# HORSESHOE BAY TEXAS

## TRANSPORTATION PLAN
## 2025

**Updated April 18, 2025**

Horseshoe Bay Proper
Horseshoe Bay, Texas

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Photo Credit: Horseshoe Bay Resort

# 1› Introduction

## What is a Transportation Plan?

A transportation plan (TP) defines goals and policies for growth and recommends transportation investments to prepare for future mobility needs of a community. It aims to meet future traffic demands, guide development, and establish organized growth within the transportation network. A balanced TP will also seek to preserve the community's character, including the environmental, scenic, aesthetic, historic, and natural resources of the area, while providing safety and mobility.

By planning for future growth of the City of Horseshoe Bay (City), the TP establishes goals for the transportation network and protects adequate rights-of-way (ROW) to meet future transportation needs for modes, including cars, pedestrians, cyclists, and golf carts.

## Planning Background

In October 2021, the city council adopted Ordinance 2022-01, creating an appointed, volunteer Transportation Advisory Committee (TAC). The purpose of the committee was to identify potential new transportation goals and strategies. The committee was tasked with developing a plan that would act as a blueprint for future transportation planning in Horseshoe Bay for the next three to five years. Information derived from various sources such as the City's elected officials and staff, citizens, and other stakeholders, guided the development of the TP to proactively address the needs of the community.

The initial members of the TAC were appointed and included Kelly Kaatz, Mark Bloschock, and Rhonda Kolar. Randy Rives was designated as the City Council liaison to the TAC. Jeff Koska and Sally McFeron were City staff liaisons. The TAC held a series of initial meetings to plan out how they would prepare the TP for the City. The City provided funding for the TAC to hire a transportation engineering consultant to assist with specific aspects of the plan, and a request for qualifications was issued in September 2022. BOE, Inc. was selected as the City's consultant to assist the TAC and entered into a contract with the City in November 2022. Throughout the planning process, the City council appointed additional members to the TAC, including Crystal Barrington, Lee Larkin, Rusty Stout, and Reuben Morgensteren. Council member Dwight King replaced Randy Rives as the City Council Liaison following the end of Council Member Rives' term.

A TRANSPORTATION PLAN DEFINES GOALS AND POLICIES FOR GROWTH AND RECOMMENDS TRANSPORTATION INVESTMENTS TO PREPARE FOR FUTURE NEEDS.

TAC meetings were held throughout the planning period and various staff members assisted with the planning efforts, including Tim Foran (Public Works Director), Sally McFeron (Development Services Director), Rocky Wardlow (Police Chief until May 15, 2024), Jason Graham (current Police Chief), Christina Reinhardt, James Williams (GIS Administrator), and Adrienne Mapel (Executive Assistant).

## Previous Planning

In 2021, the City adopted its Long Range Plan (LRP). The TP seeks to uphold the vision developed in the LRP by improving forms of connectivity, including roads, bicycle routes, golf cart routes, and pedestrian paths through planning and policy choices, partnerships, dedicated funding, and targeted projects to enhance the quality of life, mobility, and public safety.

## Goals

As stated in the 2021 LRP:

- Verify citizens of Horseshoe Bay are afforded an adequate future transportation system.
- Identify major deficiencies in the existing transportation network.
- Maintain and enhance the quality of life enjoyed by the citizens of Horseshoe Bay.

## Objectives

- Evaluate the existing transportation network.
- Identify current and future land uses and travel patterns, as well as population forecasts.
- Incorporate citizen participation into the planning process.
- Identify the necessary transportation network improvements.
- Develop a transportation network to serve the community's needs.
- Goals defined in the LRP also provide mobility goals for the 2025 TP.
  - Identify and plan for future connectivity and mobility needs.
  - Develop funding source mechanisms for mobility and connectivity construction and maintenance.

**Summit Rock Blvd.**
**Horseshoe Bay, TX, 2024**


Agenda
• Overview of State of our City
• Next Step Long Range Planning– 2024
• Station Walks/Visuals displays
• CIVIC READY sign up station/Website

# 2› Public Involvement

## Outreach

Development of the TP provided an opportunity for the City to measure and evaluate the state of the transportation network and community transportation goals in Horseshoe Bay. An important part of this process is public involvement. Community feedback helps the TAC better understand where the network is working and where it is not. The TAC developed a public involvement strategy designed to encourage public participation and input.

Neighborhood and stakeholder outreach began at the onset. The TAC compiled a database of contacts for neighborhood/property owner associations in the City, as well as various stakeholders, including City staff and City Council members, Horseshoe Bay Resort representatives, and local businesses. The City also created a webpage describing the purpose of the TP and offering information to the public to receive public comments.

During the planning process, the TAC conducted a public workshop specifically to receive comments on a proposed Shared Use Path (SUP) Plan. The TAC also conducted a citizen survey and held another public workshop to present proposed plan concepts and receive public input. The citizen survey and announcements for the public meetings were made through local newspaper publication, the City's CivicReady system, and the City's web page.

A **PUBLIC INVOLVEMENT STRATEGY** HELPED KEEP THE PUBLIC **INFORMED** DURING THE PROCESS.

## Transportation Plan Survey

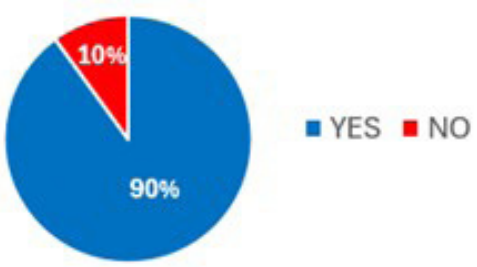
One of the first outreach efforts was to publish an online survey to help capture feedback from the community about Horseshoe Bay's transportation network. Participants were able to go online to share their thoughts about top issues and challenges regarding the network, congested areas, safety, preferred improvements, and connectivity.

The survey was available online for four weeks and concluded in October 2023. A total of 353 responses were received. Responses were summarized and analyzed to consider in the development of the TP.

MORE THAN 350 **RESPONSES** FROM THE TRANSPORTATION SURVEY **PROVIDED VALUABLE INSIGHT** FOR THE CITY AS **RECOMMENDATIONS** FOR THE TP WERE **DEVELOPED.**

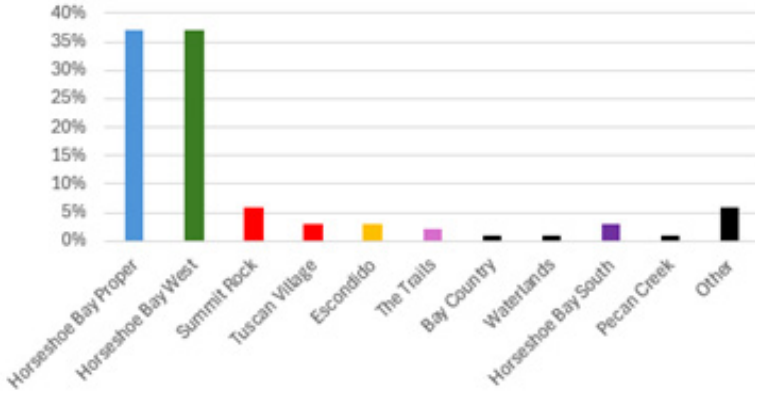
# Online TP Survey Responses

Is Horseshoe Bay your primary residence?

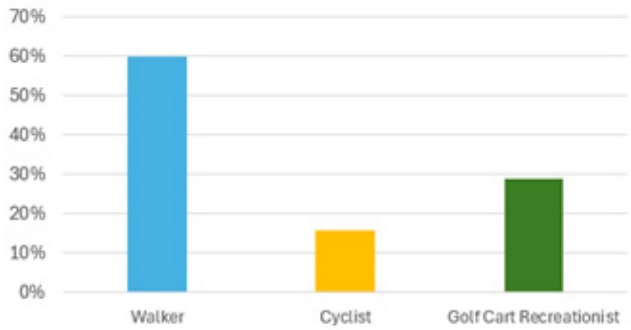



**90%** OF RESPONDENTS MAKE HORSESHOE BAY THEIR **PRIMARY RESIDENCE** AND OVER 70% LIVE IN **HORSESHOE BAY PROPER OR HORSESHOE BAY WEST.**

Where do you live?



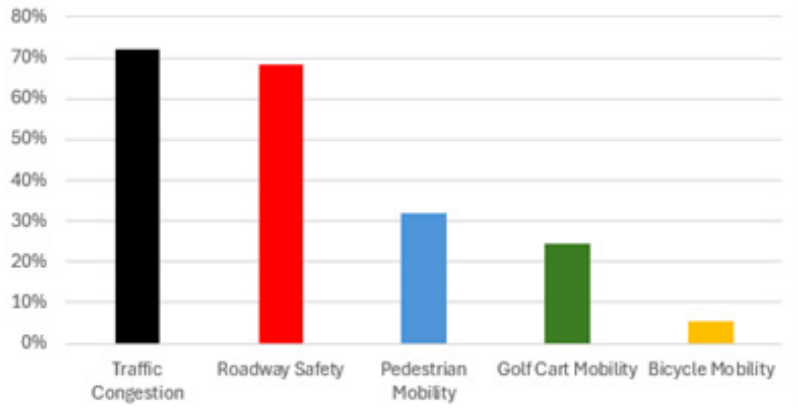

Are you a Walker, Cyclist, Golf Cart Recreationist?




**60%** OF RESPONDENTS ACTIVELY **WALK** IN HORSESHOE BAY AND ALMOST **30% USE A GOLF CART** TO TRAVEL AROUND.

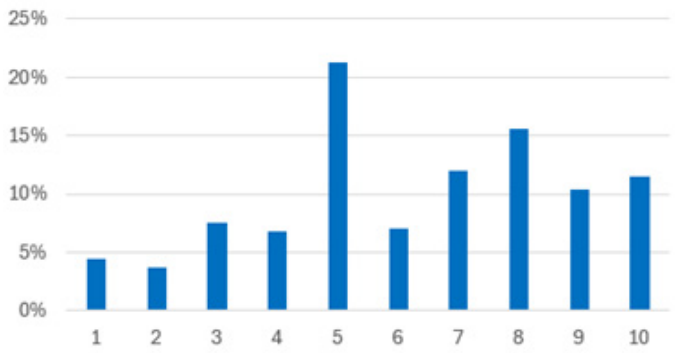
# Online TP Survey Responses

What are the most important transportation issues facing Horseshoe Bay?

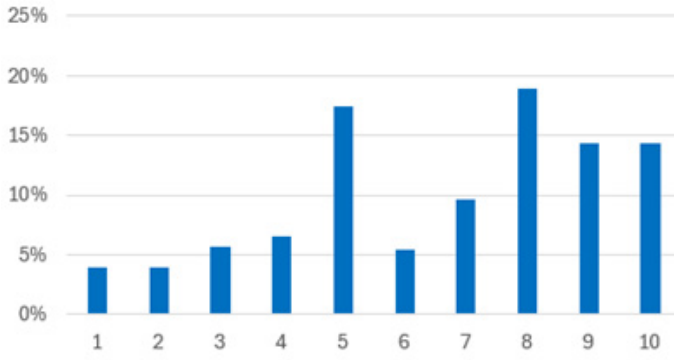



RESIDENTS VIEW **TRAFFIC CONGESTION AND ROADWAY SAFETY** AS THE **MOST IMPORTANT ISSUES** FACING HORSESHOE BAY, ALTHOUGH TODAY'S CONDITIONS ARE SATISFACTORY.

What is your satisfaction with traffic congestion?
(1 = Very Unsatisfied, 10 = Very Satisfied)



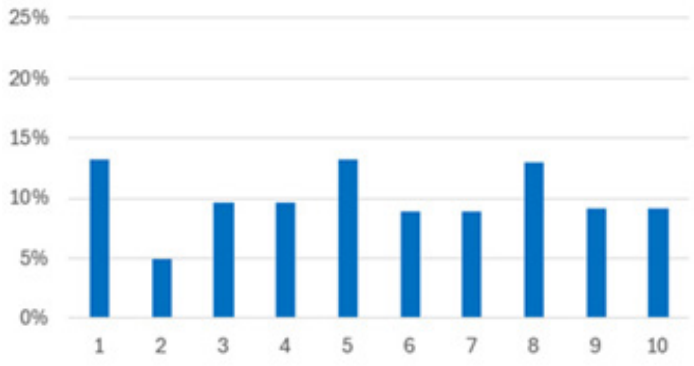

What is your satisfaction with vehicular safety?
(1 = Very Unsatisfied, 10 = Very Satisfied)?




# Online TP Survey Responses

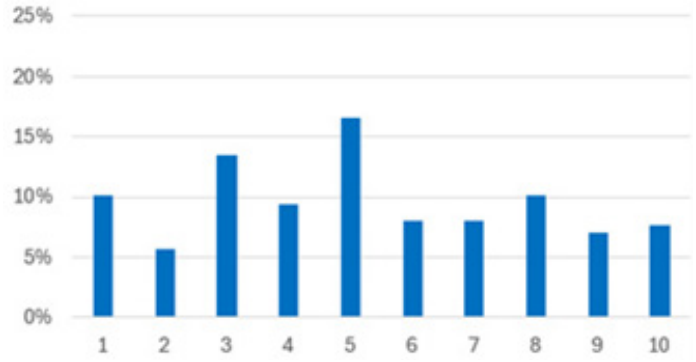


What is your satisfaction with pedestrian safety?
(1 = Very Unsatisfied, 10 = Very Satisfied)



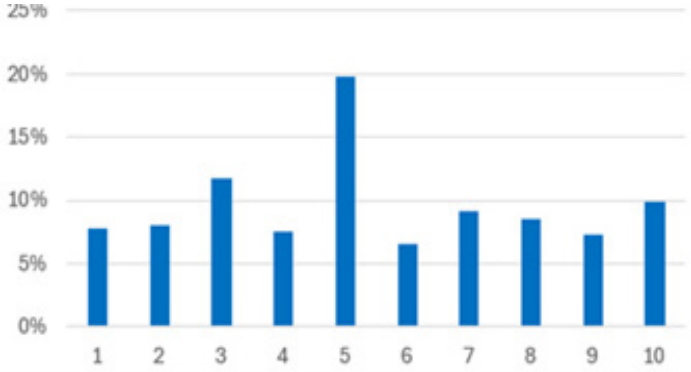

RESIDENTS ARE **LEAST SATISFIED WITH PEDESTRIAN SAFETY** WITH **OVER 50%** OF RESPONDENTS GIVING **PEDESTRIAN SAFETY A RATING OF 5 OR LESS.**

What is your satisfaction with bicycle safety?
(1 = Very Unsatisfied, 10 = Very Satisfied)

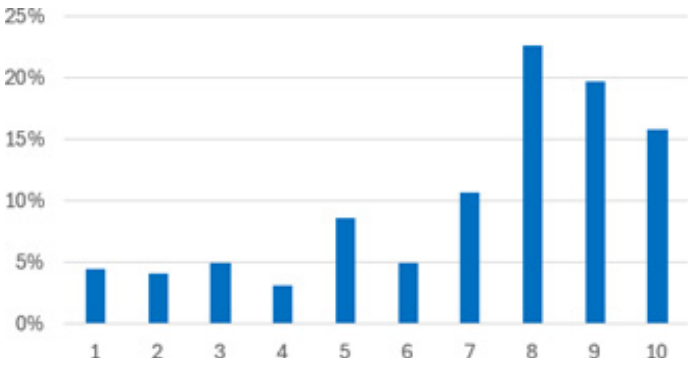



# Online TP Survey Responses

What is your satisfaction with golf cart safety?
(1 = Very Unsatisfied, 10 = Very Satisfied)



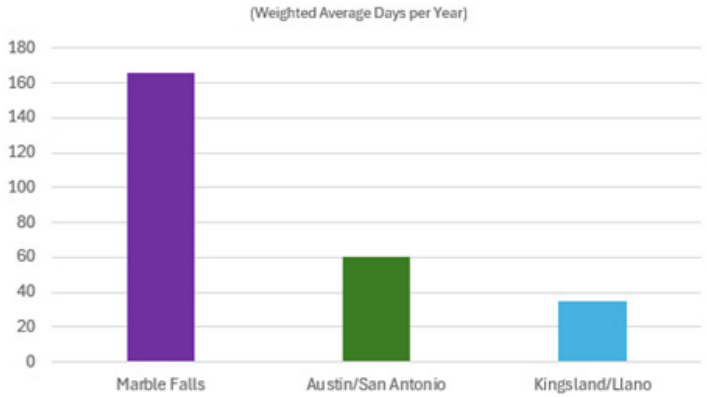

What is your satisfaction with roadway maintenance?
(1 = Very Unsatisfied, 10 = Very Satisfied)




RESIDENTS ARE **VERY SATISFIED** WITH THE **QUALITY OF ROADWAY MAINTENANCE** BY THE CITY.

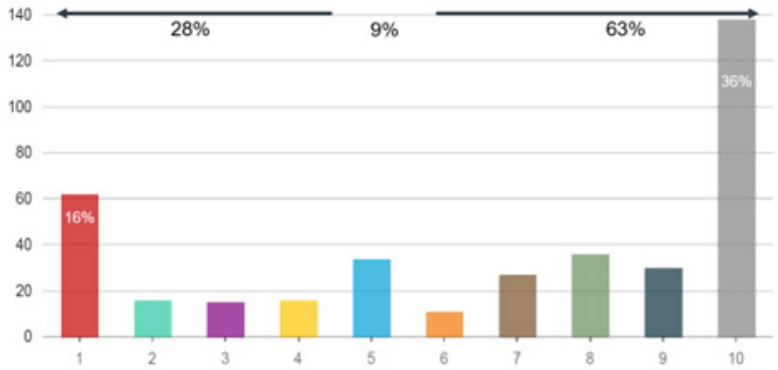
RESIDENTS TRAVEL **OUTSIDE OF HORSESHOE BAY TO MARBLE FALLS** ON AVERAGE OF **THREE TO FOUR TIMES PER WEEK.**

What are your most frequent destinations outside of Horseshoe Bay?



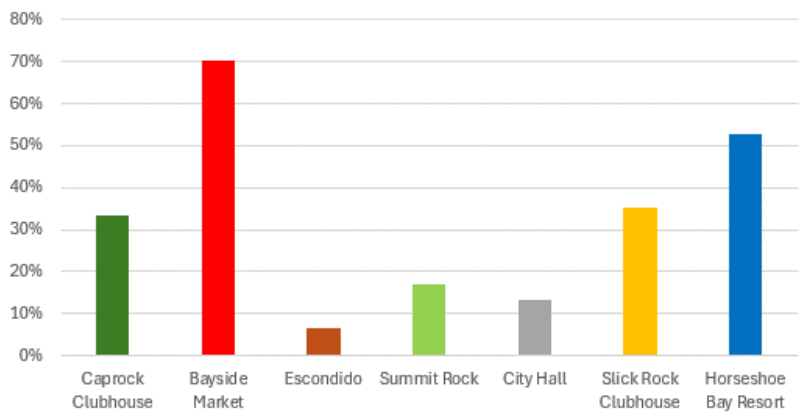

**OVER 60% OF RESPONDENTS STATED THAT SHARED USE PATHS WERE IMPORTANT TO THEM WITH 36% STATING IT AS VERY IMPORTANT.**

How important to you are SUPs (trails) to use as a pedestrian, bicyclist, golf cart?
(1 = Not Important, 10 = Very Important)




**CONNECTIVITY** TO **CAPROCK, BAYSIDE MARKET, HORSESHOE BAY RESORT,** AND **SLICK ROCK** WERE RATED **TOP PRIORITY.**

If the City were to implement SUPs, what destinations are most important?




RESPONDENTS INDICATED A TOP PRIORITY TO BE IMPLEMENTATION OF SHARED USE PATHS IN ORDER TO PROVIDE A CONVENIENT AND SAFE WAY TO TRAVEL WITHIN THE CITY.

## Public Meetings

The first public meeting to develop a SUP plan was held on May 9, 2023, at City Hall. TAC members and City officials met with citizens and answered questions related to a proposed first phase of a SUP plan for the City to improve mobility. A PowerPoint presentation and exhibits were prepared for the meeting to show the extent of the draft SUP plan. A question-and-answer session was held at the meeting and the TAC received public comments both in oral and written form. This public meeting was in response to an opportunity for the City to apply for grant funds associated with the Transportation Alternatives Grant Program administered by the Texas Department of Transportation (TxDOT). This program largely provides funding for projects that improve pedestrian and bicycle mobility and connectivity in communities as an alternative to vehicles on roadways.

The draft SUP plan was revised in response to public comments and presented to the City Council on May 16, 2023, for adoption. The City Council adopted the SUP plan, and it was presented as part of the Transportation Alternatives Grant Program application. During much of 2023, the TAC focused on preparation

of a competitive grant application for the Transportation Alternatives Grant Program. Following completion of the grant application, the TAC went back to work on the overall components of the TP.

On September 13, 2023, the TAC participated in the City's Town Hall that was held at Horseshoe Bay Resort. TAC members manned a display station with various proposed transportation planning concepts to interact with citizens and receive input.

A second official public meeting was held on February 7, 2024, at City Hall to receive input on proposed concepts for the TP that were developed by the TAC. A PowerPoint presentation was delivered by the TAC at the public meeting followed by a question-and-answer session to receive input from citizens.

Exhibits of various concepts for improvements and large-scale aerial maps were displayed and breakout sessions were held after the presentation and question-and-answer session. Various TAC members manned the breakout displays to answer questions and receive input.

A number of comments were received during the question-and-answer session and written comments were received following the meeting. Comment forms were also provided at the public meeting for people to voice their concerns and share input with the TAC.

**FM 2147 at Thanksgiving Mountain Rd.**
**Horseshoe Bay, Texas**

# 3› Existing Conditions

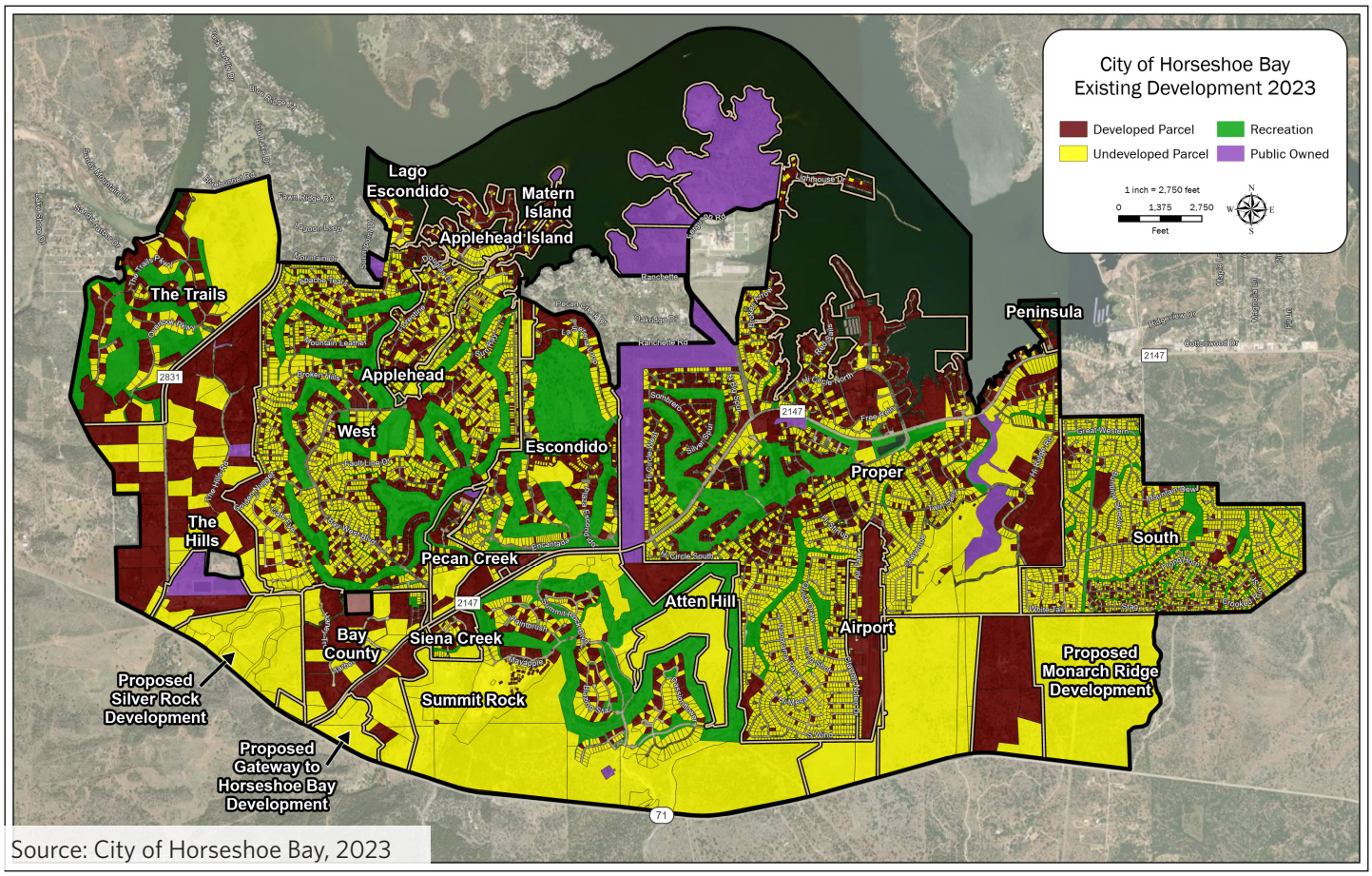
## Horseshoe Bay Overview

Horseshoe Bay is located in the southeastern corner of Llano County and the southwestern portion of Burnet County, approximately five miles southwest of Marble Falls and 50 miles west of Austin in the Central Texas Hill Country. It spans across the southwest shoreline of Lake LBJ. The land that is now the City was originally a ranch that was developed by cousins Wayne and Norman Hurd in 1972.

During the next 20 years, the community grew to a population of 1,546 and primarily served retirees and resort visitors. The population grew to 3,337 by the year 2000. The local residents incorporated as a city in 2005 largely utilizing the boundaries of the original municipal utility district that was formed for the development. In 2010, the population was reported to be 3,418 according to the U.S. Census, which was relatively small growth from the previous 10 years. In 2020, the U.S. Census measured the population to be 4,257, which was about a 25% increase from 2010 and approximately a 2.2% annual compounded growth rate. While the 4,257 population represents the full-time residents of the City, the City staff estimate that the population is near 7,500 including part-time residents.

## Land Use

Most of the land within the City has been platted for development. There is a total of 8,291 acres within the City's corporate limits, and most of the that area is designated for residential development. Approximately 1,378 acres (17%) are utilized for recreational use (golf courses, parks, green belts, etc.). Approximately 2,264 acres (27%) are developed as single-family residences, multi-family residences, or commercial and office facilities. The remaining balance of area is comprised of public land, including land owned by the Lower Colorado River Authority (LCRA) and City of Horseshoe Bay for public facilities and roadway right-of-way.

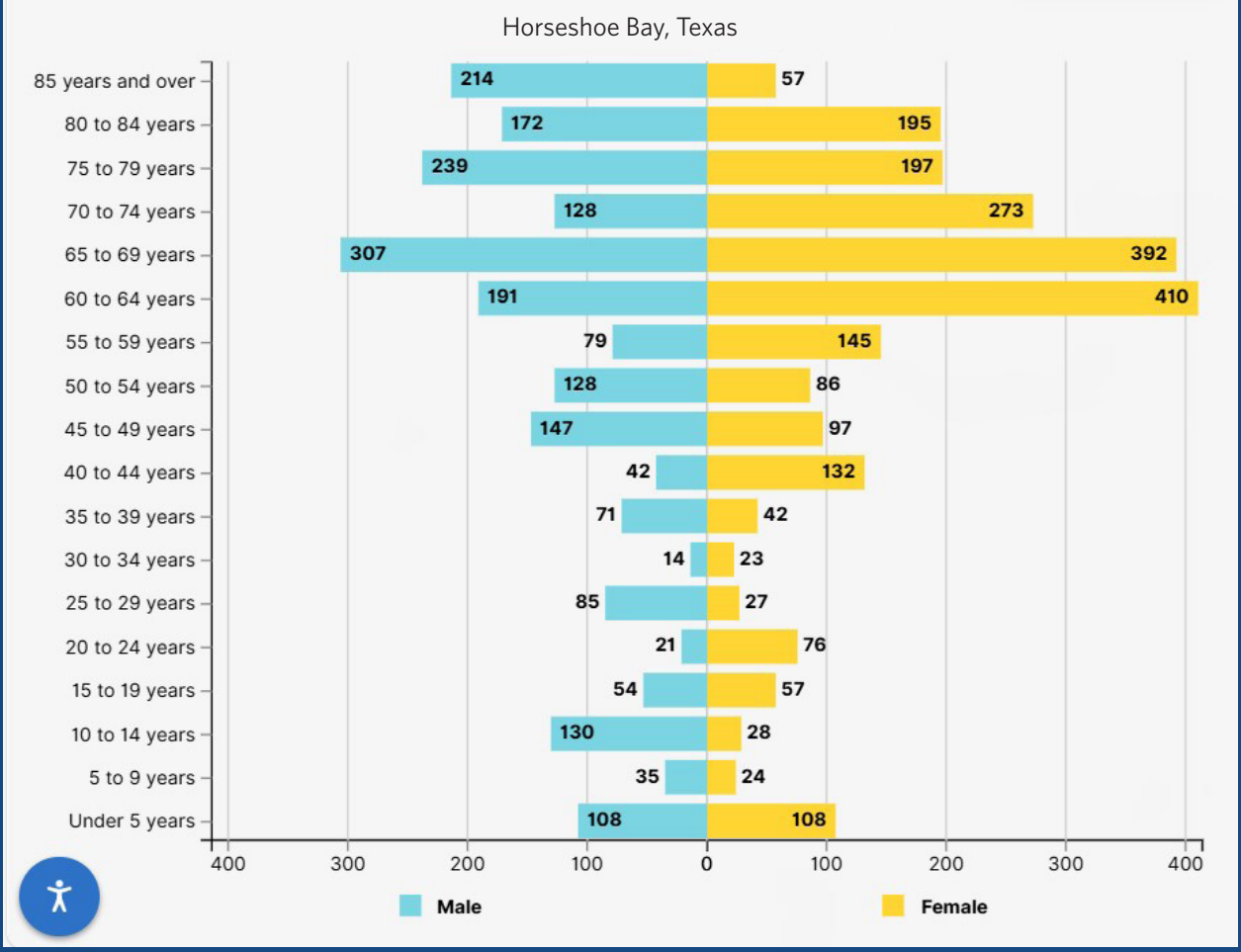



Source: City of Horseshoe Bay, 2023

## Demographics

The median age in Horseshoe Bay was 65.3 in 2020. Employment was at a rate of 42.1% which is a reflection of the large percentage of retirees within the City. The City contains a rather well educated population with over 50% of the population having an associates or college degree.

Household income in Horseshoe Bay is relatively high, with a median household income of $90,556 which is almost 50% higher than the national median of $63,179.



## Roads

### Roadway Classifications

Roadways are classified for specific uses within the transportation network. The City of Horseshoe Bay defines four types of classifications within its roadway system.

DEFINING HOW A ROADWAY WILL FUNCTION HELPS PLANNERS **PLAN A NETWORK** THAT OPERATES **MORE EFFICIENTLY**, **WITH MORE CONNECTIVITY, AND MORE SAFETY.**

SH-71

FM 2147

### Highways

Intended to move high volumes of automobile traffic at relatively high speeds over long distances, highways have managed access to help maximize traffic flow and safety. Highways' primary function is to connect local areas to other regions, rather than serve local traffic needs. Currently, SH-71 provides access directly to Austin and to SH-281 with access to San Antonio and Marble Falls as well as west to Llano.

