



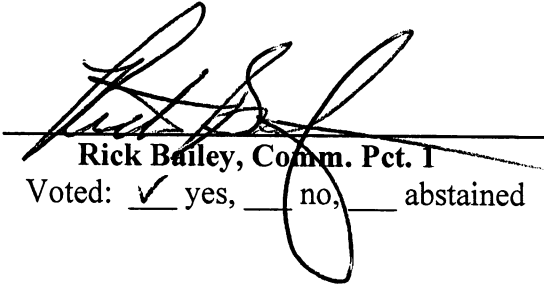
**IT IS THEREFORE ORDERED** that Johnson County does hereby adopt the City of Cleburne's Master Thoroughfare Plan, attached hereto as Exhibit "A", for areas of Johnson County, Texas are located in the ETJ of the City of Cleburne and require a right-of-way on a street or road in the City of Cleburne's ETJ that functions as a major thoroughfare be of a width of not more than 120 feet and further require a right-of-way on a street or road that functions as a major thoroughfare of width of more than 120 feet, if such requirement is consistent with a transportation plan adopted by the metropolitan planning organization of the region.

**WITNESS OUR HAND THIS, THE 8<sup>TH</sup> DAY OF JANUARY 2024.**



**Christopher Boedeker, Johnson County Judge**

Voted:  yes,  no,  abstained



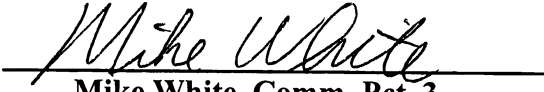
**Rick Bailey, Comm. Pct. 1**

Voted:  yes,  no,  abstained



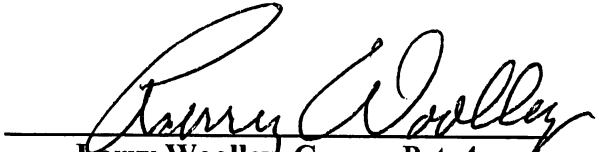
**Kenny Howell, Comm. Pct. 2**

Voted:  yes,  no,  abstained



**Mike White, Comm. Pct. 3**

Voted:  yes,  no,  abstained

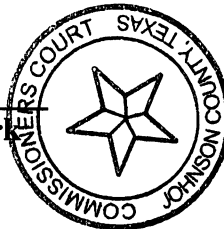


**Larry Woolley, Comm. Pct. 4**

Voted:  yes,  no,  abstained



**ATTEST: April Long, County Clerk**







January 2022

**CLEBURNE**

MASTER

THOROUGHFARE

PLAN

Prepared by  
**Kimley»Horn**



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# EXECUTIVE SUMMARY

The City of Cleburne, Texas, is experiencing substantial growth and development, spurring the need for an updated and modernized transportation plan. The Master Thoroughfare Plan (MTP) will guide Cleburne into the future as it continues to grow, while also maintaining Cleburne's strong community character. Preserving Cleburne's community character will require staying ahead of the rapid growth taking place through strategic thoroughfare planning. Given the significant growth in Cleburne, the MTP should be reevaluated every five years in order to assess progress and ensure the City is staying ahead of its growth.

## CHAPTER 1: EXISTING CONDITIONS

The 2022 MTP provides an existing conditions evaluation in **Chapter 1**, which summarizes where Cleburne is today and which direction they're heading. Elements included in the existing conditions chapter include developments that are under construction or anticipated (**Figure 1**), major thoroughfares by jurisdiction (**Figure 2**), current daily roadway level of service (**Figure 3**), current roadway cross sections (**Figure 4**), and recent crash data on Cleburne roadways (**Figure 5**) from Texas Department of Transportation (TxDOT).

## CHAPTER 2: THOROUGHFARES & ROADWAY CROSS SECTIONS

The existing conditions evaluation leads into the thoroughfares and cross sections chapter, which recommends revisions to Cleburne's current MTP map (**Figure 8**) and provides updated roadway cross sections (**Figure 13**). **Figure 12** (also shown on the next page) illustrates the 2022 MTP map, which integrates the revisions detailed in **Chapter 2**. These changes will help Cleburne stay ahead of the rapid growth taking place now and into the future. The modernized cross sections feature wider parkways, or non-travel lane sections of the roadway cross section. Wider parkways help increase multi-modal safety and reinforce a sense of pride in the community by creating spaces for families to comfortably walk or bike around their neighborhoods.

## CHAPTER 3: INTERSECTIONS

The MTP also addresses the importance of designing and maintaining intersections to increase safety and reduce congestion (**Chapter 3**). Improvement recommendations were developed for Cleburne's nine City-owned signalized intersections, ranging from improved signal timing, pedestrian push buttons, Americans with Disabilities Act (ADA) compliant ramps, and other infrastructure improvements (**Table 6**). The MTP also provides signal design guidelines for standardized infrastructure and maintenance across the City (**Appendix C**). Additional intersections (**Table 7**) across the City may benefit from further evaluation for potential improvements. Generally, several intersections can reduce congestion through signal timing, widening intersections with turn lanes, and other smaller improvements. These short-term fixes may replace the need for widening a roadway, with adequate evaluation and justification.

## CHAPTER 4: RECOMMENDED PROJECTS

**Chapter 4** identifies 26 recommended projects (20 roadways and 6 intersections) for consideration. Each project is grouped into Tier 1, Tier 2, or Tier 3. Tier 1 projects should be considered first as funding becomes available. Tier 1 Projects have been identified as the most beneficial to the City and its residents in the near term, causing them to elevate in recommended priority. Tier 2 Projects should be considered after the Tier 1 Projects are completed. Tier 2 Projects have been identified as slightly less impactful than the Tier 1 Projects today, however they are still essential to the ultimate transportation system. These projects will be needed to stay ahead of Cleburne's growth and maintain well-functioning roadways. Tier 3 Projects should be monitored and reevaluated in five years. The City may consider these projects after the Tier 2 Projects are complete. **Table 10** lists all 26 recommended projects by tier. All projects should be reevaluated every five years in order to ensure each project is still relevant and purposeful in staying ahead of Cleburne's growth.

## CHAPTER 5: IMPLEMENTATION

The MTP addresses additional implementation elements for consideration in **Chapter 5**. Many of these elements help contribute to, and preserve, Cleburne's strong community character. As Cleburne continues to grow, existing and new residential areas may utilize the MTP's traffic calming toolkit to prevent speeding and increase safety. Native landscaping and gateway features (**Figure 24**) can also contribute to Cleburne's community character. A new overlay district (**Figure 23**) is also recommended in the MTP, with the goal of preserving Cleburne's narrower local roadways in the core of the City while also reducing right-of-way requirements for developers and homeowners.





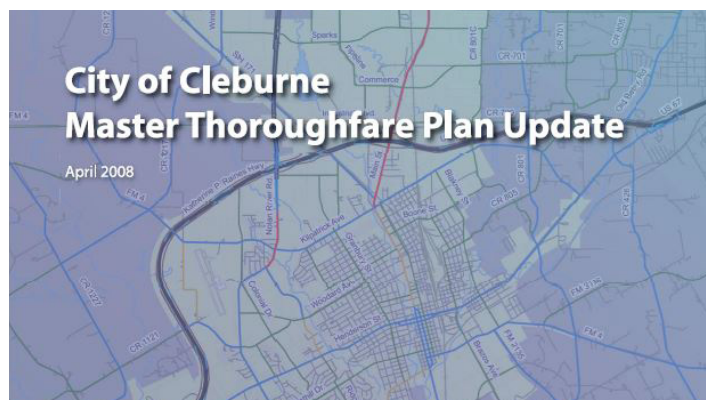
# INTRODUCTION



## ► What is a Master Thoroughfare Plan?

A Master Thoroughfare Plan (MTP) is a long-range plan for major transportation facilities providing a functional hierarchy of City streets. The MTP is designed to provide for orderly development of a roadway network as Cleburne continues to grow. Thoroughfare planning ensures that cities obtain adequate right-of-way from future development and plans for future roadways that will accommodate the anticipated growth while also maintaining local community character.

This document envisions the ultimate needs of the community for the next several decades. Due to the rapid growth occurring in Cleburne, it is recommended that this plan be reevaluated in five years to recalibrate and adjust as needed. The impending growth over the next several years will likely affect the existing roadway performance and shift future needs and priorities.



2008 Cleburne MTP Plan

## ► Why a MTP Update for Cleburne?

Transportation planning is critically important to the City of Cleburne. The MTP was completed in 2008 and had minor map updates completed in 2017 and September 2021. The 2008 MTP was completed prior to Chisholm Trail Parkway being open and was largely focused on developing a plan focused on the future impacts of this facility on the rest of Cleburne's transportation system.

The key elements of the 2022 MTP Update includes the following tasks:

- **Reevaluate connectivity and alignments in areas of future growth to stay two steps ahead of growth**
- **Update roadway cross sections to identify with Cleburne's character**
- **Update and standardize traffic signal standards to increase efficiency and operation**
- **Update the priorities for the City Capital Improvement Program (CIP)**
- **Develop other implementation strategies to maintain Cleburne's character**

# CHAPTER 1. EXISTING CONDITIONS



# EXISTING CONDITIONS

## GROWTH & DEMOGRAPHICS

The City of Cleburne is the county seat for Johnson County in the north central region of Texas, located approximately 30 miles south of Fort Worth. Over the past 10 years, Cleburne's population has grown from 29,337 (2010 Census) to 31,352 (2020 Census). According to the 2021 Parks, Recreation, Trails & Open Space Master Plan, Cleburne's population is expected to grow by approximately 36% over the next ten years to approximately 43,000 residents. Planning for this projected growth rate will be important for the City to effectively influence how Cleburne grows and builds itself out, enabling a community to shape its future character through the transportation network.

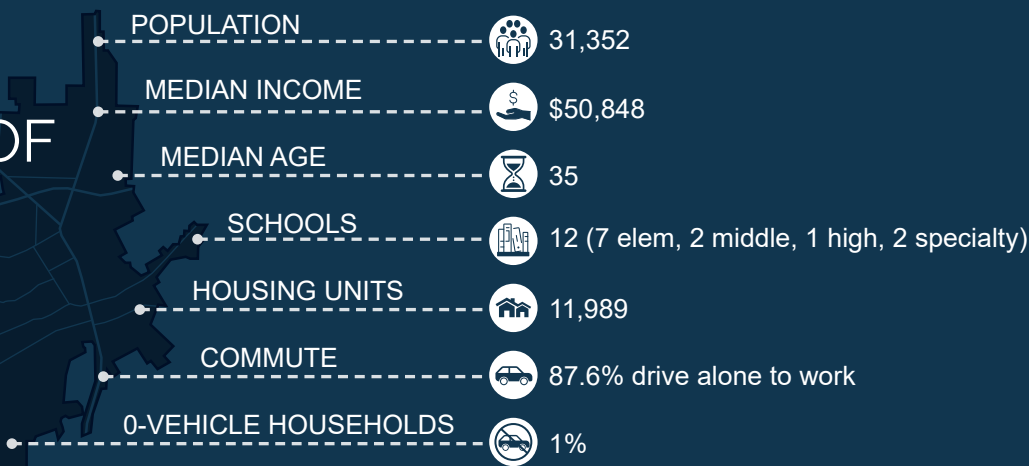


## SIGNIFICANT GROWTH AREAS

Maintaining well-performing roadways is an important goal for Cleburne's transportation network as growth continues. Cleburne is currently experiencing increased development activity (**Figure 1**), notably in the following areas:

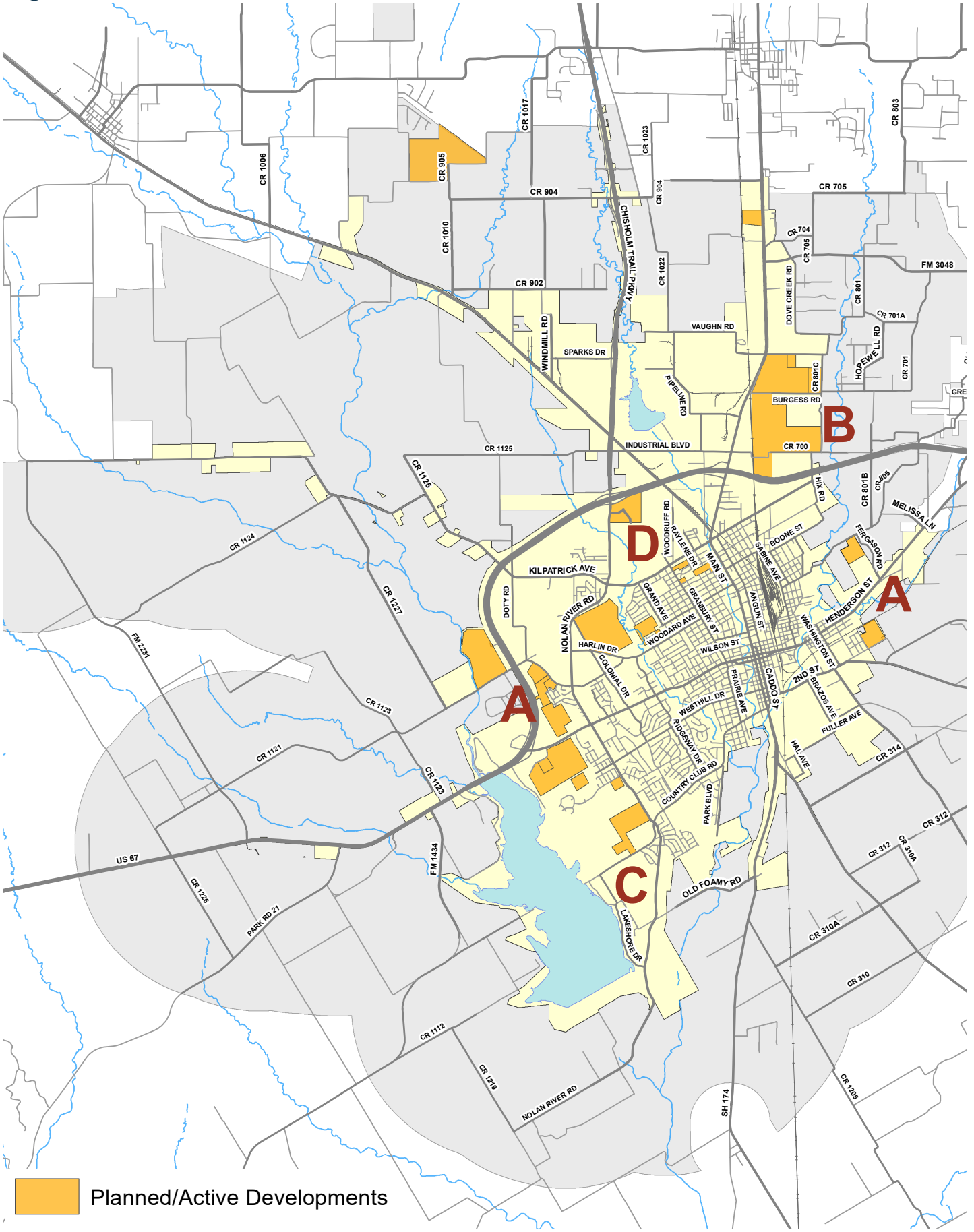
- **Residential developments (A)** are keeping pace with national trends, breaking ground along the western and eastern edges of the established core of Cleburne. These larger residential developments will create higher demand for Cleburne's transportation network as new residents continue moving into Cleburne.
- **Northeast Cleburne (B)** is predominantly industrial and agricultural with more dispersed rural households. As the core of Cleburne continues to grow, outer areas such as northeast Cleburne will need adequate infrastructure to accommodate future growth.
- **Lake Pat Cleburne (C)** on the western edge of town provides a regional amenity for residents and visitors alike to enjoy. There are several large tracts of land around the Lake that have recently spurred interest from residential developers. Kirtley Park, which runs along the east side of the Lake, is planned to be renovated in the near future, which is expected to bring additional visitors to the area.
- **Cleburne Station (D)** is also becoming a regional destination, home to the Cleburne Railroaders baseball team and future mixed-use development. Cleburne Station lies at the intersection of two regional thoroughfares: Chisholm Trail Parkway and US Highway 67. This location will receive significant attention in regards to economic development for Cleburne. It will be essential for Cleburne to plan for growth in this area as more people come to live, work, and play in the City.

## SNAPSHOT OF CLEBURNE



Source: 2019 ACS 5-Year Estimate Data & 2020 Census Data

**Figure 1. Potential Growth Areas**



## ROADWAY NETWORK

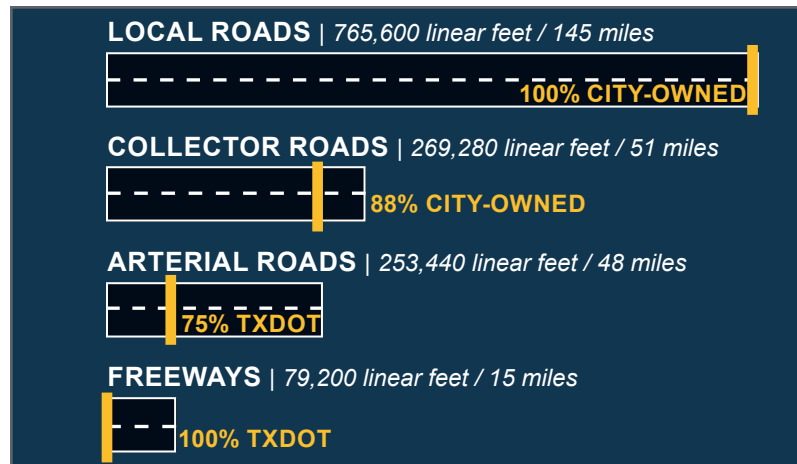
The existing roadway network in Cleburne (**Figure 2**) predominantly consists of collector and local roads, with some freeways and arterials running through and around the City. Out of the approximate 259 total miles of roadway in Cleburne's city limits, 74% are City-owned collector or local roadways. This strong presence of collector and local roads is a result of the traditional grid network established as part of Cleburne's history.

The roadway network helps fortify the small town character in Cleburne. As Cleburne continues to stay ahead of its growth, it will be essential for the City to improve the roadways under its jurisdiction to control their own destiny.

## TXDOT ROADWAYS

Most of Cleburne's major thoroughfares are under the jurisdiction of the Texas Department of Transportation (TxDOT). Of the 48 miles of arterial roadways in Cleburne, only 12 miles (or 25%) are City-owned. Improvements to TxDOT roadways will require coordination with and approval from TxDOT. The TxDOT roadways in Cleburne include:

- **Chisholm Trail Parkway:** Chisholm Trail Parkway is generally a 4-lane divided tollway running in a north-south direction, beginning on the north side of Cleburne at US 67 and providing access to Fort Worth to the north.
- **US 67:** US 67 is a 4-lane divided highway running in a general east-west direction on the north side of downtown Cleburne, providing access to Interstate 35 to the east and Glen Rose and Stephenville to the west.
- **Business US 67 (Henderson Street / Chambers Street):** Business US 67 is a 4-lane divided arterial running in a general east-west direction, traveling through downtown Cleburne as Henderson Street and Chambers Street.
- **SH 174 (Main Street / Caddo Street):** Main Street is north-south arterial that runs through downtown Cleburne. On the north and south sides of downtown, Main Street splits into SH 171 and SH 174. SH 174 connects Cleburne to Burleson to the north and Meridian to the south.
- **SH 171 (Weatherford Highway):** SH 171 is a 2-lane undivided arterial connecting Cleburne to Weatherford to the north and Hillsboro to the south.
- **FM 4 (Kilpatrick Avenue / 2nd Street):** FM 4 is generally a 2-lane undivided east-west thoroughfare providing access to Granbury to the west and Grandview to the east. In Cleburne's core, FM 4 exists as a combination of Kilpatrick Avenue, Main Street, and 2nd Street.
- **FM 1718 (Country Club Road):** FM 1718 provides east-west access in Cleburne between Harvest Hill Road and Main Street, providing an alternative to Henderson Street and Westhill Drive.



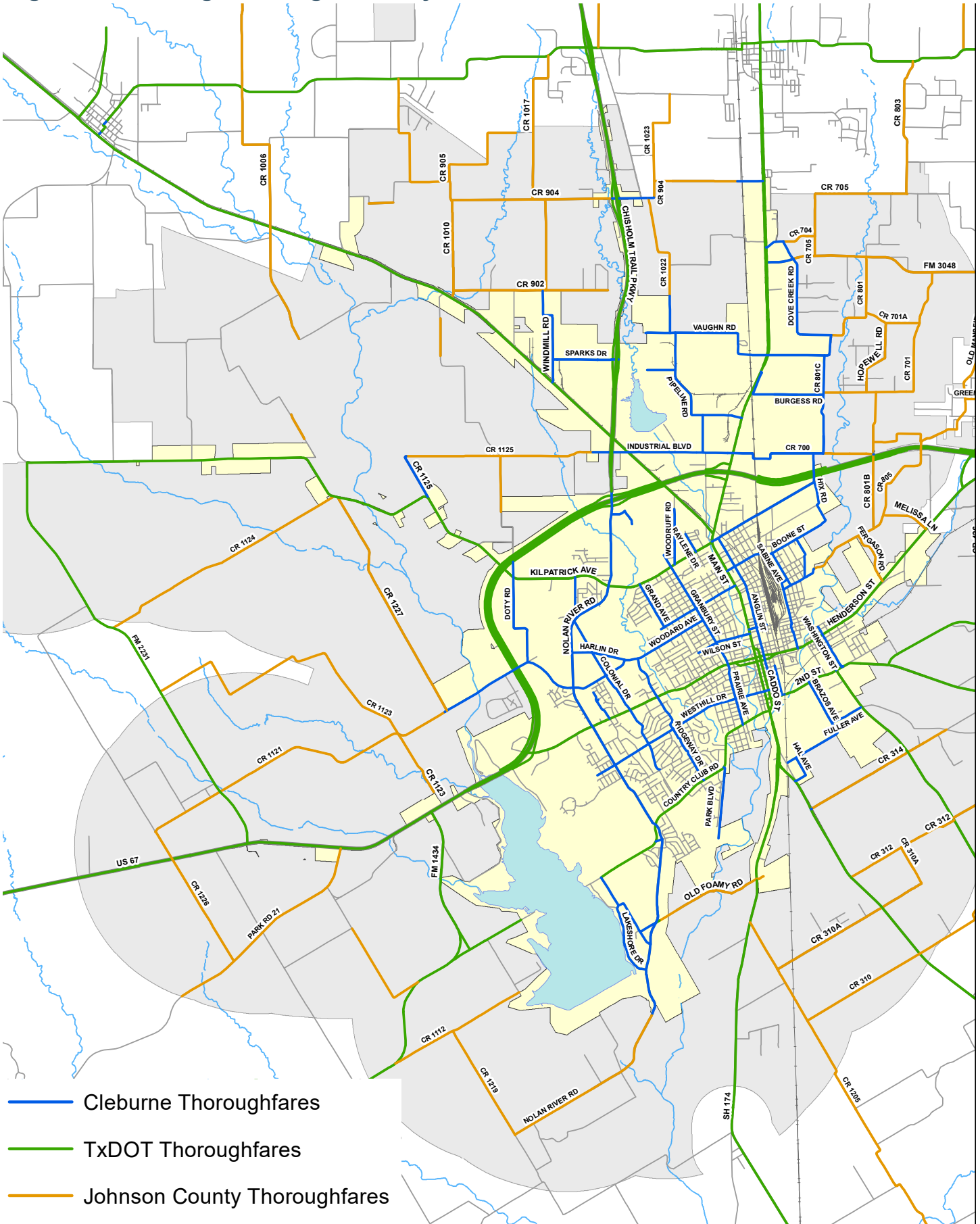
## CLEBURNE ROADWAYS

While the TxDOT roads play a large role in Cleburne, it is important for the City to envision how to best manage its own roadways today and for the future. Cleburne's grid network naturally accommodates collector and local roads, however arterials may be needed in the future as Cleburne continues to grow. **Chapter 2** will explore the updated thoroughfare plan map, which shows which roadways are proposed for a built-out Cleburne in the future. Cleburne's existing major roadways include:

- **Nolan River Road:** Nolan River Road is a north-south arterial that runs along the west side of Cleburne's core from US 67/Chisholm Trail Parkway to the south side of Lake Pat Cleburne. Significant growth and development activity has spurred along this corridor, with more anticipated in the near future (**Figure 1**).
- **Granbury Street:** Granbury Street is a two-lane undivided north-south collector that acts as a spine for the core neighborhood of Cleburne. Granbury Street is planned to extend north to the future Cleburne Station Parkway extension in order to help accommodate growth and economic development.
- **Industrial Boulevard:** Industrial Boulevard is a 2-lane undivided collector that currently east-west from Chisholm Trail Parkway to SH 174. Industrial Boulevard facilitates significant truck traffic to and from the industrial businesses along the corridor.



**Figure 2. Existing Thoroughfares by Jurisdiction**



## CURRENT TRAFFIC CONDITIONS

Cleburne's roadways currently operate with minimal congestion, with the exception of a few TxDOT roadways. **Figure 3** shows the existing daily level of service (LOS) for each thoroughfare in Cleburne. For this study, LOS was calculated using a volume to capacity ratio (V/C) with 2019 volumes from TxDOT and North Central Texas Council of Governments' (NCTCOG) roadway capacity table.

The streets in green operate at an acceptable level (LOS A-C), where volumes are 65% or less than the maximum capacity. The streets in orange operate at an acceptable but not ideal level (LOS D), where volumes are between 65% and 80% of maximum capacity. The streets in red operate at a level of failure (LOS F), where volumes are 80% or more than the maximum capacity. LOS A roadways are free flowing while LOS F roadways are extremely congested. The City of Cleburne aims to maintain an LOS C or D or better on most roadways except in specific areas where congestion is desired to create a pedestrian-friendly environment with slower traffic.

Most of Cleburne's roadways perform at an LOS D or better, meaning the traffic volumes are 80% or lower than the calculated capacity of each roadway. The only City-owned roadway with LOS concerns are Granbury Street, which has a volume-to-capacity ratio of approximately 95%. This can be attributed to the roadway classification assigned to Granbury Street, which was a Minor Collector in the previous MTP. Today, Granbury Street operates more as a Major Collector given its spine-like orientation in the core of Cleburne. The City is currently engaging in a striping campaign for its collector roadways which will help improve safety and efficiency along these corridors.

## CROSS SECTIONS

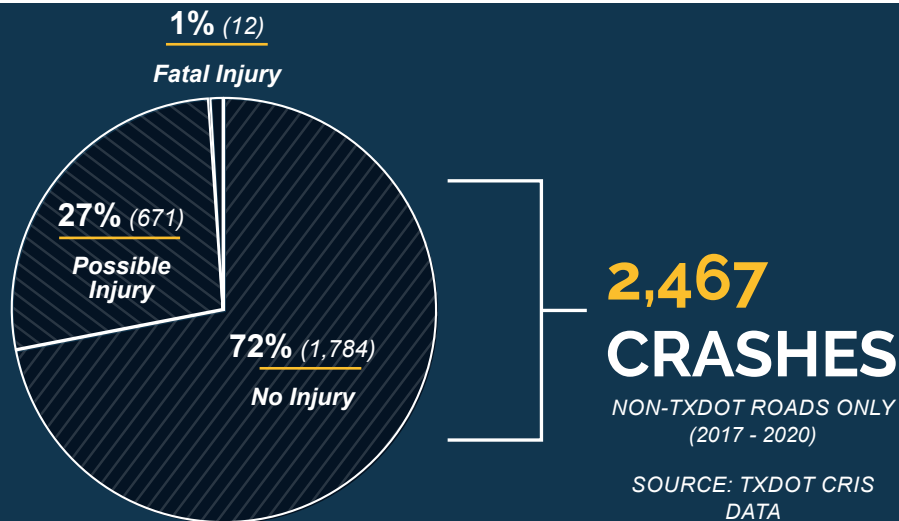
The 2008 MTP includes cross sections for each roadway classification, ranging from local streets with 50 feet of right-of-way to 6-lane divided arterials with 120 feet of right-of-way. The area outside of the street behind the curbs, commonly referred to as the parkway, includes pedestrian facilities, landscaping, trees, or other community features. The 2008 MTP's recommended parkway widths range from 8.5 feet to 11.5 feet on either side of the roads. These widths are not ideal to provide adequate room for pedestrian facilities, landscaping, and utilities. **Figure 4** shows the existing cross sections for each roadway in Cleburne. **Chapter 2** provides updated cross sections for each roadway classification.

## INTERSECTIONS

A majority of Cleburne's existing traffic signals are owned and operated by TxDOT along the major arterial corridors. Once Cleburne grows to a population of at least 50,000, the City will be required to begin the process of taking over control of TxDOT's signals. By doing so, Cleburne would be able to update the signal infrastructure to have more coordinated timing, aesthetics, and overall uniformity. **Chapter 3** will further explore intersection improvement recommendations and signal design guidelines.

## SAFETY

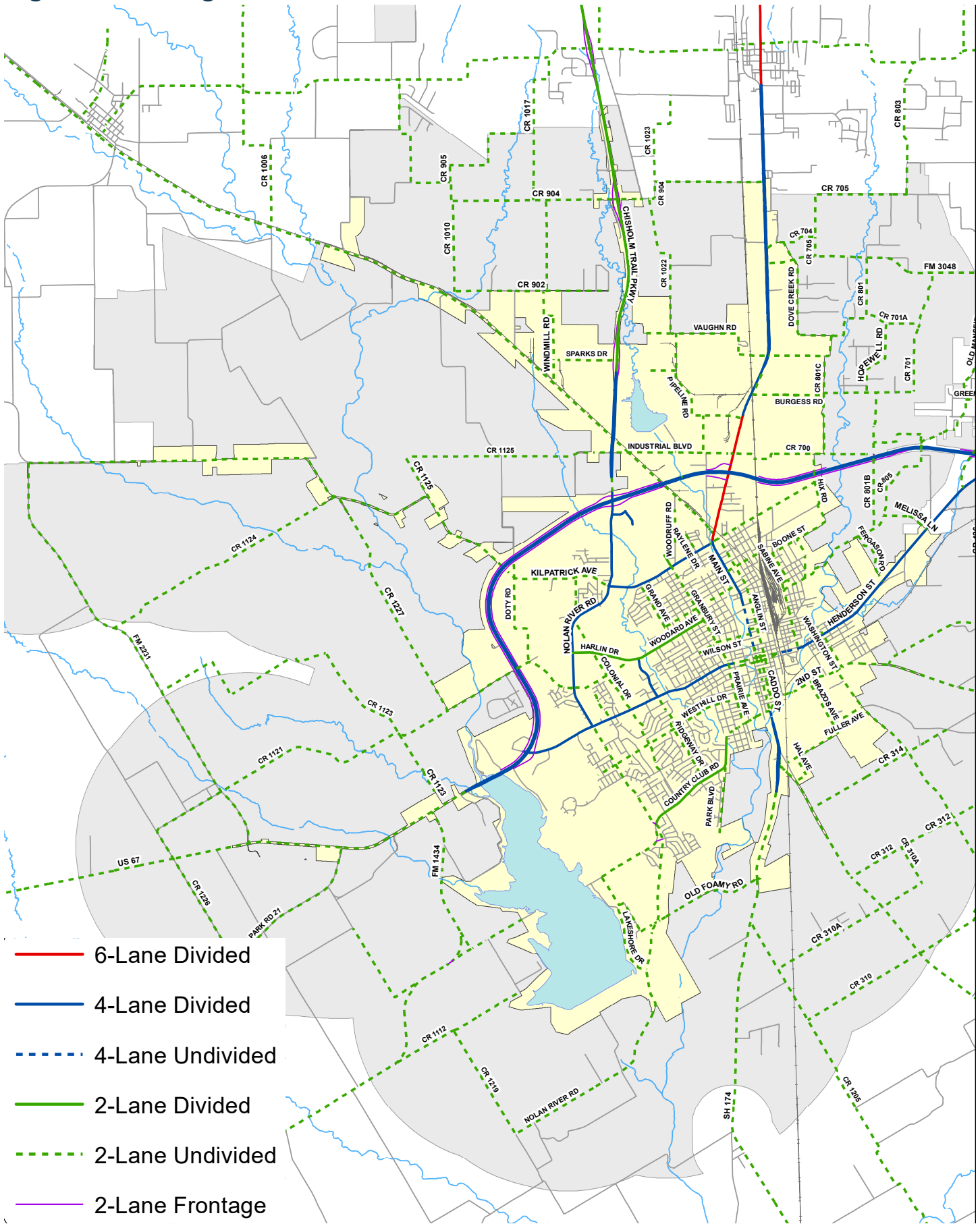
Between 2017 and 2020, Cleburne's roadways experienced approximately 2,467 crashes on Cleburne-owned (non-TxDOT) roadways (TxDOT Crash Records Information System). Of the crashes on Cleburne-owned roadways, approximately 72% of crashes (1,784) during this time resulted in no known injuries, 27% of crashes (671) resulted in suspected or possible injuries, and less than 1% of crashes (12) resulted in fatal injuries. **Figure 5a** shows a heat map of the 2,467 crashes on all Cleburne-owned roadways. **Figures 5b** and **5c** also show heat maps for TxDOT facilities and all facilities in Cleburne, respectively. High-crash intersections and corridors will be prioritized for safety improvements in **Chapter 4**.



