City of Columbus

TRANSPORTATION PLAN

COLUMBUS, TEXAS

MAY 2024

Texas Target Communities

Founded in 1993, Texas Target Communities (TxTC) is a community engagement program in the School of Architecture at Texas A&M University. TxTC provides technical assistance to small, under-served communities across the state and focuses on holistic efforts to address land use planning, development management, and a host of challenges (i.e. civic, environmental, economic, etc.) encountered by communities today. Additionally, the thoughtful community engagement serves as a "real world" transformational learning experience for students at Texas A&M University.

Partnership with the City of Columbus and Colorado County

Texas Target Communities partnered with the City of Columbus, and as part of the partnership, TxTC assisted in creating a transportation plan for the City of Columbus and Colorado County. Graduate students in PLAN 678 Transportation Planning Studio worked with the community stakeholders to identify transportation issues, needs, opportunities, and priorities. Based on collected community feedback and the analysis of existing conditions, students developed a plan with recommended thoroughfare and transportation strategies.

Special Thanks to the following community members, for volunteering their time to guide students on this project:

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Executive Summary

This transportation plan was made in partnership with the City of Columbus, Texas, Texas Target Communities (TxTC), and students in the Texas A&M University Spring 2024 Applied Transportation Planning course. Columbus is a small town between Houston and San Antonio on the IH 10 corridor and has a population of 3,669 (2020 Census). The city is looking to improve the road safety and mobility of its residents and requested a transportation plan be created that could evaluate the current conditions and identify potential solutions. During a community engagement event held with local stakeholders, three themes were identified as priorities for the future of the city's transportation system: maintenance reliability, multimodal opportunities, and traffic safety. This plan covers the existing conditions for the city's road network, traffic safety, and pedestrian facilities, and identifies programs and strategies that can be implemented to meet the city's priorities and goals. If implemented, these strategies and action items can improve safety for residents and visitors to Columbus and organize how the system is updated and maintained.

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Introduction

A city thrives when providing safe and reliable transportation options that let residents and visitors travel in and around the city, facilitating peace of mind, economic activity, and all trips. By partnering with Texas Target Communities (TxTC), the City of Columbus has chosen to evaluate and plan for the future development of its road and multimodal infrastructure, considering changing transportation goals and implementation occurring in Colorado County and Texas at large. This transportation plan covers existing conditions, community outreach, and future thoroughfare changes that the City can undertake to improve overall system connectivity and safety.

Demographics

According to the 2020 Census, the population of Columbus is 3,699, making it the largest municipality in Colorado County. The racial makeup is primarily White, with 58% identifying as "White Alone", 17% identifying as "Black or African American", 1% identifying as "Asian", 12% identifying as "Some Other Race", and 29% identifying as "Latino Alone". The median age of the population is 47. The median household income is $56,250.[1]

Location

The City of Columbus is the county seat of Colorado County, located on IH 10 between Houston and San Antonio. As shown in Figure 1, it is 74 miles west of Houston, 125 miles east of San Antonio, and 91 miles southeast of Austin. Within Colorado County, Columbus is located in the northern half, nearly centered. It lies on the western bank of the Colorado River. The river touches both the northern and eastern parts of the city boundary.

[1] U.S. Census Bureau. (2022). Census Reporter Profile page for Columbus, TX. Retrieved from Census Reporter: http://censusreporter.org/profiles/16000US4816168-columbus-tx/

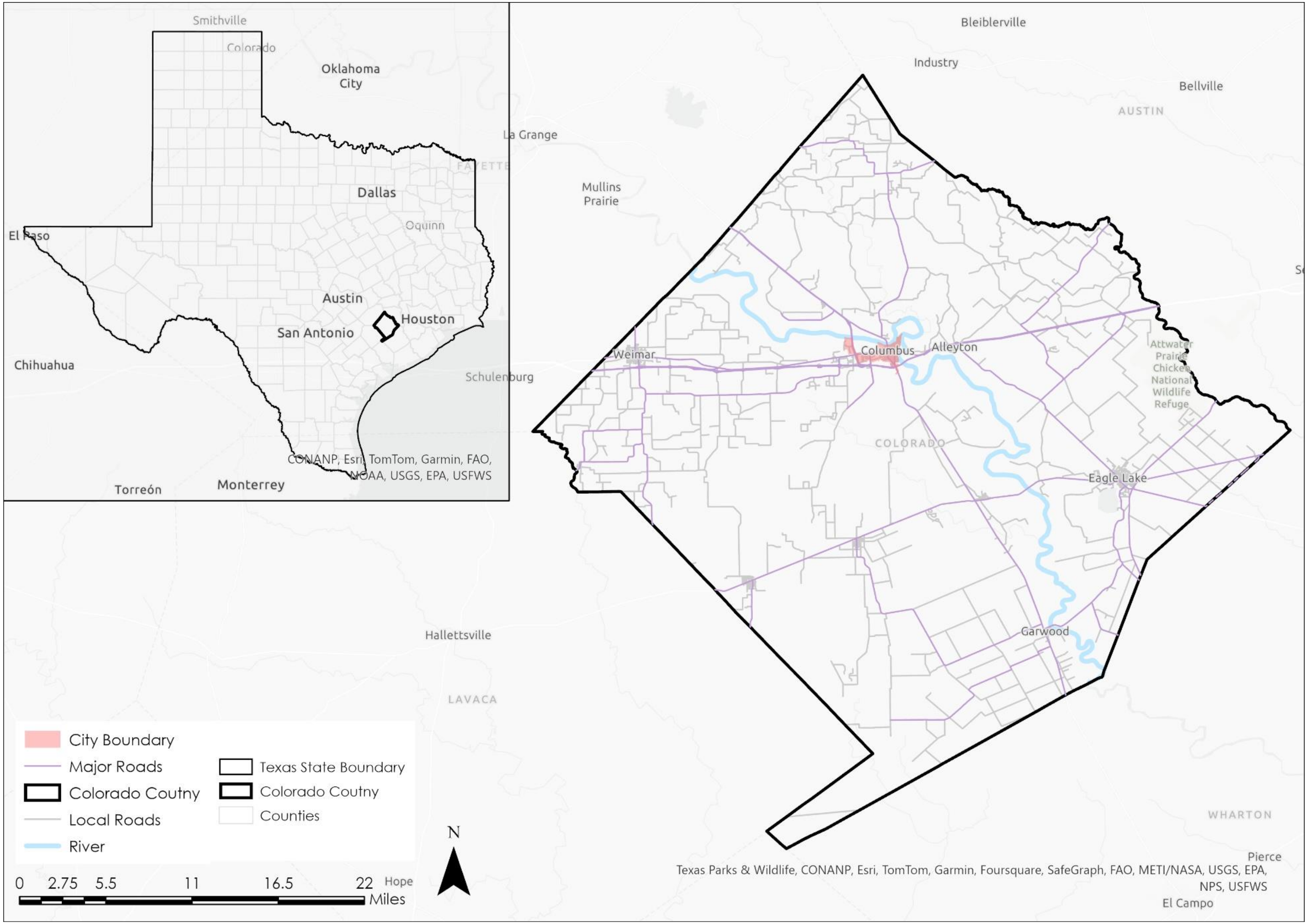


Figure 1: Location of Columbus within Colorado County and Texas

Existing Conditions

Road Functional Classifications

The Federal Highway Administration classifies roads by their function, depending on the service level provided to the public.[2] In general, the main classifications include Interstate, arterials, collectors, and local roads, which can be further subdivided into urban, rural, major, minor, etc. Figure 2 conveys the relative mobility and access of each functional classification. Figure 3 shows the functional classifications of roads in Columbus, Texas.

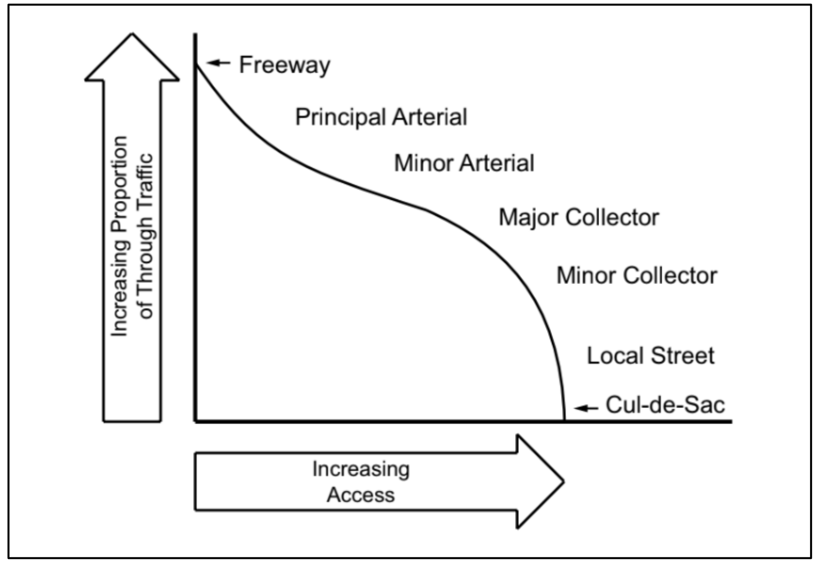


Figure 2: Relationship of Functionally Classified Systems Serving Traffic Mobility and Land Access for Motor-Vehicle Traffic[3]