### Arterials

These are continuous routes whose function is to serve high volume needs of local traffic and regional traffic. Speeds are relatively high on arterial streets, and access is controlled by planning the locations of intersecting streets, left turn lanes, traffic signals and driveways. Arterial roads will function more efficiently when the number and location of median breaks and driveway cuts are managed. Arterial streets provide connectivity across the transportation network, so it is best practice to consider modes along these streets. Due to the high automobile speeds, protective measures should be established for cyclists and pedestrians along these routes. In Horseshoe Bay, FM 2147 and FM 2831 are arterials.

Bay West Blvd.

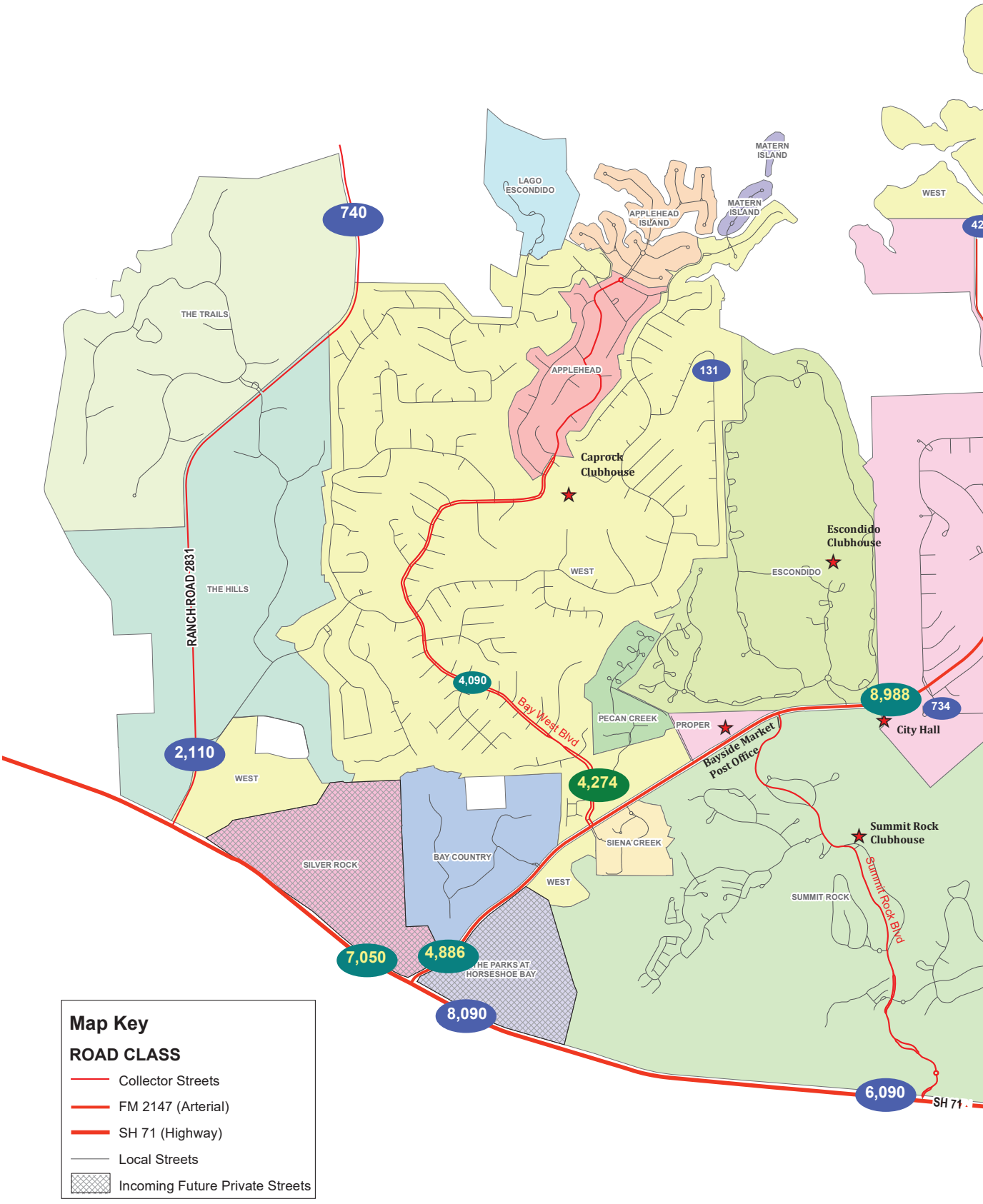
Typical Residential Street

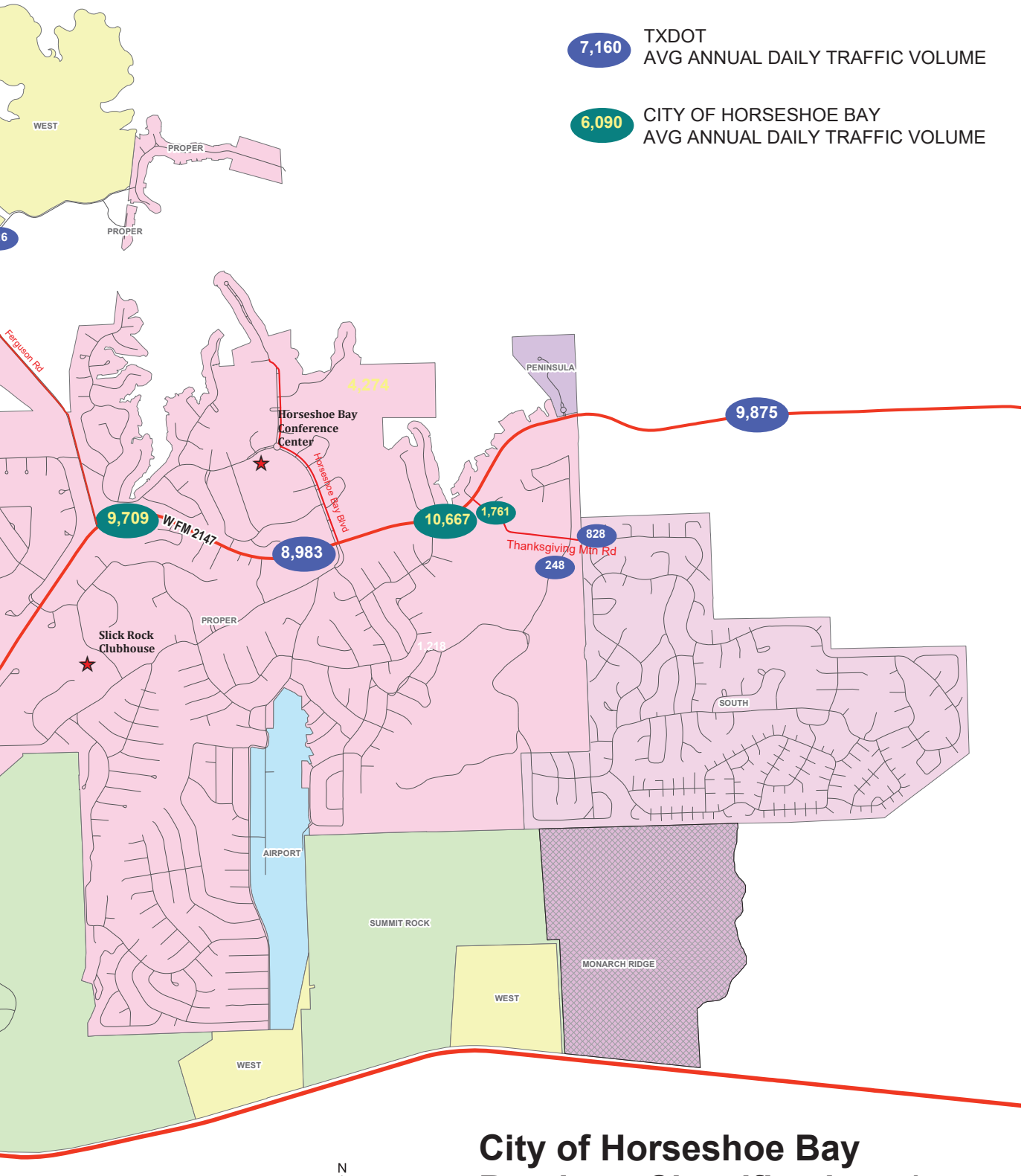
### Collectors

Designed for medium volumes of vehicles operating at lower speeds (i.e., 30 – 35 mph), collectors provide access and movement within residential and commercial areas. Direct access to higher intensity development, such as commercial, places of worship, and multi-family uses calls for lower speed limits on collectors than arterials due to more turning movements. Slower speed limits increase safety. Direct access to single-family development is generally not encouraged, with access from local streets being preferred. Examples of collectors in Horseshoe Bay would include Bay West Blvd., Horseshoe Bay Blvd., Summit Rock Blvd., Thanksgiving Mountain Rd., and Ferguson Rd.

### Local Streets

Local streets give access to smaller, often destination-oriented areas, such as neighborhoods, subdivisions, or local business districts. Pedestrian activity can be expected to be higher on local streets, while traffic volumes are lower, so lower speed limits are appropriate. Because local streets are intended to carry traffic off of the main transportation network rather than through it, these streets generally do not travel across districts and usually are more residential in character. Most of Horseshoe Bay's streets will fall into the local streets classification.


740
LAGO ESCONDIDO
MATERN ISLAND
APPLEHEAD ISLAND
MATERN ISLAND
WEST
THE TRAILS
APPLEHEAD
131
Caprock Clubhouse
Escondido Clubhouse
ESCONDIDO
WEST
THE HILLS
RANCH ROAD 2831
4,090
Bay West Blvd
PECAN CREEK
PROPER
8,988
734
City Hall
Bayside Market Post Office
2,110
WEST
4,274
Summit Rock Clubhouse
SIENA CREEK
SILVER ROCK
BAY COUNTRY
WEST
SUMMIT ROCK
Summit Rock Blvd
7,050
4,886
THE PARKS AT HORSESHOE BAY
8,090
6,090
SH 71
Map Key
ROAD CLASS
Collector Streets
FM 2147 (Arterial)
SH 71 (Highway)
Local Streets
Incoming Future Private Streets




# City of Horseshoe Bay Roadway Classifications / Traffic Volume Data

## Major Roads

The primary transportation network within the City of Horseshoe Bay was largely in place when the City was incorporated in 2005. As growth in Horseshoe Bay has increased, some facilities have been upgraded and some new roads have been added. There are three major roads within the City of Horseshoe Bay. These roads are maintained by TxDOT.

### State Highway 71

Maintained by TxDOT, SH-71 is a major highway that serves travel and freight needs generally from west to east on the fringe of Horseshoe Bay. In the vicinity of Horseshoe Bay, SH-71 has a speed limit of 70 mph. Within the jurisdiction of the City of Horseshoe Bay, it is a 2-lane facility with wide shoulders (with center turn lane at intersections) that provides access to the City, at its junction with FM 2147 and Summit Rock Blvd. The highway is the main connection from Horseshoe Bay to Austin. SH-71 also is the connection to the area's major hospital

FM 2147 at Bayside Market Complex

SH-71 east of Horseshoe Bay

(Baylor Scott & White) on SH-71, approximately 6.5 miles from the FM 2147 intersection in Horseshoe Bay. SH-71 also provides direct connectivity west to the county seat, City of Llano. Just east of Horseshoe Bay, US 281 provides connectivity to San Antonio and Marble Falls. In year 2022, the annual average daily traffic (AADT) volume on SH-71, just east of FM 2147, was 8,090 vehicles per day.

### FM 2147

FM 2147 is a 2-lane roadway with wide shoulders, a center turn lane, and a speed limit of 45 mph that is maintained by TxDOT. It is a major arterial that serves as west-east connectivity through the center of Horseshoe Bay. FM 2147 connects from SH-71, on the west side of the City, to US 281 in Marble Falls northeast of the City. Within the City, it provides connectivity from Horseshoe Bay West to Horseshoe Bay Proper, including the areas in between such as Summit Rock Blvd., Escondido, and commercial areas, government facilities, and neighborhoods on the north and south side of the City. It is the primary connection to Marble Falls and Cottonwood

Shores northeast of Horseshoe Bay. The FM 2147/SH-71 intersection is the only signalized intersection in Horseshoe Bay. In 2022, the annual average daily traffic (AADT) volume on FM 2147, between Bay West Blvd. and Horseshoe Bay Blvd., ranged from 8,983 to 10,667 vehicles per day. Due to the traffic generation from neighborhoods and commercial and recreational facilities, the volume of traffic on FM 2147 was actually higher than that on SH-71.

FM 2831 north of SH-71

## THE **PRIMARY TRANSPORTATION NETWORK** WITHIN THE CITY OF HORSESHOE BAY WAS LARGELY IN PLACE WHEN THE CITY INCORPORATED IN 2005.

### RM 2831

RM 2831 is an arterial that serves a small portion of the far west side of Horseshoe Bay. RM 2831 has direct connectivity to SH-71 and serves Horseshoe Bay as the primary access for residential subdivisions, including The Hills and The Trails. It has a total length of approximately 5.5 miles and serves the Blue Lake and Deer Haven communities at the far north end. In 2022, the AADT volume on FM 2831 was approximately 2,110 vehicles per day near SH-71, reducing down to 740 vehicles per day near the Blue Lake and Deer Haven communities.

### Residential Collectors

There are several residential collectors throughout Horseshoe Bay providing connection to SH-71 and FM 2147, and neighborhoods, commercial and recreational areas, and churches throughout the City. These collectors generally have speed limits of 30 mph and include streets that are divided with a center median and large width streets without a center median. Residential collectors in the City of Horseshoe Bay include:

- **Bay West Blvd.** – connects to FM 2147 and includes a 21-ft wide paved section in each direction with a center landscaped median. Bay West Blvd. serves as the primary connection for the Horseshoe Bay West neighborhoods, including Pecan Creek, Applehead, Applehead Island, Lago Escondido, and Matern Island. It also serves as the primary access to the Apple Rock and Ram Rock Golf Courses and Caprock Clubhouse and Restaurant. AADT was measured as approximately 4,274 vehicles per day in 2022.

Bay West Blvd. north of FM 2147

Summit Rock Blvd.

- **Summit Rock Blvd.** – connects FM 2147 to SH-71 and includes a center landscaped median for most of its length. Summit Rock Blvd. serves as the primary connection to Summit Rock Golf Course and to a number of bordering neighborhoods, including Summit Rock, Tuscan Village, Golden Bear, The Overlook, and Foothills at Stable Rock. Summit Rock Blvd. is a privately maintained roadway. There are no traffic count volumes available for Summit Rock Blvd.
- **Horseshoe Bay Blvd. -** connects FM 2147 to the Horseshoe Bay Resort and Conference Center, Marina, Yacht Club, and to large multi-family condominiums (Waters), and residential areas. It includes a roundabout intersection near the Horseshoe Bay Resort and Conference Center. It also is the only street in Horseshoe Bay currently with a striped bicycle lane. There is no traffic count data available for Horseshoe Bay Blvd.
- **Thanksgiving Mountain Rd. –** connects FM 2147 to Horseshoe Bay South. It includes a 2-lane paved section near FM 2147. It includes a total width of approximately 20ft at the southern end. It is the primary access for residences in Horseshoe Bay South. It also serves as the primary route to two large churches in Horseshoe Bay, the Church of Horseshoe Bay and St. Paul the Apostle Catholic Church. AADT was measured as approximately 1,781 vehicles per day near FM 2147.
- **Ferguson Rd. –** connects FM 2147 to Lighthouse Island and LCRA's Ferguson Power Plant. Ferguson Rd. is also a connection to the west end of Horseshoe Bay Proper (Hi Circle N) and is the primary access to the Oak Ridge Neighborhood.

Horseshoe Bay Blvd. Roundabout

Horseshoe Bay Blvd.

## Safety

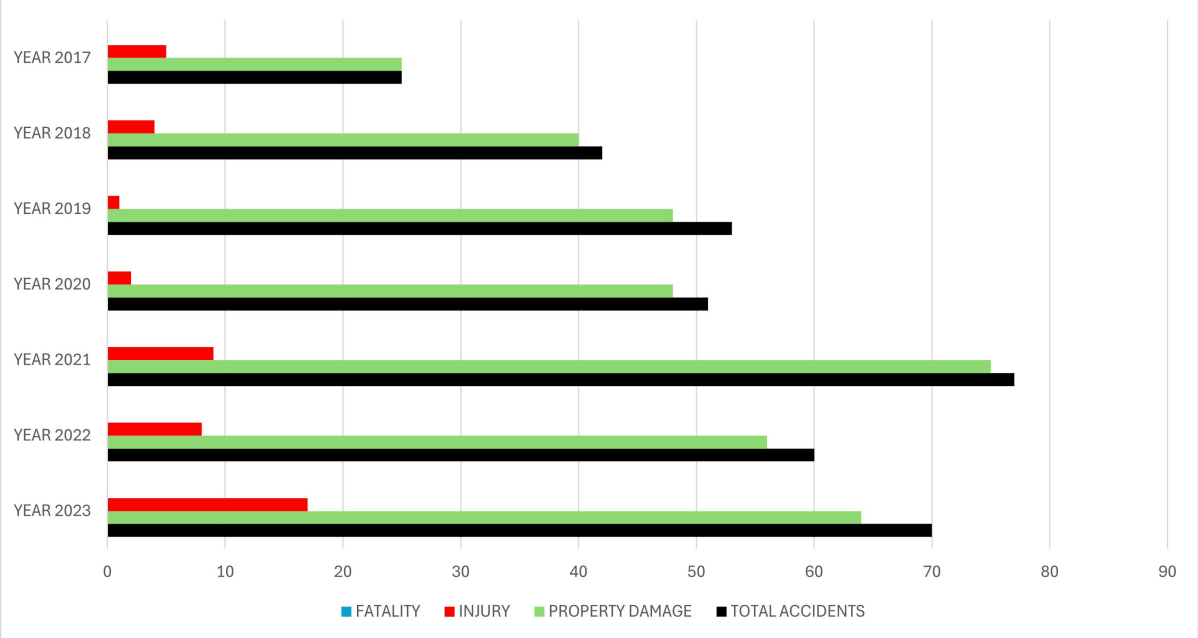
Safety was identified as a top priority in the LRP and during public meetings. Therefore, data on accidents over the last several years was researched to attempt to identify specific areas the TP should focus on.

## Crash Data

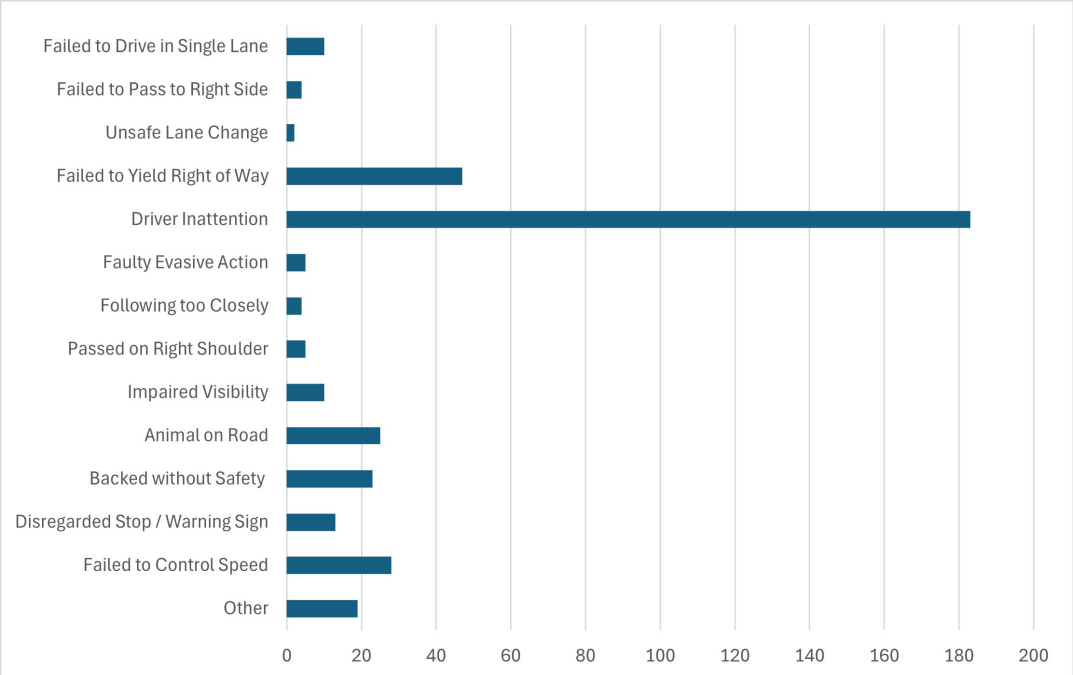
Analysis of crash data for this TP included incidents in Horseshoe Bay reported from 2017 through 2023. Data was obtained from TxDOT Crash Records Information System (CRIS) database. There were no reported fatalities within the 7-year period analyzed, which is likely a reflection of the lower speed limits on most of the roadways within Horseshoe Bay.

Of the total 378 crashes within Horseshoe Bay's city limits, severity information was available for 359 of the crashes, with severity information missing for 19 crashes (5%). There were 46 crashes (12%) that reported injuries. In reviewing the crash data, there was not one specific area that stood out with a concentration of accidents. The accident locations were distributed throughout the City. As would be expected, there was a slight concentration of accidents reported at the major intersections along FM 2147. Those intersections included FM 2147 at Horseshoe

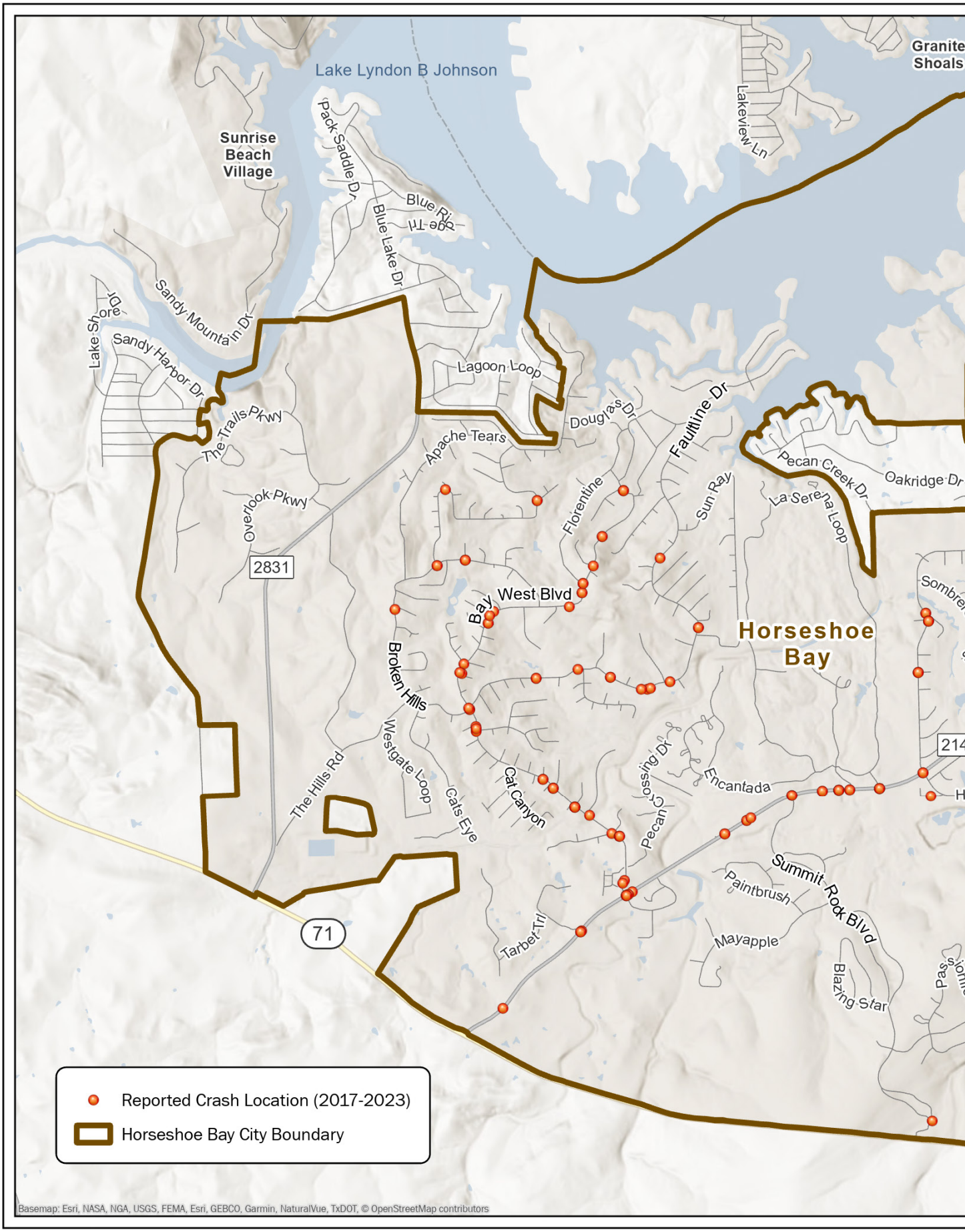
## Reported Crashes **by Severity** 2017-2023

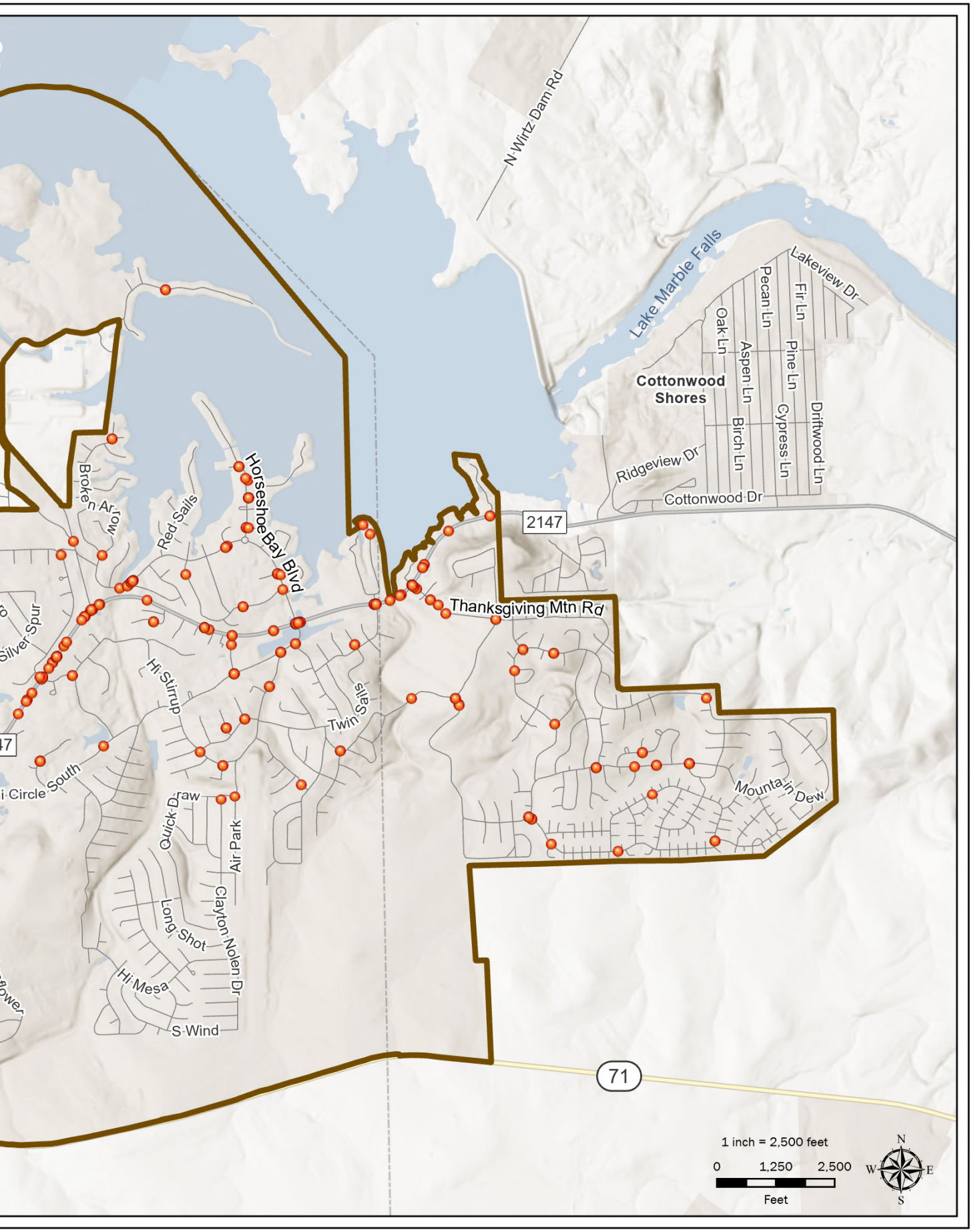



## **Cause** of Accidents 2017-2023




**DRIVER INATTENTION** IS THE **LEADING CAUSE** OF ACCIDENTS IN HORSESHOE BAY.


Lake Lyndon B Johnson
Granite Shoals
Sunrise Beach Village
Pack Saddle Dr
Blue Ridge Trl
Blue Lake Dr
Lakeview Ln
Lake Shore Dr
Sandy Mountain Dr
Sandy Harbor Dr
Lagoon Loop
The Trails Pkwy
Apache Tears
Douglas Dr
Faultline Dr
Pecan Creek Dr
Oakridge Dr
La Serena Loop
Sun Ray
Florentine
Overlook Pkwy
2831
West Blvd
Bay
Horseshoe Bay
Broken Hills
Westgate Loop
The Hills Rd
Cats Eye
Cat Canyon
Crossing Dr
Pecan
Encantada
214
Summit Rock Blvd
Paintbrush
Mayapple
Blazing Star
Tarbet Trl
71
Reported Crash Location (2017-2023)
Horseshoe Bay City Boundary
Basemap: Esri, NASA, NGA, USGS, FEMA, Esri, GEBCO, Garmin, NaturalVue, TxDOT, © OpenStreetMap contributors


N Wirtz Dam Rd
Lake Marble Falls
Lakeview Dr
Fir Ln
Pecan Ln
Oak Ln
Pine Ln
Aspen Ln
Cypress Ln
Birch Ln
Driftwood Ln
Cottonwood Shores
Ridgeview Dr
Cottonwood Dr
2147
Thanksgiving Mtn Rd
Horseshoe Bay Blvd
Broken Arrow
Red Sails
Silver Spur
Hi Stirrup
Twin Sails
Quick Draw
Air Park
Long Shot
Clayton Nolen Dr
Hi Mesa
S Wind
Mountain Dew
71
1 inch = 2,500 feet
0
1,250
2,500
Feet
N
W
E
S

Bay Blvd., Ferguson Rd., Big Spur, and Bay West Blvd. Driver inattention was the primary factor contributing to accidents in the City.

## Roadway Maintenance and Improvements

Overall, as indicated by the survey responses, Horseshoe Bay residents are very satisfied with the level of service for roadway maintenance. Most of the roadways in Horseshoe Bay are residential streets, and maintenance is managed by the City's Public Works Department. There are some residential streets that are privately owned and maintained. This would include streets behind a security gated entrance such as Applehead Island, Escondido, Lago Escondido, Bay Country, The Trails, and Matern Island among others. Summit Rock Blvd. is also a privately maintained roadway within Horseshoe Bay. The other major roadways in Horseshoe Bay such as FM 2147 and FM 2831 are owned and maintained by TxDOT. Maintenance of TxDOT roadways in the Horseshoe Bay area are managed by personnel at its Llano Maintenance Facility.