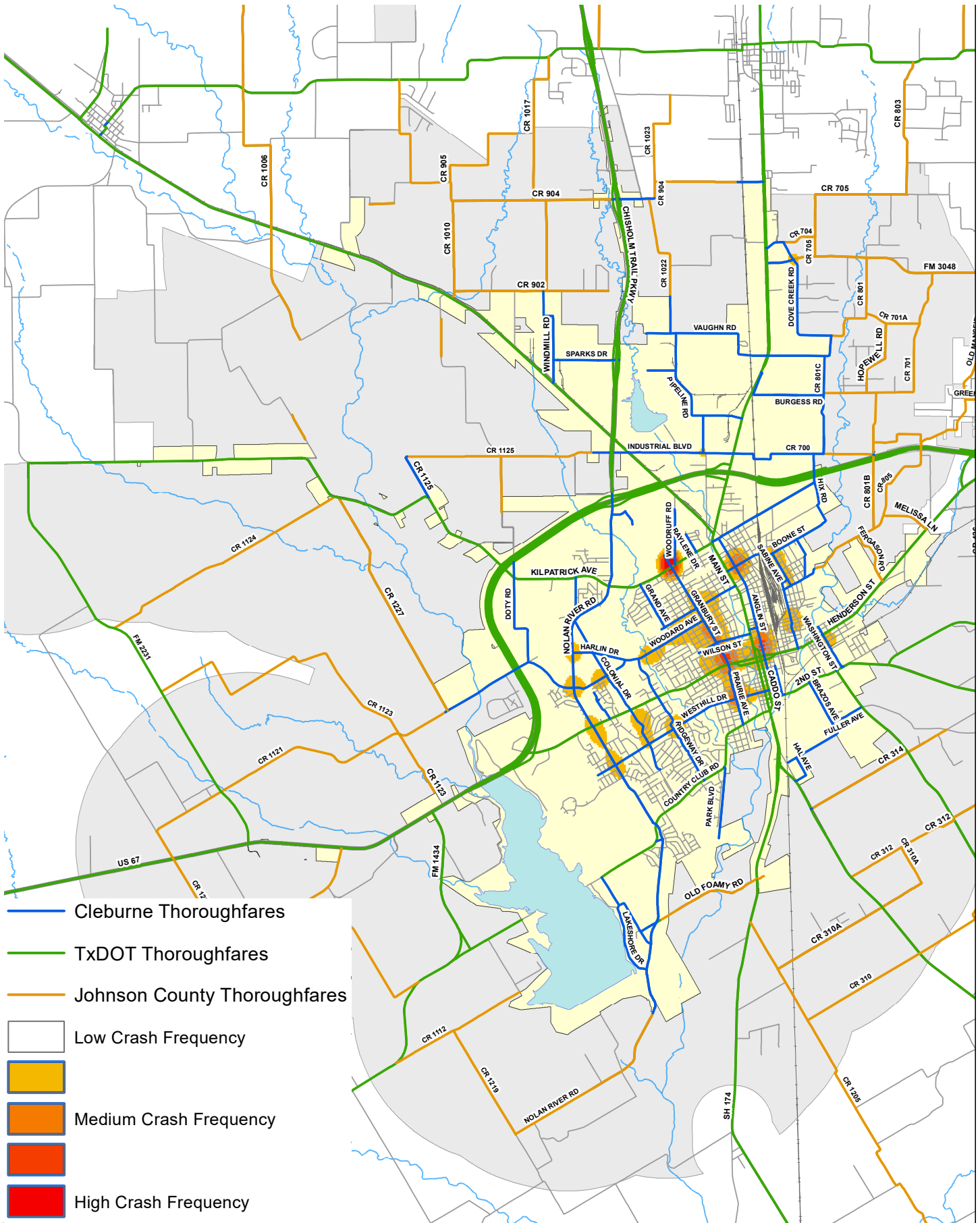




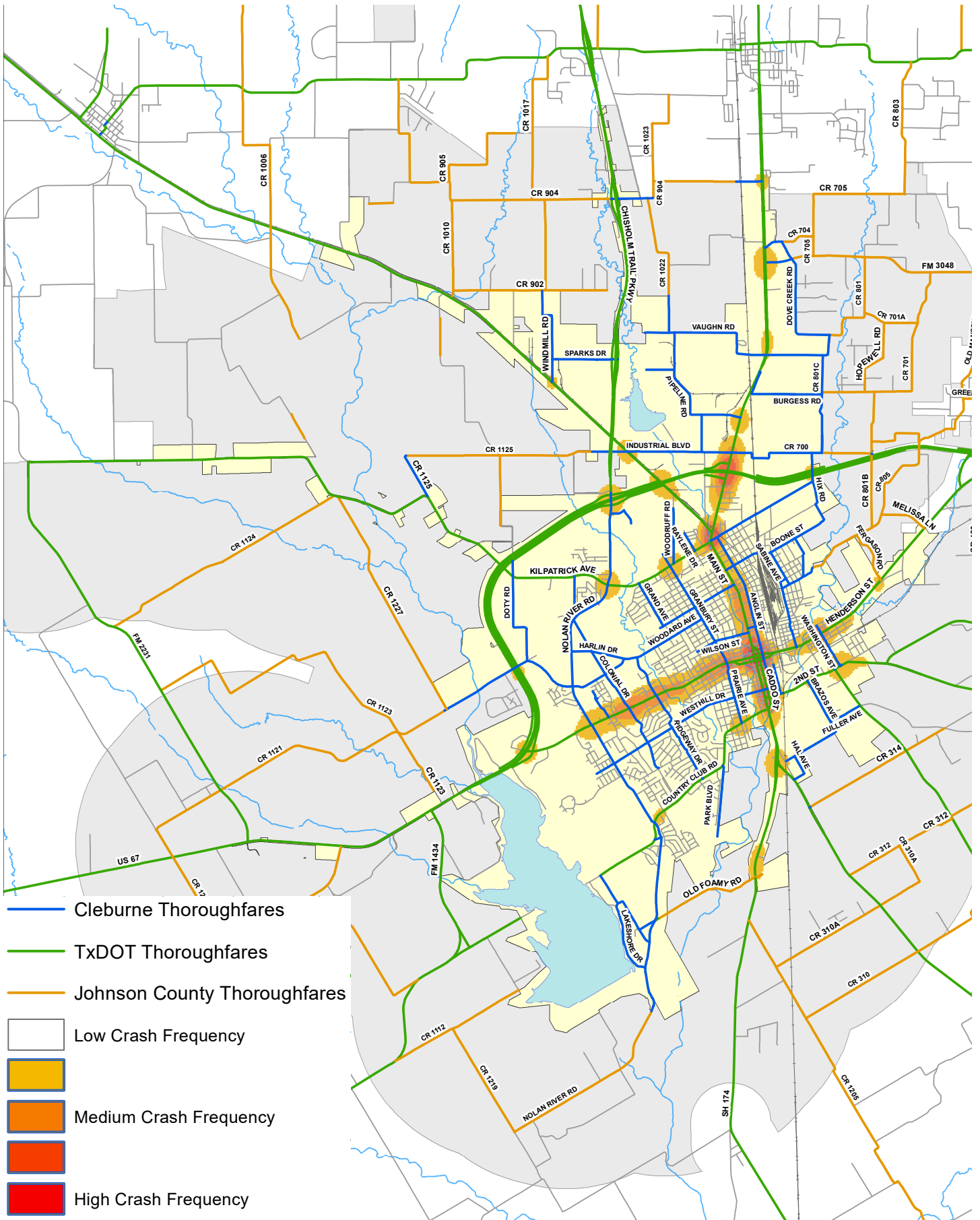
**Figure 4. Existing Cross Sections**



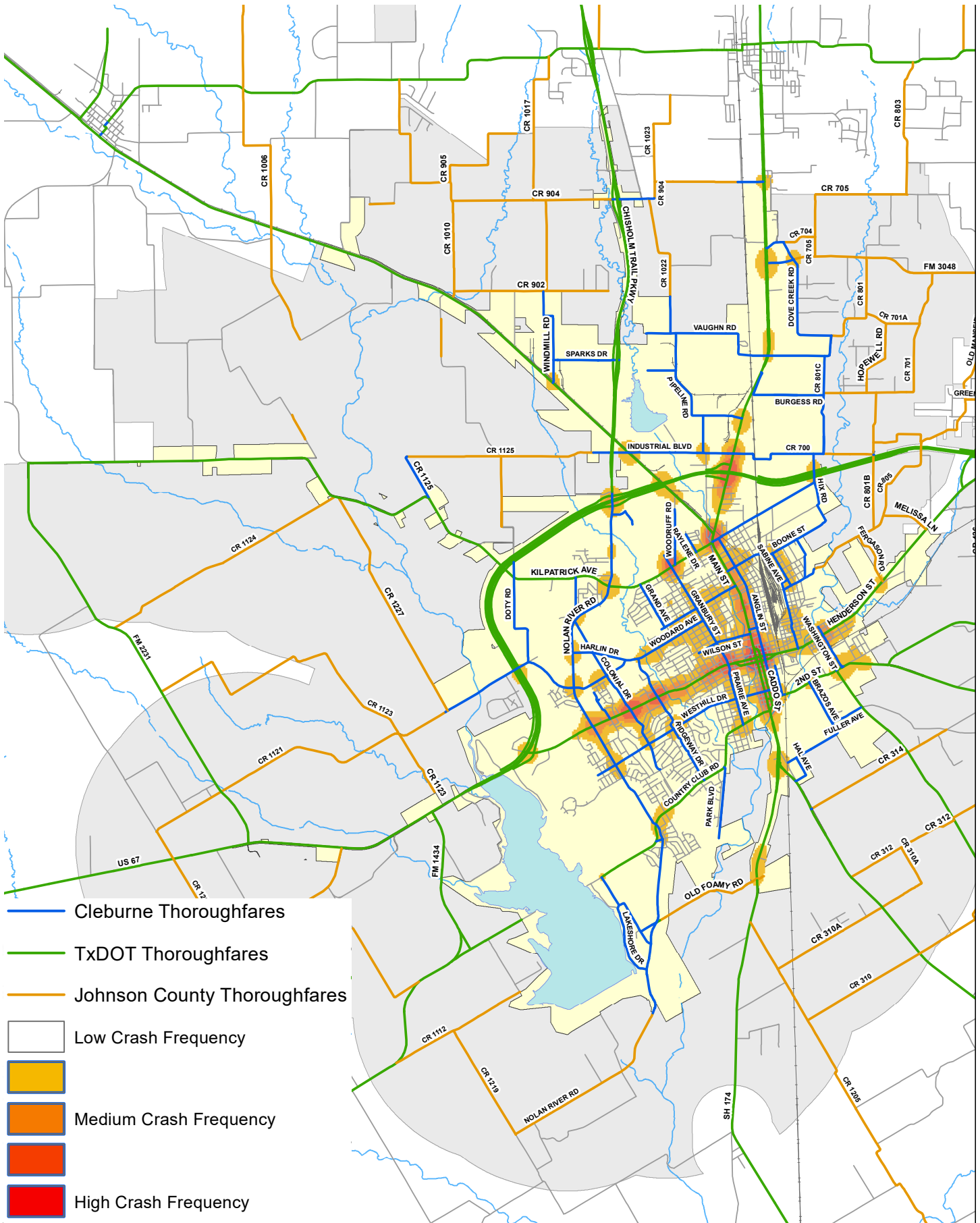
**Figure 5a. Crash Heat Map (2017 - 2020) - City Facilities**



**Figure 5b. Crash Heat Map (2017 - 2020) - TxDOT Facilities**



**Figure 5c. Crash Heat Map (2017 - 2020) - All Facilities**



## COMMUNITY CHARACTER

As Cleburne continues to grow, the City desires to ensure that their small-town character is not lost in the process. The City wants to plan for growth and be able to move around without constant congestion. In addition, as the City plans for growth, there are several characteristics Cleburne can consider to maintain the community character, including:

- An established **grid network** of local roadways to reinforce the small-town feel,
- Native **landscaping** with wide **parkways**, and
- **Gateway features** to welcome residents and visitors.

**Chapter 5** will explore these elements deeper for Cleburne to consider as the City grows.

## TRANSIT

City/County Transportation (CCT), also known as CleTran, provides public transportation services in Cleburne via commuter bus to downtown Fort Worth. Demand-response curb-to-curb service is also available throughout Johnson County through CCT, providing trips within the County plus Burleson, Texas city limits and Huguley Hospital north of Burleson. The CCT office is located at Cleburne’s Intermodal Transportation Depot, where Amtrak also operates passenger rail service (Texas Eagle). The Texas Eagle line provides access from Chicago to Dallas to Los Angeles. Texas Eagle travelers can also transfer to the Heartland Flyer in Fort Worth, which travels north to Oklahoma City.

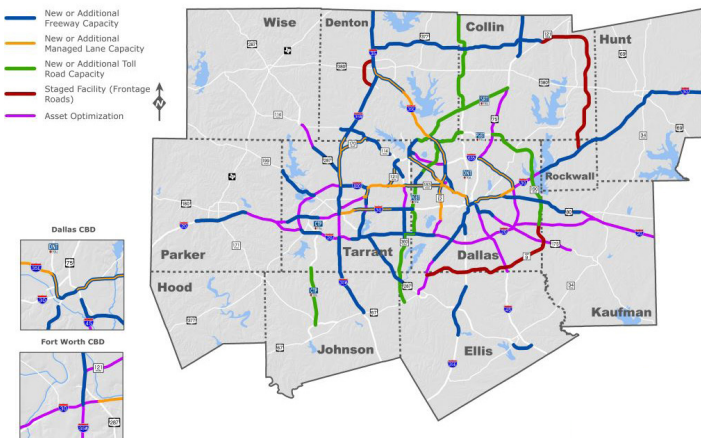
## SURROUNDING PLANS

In June 2018, North Central Texas Council of Governments (NCTCOG) published Mobility 2045, the metropolitan transportation plan for the Dallas-Fort Worth metro area. As shown in **Figures 6 and 7**, Mobility 2045 recommends a number of transportation improvements for Cleburne over the next 25 years, including:

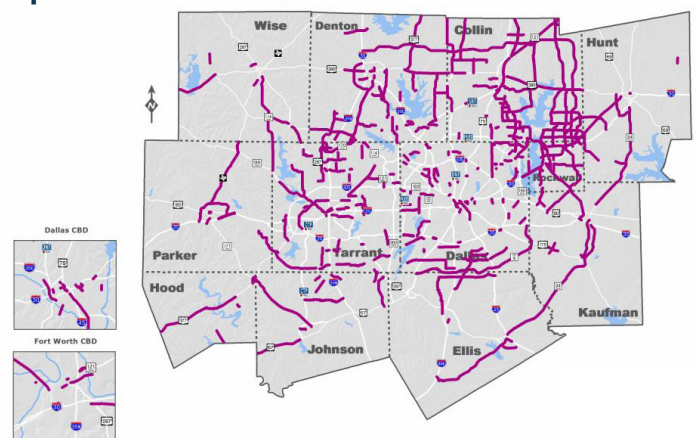
- **Widen Chisholm Trail Parkway to 4 lanes (2028)**
- **Widen US 67 to 4 lanes west of Cleburne (2037)**
- **Widen Kilpatrick Avenue (FM 4) west of Nolan River Road to 4 lanes (2037)**
- **Widen SH 171 to 4 lanes (2045)**
- **Regional bike path/trail north to Burleson (Year TBD)**
- **High-speed rail to Fort Worth and Waco (Year TBD)**
- **Regional rail to Fort Worth (Year TBD)**

Johnson County does not have any published transportation plans or improvements for consideration. Although there are a number of regional planning efforts that address transportation needs, Cleburne will need to balance integrating regional connectivity with independently controlling its own destiny. Accommodating regional connectivity while also staying ahead of anticipated growth can help Cleburne maintain its community character.

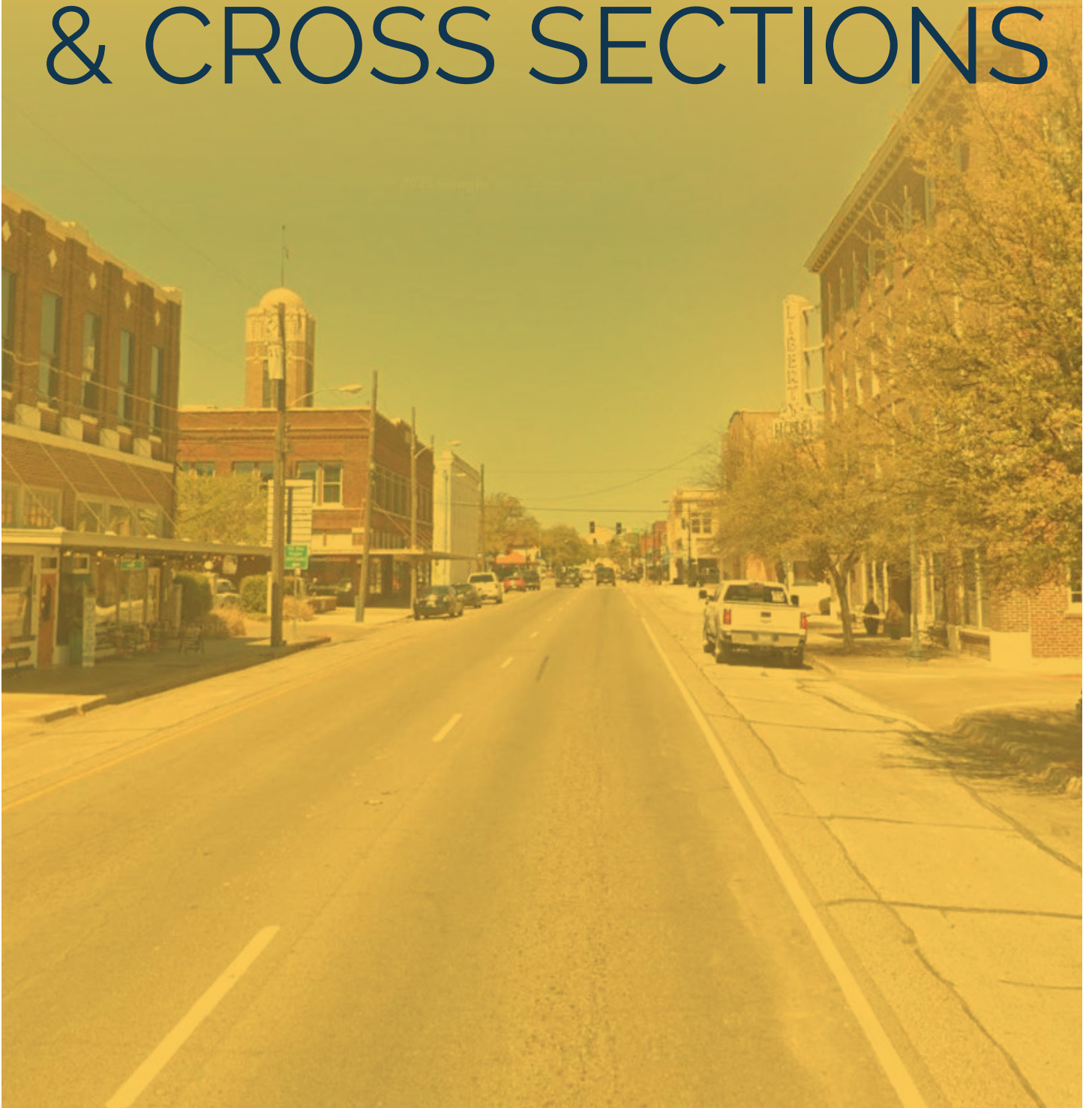
**Figure 6. Mobility 2045 Major Roadway Recommendations**



**Figure 7. Mobility 2045 Arterial Capacity Improvements**



# CHAPTER 2. THOROUGHFARES & CROSS SECTIONS



# THOROUGHFARE MAPPING

## ► Thoroughfare Planning Process

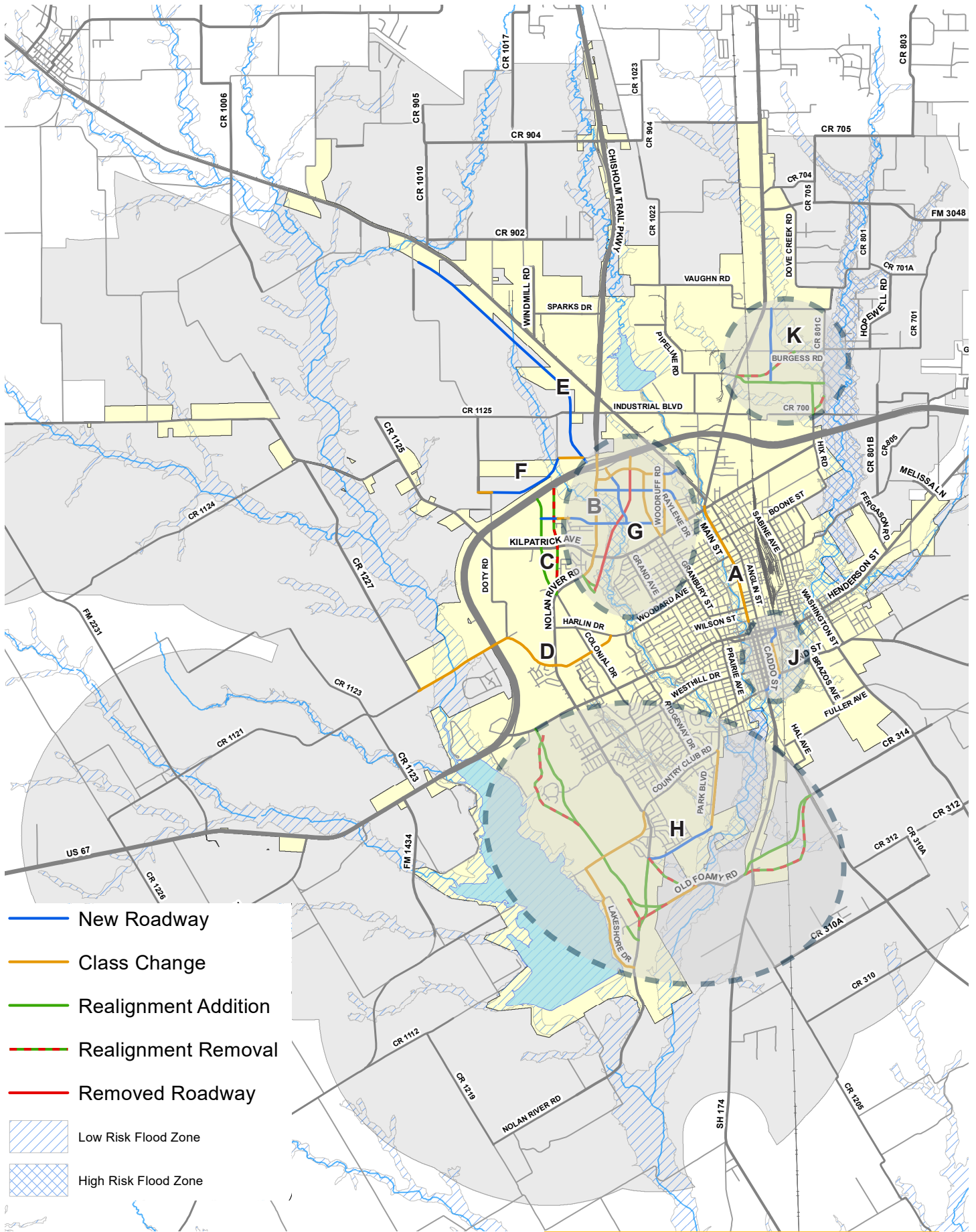
Thoroughfare planning involves a data-driven approach to identify existing deficiencies and evaluate how to best prepare for future demand on the roadway network. Developing a thoroughfare plan requires an extensive query into the history, current status, and future plans of a City. As noted in **Chapter 1**, regional and past plans were reviewed to assess where Cleburne is and how their infrastructure is expected to grow with the population. Other evaluation factors included planned developments (**Figure 1**), existing level of service (**Figure 3**), and crash history (**Figure 5**). The 2017 MTP map was reviewed and updated based on these current conditions, anticipated needs, and expected growth.

**Table 1** lists the high-level revisions that were made for the 2022 MTP Map Update, and **Figure 8** illustrates the City-wide changes. Revisions A through F are labeled in Figure 8 due to their longer corridor alignments. **Tables 2, 3, and 4** break out Revisions G, H, J, and K into three areas of the City to provide additional detail, with **Figures 9, 10, and 11** corresponding to those tables. These three areas (Cleburne Station, East Lakeshore, and Northeast Cleburne/Wilhite St.) warranted more in-depth roadway alignment evaluations due to the extensive growth occurring and expected in the coming years. The evaluations looked at thoroughfare connectivity within and around each respective area, anticipated development in the area, and feasibility of proposed roadways. These areas are circled in **Figure 8**, and **Figures 9, 10, and 11** provide zoomed-in snapshots of each area with labeled revisions.

**Table 1. Master Thoroughfare Plan Proposed Map Revisions**

Map ID	Street Name	From	To	Revision	2017 Classification	2022 Classification	Proposed ROW
A	<b>Main St (SH 174)</b>	Kilpatrick Ave	Willingham St	Class Change	Major Collector	Minor Arterial	105'
	Justification:	Main St (SH 174) is an active commercial corridor with up to 5-lanes of traffic. Based on existing traffic volumes and number of lanes, the roadway currently functions as a minor arterial. TxDOT controlled ROW will vary based on existing structures and the ability to widen in the future.					
B	<b>Nolan River Rd</b>	Brookhaven Dr	US 67	Class Change	Principal Arterial	Minor Arterial	105'
	Justification:	Nolan River Rd is a minor arterial currently, with only this section being a major arterial. The road should be one classification, with additional lanes at major intersections. Additional ROW at major intersections is recommended to accommodate needed turn lanes.					
C	<b>Yellow Jacket Dr</b>	Nolan River Rd	US 67	Revised Alignment/ Class Change	Minor Collector	Major Collector	75'
	Justification:	Yellow Jacket Dr has been reclassified as a major collector so that households do not front the roadway in the future. The road has also been realigned further to the west into the airport.					
D	<b>Woodard Ave</b>	CR 1227	Harlin Dr	Class Change	Minor Arterial/ Minor Collector	Major Collector	75'
	Justification:	Widening this segment to a major collector will help facilitate traffic across US 67 to and from the new development activity. Changes have been made to keep classification consistent along corridor. Intersections require additional ROW.					
E	<b>SH 171 Backage Road</b>	CR 1217	US 67	New Roadway	N/A	Minor Collector	75'
	Justification:	Backage roads running parallel to SH 171 would create additional opportunities for development while also alleviating traffic from the highway. This would also create an alternate route for those wanting to avoid Chisholm Trail Parkway.					
F	<b>US 67 Backage Road</b>	SH 171 Backage Road	CR 1217	New Roadway/ Class Change	Local Road	Minor Collector	75'
	Justification:	Backage roads running parallel to US 67 would create additional opportunities for development while also alleviating traffic from the highway. This would also create an alternate route for those wanting to avoid the freeway or core of Cleburne.					

**Figure 8. Master Thoroughfare Plan Proposed Map Revisions**

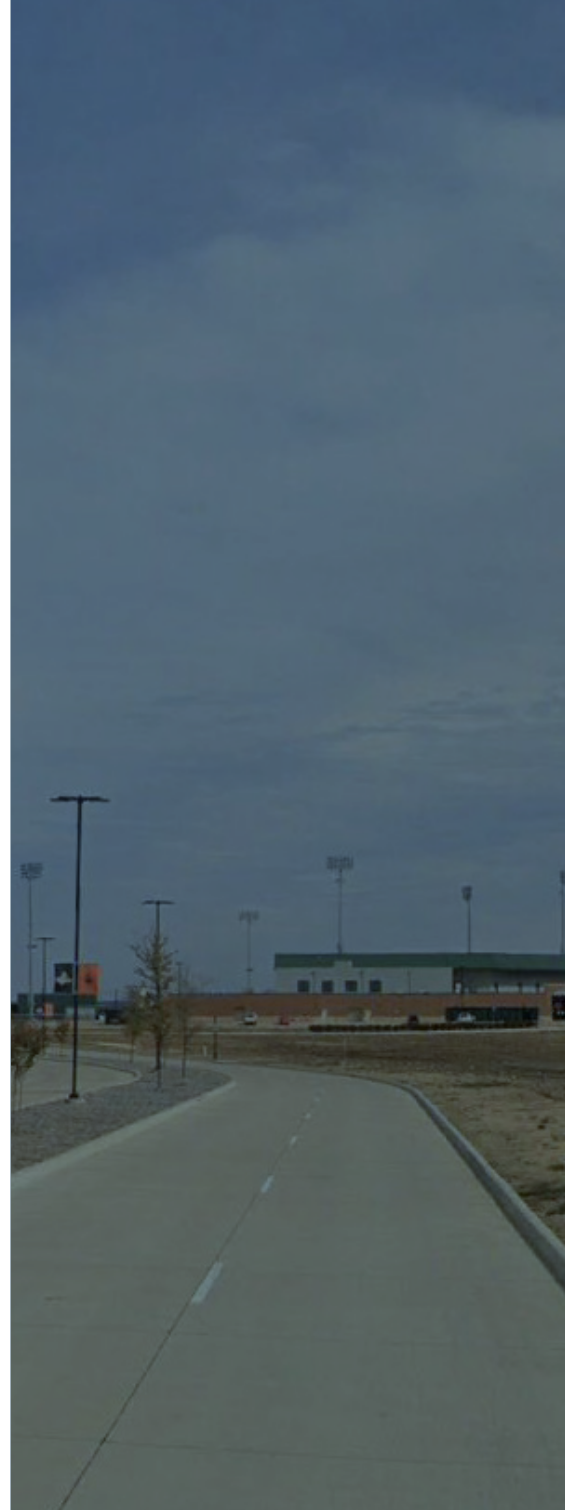
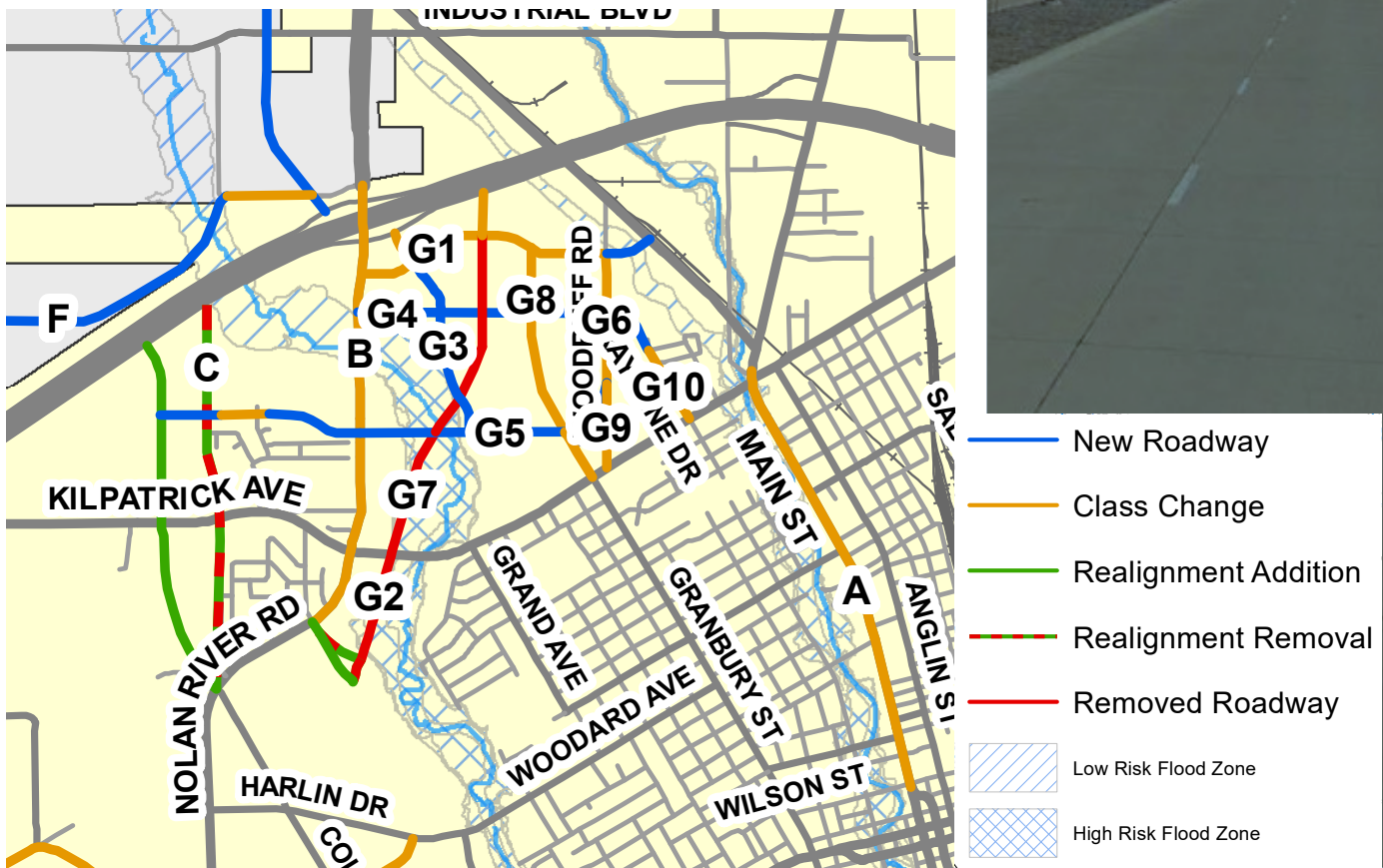




## CLEBURNE STATION AREA REVISIONS

- Description:** The Cleburne Station area is expected to be a mixed-use, regional destination featuring a baseball stadium, hotels, and retail uses. As of 2022, Cleburne Station is still largely undeveloped with the exception of the baseball stadium. The Cleburne Station area has a significant floodplain running through the western half of the district.
- Issues:** Currently, Nolan River Road is the primary facilitator of north-south traffic in Cleburne west of Main Street. Due to the floodplain and development trends, the 2017 MTP Ridgeway Drive alignment has been reevaluated. The removal of Ridgeway Drive from the Cleburne Station area caused the 2022 MTP to address future connectivity in this area.
- Recommendations:** Table 2 lists the recommended revisions for the Cleburne Station area, and Figure 9 provides a snapshot view of the area. Three east-west connections to Nolan River Road are recommended in the area. The 2022 MTP shows Cleburne Station Parkway extending east and connecting to SH 171, which would alleviate traffic from Kilpatrick Avenue. The second east-west connection (New Road A) is on the south side of the baseball stadium, acting as a spine to the area and its future development. This thoroughfare would connect to the existing Raylene Drive, which continues to Kilpatrick Avenue. The southern-most east-west thoroughfare (New Road B - River Bend Road) would tie into Woodruff Road from Yellow Jacket Drive. Parallel to Nolan River Road, Brazzle Boulevard will continue south to New Road B (River Bend Road) and Granbury Street would extend north to Cleburne Station Parkway. These alignments will encourage economic development and help stay ahead of growth in this area.