[2] U. S. Department of Transportation. (2000, November). Road Function Classifications. Retrieved from FHWA Highway Safety Programs: https://safety.fhwa.dot.gov/speedmgt/data_facts/docs/rd_func_class_1_42.pdf

[3] American Association of State Highway and Transportation Officials. (2018). A Policy on Geometric Design of Highways and Streets (Vol. 7th). American Association of State Highway and Transportation Officials, p. 69

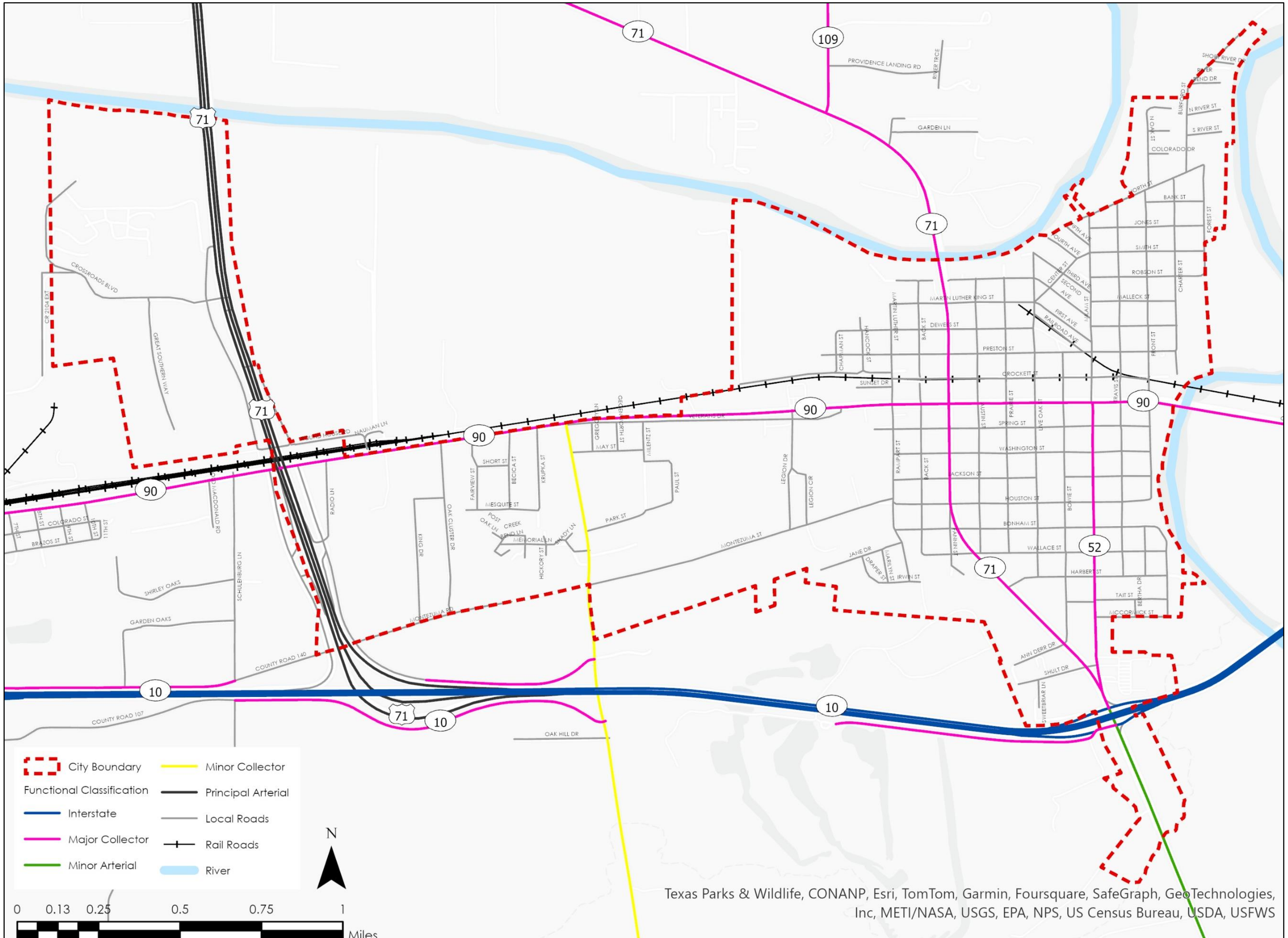


Figure 3: Road Functional Classification in Columbus, Texas

The Interstate level is the highest classification, providing the greatest amount of mobility and speed over long distances. Interstates typically have a speed limit between 55 and 75 miles per hour. IH 10 is an example of this classification within Columbus, Texas.

Arterial roads consist of freeways and highways (that are not classified as Interstates) and mainly connect cities and other urbanized areas. Arterial roads tend to have a speed limit between 50 and 70 miles per hour. SH 71 is a minor arterial road connecting Columbus to the town of El Campo to the south.

Collector roads connect arterial streets with local roads, with less mobility and lower speeds than arterials. Collector roads typically have a speed limit between 35 and 55 miles per hour. FM 806 is a minor collector in Columbus.

Local roads offer limited mobility with high levels of access to residences and businesses.[4] Local roads have speed limits between 20 and 45 miles per hour. Travis Street is an example of a local road in Columbus.

Figure 4 shows a comparison of types of road functional classification within the City of Columbus.

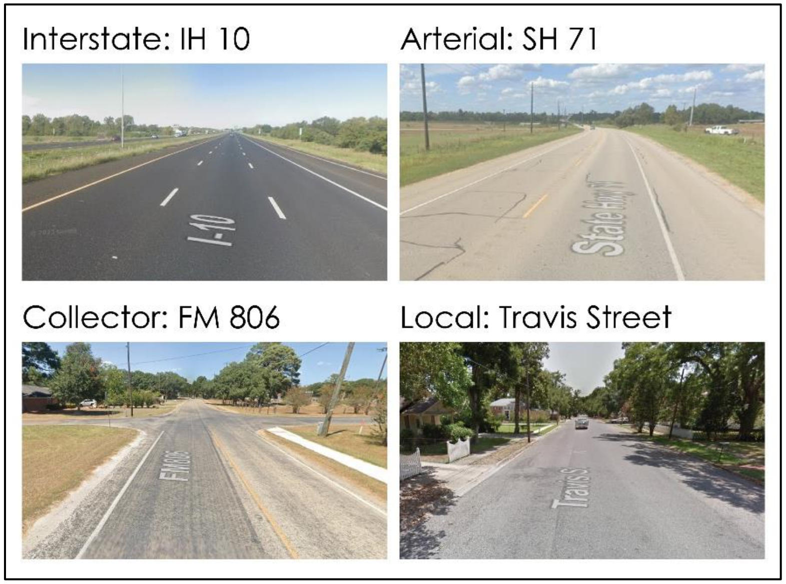


Figure 4: Functional Classification of Roads Examples in Columbus, Texas [5]

[4] U. S. Department of Transportation, 2000
[5] Google. (2024, Febraury 17). Google Maps. Retrieved from Google Maps: https://www.google.com/maps/@29.7105815,-96.5393119,3a,75y,162.17h,70.99t/data=!3m6!1e1!3m4!1slfBVHazDe0Yfho6lrcdRqw!2e0!7i13312!8i6656?entry=tt

Sidewalks and Bike Infrastructure

Figure 7 shows the existing locations of sidewalks in Columbus. The city faces various concerns at intersections and streets illustrating the deficiencies in pedestrian and cyclist infrastructure. These issues vary from the absence of sidewalks, crosswalks, and inadequate lighting affecting safety and accessibility. For instance, Montezuma Street lacks sidewalks and bike lanes; it has under-maintained sidewalks along the Cardinal Basketball Field. There is concern about speeding and failing to yield, extending the risk to pedestrians and cyclists. Most local roads in the city lack sidewalks, proper signage, and protected bicycle lanes. Appendix A is a sidewalk and pedestrian conditions survey that was completed by a Columbus High School Student as they walked around the city. It is a more detailed description of what pedestrians currently experience in Columbus.

The photos in Figures 5 and 6 were taken during the January 30, 2024 site visit which is detailed in the Planning Process section. Figure 5 shows the lack of pedestrian infrastructure or signage at the busiest intersections in Columbus, Fannin Street (SH 71), and Walnut Street (US 90). The photo in Figure 6 was taken from inside a community member's vehicle and shows a woman walking with a stroller on the side of Montezuma Street, which connects downtown to the high school and a residential area.

