including, but not limited to Christmas tree sales, merchandise sale, or fruits and vegetables sales related to active businesses during normal regular business hours in direct support of the business that is supported by a letter of affidavit from the business owner.	"C-1," "C-2 3"
8	Farmers' Markets, approved by Resolution of the City Council for a specific period of time and when determined to be applicable by the City Council, shall comply with the regulations provided for in Section 19.E "Outside Special Events Permitting."	"C-2," "C"





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# Appendix E - Resolutions in Support

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116517



**COMMISSIONERS COURT  
COMMUNICATION**

REFERENCE NUMBER

PAGE 1 OF

3

DATE: 11/05/2013

**SUBJECT: APPROVAL OF RESOLUTION SUPPORTING KEY REGIONAL INITIATIVES FOR PLANNING LIVABLE MILITARY COMMUNITIES**

**\*\*\* CONSENT AGENDA \*\*\***

**COMMISSIONERS COURT ACTION REQUESTED:**

It is requested that the Commissioners Court approve a Resolution supporting key regional initiatives for planning livable military communities.

**BACKGROUND:**

The North Central Texas Council of Governments (NCTCOG) was awarded a HUD regional planning grant in 2011 to conduct a land use study for the communities adjacent to NAS Fort Worth. The project, Planning Livable Military Communities, included an intergovernmental planning process involving representatives from the Cities of Benbrook, Fort Worth, Lake Worth, River Oaks, Sansom Park, Westworth Village, White Settlement, and Tarrant County. The planning effort addressed economic development, housing, land use, transportation, and intergovernmental coordination opportunities.

Based on numerous stakeholders' meetings and citizen input, the planning process resulted in the following key recommendations as contained in the resolution submittal by NCTCOG:

1. **Economic Development:** Encourage positive economic development and strengthen the overall identity of the region to spark investment, enhance the physical image of the communities, and attract new businesses and residents.
2. **Housing Choice:** Provide a range of housing options to attract and retain young families, aging residents, and employees from NAS Fort Worth, JRB and Lockheed Martin.
3. **Land Use:** Ensure the safety and quality of life of residents and protect the mission of NAS Fort Worth JRB through the adoption of compatible land use strategies in the noise and safety zones of the base.
4. **Transportation Options:** Enhance regional mobility by initiating improvements to the area's network of roads, paths, trails, and sidewalks in order to encourage connectivity and offer viable alternative transportation modes.
5. **Intergovernmental Coordination:** Pursue opportunities for coordination and cooperation among communities to overcome common challenges and achieve mutual goals.

**FISCAL IMPACT:**

There is no fiscal impact to Tarrant County.

SUBMITTED BY:	Transportation	PREPARED BY:	Randy Skinner
		APPROVED BY:	

116517



## TARRANT COUNTY Commissioners Court

### RESOLUTION SUPPORTING KEY REGIONAL INITIATIVES IN THE PLANNING LIVABLE MILITARY COMMUNITIES REGIONAL VISION REPORT

**WHEREAS**, the Naval Air Station Fort Worth, Joint Reserve Base (NAS Fort Worth, JRB) is recognized as one of the strongest economic engines in the North Central Texas region, and the need to avoid incompatible land uses in the surrounding communities is recognized as vital to its long-term existence; and

**WHEREAS**, the communities surrounding NAS Fort Worth, JRB have coordinated to support development that is compatible with military operations by participating in the Joint Land Use Study and serving on the Regional Coordination Committee; and

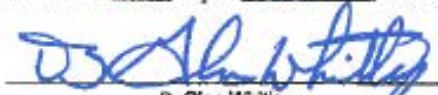
**WHEREAS**, the cities of Benbrook, Fort Worth, Lake Worth, River Oaks, Sansom Park, Westworth Village and White Settlement, and Tarrant County have participated in a multidisciplinary planning effort called Planning Livable Military Communities that addresses economic development, housing, land use, transportation, and intergovernmental coordination opportunities; and


**WHEREAS**, the Planning Livable Military Communities Regional Vision Report outlines recommendations for the communities to accommodate future growth, enhance quality of life, build strong economies, and support continued operations at NAS Fort Worth, JRB while promoting the health, safety and welfare in the communities.


**NOW THEREFORE, BE IT RESOLVED** by the Commissioners Court of Tarrant County, Texas hereby: Endorses and supports the key regional initiatives outlines in Attachment 1 to accommodate future growth, enhance quality of life, build strong economies, and support continued operations at NAS Fort Worth, JRB while promoting the health, safety, and welfare in the communities through efforts related to economic development, housing, land use, transportation, and intergovernmental coordination.