Figure 9. Cleburne Station Area Proposed Map Revisions



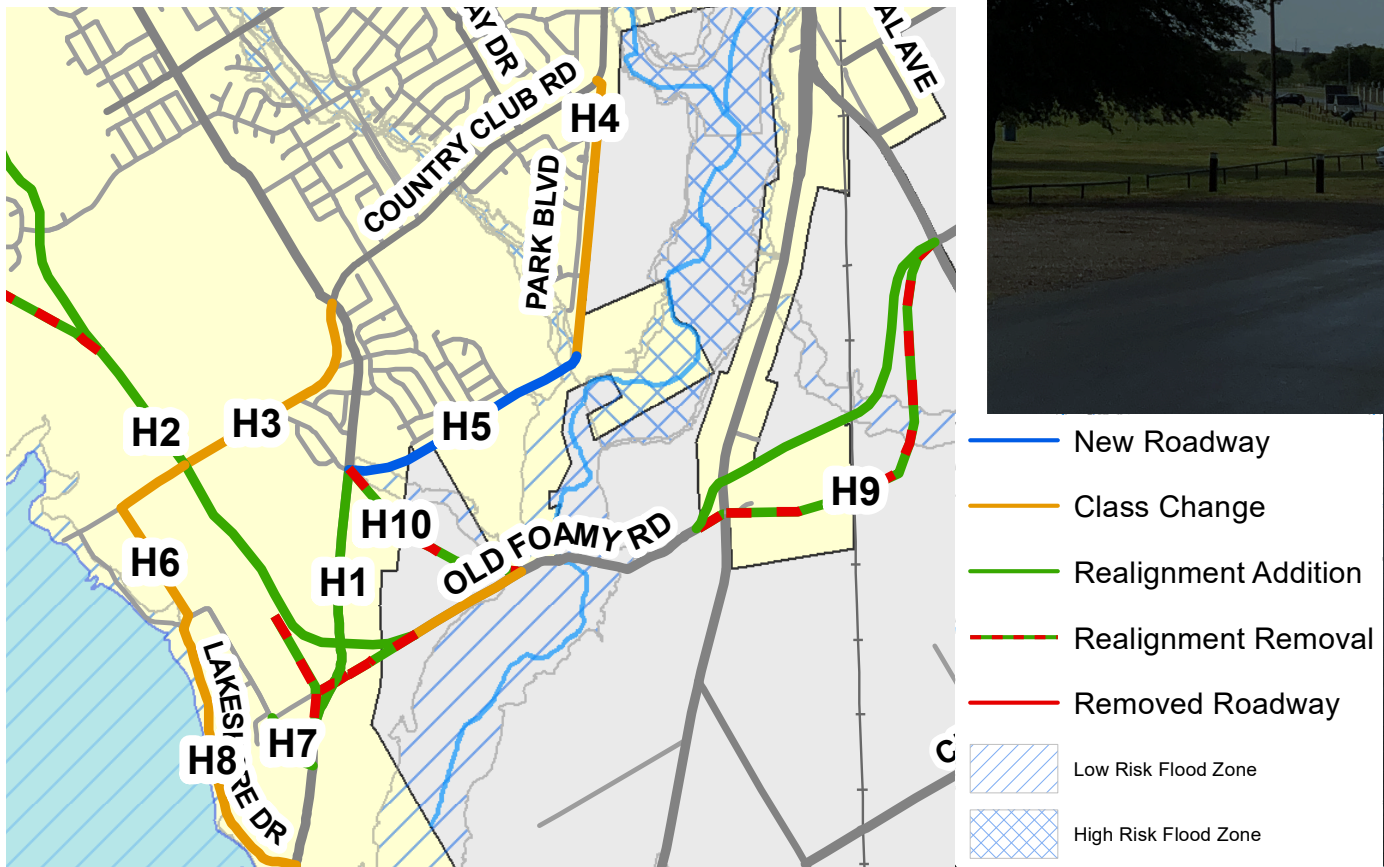
**Table 2. Cleburne Station Area Proposed Map Revisions**

Map ID	Street Name	From	To	Revision	2017 Classification	2022 Classification	Proposed ROW
G1	<b>Cleburne Station Pkwy</b>	Nolan River Rd	SH 171	New Roadway/ Class Change	Minor Collector	Major Collector	75'
	Justification:	The existing section of Cleburne Station Pkwy is built as a 4-lane divided roadway. While the section matches an arterial, the road acts as a major collector and is overbuilt to support traffic during large events. The class change to major collector supports the higher traffic demand during peak times. The alignment has been extended to create an intersection with SH 171 for improved connectivity and facilitation of traffic after events.					
G2	<b>Ridgeway Dr</b>	South of Nolan River Rd	Nolan River Rd	Revised Alignment/ Removal	Minor Arterial	Minor Arterial	90'*
	Justification:	Revised alignment to match development, deleted extension north to Kilpatrick Ave and Cleburne Station Pkwy due to floodplain and proximity of major intersection on Kilpatrick Ave. Development initiated.					
G3	<b>Brazzle Blvd</b>	US 67	New Road B	New Roadway/ Class Change	N/A / Local Road	Major Collector	75'
	Justification:	Brazzle Blvd has been added to the MTP because it is a key connection to Cleburne Station. It currently exists from US 67 frontage road to the Depot parking lot. It is shown to be extended south to a new E-W roadway (New Road B).					
G4	<b>New Road A</b>	Nolan River Rd	Raylene Dr	New Roadway	N/A	Minor Collector	75'
	Justification:	New roadway will provide east-west connectivity for anticipated major commercial development in the area. Connects to Raylene Dr on the east side.					
G5	<b>New Road B (River Bend Rd)</b>	Yellow Jacket Dr	Woodruff Rd	New Roadway	N/A	Major Collector	75'
	Justification:	New road anticipating development and needed connectivity in Cleburne Station area. Connects to Woodruff Rd on the east end. Final alignment to be determined by development.					
G6	<b>Woodruff Rd</b>	Kilpatrick Ave	Cleburne Station Pkwy	Class Change	Minor Collector	Major Collector	75'
	Justification:	With the roadway reconfiguration in this area, Woodruff Rd will be a more significant north-south connection to other roadways in the Cleburne Station area.					
G7	<b>Ridgeway Dr</b>	US 67	Cleburne Station Pkwy	Class Change	Minor Collector	Major Collector	75'
	Justification:	Remaining connection between US 67 and Cleburne Station Pkwy has been reclassified to a major collector to facilitate future traffic into and out of Cleburne Station as development grows.					
G8	<b>Granbury St</b>	Kilpatrick Ave	Cleburne Station Pkwy	Class Change	Minor Collector	Major Collector	75'
	Justification:	This segment will provide connectivity into the Cleburne Station area from Kilpatrick Ave. It should not have homes fronting it, so the class has been changed.					
G9	<b>Woodruff Rd</b>	New Road B	Kilpatrick Ave	Class Change	Minor Collector	Local Road	50'
	Justification:	Woodruff Rd will be realigned to meet New Road B at Granbury St. This section of Woodruff Rd will either be partially removed or will stay at its current local road status. Granbury St will be the key entrance to Cleburne Station from Kilpatrick Ave.					
G10	<b>Raylene Dr</b>	New Road A	Kilpatrick Ave	Class Change	Local	Minor Collector	75'
	Justification:	Raylene Dr is proposed to align with New Road A, providing another route for traffic to enter and exit the Cleburne Station Area. As redevelopment of the area occurs, the roadway should be improved to serve the Cleburne Station traffic.					

## EAST LAKESHORE AREA REVISIONS

- **Description:** The East Lakeshore area is a growing district of Cleburne featuring Lake Pat Cleburne, Kirtley Park, and recent residential developments. Park Boulevard is identified in the 2017 MTP map as a local road extending south from Country Club Road to Nolan River Road.
- **Issues:** Current thoroughfares in this area are limited to Nolan River Road, Old Foamy Road, and Country Club Road, providing few options for travelers. East-west connectivity, in particular, is a challenge in this area. Lakeshore Drive will eventually need to be upgraded as Kirtley Park is renovated and the corridor facilitates more traffic and growth.
- **Recommendations:** Table 3 lists the recommended revisions for the East Lakeshore area, and Figure 10 provides a snapshot view of the area. For the 2022 MTP, University Drive has been realigned to better complement recent development and floodplain considerations. Old Foamy Road is also recommended to connect to the future University Drive alignment and continue east to SH 171, increasing east-west accessibility and decreasing congestion in the core of Cleburne. Additionally, Park Boulevard is recommended to extend west to Nolan River Road to relieve demand on Country Club Road and Old Foamy Road. Lastly, Lakeshore Drive is recommended to be widened to a minor collector. This is to facilitate future traffic to Kirtley Park and align with the planned renovations for the area.

Figure 10. East Lakeshore Area Proposed Map Revisions



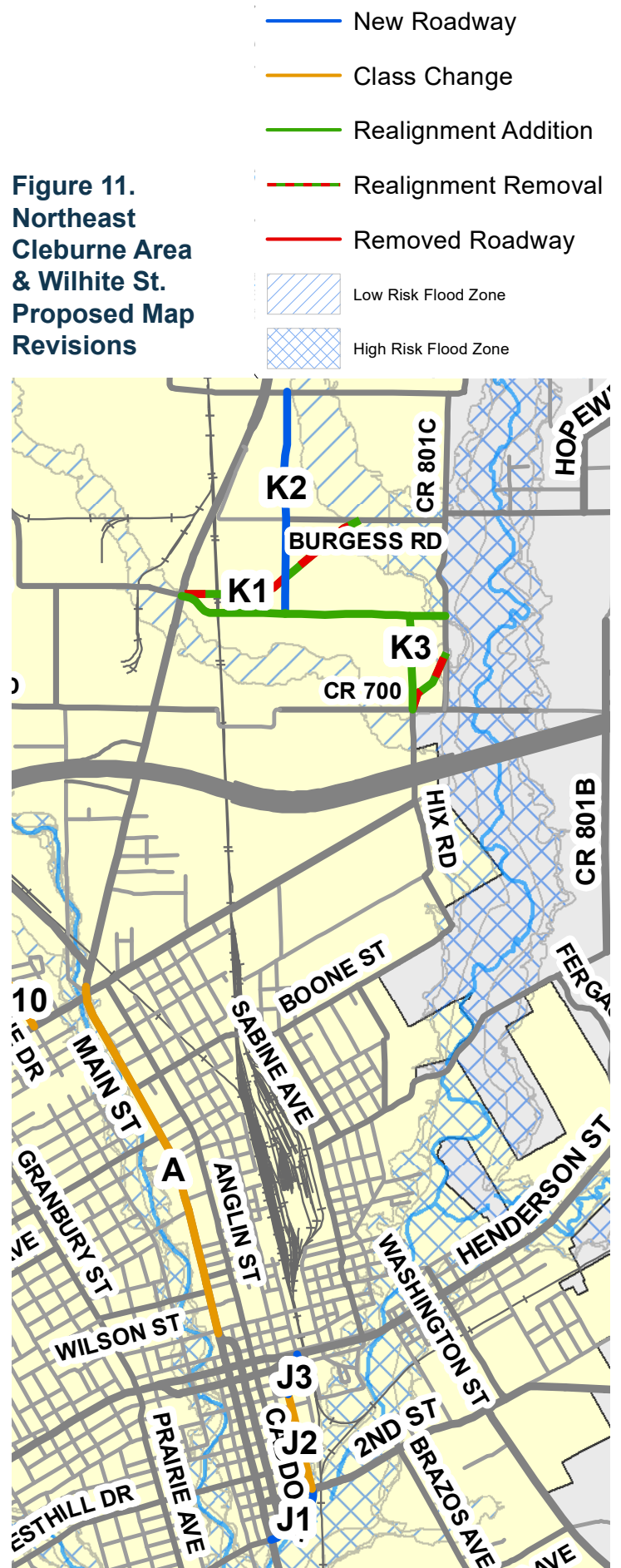
**Table 3. East Lakeshore Area Proposed Map Revisions**

Map ID	Street Name	From	To	Revision	2017 Classification	2022 Classification	Proposed ROW
H1	<b>Nolan River Rd</b>	Park Blvd	CR 183A	Revised Alignment	Minor Arterial	Minor Arterial	105'
	Justification:	Nolan River Rd has been revised to follow its existing alignment toward the lake and not tie to Old Foamy Rd. University Dr will now tie to Old Foamy Rd.					
H2	<b>University Dr</b>	Henderson St	Old Foamy Rd	Revised Alignment	Minor Arterial	Minor Arterial	105'
	Justification:	University Dr from Henderson St to Country Club Rd has been revised based on current and future alignments through developments. Between Country Club Rd and Old Foamy Rd, the road has been revised to create a hard intersection with Old Foamy Rd at Nolan River Rd, creating a continuous loop road around the outer section of the City. Nolan River Rd will continue on its existing alignment.					
H3	<b>Country Club Rd</b>	Nolan River Rd	Harvest Hill Rd	Class Change	Minor Collector/ Local Road	Major Collector	75'
	Justification:	This segment will act as a major collector as traffic increases to the Lake and as development activity continues in this area.					
H4	<b>Park Blvd</b>	Country Club Rd	Existing terminus	Class Change	Local Road	Major Collector	75'
	Justification:	Reclassified based on increased traffic demand from anticipated development in the area.					
H5	<b>Park Blvd</b>	Existing terminus	Nolan River Rd	New Roadway	N/A	Major Collector	75'
	Justification:	Extended existing Park Blvd to create a major collector based on need from proposed developments. This road will provide alternate routes into and out of surrounding neighborhoods, alleviating neighborhood traffic and development initiated.					
H6	<b>Harvest Hill Rd</b>	Country Club Rd	Lakeshore Dr	Class Change	Local Road	Minor Collector	75'
	Justification:	This segment will act as a minor collector as traffic increases to the Lake and as development activity continues in this area.					
H7	<b>Harvest Hill Rd</b>	Existing terminus	Nolan River Rd	Revised Alignment	N/A	Local Road	50'
	Justification:	Slight alignment change to create a proper intersection with Nolan River Rd.					
H8	<b>Lakeshore Dr</b>	Harvest Hill Rd	Nolan River Rd	Class Change	Local Road	Minor Collector	75'
	Justification:	This segment will act as a minor collector as traffic increases to the Lake and as development activity continues in this area. This change also aligns with planned park improvements along the Lake.					
H9	<b>Old Foamy Rd</b>	SH 174	SH 171	Revised Alignment	Minor Arterial	Minor Arterial	105'
	Justification:	Location of previously proposed road is unfeasible due to floodplain, railroad tracks, existing structures, and other barriers in the area. New potential alignment is shown but should be studied to determine exact alignment.					
H10	<b>Old Foamy Rd</b>	Nolan River Rd	East of Nolan River Rd	Class Change/ Revised Alignment	Minor Collector	Minor Arterial	105'
	Justification:	Old Foamy Rd has been realigned to curve into Nolan River Rd to create a full intersection with University Blvd.					

## NORTHEAST CLEBURNE AREA & WILHITE STREET REVISIONS

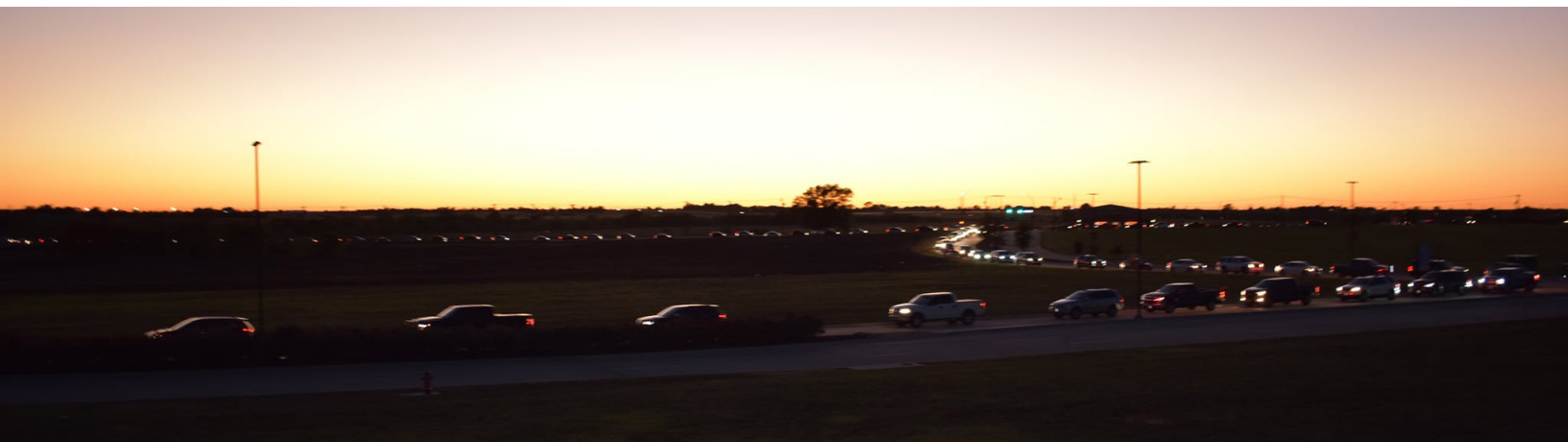
- Description:** The Northeast Cleburne area is largely industrial, agricultural, or low-density rural residential land uses north of US 67. It is expected that, as Cleburne continues to develop and grow over the next 20 years, development may need to eventually expand north of US 67. For the downtown core, vehicles generally must travel through the area via Henderson Street (US 67 Business) or Main Street (SH 174), requiring trucks to also congest the area.
- Issues:** Existing thoroughfares in the northeast Cleburne area predominantly consist of 2-lane undivided rural roads (Industrial Boulevard, Commerce Boulevard, Burgess Road, and Hix Road) that provide access to SH 174 or US 67. Additional connectivity in this area would allow travelers to bypass the US 67 and SH 174 interchange and create new opportunities for economic development. For the downtown core, congestion can quickly increase with truck traffic traveling through the center of town.
- Recommendations:** Table 4 lists the recommended revisions for the Northeast Cleburne area and Wilhite Street, and Figure 11 provides a snapshot view of the area. The 2022 MTP is recommending extending Commerce Boulevard from SH 174 to CR 801C, creating an alternative to Industrial Boulevard to the south. Additionally, a new north-south thoroughfare (New Road B) would connect Vaughn Road to the extended Commerce Boulevard, essentially running parallel to SH 174. Hix Road is also recommended to extend north to the Commerce Boulevard extension, providing an additional gateway in or out of Cleburne's core. For the downtown core area, Wilhite Street is recommended to be upgraded from a local road to a major collector in order to function as a truck bypass route around the core of Cleburne. This upgrade will require two new sections of Wilhite Street to connect the existing roadway to Main Street (SH 174) at Country Club Road and to Henderson Street (US 67 Business) at the elevated section above Border Street.
- Additional Considerations:** Main Street (SH 174) north of US67, especially south of Industrial Boulevard, has become an increasingly busy and congested corridor in the City. A high number of accidents have occurred in this stretch, creating a need for safety and access management improvements. The City of Cleburne should work with TxDOT to address these issues in order to stay ahead of the growth that will likely come soon north of US 67 in Cleburne.

**Figure 11.**  
**Northeast**  
**Cleburne Area**  
**& Wilhite St.**  
**Proposed Map**  
**Revisions**



**Table 4. Northeast Cleburne Area and Wilhite St. Proposed Map Revisions**

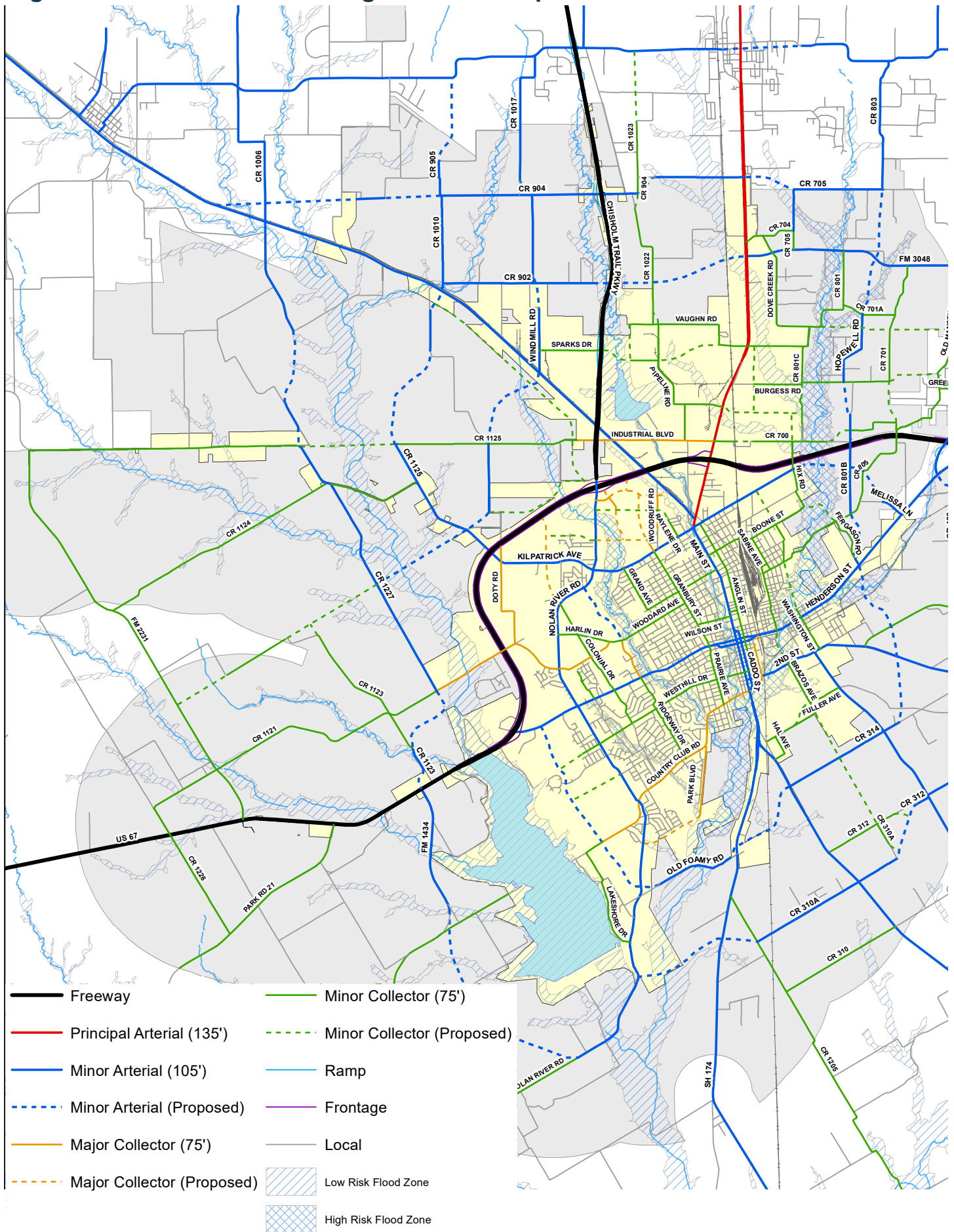
Map ID	Street Name	From	To	Revision	2017 Classification	2022 Classification	Proposed ROW
J1	<b>Wilhite St</b>	Main St (SH 174)	2nd St (FM 4)	New Roadway	N/A	Major Collector	75'
	Justification:	Create a connection of existing Wilhite Street from 2nd St to SH 174. The full section will ultimately serve as a truck by-pass route from SH174 to Henderson St (US 67 Business).					
J2	<b>Wilhite St</b>	2nd St (FM 4)	Harrell St	Class Change	Local Road	Major Collector	75'
	Justification:	Designate existing Wilhite St as a major collector to ultimately serve as a truck by-pass route from SH 174 to Henderson St (US 67 Business).					
J3	<b>Wilhite St</b>	Harrell St	Henderson St (US 67 Business)	New Roadway	N/A	Major Collector	75'
	Justification:	Connect existing Wilhite St to US 67 Business to complete the connection for a truck by-pass route. This section will have a ramped, elevated connection at Henderson St (US67 Business).					
K1	<b>Commerce Blvd</b>	SH 174	CR 801C	Revised Alignment	Minor Collector	Minor Collector	75'
	Justification:	Realignment creates a more grid-type configuration and will not interfere with developable tracts as prior curved alignment did. Road will be required as development occurs in the area.					
K2	<b>New Road C</b>	Vaughn Rd	Commerce Blvd	New Roadway	N/A	Minor Collector	75'
	Justification:	New roadway will provide north-south connectivity as an alternative back road to SH 174 and help encourage development in the area.					
K3	<b>Hix Rd</b>	Kilpatrick Ave	New Road B	Revised Alignment	Minor Collector	Minor Collector	75'
	Justification:	Hix Rd has been realigned to create a 90 degree intersection with New Road B rather than swing into CR 801C.					
















## ► Thoroughfare Plan Map

The Thoroughfare Plan Map shown in **Figure 12** illustrates the recommended transportation network needed in Cleburne to facilitate and anticipate future growth. All of the previously discussed revisions are integrated into the 2022 Master Thoroughfare Plan Map. Recommended roadways are also shown in the extra-territorial jurisdiction (ETJ) area outside the city limits. Dashed segments represent recommended roadways where there currently is not a roadway. The Thoroughfare Plan Map is subject to change as development patterns change and growth continues. The Thoroughfare Plan Map should be updated every five years (or less) in order to ensure Cleburne’s infrastructure is staying ahead of growth and reflecting current development activities.

**Figure 12. 2022 Master Thoroughfare Plan Map**



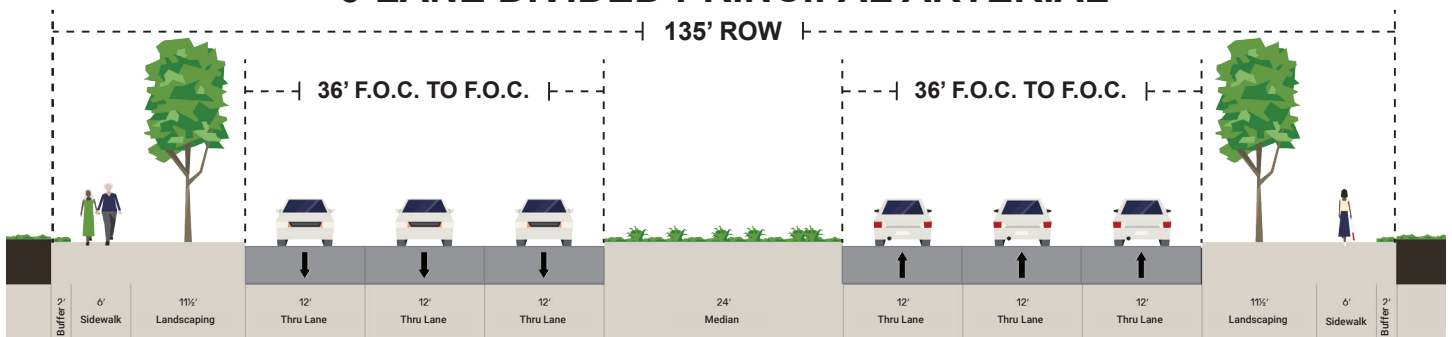
- |   |  |
|---|--|
|  Freeway                    |  Minor Collector (75')      |
|  Principal Arterial (135')  |  Minor Collector (Proposed) |
|  Minor Arterial (105')      |  Ramp                       |
|  Minor Arterial (Proposed)  |  Frontage                   |
|  Major Collector (75')      |  Local                      |
|  Major Collector (Proposed) |  Low Risk Flood Zone        |
|   |  High Risk Flood Zone       |

# CROSS SECTIONS

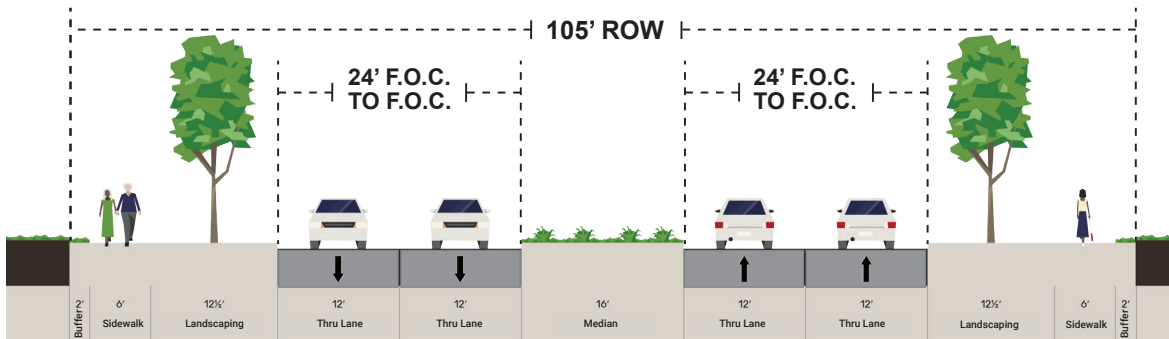
As Cleburne continues to grow, it is important to establish which roadway facilities are appropriate to accommodate various land uses, traffic levels, and community character. The 2022 MTP Update provides modernized roadway cross sections to guide development going forward. The illustrative cross sections (**Figure 13**) are standardized configurations of each major roadway classification in Cleburne’s MTP. The prominent features of the cross sections (travel lanes, parkway space, right-of-way, etc.) for each classification are intended to be applied to every roadway within that classification. However, specific exceptions may arise, such as topography or adjacent land uses, that could cause these configurations to be adjusted accordingly on a case-by-case basis. Figure 13 also includes alternate cross sections for the minor arterial and collector classifications featuring a shared-use path on one side of the roadway (noted as “SUP ALTERNATIVE”). These configurations may be applied for roadways identified in Cleburne’s Parks, Recreation, Trails & Open Space Master Plan with planned future trails. Standardizing modernized roadway cross sections will allow Cleburne to better control how the City grows and develops without falling behind.

**Figure 13. 2022 MTP Cross Sections**

## 6-LANE DIVIDED PRINCIPAL ARTERIAL



## 4-LANE DIVIDED MINOR ARTERIAL



## 4-LANE DIVIDED MINOR ARTERIAL (SUP ALTERNATIVE)

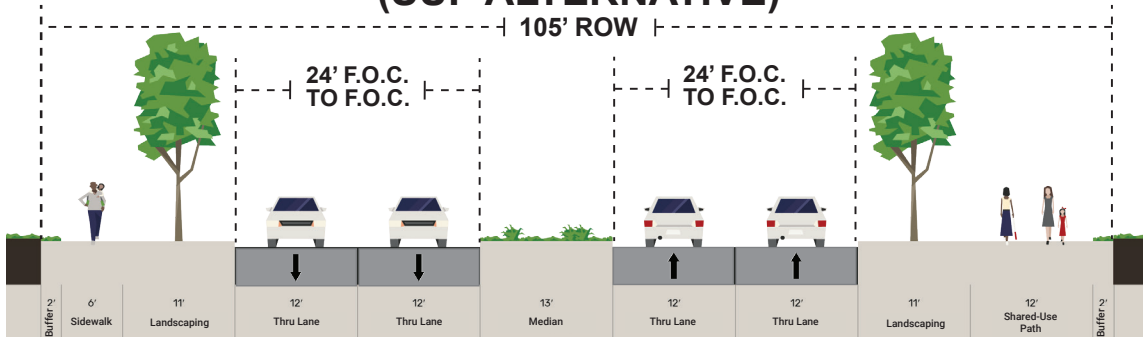
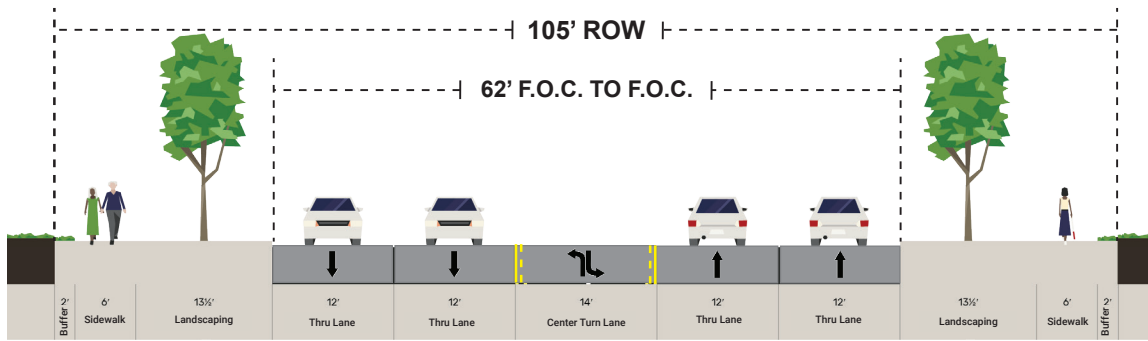


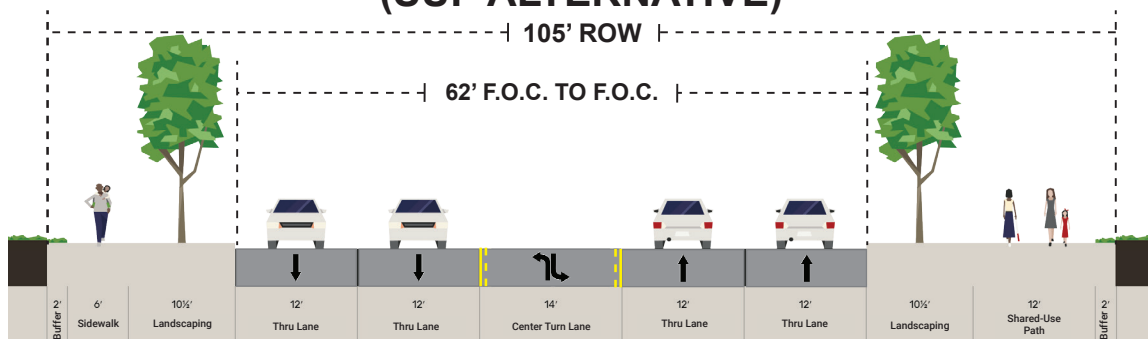


Figure 13. 2022 MTP Cross Sections (cont'd)

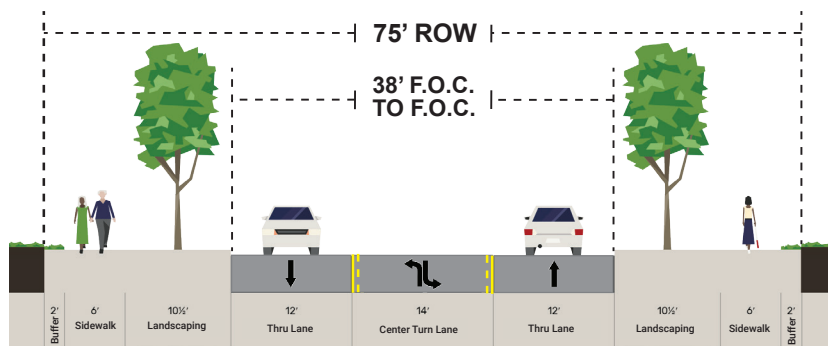
### 5-LANE UNDIVIDED MINOR ARTERIAL



### 5-LANE UNDIVIDED MINOR ARTERIAL (SUP ALTERNATIVE)



### 3-LANE UNDIVIDED COLLECTOR



### 3-LANE UNDIVIDED COLLECTOR (SUP ALTERNATIVE)

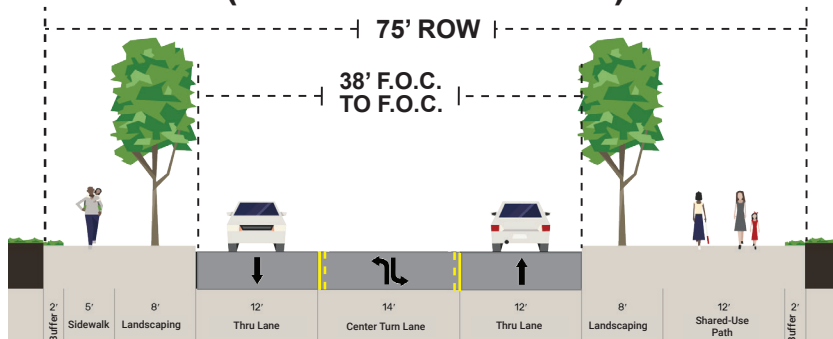
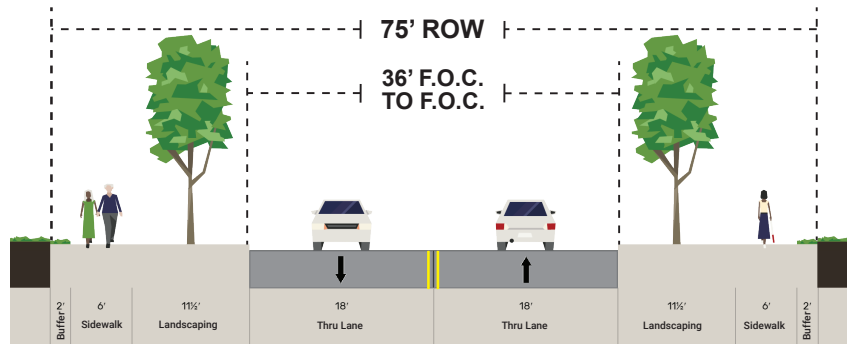
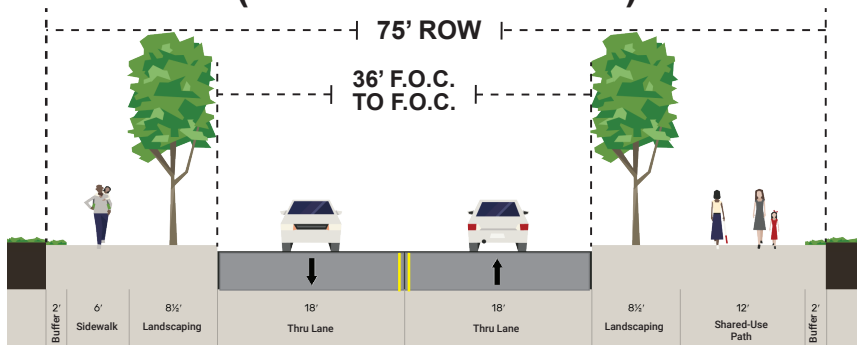


Figure 13. 2022 MTP Cross Sections (cont'd)

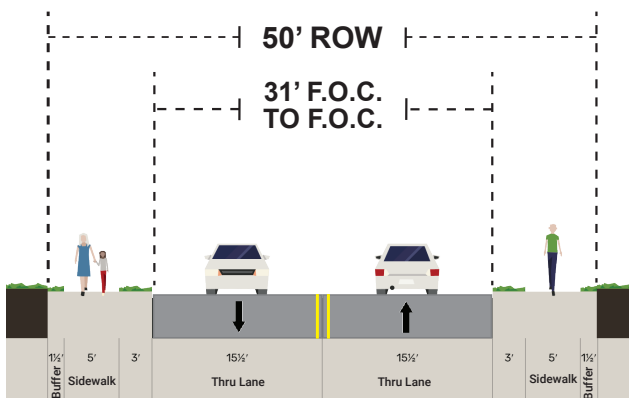
### 2-LANE UNDIVIDED COLLECTOR



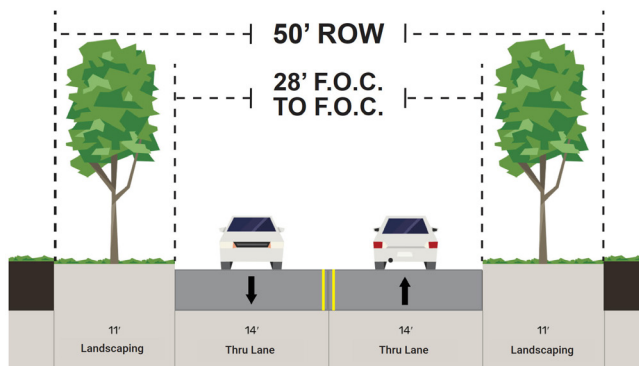
### 2-LANE UNDIVIDED COLLECTOR (SUP ALTERNATIVE)



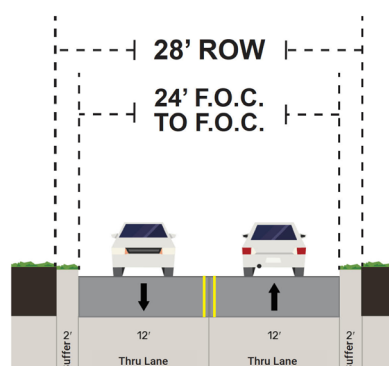
### 2-LANE UNDIVIDED LOCAL



### 2-LANE UNDIVIDED RURAL



### LEGACY ROAD



## ROADWAY CLASSIFICATIONS

A roadway classification system, in concert with modernized roadway cross sections, helps inform decision-making as development continues and as roadway performance is periodically reevaluated. Thoroughfares are either rural roads, collectors, arterials, or highways, based on the function they serve and what they provide access to. Future local streets were not specified on the 2022 MTP, as these are often driven by development.