The City of Horseshoe Bay has had an ongoing program to upgrade the streets in the City for many years. When the streets in Horseshoe Bay were originally constructed, they were constructed with a chip seal pavement surface. Chip seal paving is a process where a thin layer of heated asphalt liquid is applied to the road base surface. Small crushed stones ("chips") are spread uniformly on top of the asphalt liquid and compacted for adherence to the surface. Chip seal is a less expensive pavement process than a conventional hot mix asphalt concrete (HMAC) surface and the life span is limited. Over time, the City has improved many of the chip seal streets by rehabilitating the base course layer and adding a conventional HMAC surface with 18-inch wide concrete ribbon curb borders. The City's policy has been to rehabilitate a chip seal street once the density of homes reaches 15 houses per mile. At that point, the street will be considered for upgrade to the HMAC surface with concrete ribbon curbs. This has been a successful program and has met or exceeded the expectations of the community.

Chip Seal Street in Horseshoe Bay

Improved HMAC Residential Street in Horseshoe Bay

## Pedestrians, Bicycles & Golf Carts

Public comment and the results of the citizen survey showed strong support for providing improvements to allow more convenient and safe pedestrian, bicycle, and golf cart mobility within the City. In the late 1970s when the community was originally planned, it did not include neighborhood walkability or separate routes for trails in the plan. It was not part of the original concept. But, as time as passed and the community has grown, the desire to have neighborhood walkability and designated bicycle and golf cart paths has become apparent.

Today, we observe a number of citizens walking on existing streets for recreation and fitness. Bicycle and golf cart traffic is increasing. There are a large number of golf carts owned and operated within the City (over 700 privately owned golf carts paying trail fees) and golf course activity is growing. A number of citizens drive their golf carts from their residences to the golf courses; and there are many others that utilize their golf carts recreationally within their neighborhoods and to travel to nearby key destinations. Pedestrians, bicyclists, and golf carts share the streets (including residential collectors) with vehicles. Conflicts are expected to increase as the population increases. Historic crash data does not demonstrate vehicular crashes with pedestrians, bicyclists, or golf carts; however, citizens reported numerous near misses in the public meeting and comments. These conflicts were primarily reported on the residential collector streets, such as Bay West Blvd.

## Horseshoe Bay Airport

The Horseshoe Bay Airport is located on the east side of the City and owned and operated privately by Horseshoe Bay Resort. The airport provides an important function for direct access to Horseshoe Bay for private and commercial aircraft. There is commercial access offered (primarily seasonally) for visitors to access Horseshoe Bay. The airport features the longest runway in the region, a 6,000-ft lighted runway and full-service private terminal that can accommodate personal and business aircraft up to a regional jetliner.

The airport is accessed primarily via Clayton Nolen Dr., across from Horseshoe Bay Blvd. and Hi Stirrup St. The airport is a unique asset for the community and serves an important function for access to Horseshoe Bay; however, it is not a large traffic generator for the roadways within the City.

Applehead Island
Horseshoe Bay, Texas


DUPONT
Tyvek
HomeWrap
Trubord
MADE IN USA

# 4 Growth Forecasts

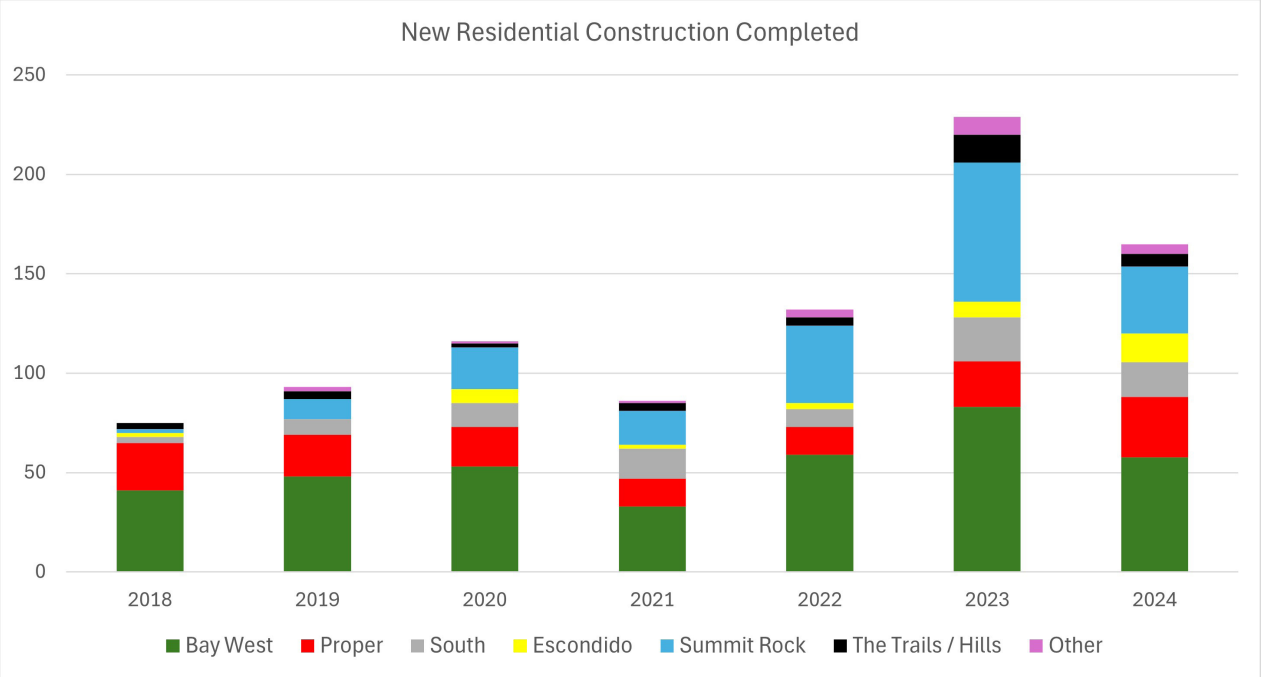
The City of Horseshoe Bay has steadily grown over the years since its inception, but has experienced an increase in growth rate in recent years. U.S. Census Data is only available for 2010 and 2020. In 2010, the population of the City was reported to be 3,418 and in 2020, the population was reported as 4,257. The growth rate during this 10-year period averaged 2.2% per year. In the last seven years (2018-2024), the number of new single-family residences constructed has increased from 75 in 2018 to a high of 229 in 2023. A projection of 165 new single-family residences are expected to be completed in 2024. Today, there are approximately 4,500 single-family residences in Horseshoe Bay and over 250 multi-family residences. Many of these homes are not occupied by full time residents which accounts for the disparity between the population and the number of residences. Overall, the City has experienced an average annual growth rate of about 3.2% since 2018. The City has grown from approximately 3,620 individual residences at the beginning of 2018 to just over 4,500 residences today.

## Existing Development

The City of Horseshoe Bay corporate limits encompass a total area of 8,292 acres. Approximately 6,325 acres, or 76% of the total, consists of platted lots. Golf courses, green belt, and other recreational spaces account for 1,379 acres or 17% of the City's area. Public land owned by the City or the LCRA totals about 589 acres or 7% of the City. Today, there are a total of approximately 11,100 platted lots in the subdivisions in the City. Approximately 4,350 or 39% of those platted lots have been developed as of the end of 2023. The density of the development varies widely by subdivision.

## Horseshoe Bay Proper

Horseshoe Bay Proper is the largest subdivision in the City with 4,624 total platted lots or 42% of the platted lots in the City. About 50% of the



lots in Proper are developed; and most of the developed lots are on the north side of FM 2147 near the Horseshoe Bay Resort amenities, along the waterfront, and immediately surrounding Slick Rock Golf Course. There are a large number of lots in the southern section of Proper that are undeveloped. Horseshoe Bay Proper is served by a diverse number of residential streets that connect to FM 2147. The primary residential collector street in this area is Horseshoe Bay Blvd. Horseshoe Bay Blvd. is a divided street (landscaped median) with bicycle lanes in each direction. It serves as the primary access to the Horseshoe Bay Resort, Conference Center, and its many amenities, as well as multi-story, multi-family condominiums. Ferguson Rd. is a multi-lane residential collector that connects FM 2147 to the west side of Horseshoe Bay Proper, including Lighthouse Island. Thanksgiving Mountain Rd. is another residential collector street within the subdivision. Thanksgiving Mountain Rd. is a 2-lane roadway that intersects FM 2147 and is the primary access for the eastern portion of Horseshoe Bay Proper and the two largest churches in the City.

## Horseshoe Bay West

The Horseshoe Bay West area, including the West, Applehead, Applehead Island, Lago Escondido, Matern Island, and Pecan Creek subdivisions is the next largest area in the City. Combined, the Horseshoe Bay West area includes a total of 3,315 platted residential lots. Approximately 1,190, or 36%, of those lots are developed. The highest density of developed lots in the West area are those along the waterfront and bordering the golf course areas. A large volume of undeveloped lots (2,125) remain throughout the area. Horseshoe Bay West is accessed via Bay West Blvd. at FM 2147. Bay West Blvd. is a divided residential collector street with a center landscaped median. It carries a relatively high volume of traffic of over 4,000 vehicles per day.

## Horseshoe Bay South

Horseshoe Bay South is another area in the City with a high volume of residential lots. Horseshoe Bay South has a total of 2,025 lots. While Horseshoe Bay South covers a large area and has a large number of platted lots, only 273 lots, or 14%, of those lots are developed, primarily at the southern area of the subdivision where water and sewer service is available. Horseshoe Bay South is primarily accessed via Thanksgiving Mountain Rd. The traffic volume on Thanksgiving Mountain Rd. is relatively low at about 1,800 vehicles per day.

## Summit Rock

Summit Rock has approximately 470 platted residential lots in total. Over 50% (249) of those lots are developed today. The areas within Summit Rock include Tuscan Village, Golden Bear, Hidden Coves, Valley Knoll, The Overlook, Foothills at Stable Rock, and Atten Hill. In addition to these subdivisions, there are also large undeveloped areas within Summit Rock that may be platted and developed in the future. Summit Rock is accessed via Summit Rock Blvd. which is a private, divided residential collector that connects SH-71 to FM 2147. Summit Rock Golf Club, a private golf course and club house, is also accessed from Summit Rock Blvd. While Summit Rock is one of the fastest growing areas within Horseshoe Bay, there is a relatively low volume of traffic on Summit Rock Blvd.

## Escondido

Escondido is located in the center of the City with direct access to FM 2147. It has a total of 350 platted residential lots. Approximately 40%, or 138 homes, were developed at the end of 2023. Escondido includes a private golf course and club house. The streets within Escondido are privately maintained with a gated security entrance at FM 2147.

## The Hills / The Trails

The Hills and The Trails are two large acreage tract subdivisions located on the western edge

of the City. The primary access for these two subdivision is from RM 2831 that intersects SH-71 west of FM 2147. The Hills and The Trails have a total of about 230 platted residential lots, which are 60% developed with homes. Approximately 90 lots remain undeveloped in these two subdivisions. The streets within The Trails are privately maintained. The streets within The Hills are maintained by the City of Horseshoe Bay. The traffic volume on RM 2831 is relatively low with approximately 2,800 vehicles per day. In addition to The Hills and The Trails subdivisions in Horseshoe Bay, RM 2831 also provides access to the communities of Blue Lake and Deer Haven.

## New Developments

There are other areas within Horseshoe Bay that are planned for residential development. The larger areas that may soon be developed include Silver Rock (near FM 2147 and SH-71) and Monarch Ridge (on SH-71 in the southeast area of the City). There are also other planned residential areas in Summit Rock that are being platted. These areas are not likely to contribute traffic demand to the residential collector streets, but are expected to add traffic volume to FM 2147.

## Growth Projections

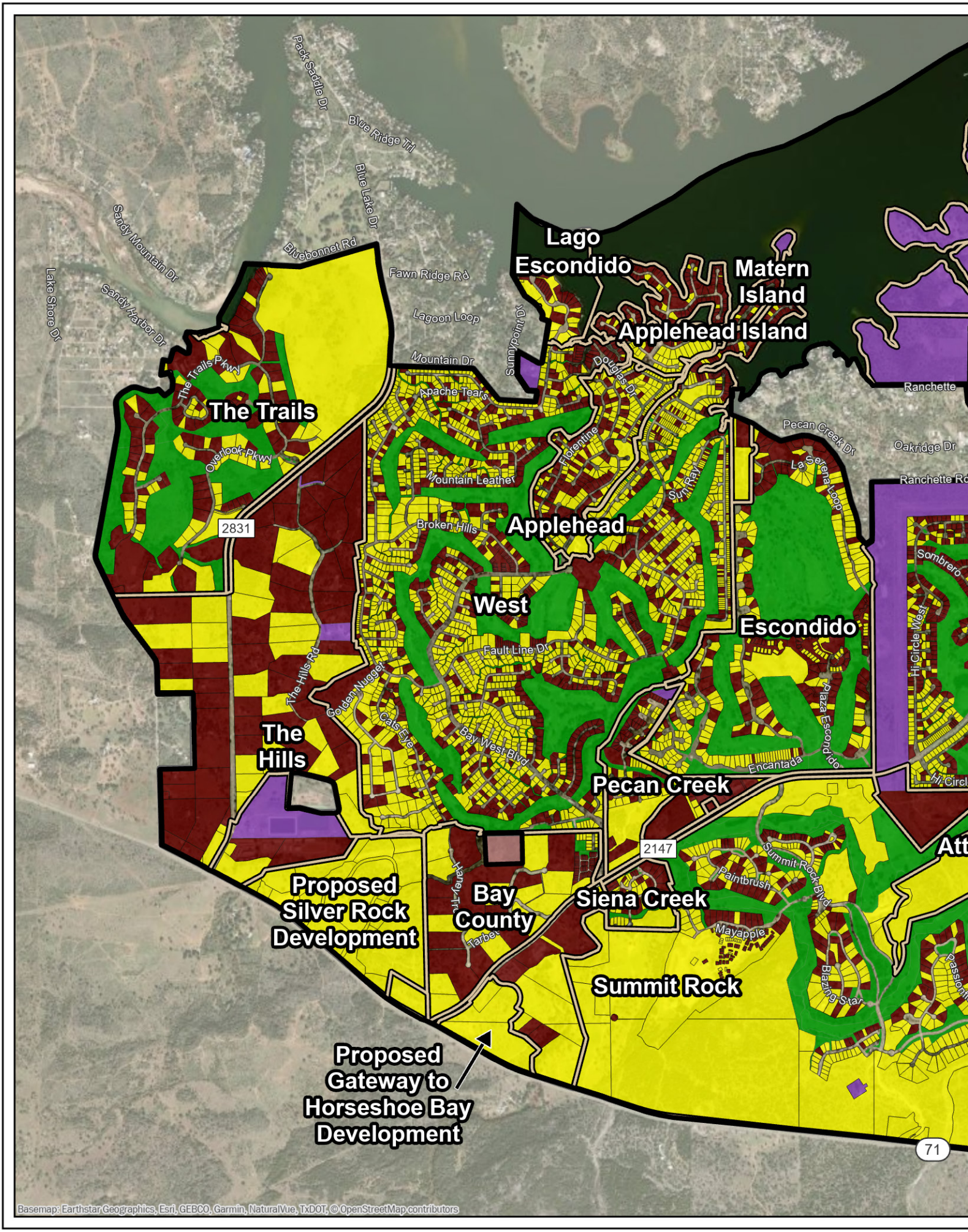
The City of Horseshoe Bay has experienced a moderate growth rate over the past few years. While there are over 11,100 single-family and multi-family lots in Horseshoe Bay today, there are still over 6,750 platted residential lots available for new residences. Additionally, there are large multi-floor, multi-family residential buildings under construction near Horseshoe Bay Resort. There is additional undeveloped land outside of the corporate limits, within the City's extra-territorial jurisdiction, that may be developed. The potential for growth in Horseshoe Bay will continue to be a significant issue for the City to manage, especially with regard to its infrastructure. The City is expected to be 2.5-times its current size when fully developed.

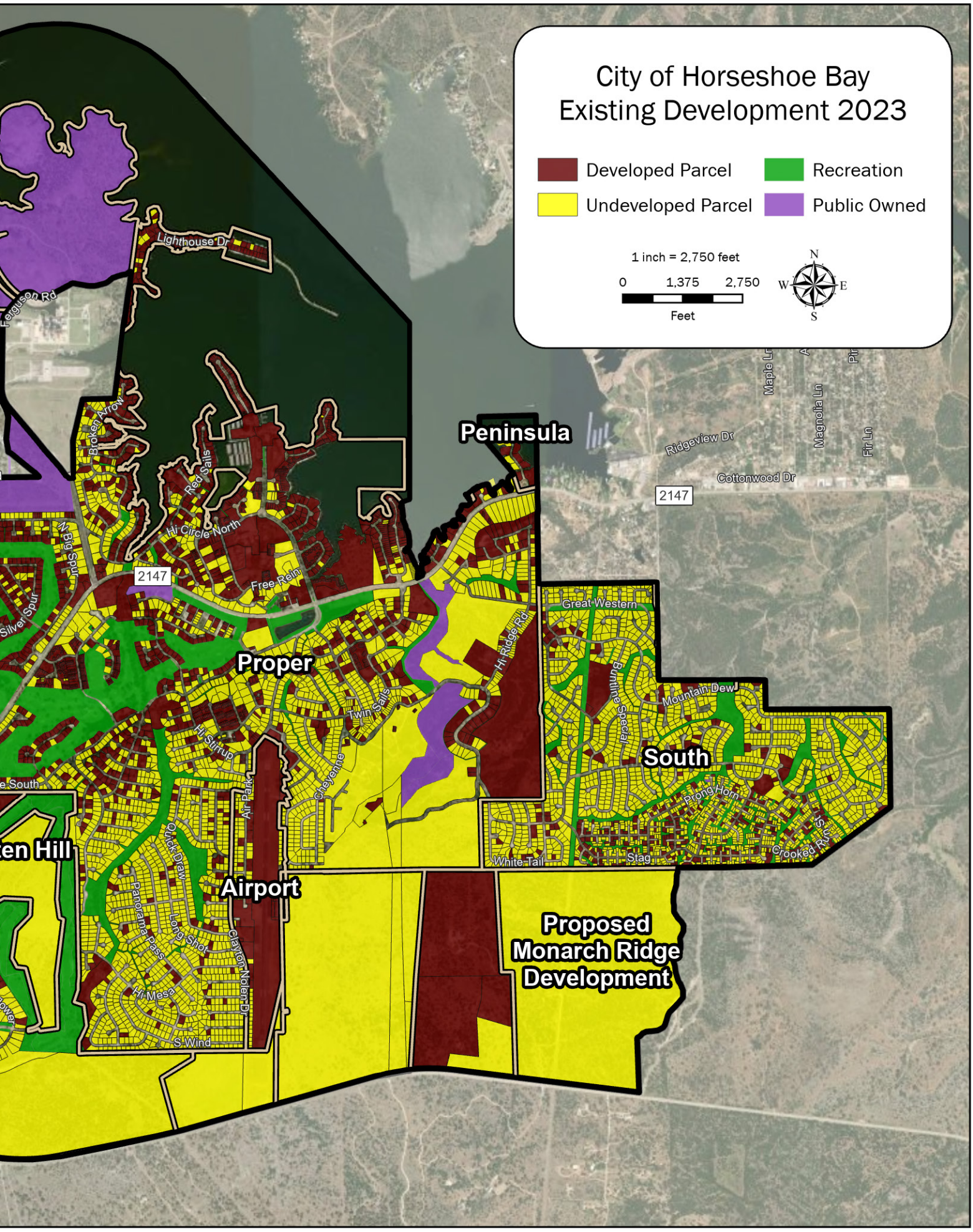
The potential or growth in new single-family and some multi-family residences is expected to continue; however specific areas within the City will likely grow at a faster pace than others. The potential for growth in new single-family residences is highest in Horseshoe Bay West, with over 1,900 lots (60%) of the total lots still available. This specific area is experiencing a growth rate over 5% per year. Horseshoe Bay West has grown from 885 residences in the beginning of 2018 to 1,260 residences today, averaging about 54 new residences per year.

Horseshoe Bay Proper has the largest number of undeveloped lots in the City with over 2,300 lots available for new residences. However, recent growth rate trends indicate a more modest growth rate in this area as most of the lots available in Proper are in the southern area, away from the resort and golf course area. Horseshoe Bay Proper is 50% developed, but has experienced a growth rate of about 1% since 2018, adding an average of 20 new homes per year. The geographic density of available lots in Proper suggest the growth rate will likely continue at this pace.

Summit Rock has approximately 470 residential lots in total with over 50% (249) of those lots developed today. Summit Rock has experienced by far the most rapid growth rate in the City at an annual growth rate of almost 22% per year. Summit Rock has added 188 new homes in the last seven years, averaging almost 28 per year over that time. Even if the growth rate slowed to 7% per year, the existing platted lots within the Summit Rock Subdivision would project to be built out in the next 10 years. There are also other large, undeveloped areas within Summit Rock that may offer an opportunity for additional lots to be platted.

Horseshoe Bay South also has a large number of residential lots available with approximately 1,750 lots remaining of the 2,025 total lots. However, many of the lots do not have sewer


Lago Escondido
Matern Island
Applehead Island
The Trails
Applehead
West
Escondido
The Hills
Pecan Creek
Proposed Silver Rock Development
Bay County
Siena Creek
Summit Rock
Proposed Gateway to Horseshoe Bay Development
Pack Saddle Dr
Blue Ridge Trl
Blue Lake Dr
Sandy Mountain Dr
Bluebonnet Rd
Fawn Ridge Rd
Lagoon Loop
Sunnypoint Dr
Lake Shore Dr
Sandy Harbor Dr
Mountain Dr
The Trails Pkwy
Overlook Pkwy
Apache Tears
Douglas Dr
Florentine
Mountain Leather
Sun Ray
Broken Hills
Ranchette
Pecan Creek Dr
Oakridge Dr
Ranchette Rd
La Serena Loop
Sombrero
Hi Circle West
Fault Line Dr
The Hills Rd
Golden Nugget
Cats Eye
Bay West Blvd
Plaza Escondido
Encantada
2831
2147
Haley Trl
Tarbet
Paintbrush
Summit Rock Blvd
Mayapple
Blazing Star
71
Basemap: Earthstar Geographics, Esri, GEBCO, Garmin, NaturalVue, TxDOT, © OpenStreetMap contributors

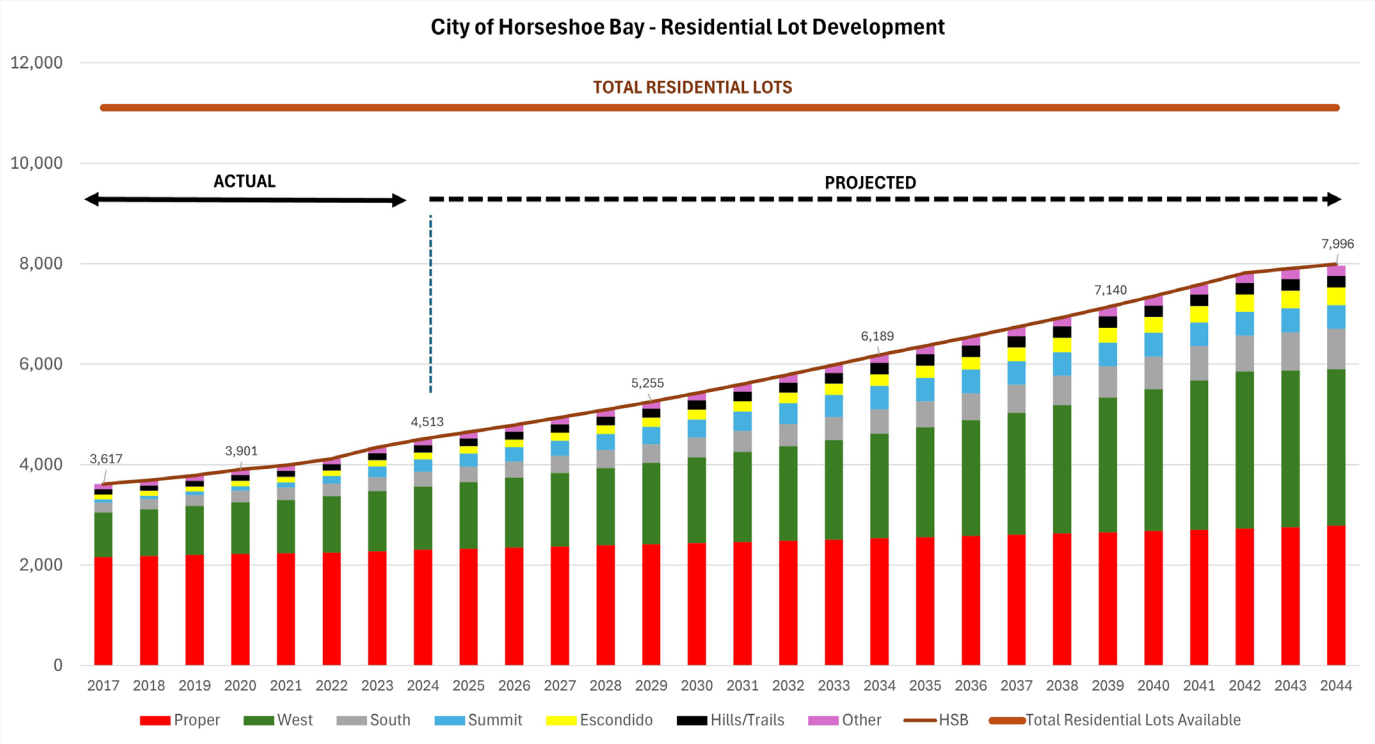

City of Horseshoe Bay
Existing Development 2023
Developed Parcel
Undeveloped Parcel
Recreation
Public Owned
1 inch = 2,750 feet
0
1,375
2,750
Feet
N
W
E
S
Peninsula
Proper
South
Airport
Proposed
Monarch Ridge
Development
Lighthouse Dr
Ferguson Rd
Broken Arrow
Red Sails
Hi Circle North
W Big Spur
Silver Spur
Free Rein
2147
Ridgeview Dr
Cottonwood Dr
Maple Ln
Magnolia Ln
Fir Ln
Great Western
Hi Ridge Rd
Twin Sails
Hi Surrup
Air Park
Cheyenne
Sunline Special
Mountain Dew
Prong Horn
Stag
White Tail
Crooked R
Quick Draw
Panorama Pass
Long Shot
Clayton Nolen Dr
Hi Mesa
S Wind

service which restricts their development potential. Of the total 2,026 lots in Horseshoe Bay South, only 292 or 14% are developed. Over the last seven years, Horseshoe Bay South has experienced a growth rate similar to Horseshoe Bay West at 5.2%, but only adding about 12 residences per year since 2018.

Escondido is expected to continue its 5% annual growth trend adding about five homes per year since 2018. Escondido has approximately 350 residential lots and it is currently about 40% developed with 138 homes. Based on the recent growth rate in Escondido, the subdivision is expected to be 65% developed within the next 10 years.

Large acreage tract subdivisions such as The Hills and The Trails have experienced a recent growth rate of 4.5%. The Hills and The Trails have approximately 230 lots combined, which are almost 60% developed. There are approximately 85 lots in The Hills and The Trails that are currently undeveloped. Based on the recent growth rate, these subdivisions are expected to be near fully built-out in the next 10 years.

Evaluating the existing development status and the recent growth rate trends of each subdivision area, the City overall is expected to continue at an average annual growth rate of just over 3% for the next 15 to 20 years to a point of being over 70% developed At that point, some of the higher growth subdivisions are projected to be fully developed and the growth rate is expected to slow to just over 1% per year. The graphic and table below illustrate the growth projections for the overall City within its existing corporate limits. It shows the breakdown of contribution of new residences by individual subdivision.



## Residential Lot Growth Projection Summary

| Subdivision | 2024 Developed Lots | Total Lots | % Developed | 2018-2024 Growth Rate | Total Developed Lot Projection | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 5-Year | | 10-Year | | 20-Year | |
| | | | | | Dev Lots | % Dev | Dev Lots | % Dev | Dev Lots | % Dev |
| Proper | 2,305 | 4,624 | 50% | 0.9% | 2,411 | 52% | 2,521 | 55% | 2,757 | 65% |
| Bay West[1] | 1,260 | 3,123 | 40% | 5.2% | 1,623 | 52% | 2,092 | 67% | 3,123 | 100% |
| South | 292 | 2,026 | 14% | 5.2% | 376 | 19% | 485 | 24% | 805 | 66% |
| Summit Rock | 249 | 473 | 53% | 22.2% | 473 | 100% | 473 | 100% | 473 | 100% |
| Escondido | 138 | 353 | 39% | 5.2% | 178 | 50% | 229 | 65% | 353 | 100% |
| The Hills/Trails | 143 | 228 | 63% | 4.4% | 177 | 78% | 220 | 96% | 228 | 100% |
| Other | 126 | 281 | 45% | 2.8% | 145 | 51% | 166 | 59% | 219 | 100% |
| TOTAL | 4,513 | 11,108 | 41% | 3.2% | 5,383 | 48% | 6,186 | 56% | 7,958 | 79% |

[1] Bay West includes West, Applehead, Applehead Island, Lago Escondido, Matern Island, Pecan Creek Subdivisions

### Traffic Volume Forecasts

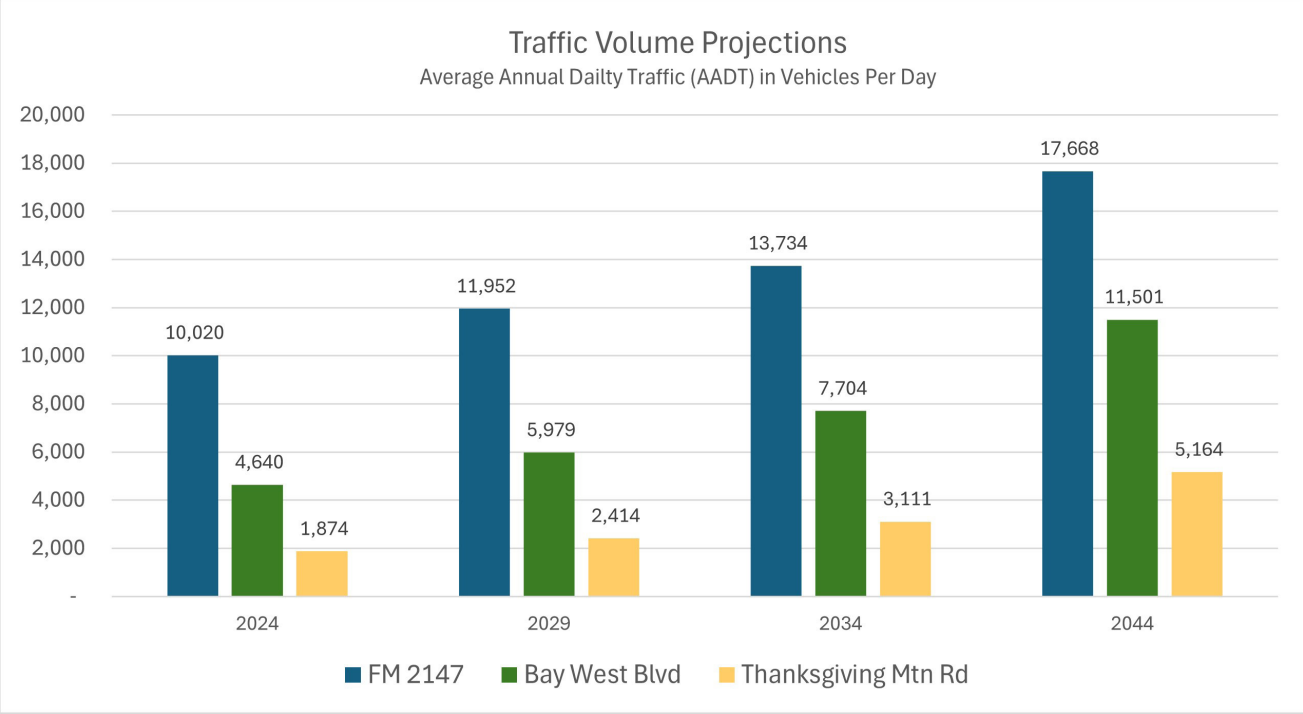
Traffic count data is available for some major roads, residential collectors, and a few isolated residential streets in Horseshoe Bay. However, with the exception of the major roadways, there is little to no historical data to analyze for traffic volume trends. In addition, some of the traffic counts in 2020 and 2021 are directly impacted by COVID-19, and a short-term drop in traffic resulted during this period. Therefore, it is difficult to analyze traffic count data to develop a projection of future traffic volumes within Horseshoe Bay.