Figure 5: Intersection of Fannin Street and Walnut Street

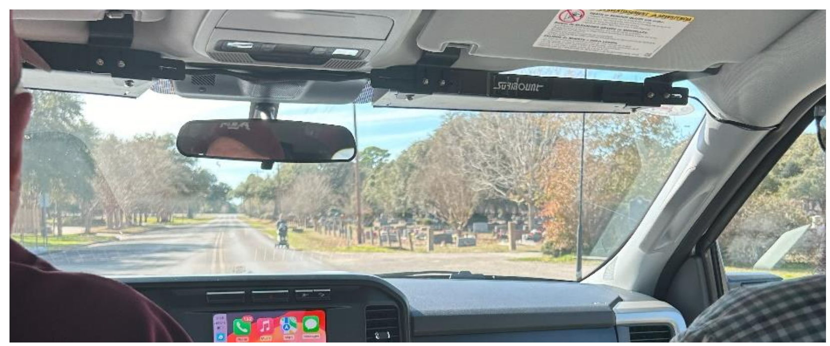


Figure 6: Woman Pushing Stroller on the Side of the Road on Montezuma Street

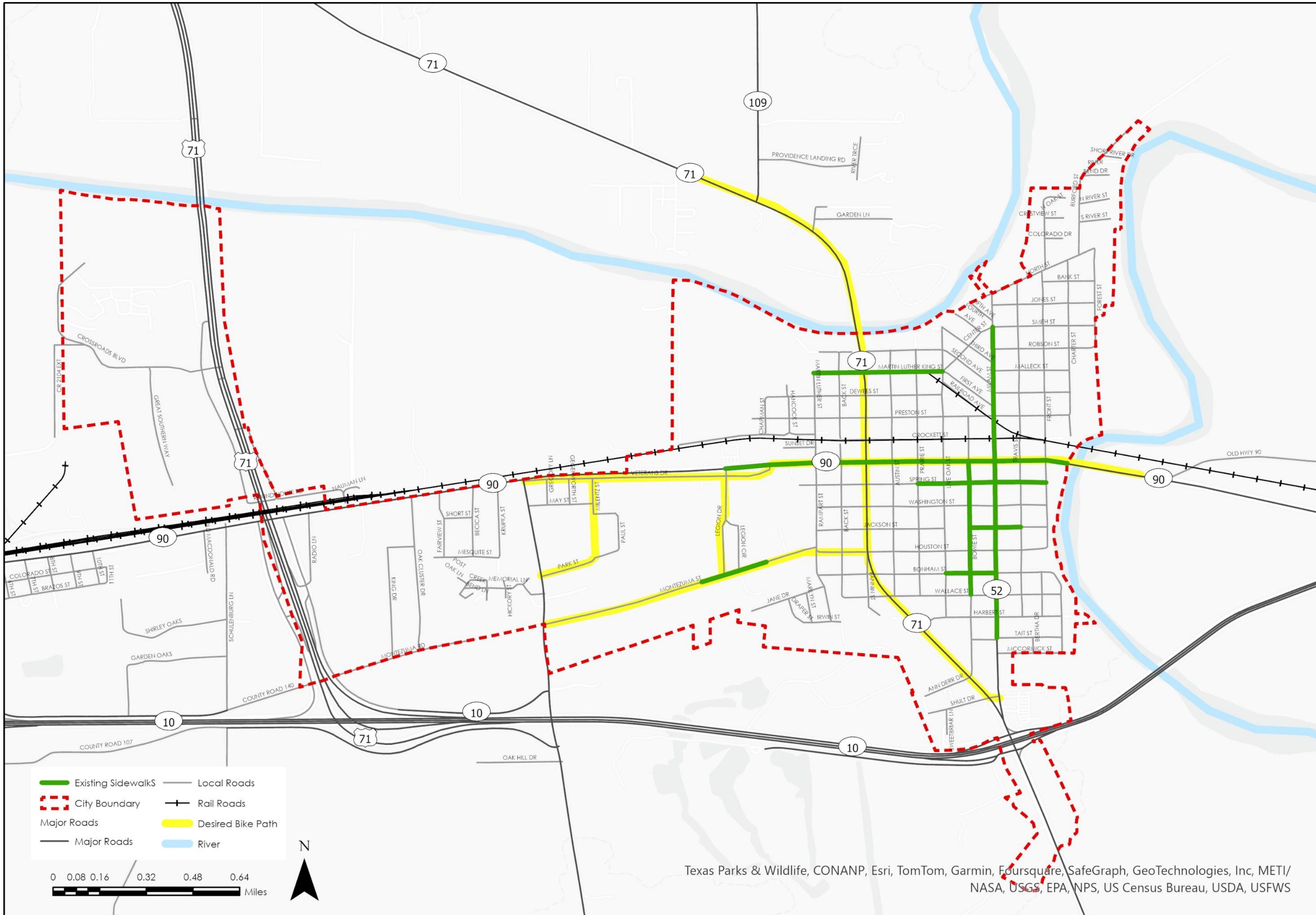


Figure 7: Map Showing Existing Sidewalks

Annual Average Daily Traffic

The Annual Average Daily Traffic (AADT) is a metric of the average daily traffic over a year. It is often used in planning and forecasting[6]. Figure 8 displays the AADT of various locations in the City of Columbus for the year 2022. The source of the traffic count data is the TxDOT Traffic Count Database System. From Map 4, the feeder road connecting to IH 10, is located near the bottom left edge of Columbus away from the city's center and has the highest observed AADT. The second intersection with higher AADTs is Fannin St and IH 10. In the core of Columbus, the maximum AADT is observed at the intersection of Fannin St and Walnut St (US 90), which extends beyond the city limits as US 90. Table 1 shows the trend of AADT in the City of Columbus over the last 5 years based on the available data from the Traffic Count Database System (TCDS)[7].

Table 1: AADT Trend of the City of Columbus, Texas

Functional Classification	Road Name	AADT					Growth in last 5 years
		2022	2021	2020	2019	2018	
Major Collector	Walnut St	7,223	8,371	7,355	8,431	7,115	2%
Major Collector	Fannin St	8,549	8,999	7,712	7,568	7,380	16%
Major Collector	Milam St	4,023	4,124	3,915	4,187	2,846	41%
Minor Collector	Cardinal Ln	1,054	1,365	1,264	1,473	1,473	-28%
Principal Arterial	Feeder Rd	14,281	15,933	9,366	11,707	11,707	22%
Minor Arterial	SH71	7,500	9,064	7,649	6,824	7,228	4%

[6] Transportation Research Board. (2010). HCM 2010: Highway Capacity Manual. Washington, D.C.

[7] Texas Department of Transportation. (2017, November 9). Traffic Count Database System (TCDS). MS2. Retrieved April 27, 2024, from https://txdot.public.ms2soft.com/tcds/tsearch.asp?loc=Txdot&mod=TCDS

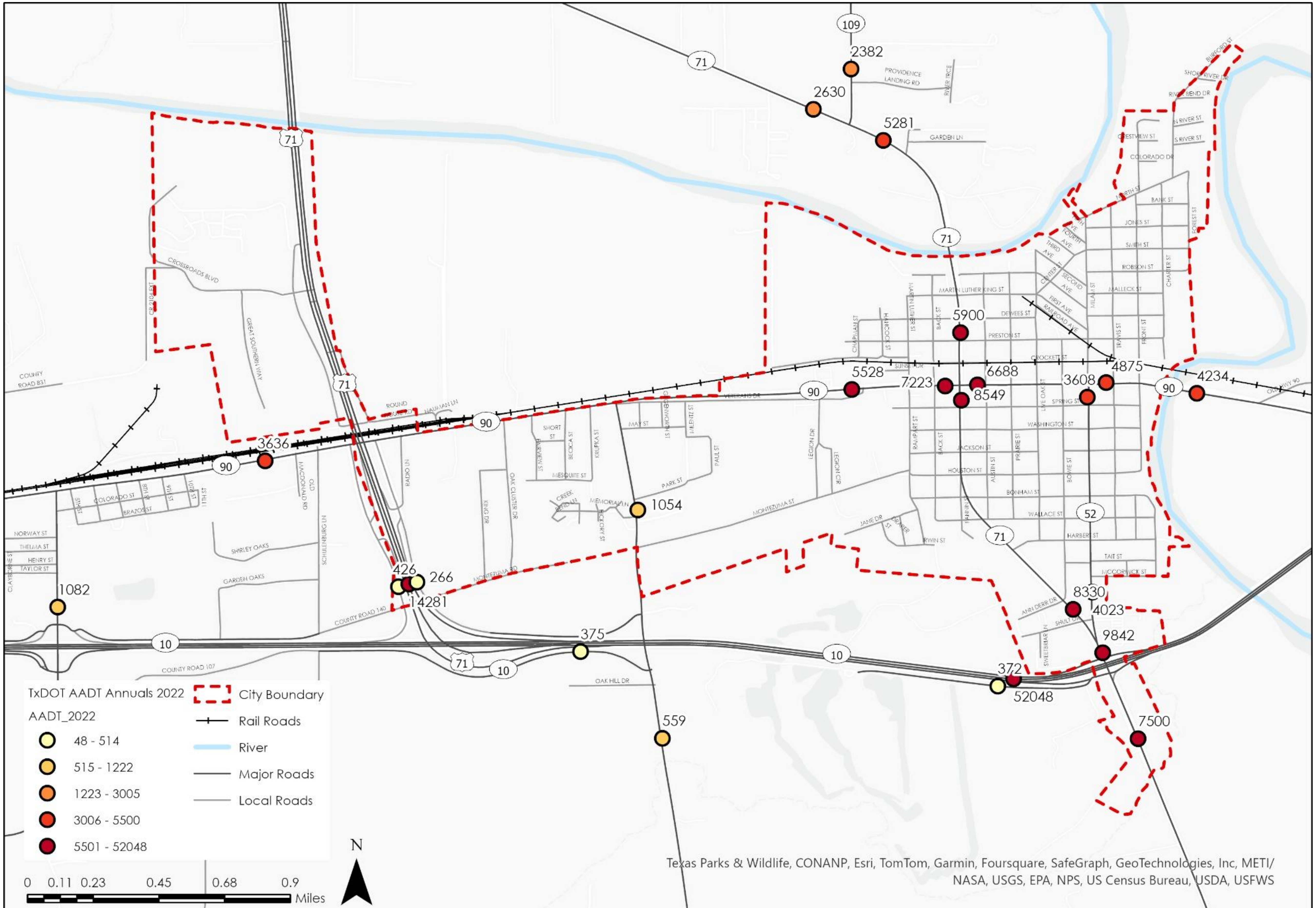


Figure 8: Annual Average Traffic Count

CAR OWNERSHIP

Vehicle ownership is prevalent in Columbus, in line with state and national trends. Approximately 90.2% of households have access to at least one vehicle, and 62.5% have access to two or more. Table 2 has the percentages of households per number of vehicles available.