- **Highways** such as US 67 provide regional connectivity with right-in, right-out access except for grade-separated intersections. Highways allow for the highest capacity of traffic out of all classifications in Cleburne, ranging from 36,000 to 54,000 vehicles per day depending on the number of lanes.
- **Arterials** are typically needed at regular interval spacing to accommodate those traveling across town. However, in order to maintain the small town character of Cleburne, arterial roads were carefully considered in the 2022 MTP so as not to create an arterial-dependent roadway network.
- **Collector and rural roads** distribute traffic from arterials to local streets, ensuring connectivity in an efficient manner and helping alleviate cut-through traffic when properly planned. These roadways typically facilitate people to and from their neighborhoods or final destinations.

Providing specifications for each roadway cross section and classification allows the City to better stay ahead of growth, accommodate mobility needs, preserve community character, and maintain acceptable roadway performance (LOS).

**Table 5** details the characteristics of each roadway classification that will be present in Cleburne’s thoroughfare network.

**Table 5. Roadway Classification Characteristics**

Street Element	Principal Arterial	Minor Arterial	Minor Arterial	Major Collector	Minor Collector	Local	Rural
Right-of-Way (min. feet)	135	105	105	75	75	50	50
Right-of-Way at Intersections (min. feet) <sup>1</sup>	160	130	130	83	83	50	50
Travel Lanes (#)	6	4	4	2	2	2	2
Travel Lane Width (min. feet)	12	12	12	12	18	15.5	14
Median Width* (feet)	24	16	14 <sup>2</sup>	14 <sup>2</sup>	N/A	N/A	N/A
Parkway Width* (min. feet per side)	19.5	20.5	21.5	18.5	19.5	9.5	11
Average Daily Traffic (ADT) Projected Max	32,400	21,600	21,600	8,800	8,000	5,000	10,000

*1 - Minimum widths shall be present for 200’ on all approaches to intersections with arterials to accommodate turn lanes (Figure 15)*

*2 - Median space is a two-way left turn lane (TWLTL)*

*\* For the Shared-Use Path (SUP) Alternatives, refer to the roadway cross section graphics in Figure 13 for median and parkway widths.*

The 2022 MTP Update recommends two notable changes in the proposed roadway cross sections and classifications from the 2008 MTP:

- First, the right-of-way for each classification has been increased by 15 feet to accommodate **wider parkways**. The additional width will limit the constrained tunneling effect that is experienced on some roadways (**Figure 14**). A tunneling effect occurs when streets have lots of pavement and narrow parkways, placing fences or walls close to the road. This encourages speeding and decreases comfort for pedestrians. Widening parkways would increase safety for all users, establish a positive sense of place, and reinforce Cleburne’s strong community character.
- Second, the 2022 MTP Update provides a minimum right-of-way requirement within **200 feet of all approaches** to intersections with arterials to accommodate turn lanes, shown in **Figure 15**. Widening these approaches to major intersections would increase vehicular throughput while also improving safety conditions for pedestrians and other motorists. Intersections often create bottlenecks and increased delays. Additional right-of-way can help alleviate these issues by providing designated through and turn lanes.

Both of these changes will help Cleburne shape its roadway network into a more safe and efficient system for all modes and abilities as growth continues into the future.

**NETWORK CONSIDERATIONS**

As Cleburne develops their roadway network, there are several design considerations the City should consider in order to achieve their desired outcome. The transportation network can support the development of a City while also avoiding unintended consequences.

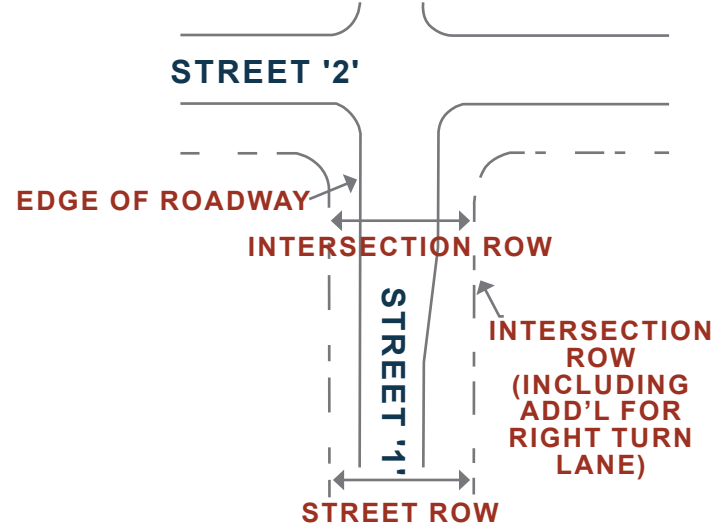
Cleburne currently has two distinct types of road networks: Grid Network and Arterial Network.

- **Grid networks** are common in pre-automobile era cities, consisting of closely spaced local or collector roadways that provide a high level of connectivity and slower travel speeds. Cleburne’s grid network (**Figure 16**) is located in the core of the City, establishing a strong sense of place and identity for Cleburne’s downtown and surrounding neighborhoods.
- **Arterial networks** are common in automobile era cities, consisting of larger arterial roadways that are further spaced apart. Arterial networks facilitate faster travel speeds for longer distances while also limiting local connectivity. Cleburne’s arterial network is located at the periphery areas of the City, particularly along the western half of Cleburne. Much of the recent residential development activity has occurred along arterial roadways such as Nolan River Road.

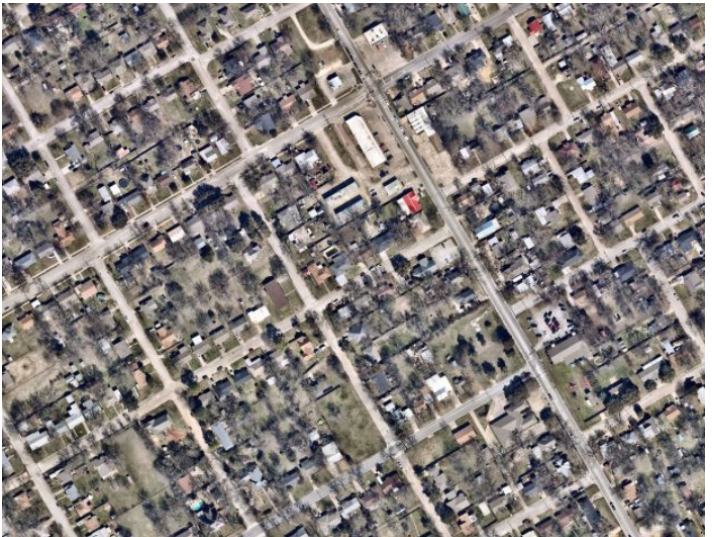
**Figure 14. Tunneling Effect Example**



**Figure 15. Minimum ROW Approaching Intersections**



**Figure 16. Grid Network in Cleburne**



# CHAPTER 3. INTERSECTIONS



# INTERSECTIONS

Intersections that operate in a safe and efficient manner can have significant benefits for the overall transportation system. A majority of congestion and traffic delay occurs at intersections. Proper traffic signal or all-way stop spacing, traffic signal coordination, and modernized infrastructure are all strategies to help improve throughput and safety at intersections throughout the City. This chapter will summarize the findings from in-person intersection evaluations, recommendations for signal infrastructure improvements, and recommended traffic signal design guidelines for Cleburne to adopt and implement. Additional intersections will also be identified for future improvement considerations.

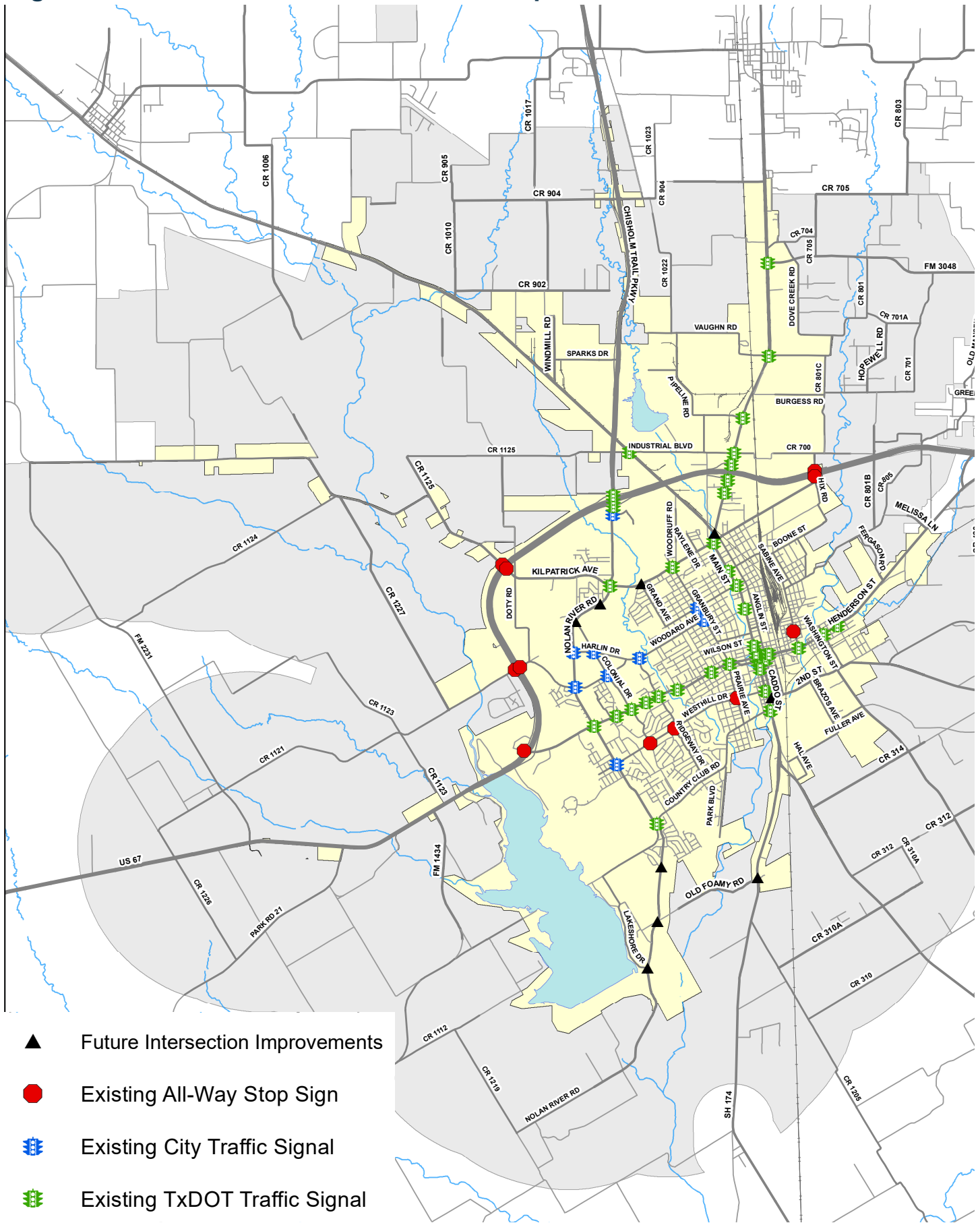
## INTERSECTION EVALUATIONS

On Monday, April 19, 2021, field observations were conducted to assess the conditions of the existing signal infrastructure at nine city-owned intersections throughout Cleburne. The rest of Cleburne's 40 signalized intersections are on TxDOT facilities, and were not included in this evaluation. At each of Cleburne's nine city-owned intersections, various conditions and characteristics were evaluated, including cabinet equipment type and condition, signal pole and mast arm type and condition, curb ramps, and other noted observations. All intersection evaluation sheets are included in **Appendix B**. All of Cleburne's signalized intersections, as well as all-way stop intersections, are shown in **Figure 17**. The nine City-owned intersections that were evaluated are located at:

- **Poindexter Ave. & Granbury St.**
- **Harlin Dr. & Nolan River Rd.**
- **Harlin Dr. & Colonial Dr.**
- **Woodard Ave. & Nolan River Rd.**
- **Woodard Ave. & Colonial Dr.**
- **Woodard Ave. & Ridgeway Dr.**
- **Woodard Ave. & Granbury St.**
- **Westhill Dr. & Nolan River Rd.**
- **Cleburne Station Pkwy. & Nolan River Rd.**



**Figure 17. Intersection Controls & Future Improvements**



## IMPROVEMENT RECOMMENDATIONS

Based off the field observations and other data collected, **Table 6** lists the recommended improvements for the City to consider in the near future. **Appendix B** provides planning-level cost estimation sheets for each intersection. The improvements are also prioritized according to several factors, including (but not limited to) overall traffic at each intersection (vehicular and pedestrian), volume of improvements needed, and current conditions of the existing infrastructure. High priority projects are in the darkest red low priority projects are in the lightest red. Priorities of each intersection may be adjusted due to budgetary constraints or changing realities surrounding each area. Improvements may also be provided through adjacent development activity on a case-by-case basis. **Chapter 4** recommends additional improvements recommended for intersections not included in this intersection evaluation.

**Table 6. Intersection Evaluation Recommendations**

Intersection ID	Street A	Street B	Improvement Recommendation	Cost
I-1	Woodard Ave	Nolan River Rd	Upgrade existing curb ramps on SE, SW, and NE corners to meet current ADA standards, install pedestrian pole and push buttons for ADA compliance, and repair signal head visor damage.	\$35,500
I-2	Woodard Ave	Granbury St	Install pedestrian signals and push buttons at all corners, repair visor damage to 2 signals head on SE corner of signal pole, and install ADA-compliant curb ramps at all corners.	\$46,000
I-3	Westhill Dr	Nolan River Rd	Repair damage to signal heads on NE and NW corner poles, upgrade all curb ramps to meet current ADA standards, upgrade/relocate pedestrian signals and push buttons, and install 4 new ground boxes/wiring.	\$46,000
<b>Tier 1 Total:</b>				<b>\$127,500</b>
I-4	Harlin Dr	Nolan River Rd	Install new pedestrian pole with push button on SW corner and upgrade existing curb ramps on SW and NE corners to meet current ADA standards.	\$13,500
I-5	Harlin Dr	Colonial Dr	Replace 8 existing faded pedestrian push button signs and upgrade existing curb ramps on SW corner to meet current ADA standards.	\$15,000
I-6	Cleburne Station Pkwy	Nolan River Rd	Upgrade existing curb ramps on NW corner to meet current ADA standards and relocate existing NW pedestrian signal and push button.	\$17,000
<b>Tier 2 Total:</b>				<b>\$45,000</b>
I-7	Poindexter Ave	Granbury St	Run diagnostic on existing video detection system and replace if necessary.	\$40,000
I-8	Woodard Ave	Colonial Dr	Replace 8 existing faded pedestrian push button signs.	\$6,000
I-9	Woodard Ave	Ridgeway Dr	Upgrade existing detection to video, install new signal cabinet hardware, install flashing yellow arrows, install 2 ground boxes with wiring, and install pedestrian poles with push buttons on the SE and SW corners.	\$109,500
<b>Tier 3 Total:</b>				<b>\$155,500</b>
<b>GRAND TOTAL</b>				<b>\$328,500</b>



Other system-wide improvements should also be considered for Cleburne’s intersections, including:

- **Right-of-way (ROW) requirements at intersections:** As discussed in the Cross Sections section of **Chapter 2**, each classification of roadway has an established minimum ROW width at intersections. On all approaches to intersections with arterials, minimum widths shall be present for 200 feet to accommodate turn lanes.
- **Preparation for TxDOT signal takeover:** Once Cleburne reaches a population of 50,000, which could happen as soon as 2030, the City may begin the process of taking control TxDOT’s traffic signals. The City would assume ownership of TxDOT’s 40 signalized intersections, adding to Cleburne’s nine current signalized intersections. This would allow Cleburne to have a more coordinated and uniform traffic signal system throughout the City.
- **Safe and efficient intersections for all modes and abilities:** Cleburne can grow in an equitable and safe manner by ensuring all intersections are welcoming to non-motorists and ADA compliant, thus reducing the likelihood of vehicle-pedestrian or vehicle-bicycle crashes.

### INTERSECTION MAINTENANCE

Intersection maintenance aims to ensure that Cleburne’s intersections operate reliably and maintain a state of good repair. This includes signal operations and detection technology, ADA-compliant facilities, regular inspection of equipment, and other factors. An annual allotment may be necessary to ensure each intersection is properly monitored and maintained. Based on general maintenance planning and principles, the 2022 MTP recommends consideration for the City of Cleburne to budget approximately \$6,500 per year for maintenance and operations at each signalized location. This amount may be reevaluated again in the future to better reflect inflation and changing material costs.

### SIGNAL DESIGN GUIDELINES

As part of the MTP, signal design guidelines were developed in an attempt to outline a set of requirements that must be satisfied to install new traffic signals in the City of Cleburne. This document is intended to act as a supplement to the Texas Manual on Uniform Traffic Control Devices (TMUTCD), the National Electrical Code (NEC), the National Electrical Safety Code, and professional engineering analyses. Other topics mentioned in the signal design guidelines include uniform design of signal infrastructure, pedestrian accommodations, pavement markings, and other processes for ensuring a safe, efficient, and modern signal system. The full signal design guidelines are included in **Appendix C**.

**Woodard Ave. & Granbury St.**



**Nolan River Rd. & Cleburne Station Pkwy.**



## OTHER KEY INTERSECTIONS

In addition to the City-owned signalized intersections, there are several other important intersections that warrant consideration for future improvements or treatments to improve safety and accommodate future growth. **Table 7** lists these intersections and includes improvement considerations for each. Many of these intersections will require coordination with other agencies, such as TxDOT and Johnson County, in order to implement any needed improvements. These locations are also shown in **Figure 17** as potential future signals or intersections improvements. Generally, many intersections listed here could benefit from additional right-of-way, added turn lanes, improved signal timing, or other short-term alternatives. Each intersection noted should be further evaluated to assess the best approach for each particular situation.

**Table 7. Additional Intersection Considerations**

Street A	Street B	Improvement Considerations
Nolan River Rd	Country Club Rd	The alignment of this intersection has been designed in an untraditional manner, negatively impacting safety and sight distances for motorists traveling the curving approaches. This intersection may warrant a future realignment.
Nolan River Rd	Henderson St	This major intersection currently has an offset alignment where southbound drivers passing through Henderson St must jog to their left through the intersection. In order to increase safety at this intersection, the southern leg may need to be widened in the future to add an additional southbound lane on Nolan River Rd. Signal timing may also need to be improved during peak hours in order to reduce congestion at the intersection.
Nolan River Rd	Old Foamy Rd	Old Foamy Road is a narrow county road that serves as a southern east-west connection in Cleburne. The 2022 MTP recommends upgrading Old Foamy Road and realigning it further north on Nolan River Road so the new intersection has improved sight distances compared to the existing intersection. As Cleburne continues to grow in this area, a signal may be warranted at the new intersection.
Nolan River Rd	Lakeshore Dr	As Lakeshore Drive continues to experience increased vehicular traffic, turning movements at this intersection may become less safe due to sight distances issues. Once Kirtley Park is renovated, a new signal may be warranted here.
Nolan River Rd	Ridgeway Dr	Residential development is planned to occur south of Nolan River Road and east of Yellow Jacket Drive, with Ridgeway Drive extending north from Woodard Avenue to Nolan River Road. This large development is expected to generate noticeable traffic onto Nolan River Road, which may warrant a new signal at this intersection.
Nolan River Rd	Yellow Jacket Dr	Cleburne High School and Wheat Middle School are both located approximately one-half mile from this intersection. In the AM and PM peaks, school traffic often congests this intersection with vehicular and pedestrian traffic. This intersection would likely become more safe and efficient with a signal and pedestrian infrastructure installed, especially once Yellow Jacket Drive is extended north to Kilpatrick Avenue in the future.
Nolan River Rd	Park Blvd	A new residential development is planned along the future Park Boulevard extension to Nolan River Road, which will bring additional traffic to this location. A new signal may be warranted once the new roadway and development are built.
Colonial Dr	Westhill Dr	This residential intersection forces southbound motorists on Colonial Drive to jog to the right of oncoming vehicular lanes and a median in order to safely continue traveling south. This misalignment could confuse individuals who are unfamiliar with the area, thus creating a safety hazard. This intersection could become more safe by being realigned so motorists may travel straight without having to jog over.
Main Street	Willingham St	This intersection acts as the northern gateway to the core of downtown. The existing signal infrastructure has signal heads on spanwire and the intersection is lacking pedestrian infrastructure. Upgrading both of these elements of the intersection can improve safety in the future. Coordination with TxDOT will be required, as both roadways are TxDOT facilities.
Main Street	SH 171	This three-way intersection facilitates significant truck and other vehicular traffic near an active, at-grade railroad crossing. In order to improve safety and efficiency, this intersection may benefit from installing a signal. Coordination with TxDOT will be required, as both roadways are TxDOT facilities.
Caddo St	2nd St	This intersection is currently a two-way stop with traffic on Caddo Street having the right-of-way northbound. Motorists on 2nd Street must negotiate the intersection to travel straight across Caddo Street or turn north, creating a free-for-all feeling at the intersection. As growth continues in Cleburne, this intersection may warrant a new signal to improve safety and efficiency.
Kilpatrick Ave	Grand Ave	Kilpatrick Avenue serves as the main east-west alternative to Henderson Street in Cleburne, which will likely continue to be the case as Cleburne grows. In order to ensure safe and efficient access to residential areas along Kilpatrick Avenue, this intersection may warrant future improvements.
SH 174	Old Foamy Rd	Old Foamy Road provides one of the few access points to SH 174 on the south side of Cleburne. As the City continues to grow south along Nolan River Road, Old Foamy Road will become an increasingly important east-west thoroughfare. This intersection may warrant a signal in the future to provide safe access to and from SH 174.

# CHAPTER 4. PROJECT RECOMMENDATIONS



# PROJECT RECOMMENDATIONS

Part of the MTP planning process was the development of a new list of recommended projects outlining needed transportation infrastructure projects for Cleburne. This involved identifying needed projects and developing planning-level cost estimates. The list of projects will need to be reevaluated and updated every five years in order to best adapt to changing conditions and growth throughout the City. If these projects are not implemented and growth continues to occur at its rapid pace, the City may experience unacceptable roadway performance (LOS) and increased congestion. These projects are needed to maintain the current roadway network levels of service and community character, while also staying ahead of anticipated growth.

## METHODOLOGY

Projects were identified through various sources, including past CIP project recommendations, in-person field observations, level of service (LOS) calculations, anticipated developments, and local expertise from City staff. Many of the projects were added in order to stay ahead of future growth.

A total of 20 roadway projects were selected for analysis and costing based on their anticipated ability to maintain and sustain transportation conditions in Cleburne. In addition to the 20 roadway projects, six intersection projects were selected based on the intersection improvements identified in **Chapter 3** and other observed issues. The 26 projects are shown in **Figure 18**, with red lines indicating new roadways and purple lines indicating roadway widenings.

The projects were then categorized in order of importance based on funding availability, congestion mitigation capability, and other considerations including current and future traffic conditions, crash history, maintenance needs, network benefits of the project, intersection evaluations, and current or planned developments.

## RECOMMENDATIONS

As a result of the project identification and evaluation process, **Figure 19** shows the recommended projects and their corresponding level of urgency. **Table 8** lists the roadway projects with additional details, including potential funding partners such as TxDOT, Johnson County, and the development community. **Table 9** lists the needed intersection projects to be included in the CIP. Project profile sheets can be found in **Appendix D**.

- **Tier 1 Projects:** City should consider these projects first as funding becomes available. Tier 1 Projects have been identified as the most beneficial to the City and its residents in the near term, causing them to elevate in recommended priority. Failure to implement these projects first could result in poor roadway performance for the overall transportation system given the recent pace of growth in Cleburne.
- **Tier 2 Projects:** City should start planning for these projects and consider them after the Tier 1 Projects are completed. Tier 2 Projects have been identified as slightly less impactful than the Tier 1 Projects today, however they are still essential to the ultimate transportation system. These projects will be needed to stay ahead of Cleburne's growth and maintain well-functioning roadways.
- **Tier 3 Projects:** City should monitor these projects and reevaluate them in five years. City may consider these projects after the Tier 2 Projects are complete. Tier 3 Projects have been identified as being the most impactful after the first two tiers have been completed.

Recommended projects should be reevaluated every five years. All projects are subject to change from one tier to another as priorities and current realities change in the future. Additional projects may also be added as needs arise and growth continues. All recommended projects are listed in **Table 10**.

## PROJECT COSTS BY TIER

\$49.6M

!!!  
TIER 1 PROJECTS

\$58.0M

!!  
TIER 2 PROJECTS

\$48.6M

!  
TIER 3 PROJECTS



**Table 8. Recommended Roadway Projects**

Project ID	Street Name	From	To	Project Type	Length (ft)	Cost (\$M)
A <sup>1</sup>	<b>Ridgeway Dr</b>	Woodard Ave	Nolan River Rd	New Minor Arterial	4,660	\$6.8M
	Justification:	Development driven; alleviate traffic from Nolan River Rd.				
B <sup>1</sup>	<b>University Dr</b>	Henderson St	Old Foamy Rd	New Minor Arterial	14,915	\$21.8M
	Justification:	Development driven; alleviate traffic from Nolan River Rd.				
C <sup>1</sup>	<b>Woodard Ave</b>	CR 1227	Harlin Dr	Widen to Major Collector	14,290	\$17.4M
	Justification:	Increase east-west capacity; alleviate traffic from Henderson St.				
D	<b>Industrial Blvd</b>	Chisholm Trail Pkwy	0.5 miles east of CTP	Widen to Major Collector	2,640	\$2.8M
	Justification:	Increase safety and capacity along Industrial Blvd.				
<b>Tier 1 Total</b>						<b>\$48.8M</b>

Project ID	Street Name	From	To	Project Type	Length (ft)	Cost (\$M)
E <sup>1</sup>	<b>Park Blvd</b>	Southern terminus	Nolan River Rd	New Major Collector	4,550	\$8.7M
	Justification:	Increase connectivity for residential developments.				
F <sup>1</sup>	<b>New Road B (River Bend Road)</b>	Nolan River Rd	Woodruff Rd	New Major Collector	4,785	\$8.9M
	Justification:	Increase connectivity in Cleburne Station area for future development and alternative to Kilpatrick Ave.				
G <sup>1</sup>	<b>Cleburne Station Pkwy</b>	Brazzle Blvd	SH 171	New Major Collector	4,370	\$5.0M
	Justification:	Development driven; east-west connectivity and alternative to Kilpatrick Ave./US 67.				
H <sup>1</sup>	<b>Yellow Jacket Dr</b>	Nolan River Rd	US 67	New Major Collector	6,255	\$6.6M
	Justification:	Increase safety and connectivity in northwest Cleburne; alternative to Nolan River Rd.				
I	<b>Nolan River Rd</b>	Henderson St	Country Club Rd	Widen to Minor Arterial	7,955	\$11.6M
	Justification:	Increase capacity as southwest Cleburne continues to grow.				
J	<b>Lakeshore Dr</b>	Harvest Hill Dr	Nolan River Rd	Widen to Minor Collector	5,170	\$5.2M
	Justification:	Development driven; anticipating traffic to Lake Pat Cleburne as a regional destination.				
K	<b>Yellow Jacket Dr</b>	Harlin Dr	Nolan River Rd	Widen to Minor Collector	2,445	\$2.6M
	Justification:	Increase safety and capacity, especially for school traffic.				
L <sup>2</sup>	<b>CR 805</b>	Mansfield Rd	Ferguson Rd	Widen to Minor Collector	5,110	\$8.9M
	Justification:	Development and growth driven; increase connectivity in eastern Cleburne.				
<b>Tier 2 Total</b>						<b>\$57.5M</b>

1 - Potential Funding Partner - Private Development

2 - Potential Funding Partner - Johnson County

**Table 8. Recommended Roadway Projects (cont'd)**

Project ID	Street Name	From	To	Project Type	Length (ft)	Cost (\$M)
M <sup>1</sup>	<b>Granbury St</b>	Northern terminus	Cleburne Station Pkwy	New Major Collector	3,330	\$3.6M
	Justification:	Development driven; will provide future north-south connectivity in Cleburne Station area and alternatives to Main St and Nolan River Rd.				
N <sup>1</sup>	<b>Commerce Blvd</b>	Eastern terminus	CR 801C	New Minor Collector	5,675	\$6.8M
	Justification:	Future development driven; increase east-west connectivity in future growth area.				
O <sup>1</sup>	<b>New Road C</b>	Vaughn Rd	Commerce Blvd	New Minor Collector	4,630	\$4.6M
	Justification:	Future development driven; increase north-south connectivity in future growth area.				
P	<b>Hix Rd</b>	Commerce Blvd	Industrial Blvd	New Minor Collector	1,955	\$2.0M
	Justification:	Future development driven; increase north-south connectivity in future growth area.				
Q <sup>2</sup>	<b>Old Foamy Rd</b>	SH 174	SH 171	New Minor Arterial	7,050	\$8.6M
	Justification:	Provide southwest loop around the core of Cleburne to increase connectivity and reduce congestion in the City.				
R	<b>Sparks Rd</b>	Chisholm Trail Pkwy	Vaughn Rd	New Minor Collector	6,650	\$13.9M
	Justification:	Business/industry driven; provide east-west connectivity in industrial area and alternative to Industrial Blvd.				
S <sup>1</sup>	<b>Blakney St</b>	Boone St	Kilpatrick Ave	New Minor Collector	2,700	\$2.8M
	Justification:	Development driven; improve connectivity in growing eastern area.				
T <sup>1</sup>	<b>New Road A</b>	Nolan River Rd	Raylene Dr	New Minor Collector	5,410	\$5.5M
	Justification:	Development driven; improve east-west connectivity and provide alternative to Kilpatrick Ave.				
<b>Tier 3 Total</b>						<b>\$47.8M</b>

1 - Potential Funding Partner - Private Development

2 - Potential Funding Partner - Johnson County

## INTERSECTION PROJECTS

Outside of the intersection evaluation process, the MTP also explored where additional traffic signals, turn lanes, or other intersection treatments should be considered in the near future. **Table 9** details the potential intersection projects and **Figure 19** shows where these projects, as well as the recommended roadway projects, are located by tier. Two of the six intersection projects will require coordination with TxDOT due to the roadways and traffic signal infrastructure being owned and maintained by TxDOT (Projects 1 and 5).