Overall, the highest volume roadway in Horseshoe Bay is FM 2147, ranging between 8,983 to 10,667 AADT. Bay West Blvd. is the highest volume residential collector in Horseshoe Bay with an AADT of approximately 4,300 vehicles per day. These measurements were taken in January 2023, which is the period of time that generally represents the baseline traffic generation of permanent residents and does not reflect the traffic increase that the City experiences seasonally in the late spring and summer seasons.

In order to evaluate a projection of future traffic volumes for major roads and residential collectors in Horseshoe Bay, the recently recorded traffic count data along with the growth projection for new residences was utilized. For example, Bay West Blvd. is the primary access for the subdivisions in the Horseshoe Bay West area. As a result, the growth in new residences in that specific area were used to prorate the recent traffic count data to develop a projection in future years. Similar exercises were performed for Thanksgiving Mountain Rd. and Summit Rock Blvd. Horseshoe Bay Blvd. is also considered a residential collector in the City, but its traffic volume is governed more by the overall growth of the City and the seasonal increases in visitors to the Resort Hotel, Conference Center, and amenities. FM 2147 is the primary arterial through the City that its citizens utilize to travel to the various key destinations within

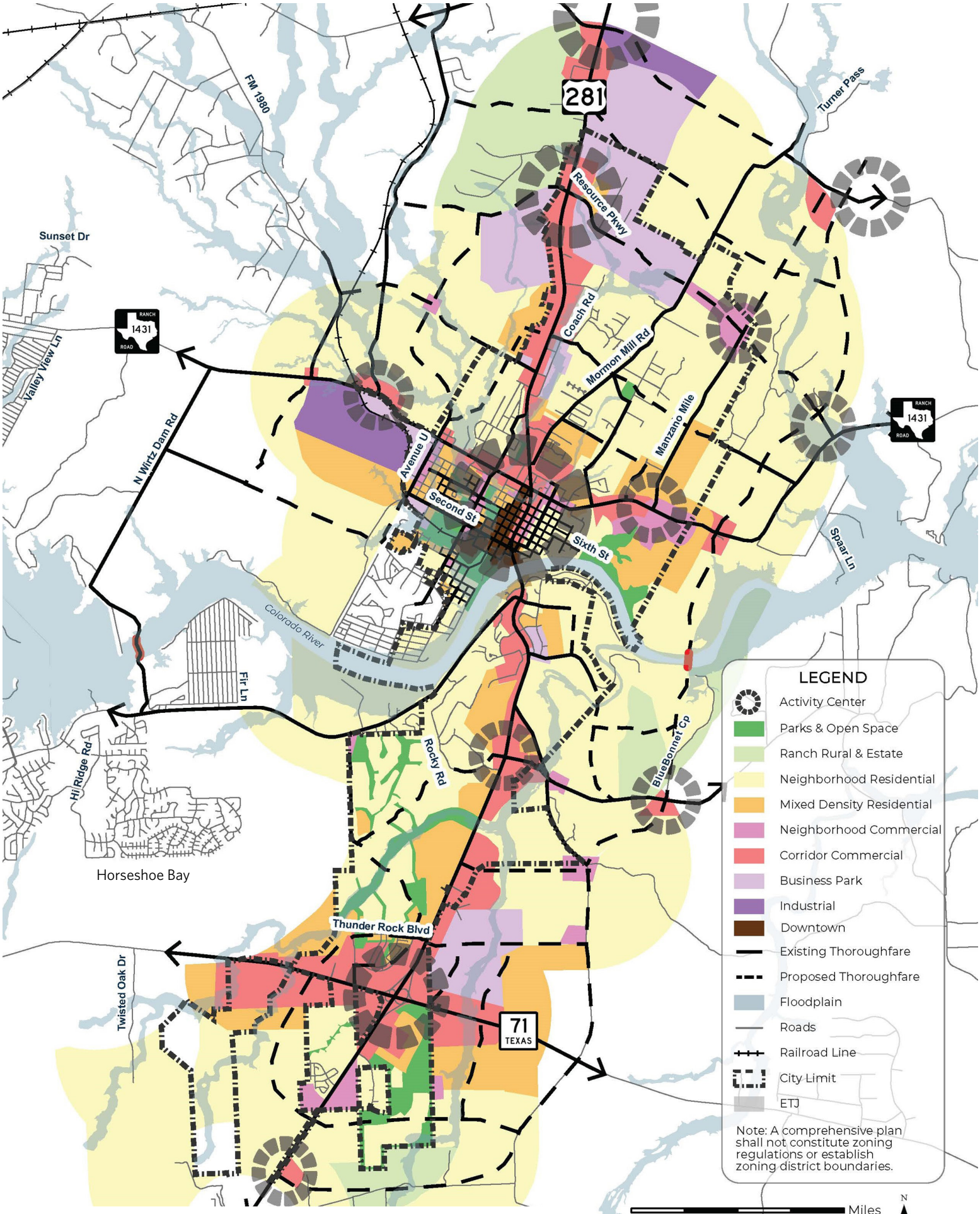
the City. Future traffic volume for FM 2147 was projected based on the overall growth rate of the City. It does not account for potential increase in through traffic that may result from regional impacts.

Based on the recent traffic counts and specific area growth projections, the traffic volume on FM 2147 is projected to increase from 10,020 AADT (2024) to 13,734 AADT in 10 years, an increase of about 37%. This accounts for traffic generation on FM 2147 only from within the City and does not include additional through traffic increase as a result of implementation of future regional projects, such as Wirtz Dam Rd. Bay West Blvd. is a residential collector that has the highest traffic volume in the City at over 4,600 AADT. It is located in one of the higher growth areas of the City. The growth in new residences in the Horseshoe Bay West area is expected to increase traffic proportionally. The growth rate over the last seven years has averaged 5.2% per year. Utilizing that growth rate trend results in a traffic increase on Bay West Blvd. from just over 4,600 AADT to 7,704 AADT in 10 years, a 67% increase. Traffic projections for Thanksgiving Mountain Rd. are expected to gradually increase as a result of growth in Horseshoe Bay South. The growth rate in Horseshoe Bay South has averaged about 5.2% per year. This results in a projected traffic volume increase on Thanksgiving Mountain Rd. from almost 1,900 AADT (2024) to approximately 3,100 AADT in 10 years.




TRAFFIC VOLUME ON FM 2147 IS EXPECTED TO INCREASE BY ALMOST 40% IN THE NEXT 10 YEARS.

**Caprock Clubhouse & Restaurant**
**Horseshoe Bay, Texas**




Base Map Source: City of Marble Falls, Comprehensive Plan, 2024

# 5› Regional Impacts

## Overview

Horseshoe Bay is located on the southwest shores of Lake LBJ. The only major thoroughfare through Horseshoe Bay is FM 2147, which originates in Marble Falls to the northeast and terminates at SH-71 to the southwest. Today, there is little through traffic in Horseshoe Bay. The traffic within the City is primarily generated by its residents traveling to key destinations within the City, visitors to the Horseshoe Bay Resort and Conference Center and its many amenities, and by those traveling from outside of Horseshoe Bay to employment centers within the City. However, the region surrounding Horseshoe Bay is growing rapidly.

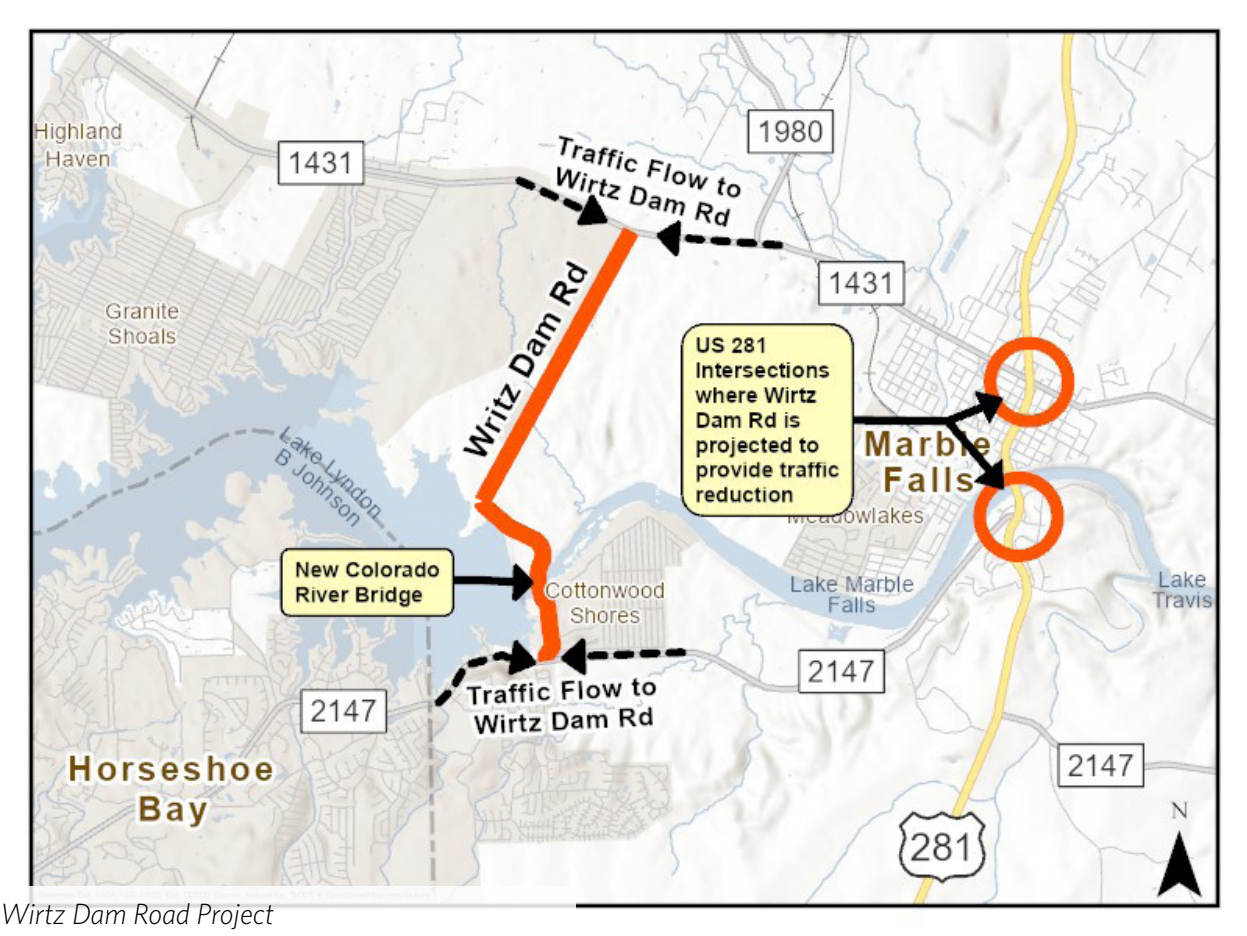
The City of Marble Falls, located near Horseshoe Bay, is experiencing rapid growth, which is impacting Marble Falls' transportation network. Major roadways in Marble Falls, especially at the intersection of US 281 and FM 1431, experience traffic congestion at peak times during the day. Rapid growth is occurring at the southern edge of Marble Falls along the US 281 corridor and around the US 281 and SH-71 interchange. Large developments in these areas include Thunder Rock and Gregg Ranch. These growth areas are and will continue influencing the growth and traffic in Horseshoe Bay.

Marble Falls lies within Burnet County. Marble Falls and Burnet County are collaborating with TxDOT on transportation planning for new and expanded roadway corridors in and around Marble Falls. TxDOT is also evaluating alternatives for improving and adding capacity to the US 281 and SH-71 interchange. These developments will ultimately impact the local region and Horseshoe Bay.

THE REGION SURROUNDING **HORSESHOE BAY** IS EXPERIENCING **RAPID GROWTH.**

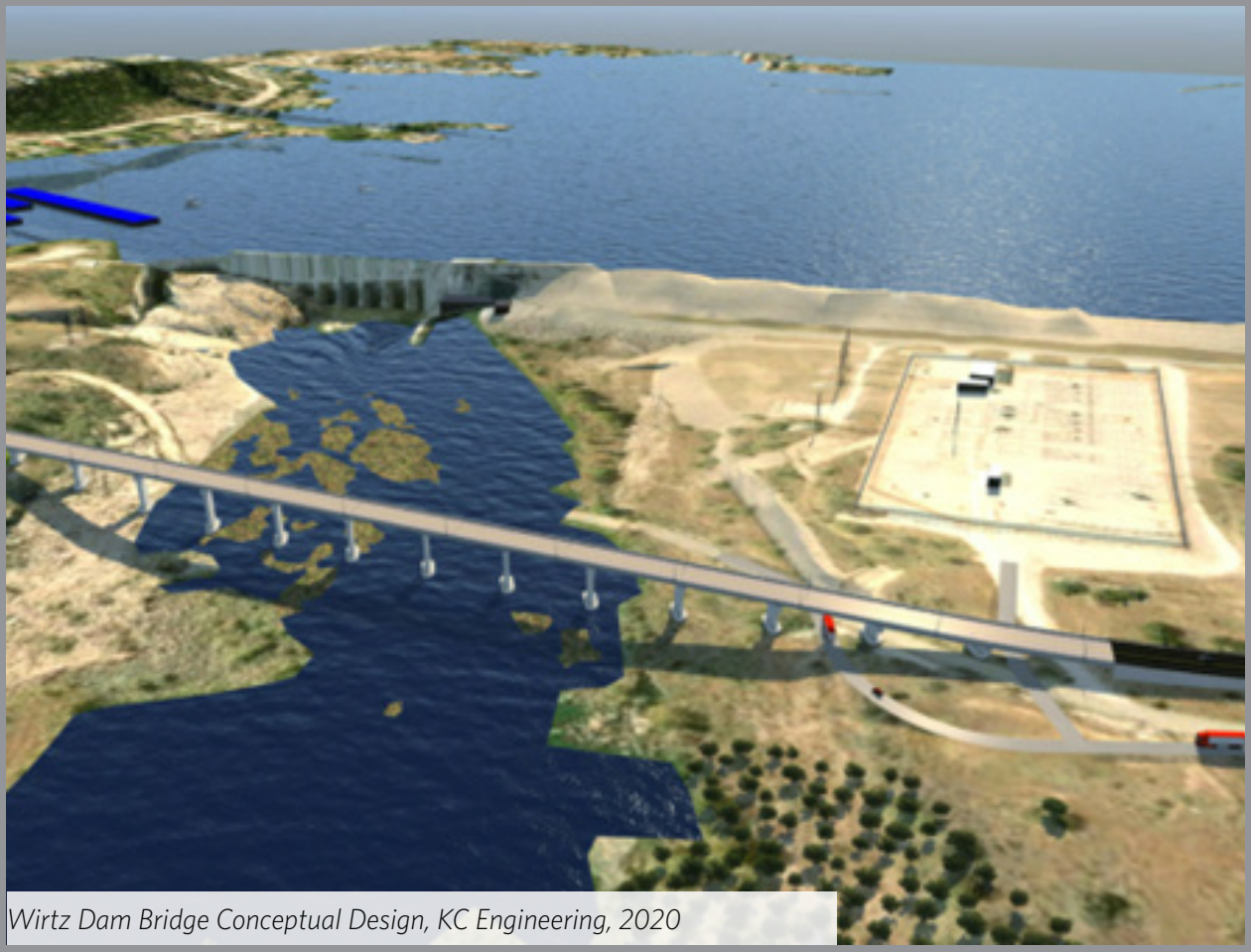
## Wirtz Dam Road Project

One of the major projects that Burnet County is sponsoring on the west side of Marble Falls is the Wirtz Dam Road Project. This project is being coordinated through TxDOT. In 2005, Burnet County commissioned a study on the potential for implementing the Wirtz Dam Road Project as part of a feasibility study (AECOM). Wirtz Dam Rd. is a project proposed to help alleviate the traffic congestion at the US 281/FM 1431 and US 281/FM 2147 intersections in Marble Falls. US 281 and FM 1431 intersect in the heart of Marble Falls, just north of the Lake Marble Falls (Colorado River) bridge. This intersection experiences significant congestion during peak hour time frames of the day, causing traffic delays for through traffic on US 281. TxDOT identifies US 281 as a principal north-south corridor listed on the National Highway System and TxDOT Freight Network. US 281 is relied upon daily by local travelers and trucking industries and as an alternative to traveling I-35. It is the longest continuous three-digit US Highway route, spanning 1,875 miles from the Rio Grande Valley to the Canadian border, and traffic is projected to grow significantly in the future.




*Wirtz Dam Road Project*

Today, approximately 47,000 vehicles per day travel through the US 281/FM 1431 intersection. A large part of that volume, about 35,000 vehicles per day, is through traffic on US 281, but there is also a significant contribution of traffic from FM 1431 (12,000 vehicles per day). In the 2005 study by AECOM, a license plate survey was performed to track vehicles that traveled eastbound on FM 1431 through the US 281 intersection, with their ultimate destination being FM 2147 toward Horseshoe Bay and vice versa. The study found that approximately 10% to 14% of the vehicles traveling through the US 281/FM 1431 intersection were originating from FM 1431 and FM 2147. The concept of implementing the Wirtz Dam Road Project was planned to allow these vehicles to bypass the US 281/FM 1431 intersection. The intent was to reduce the traffic volume through the US 281/FM 1431 intersection and offer a more direct route for those commuting between FM 1431 (west of US 281) and FM 2147. The project benefits also include adding another bridge crossing over the Colorado River and improving emergency response times for the area.

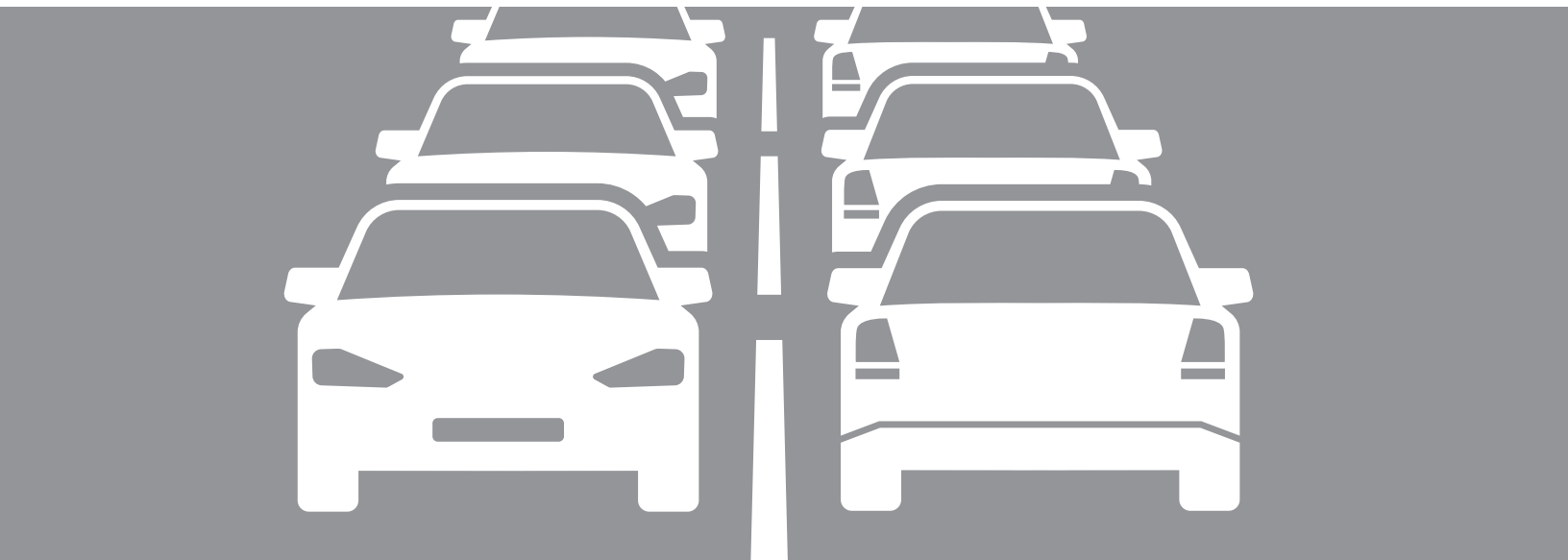


*Wirtz Dam Bridge Conceptual Design, KC Engineering, 2020*

The Wirtz Dam Road Project has progressed over the years. It was authorized by the Capital Area Metropolitan Planning Organization (CAMPO) and was included in TxDOT's Unified TP with $35M of funding for construction. Burnet County has sponsored the costs for design, right-of-way acquisition, and utility relocation. The project is currently in the design phase and is projected to begin construction in 2025, with completion by 2027.

As the Wirtz Dam Road Project has continued to develop, concerns about its impact on the City of Cottonwood Shores (where it connects to FM 2147) and the potential for promoting additional traffic through Horseshoe Bay have arisen. There are no traffic studies that exist that suggest that the project will result in an increase in traffic through Horseshoe Bay. The original feasibility study (AECOM, 2005) and project proponents maintain that it will only allow the traffic that would flow to Horseshoe Bay from west of Marble Falls to continue at the same rate but just through a bypass route on Wirtz Dam Rd. However, with increased traffic congestion in Marble Falls, the concern is that motorists traveling through Marble Falls may look for alternate routes around those congested areas. Nevertheless, the City has been actively meeting with the City of Marble Falls, Burnet County, the City of Cottonwood Shores, and TxDOT to express the concern for the project potentially generating through traffic in Horseshoe Bay and creating traffic issues in the City. The City is advocating for a thoroughfare plan to connect from FM 2147, near the Wirtz Dam Rd. connection, to US 281 or SH-71. This will provide an alternate route for traffic attempting to bypass the US 281/FM 1431 intersection to reconnect to US 281 or SH-71 without increasing traffic through Horseshoe Bay. The City of Marble Falls adopted plans for new development along the US 281 corridor from SH-71 north to the center of the City. As a result, the opportunity to connect the proposed Wirtz Dam Rd. at FM 2147 to US 281 appears to be limited. There seems to be more viable alternatives to connect to SH-71; although, that will involve a new roadway through an area of primarily private ranch land.

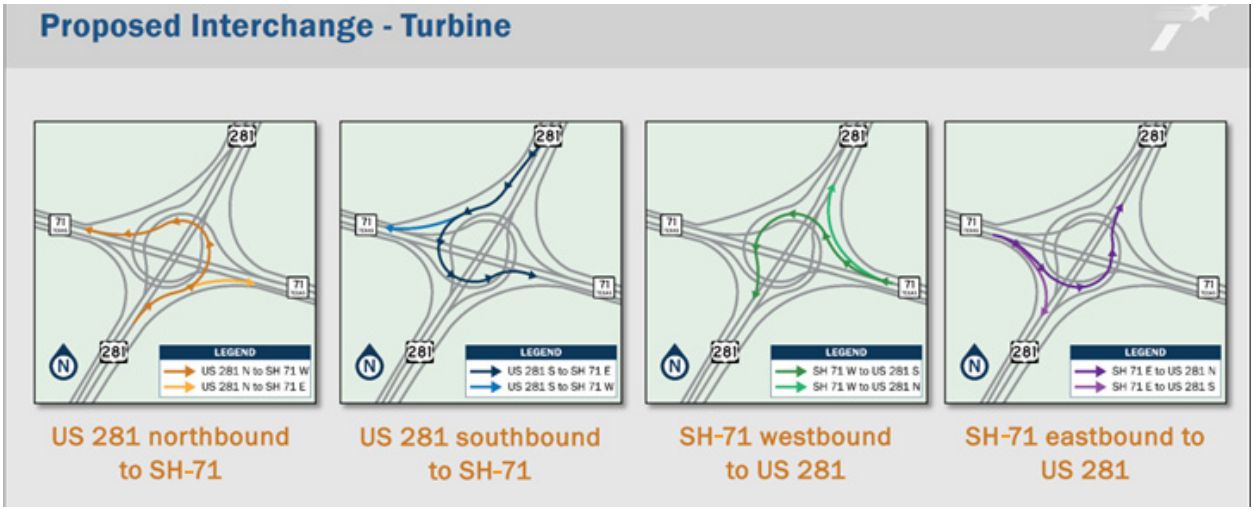
While there are concerns about the impact of potential through traffic due to the implementation of Wirtz Dam Road Project, it will benefit Horseshoe Bay residents traveling to Marble Falls. The pubic survey showed that Horseshoe Bay residents travel frequently to Marble Falls, as it offers major commercial centers, dining, and recreational amenities. Wirtz Dam Rd. will provide residents with a more direct route to the commercial areas of Marble Falls, avoiding US 281 (including the intersections of FM 2147/US 281 and FM 1431/US 281) and provide reduced travel times. This is especially true when traffic volume in the US 281 is highest during the morning and late afternoon peak travel periods.



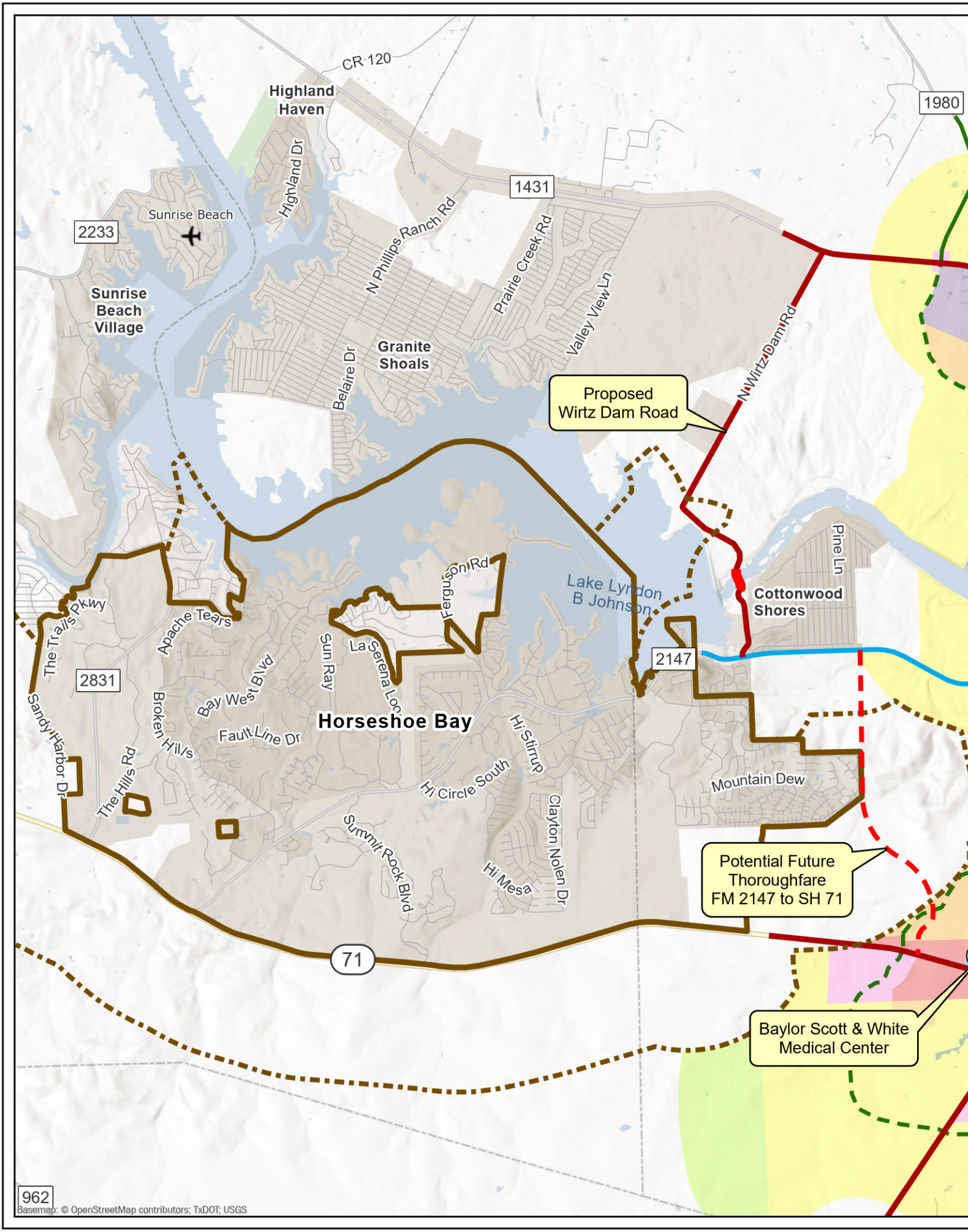
## US 281/SH-71 Interchange

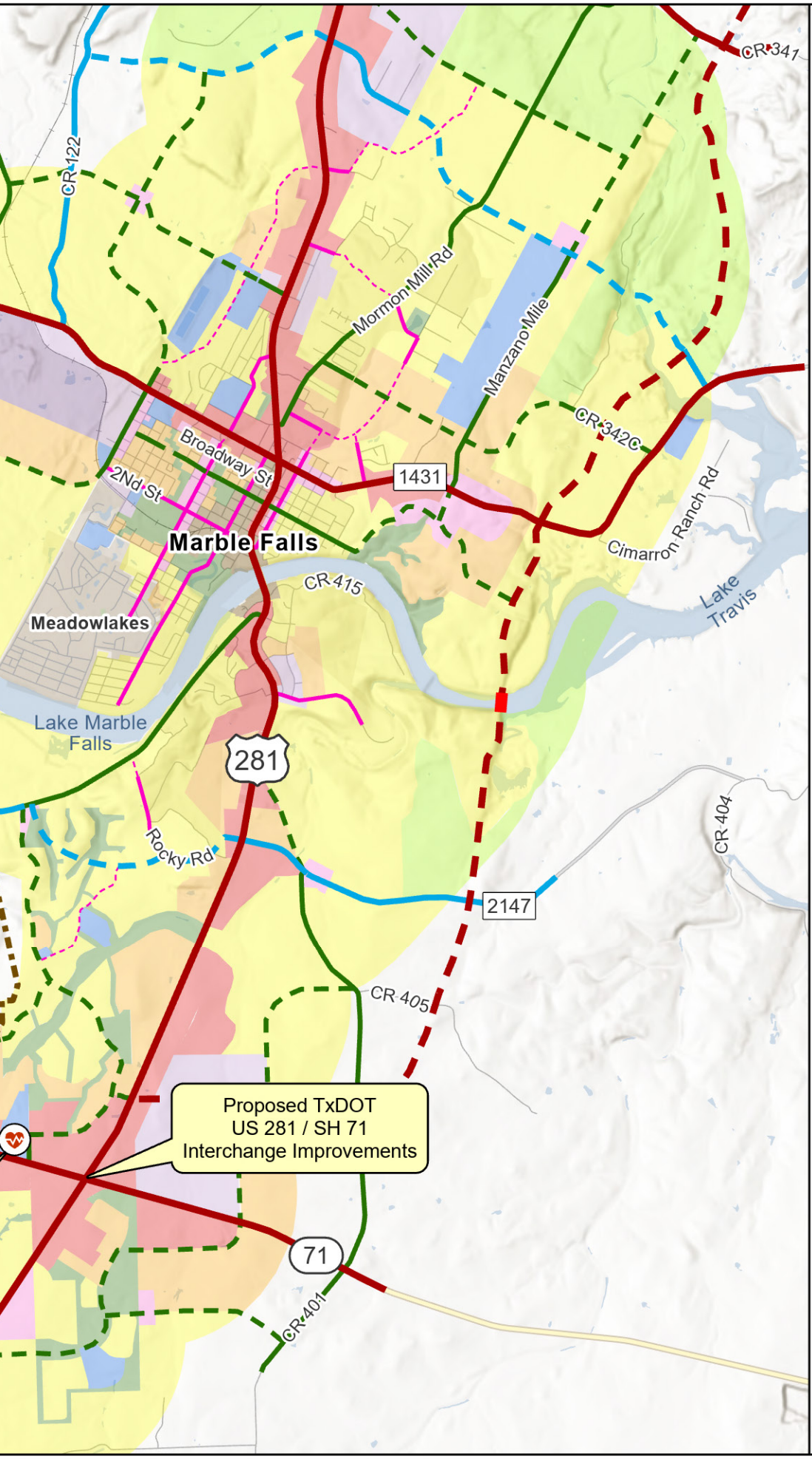
The US 281 and SH-71 corridors are the two principal corridors that serve as primary routes for residents and visitors to/from Horseshoe Bay. TxDOT has identified the US 281 corridor as a major growth corridor for Texas. The current US 281/SH-71 cloverleaf interchange was built in the 1960s and does not meet current standards. This area has experienced a higher rate of crashes, and TxDOT is developing a plan to improve this interchange to significantly improve traffic flow and safety. Recent studies have demonstrated a preferred alternative is to implement a turbine interchange at this location, which would replace the current cloverleaf facility. The turbine interchange will provide for continuous flow through the interchange and more direct travel paths from US 281 to SH-71 and vice versa. The proposed project will improve mobility through the interchange, add frontage roads to separate high-speed traffic from local traffic, and add SUPs to accommodate bicyclists and pedestrians. While improvements to the US 281/SH-71 Interchange will not directly impact Horseshoe Bay, residents and visitors traveling to/from Horseshoe Bay to Austin and San Antonio will benefit from the upgraded facility. The most recent schedule shows the project planning, design, ROW acquisition, and utility relocations proceeding through 2028 with an anticipated construction start date in 2029.