Table 2: Number of households per number of vehicles

Number of vehicles per household	Number of households	Percentage
No vehicle available	140	9.7%
1 vehicle available	401	27.7%
2 vehicles available	753	52.2%
3 vehicles available	88	6.1%
4 or more vehicles available	61	4.2%
Total	**1443**	

In line with the data in Table 1, most commuters in Columbus drive to work, and nearly all drive alone. The next highest is walking, but none reports biking. Figure 9 compares the percentage of reported commute modes.

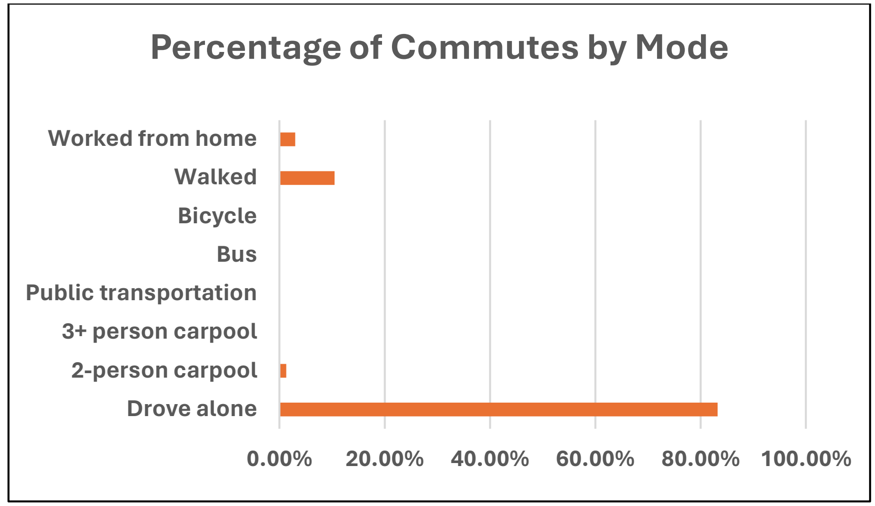


Figure 9: Percentage of Commutes by Mode in Columbus, Texas in 2022[8]

[8] U.S. Census Bureau. (2022). Household Size by Vehicles Available. American Community Survey, ACS 5-Year Estimates Detailed Tables, Table B08201. Retrieved March 20, 2024, from https://data.census.gov/table/ACSDT5Y2022.B08201?t=Transportation&g=160XX00US4816168.

CRASH ANALYSIS

Figure 10 shows the summary of crash locations by street in Columbus for 2023. The heat map, shown in Figure 11, identifies the crash locations and their frequencies. The source of the crash frequency used to prepare this heat map is the TxDOT Crash Records Information System (CRIS) Query tool. The largest number of crashes (equal to 19) was observed at US90 and SH71. Fourteen crashes were observed on BS71. There were only two or three crashes at each of the local roads of Dewees St., Center St., Bowie St., and Bonham St.

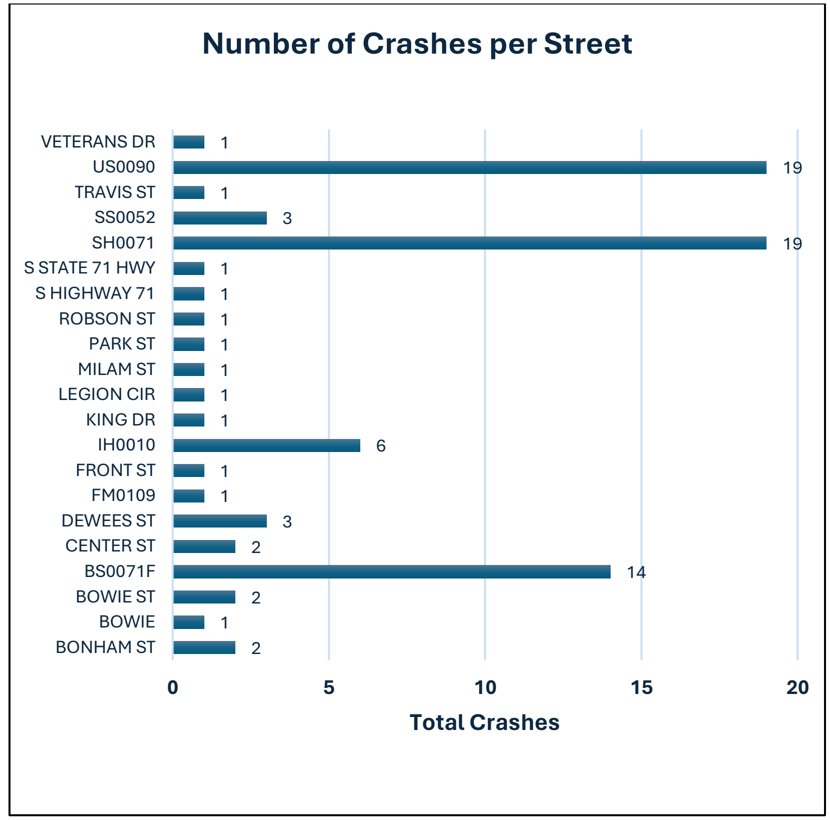


Figure 10: Number of Crashes Per Street in Columbus, Texas in 2023

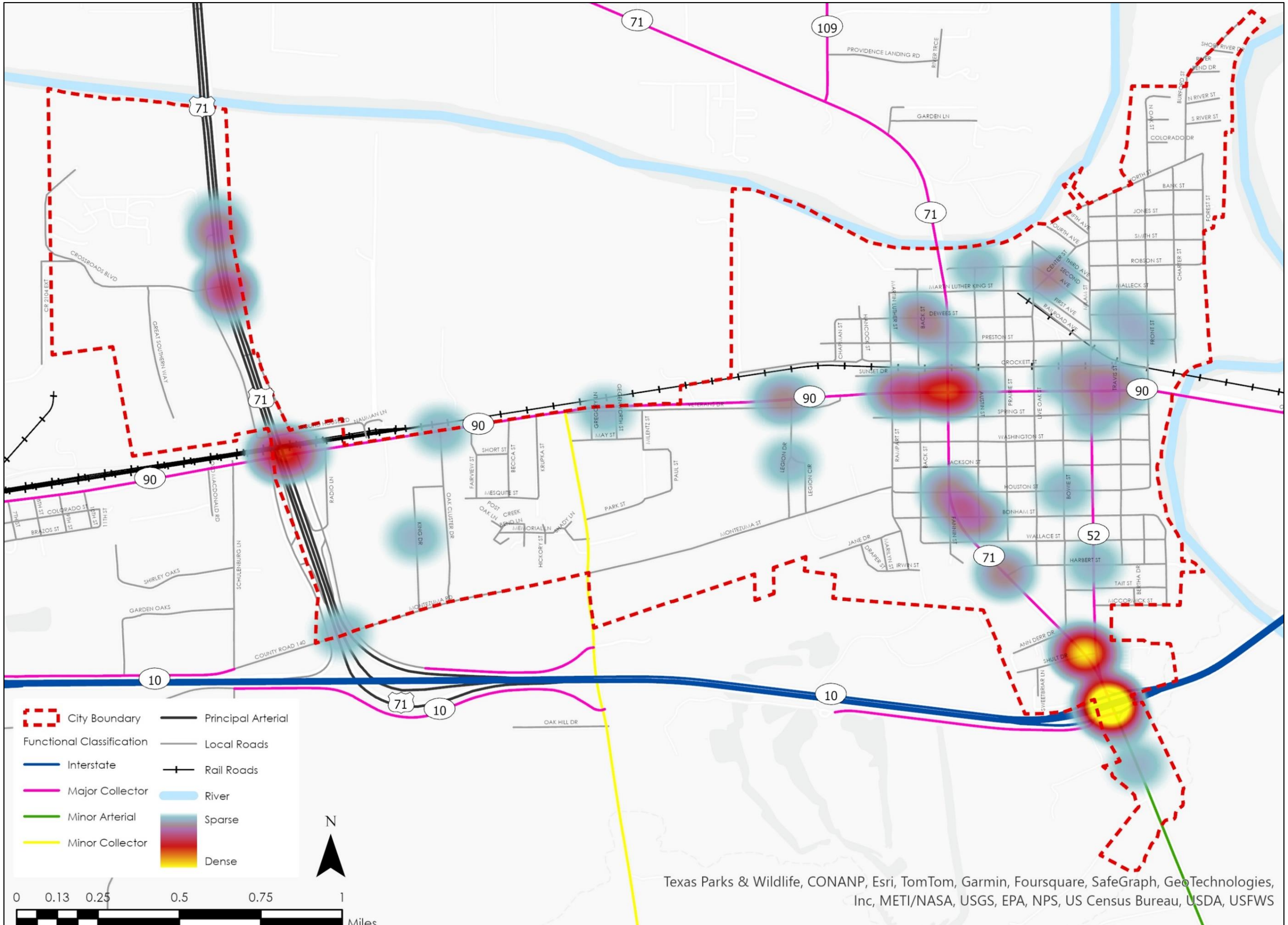


Figure 11: Crash Density

TxDOT Projects

Numerous upcoming projects within the City of Columbus are set to be undertaken by TxDOT in 2024, shown in Figure 12. The most immediate ones include:

- Replacing bridges and approaches at West Sandy Creek, Bucksnag Creek, Colorado River Relief 1, 2, and 3, Church Creek, and Sandy Creek.
- Regular maintenance such as seal coats on multiple roads including (but not limited to) FM 102, SH-71, FM 189, and FM 2764.
- IH 10 realignment, widening, frontage conversion, and interchange reconfiguration.
- Adding sidewalks and curb ramps to Martin Luther King Street from Rampart Street to Prairie Street

IH 10 Project

IH 10 goes east-west along the southern side of Columbus. Colorado County falls within the Yoakum district of TxDOT, for which there is a realignment and widening project set to begin in May 2024. In this project, IH 10 will be widened from four lanes to six lanes, with three 12-foot lanes in each direction (Texas Department of Transportation, n.d.). Additionally, there will be a new alignment at the Colorado Bridge, and the two-lane, two-way frontage roads will be converted to two-lane one-way frontage roads (Texas Department of Transportation, n.d.). Figure 13 shows the full right of way (ROW) for the project.

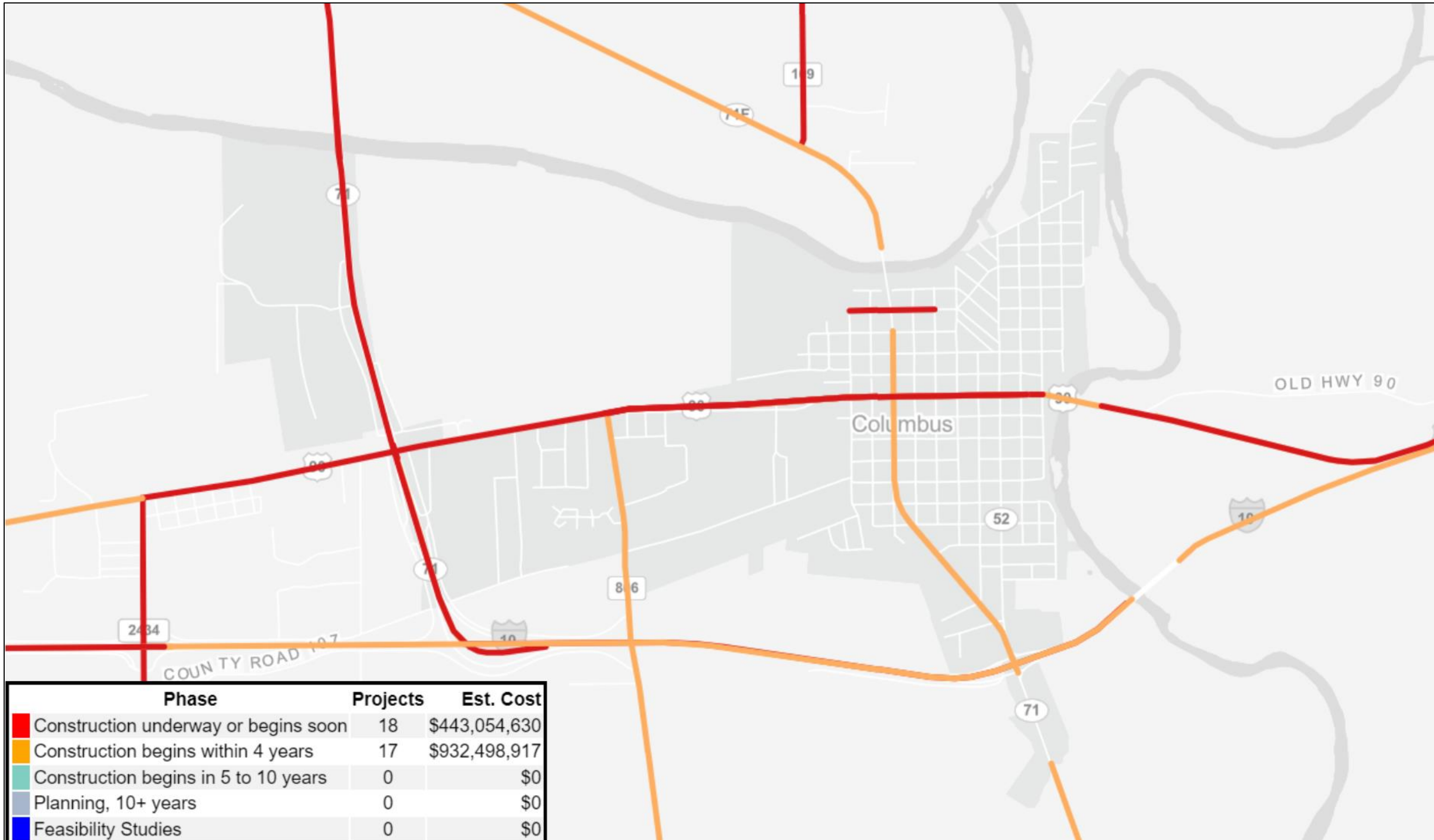


Figure 12: Project Tracker of TxDOT Projects within Columbus, Texas[9]

[9] Texas Department of Transportation. (n.d.). TxDOT - Project Tracker. Retrieved April 27, 2024, from https://apps3.txdot.gov/apps-cq/project_tracker/

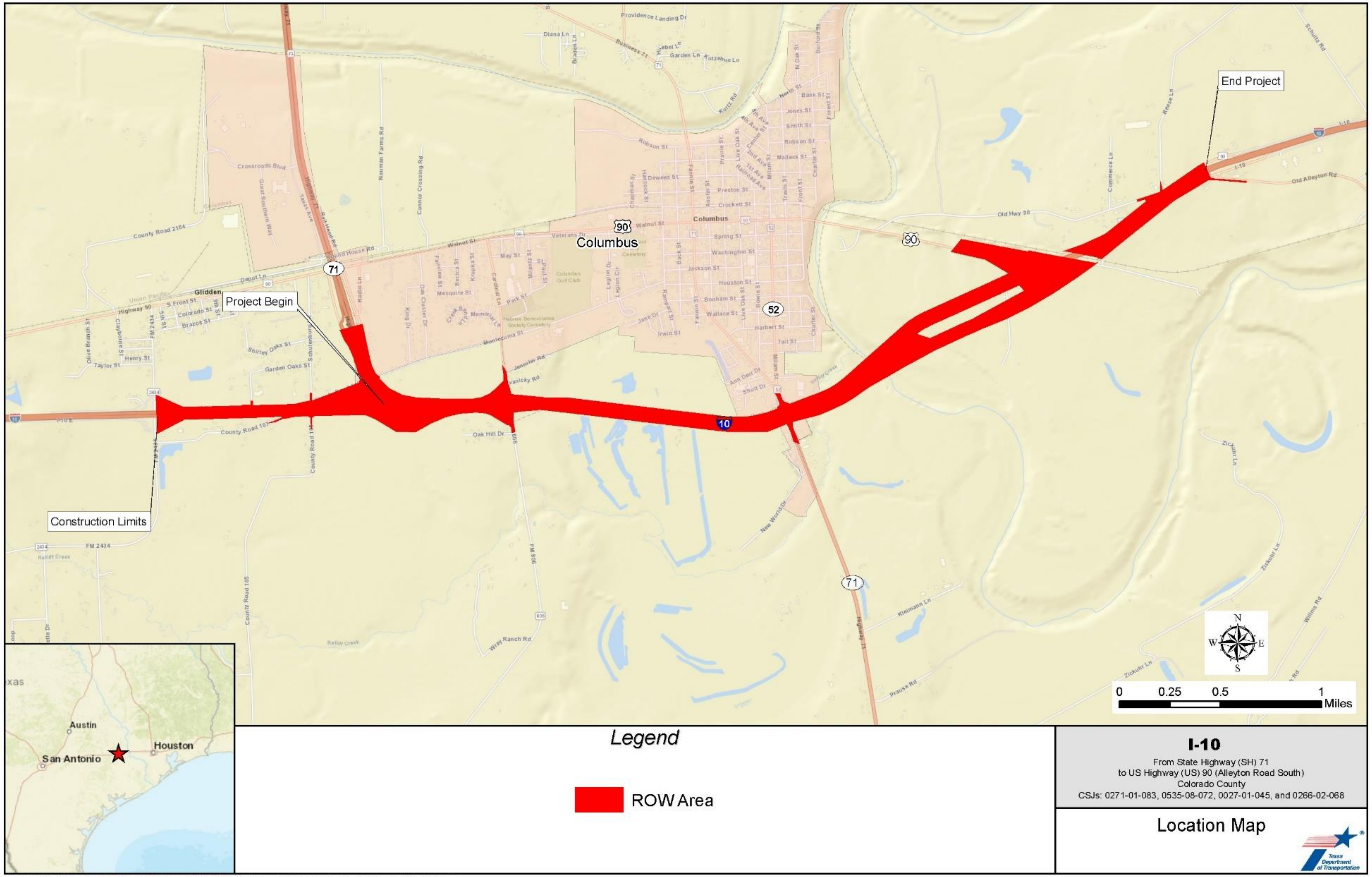
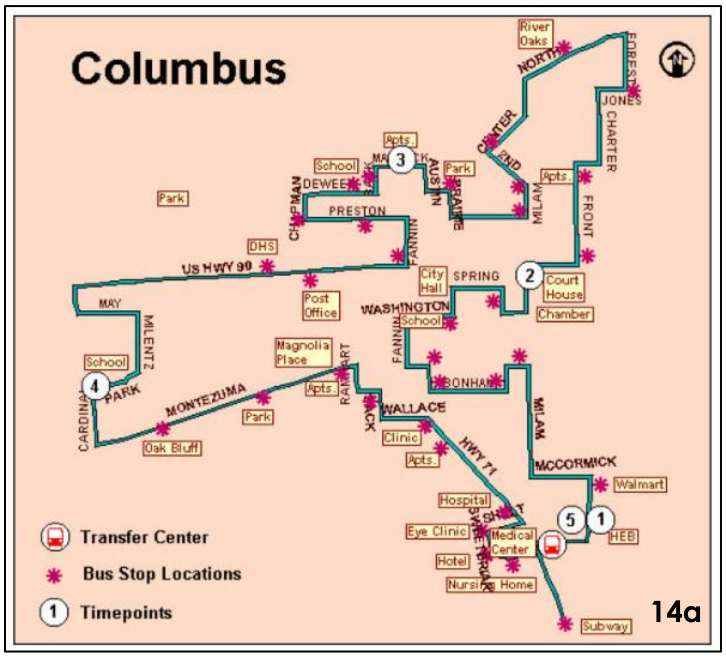