**Table 9. Recommended Intersection Projects**

Project ID	Tier	Street A	Street B	Project Type	Cost (\$K)
1	1	Main St	SH 171	Potential New Signal	\$350K
		Justification:	Signal and dedicated turn lanes would increase safety for turning trucks and other vehicles.		
2	1	Yellow Jacket Dr	Nolan River Rd	Potential New Signal	\$400K
		Justification:	Signal and dedicated turn lanes would increase safety for students walking, biking, and driving to and from school.		
3	2	Colonial Dr	Westhill Dr	Realignment	\$55K
		Justification:	Realignment of intersection needed to increase safety.		
4	2	Nolan River Rd	Ridgeway Dr	Potential New Signal	\$400K
		Justification:	Signal would increase safety for new development south of Nolan River Rd.		
5	3	Willingham St	Main St	Potential New Signal	\$400K
		Justification:	Upgraded signals and crosswalks would increase safety.		
6	3	Nolan River Rd	Old Foamy Rd	Potential New Signal	\$400K
		Justification:	Signal and sight distance improvements would increase safety.		
<b>TOTAL</b>					<b>\$2.0M</b>

**Nolan River Rd. & Yellow Jacket Dr.**

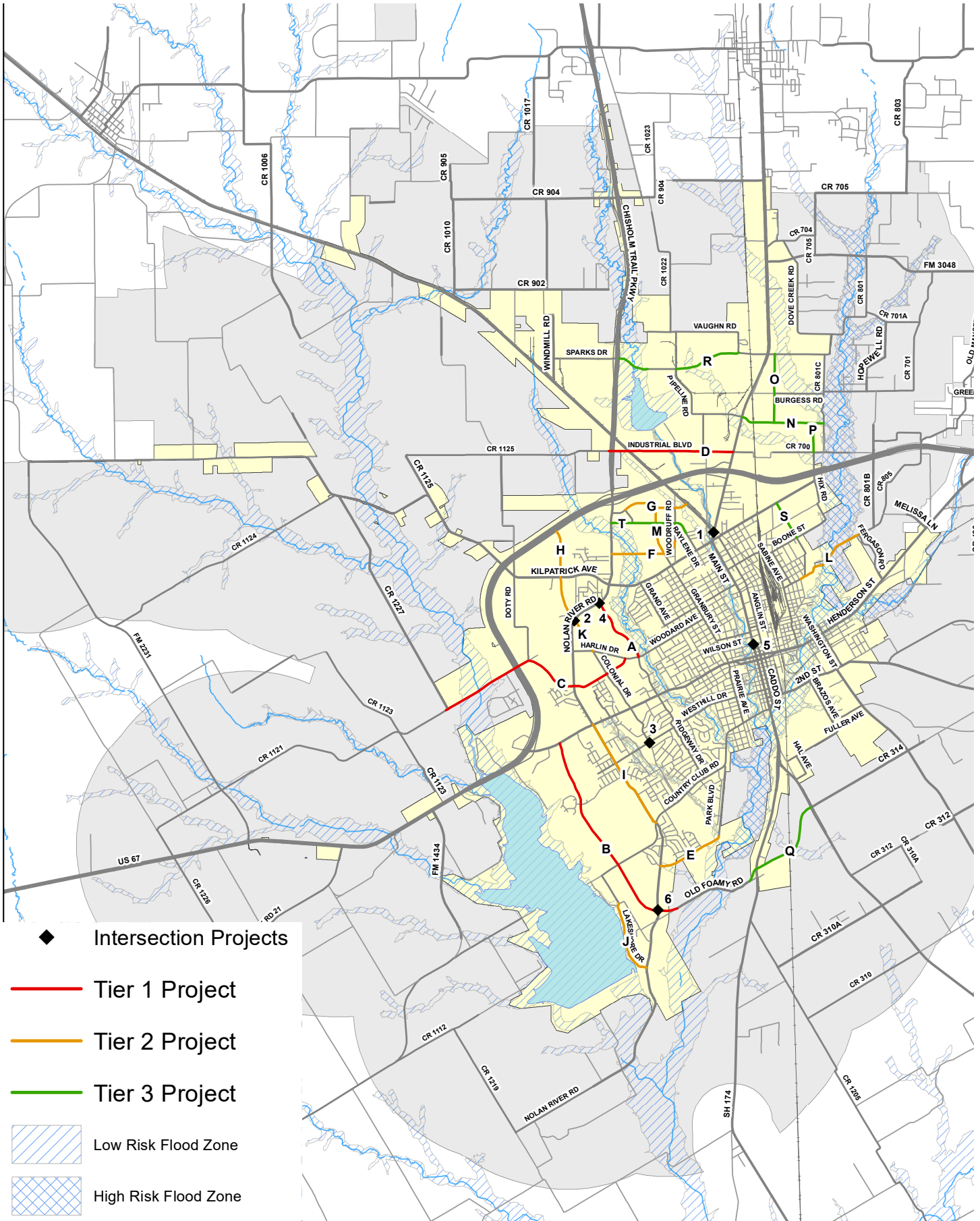


**Main St. & SH 171**





**Figure 19. Recommended Projects by Tier**



**Table 10. All Recommended Projects**

Project ID	Street Name	From/Street A	To/Street B	Project Type	Length (ft)	Cost (\$)
A	Ridgeway Dr	Woodard Ave	Nolan River Rd	New Minor Arterial	4,660	\$6.8M
B	University Dr	Henderson St	Old Foamy Rd	New Minor Arterial	14,915	\$21.8M
C	Woodard Ave	CR 1227	Harlin Dr	Widen to Major Collector	14,290	\$17.4M
D	Industrial Blvd	Chisholm Trail Pkwy	0.5 miles east of CTP	Widen to Major Collector	2,640	\$2.8M
1	N/A	Main St	SH 171	New Signal	N/A	\$350K
2	N/A	Yellow Jacket Dr	Nolan River Rd	New Signal	N/A	\$400K
E	Park Blvd	Southern terminus	Nolan River Rd	New Major Collector	4,550	\$8.7M
F	New Road B	Nolan River Rd	Woodruff Rd	New Major Collector	4,780	\$8.9M
G	Cleburne Station Pkwy	Brazzle Blvd	SH 171	New Major Collector	4,370	\$5.0M
H	Yellow Jacket Dr	Nolan River Rd	US 67	New Major Collector	6,685	\$6.6M
I	Nolan River Rd	Henderson St	Country Club Rd	Widen to Minor Arterial	7,955	\$11.6M
J	Lakeshore Dr	Harvest Hill Dr	Nolan River Rd	Widen to Minor Collector	5,170	\$5.2M
K	Yellow Jacket Dr	Harlin Dr	Nolan River Rd	Widen to Minor Collector	2,445	\$2.6M
L	CR 805	Mansfield Rd	Ferguson Rd	Widen to Minor Collector	5,110	\$8.9M
3	N/A	Colonial Dr	Westhill Dr	Realignment	N/A	\$55K
4	N/A	Nolan River Rd	Ridgeway Dr	New Signal	N/A	\$400K
M	Granbury St	Northern terminus	Cleburne Station Pkwy	New Major Collector	3,330	\$3.6M
N	Commerce Blvd	Eastern terminus	CR 801C	New Minor Collector	5,675	\$6.8M
O	New Road C	Vaughn Rd	Commerce Blvd	New Minor Collector	4,630	\$4.6M
P	Hix Rd	Commerce Blvd	Industrial Blvd	New Minor Collector	1,955	\$2.0M
Q	Old Foamy Rd	SH 174	SH 171	New Minor Arterial	7,050	\$8.6M
R	Sparks Rd	Chisholm Trail Pkwy	Vaughn Rd	New Minor Collector	6,645	\$13.9M
S	Blakney St	Boone St	Kilpatrick Ave	New Minor Collector	2,700	\$2.8M
T	New Road A	Nolan River Rd	Northern Terminus	New Minor Collector	5,410	\$5.5M
5	N/A	Willingham St	Main St	New Signal	N/A	\$400K
6	N/A	Nolan River Rd	Old Foamy Rd	New Signal	N/A	\$400K
<b>TOTAL</b>						<b>\$156.2M</b>

# CHAPTER 5. IMPLEMENTATION

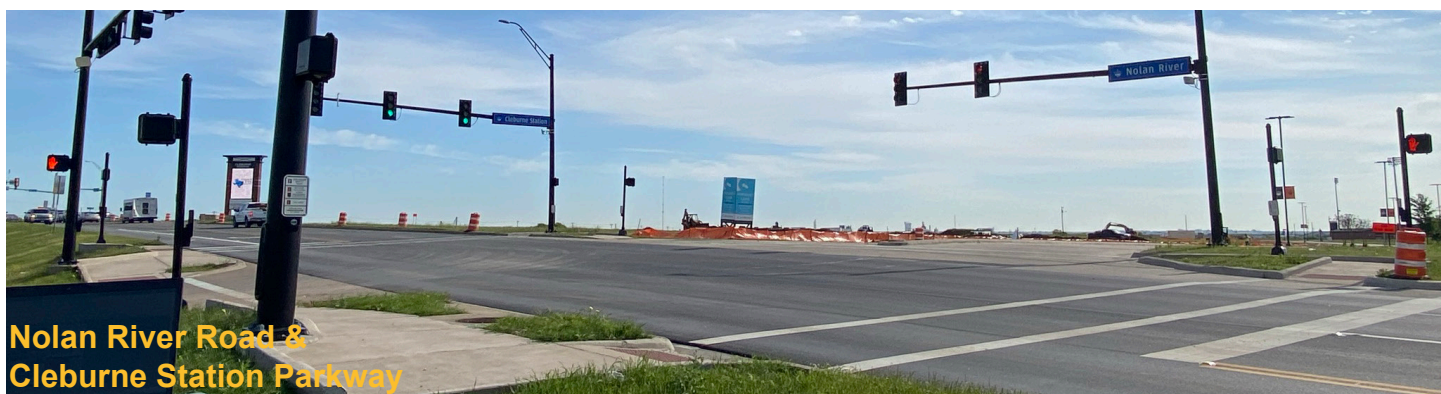


# IMPLEMENTATION

The 2022 MTP will serve as a playbook for Cleburne to guide its growth and development over the next decade. The thoroughfare plan map, cross section exhibits, intersection improvement recommendations, and project prioritization will inform decision-making by the City and shape development to be contextual and right-sized for Cleburne. Each of these elements should be monitored and reevaluated every five years in order to ensure the recommendations respond to the needs of the City at any given time in the future.

Additionally, the following sections discuss recommended concepts for Cleburne to consider and implement in concert with the MTP. Community character, gateway features, traffic calming, and legacy road designations will ensure Cleburne maintains its small-town identity as the City grows. Other programmatic elements for the City to consider include:

- Updating **engineering standards and subdivision regulations** to better reflect the revised cross sections and right-of-way minimums recommended in the 2022 MTP,
- Developing and implementing the **recommended projects** based on their level of prioritization, and
- Implementing the recommended **intersection maintenance program, signal design guidelines, striping of collector roads**, and other concepts included in this chapter.



## ► Traffic Calming Toolkit

Traffic calming is the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users (Institute of Transportation Engineers). Traffic calming measures are especially useful in residential neighborhoods, downtowns, and other situations where traffic speeds need to be reduced.

Goals of traffic calming can include:

- **Safe and attractive streets,**
- **Reducing negative effects of vehicles on the environment (pollution, sprawl, etc.),**
- **Promoting multi-modal use,**
- **Incorporating preferences and requirements of those using the area, and**
- **Improving quality of life.**

Objectives of traffic calming can include:

- **Achieving slower speeds for motor vehicles,**
- **Reducing collision frequency and severity,**
- **Increasing safety and perception of safety for non-motorists, and**
- **Reducing cut-through vehicle traffic.**

A neighborhood's vehicular speeds, traffic volumes, and sidewalk presence all contribute to the character of that neighborhood. As speeding and vehicular volumes increase, walking and biking can become uncomfortable for residents. The City of Cleburne acknowledges the usefulness of physical measures to effectively manage neighborhood traffic problems and reinforce community character.

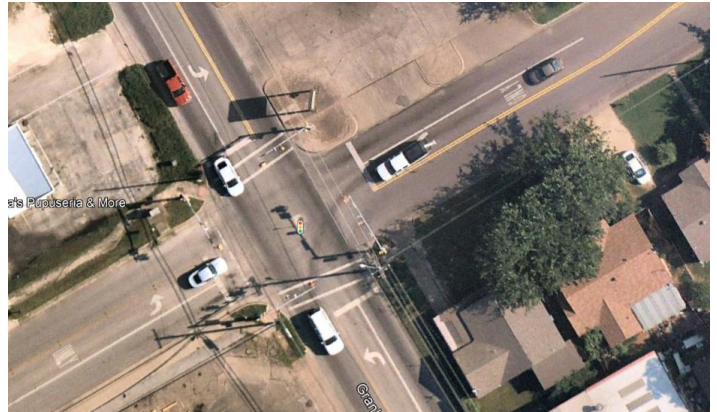
## ► Traffic Calming Toolkit

There are three main types of traffic calming: visual, horizontal, and vertical. Each type of traffic calming measure achieves a different outcome, depending on the goal of any particular scenario. The sections below provide definitions and examples of each type of traffic calming measure for the City to consider as growth continues and the need for speed control rises.

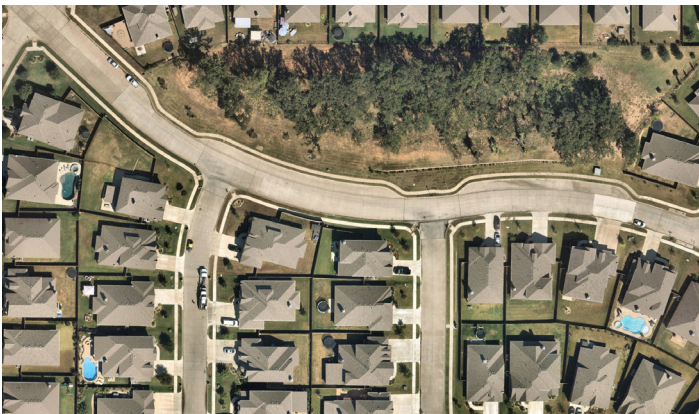
### VISUAL MEASURES

Visual traffic calming measures provide good distractions intended to slow down motorists. These treatments can include striping (**Figure 20**), unique paving or painting of materials, or other eye-catching features. Striping can help reduce the driver's perceived width of the roadway, thus reducing their travel speeds. Many of Cleburne's collector roadways currently lack center striping, which may cause speed and safety issues. Speed feedback signs are also effective in informing motorists of their speeds and advising them to stay below the speed limit.

**Figure 20. Striping Example  
(Granbury St. & Poindexter Ave.)**



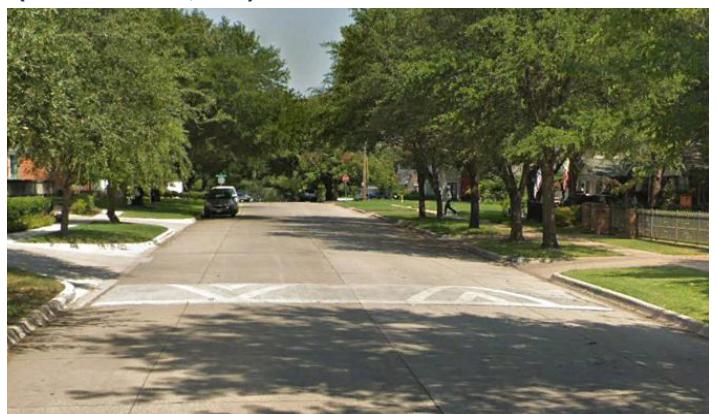
**Figure 21. Chicane Example  
(Burleson, TX)**



### HORIZONTAL MEASURES

Horizontal traffic calming measures force motorists to reduce their speed in order to maneuver around vertical obstacles. These treatments can include chicanes, bulb-outs, and other shifting features (**Figure 21**). Chicanes and bulb-outs reduce the crossing distance for pedestrians, reduce vehicular speeds, and have minimal impacts on emergency response vehicles. Roundabouts, or traffic circles, also reduce vehicular speeds and vehicular conflicts at the intersection. Horizontal measures often provide opportunities for landscaping or other placemaking features.

**Figure 22. Speed Cushion Example  
(Fort Worth, TX)**



### VERTICAL MEASURES

Vertical traffic calming measures insert obstacles that encourage motorists to slow down upon approach in order to maneuver over. These treatments can include speed cushions (**Figure 22**), raised crosswalks, and other raised features. Speed cushions are elongated mounds in the roadway pavement surface extending across the travel way perpendicular to traffic flow. These measures may also be designed to accommodate emergency vehicles while still slowing down general vehicular traffic.

## ► Legacy Roads

### DEFINITION

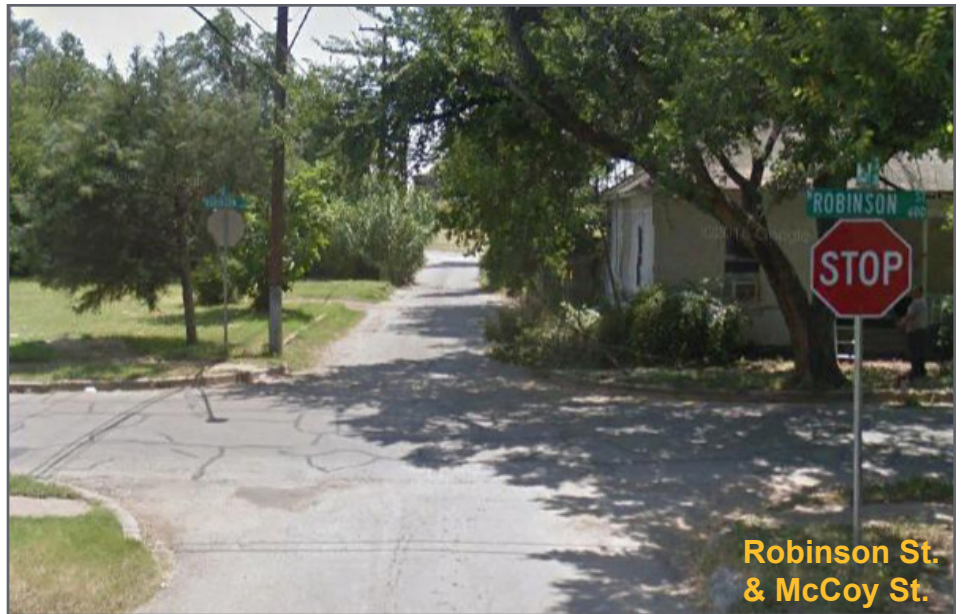
Currently, the minimum right-of-way for local roads is 50 feet. This requirement must be met by developers or homeowners seeking to make improvements to their land, or they must request a variance. There are several locations in Cleburne with much narrower right-of-way, placing a significant burden on the homeowner and/or developer.

In order to relieve homeowners and developers of the variance requests, it is recommended that Cleburne establish a Legacy Road distinction. Legacy Roads are proposed designations for established roadways in Cleburne that meet certain criteria to avoid required street improvements for redevelopment. For Legacy Roads, the minimum right-of-way would change from 50 feet to 28 feet (24 feet of pavement). At intersections, the ROW would widen to a minimum of 32 feet.

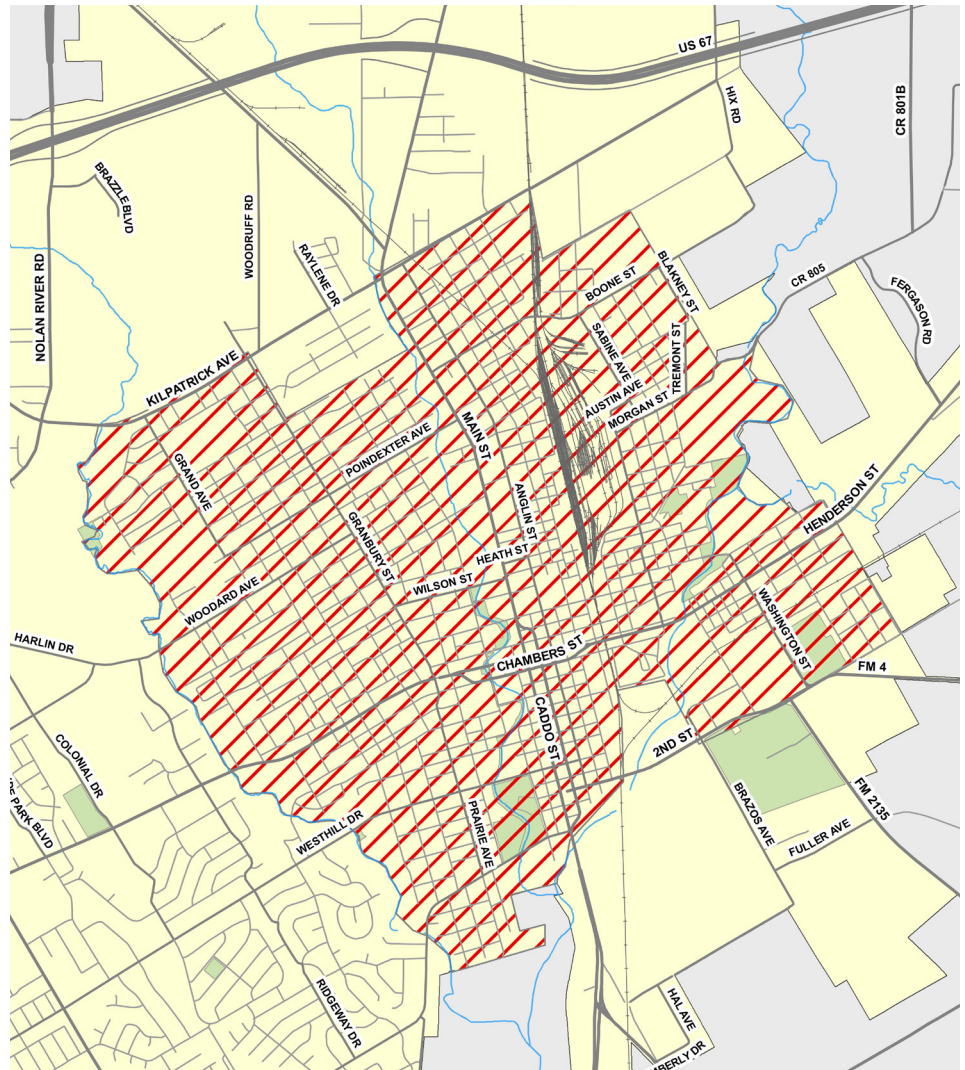
### CRITERIA

Roadways must meet certain criteria in order to be identified as Legacy Roads:

- **Volumes:** Average Daily Traffic (ADT) of less than 2,000 vehicles.
- **Land Use:** Over 50% of street frontage must be residential.
- **Width:** Less than 50 feet of right-of-way.
- **Location:** Legacy Roads may only be established within the Legacy Road Overlay, shown in **Figure 23**. Roadways outside of the overlay boundary may be considered upon review and approval by the City.
- **Established:** The roadway must be existing and not newly built or proposed.



**Figure 23. Legacy Road Overlay**



Berkley Drive



## ► Community Character

### NATIVE SPECIES

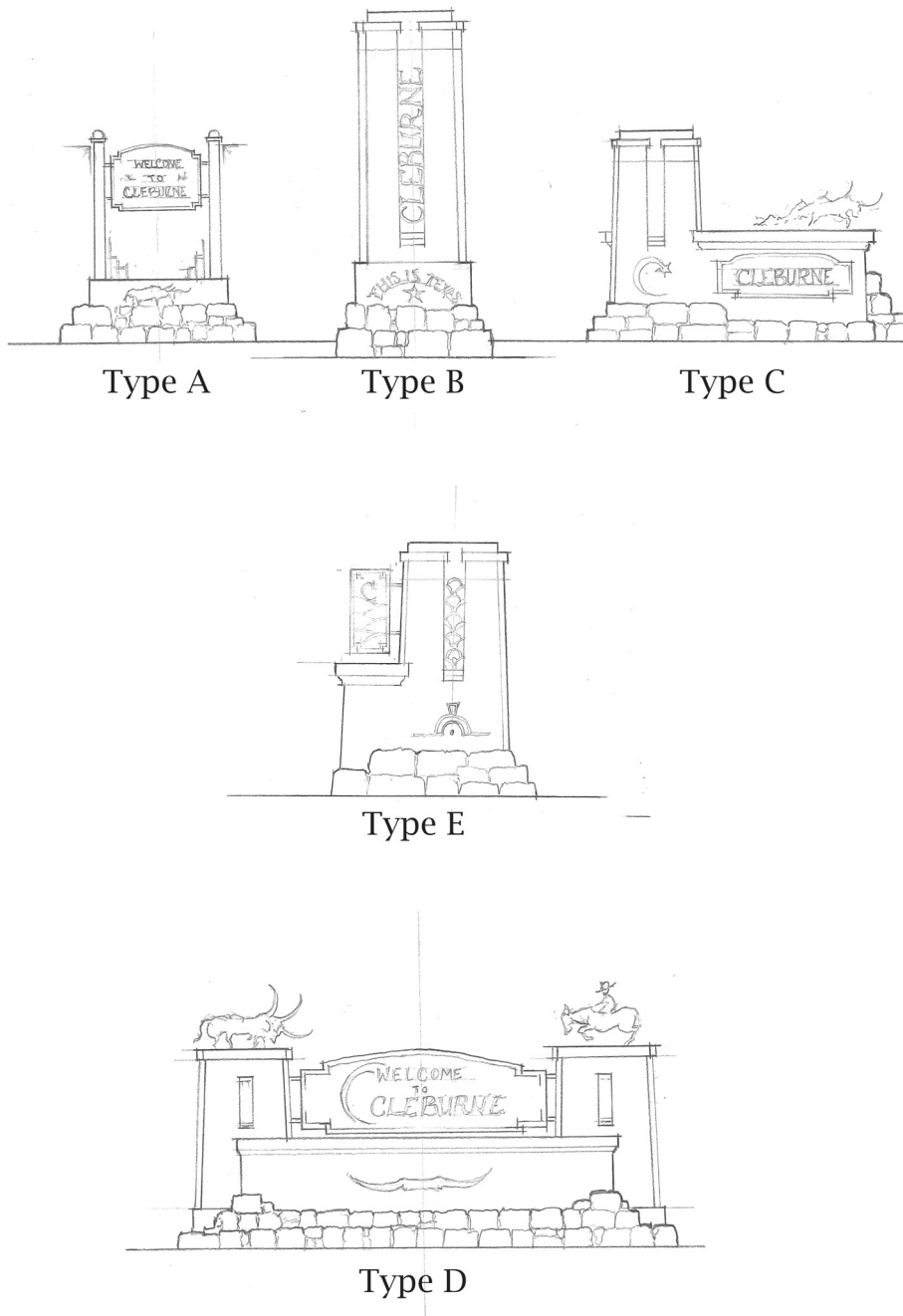
Native species of plants, trees, and grasses have a much higher chance of living longer, healthier lives than non-native landscaping that requires excessive water or maintenance. Streetscape features can vary widely depending on the local context. When local trees are integrated into the parkway space, it helps reinforce community character while making the space more enjoyable for all users. Some native trees for the area may include various types of oak and elm trees. The established core of Cleburne features large, mature trees that form a canopy over the roadways and establish a strong sense of place for residents and visitors alike.

### GATEWAY FEATURES

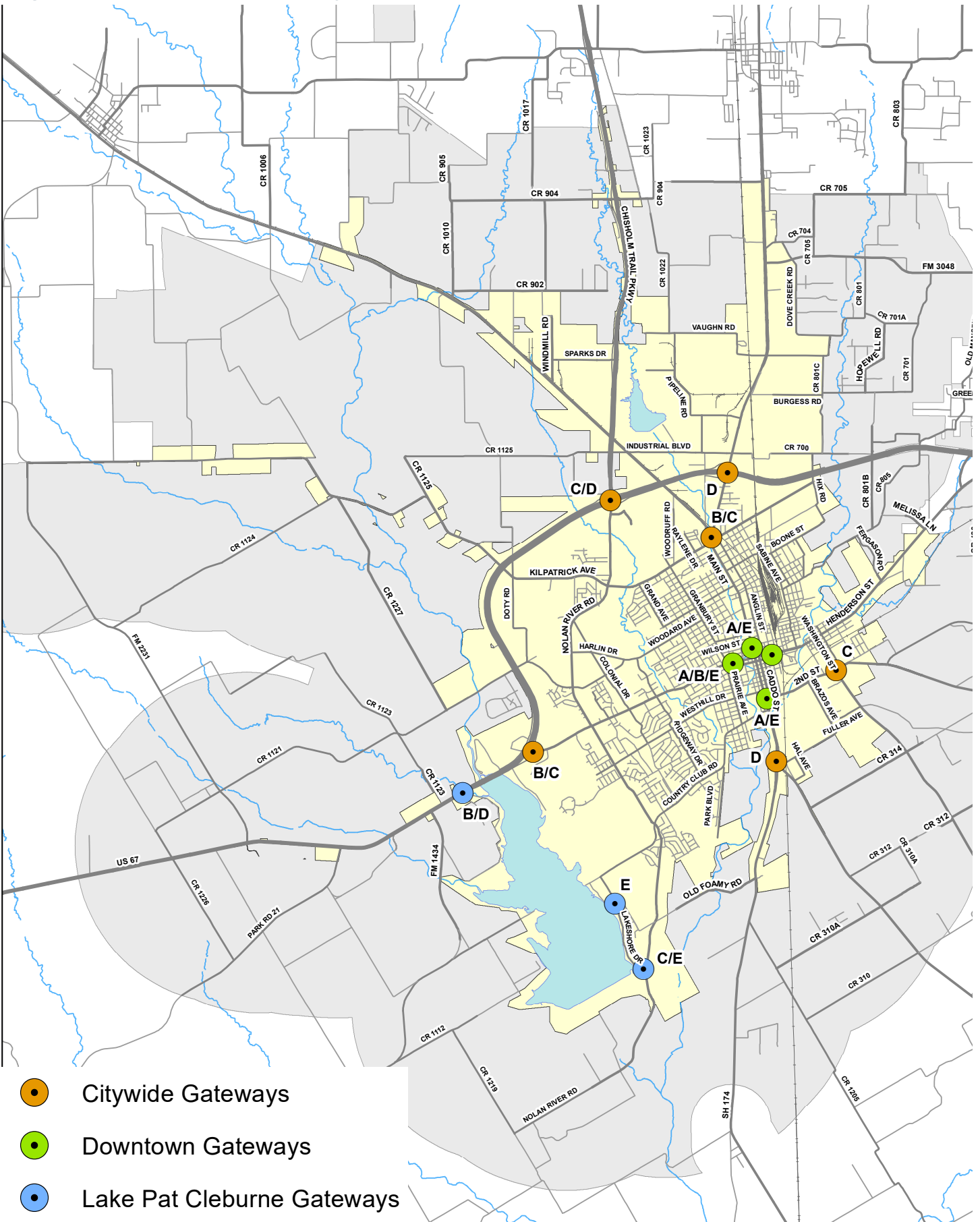
Gateway features help establish a sense of place as residents and visitors enter the City or certain districts around town. Gateway features can include unique signage or landscaping, monuments or art installations, archways, or other physical identifiers. Strategically placed and designed gateways can reinforce a place's identity and foster pride in a community.

Conceptual gateway features were developed for Cleburne, highlighting local history and character for the community to be proud of. A family of features speak to the historic City Hall, Chisholm Trail, train depot, and Lake Pat Cleburne. The aesthetic attempts to reconcile the vernacular with a rustic base and deco articulation reminiscent of City Hall. Accents could include iron work similar to the cattle and cowboy silhouettes along the Chisholm Trail, subtle wave accents, or backlighting metal lettering which creates a classic and consistent aesthetic. The family of sizes and scales allow for flexibility in placing features in various strategic locations around the City. **Figure 24** illustrates some potential gateway features, and **Figure 25** illustrates potential feature locations by type.