Current US 281 and SH-71 Cloverleaf Interchange




Source: TxDOT Proposed 2-Level Turbine Interchange Concept, US 281 at SH-71 Interchange – Public Meeting, March 28, 2024


CR 120
Highland Haven
1980
1431
2233
Sunrise Beach
Highland Dr
N Phillips Ranch Rd
Prairie Creek Rd
Valley View Ln
Sunrise Beach Village
Granite Shoals
Belaire Dr
N Wirtz Dam Rd
Proposed Wirtz Dam Road
Pine Ln
Cottonwood Shores
Lake Lyndon B Johnson
Ferguson Rd
2147
The Trails Pkwy
Apache Tears
La Serena Loop
Sun Ray
2831
Bay West Blvd
Broken Hills
Sandy Harbor Dr
Fault Line Dr
Horseshoe Bay
The Hills Rd
Hi Stirrup
Hi Circle South
Mountain Dew
Clayton Nolen Dr
Summit Rock Blvd
Hi Mesa
Potential Future Thoroughfare FM 2147 to SH 71
71
Baylor Scott & White Medical Center
962
Basemap: © OpenStreetMap contributors; TxDOT; USGS




City of Marble Falls
Comprehensive Plan, 2024

ETJ Boundary

Potential Future Thoroughfare

**Thoroughfare Plan**

- Major Arterial Existing
- Major Arterial Proposed
- Minor Arterial Existing
- Minor Arterial Proposed
- Major Collector Existing
- Major Collector Proposed
- Minor Collector Existing
- Minor Collector Proposed
- New Bridge

**Future Land Use Zones**

- Parks & Open Space
- Ranch Rural & Estate
- Neighborhood Residential
- Transitional Residential
- Neighborhood Commercial
- Corridor Commercial
- Business Park
- Industrial
- Downtown
- Public & Institutional

N
W E
S

1 inch = 5,000 feet

0 2,500 5,000

Feet

# REGIONAL TRANSPORTATION PLANNING

Source: CITY OF MARBLE FALLS, COMPREHENSIVE PLAN, 2024
TxDOT, US 281 and SH 71 Interchange Project, March 2024

# 6 Recommendations

## Introduction

The Horseshoe Bay TAC received public comments, and input from City staff and City leaders to develop recommendations to improve the City's current and future transportation system. The resulting recommendations are divided into three areas including: **safety improvements, mobility, and future planning.**

## Safety Improvements

Improvements to the existing transportation infrastructure in Horseshoe Bay were identified at a number of areas across the City. The focus of the TAC was to identify those that were deemed most important for implementation in the near term (within five years) and those that were identified for implementation in the mid-term to long-term to serve the community as growth occurs. However, many of the mid-term and long-term improvement recommendations will require more detailed planning, engineering, coordination with TxDOT, utility relocation planning, and ROW acquisition. Tasks will need to be completed in the short-term to allow the mid-term and long-term recommendations to be constructed when the actual growth triggers the need. The TAC prepared recommendations for improvements at the following intersections including:

- Horseshoe Bay Blvd./FM 2147
- Bay West Blvd./FM 2147
- Thanksgiving Mountain Rd./FM 2147
- Cat Canyon Rd./Bay West Blvd.
- Bay West Blvd./Faultline Rd./Broken Hills Dr.

At some of the intersections noted above, the implementation of roundabouts are a proposed alternative. There generally was public support for roundabouts from Horseshoe Bay residents as opposed to conventional traffic signals.

Roundabouts are common throughout the United States, especially in comparable resort type communities similar to Horseshoe Bay. With regards to safety, roundabouts have been found to reduce fatal and injury crashes by up to 82% by eliminating crossing conflicts. Roundabouts create a slower vehicle speed, as a vehicle enters, which gives drivers more time to make decisions and provide a traffic calming effect on the roadway. They promote more continuous traffic flow; and they do not require power; so, they are continually functional during power outages. Roundabouts offer space for landscaping, signage, and other features in the center island that can serve as landmark features for the community.

## Horseshoe Bay Blvd./FM 2147 Intersection Improvements

Horseshoe Bay Blvd. is the primary entrance to the Horseshoe Bay Resort, as well as many of the resort amenities. It is also the primary entrance to the residences for a large part of Horseshoe Bay Proper on both the north and south sides of FM 2147. Traffic volumes on FM 2147 at this intersection are approximately 10,000 vehicles per day. Traffic volumes on Horseshoe Bay Blvd. vary based on season and week day, and on the schedule of large events at the Hotel and Conference Center. As part of the public involvement process that the TAC performed, the citizens responded with a preference for implementation of roundabouts, as opposed to conventional traffic signals, as intersections are upgraded in the future. A roundabout provides for continuous flow of traffic, provides a measure of traffic calming and speed reduction, provides for improved safety, and is generally considered more aesthetic and compatible with the characteristics of Horseshoe Bay than a conventional traffic signal. Roundabouts at intersections are common at many resort communities across the United States and exist today in Horseshoe Bay near the Resort and at the entrance to Applehead Island in Horseshoe Bay West. Horseshoe Bay Blvd. will be a candidate for intersection safety improvements as traffic volumes increase.

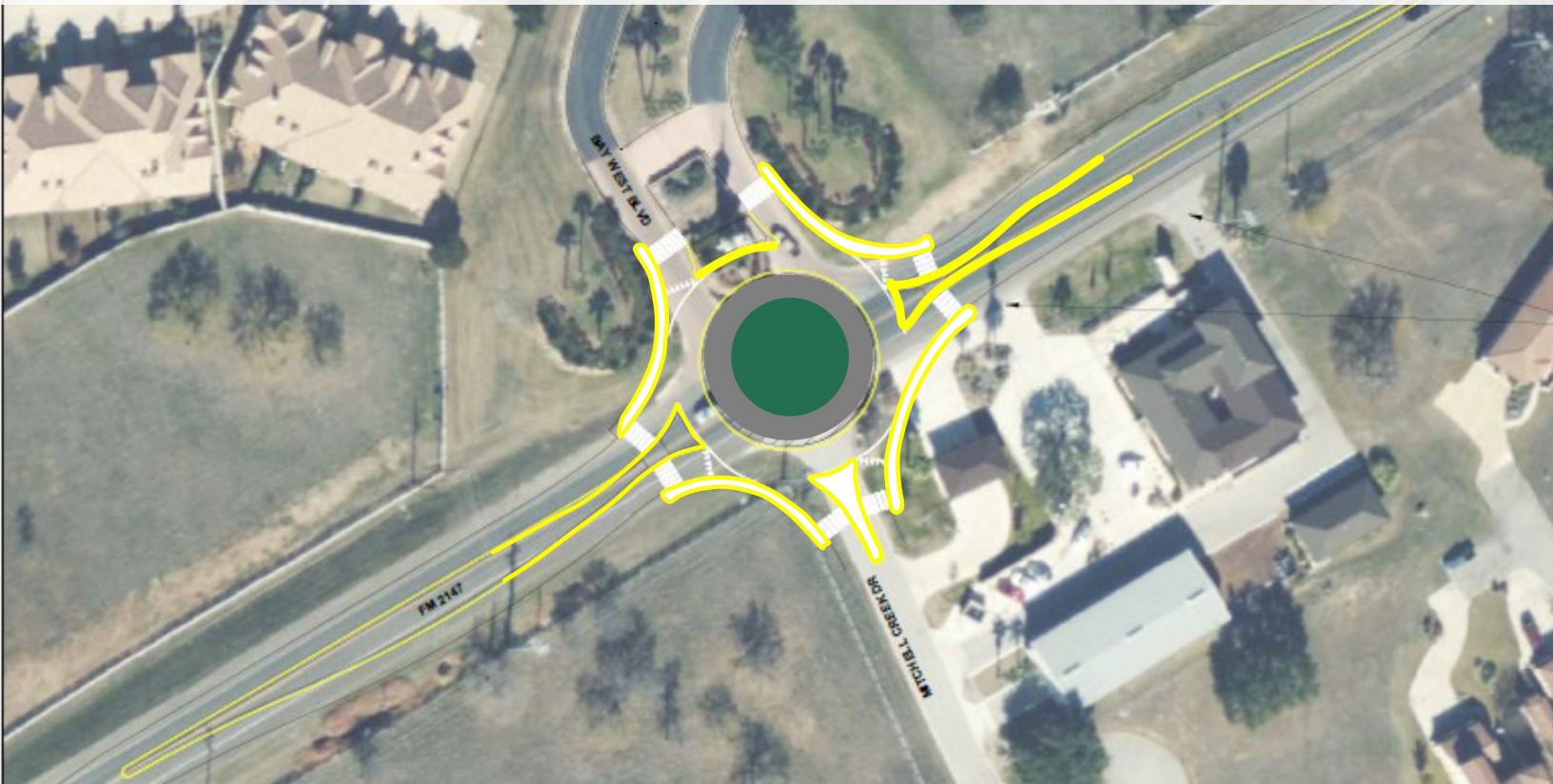
The TAC is recommending the City plan and coordinate with TxDOT and its Roundabout and Alternative Intersection Design (RAID) group on implementation of a roundabout at this intersection, including performing the preliminary engineering to define the project and develop capital cost estimates for implementation and cost sharing strategies. While the intersection improvements are not a priority in the short-term, the required planning and coordination are a priority, so that the project is closer to "shovel ready" to take advantage of funding opportunities when they arise.

Horseshoe Bay Blvd./FM 2147 Roundabout Concept

## Bay West Blvd./FM 2147 Intersection Improvements

Bay West Blvd. is the primary entrance to Horseshoe Bay West and adjoining neighborhoods. It is the most heavily traveled roadway maintained by the City with approximately 4,000 vehicles per day. FM 2147, which is owned and maintained by TxDOT, averages approximately 8,000 to 10,000 vehicles per day in Horseshoe Bay. The Bay West Blvd./FM 2147 intersection will likely be one of the first major intersections in Horseshoe Bay on the TxDOT system that will warrant improvement, based on traffic volume, intersection delay times, and reported accidents. Obviously, a conventional traffic signal would be a likely alternative for implementation at this intersection. However, based on feedback during the public involvement process, the implementation of roundabout at this intersection is a preferable alternative. Implementation of a roundabout at this intersection is complicated by the existence of landscape amenities on the north side, alignment with Mitchell Creek Dr. on the southside, driveways that exist for Prosperity Bank, and underground and overhead utilities. Implementation of a roundabout at this intersection will require modification or relocation of these features. Similar to Horseshoe Bay Blvd., the TAC is recommending the City plan and coordinate with TxDOT and its RAID group on implementation of a roundabout at this intersection. Capital cost estimates for implementation should be developed and cost sharing strategies discussed. Additionally, the City will need to coordinate with Prosperity Bank on solutions to modifications of their driveway access to allow customer access and implementation of the roundabout. The required planning and coordination is a priority, so that the project is closer to "shovel ready" to take advantage of funding opportunities when they arise. The TAC did receive suggestions to add a right-turn lane on FM 2147 at Bay West Blvd. to facilitate traffic flow. In the short-term, coordination with TxDOT to consider the addition of a right-turn lane on FM 2147 is recommended.

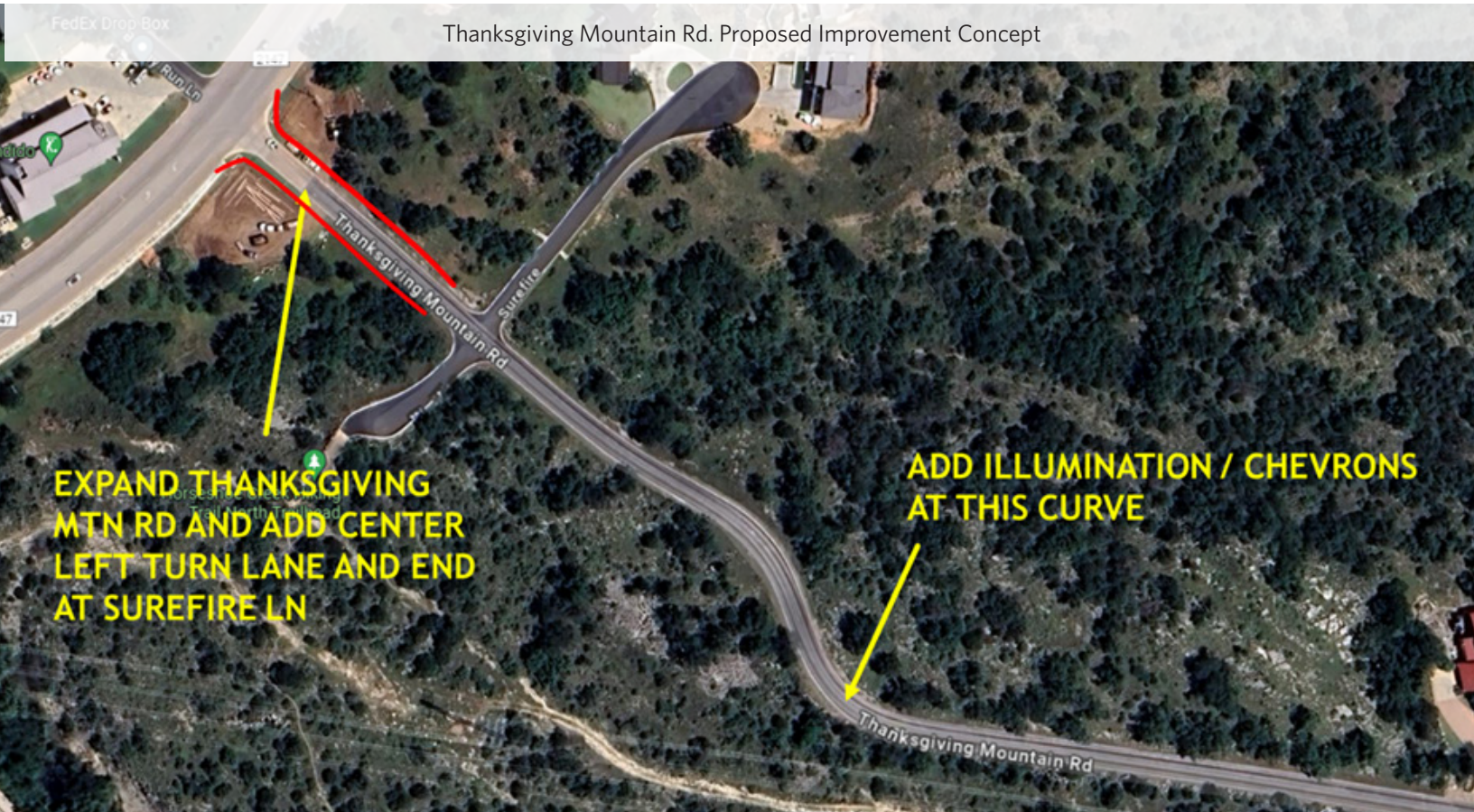
Bay West Blvd./FM 2147 Roundabout Concept



## Thanksgiving Mountain Rd./FM 2147 Intersection Improvements

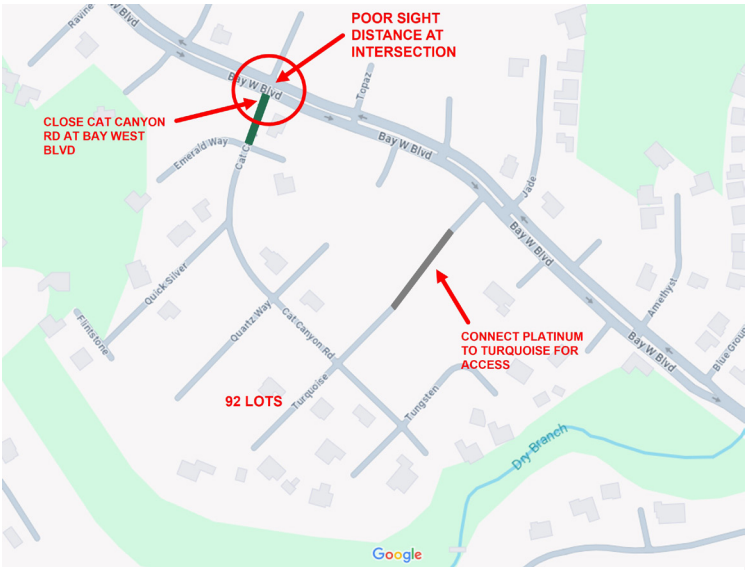
Thanksgiving Mountain Rd. is a residential collector that serves about a 100 residential lots in a portion of Horseshoe Bay Proper and over 2,000 residential lots in Horseshoe Bay South. Today, there are approximately 33 residences in Horseshoe Bay Proper and 273 residences in Horseshoe Bay South that largely utilize Thanksgiving Mountain Rd. to travel to/from their residences. In addition, Thanksgiving Mountain Rd. is a primary route for residents to travel to two of the largest churches in Horseshoe Bay, St. Paul the Apostle Catholic Church and The Church of Horseshoe Bay. The traffic volume on Thanksgiving Mountain Rd. is normally about 1,300 vehicles per day during the week, but the peak volume on Sundays is significantly greater. The primary issue today for Thanksgiving Mountain Rd. is the lack of a left-turn lane at its intersection with FM 2147, which can contribute to long intersection delays as vehicles stack in a single queue to turn left or turn right on FM 2147. This is a common occurrence when the two large churches have services or events. Implementation of a left-turn lane on Thanksgiving Mountain Rd. would allow vehicles turning left or turning right to separate and reduce the intersection delay time. The other issue that was reported to the TAC during public meetings was the poor visibility, especially during nighttime hours, at a curve on Thanksgiving Mountain Rd. east of FM 2147 between Surefire Dr. and Hill Ridge Rd. Visibility is worsened during poor weather conditions. The roadway is also very narrow with 10ft lanes in each direction, which makes navigating the sharp curve even more difficult. The TAC recommends the City engage an engineering firm to perform preliminary engineering to define the requirements for implementation of a left-turn lane on Thanksgiving Mountain Rd. at FM 2147 and adding illumination and warning signs (chevrons) at the curve to improve visibility. The preliminary engineering should include development of capital cost estimates for project implementation for the City to consider funding as part of a future capital improvements program. The intersection of FM 2147 and Thanksgiving Mountain Rd. would be a candidate for a roundabout or traffic signal in the long-term future as traffic volumes increase on Thanksgiving Mountain Rd.

Thanksgiving Mountain Rd. Proposed Improvement Concept



## Cat Canyon Rd./Bay West Blvd. Intersection

Cat Canyon Rd. intersects Bay West Blvd. at a location where there is very poor sight distance. Cat Canyon Rd. serves as the only entrance from Bay West Blvd. to a neighborhood with 92 residential lots. Today, there are 28 residences in the neighborhood, so the area is about 30% developed. It is difficult for anyone turning left on to Cat Canyon Rd. from Bay West Blvd. to have visibility of vehicles traveling east on Bay West Blvd. This is due to the existence of a vertical crest on Bay West Blvd., just west of Cat Canyon Rd., that limits the sight distance for approaching vehicles. This is an issue today which will only worsen with increased traffic volume on Bay West Blvd. and additional development within the Cat Canyon neighborhood. The TAC evaluated alternatives for this area and recommends implementation of a new entrance to the Cat Canyon neighborhood via a connection of Platinum Circle and Turquoise Circle, across an existing dry creek channel. The intersection of Platinum Circle and Bay West Blvd. will provide improved sight distance for entrance and exit for the Cat Canyon neighborhood on to Bay West Blvd. None of the residential lots on Platinum Circle or Turquoise Circle are developed, and both streets are chip sealed roadways in relatively poor condition. Connection of Platinum Circle and Turquoise Circle will convert these streets from cul-de-sacs to a through street. Upon completion of the new connection, the southern section of Cat Canyon Rd. and the existing median cut are recommended to be closed. A new median cut is proposed to be added at Platinum Circle. The proposed connection will require the acquisition of one residential lot on Turquoise Circle and portions of two other residential lots on Platinum Circle. The TAC recommends the City proceed with real estate acquisition of the three parcels and perform the required preliminary engineering to fully define the project and prepare a capital cost estimate. This will provide the City with the information needed to consider project funding and implementation.




Bay West Blvd./Cat Canyon Rd. Concept


Existing Sight Distance at Cat Canyon Rd./Bay West Blvd.

## Bay West Blvd./Faultline Rd./Broken Hills Dr. Intersection

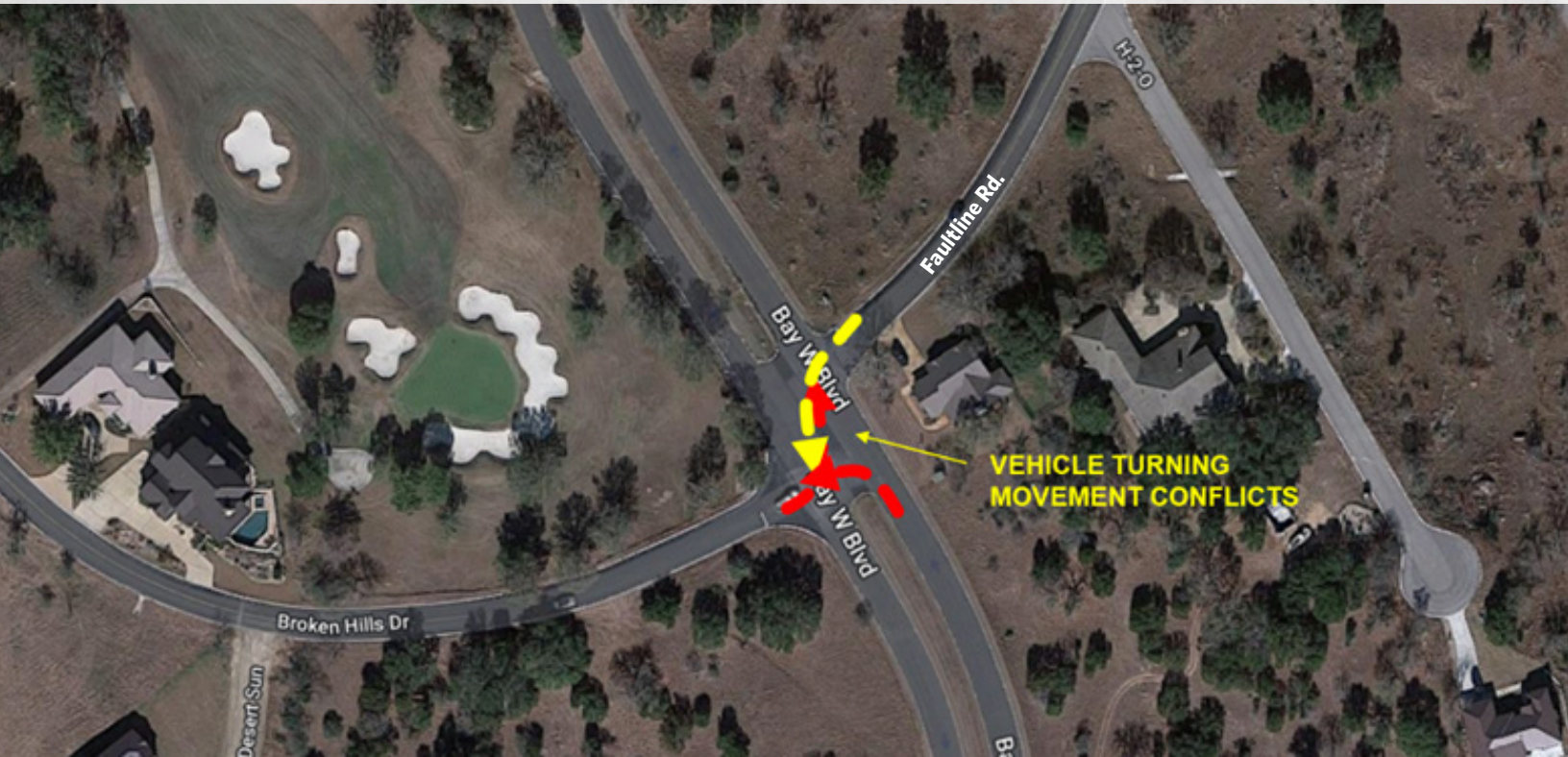
Bay West Blvd. intersects Broken Hills Dr. and Faultline Rd. near the top of a hill. The intersection of these three roadways is not aligned properly and creates conflicting turning movements for vehicles entering and exiting each of the streets. This a relatively high volume intersection with almost 4,000 vehicles per day on Bay West Blvd. and two residential streets (Broken Hills Dr. and Faultline Rd.) that serve a large number of residences. As the Horseshoe Bay West area continues to develop and traffic volumes increase, this intersection will become more problematic for vehicles as shown below.

The TAC evaluated several alternatives for improving this intersection, but narrowed them to two alternatives for consideration including:

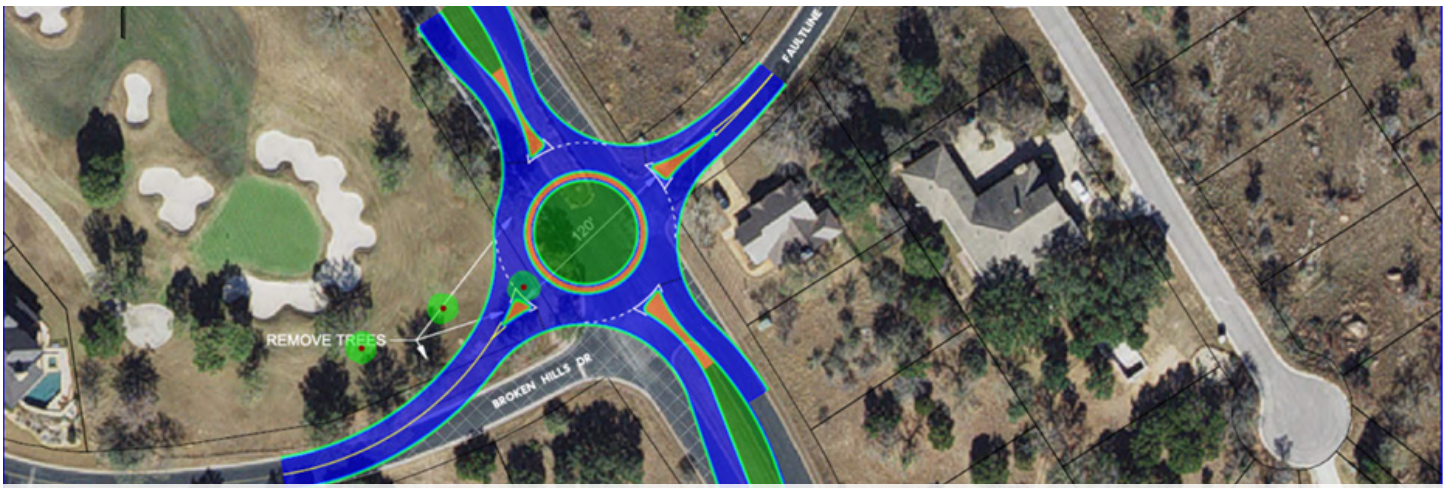
1. Realign Broken Hills Dr. to connect directly across from Faultline Rd.
2. Implementation of a conventional roundabout with the streets remaining in their current alignment

Each of these alternatives will require some reduction of the vertical crest of Bay West Blvd., northwest of the intersection, to improve sight distance for approaching vehicles. It will also require some ROW acquisition depending on the alternative selected. If Alternative 1 were selected, this intersection may eventually become a 4-way stop to manage the traffic, improve safety, and reduce travel speeds as traffic volumes increase. The TAC recommends the City engage an engineering firm to perform preliminary engineering to prepare detailed capital cost estimates, define ROW requirements, and recommend a preferred alternative for the City to consider for implementation as part of a future capital improvement program. This project is recommended for the City to fund and implement before traffic volumes increase and make this project more difficult to implement in the future. There are large rocks on the median of Bay West Blvd., northwest of the intersection, that impede the visibility for vehicles entering the intersection from Faultline Rd. The TAC recommended removal of the large rocks and lowering the profile of the median to improve the sight distance.

Turning Conflicts at Bay West Blvd. / Faultline Rd. / Broken Hills Dr.




Alternative 1 – Concept for Realignment of Broken Hills Dr.




Alternative 2 – Roundabout Concept at Bay West Blvd. / Faultline Rd. / Broken Hills Dr.


Proposed Removal of Large Rocks to Improve Sight Distance at Faultline Rd. / Bay West Blvd.