**NOW THEREFORE, BE IT FURTHER RESOLVED** by the Commissioners Court of Tarrant County, Texas that the Planning Livable Military Communities Regional Vision Report includes recommended actions that support the key regional initiatives outlines in Attachment 1 and are intended to be implemented in coordination with other communities and stakeholders as appropriate.


**IN WITNESS WHEREOF**, witness our hands on this the 5<sup>th</sup> day of Nov, 2013.

  
B. Glen Whitley  
County Judge

  
Roy Charles Brooks  
County Commissioner, Precinct 1

  
Andy Hu Nguyen  
County Commissioner, Precinct 2

  
Gary Fickes  
County Commissioner, Precinct 3

  
J.D. Johnson  
County Commissioner, Precinct 4

**River Oaks City Council Resolution #786-2013**

City of River Oaks  
City Council Meeting  
November 26, 2013

**Refer to agenda item 11, Resolution #786-2013, for formal action taken.**

11. CONSIDER APPROVAL OF **RESOLUTION # 786-2013** SUPPORTING KEY REGIONAL INITIATIVES IN THE PLANNING LIVABLE MILITARY COMMUNITIES REGIONAL VISION REPORT

**Mayor Pro Tem Gordon moved, seconded by CM Crews, to approve Resolution #786-2013. All voted "Aye."**



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# Appendix F - Public Meeting Notes

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## Public Meeting #1 Minutes

Subject	River Oaks Blvd. (SH 183) Corridor Master Plan Public Meeting #1
Date	July 27, 2015
Time	6:00 PM
Location	River Oaks Community Center
Attendees	Laura Weis – AECOM, <a href="mailto:laura.weis@aecom.com">laura.weis@aecom.com</a> Steven Duong – AECOM, <a href="mailto:steven.duong@aecom.com">steven.duong@aecom.com</a> Karla Weaver – NCTCOG, <a href="mailto:kweaver@nctcog.org">kweaver@nctcog.org</a> Patrick Mandapaka – NCTCOG, <a href="mailto:pmandapaka@nctcog.org">pmandapaka@nctcog.org</a> Trey Ingram – NCTCOG, <a href="mailto:tingram@nctcog.org">tingram@nctcog.org</a> Dan Kessler – NCTCOG, <a href="mailto:dkessler@nctcog.org">dkessler@nctcog.org</a> John Cordary – TxDOT, <a href="mailto:jcordary@txdot.gov">jcordary@txdot.gov</a> Patricia Ward – Tarrant County, <a href="mailto:pward@tarrantcounty.com">pward@tarrantcounty.com</a> 99 members of the community
Prepared	May 24, 2016
Prepared by	Laura Weis, P.E.
Distribution	File

### Introduction

Dan Kessler gave an introduction of the project and described the current and future transportation improvements near NAS Fort Worth JRB.

### Presentation

Karla Weaver began the presentation, describing the purpose, history, funding sources, project purpose and goals. The Planning for Livable Military Communities study that preceded this study was described as having identified River Oaks Boulevard as a corridor for future study.

Laura Weis described the existing conditions along the corridor. Traffic volumes, historical crash data, existing land use as of 2010, existing market, and stormwater/drainage conditions were described. The market data presented included retail/office distribution, housing stock, home values, and 10-year Redevelopment Planning within a quarter mile buffer of the project. She then discussed the project tasks, schedule, and contact information.

Subsequent to the community meeting presentation, Karla Weaver led a visual preference survey that showed various development types; pedestrian, bike and roadway types, and aesthetic treatments that the attendees rated via TurningPoint software. A summary of the results of the survey was developed separately from the meeting minutes.

Dan and Karla then opened the floor for questions. After the meeting, attendees were encouraged to note any known issues or concerns on aerial maps. A summary of the comments received follows:

- We need sidewalks that are wheelchair accessible.

- We need bus service in the City.
- Six feet of flooding at Roberts Cutoff/River Oaks Boulevard in front of Fort Worth Automotive.
- Meandering way – two-way signal.
- Need sidewalks on Yale Street; it's a high traffic area.
- Yale Street near River Oaks Boulevard has pot holes and bad pavement.
- Storm water/flooding is an issue at Ohio Garden Road/Green Oaks Drive/River Oaks Boulevard.
- Cross walks lack push buttons.
- There were concerns regarding overall road quality and aesthetics of River Oaks Boulevard.
- We need a washateria.