Figure 13: Yoakum District Right of Way (ROW) for IH 10 from FM 2434 to US 90 (Alleyton Road South)[10]

[10] Texas Department of Transportation, n.d.

PUBLIC TRANSPORTATION

Colorado Valley Transit provides service to Columbus via demand-response service as well as deviated-route service. The demand-response service provides door-to-door and curb-to-curb transportation and requires a reservation at least 24 hours in advance (Colorado Valley Transit District, n.d.). The deviated-route service provides transit across Columbus to various destinations such as the Columbus courthouse, H-E-B, Walmart, and the medical center, as shown in Figure 14a-b.



COLUMBUS LOOP				Weekday
1	2	3	4	5
HEB	Milam St Courth'se	Riverside Apts	Park St High Sch.	HEB
7:00	7:15	7:30	7:45	8:00
8:00	8:15	8:30	8:45	9:00
9:00	9:15	9:30	9:45	10:00
10:00	10:15	10:30	10:45	11:00
11:00	11:15	11:30	11:45	12:00
12:00	12:15	12:30	12:45	13:00
13:00	13:15	13:30	13:45	14:00
14:00	14:15	14:30	14:45	15:00
15:00	15:15	15:30	15:45	16:00
16:00	16:15	16:30	16:45	17:00
17:00	17:15	17:30	17:45	18:00

14b

Figure 14a-b: Colorado Valley Transit Bus Route, Stops, and Timetable, Clipped from Columbus, Texas Brochure[11]

[11] Colorado Valley Transit. (2024). Bus Routes and Schedules. Retrieved from Colorado Valley Transit: https://gotransit.org/shooperwingfieldenvisiondesignnet

Freight

Columbus is where the north-south route of SH 71 and the east-west route of IH 10 intersect. SH 71 connects the City of Austin south to IH 10. IH 10 is a major interstate highway that spans the southern United States from California to Florida, with approximately 880 miles in Texas. The segment that includes Colorado County saw 18.81 million daily commercial truck vehicle miles traveled (VMT) in 2019.[12] In Texas, it connects to multiple commercial and public ports, both land and sea, in Houston and along the border with Mexico.

Rail

Within Columbus, there is one rail track, operated by Union Pacific, it runs primarily along SH 90 in town and then Crockett Street and crosses the Colorado River at the eastern edge of town. The line primarily connects San Antonio and Houston along IH 10. The Texas Crossroads Business Park has a private line that spurs on the western edge of town and runs south to the park. There are ten rail crossings on the Crockett Street aligned section, adjacent to both Downtown and residential neighborhoods.

Airport

The airport that is associated with Columbus is the Robert R Wells Jr Airport (K66R), shown in Figure 15. It is an unmanned airstrip that is located south of IH 10 off SH 71. It is primarily intended for small personal aircraft. Houston Intercontinental Airport is the closest airport that serves commercial flights.

Figure 15: Robert R. Wells Jr. Airport (K66R)[13]

[12] Texas Department of Transportation. (2023, March). Texas Delivers 2050. https://ftp.txdot.gov/pub/txdot/move-texas-freight/resources/texas-delivers-2050.pdf

[13] Global Air. (2017, November 9). ROBERT R WELLS JR AIRPORT (K66R). Global Air. Retrieved April 27, 2024, from https://www.globalair.com/airport/robert-r-wells-jr-66r.aspx

Planning Process

Transportation Plan Request

The City of Columbus previously partnered with TxTC as part of a city beautification and design process that focused on landscaping and site-level designs. This effort was focused along the major corridors of SH 71 and US 90, as well as downtown. In 2022, the City and Colorado County requested that TxTC organize a transportation plan that would help to address issues in and around the city and county. Texas Target Communities recruited the Applied Transportation course (PLAN 678) to facilitate community outreach and create transportation plans that address existing conditions and community concerns.

Community Feedback

Columbus Taskforce Meeting

On January 30, 2024, a task force meeting was held to connect with community stakeholders for both Columbus and Colorado County. Participants were asked to identify areas of interest and concern that they wanted to be included for consideration in the plan. Figures 16 and 17 show images of the maps that include comments and dots that indicate the type of structure or issue at a specific location. Figure 18 compiles these comments, which are detailed in Table 2.

In the second half of the meeting, students were escorted around the city by community members and taken to areas to witness and contextualize the issues discussed during the map portion of the meeting.

Themes of Community Feedback

During the meeting, multiple themes were identified as being the most pressing concerns for Columbus's transportation infrastructure. They are summarized here.

Lack of Pedestrian Infrastructure

A major concern that came up repeatedly during the meeting was the lack of sidewalks on most of the roads in the city. There are plans to add new sidewalks along Montezuma Street and Martin Luther King Street, but they are still in the planning stage. Additional streets like Milam Street and Legion Drive were identified as being ideal for sidewalks. There are also limited crosswalks and pedestrian lighting.

There are no bike lanes currently in the city of Columbus.

Road Safety Concerns

Along with the lack of pedestrian crossings, multiple intersections are notorious for vehicle collisions, such as the intersection of SH 71 and US 90, and the intersection in front of the Walmart and H-E-B. This area, also near the medical area, is notorious for pedestrians across multiple lanes of traffic to get from the restaurants on the eastern side of the road to the Walmart parking lot.

Additionally, multiple railroad crossings are between most of the residential areas in town and the commercial areas in and around downtown that are hazardous for vehicles and pedestrians.