## Shared Use Paths

Horseshoe Bay lacks alternative transportation routes to travel within the City for pedestrians, bicycles, and golf carts. In general, the City was not planned to include sidewalks, and residents most often must use the existing streets (in conjunction with motor vehicles) to walk, bike, and commute in golf carts. The survey results and public comments overwhelmingly supported implementation of a way to provide transportation alternatives to travel within the City and to support a more active transportation system.

The TAC spent a large part of its time evaluating existing routes used today for walking, biking and traveling in golf carts around the City. The first step was identifying the key destinations that residents would like to reach without having to drive there in a motor vehicle. Those key destinations included:

- Horseshoe Bay Resort and Conference Center / Yacht Club
- Slick Rock Golf Club
- Caprock Golf Club / Caprock Restaurant
- Bayside Market / Ace Hardware / Post Office
- Escondido Golf Club
- Summit Rock Golf Club
- City Hall

The TAC mapped out existing routes being used today. Most of these routes incorporated residential streets with low traffic volumes that were deemed acceptable for pedestrians, bicycles, golf carts, and motor vehicles to use conjunctively. However, gaps were found in what would be considered a safe route from Horseshoe Bay West to Horseshoe Bay Proper and Summit Rock. The TAC evaluated the gaps and considered alternatives to provide connectivity between the key destinations within the City. After evaluating many different alternatives, the TAC is recommending steps to implement inter-connected SUPs. It should be noted that this was a very difficult task to develop a plan to retrofit these facilities into areas that were not planned for them. In many locations, the limited ROW and dense development made implementation impractical. In addition, any new SUP facility must comply with the Americans with Disabilities Act (ADA). The ADA includes requirements for mild slopes (less than 5%) and other specific criteria that limit where a new path can be constructed. Areas that require steep slopes are prohibitive for a new path.

The TAC proposal includes two main SUP segments for implementation as a first phase. One of the paths, the City Center SUP, is intended to provide connectivity from Horseshoe Bay West to Pecan Creek, Escondido, and the Bayside Market/Ace Hardware. It is proposed to continue to provide connectivity to Summit Rock Golf Club, the new City Hall, Slick Rock Golf Club, and to Horseshoe Bay Resort & Conference Center. A second SUP, Lucy Lane SUP, is proposed to connect from Lucy Lane (Waterlands Neighborhood) to Horseshoe Bay Blvd., traversing across private property along the north side of FM 2147.

Shared Use Path Concept

## City Center Shared Use Path

In order to connect Horseshoe Bay West to the Bayside Market/Ace Hardware/Post Office area, the TAC proposed a combination of striping on Bay West Blvd. from Caprock Golf Club / Restaurant to Pecan Crossing and a 12-ft wide concrete SUP from Bay West Blvd. along Pecan Crossing to near the Pecan Creek neighborhood

Proposed Multimodal Shoulder Concept for Bay West Blvd.

entrance. Bay West Blvd. is currently used by residents for walking, bicycling, and golf carts conjunctively with motor vehicles. Residents reported safety concerns and near misses between pedestrians and motor vehicles. Bay West Blvd. is a divided residential collector street with a relatively high volume of traffic (4,000 vehicles/day AADT). Each side of Bay West Blvd. is approximately 21-ft wide. A 6-ft wide lane is proposed to be striped on each side of Bay West Blvd. This will still allow for a 15-ft wide travel lane for motor vehicles. The proposed separated lane is intended to provide a designated area that is separate from the main travel lane used by motor vehicles. Narrowing the travel lane from 21-ft to 15-ft will also function to reduce travel speeds on Bay West Blvd. and promote driver attention and awareness of pedestrians and bicycles that also use the roadway.

The City Center SUP is proposed to extend from Bay West Blvd. to Pecan Crossing (near the entrance to the Pecan Creek neighborhood). The width in this area is somewhat restricted. If a SUP is unable to be located outside of Pecan Crossing, then a shared lane and separate pedestrian sidewalk is recommended for this segment. From Pecan Crossing, the SUP is proposed to parallel an existing LCRA electrical transmission easement across Pecan Creek to Tori Lane. At Tori Lane, the path would turn north and extend into the Escondido landscape buffer area and follow an existing unimproved trail/ road to connect to the parking lot behind the Bayside Market complex. The SUP is proposed to continue behind the existing Cadence Bank building to FM 2147. An underpass, under FM 2147 is proposed to provide a grade separated crossing of FM 2147. The SUP is proposed to extend from the FM 2147 underpass along Summit Rock Blvd., cross Summit Rock Blvd, and then extend eastward along the north side of the proposed Seventeen Waterway development. The path will cross a small tributary stream channel and then parallel FM 2147 and connect to the entrance to the new City Hall complex. The SUP will continue eastward from the City Hall entrance to connect to Azure Circle and to Hi Circle South. From this point, residents can

Example of Underpass Configuration for Shared Use Path

travel on low traffic volume residential streets to the Slick Rock Clubhouse and utilize residential streets to reach the Horseshoe Bay Resort and Yacht Club areas.

The proposed underpass crossing of FM 2147 is one of the primary challenges of implementing the City Center SUP. While FM 2147 is a key roadway arterial to travel east-west across the City, it is also a barrier to north-south pedestrian crossing.

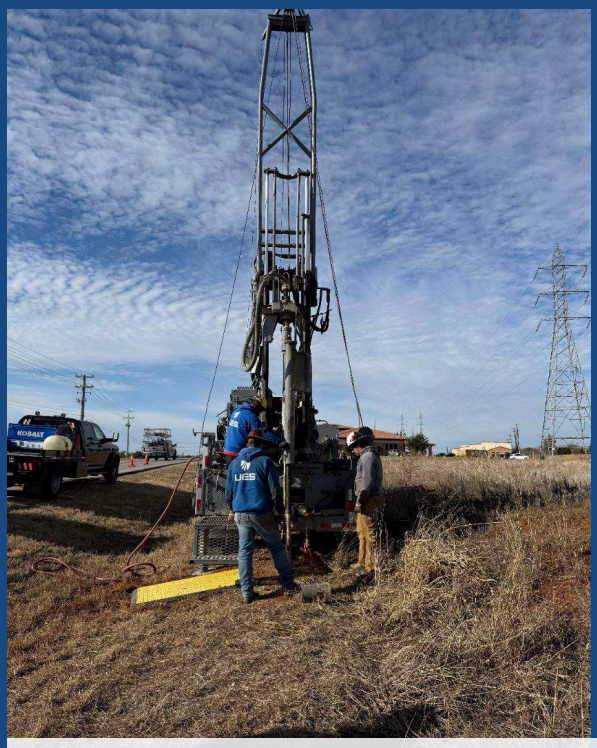
FM 2147 is a 2-lane roadway with a center turn lane with wide shoulders that is owned and maintained by TxDOT. The roadway has a speed limit of 45 mph which limits implementing an at grade crossing, therefore identifying a location to have a grade separate crossing was required. The proposed underpass requires a preferred crossing height of 10-ft and a minimum crossing height of 8-ft. This requires a deep excavation to install a precast reinforced concrete box to meet the height requirements; as well as retaining walls on each side until the path can be sloped back (per ADA requirements) to existing grade. The location identified is across two vacant tracts. The City authorized four geotechnical borings on each side of FM 2147 at this location to assess the underlying material conditions. The subsurface conditions are generally described as clayey sand to depths of 8.5 ft with an underlying layer of decomposed/weathered schist to a depth of 25 feet. The underlying decomposed schist was generally weak, friable, with clay seams to the required excavation depth. While the underlying schist layer will be more difficult to excavate, the geotechnical results indicated it can be excavated with conventional equipment. This crossing location also offers the advantage of gravity drainage. A tributary stream exists approximately 500 feet north of the crossing that has a creek bed elevation several feet lower than the bottom of the underpass. This avoids the need to have a pump system for draining the underpass after storm events. .

## Lucy Lane Shared Use Path

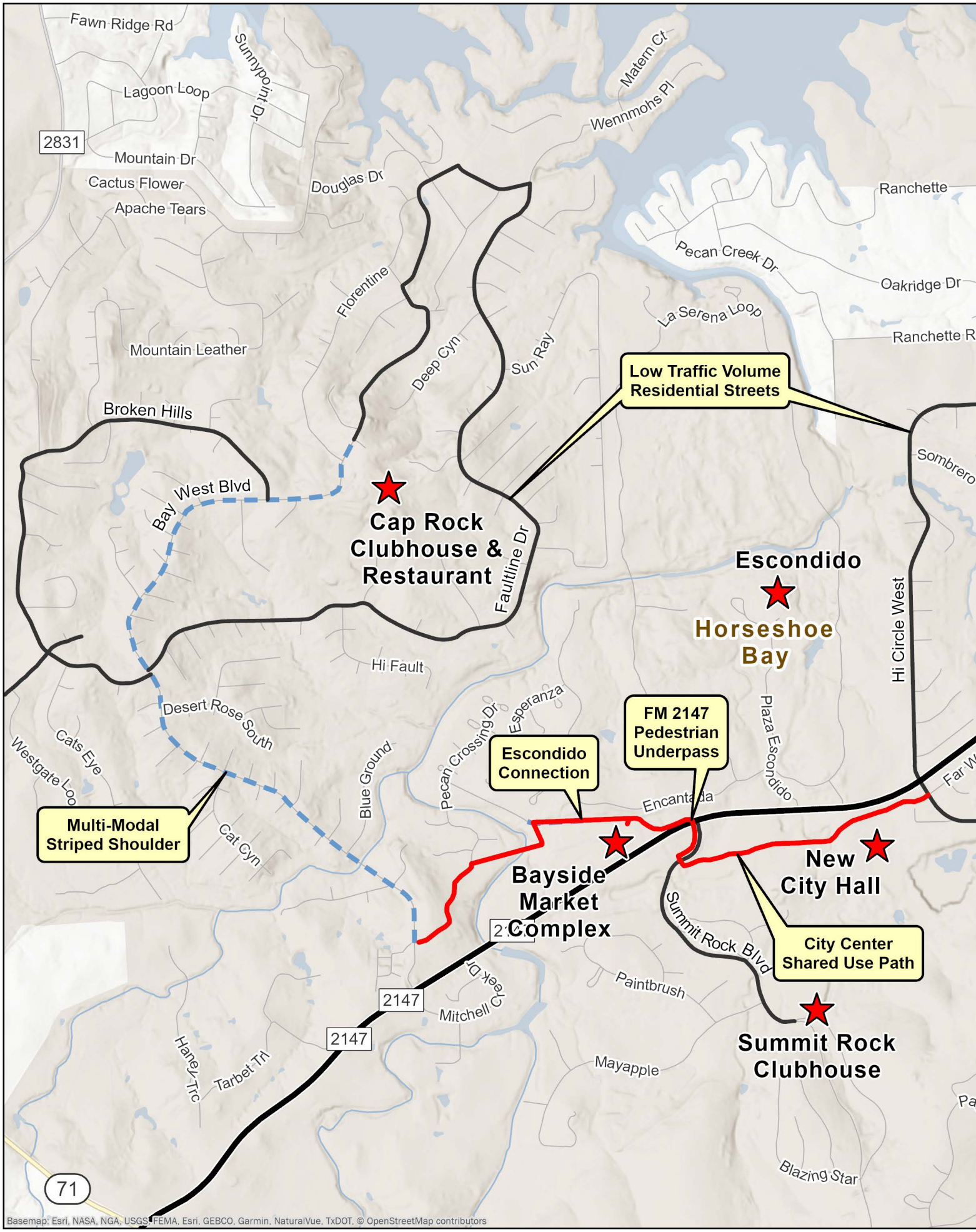
In the far eastern side of the City, the Lucy Lane SUP is proposed to offer a connection between the Waterlands Neighborhood and Horseshoe Bay Blvd. The proposed 12-ft wide concrete path will generally traverse along the north side of FM 2147, cross over a concrete trapezoidal drainage channel, and weave through existing Horseshoe Bay Resort property to connect to Horseshoe Bay Blvd. This segment of SUP will provide a pedestrian/bicycle route from the Waterlands neighborhood to connect to Horseshoe Bay Blvd. Horseshoe Bay Blvd. includes existing bicycle lanes to connect to the Horseshoe Bay Resort and recreational amenities.

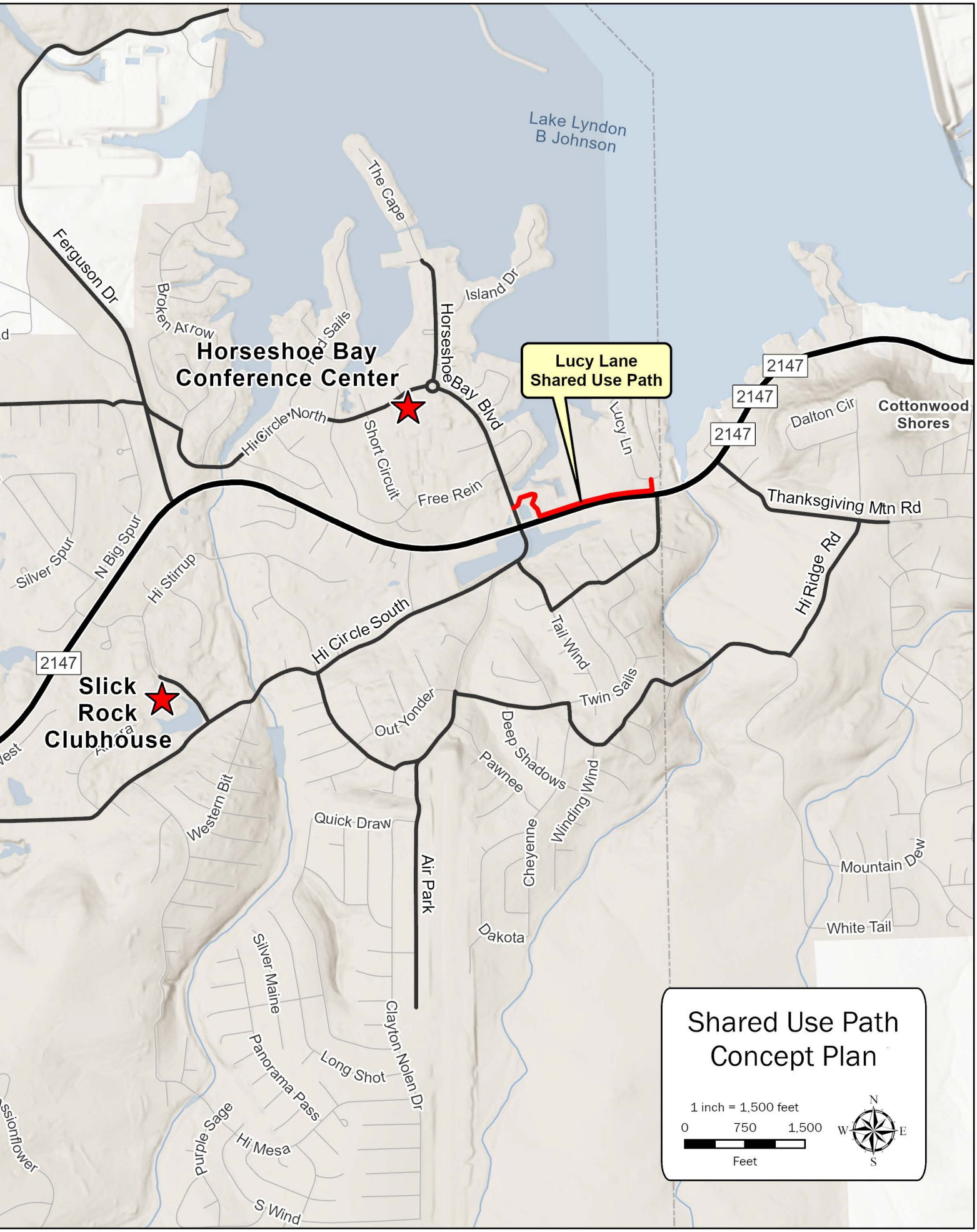
## Shared Use Path Implementation

Implementation of the SUP concept will require coordination and cooperation with multiple stakeholders. It will require acquisition of easements and ROW from private landowners, coordination with homeowners associations, coordination with utility owners, and coordination with TxDOT. It will also require a significant level of funding as a capital improvements project, estimated on the order of $9M to $10M. There are opportunities for grant funding through TxDOT's Transportation Alternatives Grant program that will be outlined later in this report. It will require a concerted, multi-year effort for the City to implement the proposed plan. Additional phases to connect other areas of the City can be considered in the long-term once this initial phase is completed.



Geotechnical Boring for Underpass at FM 2147


Fawn Ridge Rd
Sunnypoint Dr
Lagoon Loop
2831
Mountain Dr
Cactus Flower
Apache Tears
Douglas Dr
Matern Ct
Wennmohs Pl
Ranchette
Pecan Creek Dr
Oakridge Dr
La Serena Loop
Ranchette R
Florentine
Deep Cyn
Sun Ray
Mountain Leather
Broken Hills
Low Traffic Volume Residential Streets
Sombrero
Bay West Blvd
Cap Rock Clubhouse & Restaurant
Faultline Dr
Escondido
Horseshoe Bay
Hi Circle West
Hi Fault
Desert Rose South
Cats Eye
Westgate Loo
Blue Ground
Pecan Crossing Dr
Esperanza
Escondido Connection
FM 2147 Pedestrian Underpass
Plaza Escondido
Encantada
Far W
Multi-Modal Striped Shoulder
Cat Cyn
Bayside Market Complex
New City Hall
Summit Rock Blvd
City Center Shared Use Path
Paintbrush
Creek Dr
2147
Mitchell Cr
2147
Haney Trc
Tarbet Trl
Mayapple
Summit Rock Clubhouse
Blazing Star
71
Basemap: Esri, NASA, NGA, USGS, FEMA, Esri, GEBCO, Garmin, NaturalVue, TxDOT, © OpenStreetMap contributors


Lake Lyndon B Johnson
The Cape
Ferguson Dr
Broken Arrow
Island Dr
Horseshoe Bay Blvd
Horseshoe Bay Conference Center
Lucy Lane Shared Use Path
Lucy Ln
2147
2147
2147
Dalton Cir
Cottonwood Shores
Hi Circle North
Short Circuit
Free Rein
Thanksgiving Mtn Rd
Hi Ridge Rd
Silver Spur
N Big Spur
Hi Stirrup
Hi Circle South
Tail Wind
Twin Sails
2147
Slick Rock Clubhouse
Out Yonder
Deep Shadows
Pawnee
Winding Wind
Western Bit
Quick Draw
Air Park
Cheyenne
Mountain Dew
Dakota
White Tail
Silver Maine
Clayton Nolen Dr
Panorama Pass
Long Shot
Purple Sage
Hi Mesa
S Wind
Shared Use Path Concept Plan
1 inch = 1,500 feet
0
750
1,500
Feet
N
W
E
S

Truck Mounted Camera System for PCI Measurement

## Pavement Condition Index Program Implementation

The City of Horseshoe Bay has many miles of streets that it maintains across the City. The condition of the streets vary from newly paved roadways to roadways that were constructed as part of the original development as a chip seal surface that are largely deteriorated. The City has an ongoing program to upgrade the pavement for residential streets, primarily based on the density of housing that exists. A street is eligible for having the pavement upgraded once it reaches a density of 15 houses per mile. There are some roadways in Horseshoe Bay that have been upgraded, but due to traffic volumes and heavy trucks, have been damaged and are in need of rehabilitation. In order to provide an accurate and objective assessment of the pavement conditions across the City, it is recommended that the City consider the implementation of a Pavement Condition Index (PCI) program. The PCI is a numerical rating that measures the overall condition of a road section from 0 to 100. A score of 100 represents a newly paved road and 0 represents the worst condition. The PCI measures the extent and severity of pavement surface distresses including cracking, spalling, rutting, and potholes. The PCI data would be used to assist the City in planning capital improvement programs, estimating long-term budgets for roadway improvements, and determining the expected level of future maintenance costs. The PCI can be measured for roadways across the City in a cost effective manner using a truck mounted camera system. The data can be recorded in an asset management system and tracked for planning future programs.

## Traffic Volume Monitoring Program

There is limited data on traffic volumes in Horseshoe Bay. Monitoring traffic volumes on a periodic basis (each two years) is a recommended practice for the City to implement by performing traffic counts at key locations around the City. This will allow the City to build a database of traffic volumes over time to assess and measure the impact of projects, like the Wirtz Dam Road Project, that may increase through traffic volumes in the City. It will also be a valuable tool to measure and monitor growth rates and allow the City to evaluate the traffic capacity of roadways and intersections to determine when improvements are needed. Utilizing traffic volume and PCI data will provide the City the data it needs to prioritize capital improvement and maintenance programs.

## Additional Considerations

In addition to the recommendations previously discussed, the TAC received feedback on other areas of the City where improvements may be considered.

## Faultline Rd.

The TAC received comments from residents regarding Faultline Rd. stating that it is a relatively narrow residential street that serves several

Faultline Rd.

residents and side street connections along its route. It has steep grades and sharp horizontal curves along its 2.4 mile extent from Bay West Blvd. to Wennmohs Place. Comments received included resident concerns about vehicle speed on the roadway and the narrow width that is an issue for pedestrians and bicyclists interacting with motorists. The Horseshoe Bay Police Department reported that they have monitored speeds on Faultline Rd. and the data collected does not necessarily support that excess speed is an issue relative to other roadways in the City. The restricted ROW width does not provide much opportunity to modify the roadway. The TAC recommends the City continue to monitor the conditions on Faultline Rd. and consider implementation of traffic calming measures if conditions dictate.

## Roadway Signage

There are many roadway signs in Horseshoe Bay that do not meet recognized standards for visibility. The Manual on Uniform Traffic Control Devices (MUTCD) defines standards used by road managers nationwide to install and maintain traffic control devices on each street open to public travel. In general, regulatory signs, such as stop signs, and warning signs should be installed at a minimum height of 5-ft. Where parking, bicyclists, or pedestrians also use the roadway, the minimum height should be 7-ft according to MUTCD. There are many locations within Horseshoe Bay where signs are installed at a very low height, which makes them difficult to see. In some cases, the lack of visibility of the signs defeats the purpose of their intent to regulate or provide warning to motorists. The TAC recommends that the City review the installation and visibility of regulatory and warning signs in the City and evaluate modifying the installations to comply with MUTCD.


Warning Signs with Low Height

# 7 Implementation

## Prioritization of Improvements

The TAC evaluated each of the recommended improvement projects and applied the following general objectives to evaluate and rank the improvement projects. These objectives were:

1. Enhance safety and mobility of the transportation system by improving traffic operations, roadway safety, and non-motorized traffic facilities.
2. Enhance system connectivity by improving active transportation and access with pedestrian, bicycle, and golf cart connectivity.
3. Minimize costs associated with construction.

The outcome of the effort was a ranked list of 15 proposed projects for advancement of implementation within the next five years. It should be noted that many of these projects shown are intended to advance the conceptual plans, included herein, to more detailed plans with construction cost estimates. This is needed for the City to be able to properly plan and budget for these future improvements. While some of the listed projects include areas where immediate improvements are recommended, several projects are recommended to be advanced so the right-of-way is preserved and the projects are more "shovel ready" when conditions are in place for construction.

EARLY PROJECT DEVELOPMENT ENABLES PROJECTS TO BE **"SHOVEL READY"** WHEN FUNDING OPPORTUNITIES ARISE.

# RECOMMENDATIONS FOR IMPLEMENTATION STEPS NEXT FIVE YEARS

## RECOMMENDED PRIORITY IMPROVEMENTS (2025 - 2029)

| Priority | Goal | Task | Budget Recommendation |
|---|---|---|---|
| 1 | Intersection Safety Improvements | Cat Canyon / Bay West Blvd.<br>Surveying / ROW acquisition | $200,000 |
| 2 | SUP Implementation | Implement 6ft separate lane and wayfinding signage on Bay West Blvd. from Caprock Clubhouse to Pecan Crossing | $75,000 |
| 3 | SUP Implementation | Easement acquisition – legal, surveying, acquisition | $200,000 |
| 4 | SUP Implementation | Geotechnical borings for FM 2147 tunnel crossing | $16,000 |
| 5 | SUP Implementation | Preliminary engineering for SUP | $50,000 |
| 6 | Intersection Safety Improvements | Bay West / Broken Hills / Faultline<br>sight distance Improvements | $25,000 |
| 7 | Intersection Safety Improvements | Cat Canyon / Bay West Blvd.<br>Preliminary engineering for alternative connection including ROW requirements, cost estimates, and roadway drainage crossing | $50,000 |
| 8 | Regional Coordination | Wirtz Dam Rd. – Advance planning for US 281 / SH-71 connection | $75,000 |
| 9 | SUP Implementation | Implementation Funding - 20% Match - TA Grant Program - $2M, Financed thru General Obligation Bond (20 yrs, 4.25%) | $600,000 |
| 10 | Future Planning | Implement pavement condition index for City streets to assist with inventory and decision methodology for future upgrades | $40,000 |
| 11 | Intersection Safety Improvements | Thanksgiving Mountain Rd. / FM 2147<br>Preliminary design for left-turn lane, illumination / warning signage at curve | $40,000 |
| 12 | Intersection Safety Improvements | Bay West / Broken Hills / Faultline<br>Intersection improvements<br>Preliminary design | $40,000 |
| 13 | Intersection Safety Improvements | Bay West Blvd. / FM 2147<br>Coordinate roundabout design with TxDOT and local landowners | $30,000 |
| 14 | Intersection Safety Improvements | Horseshoe Bay Blvd. / FM 2147<br>Coordinate roundabout design with TxDOT | $30,000 |
| 15 | Future Planning | Implement biennial traffic counts at key locations during early May to assess traffic growth and impact of Wirtz Dam Rd. | $30,000 |
| **TOTAL** | | | **$1,501,000** |

# RECOMMENDED PRIORITY IMPROVEMENTS (2025 - 2029)

| Fiscal Year Implementation | | | | |
|---|---|---|---|---|
| **2025** | **2026** | **2027** | **2028** | **2029** |
| $115,000 | $85,000 | | | |
| $75,000 | | | | |
| $130,000 | $70,000 | | | |
| $8,000 | $8,000 | | | |
| $50,000 | | | | |
| $25,000 | | | | |
| | | $50,000 | | |
| $25,000 | $25,000 | $25,000 | | |
| | $150,000 | $150,000 | $150,000 | $150,000 |
| | $40,000 | | | |
| | $40,000 | | | |
| | $40,000 | | | |
| | $30,000 | | | |
| | $30,000 | | | |
| $10,000 | | $10,000 | | $10,000 |
| **$438,000** | **$518,000** | **$235,000** | **$150,000** | **$160,000** |

## Funding

Funding and financing of the short-term, mid- term, and long-term improvements will require the combination of existing sources; identification of new sources; collaboration with other local, regional, and state agencies; identification of private partnerships; and the City to position improvements for competitive funding opportunities that may arise. Certain projects may be funded entirely through existing sources. Other projects may have some level of existing or new sources for early project development (i.e., environmental, design, ROW preservation, etc.). When competitive funding opportunities arise, these projects will be well-positioned to compete (in most cases, be "shovel ready"). While infrastructure investment programs have greatly expanded at the federal level, competition for federal and state funding continues to be very strong.

The City has access to Transportation Development Credits that may be used to leverage with federal funding sources. Transportation development credits, or toll credits, allow states to maximize the use of federal transportation funds in place of traditionally required state or local matching dollars. Credits are earned when a state or toll entity funds a capital transportation investment with toll revenues from existing toll facilities. Funding opportunities through state and federal grants will typically require a local match, as much as 20% of the project cost. In some cases, Transportation Development Credits may be used to satisfy a local match requirement, rather than actual dollars from the City.

In summary, funding sources that currently are available to the City include:

- Allocated funds from the City's Annual General Revenue in the Municipal Budget.
- Long-term financing through the issuance of general obligation bonds or certificates of obligation based on property tax revenue.
- Grants funded by federal and state programs for specific transportation improvements.
- Potential establishment of Roadway Impact Fee funding specific improvements as a result of new platted developments.
- Cost-participation with local and state partners (i.e., TxDOT, Burnet County, City of Marble Falls, City of Cottonwood Shores, Llano County, and developers).
- Public-Private Partnerships, including participation by private companies, donations of ROW by private landowners, and cost participation by developers for projects that are mutually beneficial.

# 8› Summary and Conclusions

## Recommendations and Strategies

The City of Horseshoe Bay is a developing community. Most of the City has been planned, platted, and the transportation network largely constructed and in place. While this is positive with respect to having existing infrastructure, many parts of the City were not planned with the concept of alternative or active transportation methods, including pedestrian, bicycle, and golf cart mobility. Today's residents have a strong desire to travel within the City without the use of their motor vehicles, actively walk their neighborhoods, bicycle, and travel in their golf cart to enjoy the beauty the City offers. They want to travel to key destinations within the City without the need for a vehicle. It creates a major challenge for the City to be able to retrofit the transportation network with many of the improvements that its citizens desire today. This TP provides a guide for beginning the implementation of key initiatives to improve safety at key locations; propose innovative concepts at key intersections; transform the City into a more walkable community and provide safe access for bicyclists and golf cart recreationists; and promote engagement in regional coordination for transportation infrastructure outside of the City that will be impactful to the City.

This TP identifies and prioritizes improvements that encourage safe and efficient travel within and through the network. It is intended to serve as a living document, to support and uphold the goals of the City, and to provide a framework for future transportation decisions for the City of Horseshoe Bay. The TP should be reviewed regularly as growth continues within and around the City and as projects are further developed. Traffic, land use, and other conditions may change over time. Reassessing the TP will also help maintain consistency with the City's overall goals and priorities.

## Safety Improvements

As development continues in the City of Horseshoe Bay, new roadways will be needed to connect people safely and efficiently to the

THE CITY OF HORSESHOE BAY HAS BEEN **PROACTIVE IN PLANNING IT'S TRANSPORTATION NETWORK** FOR THE CITY'S FUTURE.

key destinations. As funding becomes available, recommendations in the TP can be implemented to enhance connectivity across the City's transportation network.

Many of the safety improvements recommended are related to intersection improvements. While these intersections operate satisfactorily today, the TAC identified several intersections that are currently or projected to become problematic as growth continues and traffic levels increase. There is an opportunity to work jointly with TxDOT through the Area Office and TxDOT's Innovative Intersection Program on implementation of roundabouts at some of these key intersections.

This TP recommends advancement of the planning, design, ROW acquisition, and utility relocations so that these projects are more "shovel ready" when funding is available to implement these priority projects.

## Shared Use Path Implementation

By far, the strongest response the TAC received was for support in implementing a plan to provide improved pedestrian and bicycle mobility around the City. Residents strive for the ability to commute to key destinations within the City without the need for a motor vehicle. The TAC outlined the concept of a SUP plan for the City to connect from Caprock Clubhouse in Horseshoe Bay West to Escondido, Bayside Market complex, Summit Rock Clubhouse, Slick Rock Clubhouse, and Horseshoe Bay Resort. The SUP Plan also includes a separate route for citizens who live in The Waterlands (Lucy Lane) to be able to commute to Horseshoe Bay Resort and connect to the other destinations in Horseshoe Bay. The TAC worked diligently to prepare a $9.85M application to the Transportation Alternatives Grant Program in 2023. That effort fell just short of the funding line, and the TAC received feedback from the evaluators on how to strengthen the application for the next grant cycle.