Figure 24. Family of Gateway Features

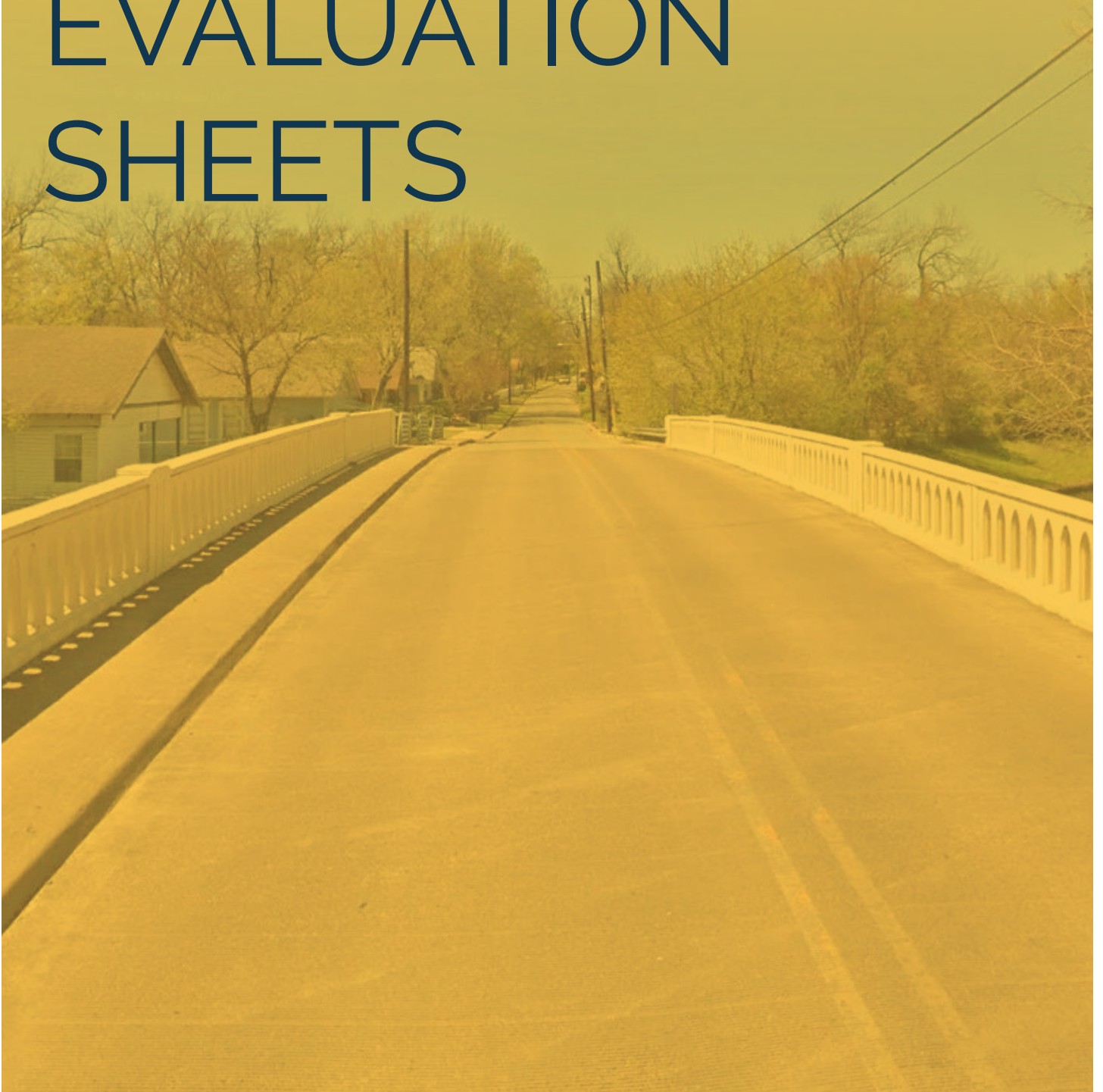


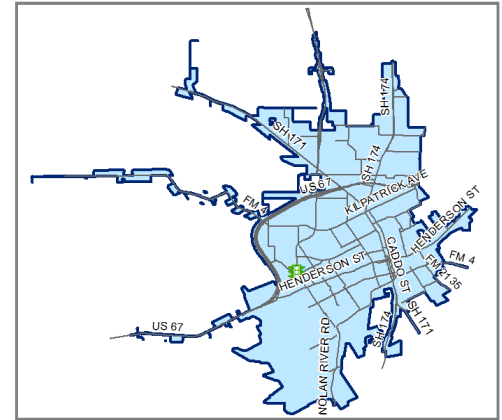
# Figure 25. Potential Gateway Locations





# APPENDIX A: INTERSECTION EVALUATION SHEETS





Curb Ramps	
NW - Nolan River Rd	Good
NE - Nolan River Rd	N/R
NE - Woodard Ave	N/R
SE - Woodard Ave	N/R
SE - Nolan River Rd	N/R
SW - Nolan River Rd	N/R
SW - Woodard Ave	Good
NW - Woodard Ave	N/R

Cabinet Equipment	Specification					Condition		
Controller	EAGLE EPAC 300					NEMA TS2 - Type 2		
Cabinet	NEMA TS2					Good		
Conflict Monitor	EDI MMU-16E					Good		
Battery Backup Unit	-					-		
Battery Backup Batteries	-					-		
Vehicle Detection	Iteris					Good		
Opticom	-					-		
Signal Pole and Mast Arm	Signal Heads	Pedestrian Heads	Push Buttons	ILSN	Luminaires	Vehicle Detection	Pre-Emption	Signs
Northeast Corner	Visor damage	Y	Y	Y	Y	Y	-	Good
Northwest Corner	5-Section	Y	Y	Y	Y	Y	-	Good
Southeast Corner	5-Section	Y	Y	Y	Y	Y	-	Good
Southwest Corner	5-Section	Y	Y	Y	N	Y	-	Good

#### General Notes

Woodard Road in poor condition; consider repaving. Upgrade existing curb ramps to meet current ADA standards.

**MAP ID**

**1**

**Woodard Ave  
&  
Nolan River Rd**



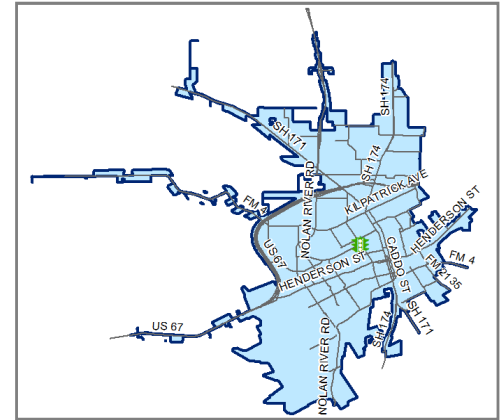
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Curb Ramps	
NW - Granbury St	-
NE - Granbury St	-
NE - Woodard Ave	-
SE - Woodard Ave	-
SE - Granbury St	-
SW - Granbury St	-
SW - Woodard Ave	-
NW - Woodard Ave	-

Cabinet Equipment	Specification					Condition		
Controller	PEEK ATC-1000					TS2 - Type 2		
Cabinet	TS2 Type 2					Poor		
Conflict Monitor	EDI NSM-12L					Poor		
Battery Backup Unit	-					-		
Battery Backup Batteries	-					-		
Vehicle Detection	Sarasota 515TX					Poor		
Opticom	-					-		
Signal Pole and Mast Arm	Signal Heads	Pedestrian Heads	Push Buttons	ILSN	Luminaires	Vehicle Detection	Pre-Emption	Signs
Northeast Corner	5-Section	N	N	N	N	-	-	-
Northwest Corner	-	N	N	N	N	-	-	-
Southeast Corner	Visor damage	N	N	N	Y	-	-	-
Southwest Corner	Standard	N	N	N	N	-	-	-



**General Notes**

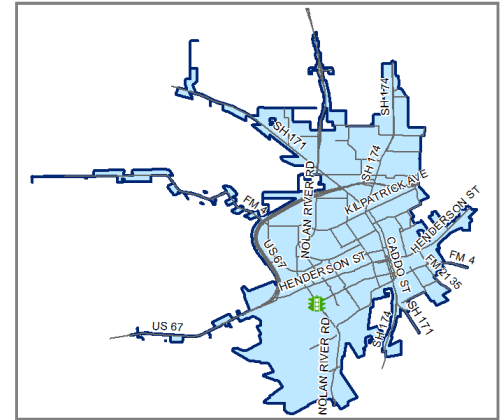
Poor visibility risks depending on TOD; no back plates; verify lights as LED or incandescent

**MAP ID**

**2**

**Woodard Ave  
&  
Granbury St**

  
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Curb Ramps	
NW - Nolan River Rd	N/R
NE - Nolan River Rd	N/R
NE - Westhill Dr	N/R
SE - Westhill Dr	N/R
SE - Nolan River Rd	N/R
SW - Nolan River Rd	N/R
SW - Westhill Dr	N/R
NW - Westhill Dr	N/R

Cabinet Equipment	Specification					Condition		
Controller	Econolite ASC/3-1000					NEMA TS2 - Type 2		
Cabinet	NEMA TS2					Good		
Conflict Monitor	EDI MMU-16E					Good		
Battery Backup Unit	-					-		
Battery Backup Batteries	-					-		
Vehicle Detection	Iteris					Good		
Opticom	-					-		
Signal Pole and Mast Arm	Signal Heads	Pedestrian Heads	Push Buttons	ILSN	Luminaires	Vehicle Detection	Pre-Emption	Signs
Northeast Corner	Visor damage	Y	Y	N	N	Y	-	Good
Northwest Corner	Visor damage	Y	Y	N	N	Y	-	Good
Southeast Corner	Standard	Y	Y	N	Y	Y	-	Good
Southwest Corner	5-Section	Y	Y	N	N	Y	-	Good



**General Notes**

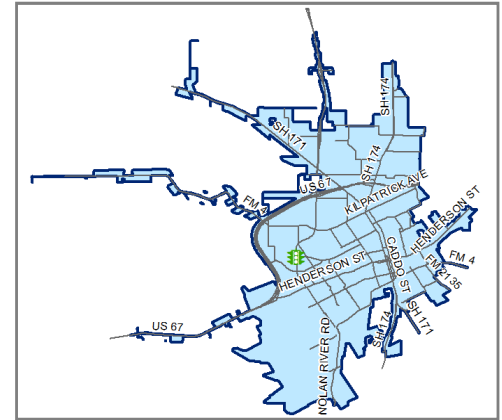
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**MAP ID**

**3**

**Westhill Dr  
&  
Nolan River Rd**

  
**Cleburne, TX**  
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Curb Ramps	
NW - Nolan River Rd	None
NE - Nolan River Rd	N/R
NE - Harlin Dr	N/R
SE - Harlin Dr	Good
SE - Nolan River Rd	Good
SW - Nolan River Rd	N/R
SW - Harlin Dr	N/R
NW - Harlin Dr	None

Cabinet Equipment	Specification					Condition		
Controller	McCain ATC eX					NEMA TS2 - Type 2		
Cabinet	NEMA TS2					Good		
Conflict Monitor	IDC Guardian LCD-12P					Good		
Battery Backup Unit	-					-		
Battery Backup Batteries	-					-		
Vehicle Detection	Radar					Good		
Opticom	-					-		
Signal Pole and Mast Arm	Signal Heads	Pedestrian Heads	Push Buttons	ILSN	Luminaires	Vehicle Detection	Pre-Emption	Signs
Northeast Corner	Standard	Y	Y	N	N	Y	-	Good
Northwest Corner	Standard	N	N	N	Y	N	-	Good
Southeast Corner	-	Y	Y	N	Y	N	-	Good
Southwest Corner	5-Section	Y	Y	N	N	Y	-	Good

#### General Notes

Upgrade existing curb ramps to meet current ADA standards.

**MAP ID**

**4**

**Harlin Dr  
&  
Nolan River Rd**

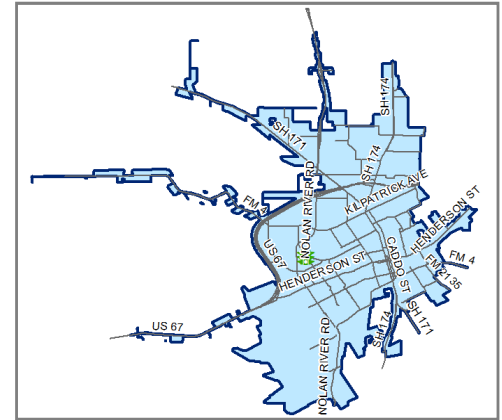
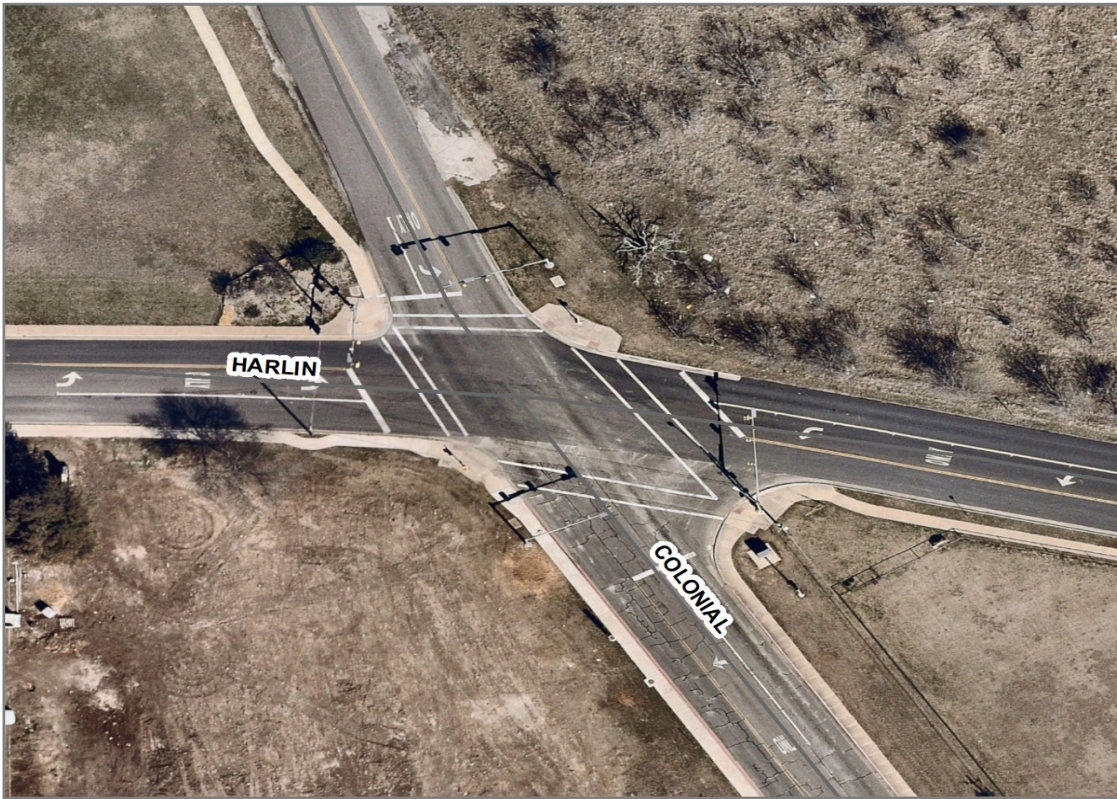


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Curb Ramps	
NW - Colonial Dr	Good
NE - Colonial Dr	Good
NE - Harlin Dr	Good
SE - Harlin Dr	Good
SE - Colonial Dr	Good
SW - Colonial Dr	N/R
SW - Harlin Dr	N/R
NW - Harlin Dr	Good

Cabinet Equipment	Specification					Condition		
Controller	McCain ATC eX					NEMA TS2 - Type 2		
Cabinet	NEMA TS2					Good		
Conflict Monitor	EDI MMU-16E					Good		
Battery Backup Unit	Y					Good		
Battery Backup Batteries	Y					Good		
Vehicle Detection	Iteris					Good		
Opticom	-					-		
Signal Pole and Mast Arm	Signal Heads	Pedestrian Heads	Push Buttons	ILSN	Luminaires	Vehicle Detection	Pre-Emption	Signs
Northeast Corner	5-Section	Y	Y	N	N	Y	-	Poor
Northwest Corner	5-Section	Y	Y	N	Y	Y	-	Poor
Southeast Corner	5-Section	Y	Y	N	Y	Y	-	Poor
Southwest Corner	5-Section	Y	Y	N	N	Y	-	Poor

#### General Notes

Existing spread spectrum radio communications in place with Woodard Dr & Colonial Dr intersection. Replace existing faded pedestrian pushbutton signs.

**MAP ID**

**5**

**Harlin Dr  
&  
Colonial Dr**

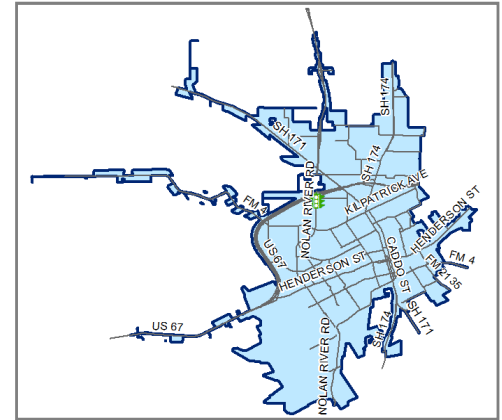


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Curb Ramps	
NW - Nolan River Rd	N/R
NE - Nolan River Rd	Good
NE - Cleburne Station	Good
SE - Cleburne Station	Good
SE - Nolan River Rd	Good
SW - Nolan River Rd	Good
SW - Cleburne Station	Good
NW - Cleburne Station	N/R

Cabinet Equipment	Specification					Condition		
Controller	Cobalt by Econolite					NEMA TS2 - Type 2		
Cabinet	NEMA TS2					Good		
Conflict Monitor	EDI PS 250					Good		
Battery Backup Unit	Y					Good		
Battery Backup Batteries	Y					Good		
Vehicle Detection	Radar					Good		
Opticom	-					-		
Signal Pole and Mast Arm	Signal Heads	Pedestrian Heads	Push Buttons	ILSN	Luminaires	Vehicle Detection	Pre-Emption	Signs
Northeast Corner	Standard	Y	Y	Y	Y	Y	-	Good
Northwest Corner	Standard	Y	Y	Y	Y	Y	-	Good
Southeast Corner	Standard	Y	Y	Y	Y	Y	-	Good
Southwest Corner	Standard	Y	Y	Y	Y	Y	-	Good

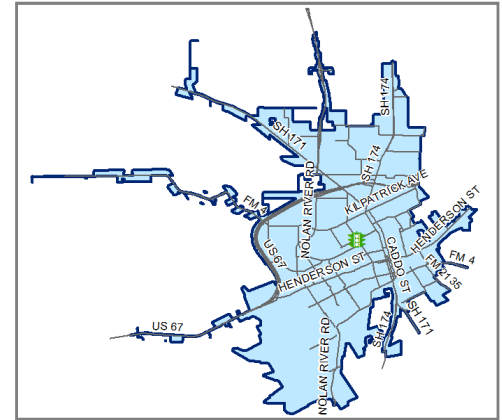
General Notes
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**MAP ID**  
**6**

**Cleburne Station  
&  
Nolan River Rd**

  
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Curb Ramps	
NW - Granbury St	Good
NE - Granbury St	Good
NE - Poindexter Ave	None
SE - Poindexter Ave	None
SE - Granbury St	Good
SW - Granbury St	Good
SW - Poindexter Ave	Good
NW - Poindexter Ave	Good

Cabinet Equipment	Specification					Condition		
Controller	Econolite ASC/2S-1000					NEMA TS2 - Type 2		
Cabinet	NEMA TS2					Good		
Conflict Monitor	EDI MMU-16E					Good		
Battery Backup Unit	-					-		
Battery Backup Batteries	-					-		
Vehicle Detection	Iteris					Poor		
Opticom	-					-		
Signal Pole and Mast Arm	Signal Heads	Pedestrian Heads	Push Buttons	ILSN	Luminaires	Vehicle Detection	Pre-Emption	Signs
Northeast Corner	5-Section	Y	Y	N	N	Y	-	Good
Northwest Corner	5-Section	Y	Y	N	N	Y	-	Good
Southeast Corner	5-Section	Y	Y	N	Y	Y	-	Good
Southwest Corner	5-Section	Y	Y	N	N	Y	-	Good

#### General Notes

Through movements along Poindexter Avenue (Phases 2 and 6) experience unnecessary delay due to poor video detection. Consider a diagnostic on existing video detection system/equipment. Cameras and associated video detection zones may need to be realigned or camera lenses may need to be cleaned.

**MAP ID**

**7**

**Poindexter Ave  
&  
Granbury St**

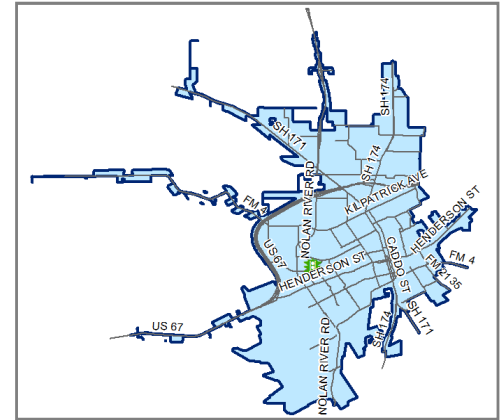
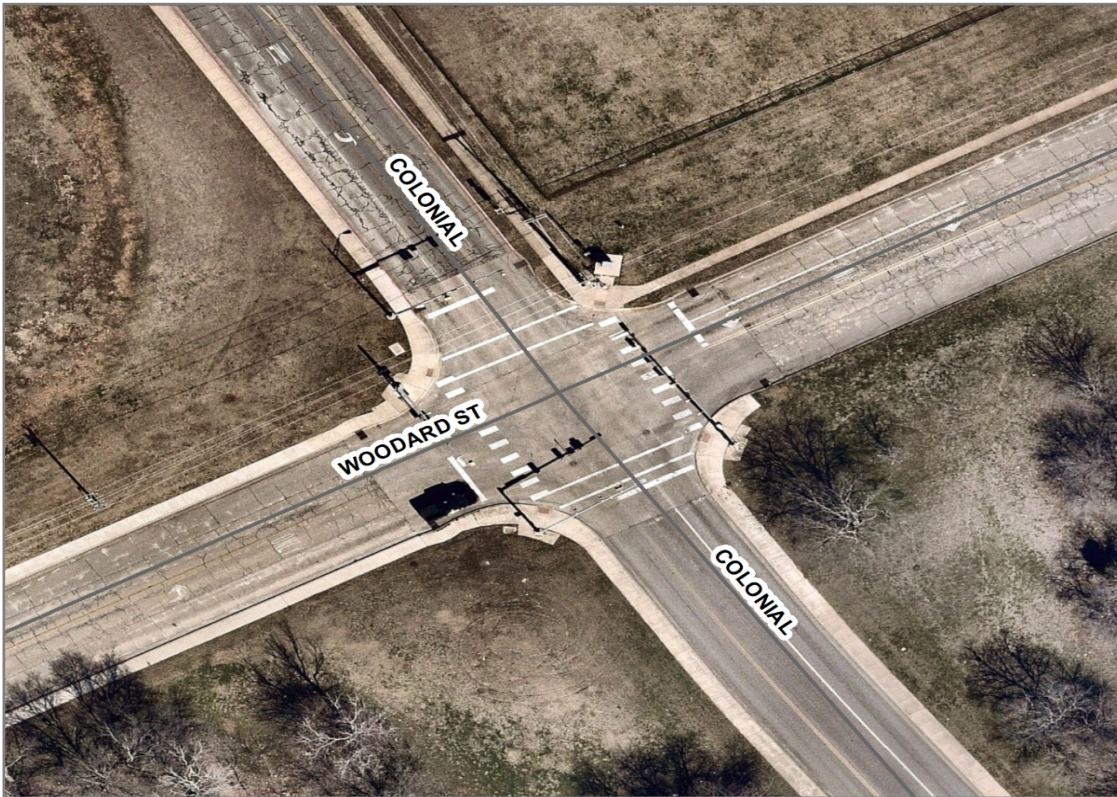


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Curb Ramps	
NW - Colonial Dr	Good
NE - Colonial Dr	Good
NE - Woodard Ave	Good
SE - Woodard Ave	Good
SE - Colonial Dr	Good
SW - Colonial Dr	Good
SW - Woodard Ave	Good
NW - Woodard Ave	Good

Cabinet Equipment	Specification					Condition		
Controller	SIEMENS m50					NEMA TS2 - Type 2		
Cabinet	NEMA TS2					Good		
Conflict Monitor	EDI MMU-16E					Good		
Battery Backup Unit	Y					Good		
Battery Backup Batteries	Y					Fair		
Vehicle Detection	Iteris					Good		
Opticom	-					-		
Signal Pole and Mast Arm	Signal Heads	Pedestrian Heads	Push Buttons	ILSN	Luminaires	Vehicle Detection	Pre-Emption	Signs
Northeast Corner	5-Section	Y	Y	N	N	Y	-	Poor
Northwest Corner	5-Section	Y	Y	N	Y	Y	-	Poor
Southeast Corner	5-Section	Y	Y	N	Y	Y	-	Poor
Southwest Corner	5-Section	Y	Y	N	N	Y	-	Poor

#### General Notes

Existing spread spectrum radio communications in place with Harlin Dr & Colonial Dr intersection. Replace existing faded pedestrian pushbutton signs.

**MAP ID**

**8**

**Woodard Ave  
&  
Colonial Dr**

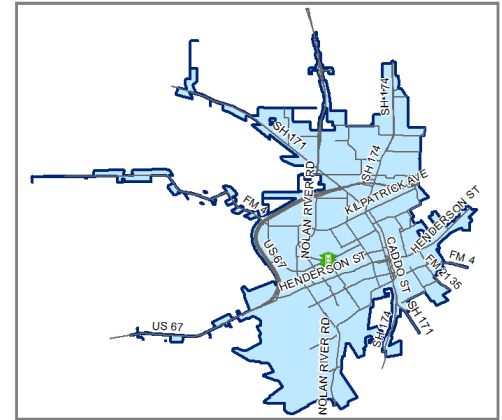


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Curb Ramps	
NW - Ridgeway Dr	-
NE - Ridgeway Dr	-
NE - Woodward Ave	-
SE - Woodward Ave	Good
SE - Ridgeway Dr	-
SW - Ridgeway Dr	-
SW - Woodward Ave	Good
NW - Woodward Ave	-

Cabinet Equipment	Specification						Condition		
Controller	EAGLE EPAC 300						NEMA TS1 - Type 1		
Cabinet	TS1 Type 1						Poor		
Conflict Monitor	EDI NSM-12L						Poor		
Battery Backup Unit	-						-		
Battery Backup Batteries	-						-		
Vehicle Detection	Sarasota 535T						Poor		
Opticom	-						-		
Signal Pole and Mast Arm	Signal Heads	Pedestrian Heads	Push Buttons	ILSN	Luminaires	Vehicle Detection	Pre-Emption	Signs	
Northeast Corner	Standard	N	N	N	N	Y	-	-	
Northwest Corner	Standard	N	N	N	N	Y	-	-	
Southeast Corner	Standard	Y	Y	N	N	Y	-	Good	
Southwest Corner	-	Y	Y	N	Y	Y	-	-	

#### General Notes

Functional, but old. Consider flashing yellow arrows and updated cabinet hardware.

**MAP ID**

**9**

**Woodard Ave  
&  
Ridgeway Dr**



**Cleburne, TX**

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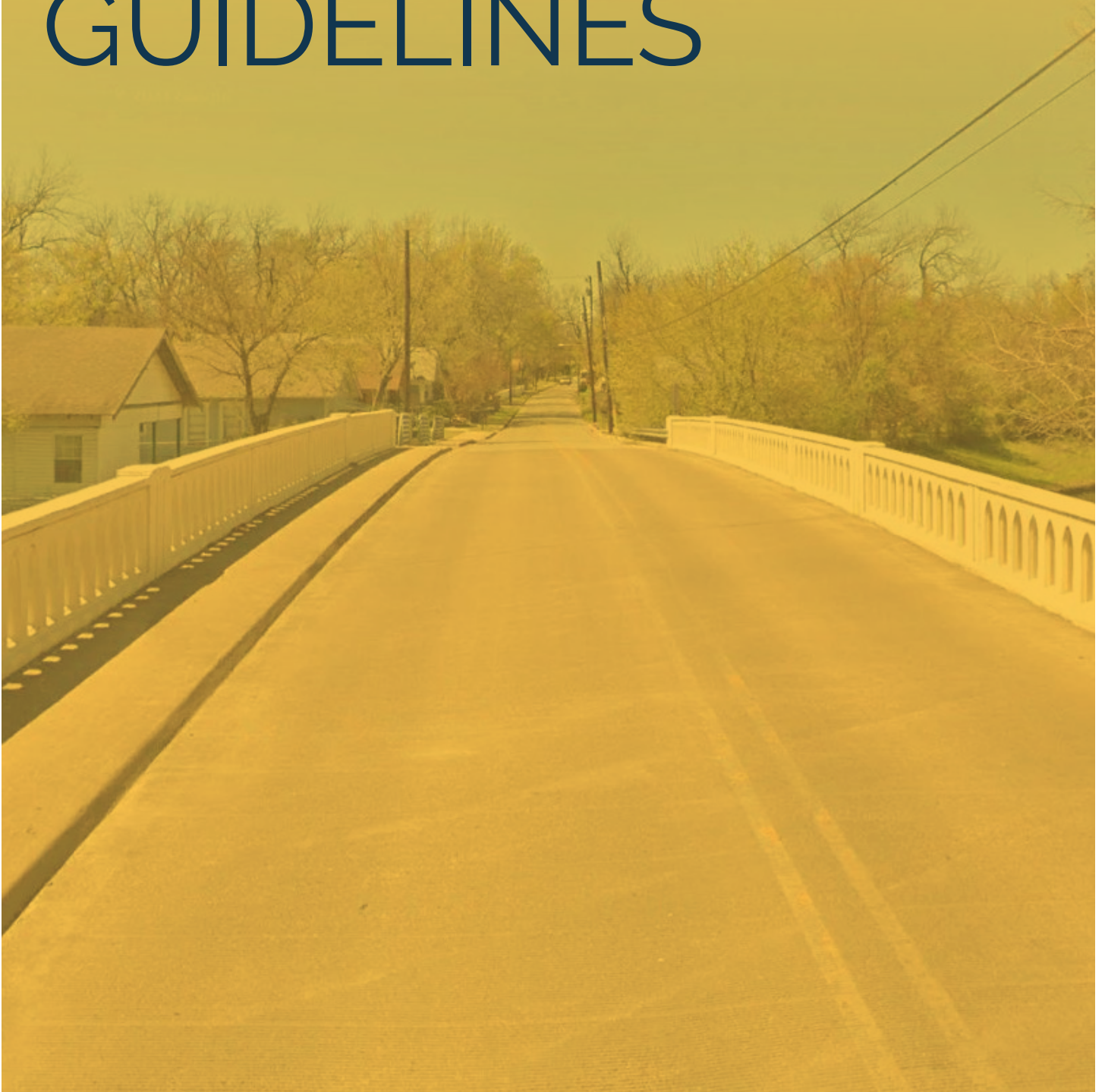
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Intersections	Inventory Observation	Description	Count (corners)	Cost
<b>1. Woodard Ave &amp; Nolan River Rd</b>	1. Ramps	Upgrade existing curb ramps on the southeast, southwest, and northeast corners to meet current ADA standards.	3	\$20,000
	2. Pedestrian Heads/Push Buttons Needed	Add ped pole and push buttons for ADA compliance	4	\$10,000
	3. Signal Head Visor Damage	N/A	1	\$500
	Estimated Mobilization Cost:			\$5,000
	<b>TOTAL ESTIMATED INTERSECTION COST:</b>			<b>\$35,500</b>
<b>2. Woodard Ave &amp; Granbury St</b>	1. Signs Recommended	Add pedestrian push button signs at all four intersection corners to support pedestrian movements with active traffic conflicts (six total). Mitigations are not recommended for pedestrians crossing along the east side of Granbury.	4	\$2,000
	2. Signal Head Visor Damage	Install new signal head to replace existing signal head with notable visor damage.	1	\$2,000
	3. Signal Head Back Plates	Install back plates on all existing signal heads.	4	\$2,000
	4. Pedestrian Heads/Push Buttons Needed	Install pedestrian signals and push buttons at all four intersection corners to support pedestrian movements with active traffic conflicts (six total). Mitigations are not recommended for pedestrians crossing along the east side of Granbury.	4	\$10,000
	5. Ramps	Install ADA compliant curb ramps at all four intersection corners to support pedestrian movements with active traffic conflicts (six total). Mitigations are not recommended for pedestrians crossing along the east side of Granbury.	4	\$25,000
	Estimated Mobilization Cost:			\$5,000
<b>TOTAL ESTIMATED INTERSECTION COST:</b>			<b>\$46,000</b>	
<b>3. Westhill Dr &amp; Nolan River Rd</b>	1. Signal Head Visor Damage	Repair visor damage to signal heads on the northeast and northwest corner signal poles.	2	\$1,000
	2. Pedestrian Heads/Push Buttons Needed	Upgrade/relocate existing pedestrian signals and push buttons to meet current ADA standards.	4	\$10,000
	3. Wiring	Cost item for associated wiring,	-	\$5,000
	4. Ground Boxes	Install four ground boxes.	-	\$5,000
	5. Ramps	Upgrade all existing curb ramps on to meet current ADA standards.	4	\$20,000
	Estimated Mobilization Cost:			\$5,000
<b>TOTAL ESTIMATED INTERSECTION COST:</b>			<b>\$46,000</b>	
<b>4. Harlin Dr &amp; Nolan River Rd</b>	1. Pedestrian Heads/Push Buttons Needed	Install one pedestrian pole with push button on the southwest corner.	1	\$2,500
	2. Ramps	Upgrade existing curb ramps on the southwest and northeast corners to meet current ADA standards.	2	\$6,000
	Estimated Mobilization Cost:			\$5,000
	<b>TOTAL ESTIMATED INTERSECTION COST:</b>			<b>\$13,500</b>

Intersections	Inventory Observation	Description	Count (corners)	Cost
<b>5. Harlin Dr &amp; Colonial Dr</b>	1. Sign Damage	Replace eight existing faded pedestrian push button signs.	4	\$4,000
	2. Ramps	Upgrade existing curb ramps on the southwest corner to meet current ADA standards.	1	\$6,000
	Estimated Mobilization Cost:			\$5,000
	<b>TOTAL ESTIMATED INTERSECTION COST:</b>			<b>\$15,000</b>
<b>6. Cleburne Station &amp; Nolan River Rd</b>	1. Pedestrian Heads/Push Buttons Needed	Relocate existing northwest pedestrian signal and push button to meet current ADA standards.	1	\$2,000
	2. Ramps	Upgrade existing curb ramps on the northwest corner to meet current ADA standards.	1	\$10,000
	Estimated Mobilization Cost:			\$5,000
	<b>TOTAL ESTIMATED INTERSECTION COST:</b>			<b>\$17,000</b>
<b>7. Poindexter Ave &amp; Granbury St</b>	1. Detection	Consider a diagnostic on existing video detection. Upgrade if necessary.	-	\$35,000
	Estimated Mobilization Cost:			\$5,000
	<b>TOTAL ESTIMATED INTERSECTION COST:</b>			<b>\$40,000</b>
<b>8. Woodard Ave &amp; Colonial Dr</b>	1. Sign Damage	Replace eight existing faded pedestrian push button signs.	4	\$4,000
	Estimated Mobilization Cost:			\$2,000
	<b>TOTAL ESTIMATED INTERSECTION COST:</b>			<b>\$6,000</b>
<b>9. Woodard Ave &amp; Ridgeway Dr</b>	1. Detection	Upgrade existing detection to video.	-	\$35,000
	2. Cabinet Hardware and Installation	Upgrade and install new cabinet hardware.	-	\$50,000
	3. Flashing Yellow Arrows	Install	-	\$2,000
	4. Wiring	Cost item for associated wiring,	-	\$5,000
	5. Ground Boxes	Install two ground boxes.	-	\$3,500
	6. Pedestrian Heads/Push Buttons Needed	Install pedestrian poles with push buttons on the southeast and southwest corners.	2	\$5,000
	Estimated Mobilization Cost:			\$10,000
	<b>TOTAL ESTIMATED INTERSECTION COST:</b>			<b>\$109,500</b>

# APPENDIX B: SIGNAL DESIGN GUIDELINES



## City of Cleburne

### TRAFFIC SIGNAL DESIGN GUIDELINES

August 2021

The following guidelines shall be used for the engineering design of traffic signal installations within the City of Cleburne. These guidelines shall be secondary to the latest version of the Texas Manual on Uniform Traffic Control Devices (TMUTCD), the National Electrical Code (NEC), and the National Electrical Safety Code (NESC). This document is intended to be a general design guideline and shall not substitute for engineering analysis and engineering design recommendations. Variations from these guidelines should be documented in the proposed project specific design plans.

Example traffic signal design plan sets, specifications, and contract documents shall be used to illustrate desired format.