**Public Meeting #2 Minutes**

Subject	River Oaks Blvd. (SH 183) Corridor Master Plan Public Meeting #2
Date	Oct. 29, 2015
Time	6:00 PM
Location	River Oaks Community Center
Attendees	Laura Weis – AECOM, <a href="mailto:laura.weis@aecom.com">laura.weis@aecom.com</a> Ellen Heath – AECOM, <a href="mailto:ellen.heath@aecom.com">ellen.heath@aecom.com</a> Steven Duong – AECOM, <a href="mailto:steven.duong@aecom.com">steven.duong@aecom.com</a> Ken Ray – Toole Design, <a href="mailto:kray@tooledesign.com">kray@tooledesign.com</a> Karla Weaver – NCTCOG, <a href="mailto:kweaver@nctcog.org">kweaver@nctcog.org</a> Patrick Mandapaka – NCTCOG, <a href="mailto:pmandapaka@nctcog.org">pmandapaka@nctcog.org</a> Trey Ingram – NCTCOG, <a href="mailto:tingram@nctcog.org">tingram@nctcog.org</a> Dan Kessler – NCTCOG, <a href="mailto:dkessler@nctcog.org">dkessler@nctcog.org</a> Sandy Wesch – NCTCOG, <a href="mailto:swesch@nctcog.org">swesch@nctcog.org</a> Randy Skinner – Tarrant County, <a href="mailto:RVSkinner@tarrantcounty.com">RVSkinner@tarrantcounty.com</a> 50 members of the community
Prepared	Nov. 3, 2015
Prepared by	Laura Weis, P.E.
Distribution	Staff Attendees, M. Gregory

**Introduction**

Dan Kessler gave an introduction of the project and described the current and future transportation improvements near NAS Fort Worth JRB.

**Presentation**

Karla Weaver began the presentation, describing the agenda, project purpose and schedule, “Very Appropriate” elements from the visual preference survey taken at Public Meeting #1, and the vision statement, which is:

*“River Oaks Blvd. is a multimodal corridor and gateway to a livable community that cherishes the past and embraces future opportunities for economic development.”*

Ken Ray then presented various corridor features that could be incorporated into this project, including Off Street Shared Use Path (Sidepath), Sidewalks, Angled Parking, Parallel Parking, Back-in Parking, and Contraflow Lanes.

Laura Weis described three context sensitive zones along River Oaks Blvd.:

- Zone 1 – From the Trinity River to Ohio Garden Rd., lined primarily by residential properties. The concept cross section shown included a four-lane divided road with shared use paths and sidewalks on either side of the road.
- Zone 2 – From Ohio Garden Rd. to Long Ave., lined with both residential and commercial areas. The concept section showed a contraflow lane on the east side of the roadway



with head-in angled parking and the west side of the road included parallel parking. On either side of the road, shared use paths and sidewalks were shown.

- Zone 3 – From Long Ave. to SH 199, lined with residential and commercial properties. This section showed the conversion of the two-way side road on the east to a one-way contraflow lane with angled parking and shared use path. The west side of the road included shared use path and sidewalk, with no parking.

In conclusion, Laura shared a portion of the zoning review data being collected, reiterated the schedule, and described the exhibits on display in the room. She provided contact information for Karla, Patrick and herself.

Dan and Karla then opened the floor for questions. A summary of the questions and comments from the meeting is attached.

### **Open House**

An open house took place during the last 20 minutes of the meeting. Karla collected check marks from residents indicating amenity preferences. The rest of the team took comments and answered questions about the project. There were copies of the zones shown during the presentation to discuss.

### **Floor Questions**

Q: Will there be “feeder” sidewalks linking the neighborhoods to River Oaks Boulevard?

Q: I work at Lockheed Martin and go to work early in the mornings. I see lots of young people biking and walking in the dark. It’s not safe. Why aren’t we talking about public transportation?

Q: Why are you showing parking where there are no businesses? Don’t need it in front of homes.

Q: Who will pay for maintenance, electricity? City of River Oaks can’t afford to fix potholes now.

Q: There are lots of retired people in River Oaks on fixed incomes. How will they afford taxes for all of this?

Q: What will be the speed limit? At 40 mph no one will be looking at businesses. (Show of hands on who wants lower speed limits—virtually no one.)

Q: Will there be additional stoplights?

Q: How will people know which way to go on the contraflow lanes? People will be confused.

Q: Do you have statistics on percentages of people who follow directional signs? Example of no one doing it at school.

Q: Can we get meeting notices in water bills?

Comment: We need barricades to keep pedestrians and cyclists safe.

Public Meeting #2 Comment Board

# Comments



## I LIKE CONTRA LANE & BACKEND PARKING

What if you try to back in but there is a line of cars behind you?

Try to advertise @ Lockheed Martin, @ the base, so the people that work there can come to the meetings since they will commute through River Oaks. Add an announcement with the waterbill for the residents of River Oaks.



Public Meeting #2 Concerns Map