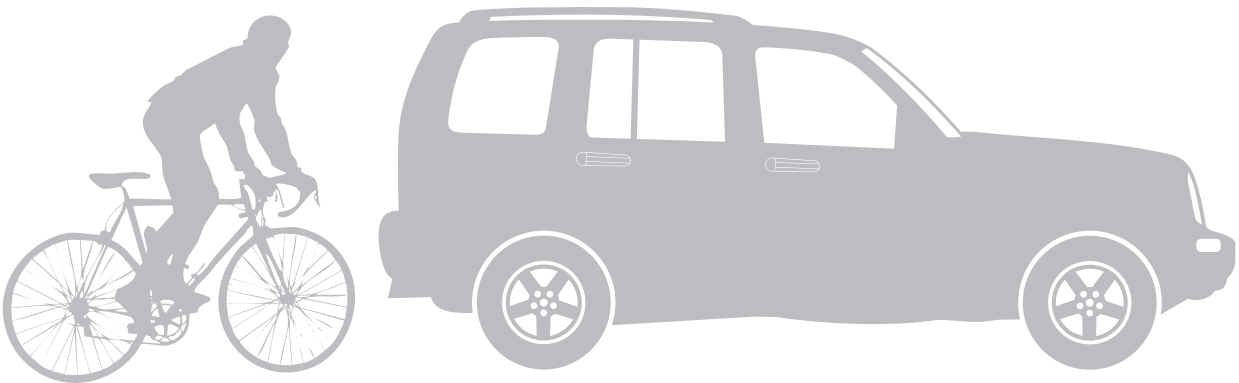
The Transportation Alternatives Grant Program receives applications every two years. The next cycle of grant applications is scheduled to be accepted in the spring of 2025 with awards announced in the fall of 2025.

It is the recommendation of the TAC for the City to position for the 2025 Transportation Alternatives Grant Program by developing the proposed project further toward "shovel readiness" by:

- Implementing striping of a separate lane on Bay West Blvd. from Caprock Clubhouse to the Pecan Crossing to provide connectivity for the proposed project.
- Advancing the design of the proposed SUP.
- Coordinating with local landowners to acquire the ROW and easements needed to implement the project.

## Plan for Future Growth

The City of Horseshoe Bay will continue to grow and expand as it is a desirable place to live, work, and play. The original master planned community of Horseshoe Bay was developed without consideration to make it a pedestrian, bicycle, or golf cart friendly community. The transportation network was primarily planned for vehicles only. This has created a challenge



for the City of Horseshoe Bay to implement an active TP, including the SUP plan, as there is limited ROW or allowances for these types of facilities in the existing transportation network. The TAC recommends the City implement policies to require sidewalks and trails in planned new developments as citizen response demonstrates that these types of facilities are important to the community. Connectivity of these facilities to similar facilities within the City should be promoted with each new development. Implementation of the Image Corridor along FM 2147 will be important to maintain the scenic character of the City of Horseshoe Bay.

The City of Horseshoe Bay was recognized by the Texas Municipal League as the Most Scenic City in 2023. It's important to its citizens to maintain this quality. FM 2147 is the main transportation corridor through Horseshoe Bay. As development occurs along FM 2147, implementation of the image corridor to include landscaping and allowances for SUPs and trails will be critical to maintaining the character of the City and providing for future opportunities to make the city more walkable and bicycle and golf cart friendly. The City of Horseshoe Bay will be impacted by growth and new development that occurs regionally, outside of Horseshoe Bay. The TAC recommends the City maintain a cadence of performing traffic counts biannually to monitor growth and measure regional impacts. As an example, there are differing opinions on the impact of the implementation of Wirtz Dam Rd. on the traffic volume through Horseshoe Bay. Performing traffic counts on FM 2147 prior to implementation of this project, and again after the project is in service, will provide the City the data to determine its actual impact. Traffic count data will also allow the City to measure growth and trends in traffic volume within Horseshoe Bay to provide the data to support decisions on requesting improvements from TxDOT on FM 2147 and SH-71, determining when key intersection improvements within Horseshoe Bay are warranted, and monitoring general growth trends.

## Regional Coordination

As Horseshoe Bay continues to grow and new development occurs, the City will gradually connect more with neighboring communities, including the City of Marble Falls and Cottonwood Shores. TxDOT, Burnet County, and Llano County will continue to have an impact on the major corridors in and around Horseshoe Bay. Just like with Wirtz Dam Rd., it will be important for the City to continually coordinate with the local, regional, and state agencies to understand their plans and the potential impact on Horseshoe Bay. The City needs to continue to collaborate with the neighboring communities on solutions to regional transportation issues. It will be important to coordinate proposed regional projects so that they are included in each community's planning documents.

# 9 › Appendix

(1) TxDOT Innovative Intersections Program

Texas Department of Transportation

# Innovative Intersections Program

## Fact Sheets

SEPTEMBER 2024

# MODERN ROUNDABOUT

**Here are some key points to emphasize when discussing modern roundabout intersections.**

## WHAT IS A MODERN ROUNDABOUT?

A modern roundabout is a circular intersection to move traffic in a counterclockwise direction around a central island. Traffic entering a roundabout must yield to traffic already circulating in the roundabout.

## WHAT ARE THE TYPICAL DESIGN CHARACTERISTICS OF A MODERN ROUNDABOUT?

The modern roundabout design may use one of the following configurations: mini, single-lane and multi-lane (Figure 6). Based on traffic volumes and project constraints or impacts, the roundabout design can be used in both urban and rural settings. This intersection type can be adjusted to facilitate traffic bypass (via a channelized right-turn design) or accommodate large vehicular traffic (a traversable central island or use of a split islands design approach).

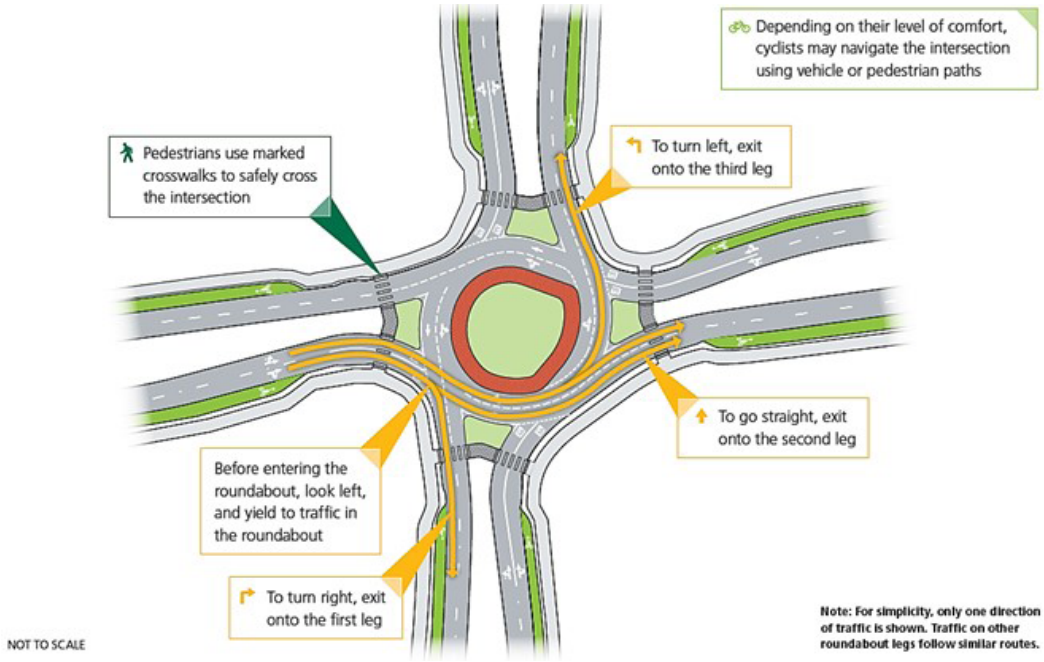



**FIGURE 6 - MULTI-LANE ROUNDABOUT**

## WHAT ARE THE BENEFITS OF USING MODERN ROUNDABOUTS?

This design improves safety by promoting lower speeds, reducing conflict points and minimizing head-on and right-angle collision potential as a result. The low number of conflict points also make roundabouts bicyclist and pedestrian friendly. In addition, modern roundabouts reduce traffic delays and vehicle back-ups by distributing traffic volume across two intersections instead of one. Modern roundabouts are not signalized, and as a result, they reduce potential maintenance costs relative to a signalized intersection. The roundabout design also allows for landscaping and beautification.

# CONFLICT POINTS

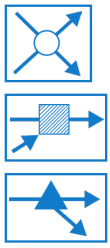
**Here are some useful safety facts and concepts to keep in mind when discussing conflict points.**

## WHAT ARE CONFLICT POINTS?

A conflict point is a location where the paths of two or more road users (for example, vehicles, pedestrians and cyclists) interact with one another, such as at road intersections. There is a strong correlation between the number of collisions that occur at an intersection and the number and severity of conflict points it contains.

## WHAT ARE THE DIFFERENT TYPES OF CONFLICT POINTS?

There are three distinct types of conflict points for road intersections. The diagram below compares conflict points at a traditional intersection and a roundabout.



1. **Crossing** conflicts occur when road users cross paths with one another. Collisions that occur at crossing conflict points are commonly known as right-angle crashes and are typically the most severe.
2. **Merging** is a conflict point type scenario in which road users are traveling in the same direction in different lanes simultaneously merge into the same lane. These crashes are typically referred to as sideswipes and are less severe than crossing conflicts.
3. **Diverging** conflicts occur when a road user diverges from one path to another. These diverging crashes often involve rear end crashes as the front vehicle slows to turn.

Figure 1 illustrates conflict point locations and types for both traditional and roundabout intersections.

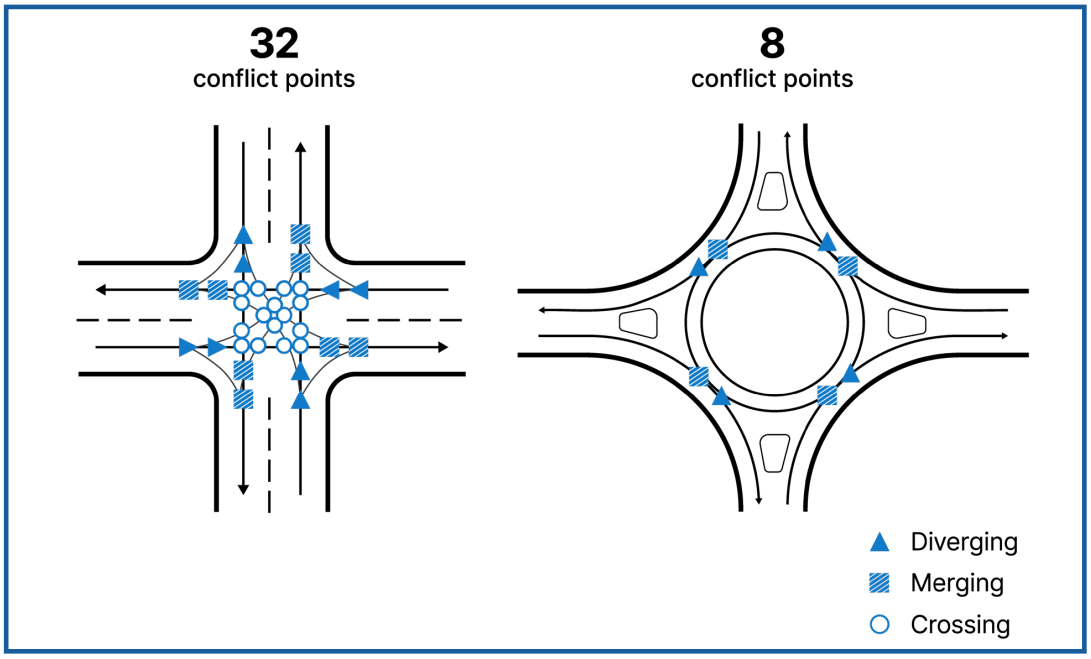



**FIGURE 1 - TRADITIONAL (LEFT) AND ROUNDABOUT (RIGHT) INTERSECTION CONFLICT POINTS**

# HOW MANY CONFLICT POINTS EXIST AT INNOVATIVE INTERSECTIONS?

Innovative intersections (Table 1) and interchanges (Table 2) contain fewer conflict points than are found at traditional intersections or interchanges.

| TYPE OF INTERSECTION | CROSSING | MERGING | DIVERGING | TOTAL |
|---|---|---|---|---|
| CONVENTIONAL INTERSECTION (FOUR-LEG INTERSECTION) | 16 | 8 | 8 | 32 |
| ROUNDABOUT | 0 | 4 | 4 | 8 |
| DISPLACED LEFT TURN (FULL) | 12 | 8 | 8 | 28 |
| DISPLACED LEFT TURN (PARTIAL) | 14 | 8 | 8 | 30 |
| MEDIAN U-TURN (FULL) | 4 | 6 | 6 | 16 |
| MEDIAN U-TURN (PARTIAL) | 6 | 8 | 8 | 22 |
| RESTRICTED CROSSING U-TURN | 2 | 8 | 8 | 18 |
| QUADRANT ROADWAY / SINGLE LOOP | 6 | 8 | 8 | 22 |
| CONVENTIONAL INTERSECTION (THREE-LEG INTERSECTION) | 3 | 3 | 3 | 9 |
| CONTINUOUS GREEN-T | 3 | 3 | 3 | 9 |

**TABLE 1 - CONFLICT POINTS (BY INTERSECTION DESIGN)**

| TYPE OF INTERCHANGE | CROSSING | MERGING | DIVERGING | TOTAL |
|---|---|---|---|---|
| CONVENTIONAL DIAMOND | 10 | 8 | 8 | 26 |
| SINGLE POINT URBAN | 8 | 8 | 8 | 24 |
| ROUNDABOUT | 0 | 6 | 6 | 12 |
| TWO ROUNDABOUTS (ONE AT EACH RAMP TERMINAL) | 0 | 8 | 8 | 16 |
| CLOVERLEAF | 0 | 8 | 8 | 16 |
| DIVERGING DIAMOND | 2 | 8 | 8 | 14 |
| PARTIAL CLOVERLEAF (PARCLO A4) | 2 | 4 | 6 | 12 |
| PARTIAL CLOVERLEAF (PARCLO B4) | 2 | 6 | 4 | 12 |
| DISPLACED LEFT TURN | 6 | 8 | 8 | 22 |

**TABLE 2 - CONFLICT POINTS (BY INTERCHANGE DESIGN)**

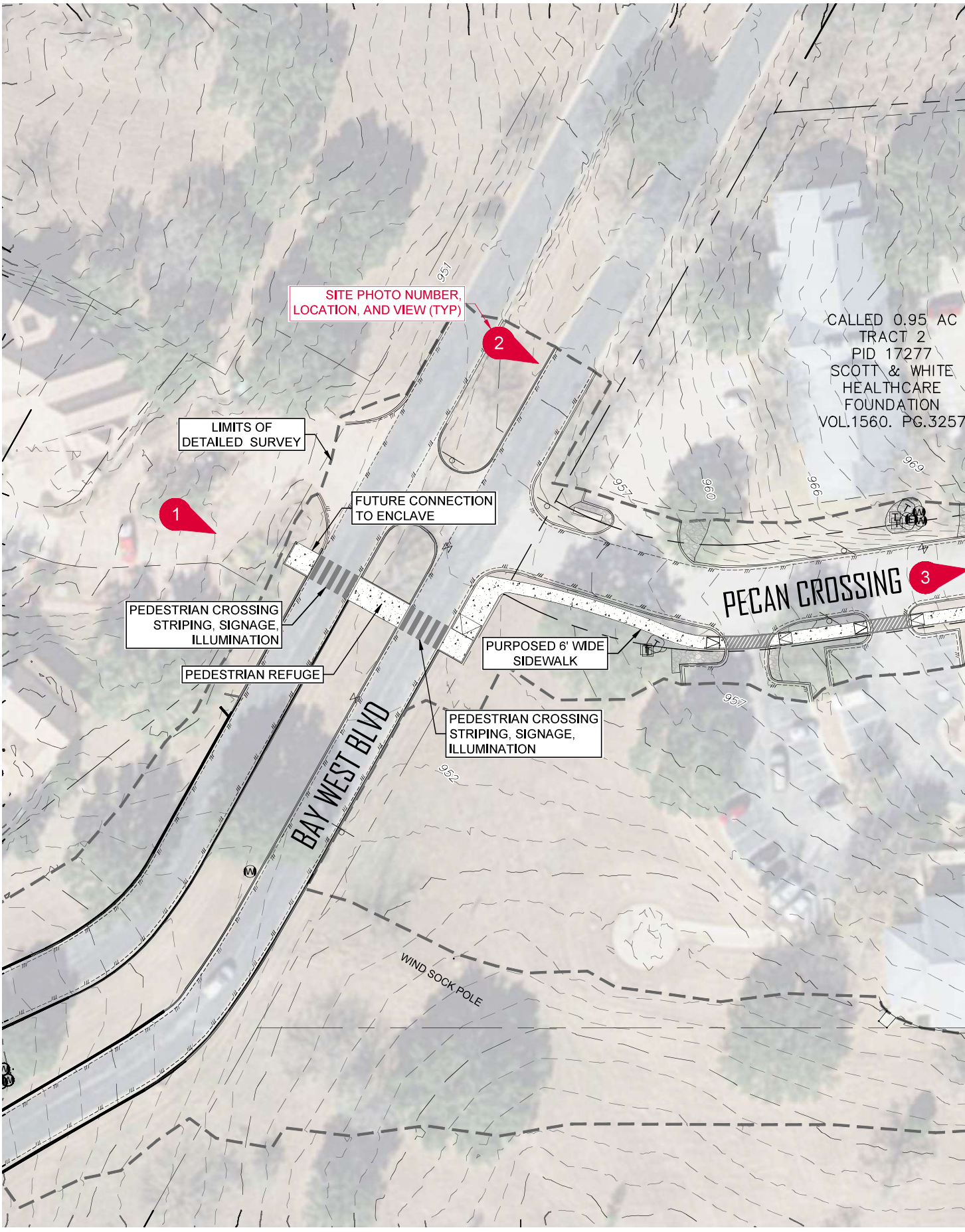
Bay West Blvd Entrance at FM 2147
Horseshoe Bay, TX  2025

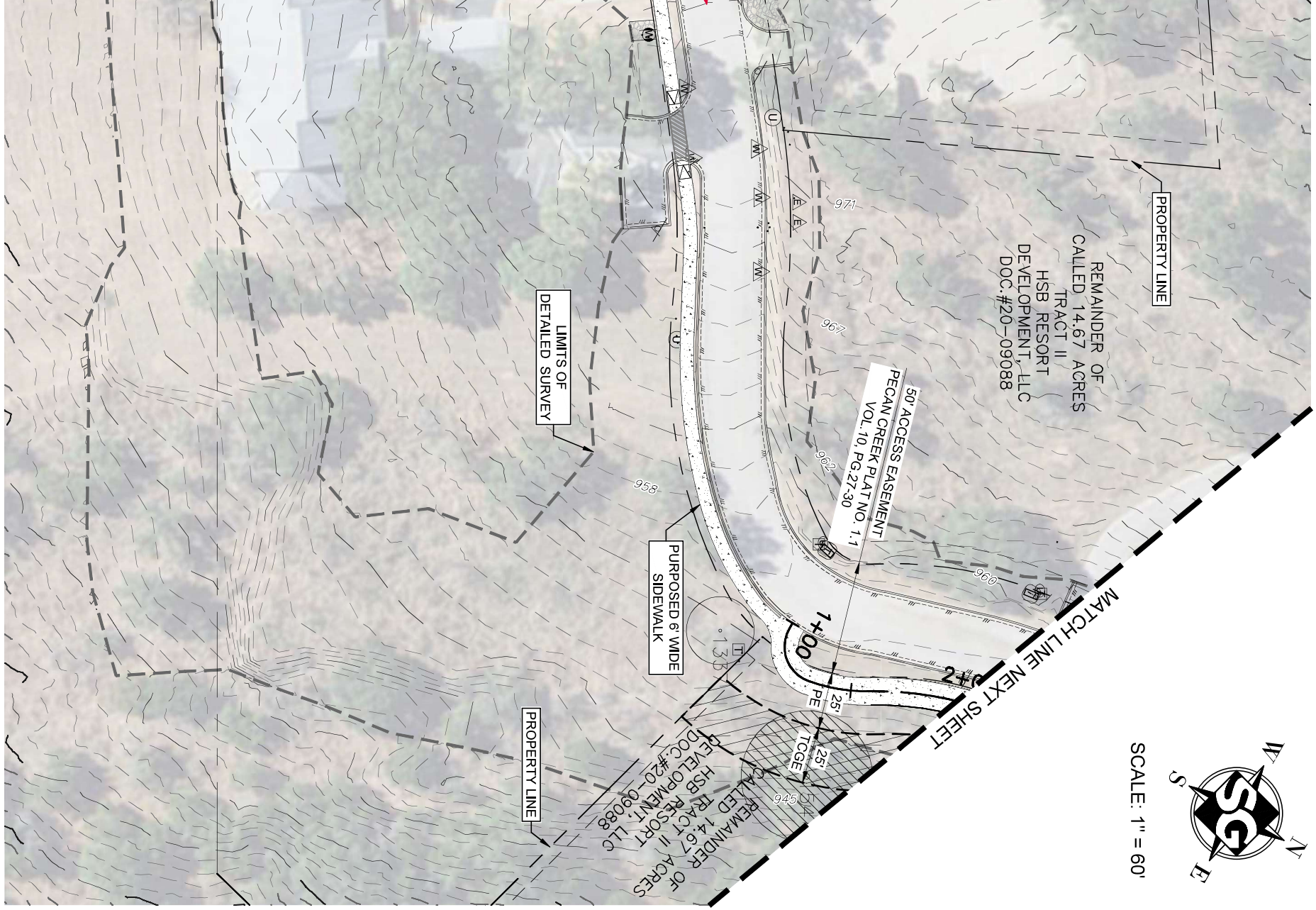
# 9 › Appendix

(2) Shared Use Path Concept Plans

Slick Rock Clubhouse
Horseshoe Bay, Texas

Summit Rock Clubhouse
(Near Completion, 2025)
Horseshoe Bay, Texas






**SHEET NO.**
1 OF 8

STA: 1+00.00 TO
STA: 2+00.00
SHARED USE PATH
CITY CENTER EXTENSION
CITY OF HORSESHOE BAY
LLANO COUNTY, TEXAS

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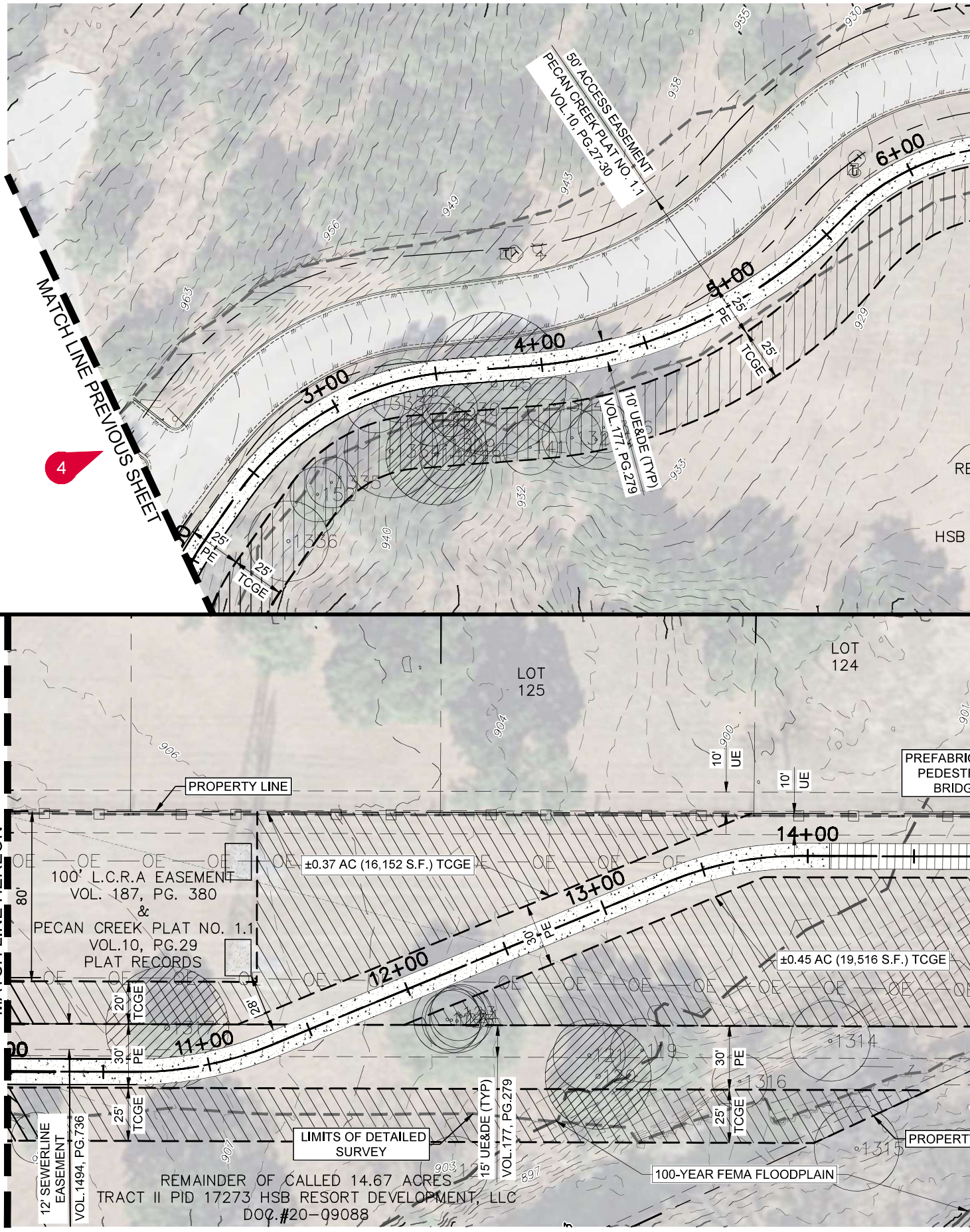

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STA: 2+00.00 TO
STA: 18+25.00
SHARED USE PATH
CITY CENTER EXTENSION
CITY OF HORSESHOE BAY
LLANO COUNTY, TEXAS

**SHEET NO.**
2 OF 8


SCALE: 1" = 60'

W N S E

SHEET NO. 3 OF 8

STA: 18+25.00 TO
STA: 26+00.00
SHARED USE PATH
CITY CENTER EXTENSION
CITY OF HORSESHOE BAY
LLANO COUNTY, TEXAS

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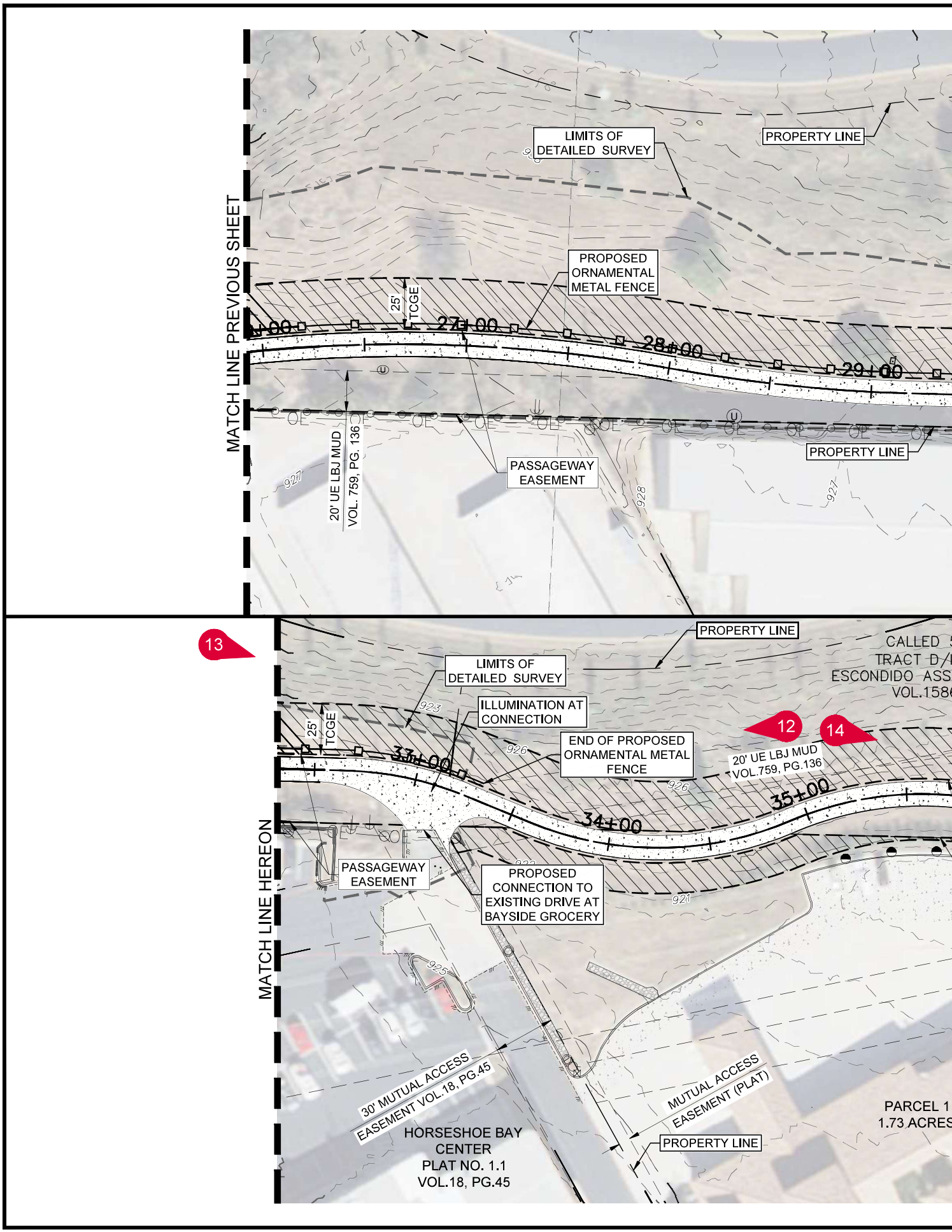