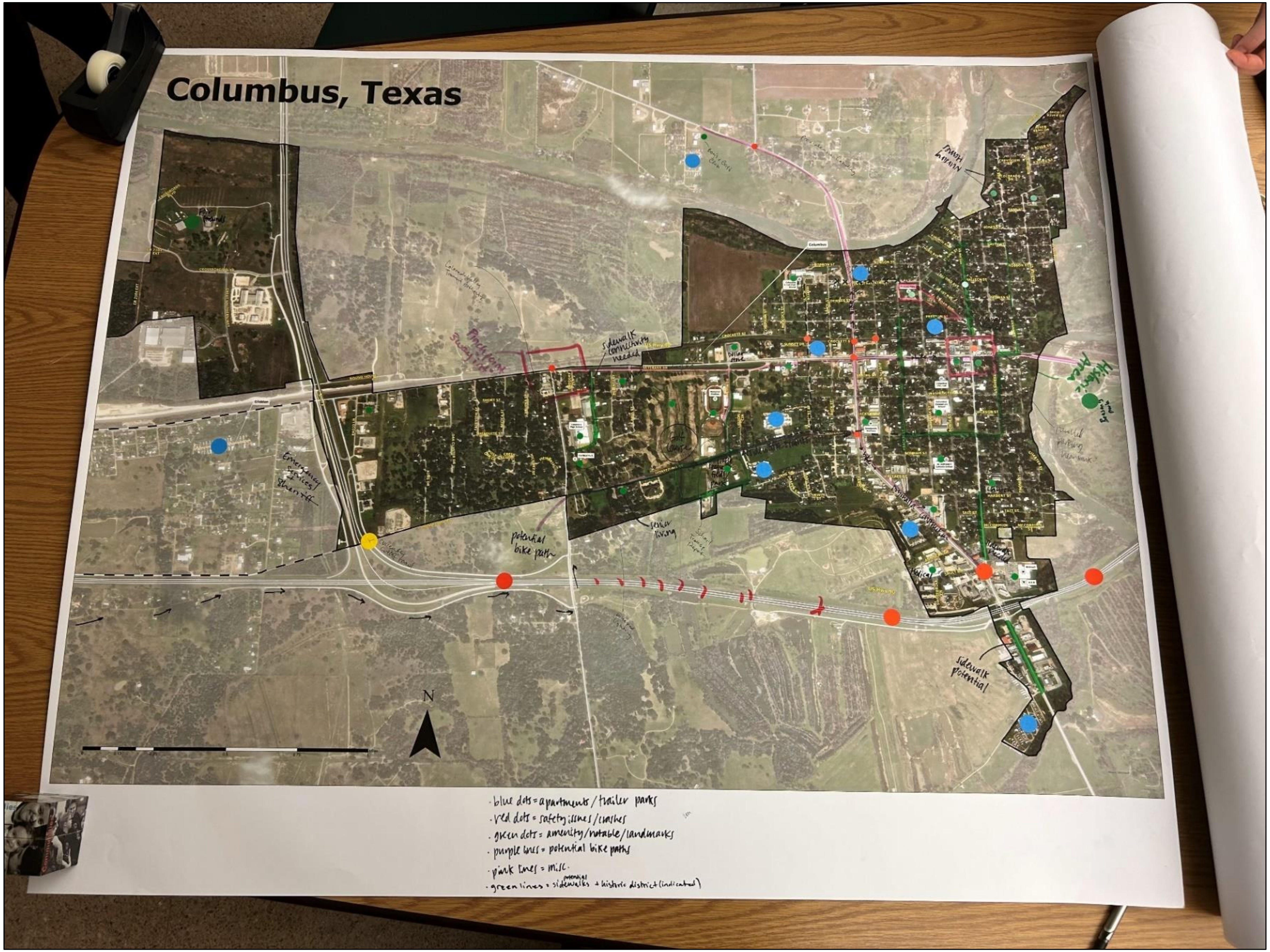


Figure 16: Public Feedback from the January 30th Meeting, 2024 , Map 1

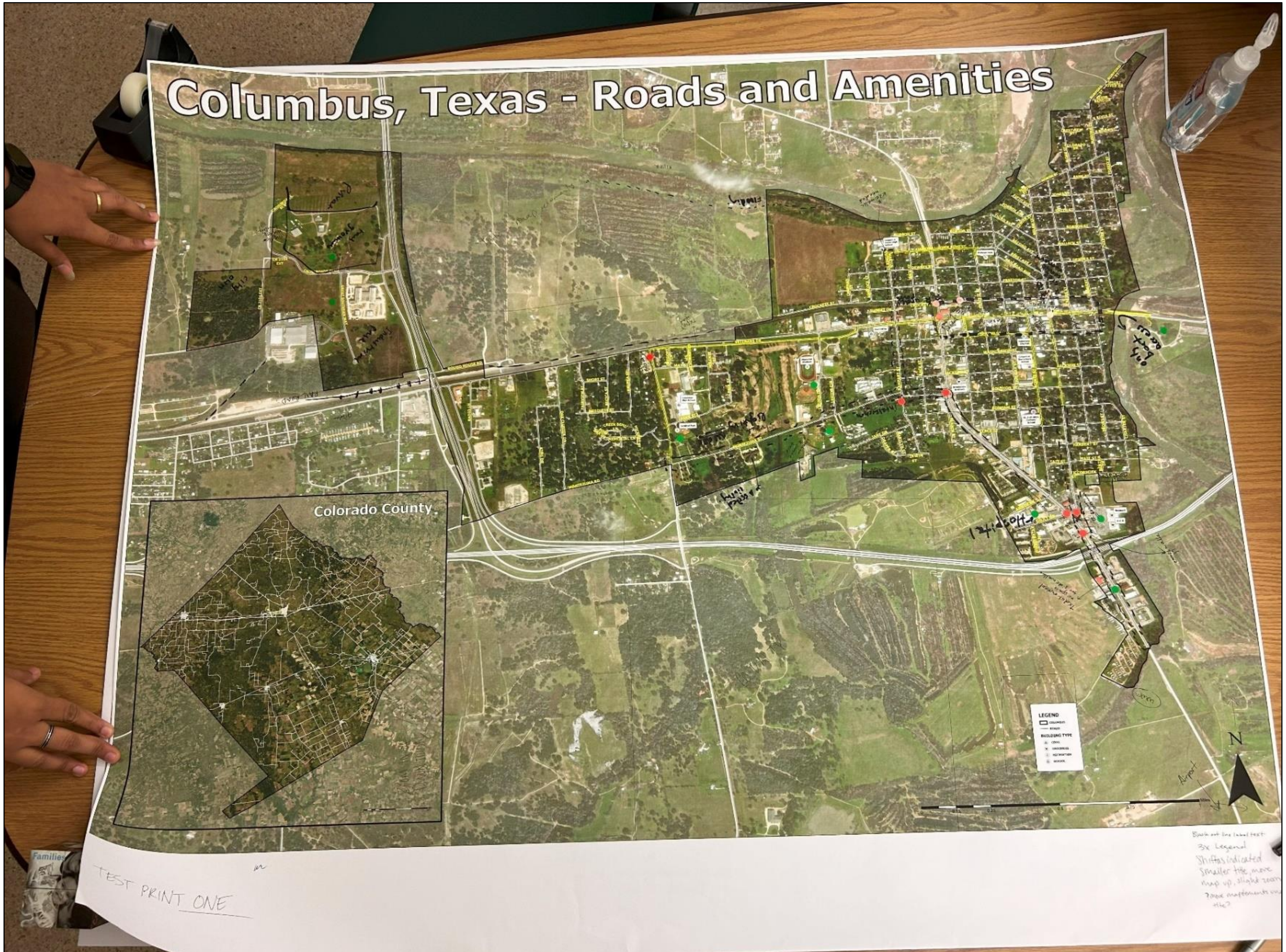


Figure 17: Public Feedback from the January 30th Meeting, 2024 , Map 2

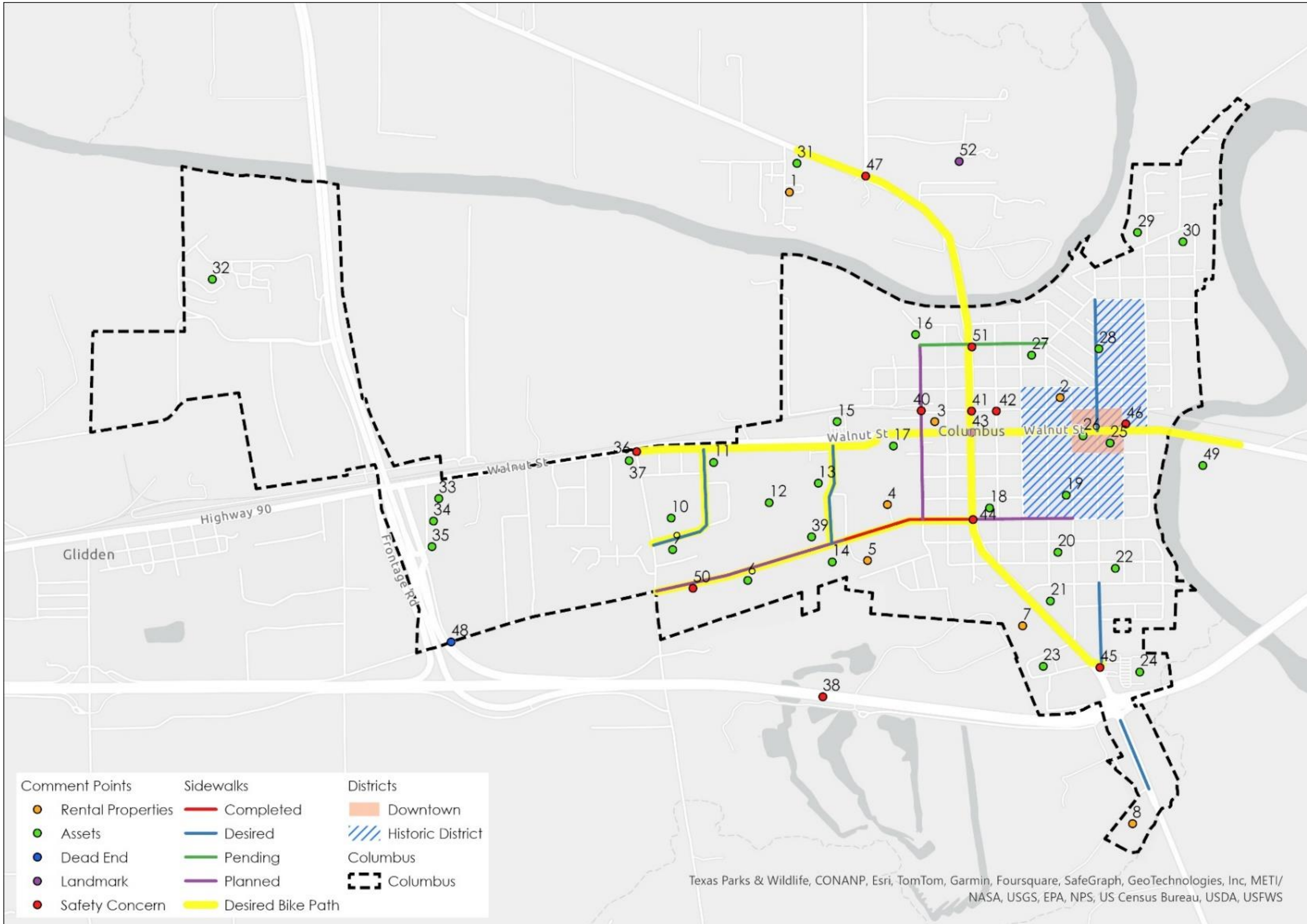


Figure 18: Map Showing Community Feedback and Comment Points

Table 2: Community Comments by Category

#	NAME OR COMMENT	CATEGORY
1	Lazy RV and Mobile Home Park	Asset
2	Apartments on Preston	Asset
3	Apartments on Crockett Street	Asset
4	Magnolia Place	Asset
5	Apartments on Montezuma Street	Asset
6	TruCare Living Centers Columbus	Asset
7	Columbus Arms, LTD	Asset
8	Columbus RV Park and Campground	Asset
9	Cardinal Park	Asset
10	Columbus High School	Asset
11	St Paul Lutheran Church	Asset
12	Columbus Golf Course	Asset
13	Memorial Stadium	Asset
14	Columbus Little League Field	Asset
15	Dollar General	Asset
16	Columbus Junior High School	Asset
17	Columbus Post Office	Asset
18	Brookshire Brothers	Asset
19	Columbus Elementary School	Asset
20	St Anthony's Catholic School	Asset
21	Drymalla Construction Company	Asset
22	First Baptist Church	Asset
23	Medical District	Asset
24	HEB and Walmart	Asset
25	Colorado County Courthouse	Asset

26	Commercial Area	Asset
27	Midtown Park	Asset
28	Historical Home	Asset
29	Columbus Oaks Health Care	Asset
30	Columbus Oaks Assisted Living	Asset
31	Boys and Girl Club	Asset
32	Colorado County Fairgrounds	Asset
33	Colorado County Sheriff's Office	Asset
34	Colorado County EMS	Asset
35	KULM Radio Station	Asset
36	I-90 and Veterans Drive pinch point	Safety Concern
37	Colorado County Transit	Asset
38	I-10 Traffic and Crashes	Safety Concern
39	School Bus Depot	Safety Concern

40	Crockett and Rampart Railroad Crossing	Safety Concern
41	Crocket and SH-71 Railroad Crossing	Safety Concern
42	Crocket and Austin Railroad Crossing	Safety Concern
43	I-90 and SH-71 Intersection	Safety Concern
44	Houston and SH-71 Intersection	Safety Concern
45	Shult, Milam, and SH-71 Intersection	Safety Concern
46	I-90 and Milam Intersection	Safety Concern
47	SH-71 and FM 109 Intersection	Safety Concern
48	Montezuma and Columbus Loop	Dead End
49	Beason's Park	Asset
50	Lighting Concern	Safety Concern
51	Lighting Concern	Safety Concern
52	Providence Landing	Asset

Virtual Public Meeting

On March 5, 2024, a virtual public meeting was held to present preliminary findings to stakeholders who were representing both the City of Columbus as well as Colorado County. Students from two separate groups, one discussing Colorado County and one discussing the City of Columbus, presented to community members.

Students provided an overview of existing conditions within the study area, previous community feedback, goals, objectives, and recommendations. Time was provided at the end of the meeting for discussion and questions from attendees. Comments from community members are summarized in Table 3.

Table 3: Comments from Respective Groups

Comment	Corresponding Group
Our trees that are in the middle of the street are our traffic control	City of Columbus
US 90 and Veterans Drive is where brand new drivers from the high school are coming onto the roadway; prime place to put a speed bump or block it off with a barricade	City of Columbus
Overgrowth of trees and bushes is an issue	City of Columbus
In downtown behind Columbus State Bank and probation office, there is a side street with angled parking, and cars pulling out of the street have visibility issues	City of Columbus
What measures need to be put into place for safe access across the railroad at Rampart Street / what involvement would Union Pacific have?	City of Columbus
Is there focus being put on the Columbus ISD complex and the dangers of walking in that area	City of Columbus
Is it possible to prioritize the areas and plans?	City of Columbus, Colorado County
Making the Colorado Valley Transit website reflect accurate information would be helpful	City of Columbus, Colorado County
In general, Colorado Valley Transit hours are different than on the website, routes are wrong, and on-demand service is rarely on time	City of Columbus, Colorado County
Colorado Valley Transit: Not enough drivers, low pay	City of Columbus, Colorado County

Final Presentation

On April 23, 2024, a final public meeting was held to present a draft of the plan and get feedback for the final draft of the plan. Community members present had the opportunity to ask for clarification on plan components and update the team on recent projects that were underway or had been completed.

Additional Feedback

In a study being performed by students at the Texas A&M Center for Community Health Development, residents provided feedback that the Colorado Valley Transit buses rarely arrive on time, which often makes it difficult to rely on the transit service for appointments, grocery trips, and other time-sensitive engagements.

Recommendations

Goal 1 – Create a Reliable and efficient system