#### I. BASIC DESIGN

##### A. Vehicle Signal Heads

Vehicle traffic signal heads should be arranged in accordance with the latest version of the TMUTCD. A minimum of two (2) vehicle signal heads shall be provided for the primary movement on each approach. Generally, on multi-lane roadways, one (1) vehicle signal head should be provided and aligned with the center of each intersection approach travel lane. Additional vehicle signal heads should be provided for exclusive left- and right-turn lanes if a separate left-turn phase or right-turn overlap movement is provided.

Vehicle signal heads should be mounted on mast arms unless otherwise needed for exclusive lane movements as summarized below:

- Right-turn lanes with a vehicle signal head mounted vertically on a signal pole;
- Nearside or advanced warning vehicle signal head mounted vertically on a signal pole; or
- Protected/permitted left-turn where the median width is greater than 30 feet and motorist may pull outside the 20° cone of vision. In this scenario, the designer should consider mounting a vehicle signal head vertically on the signal pole.

Standard mast arms (48' or shorter) should not have more than three (3) vehicle signal heads mounted on the mast arm per TxDOT standard details (see [SMA](#)). Long mast arms (50' or longer) should not have more than four (4) vehicle signal heads mounted on the mast arm per TxDOT standard details (see [LMA](#)).

Vehicle signal heads should be mounted with a vertical alignment. Horizontal mounted vehicle signal heads should only be used to accommodate visibility or utility restrictions.

12-inch LED traffic signal lamp units shall be used in all instances for vehicle traffic signals and warning devices such as school flashers, advanced warning flashers, and pedestrian hybrid beacons (i.e., HAWK signals). All installed vehicle signal heads shall meet the requirements of the plans and specifications and be provided from TxDOT's pre-qualified [Material Producer List](#).

*Protected/Permitted Left-Turn Phasing with Flashing Yellow Arrow:*

Protected/permitted left-turn phasing with a four (4) section flashing yellow arrow (FYA) signal head should be used unless sight restrictions are present or a combination of opposing travel speeds and intersection width require the use of protected only phasing. A FYA signal head should be installed to align with the center of the dedicated left-turn lane for protected/permitted left-turn movements along roadways with speed limits of 40 mph or less. If approved by the City Engineer, a FYA signal head may be installed along roadways with speed limits greater than 40 mph. If a mast arm cannot be provided due to the geometry of the intersection, FYA signal head may be mounted on a pedestal pole or signal pole that is aligned within the turn lane.

A R10-12A (LEFT-TURN YIELD ON FLASHING YELLOW ARROW) sign should be placed adjacent to the FYA signal head as directed by the City.

*Protected/Permitted Left-Turns:*

A 5-section "cluster" or "dog-house" left-turn signal head shall be installed for protected/permitted left-turn movements aligned with the left-turn lane line. If a mast arm cannot be provided due to the geometry of the intersection, a vertically arranged 5-section signal head should be mounted on a pedestal pole or signal pole that is aligned within the turn lane.

A R10-12 (LEFT-TURN YIELD ON GREEN BALL) sign shall be placed adjacent to all 5-section protected/permitted left-turn signal heads. The R10-12 sign should also be used at locations where the left-turn movement is permitted but has no protected left-turn signal head.

*Protected Left-Turns:*

A 3-section left-turn signal head should be provided for protected only left-turn movements aligned with the center of the left-turn lane. If necessary, vertical louvers should be used to restrict visibility from conflicting movements, except in arrow LED sections.

A R10-5L (LEFT ON GREEN ARROW ONLY) sign should be placed adjacent to the protected only left-turn signal heads.

*Dual Left-Turns:*

If engineering analysis deems it necessary to provide dual left-turn movements, then a 3-section left-turn signal head shall be provided for each left-turn lane aligned with the center of the left-turn lane. A dual left-turn lane assignment sign should be placed between the two (2) left-turn signal heads. Dual left-turns should be protected only unless otherwise directed by the City.

Split Phasing:

If engineering analysis deems it necessary to provide split phasing for approach movements, then a 4-section left-turn signal head shall be provided for the left-turn lane aligned with the center of the left-turn lane.

Back Plates:

All signal heads shall have aluminum, vented, single piece back plates with retroreflective border compatible with latest TxDOT standards.

B. Pedestrian Accommodations

LED Countdown Pedestrian Signal Heads, Accessible Pedestrian Signals (APS) stations and signs, crosswalk striping, and curb ramps should be provided as necessary to provide safe crossings of all intersection approaches. APS stations shall be provided on all new traffic signal installations and traffic signal rebuilds. All other upgrades or push button replacements shall be at a minimum ADA compliant.

All APS stations shall be installed adjacent to a level landing area and shall not exceed the 10 inch reach requirement from the face of the APS pushbutton assembly. In practice, APS stations should be installed to provide 10 feet of separation. Any APS stations that are not separated by 10 feet shall have the APS speech functions enabled.

R9-3 (NO PEDESTRIAN CROSSING) signs shall be provided on both sides of an intersection approach leg if a pedestrian crossing is not being accommodated.

Curb ramps should be provided perpendicular to the intersection leg if possible. Median noses may be adjusted as necessary.

All installed APS stations and push button assemblies shall meet the requirements of the plans and specifications and be provided from TxDOT's pre-qualified [Material Producer List](#).

C. Traffic Signal Controller Cabinet Assembly

All new traffic signal controller cabinet assemblies shall be a NEMA TS2 cabinet assembly. The cabinet should be located near the power source, near off-street parking, or on the departure side of the intersection. Cabinet location should also be considered to minimize being struck by errant vehicular movements. The cabinet should be placed to allow personnel a view of the controller face and the detector amplifiers and provide a good view of vehicles at the intersection and the traffic signal indications. Cabinets should not be installed on the center medians or right-turn channelized islands. Cabinets shall be placed so that they don't restrict sight distance for turning traffic.

All traffic signal controllers shall be a NEMA TS2-TYPE 2 controller and be provided from TxDOT's pre-qualified [Material Producer List](#). For all new traffic signal installations, an Econolite Cobalt ATC Traffic Controller (or an approved equivalent) shall be provided.



#### D. Battery Back Up (BBU)

A BBU should be provided as directed by the City for all new traffic signal installations and traffic signal rebuilds. During design, the designer shall verify with the City the type and model of BBU to be installed. Unless otherwise directed by the City, all BBU systems shall be the Alpha Model FXM 2000 system (or an approved equivalent) and be provided from TxDOT's pre-qualified [Material Producer List](#).

#### E. Ground Boxes

Unless otherwise directed by the City, all traffic signal ground boxes shall be Type D ground boxes with concrete aprons. All ground boxes shall be provided based on TxDOT standard details. One (1) Type D and one (1) Type B ground box should be installed next to the controller cabinet foundation pad. Each intersection corner should have at least one (1) Type D ground box. An additional Type D ground box should be provided within the median if a traffic signal pole and/or a pedestal pole assembly are installed in the median.

#### F. Conduit

All traffic signal conduits shall be 3 Schedule 80 PVC conduits unless otherwise noted. 4-inch Schedule 80 PVC are allowed if conduit fill warrants a larger capacity conduit. All other conduits to all traffic signal poles, pedestal poles, and push button poles shall be 3-inch Schedule 80 PVC.

Conduits between the controller cabinet assembly and the intersection conduit ring should have two (2) 3-inch Schedule 80 PVC conduits. Two (2) 4-inch Schedule 80 PVC conduits should be used if the conduit fill warrants a larger capacity conduit.

Conduit between the cabinet assembly and electrical service and between the electrical service and power source should be 2-inch Schedule 80 PVC conduits.

During design, the designer shall verify the location of the power source with the electrical service provider.

No conduit shall be filled greater than 40% of its capacity.

#### G. Cable in Conduits

Cable splices are not allowed.

A 20 conductor, 14 AWG stranded cable should be provided from the controller cabinet to each traffic signal pole foundation.

A 10 conductor, 14 AWG stranded cable should be provided from the controller cabinet to each pedestal pole foundation.

A 2 conductor, 12 AWG stranded cable should be provided from the controller cabinet to each APS push button station (or standard push button station). All push buttons should be wired separately.

A No. 6 stranded bare wire should be provided for grounding in all conduits except the run between the controller cabinet assembly and the electrical service.

A No. 6 green insulated wire and two (2) No. 6 XHHW stranded cables (one (1) black and one (1) white) shall be used between the controller cabinet assembly and the electrical service.

The electrical service provider will provide all cable required between the electrical service and the power source.

Luminaires shall be wired in a parallel circuit from the electrical service around the intersection. For each parallel circuit, two (2) No. 8 XHHW stranded cables (one (1) black and one (1) white) shall bypass the controller cabinet and run to each traffic signal pole with a luminaire to daisy chain the intersection. Four (4) No. 8 XHHW stranded cables shall be used between the ground box and traffic signal pole base when the power will be daisy chained to another pole in the system. All conduit runs shall have a separate No. 8 XHHW stranded grounding wire. At signalized intersections, luminaires are metered.

A CAT5E (Ethernet) cable should be provided from the controller cabinet to the traffic signal pole with a PTZ/CCTV camera (if applicable).

A preemption cable should be provided from the controller cabinet to each traffic signal pole with a preemption detector. Preemption cable shall be approved by the City.

A detection cable should be provided from the controller cabinet to each signal pole with a vehicle detector. Detection cable shall be approved by the City.

#### H. Cable in Poles

A 2 conductor, 12 AWG stranded cable should be provided for each APS station (or standard push button station). Use 5 feet of cable for each APS station. All APS stations should be wired separately.

A 5 conductor, 14 AWG stranded cable should be provided for each pedestrian signal head. Use 10 feet of cable for each pedestrian signal head.

A 5 conductor, 14 AWG stranded cable should be provided for each 3 section vehicle signal head. Provide 20 feet of vertical cable plus the mast arm distance to the center of each vehicle signal head.

A 7 conductor, 14 AWG cable should be provided for each 4 and 5 section vehicle signal head. Provide 20' of vertical cable plus the mast arm distance to the center of each vehicle signal head.

Two (2) No. 8 XHHW stranded cables should be provided for luminaires. Provide 40 feet of cable up the traffic signal pole to the luminaire. Note, if daisy chaining luminaires, an additional 40 feet of cable should be provided to reach the ground and continue the illumination circuit.

#### I. Traffic Signal Poles and Mast Arm Assemblies

Traffic signal poles should be provided per the TxDOT standard details. Standard traffic signal pole mast arm assemblies range in length from 16 feet to 48 feet in 4-foot increments. Long mast arm assemblies range in length from 50 feet to 65 feet in 5-foot increments.

Traffic signal poles should be located as far from the face-of-curb as possible given the available right-of-way and existing utility conflicts but shall not be located within 2 feet of the back-of-curb.

Traffic signal poles installed within the radius should be installed as far back from the back-of-curb as possible to avoid truck overturning. Where possible, poles should be located near the curb ramp landing areas to provide easy access to the pedestrian push buttons. Poles should be kept out of median areas to reduce the chance of knockdowns.

Traffic signal poles should be located so that mast arms shall be long enough to extend over the center of the left most approach lane.

Damping plates shall be provided on the mast arms per TxDOT Details.

Dual mast arms can be installed if approved by the City. Dual mast arms shall be provided in accordance with TxDOT Standards.

#### J. Signs

The Contractor shall furnish and install all proposed regulatory, warning, guide, and street name signs and mounting hardware for the proposed traffic signal design. City street name signs shall be designed to include the City logo. The sign designs shall conform to the current version of the TMUTCD.

#### K. Illumination

Luminaires should be provided at all four (4) corners unless overhead conflicts exist.

All traffic signal design plans shall include street luminaire removal and installation if the project requires modification to the existing streetlight system.

Caution should be taken to ensure that NESC spacing requirements to overhead electric lines are not violated.

LED luminaires should be used as directed by the City.

#### L. Electrical Service

If underground service is present, a 2-inch Schedule 80 PVC conduit should be provided to a ground mount pedestal service. The electrical service provider shall provide all cable required between the electrical service and power source.

If overhead electrical service is present, a 2-inch rigid metal conduit should be provided from the power source to the ground and a 2-inch Schedule 80 PVC conduit should be provided to a ground mount pedestal service. Generally, the electrical service provider shall provide all cable required between the electrical service and power source as well as the rigid metal conduit attached to the service utility pole. During design, the design engineer shall confirm all electrical service requirements and provisions with the electrical service provider.

The electrical service, power source, and controller cabinet assembly should be located on the same corner if possible. The conduit run between the electrical service and the power source should not exceed 200 feet and shall not have any ground boxes. Reference Section C for information concerning the location of the controller cabinet assembly.

#### M. Vehicle Detection

The City uses the following types of vehicle detection systems:

- Radar Detection System; and
- Video Imaging Vehicle Detection System (VIVDS)

The design engineer shall confirm with the City on which type of detection to use. Only presence detection zones may be provided on roadway approaches with 85<sup>th</sup> percentile speeds of 40 mph or lower. Both presence and advanced detection zones shall be provided on roadways with 85<sup>th</sup> percentile speeds greater than 40 mph.

#### N. Communication Equipment

##### Coordination:

Coordination is implemented if a coupling analysis shows benefit based on traffic volumes and intersection spacing. Coordination groups may vary by time of day and day of week based on link volumes.

##### Diamond Operation:

All diamond interchanges should use 3-phase and/or 4-phase operating schemes. Phasing schemes with NEMA phasing and overlaps, or split ring operation may also be used if warranted based on the results of a traffic analysis using computer models, such as Synchro™.

Connection to Traffic Signal System:

The designer shall coordinate with the City during the design phase to verify any required connections between adjacent traffic signals.

O. Pavement Markings

All crosswalks, stop bars, and turn lane pavement markings shall be provided in accordance with latest edition of the TMUTCD and TxDOT Specifications and Standard Details.

Crosswalks:

Continental type crosswalks shall be used at all pedestrian crossings with curb ramps.

Stop Bars:

All signalized approaches shall have 24-inch wide solid white stop bars. Stop bars shall be located a minimum of 4 feet in advance of the crosswalk.

Turn Bay:

Turn bays or turn lanes should include an arrow lane legend and an ONLY text legend. Turn lanes should be delineated by an 8-inch solid white lane line with Type 1-C raised pavement markers spaced every 20 feet.

P. Preemption Equipment

Emergency Vehicle Preemption:

City approved Emergency Vehicle Preemption (EVP) detectors should be used as the standard for EVP. EVP detectors may be required at all new and major reconstructed signals on all major approaches as directed by the City. EVP detectors are not typically provided for minor approaches to commercial or private driveways. EVP detectors should be located on the mast arm centered on the approach. One-way or two-way detectors can be used.

Rail-road Preemption:

All new traffic signals within 200 feet of railroad tracks should include railroad pre-emption. The design shall coordinate with the City for the specific railroad preemption requirements.

Q. Span Wire Traffic Signals

Span wire traffic signals should only be used as a temporary traffic control device during construction operations. Span wire signals shall be installed per TxDOT Details.

## II. TRAFFIC SIGNAL DESIGN PLANS

Prior to the submission of any reports or plan sets, the Design Consultant must attend an on-site field meeting with a City representative. The Design Consultant should ensure that all pertinent utility locates have been identified and visibly marked prior to this meeting.

### A. Standard Submittal Process

#### Traffic Signal Approval:

Any new traffic signal shall be approved by the City prior to design. If requested, the design engineer shall submit the traffic signal warrant analysis for approval.

#### Conceptual Plan Submittal (30%):

One (1) PDF of the 30% layout detailing all signal equipment should be submitted to the City.

#### Preliminary Plan Submittal (60%):

One (1) PDF of the preliminary plans should be submitted as detailed in Section IIB.

#### Pre-Final Plan Submittal (90%):

One (1) PDF of the pre-final plans should be submitted as detailed in Section IIB.

#### Final Submittal:

The final (100%) plans should be submitted as follows:

- One (1) PDF; and
- AutoCAD digital files compatible with City's AutoCAD version.

Additionally, one (1) PDF of all executed detailed checklists shall be included with every plan submission.

### B. Plan Preparation

All plans shall be produced in AutoCAD and compatible with the software version used by the City. All reference files shall be bound for electronic plan submission.

The traffic signal construction plan set should consist of the following (at a minimum):

- Cover Sheet (if necessary)
- Sheet Index
- General Notes
- Estimate Summary
- Existing Conditions Layout
- Removals Layout
- Traffic Signal Design Layout
- Traffic Signal Summary Charts
- Paving Removals Layout (if necessary)
- Paving Plan Layout (if necessary)

- Paving Plan Detail (for each corner and medians, if necessary)
- Pavement Marking Removal Layout (if necessary)
- Signing Layout
- Pavement Marking Layout
- Traffic Control Plan (if necessary)
- Applicable TxDOT Standard Details

Overall intersection layouts should be landscape orientation aligned with the major approach horizontal across the page with north to the right or top of the page. The drawing scale for overall intersection layouts shall be 1" = 40' for 11" x 17" plans. Match lines to additional sheets may be provided as needed.

Estimate Summary:

This layout should present a summary chart of all bid items used in the project including Bid Item Number, Item Description, Specification Section Number, Unit and Quantity.

Existing Conditions Layout:

This layout should present the existing intersection conditions including the location of any existing traffic signal equipment, signs, and overhead/underground utilities. Existing City utilities should be clearly identified and annotated.

Removals Layout:

This layout should present all existing traffic signal equipment and clearly identify and annotate any equipment removals. Any existing sign removals should also be identified. A summary chart of any signal equipment and sign removal items should be provided with City bid item numbers. Provide any additional notes as necessary.

Traffic Signal Design Layout:

This layout should present all proposed traffic signal equipment including but not limited to the following:

- Traffic signal poles and mast arms
- Pedestal poles
- Push button poles
- Controller cabinet assembly
- Power source
- Electrical service
- Luminaires
- Signal heads
- Pedestrian signal heads
- Push buttons
- Curb ramps
- Detection equipment and detection zones
- Emergency Vehicle Preemption equipment
- Conduit
- Ground boxes

- Communications equipment (if desired)
- Pavement markings
- Signs

Additionally, the Traffic Signal Design Layout should present the following information:

- North arrow and scale (located in the upper right-hand corner, shall not point down)
- Notes
- Signal Pole Locations Diagram
- Legend
- Phasing diagram
- Signal head indications summary
- Street names with speed limits and block owners
- Street widths and dimensions
- Lane widths and dimensions
- ROW widths and dimensions
- Adjacent property owners and land uses
- Existing conditions, utilities, signage, pavement markings or vegetation to remain
- Labels for signal poles, signal heads, pedestrian signal heads, conduit runs, signs, signal phases, on-street parking, driveways, and match lines

All signal poles should be labeled starting with "T-1" on the northwest corner of the intersection and increasing in value clockwise around the intersection until all poles have been labeled. All pedestal and push button poles should be labeled starting with "P-1" on the northwest corner of the intersection and increasing in value clockwise around the intersection until all poles have been labeled.

All signal heads and pedestrian signal heads should be labeled starting with "1" on pole "T-1" or "P-1" on the northwest corner of the intersection and increasing in value clockwise around the intersection until all heads have been labeled.

All signs should be labeled starting with "A" on pole "T-1" or "P-1" on the northwest corner of the intersection and increasing in alphabetical order clockwise around the intersection until all signal pole and mast arm signs have been labeled. Ground mount signs should then be labeled in increasing alphabetical order until all signs have been labeled.

Conduit runs should be labeled starting with run "R-1" between the power source and electrical service. Run labels should then increase between the electrical service and the controller cabinet assembly, and then continue to increase from the controller cabinet assembly clockwise around the intersection until all conduit runs have been labeled.

This layout should present all existing conditions and overhead/underground utilities to remain.



Traffic Signal Design Charts:

This layout should present a summary of the traffic signal design information including the following:

- Conduit and Cables Chart
- Cable/Wire Inside Pole Chart
- Termination Chart
- Detector Chart
- Pedestrian Timing Chart
- Pole Chart including pole number, mast arm length, pole height, foundation type, luminaires, size of lens, signal type and indications
- APS Message Programming Table (if applicable)
- Traffic Signal Notes

The conduit run number in the Conduit and Cables Chart must correspond to the numeric label on the plan drawings. If more than one (1) conduit is proposed in the same run, all conduits should be referred to as the same number. However, an additional row should be provided in the Conduit and Cables Chart for each conduit. The run length should be the length in feet from the center of each pole or ground box rounded up to the nearest 5 feet.

Paving Removals Layout:

This layout should present all paving removals at the intersection including but not limited to the following:

- Curb ramp
- Sidewalk
- Driveways
- Curb and gutter
- Concrete or asphalt roadway

Paving removals should be clearly identified and annotated. A Paving Removal Quantity Summary Chart of any paving removal items should be provided with City/TxDOT bid item numbers. Provide any additional notes as necessary.

Paving Plan Layout:

This layout should present all paving improvements at the intersection including but not limited to the following:

- Curb ramp
- Sidewalk
- Driveways
- Curb and gutter
- Concrete or asphalt roadway

Paving improvements should be clearly identified and annotated. A Paving Quantity Summary Chart of any paving improvement items should be provided with City/TxDOT bid item numbers. Provide any additional notes as necessary.

#### Paving Plan Detail:

These detail layouts should present the same information provided in the Paving Plan Layout with an increased scale for legibility and clarity. Additionally, these details should include slopes and spot elevations for proposed paving improvements. For curb ramps, spot elevations may be provided at each connection to existing ground, proposed change in grade or alignment of curb ramp or sidewalk. Slopes should be presented for all sections of curb ramp, landing areas, and sidewalks to ensure ADA compliance.

#### Signing Layout:

This layout should present and label all proposed signs at the intersection. A Signing Quantity Summary Chart should detail the sign type, mount type, and label with bid item numbers. Sign design should be provided for all street name signs as well as any non-standard signs with dimensions and other applicable details. All standard signs shall have a TMUTCD designation as well as dimensions. Provide any additional notes as necessary.

#### Pavement Marking Removal Layout:

This layout should present and label all existing pavement markings at the intersection to be removed. Pavement Markings removals should be clearly identified and annotated with action, marking description, unit, and quantity. A Pavement Marking Removal Quantity Summary Chart should be provided with the details such as marking description, unit and quantity with City/TxDOT bid item numbers. Provide any additional notes as necessary.

#### Pavement Marking Layout:

This layout should present and label all proposed pavement markings at the intersection. Pavement marking improvements should be clearly identified and annotated with action, marking description, unit and quantity. A Pavement Marking Quantity Summary Chart should be provided with the details that includes marking description, unit and quantity with City/TxDOT bid item numbers. Provide any additional notes as necessary.

### C. Area Specific Information

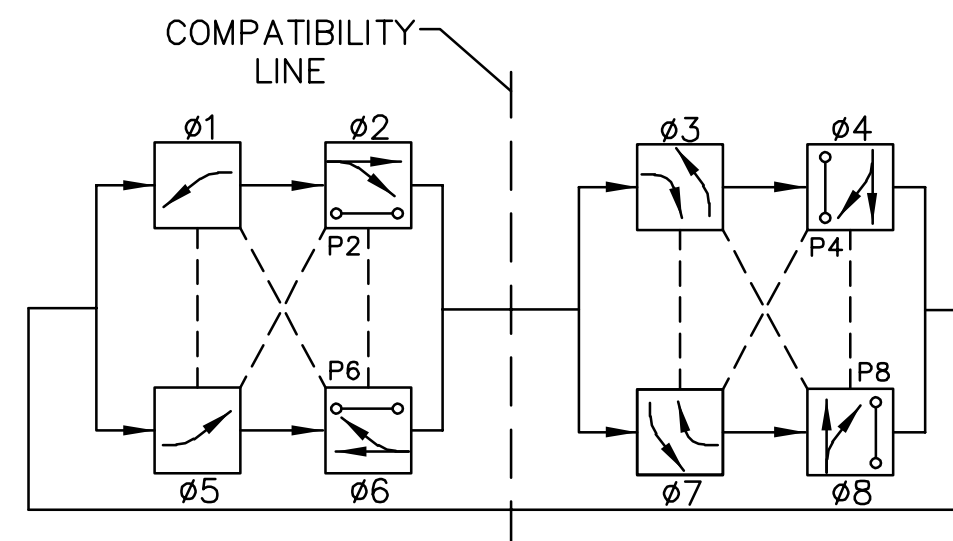
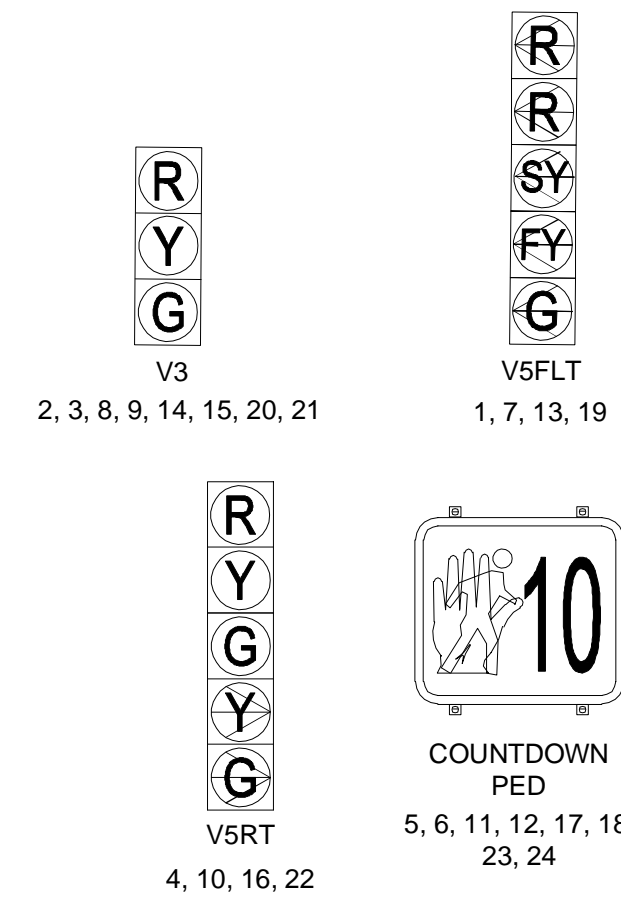
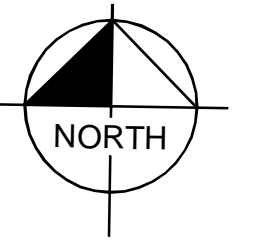
The Consultant should note the following facilities and evaluate incorporating them into the traffic signal design where possible:

- Fire stations
- Hospitals
- Schools and school routes or crossings
- School zones or flashers
- Adjacent signalized intersections
- Railroad crossings

### D. Record Drawings

Consultant may be required to prepare record drawings of the constructed traffic signal based on markups received from the Contractor and/or the City. Record drawings will be distributed to traffic signal maintenance personnel for future reference.

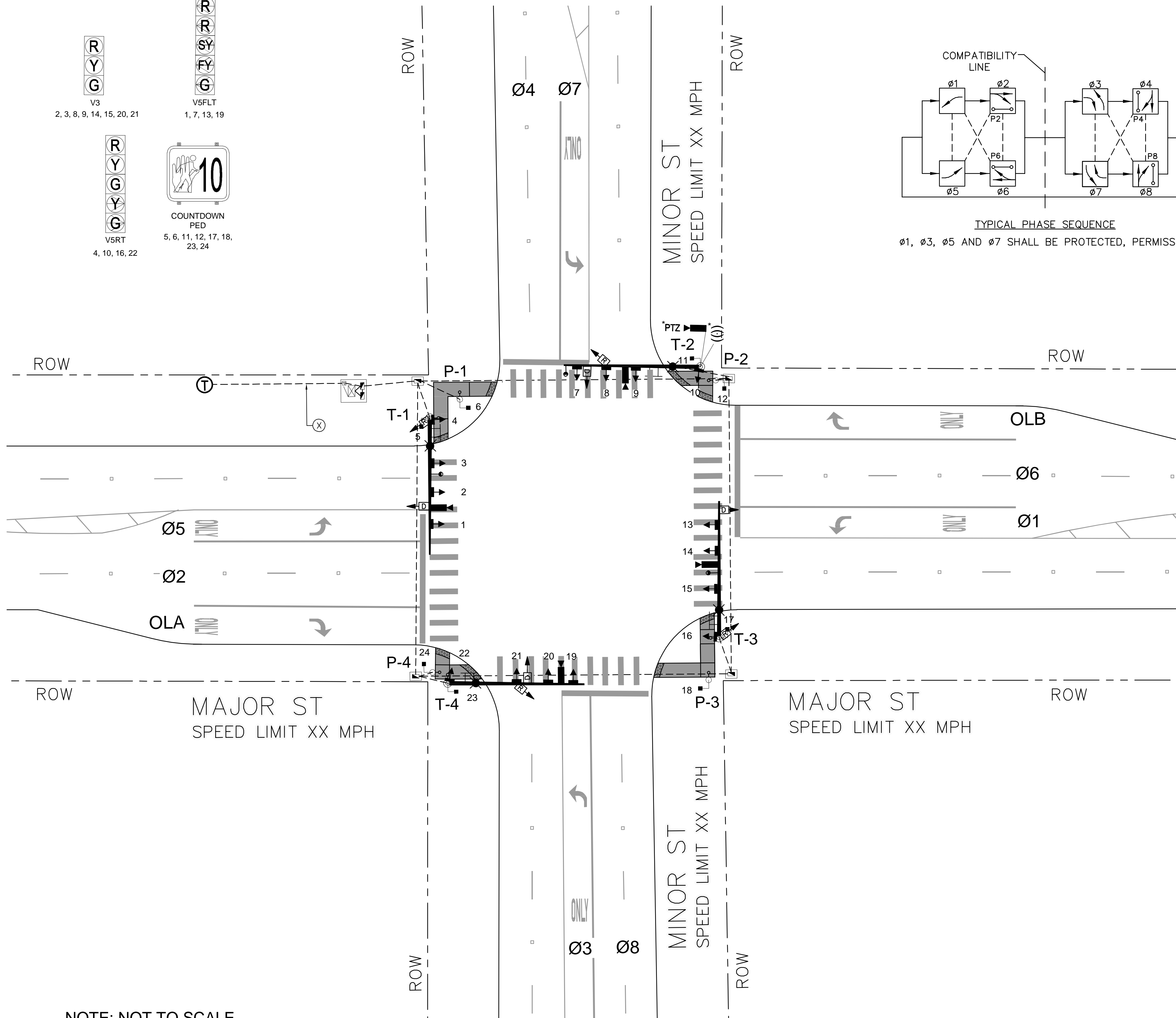
# TYPICAL TRAFFIC SIGNAL INSTALLATION LAYOUT



ø1, ø3, ø5 AND ø7 SHALL BE PROTECTED, PERMISSIVE

## LEGEND:

	STEEL POLE & MAST ARM		RIGHT OF WAY
	SIGNAL HEAD & NO.		PROPOSED CONDUIT RUN
	CONTROLLER CABINET & FND.		CONDUIT RUN NO.
	PEDESTAL SERVICE		PHASE NO.
	TYPE D GROUND BOX W/ APRON		TRAFFIC SIGNAL POLE
	PEDESTRIAN SIGNAL & NO.		PEDESTAL POLE
	OPTICOM DETECTOR		PED. PUSH BUTTON
	VIDEO MONITORING CAMERA		CCTV/PAN-TILT-ZOOM CAMERA (IF REQUIRED)
	ILSN/ROAD NAME SIGN		RADIO (IF REQUIRED)
	RADAR DETECTION		LUMINAIRE
	ADVANCED RADAR DETECTION		POWER SOURCE