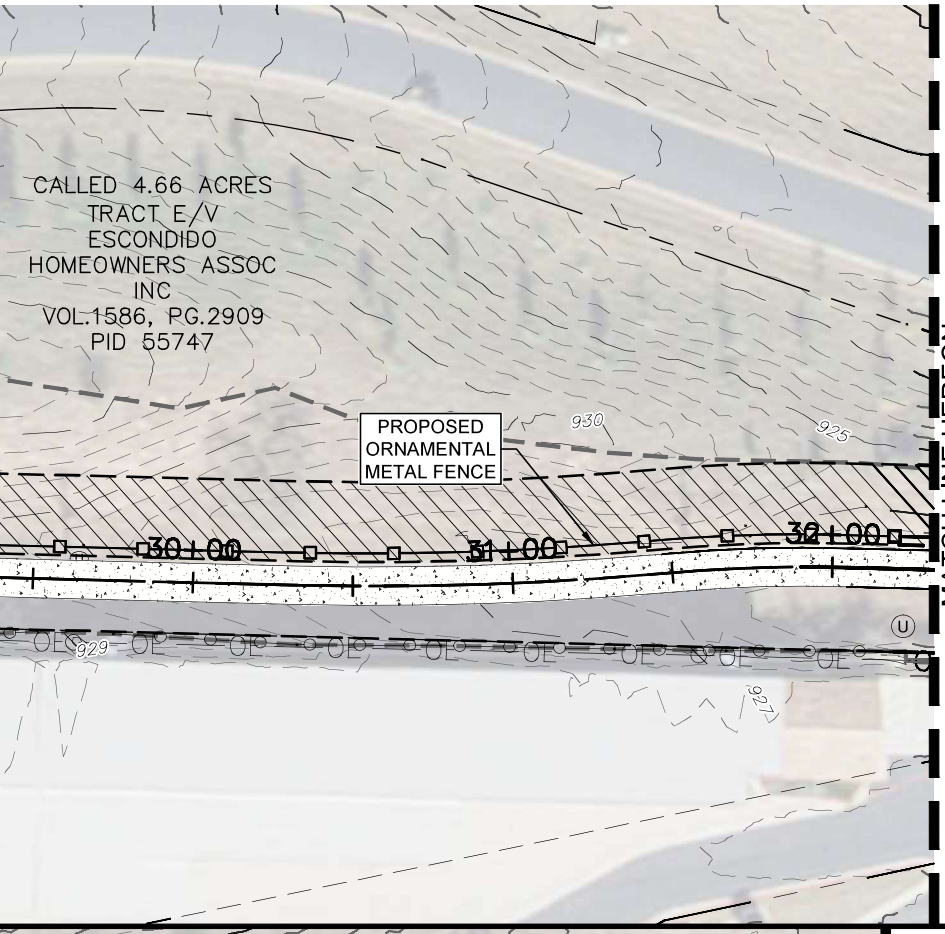


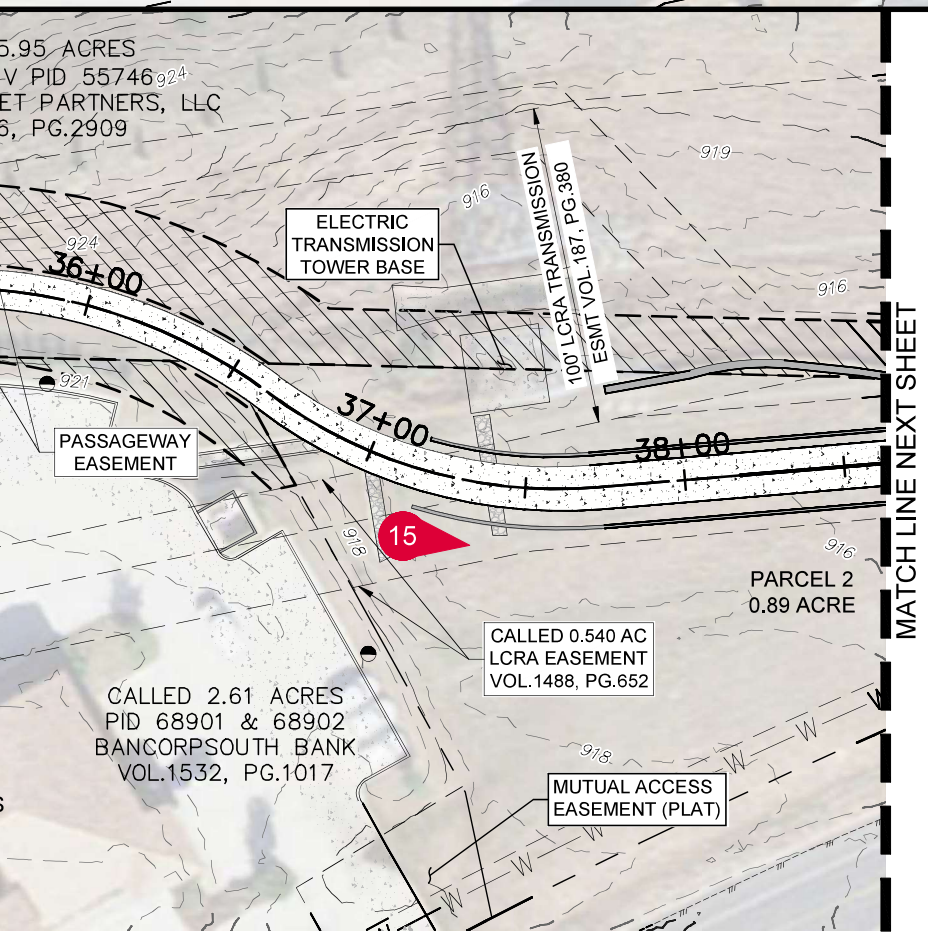



SCALE: 1" = 60'


SCALE: 1" = 60'

MC SURVEYING
79 S. WYNNOAK CIR.
SPRING, TX 77382
PH: 737-202-8333
WWW.MCSURVEYTX.COM
TBPELS #10194678

STR8GRADE
ENGINEERING
110 PAR THREE COURT, SUITE B
HORSESHOE BAY, TX 78657
PH: 512-253-2766 | WWW.STR8GRADE.COM
TBPELS #F-23169

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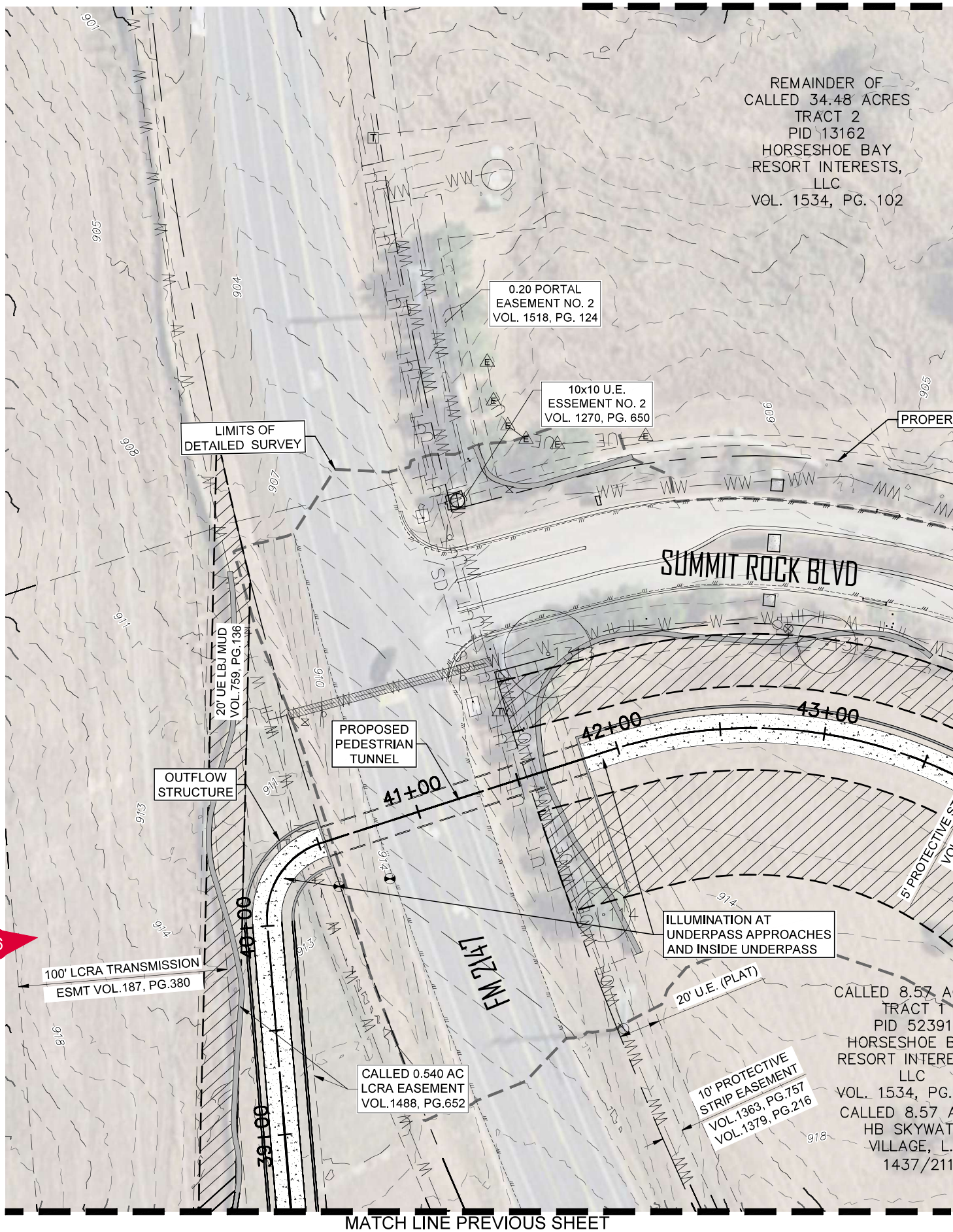
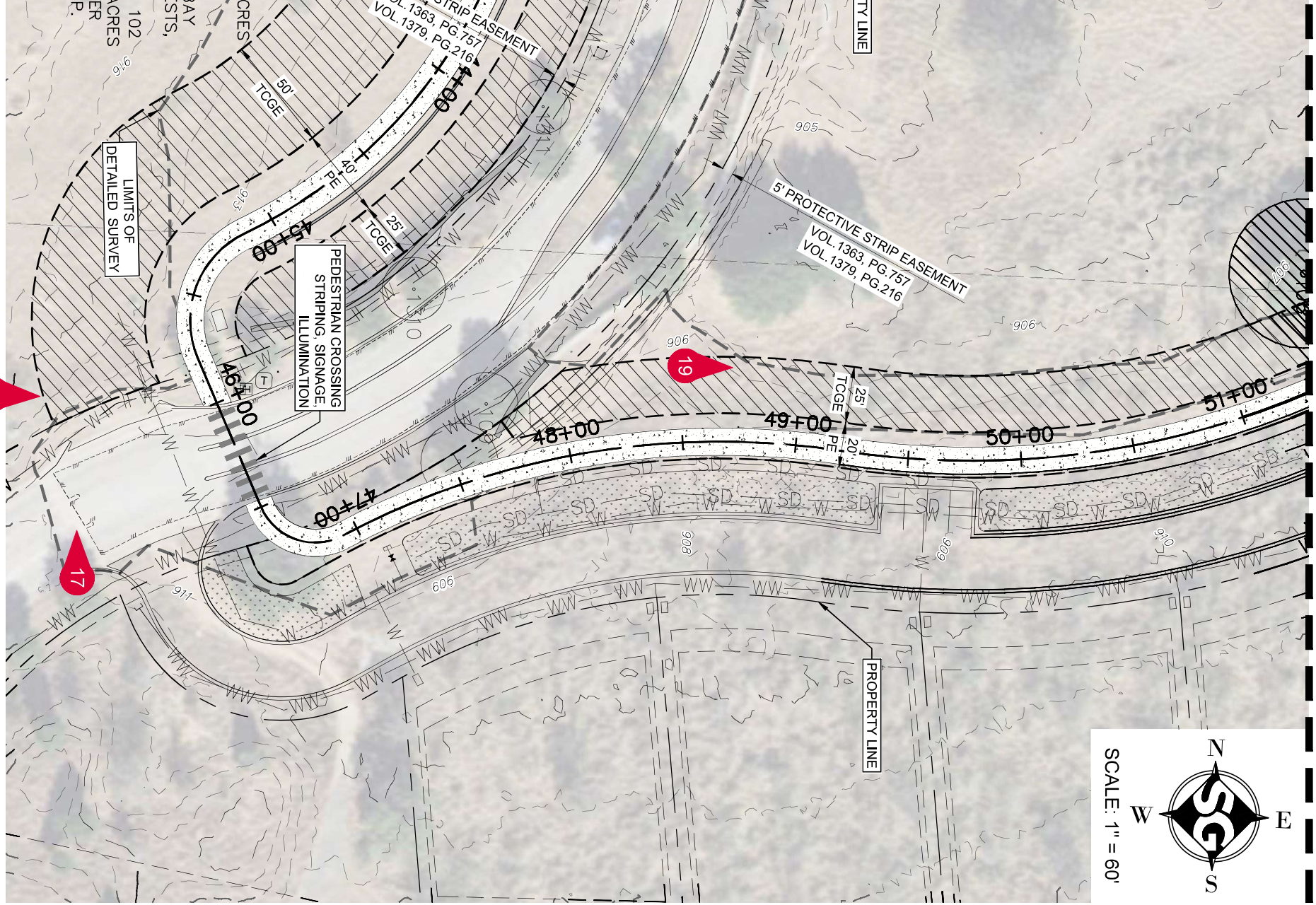
STA: 26+00.00 TO
STA: 38+50.00
SHARED USE PATH
CITY CENTER EXTENSION
CITY OF HORSESHOE BAY
LLANO COUNTY, TEXAS

**SHEET NO.**
4 OF 8




16




SHEET NO. 5 OF 8

STA: 38+50.00 TO
STA: 51+25.00
SHARED USE PATH
CITY CENTER EXTENSION
CITY OF HORSESHOE BAY
LLANO COUNTY, TEXAS

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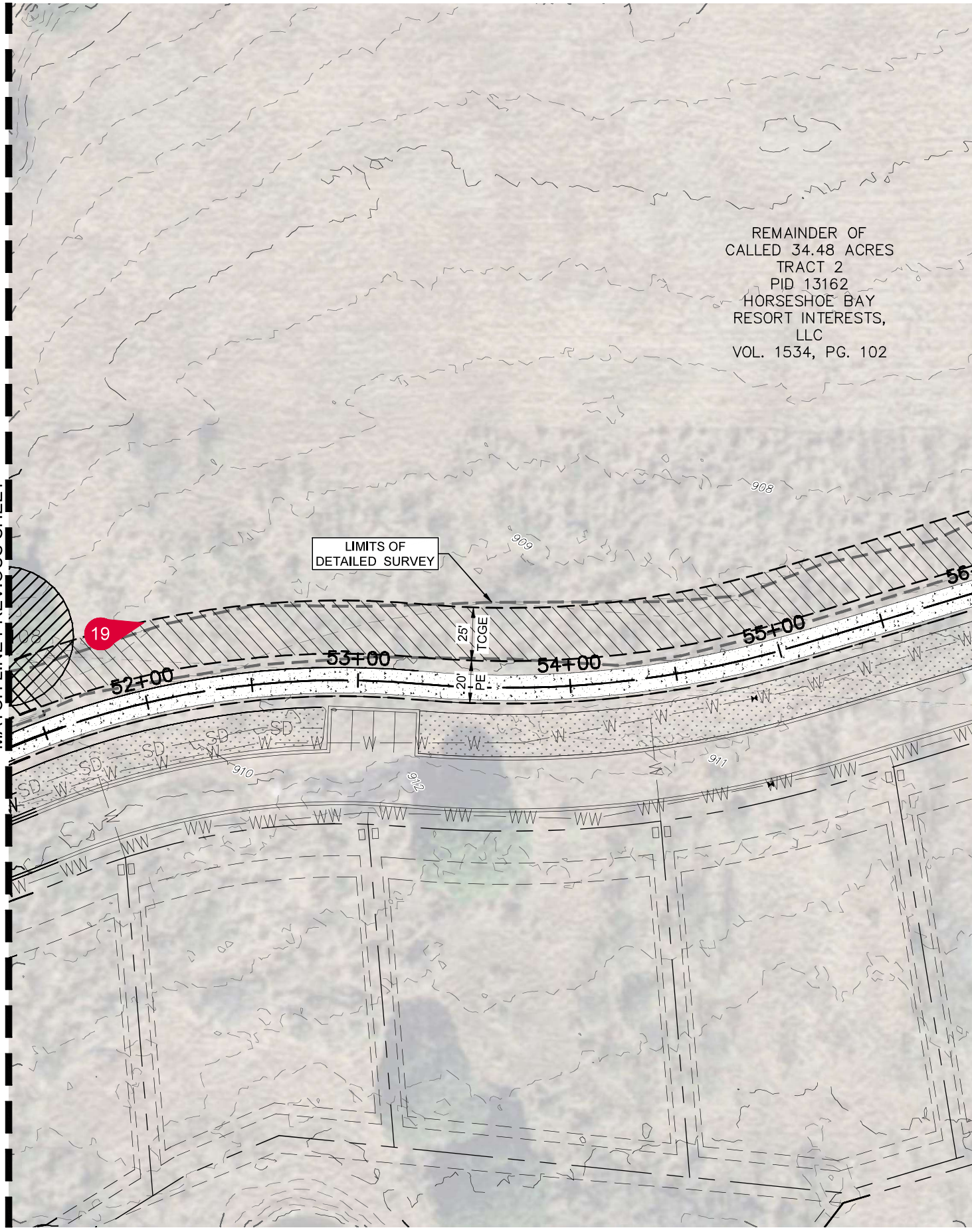


SHEET NO. 6 OF 8

STA: 51+25.00 TO
STA: 60+00.00
SHARED USE PATH
CITY CENTER EXTENSION
CITY OF HORSESHOE BAY
LLANO COUNTY, TEXAS

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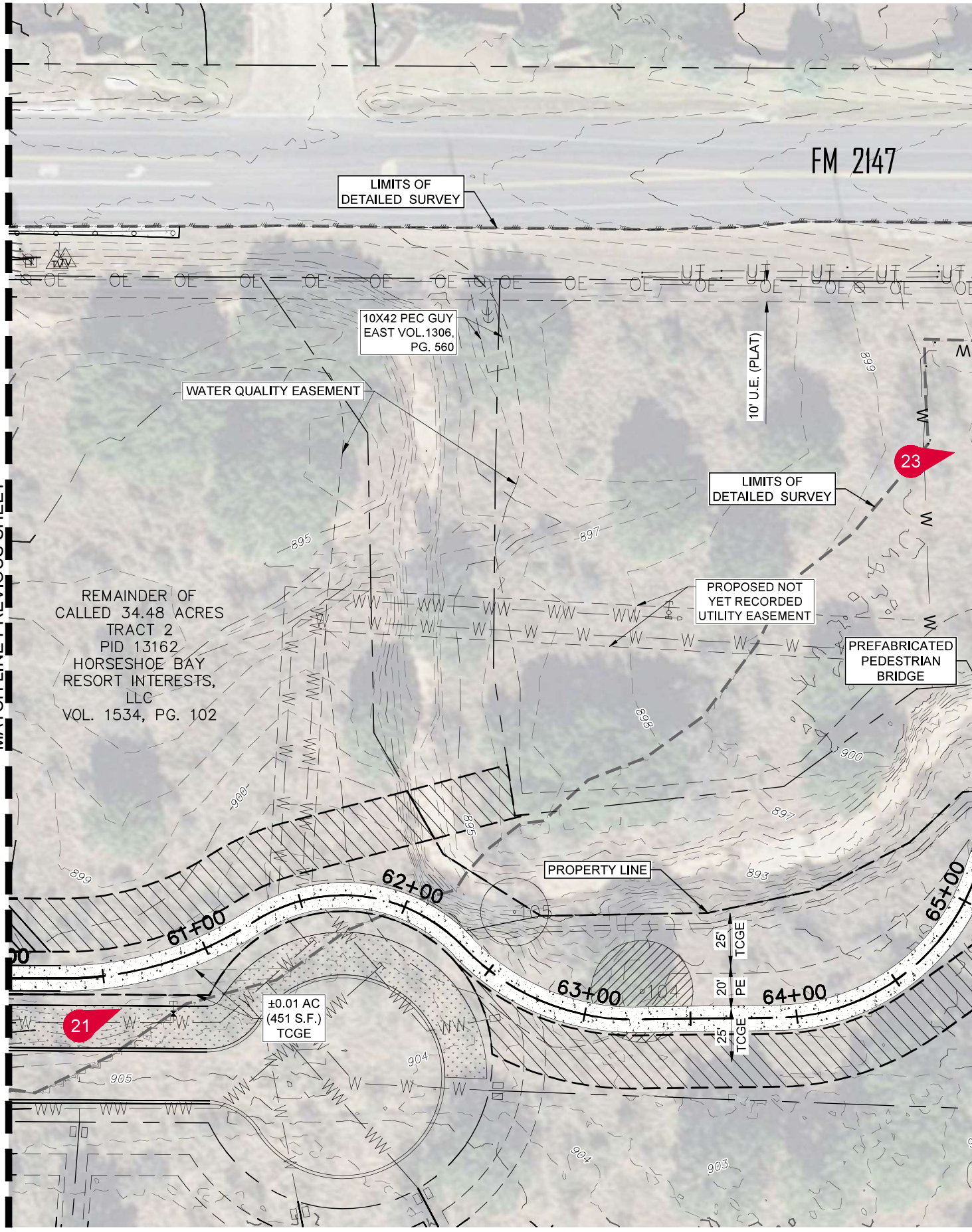

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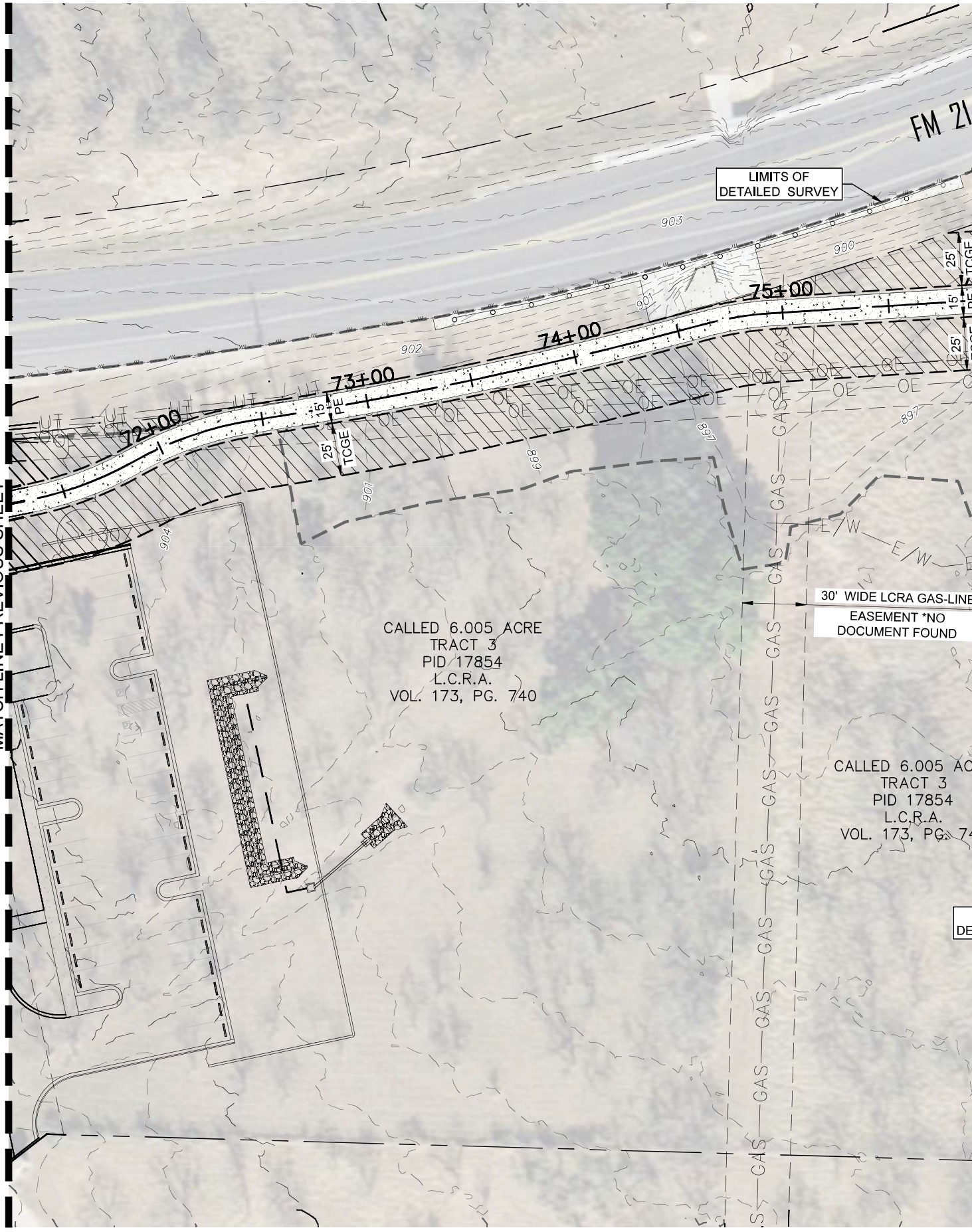
STA: 60+00.00 TO
STA: 71+00.00
SHARED USE PATH
CITY CENTER EXTENSION
CITY OF HORSESHOE BAY
LLANO COUNTY, TEXAS

**SHEET NO.**
7 OF 8

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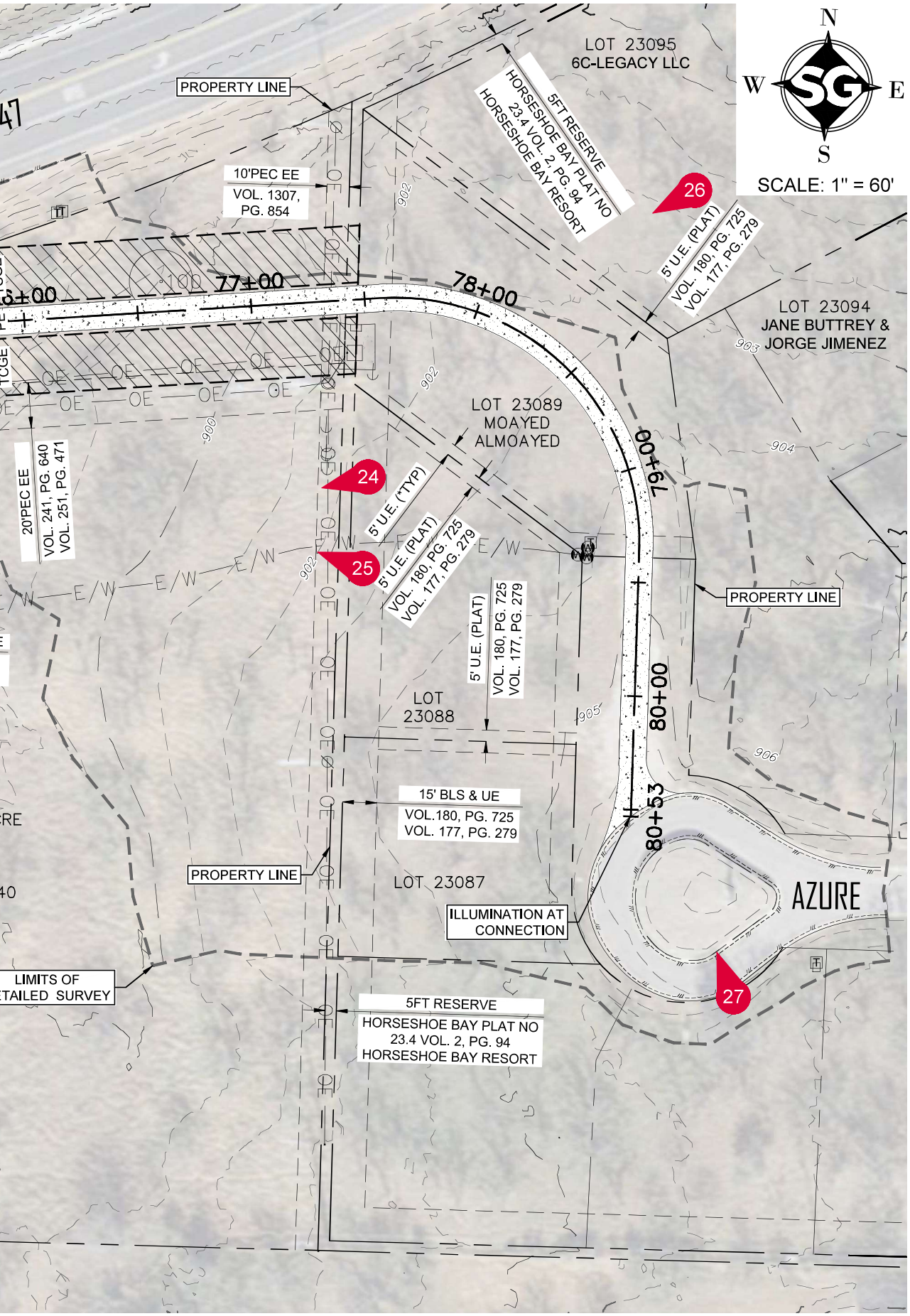


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STA: 71+00.00 TO
STA: END
SHARED USE PATH
CITY CENTER EXTENSION
CITY OF HORSESHOE BAY
LLANO COUNTY, TEXAS

**SHEET NO.**
8 OF 8

# Site Photos

1. *Looking east across Bay West Blvd at Pecan Crossing*

2. *Looking east along Pecan Crossing at Baylor Scott & White Medical Clinic*

3. *Looking northeast along Pecan Crossing from Baylor Scott & White Medical Clinic*

4. *Looking north along Pecan Crossing toward Pecan Creek Neighborhood connection*

5. *Looking east along LCRA easement from Pecan Crossing*

6. *Looking north at Pecan Creek bridge crossing.*

7. *Looking west along LCRA easement from Tori Lane.*

8. *Looking north along Tori Lane from LCRA easement crossing.*

9. *Looking east at Tori Lane, Pecan Creek Neighborhood connection, and Escondido connection.*

10. *Looking east along proposed path route near Escondido connection.*

11. *Looking east along proposed path route at Escondido connection.*

12. *Looking west along proposed path route at Escondido and Bayside Market connection.*

13. *Looking southeast along proposed route at Bayside Market connection and behind Cadence Bank.*

14. *Looking southeast along proposed route behind Cadence Bank and toward FM 2147 crossing.*

15. *Looking east along proposed route adjacent to Cadence Bank toward proposed FM 2147 crossing.*

***Site Photo locations and view direction shown in red on previous plan sheets***

# Site Photos

16. *Looking south at proposed FM 2147 Underpass crossing.*

17. *Looking north along Summit Rock Blvd at proposed FM 2147 Underpass*

18. *Looking east at Summit Rock Blvd crossing location and proposed route along Seventeen Fairway Drive.*

19. *Looking east at proposed route along north side of Seventeen Fairways Drive*

20. *Looking east at proposed route along north side of the end of Seventeen Fairways Drive*

21. *Looking east at end of Seventeen Fairways Drive and proposed Pecan Creek Tributary bridge crossing.*

22. *Looking east at proposed path route from Seventeen Fairways to new City Center*

23. *View of proposed path route looking east along FM 2147 at proposed route to new City Center.*

24. *View of proposed path route looking west from Azure Circle along FM 2147 to new City Center.*

25. *View of proposed path route looking west along FM 2147 toward new City Center.*

26. *View of proposed path route looking west along FM 2147 toward new City Center.*

27. *View of proposed route looking north at connection to Azure Cir.*

***Site Photo locations and view direction shown in red on previous plan sheets***

Thanksgiving Mountain Road
Sharp Curve
Horseshoe Bay, Texas

# City of Horseshoe Bay Transportation Plan 2025

## Transportation Advisory Committee

**Kelly Kaatz – Chair**

**Mark Bloschock – Vice Chair**

**Rhonda Kolar – Secretary**

**Lee Larkin**

**Crystal Barrington**

**Reuben Morgensteren**

**Rusty Stout**

## Consultants

**BOE, Inc.**

**Str8GRADE, LLC**

**Jeff Koska, City Manager**

## City Council

**Elsie Thurman, Mayor**

**Elaine Waddill, Mayor Pro Tem**

**Jeffrey D. Jones, Council Member**

**Dwight King, Council Member**

**Frank Hosea, Council Member**

**Buck Weatherby, Council Member**

Special thanks to Fallyn Leahey, Taylor Kaatz, Rudi Garza, Melanie Stamps, and Angelica Cortez in production of this report.

# City of Horseshoe Bay Transportation Plan 2025