NOTE: NOT TO SCALE



# APPENDIX C: RECOMMENDED PROJECT COSTING SHEETS



**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.
<b>Name:</b>	Ridgeway Drive	<b>This project consists of the construction of a new four-lane divided arterial.</b>	<b>A</b>
<b>Limits:</b>	Woodard Ave to Nolan River Rd		
<b>Functional Class:</b>	Minor Arterial 4-Lane Divided (90')		
<b>Length (lf):</b>	4,660		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	14,498	cy	\$ 20.00	\$ 290,000
207	8" Lime Stabilization (with Lime @ 50#/sy)	27,960	sy	\$ 8.00	\$ 224,000
307	11" Conc Pavement and Curb	25,889	SY	\$ 70.00	\$ 1,812,000
407	4" Concrete Sidewalk	55,920	sf	\$ 5.00	\$ 280,000
507	Turn Lanes and Median Openings	3,295	sy	\$ 88.00	\$ 290,000
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 2,896,000</b>
Major Construction Component Allowances**:					
Item Description		Notes	Allowance	Item Cost	
√	Traffic Control	None Anticipated	5%	\$	145,000
√	Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	58,000
√	Roadway Drainage	Standard Internal System	25%	\$	724,000
√	Illumination		10%	\$	290,000
	Special Drainage Structures	None Anticipated		\$	-
√	Water	Minor Adjustments	2%	\$	58,000
√	Sewer	Minor Adjustments	2%	\$	58,000
√	Basic Landscape		5%	\$	145,000
√	SWPPP		1%	\$	29,000
	Miscellaneous:		0%	\$	-
			<b>Allowance Subtotal</b>	<b>\$</b>	<b>1,507,000</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 4,403,000</b>
<b>Construction Contingency:</b>					<b>20%</b> \$ 881,000
<b>Mobilization:</b>					<b>8%</b> \$ 352,000
<b>Prep ROW:</b>					<b>5%</b> \$ 220,000
<b>Construction Cost TOTAL:</b>					<b>\$ 5,900,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 5,900,000
<b>Engineering/Survey/Testing:</b>		16%	\$ 944,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 6,800,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for rough estimates only and should not be used for any future Capital Improvement Planning within the City of Cleburne.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.	B
Name:	University Drive	<b>This project consists of the construction of a new four-lane divided arterial.</b>		
Limits:	Henderson St to Old Foamy Rd			
Functional Class:	Minor Arterial 4-Lane Divided (105')			
Length (lf):	14,915			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	46,402	cy	\$ 20.00	\$ 928,000
205	8" Lime Stabilization (with Lime @ 50#/sy)	89,490	sy	\$ 8.00	\$ 716,000
305	11" Conc Pavement and Curb	82,861	SY	\$ 70.00	\$ 5,800,000
405	4" Concrete Sidewalk	178,980	sf	\$ 5.00	\$ 895,000
505	Turn Lanes and Median Openings	10,546	sy	\$ 88.00	\$ 928,000
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 9,267,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	None Anticipated	5%	\$	463,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	185,000	
√ Roadway Drainage	Standard Internal System	25%	\$	2,317,000	
√ Illumination		10%	\$	927,000	
Special Drainage Structures	None Anticipated		\$	-	
√ Water	Minor Adjustments	2%	\$	185,000	
√ Sewer	Minor Adjustments	2%	\$	185,000	
√ Basic Landscape		5%	\$	463,000	
√ SWPPP		1%	\$	93,000	
Miscellaneous:		0%	\$	-	
		<b>Allowance Subtotal</b>	<b>\$</b>	<b>4,818,000</b>	
<b>**Allowances based on % of Paving Construction Cost Subtotal</b>					
<b>Paving and Allowance Subtotal:</b>					<b>\$ 14,085,000</b>
<b>Construction Contingency:</b> 20%					\$ 2,817,000
<b>Mobilization:</b> 8%					\$ 1,127,000
<b>Prep ROW:</b> 5%					\$ 704,000
<b>Construction Cost TOTAL:</b>					<b>\$ 18,800,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 18,800,000
Engineering/Survey/Testing:		16%	\$ 3,008,000
Inflation	X Years til Construction	4%	
Other			
ROW/Easement Acquisition:		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 21,800,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.
<b>Name:</b>	Woodard Avenue	<b>This project consists of the reconstruction of the existing pavement to a three-lane undivided collector.</b>	<b>C</b>
<b>Limits:</b>	CR 1227 to Harlin Dr		
<b>Functional Class:</b>	Major Collector (75')		
<b>Length (lf):</b>	14,290		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	33,343	cy	\$ 20.00	\$ 667,000
202	8" Lime Stabilization (with Lime @ 50#/sy)	65,099	sy	\$ 8.00	\$ 521,000
302	11" Conc Pavement and Curb	61,923	SY	\$ 70.00	\$ 4,335,000
402	4" Concrete Sidewalk	171,480	sf	\$ 5.00	\$ 857,000
502	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 6,380,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	Construction Phase Traffic Control	5%	\$	319,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	128,000	
√ Roadway Drainage	Standard Internal System	25%	\$	1,595,000	
√ Illumination		10%	\$	638,000	
√ Special Drainage Structures	Bridge Crossing		\$	1,530,000	
√ Water	Minor Adjustments	2%	\$	128,000	
√ Sewer	Minor Adjustments	2%	\$	128,000	
√ Basic Landscape		5%	\$	319,000	
√ SWPPP		1%	\$	64,000	
Miscellaneous:		0%	\$	-	
**Allowances based on % of Paving Construction Cost Subtotal		<b>Allowance Subtotal</b>	<b>\$</b>	<b>4,849,000</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 11,229,000</b>
<b>Construction Contingency:</b> 20%					\$ 2,246,000
<b>Mobilization:</b> 8%					\$ 898,000
<b>Prep ROW:</b> 5%					\$ 561,000
<b>Construction Cost TOTAL:</b>					<b>\$ 15,000,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 15,000,000
<b>Engineering/Survey/Testing:</b>		16%	\$ 2,400,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 17,400,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No. <b>D</b>
<b>Name:</b>	Industrial Boulevard	<b>This project consists of the reconstruction of the existing pavement to a three-lane undivided collector.</b>	
<b>Limits:</b>	Chisholm Trail Pkwy to SH 174		
<b>Functional Class:</b>	Major Collector (75')		
<b>Length (lf):</b>	8,400		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	19,600	cy	\$ 20.00	\$ 392,000
202	8" Lime Stabilization (with Lime @ 50#/sy)	38,267	sy	\$ 8.00	\$ 306,000
302	11" Conc Pavement and Curb	36,400	SY	\$ 70.00	\$ 2,548,000
402	4" Concrete Sidewalk	100,800	sf	\$ 5.00	\$ 504,000
502	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 3,750,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	Construction Phase Traffic Control	5%	\$	188,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	75,000	
√ Roadway Drainage	Standard Internal System	25%	\$	938,000	
√ Illumination		10%	\$	375,000	
√ Special Drainage Structures	Bridge Crossing		\$	1,015,000	
√ Water	Minor Adjustments	2%	\$	75,000	
√ Sewer	Minor Adjustments	2%	\$	75,000	
√ Basic Landscape		5%	\$	188,000	
√ SWPPP		1%	\$	38,000	
Miscellaneous:		0%	\$	-	
**Allowances based on % of Paving Construction Cost Subtotal		<b>Allowance Subtotal</b>	<b>\$</b>	<b>2,967,000</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 6,717,000</b>
<b>Construction Contingency:</b> 20%					\$ 1,343,000
<b>Mobilization:</b> 8%					\$ 537,000
<b>Prep ROW:</b> 5%					\$ 336,000
<b>Construction Cost TOTAL:</b>					<b>\$ 9,000,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ <b>9,000,000</b>
<b>Engineering/Survey/Testing:</b>		16%	\$ 1,440,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 10,400,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 10/5/2021

Project Information:		Description:	Project No.	E
Name:	Park Boulevard	<b>This project consists of the construction of a new three-lane undivided collector.</b>		
Limits:	S Terminus to Nolan River Rd			
Functional Class:	Major Collector (75')			
Length (lf):	4,550			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	10,617	cy	\$ 20.00	\$ 212,000
202	8" Lime Stabilization (with Lime @ 50#/sy)	20,728	sy	\$ 8.00	\$ 166,000
302	11" Conc Pavement and Curb	19,717	SY	\$ 70.00	\$ 1,380,000
402	4" Concrete Sidewalk	54,600	sf	\$ 5.00	\$ 273,000
502	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 2,031,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	None Anticipated	5%	\$	102,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	41,000	
√ Roadway Drainage	Standard Internal System	25%	\$	508,000	
√ Illumination		10%	\$	203,000	
√ Special Drainage Structures	Bridge Crossing		\$	2,545,000	
√ Water	Minor Adjustments	2%	\$	41,000	
√ Sewer	Minor Adjustments	2%	\$	41,000	
√ Basic Landscape		5%	\$	102,000	
√ SWPPP		1%	\$	20,000	
Miscellaneous:		0%	\$	-	
**Allowances based on % of Paving Construction Cost Subtotal		<b>Allowance Subtotal</b>	<b>\$</b>	<b>3,603,000</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 5,634,000</b>
<b>Construction Contingency:</b>					<b>20%</b> \$ 1,127,000
<b>Mobilization:</b>					<b>8%</b> \$ 451,000
<b>Prep ROW:</b>					<b>5%</b> \$ 282,000
<b>Construction Cost TOTAL:</b>					<b>\$ 7,500,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 7,500,000
<b>Engineering/Survey/Testing:</b>		16%	\$ 1,200,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 8,700,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.	F
Name:	New Road B	<b>This project consists of the construction of a new three-lane undivided collector.</b>		
Limits:	Nolan River Rd to Woodruff Rd			
Functional Class:	Major Collector (75')			
Length (lf):	4,785			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	11,165	cy	\$ 20.00	\$ 223,000
202	8" Lime Stabilization (with Lime @ 50#/sy)	21,798	sy	\$ 8.00	\$ 174,000
302	11" Conc Pavement and Curb	20,735	SY	\$ 70.00	\$ 1,451,000
402	4" Concrete Sidewalk	57,420	sf	\$ 5.00	\$ 287,000
502	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 2,135,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	None Anticipated	5%	\$	107,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	43,000	
√ Roadway Drainage	Standard Internal System	25%	\$	534,000	
√ Illumination		10%	\$	214,000	
√ Special Drainage Structures	Bridge Crossing		\$	2,486,250	
√ Water	Minor Adjustments	2%	\$	43,000	
√ Sewer	Minor Adjustments	2%	\$	43,000	
√ Basic Landscape		5%	\$	107,000	
√ SWPPP		1%	\$	21,000	
Miscellaneous:		0%	\$	-	
**Allowances based on % of Paving Construction Cost Subtotal		<b>Allowance Subtotal</b>	<b>\$</b>	<b>3,598,250</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 5,733,250</b>
<b>Construction Contingency:</b>					<b>20%</b> \$ 1,147,000
<b>Mobilization:</b>					<b>8%</b> \$ 459,000
<b>Prep ROW:</b>					<b>5%</b> \$ 287,000
<b>Construction Cost TOTAL:</b>					<b>\$ 7,700,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 7,700,000
<b>Engineering/Survey/Testing:</b>		16%	\$ 1,232,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 8,900,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.
<b>Name:</b>	Cleburne Station Parkway	<b>This project consists of the construction of a new three-lane undivided collector.</b>	<b>G</b>
<b>Limits:</b>	Brazzle Blvd to SH 171		
<b>Functional Class:</b>	Major Collector (75')		
<b>Length (lf):</b>	4,370		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	10,197	cy	\$ 20.00	\$ 204,000
202	8" Lime Stabilization (with Lime @ 50#/sy)	19,908	sy	\$ 8.00	\$ 159,000
302	11" Conc Pavement and Curb	18,937	SY	\$ 70.00	\$ 1,326,000
402	4" Concrete Sidewalk	52,440	sf	\$ 5.00	\$ 262,000
502	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,951,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	None Anticipated	5%	\$	98,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	39,000	
√ Roadway Drainage	Standard Internal System	25%	\$	488,000	
√ Illumination		10%	\$	195,000	
√ Special Drainage Structures	Minor Stream Crossing		\$	250,000	
√ Water	Minor Adjustments	2%	\$	39,000	
√ Sewer	Minor Adjustments	2%	\$	39,000	
√ Basic Landscape		5%	\$	98,000	
√ SWPPP		1%	\$	20,000	
Miscellaneous:		0%	\$	-	
		<b>Allowance Subtotal</b>	<b>\$</b>	<b>1,266,000</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 3,217,000</b>
<b>Construction Contingency:</b>					<b>20%</b> \$ 643,000
<b>Mobilization:</b>					<b>8%</b> \$ 257,000
<b>Prep ROW:</b>					<b>5%</b> \$ 161,000
<b>Construction Cost TOTAL:</b>					<b>\$ 4,300,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 4,300,000</b>
<b>Engineering/Survey/Testing:</b>		16%	\$ 688,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 5,000,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.
<b>Name:</b>	Yellow Jacket Drive	<b>This project consists of the construction of a new three-lane undivided collector.</b>	<b>H</b>
<b>Limits:</b>	Nolan River Rd to US 67		
<b>Functional Class:</b>	Major Collector (75')		
<b>Length (lf):</b>	6,255		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	14,595	cy	\$ 20.00	\$ 292,000
202	8" Lime Stabilization (with Lime @ 50#/sy)	28,495	sy	\$ 8.00	\$ 228,000
302	11" Conc Pavement and Curb	27,105	SY	\$ 70.00	\$ 1,897,000
402	4" Concrete Sidewalk	75,060	sf	\$ 5.00	\$ 375,000
502	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 2,792,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	None Anticipated	5%	\$	140,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	56,000	
√ Roadway Drainage	Standard Internal System	25%	\$	698,000	
√ Illumination		10%	\$	279,000	
Special Drainage Structures	None Anticipated		\$	-	
√ Water	Minor Adjustments	2%	\$	56,000	
√ Sewer	Minor Adjustments	2%	\$	56,000	
√ Basic Landscape		5%	\$	140,000	
√ SWPPP		1%	\$	28,000	
Miscellaneous:		0%	\$	-	
<b>**Allowances based on % of Paving Construction Cost Subtotal</b>			<b>Allowance Subtotal</b>	<b>\$ 1,453,000</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 4,245,000</b>
<b>Construction Contingency:</b> 20%					\$ 849,000
<b>Mobilization:</b> 8%					\$ 340,000
<b>Prep ROW:</b> 5%					\$ 212,000
<b>Construction Cost TOTAL:</b>					<b>\$ 5,700,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 5,700,000
<b>Engineering/Survey/Testing:</b>		16%	\$ 912,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 6,600,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.
<b>Name:</b>	Nolan River Road	<b>This project consists of the reconstruction of the existing pavement to a four-lane divided arterial.</b>	<b>0</b>
<b>Limits:</b>	Henderson St to Country Club Dr		
<b>Functional Class:</b>	Minor Arterial 4-Lane Divided (105')		
<b>Length (lf):</b>	7,955		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	24,749	cy	\$ 20.00	\$ 495,000
205	8" Lime Stabilization (with Lime @ 50#/sy)	47,730	sy	\$ 8.00	\$ 382,000
305	11" Conc Pavement and Curb	44,194	SY	\$ 70.00	\$ 3,094,000
405	4" Concrete Sidewalk	95,460	sf	\$ 5.00	\$ 477,000
505	Turn Lanes and Median Openings	5,625	sy	\$ 88.00	\$ 495,000
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 4,943,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	Construction Phase Traffic Control	5%	\$	247,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	99,000	
√ Roadway Drainage	Standard Internal System	25%	\$	1,236,000	
√ Illumination		10%	\$	494,000	
Special Drainage Structures	None Anticipated		\$	-	
√ Water	Minor Adjustments	2%	\$	99,000	
√ Sewer	Minor Adjustments	2%	\$	99,000	
√ Basic Landscape		5%	\$	247,000	
√ SWPPP		1%	\$	49,000	
Miscellaneous:		0%	\$	-	
		<b>Allowance Subtotal</b>	<b>\$</b>	<b>2,570,000</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 7,513,000</b>
<b>Construction Contingency:</b>					<b>20%</b> \$ 1,503,000
<b>Mobilization:</b>					<b>8%</b> \$ 601,000
<b>Prep ROW:</b>					<b>5%</b> \$ 376,000
<b>Construction Cost TOTAL:</b>					<b>\$ 10,000,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 10,000,000</b>
<b>Engineering/Survey/Testing:</b>		16%	\$ 1,600,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 11,600,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No. J
Name:	Lakeshore Drive	<b>This project consists of the reconstruction of the existing pavement to a two-lane undivided collector.</b>	
Limits:	Harvest Hill Dr to Nolan River Rd		
Functional Class:	Minor Collector (75')		
Length (lf):	5,170		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	11,489	cy	\$ 20.00	\$ 230,000
201	8" Lime Stabilization (with Lime @ 50#/sy)	22,403	sy	\$ 8.00	\$ 179,000
301	11" Conc Pavement and Curb	21,254	SY	\$ 70.00	\$ 1,488,000
401	4" Concrete Sidewalk	62,040	sf	\$ 5.00	\$ 310,000
501	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 2,207,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	Construction Phase Traffic Control	5%	\$	110,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	44,000	
√ Roadway Drainage	Standard Internal System	25%	\$	552,000	
√ Illumination		10%	\$	221,000	
Special Drainage Structures	None Anticipated		\$	-	
√ Water	Minor Adjustments	2%	\$	44,000	
√ Sewer	Minor Adjustments	2%	\$	44,000	
√ Basic Landscape		5%	\$	110,000	
√ SWPPP		1%	\$	22,000	
Miscellaneous:		0%	\$	-	
		<b>Allowance Subtotal</b>	<b>\$</b>	<b>1,147,000</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 3,354,000</b>
<b>Construction Contingency:</b>					<b>20%</b> \$ 671,000
<b>Mobilization:</b>					<b>8%</b> \$ 268,000
<b>Prep ROW:</b>					<b>5%</b> \$ 168,000
<b>Construction Cost TOTAL:</b>					<b>\$ 4,500,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 4,500,000</b>
<b>Engineering/Survey/Testing:</b>		16%	\$ 720,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 5,200,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.
<b>Name:</b>	Yellow Jacket Drive	<b>This project consists of the reconstruction of the existing pavement to a two-lane undivided collector.</b>	<b>K</b>
<b>Limits:</b>	Harlin Dr to Nolan River Rd		
<b>Functional Class:</b>	Minor Collector (75')		
<b>Length (lf):</b>	2,445		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	5,433	cy	\$ 20.00	\$ 109,000
201	8" Lime Stabilization (with Lime @ 50#/sy)	10,595	sy	\$ 8.00	\$ 85,000
301	11" Conc Pavement and Curb	10,052	SY	\$ 70.00	\$ 704,000
401	4" Concrete Sidewalk	29,340	sf	\$ 5.00	\$ 147,000
501	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,045,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	Construction Phase Traffic Control	5%	\$	52,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	21,000	
√ Roadway Drainage	Standard Internal System	25%	\$	261,000	
√ Illumination		10%	\$	105,000	
Special Drainage Structures	None Anticipated		\$	-	
√ Water	Minor Adjustments	2%	\$	21,000	
√ Sewer	Minor Adjustments	2%	\$	21,000	
√ Basic Landscape		5%	\$	52,000	
√ SWPPP		1%	\$	10,000	
Miscellaneous:		0%	\$	-	
			<b>Allowance Subtotal</b>	<b>\$</b>	<b>543,000</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 1,588,000</b>
<b>Construction Contingency:</b> 20%					\$ 318,000
<b>Mobilization:</b> 8%					\$ 127,000
<b>Prep ROW:</b> 5%					\$ 79,000
<b>Construction Cost TOTAL:</b>					<b>\$ 2,200,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 2,200,000
<b>Engineering/Survey/Testing:</b>		16%	\$ 352,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 2,600,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.
Name:	CR 805	<b>This project consists of the reconstruction of the existing pavement to a two-lane undivided collector.</b>	<b>L</b>
Limits:	Mansfield Rd to Ferguson Rd		
Functional Class:	Minor Collector (75')		
Length (lf):	5,110		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	11,356	cy	\$ 20.00	\$ 227,000
201	8" Lime Stabilization (with Lime @ 50#/sy)	22,143	sy	\$ 8.00	\$ 177,000
301	11" Conc Pavement and Curb	21,008	SY	\$ 70.00	\$ 1,471,000
401	4" Concrete Sidewalk	61,320	sf	\$ 5.00	\$ 307,000
501	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 2,182,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	Construction Phase Traffic Control	5%	\$	109,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	44,000	
√ Roadway Drainage	Standard Internal System	25%	\$	546,000	
√ Illumination		10%	\$	218,000	
√ Special Drainage Structures	Bridge Crossing		\$	2,450,000	
√ Water	Minor Adjustments	2%	\$	44,000	
√ Sewer	Minor Adjustments	2%	\$	44,000	
√ Basic Landscape		5%	\$	109,000	
√ SWPPP		1%	\$	22,000	
Miscellaneous:		0%	\$	-	
		<b>Allowance Subtotal</b>	<b>\$</b>	<b>3,586,000</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 5,768,000</b>
<b>Construction Contingency:</b>					<b>20%</b> \$ 1,154,000
<b>Mobilization:</b>					<b>8%</b> \$ 461,000
<b>Prep ROW:</b>					<b>5%</b> \$ 288,000
<b>Construction Cost TOTAL:</b>					<b>\$ 7,700,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 7,700,000</b>
<b>Engineering/Survey/Testing:</b>		16%	\$ 1,232,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 8,900,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.	M
Name:	Granbury St	<b>This project consists of the construction of a new three-lane undivided collector.</b>		
Limits:	N Terminus to Cleburne Station Pkwy			
Functional Class:	Major Collector (75')			
Length (lf):	3,330			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	7,770	cy	\$ 20.00	\$ 155,000
202	8" Lime Stabilization (with Lime @ 50#/sy)	15,170	sy	\$ 8.00	\$ 121,000
302	11" Conc Pavement and Curb	14,430	SY	\$ 70.00	\$ 1,010,000
402	4" Concrete Sidewalk	39,960	sf	\$ 5.00	\$ 200,000
502	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,486,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	None Anticipated	5%	\$	74,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	30,000	
√ Roadway Drainage	Standard Internal System	25%	\$	372,000	
√ Illumination		10%	\$	149,000	
Special Drainage Structures	None Anticipated		\$	-	
√ Water	Minor Adjustments	2%	\$	30,000	
√ Sewer	Minor Adjustments	2%	\$	30,000	
√ Basic Landscape		5%	\$	74,000	
√ SWPPP		1%	\$	15,000	
Miscellaneous:		0%	\$	-	
		<b>Allowance Subtotal</b>	<b>\$</b>	<b>774,000</b>	
<b>**Allowances based on % of Paving Construction Cost Subtotal</b>					
<b>Paving and Allowance Subtotal:</b>					<b>\$ 2,260,000</b>
<b>Construction Contingency:</b>					<b>20%</b> \$ 452,000
<b>Mobilization:</b>					<b>8%</b> \$ 181,000
<b>Prep ROW:</b>					<b>5%</b> \$ 113,000
<b>Construction Cost TOTAL:</b>					<b>\$ 3,100,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 3,100,000</b>
<b>Engineering/Survey/Testing:</b>		16%	\$ 496,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 3,600,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.
<b>Name:</b>	Commerce Boulevard	<b>This project consists of the construction of a new two-lane undivided collector.</b>	<b>N</b>
<b>Limits:</b>	E Terminus to CR 801C		
<b>Functional Class:</b>	Minor Collector (75')		
<b>Length (lf):</b>	5,675		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	12,611	cy	\$ 20.00	\$ 252,000
201	8" Lime Stabilization (with Lime @ 50#/sy)	24,592	sy	\$ 8.00	\$ 197,000
301	11" Conc Pavement and Curb	23,331	SY	\$ 70.00	\$ 1,633,000
401	4" Concrete Sidewalk	68,100	sf	\$ 5.00	\$ 341,000
501	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 2,423,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	None Anticipated	5%	\$	121,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	48,000	
√ Roadway Drainage	Standard Internal System	25%	\$	606,000	
√ Illumination		10%	\$	242,000	
√ Special Drainage Structures	Minor Stream Crossing		\$	250,000	
√ Water	Minor Adjustments	2%	\$	48,000	
√ Sewer	Minor Adjustments	2%	\$	48,000	
√ Basic Landscape		5%	\$	121,000	
√ SWPPP		1%	\$	24,000	
√ Miscellaneous: Railroad Crossing			\$	500,000	
		<b>Allowance Subtotal</b>	<b>\$</b>	<b>2,008,000</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 4,431,000</b>
<b>Construction Contingency:</b>					<b>20%</b> \$ 886,000
<b>Mobilization:</b>					<b>8%</b> \$ 354,000
<b>Prep ROW:</b>					<b>5%</b> \$ 222,000
<b>Construction Cost TOTAL:</b>					<b>\$ 5,900,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 5,900,000
<b>Engineering/Survey/Testing:</b>		16%	\$ 944,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 6,800,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No. <b>0</b>
<b>Name:</b>	New Road C	<b>This project consists of the construction of a new two-lane undivided collector.</b>	
<b>Limits:</b>	Vaughn Rd to Commerce Blvd		
<b>Functional Class:</b>	Minor Collector (75')		
<b>Length (lf):</b>	4,630		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	10,289	cy	\$ 20.00	\$ 206,000
201	8" Lime Stabilization (with Lime @ 50#/sy)	20,063	sy	\$ 8.00	\$ 161,000
301	11" Conc Pavement and Curb	19,034	SY	\$ 70.00	\$ 1,332,000
401	4" Concrete Sidewalk	55,560	sf	\$ 5.00	\$ 278,000
501	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,977,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	None Anticipated	5%	\$	99,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	40,000	
√ Roadway Drainage	Standard Internal System	25%	\$	494,000	
√ Illumination		10%	\$	198,000	
Special Drainage Structures	None Anticipated		\$	-	
√ Water	Minor Adjustments	2%	\$	40,000	
√ Sewer	Minor Adjustments	2%	\$	40,000	
√ Basic Landscape		5%	\$	99,000	
√ SWPPP		1%	\$	20,000	
Miscellaneous:		0%	\$	-	
**Allowances based on % of Paving Construction Cost Subtotal		<b>Allowance Subtotal</b>	<b>\$</b>	<b>1,030,000</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 3,007,000</b>
<b>Construction Contingency:</b> 20%					\$ 601,000
<b>Mobilization:</b> 8%					\$ 241,000
<b>Prep ROW:</b> 5%					\$ 150,000
<b>Construction Cost TOTAL:</b>					<b>\$ 4,000,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 4,000,000
<b>Engineering/Survey/Testing:</b>		16%	\$ 640,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 4,600,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.	P
Name:	Hix Road	<b>This project consists of the construction of a new two-lane undivided collector.</b>		
Limits:	Commerce Blvd to Industrial Blvd			
Functional Class:	Minor Collector (75')			
Length (lf):	1,955			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	4,344	cy	\$ 20.00	\$ 87,000
201	8" Lime Stabilization (with Lime @ 50#/sy)	8,472	sy	\$ 8.00	\$ 68,000
301	11" Conc Pavement and Curb	8,037	SY	\$ 70.00	\$ 563,000
401	4" Concrete Sidewalk	23,460	sf	\$ 5.00	\$ 117,000
501	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 835,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	None Anticipated	5%	\$	42,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	17,000	
√ Roadway Drainage	Standard Internal System	25%	\$	209,000	
√ Illumination		10%	\$	84,000	
Special Drainage Structures	None Anticipated		\$	-	
√ Water	Minor Adjustments	2%	\$	17,000	
√ Sewer	Minor Adjustments	2%	\$	17,000	
√ Basic Landscape		5%	\$	42,000	
√ SWPPP		1%	\$	8,000	
Miscellaneous:		0%	\$	-	
**Allowances based on % of Paving Construction Cost Subtotal		<b>Allowance Subtotal</b>	<b>\$</b>	<b>436,000</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 1,271,000</b>
<b>Construction Contingency:</b> 20%					\$ 254,000
<b>Mobilization:</b> 8%					\$ 102,000
<b>Prep ROW:</b> 5%					\$ 64,000
<b>Construction Cost TOTAL:</b>					<b>\$ 1,700,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 1,700,000
<b>Engineering/Survey/Testing:</b>		16%	\$ 272,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 2,000,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No. Q
Name:	Old Foamy Rd	<b>This project consists of the construction of 2 lanes of an ultimate four-lane divided arterial.</b>	
Limits:	SH 174 to SH 171		
Functional Class:	1/2 Minor Arterial 4-Lane Divided (105'		
Length (lf):	7,050		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
108	Unclassified Street Excavation	10,967	cy	\$ 20.00	\$ 219,000
208	8" Lime Stabilization (with Lime @ 50#/sy)	21,150	sy	\$ 8.00	\$ 169,000
308	11" Conc Pavement and Curb	19,583	SY	\$ 70.00	\$ 1,371,000
408	4" Concrete Sidewalk	84,600	sf	\$ 5.00	\$ 423,000
508	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 2,182,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	None Anticipated	5%	\$	109,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	44,000	
√ Roadway Drainage	Standard Internal System	25%	\$	546,000	
√ Illumination		10%	\$	218,000	
√ Special Drainage Structures	Bridge Crossing		\$	2,240,000	
√ Water	Minor Adjustments	2%	\$	44,000	
√ Sewer	Minor Adjustments	2%	\$	44,000	
√ Basic Landscape		5%	\$	109,000	
√ SWPPP		1%	\$	22,000	
Miscellaneous:		0%	\$	-	
**Allowances based on % of Paving Construction Cost Subtotal			<b>Allowance Subtotal</b>	<b>\$ 3,376,000</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 5,558,000</b>
<b>Construction Contingency:</b> 20%					\$ 1,112,000
<b>Mobilization:</b> 8%					\$ 445,000
<b>Prep ROW:</b> 5%					\$ 278,000
<b>Construction Cost TOTAL:</b>					<b>\$ 7,400,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 7,400,000
Engineering/Survey/Testing:		16%	\$ 1,184,000
Inflation	X Years til Construction	4%	
Other			
ROW/Easement Acquisition:		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 8,600,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.	R
Name:	Sparks Road	<b>This project consists of the construction of a new two-lane undivided collector.</b>		
Limits:	Chisholm Trail Pkwy to Vaughn Rd			
Functional Class:	Minor Collector (75')			
Length (lf):	6,650			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	14,778	cy	\$ 20.00	\$ 296,000
201	8" Lime Stabilization (with Lime @ 50#/sy)	28,817	sy	\$ 8.00	\$ 231,000
301	11" Conc Pavement and Curb	27,339	SY	\$ 70.00	\$ 1,914,000
401	4" Concrete Sidewalk	79,800	sf	\$ 5.00	\$ 399,000
501	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 2,840,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	None Anticipated	5%	\$	142,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	57,000	
√ Roadway Drainage	Standard Internal System	25%	\$	710,000	
√ Illumination		10%	\$	284,000	
√ Special Drainage Structures	Bridge Crossing		\$	4,660,000	
√ Water	Minor Adjustments	2%	\$	57,000	
√ Sewer	Minor Adjustments	2%	\$	57,000	
√ Basic Landscape		5%	\$	142,000	
√ SWPPP		1%	\$	28,000	
Miscellaneous:		0%	\$	-	
**Allowances based on % of Paving Construction Cost Subtotal		<b>Allowance Subtotal</b>	<b>\$</b>	<b>6,137,000</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 8,977,000</b>
<b>Construction Contingency:</b> 20%					\$ 1,795,000
<b>Mobilization:</b> 8%					\$ 718,000
<b>Prep ROW:</b> 5%					\$ 449,000
<b>Construction Cost TOTAL:</b>					<b>\$ 12,000,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 12,000,000
<b>Engineering/Survey/Testing:</b>		16%	\$ 1,920,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 13,900,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for rough estimates only and should not be used for any future Capital Improvement Planning within the City of Cleburne.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.
<b>Name:</b>	Blakney Street	<b>This project consists of the construction of a new two-lane undivided collector.</b>	<b>S</b>
<b>Limits:</b>	Boone St to Kilpatrick Ave		
<b>Functional Class:</b>	Minor Collector (75')		
<b>Length (lf):</b>	2,700		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	6,000	cy	\$ 20.00	\$ 120,000
201	8" Lime Stabilization (with Lime @ 50#/sy)	11,700	sy	\$ 8.00	\$ 94,000
301	11" Conc Pavement and Curb	11,100	SY	\$ 70.00	\$ 777,000
401	4" Concrete Sidewalk	32,400	sf	\$ 5.00	\$ 162,000
501	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,153,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	None Anticipated	5%	\$	58,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	23,000	
√ Roadway Drainage	Standard Internal System	25%	\$	288,000	
√ Illumination		10%	\$	115,000	
Special Drainage Structures	None Anticipated		\$	-	
√ Water	Minor Adjustments	2%	\$	23,000	
√ Sewer	Minor Adjustments	2%	\$	23,000	
√ Basic Landscape		5%	\$	58,000	
√ SWPPP		1%	\$	12,000	
Miscellaneous:		0%	\$	-	
<b>**Allowances based on % of Paving Construction Cost Subtotal</b>			<b>Allowance Subtotal</b>	<b>\$</b>	<b>600,000</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 1,753,000</b>
<b>Construction Contingency:</b> 20%					\$ 351,000
<b>Mobilization:</b> 8%					\$ 140,000
<b>Prep ROW:</b> 5%					\$ 88,000
<b>Construction Cost TOTAL:</b>					<b>\$ 2,400,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 2,400,000
<b>Engineering/Survey/Testing:</b>		16%	\$ 384,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 2,800,000</b>

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**City of Cleburne**  
**2021 Master Transportation Plan**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/5/2021

Project Information:		Description:	Project No.	T
Name:	New Road A	<b>This project consists of the reconstruction of the existing pavement to a two-lane undivided collector.</b>		
Limits:	Nolan River Rd to N Terminus			
Functional Class:	Minor Collector (75')			
Length (lf):	5,410			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	12,022	cy	\$ 20.00	\$ 240,000
201	8" Lime Stabilization (with Lime @ 50#/sy)	23,443	sy	\$ 8.00	\$ 188,000
301	11" Conc Pavement and Curb	22,241	SY	\$ 70.00	\$ 1,557,000
401	4" Concrete Sidewalk	64,920	sf	\$ 5.00	\$ 325,000
501	Turn Lanes and Median Openings	0	sy	\$ 88.00	\$ -
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 2,310,000</b>
Major Construction Component Allowances**:					
Item Description	Notes	Allowance	Item Cost		
√ Traffic Control	Construction Phase Traffic Control	5%	\$	116,000	
√ Pavement Markings/Signs/Posts	Includes Striping/Signs for Shared Paths	2%	\$	46,000	
√ Roadway Drainage	Standard Internal System	25%	\$	578,000	
√ Illumination		10%	\$	231,000	
Special Drainage Structures	None Anticipated		\$	-	
√ Water	Minor Adjustments	2%	\$	46,000	
√ Sewer	Minor Adjustments	2%	\$	46,000	
√ Basic Landscape		5%	\$	116,000	
√ SWPPP		1%	\$	23,000	
Miscellaneous:		0%	\$	-	
		<b>Allowance Subtotal</b>	<b>\$</b>	<b>1,202,000</b>	
<b>Paving and Allowance Subtotal:</b>					<b>\$ 3,512,000</b>
<b>Construction Contingency:</b>					<b>20%</b> \$ 702,000
<b>Mobilization:</b>					<b>8%</b> \$ 281,000
<b>Prep ROW:</b>					<b>5%</b> \$ 176,000
<b>Construction Cost TOTAL:</b>					<b>\$ 4,700,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 4,700,000</b>
<b>Engineering/Survey/Testing:</b>		16%	\$ 752,000
<b>Inflation</b>	X Years til Construction	4%	
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>		0%	\$ -
<b>Project Cost TOTAL:</b>			<b>\$ 5,500,000</b>

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**AGENDA PLACEMENT FORM**

(Submission Deadline – Monday, 5:00 PM before Regular Court Meetings)

**Date:** December 19, 2023

**Meeting Date:** January 8, 2024

**Submitted By:** Julie Edmiston

**Department:** Public Works

**Signature of Elected Official/Department Head:**  
\_\_\_\_\_

<p><b>Court Decision:</b> This section to be completed by County Judge's Office</p>
 <p><b>January 8, 2024</b></p>

**Description:**

Public Hearing to to Adopt the City of Cleburne Master Thoroughfare Plan in the Extra Territorial Jurisdiction of the City of Cleburne.

Consideration of order # 2024-04, Order Adopting the City of Cleburne Thoroughfare Plan in the Extra Territorial Jurisdiction of the City of Cleburne.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(May attach additional sheets if necessary)

**Person to Present:** Jennifer VanderLaan

(Presenter must be present for the item unless the item is on the Consent Agenda)

**Supporting Documentation:** (check one)     PUBLIC     CONFIDENTIAL

(PUBLIC documentation may be made available to the public prior to the Meeting)

**Estimated Length of Presentation:** 10 minutes

**Session Requested:** (check one)

Action Item     Consent     Workshop     Executive     Other \_\_\_\_\_

**Check All Departments That Have Been Notified:**

County Attorney     IT     Purchasing     Auditor

Personnel     Public Works     Facilities Management

Other Department/Official (list) \_\_\_\_\_

**Please List All External Persons Who Need a Copy of Signed Documents  
In Your Submission Email**



## NOTICE OF PUBLIC HEARING

Pursuant to Chapter 232 of the Texas Local Government Code, the Johnson County Commissioners Court will consider an order and hear protests to Adopt the City of Cleburne Master Thoroughfare Plan in the Extra Territorial Jurisdiction of the City of Cleburne, of Johnson County, Texas:

At: **9:00 o'clock a.m.** on: January 8, 2024 in the  
Commissioners' Courtroom on the second floor  
Of the Johnson County Courthouse  
2 North Main Street, Cleburne, Texas 76033

Published in '*Times Review*' classified section under 'LEGAL NOTICE' on these dates:

December 23/26/28, 2023