Safe and reliable infrastructure is a priority for any transportation infrastructure. This is accomplished through regular maintenance and inspection to ensure that the quality of the road is at or above standard, and to mitigate damage that is caused by daily wear and tear. The system should also be suited to handle the demands that are placed on it by the traffic load, and other spatial considerations, such as adequate parking.

Maintenance Schedule

Maintenance is an important part of managing road infrastructure. A thorough pavement maintenance schedule is critical in responding to the changing problems of urban growth. A proposed schedule would protect infrastructure integrity, promote cost-effectiveness, improve traffic flow, enhance pavement durability, improve vehicle safety, and adhere to sustainable practices. Coordinated initiatives can ensure the transportation network's long-term resilience, efficiency, and sustainability while promoting a dynamic and accessible metropolitan environment for all residents and visitors.

Public meetings highlighted that citizens of the City of Columbus are very concerned about raising the efficacy of transportation infrastructure, which includes roads and sidewalks. As a result, the implementation of regular maintenance schedules was proposed to ensure the best condition of municipal assets.

To assist with maintenance, the City of Columbus, Texas, may form a roadway management committee. This committee would be the leading agency in charge of overseeing maintenance and enhancements to road surfaces. Through community outreach activities, the city may select qualified individuals to serve on this committee, guaranteeing participation from various stakeholders. The committee's tasks involve managing road surface repairs, looking into funding for road construction projects, and enabling public participation in roadway-related matters. The city would develop standards and criteria for committee membership and operation to codify its purpose and scope. The community could share information and offer input through regular meetings and channels of communication.

The committee can undertake an annual road study to enhance infrastructure evaluations and optimize maintenance schedules to reduce road construction time. This entails using a Pavement Condition Number (PCN) scale from 0 to 100, which corresponds to precise pavement evaluations such as Excellent (85-100), Very Good (80-84), Good (70-79), Fair (60-69), Poor (40-59), and Very Poor (10-39). This scale correctly depicts the road's current state by combining visual assessments and data analysis.[14]

The city's pavement management system must incorporate the following actions in its strategy.

- An inventory of every roadway segment (block by block), including length, breadth, pavement type, surface condition, traffic volumes, and road functional classification. An example of roadway inventory is shown in Table 4.
- The pavement condition must be evaluated every three years for arterial roadways and five years for residential streets.
- To measure traffic volume, traffic counts are required, as well as a visual assessment that considers elements such as dimensions, general traffic volumes, and nearby land uses, which aid in determining repair priorities.

This strategy categorizes roadways for maintenance or upgrade operations, ensuring that resources are allocated efficiently across the network. Furthermore, integrating roadway dimensions, functional categorization, and surface material in the evaluation offers further information about priority scores.

Pavements should be classified according to their state, with a basic classification depending on how they will be maintained. [15]The first group should include pavements that are in good, very good, or exceptional overall condition. These pavements may require minor repairs and preventative maintenance, but they should only require a little work in the next five years. The second category should include roads in fair or average condition, which might need further maintenance but still have usable life left. Options such as asphalt overlay, or resurfacing may increase the pavement's lifespan before significant reconstruction is required. Finally, the third type includes pavements that are in a poor, failing, or failed state, which may no longer be useful and will most likely require road reconstruction for repair.

Table 4: Example of Roadway Inventory

Road Name	Length	Width	Road Classification	Surface Condition	Lane Configuration	Traffic Volume	Maintenance History	Grid Reference
Bryan Rd	2 miles	30 ft	Principal Arterial	Asphalt	3U	20,000	Resurfaced, 2 years back	3B

[14] City of Columbus. (n.d.). How the City Selects Streets for Resurfacing. Retrieved from Columbus.gov: https://www.columbus.gov/publicservice/streets/Street-Selection-for-Resurfacing/s

[15]Kaiser, T. (2019, January 17). Steps to Developing a Five-Year Pavement Management Plan. Retrieved from Benchmark Inc: https:/www.benchmark-inc.com/resources/results/2019/01/17/steps-to-developing-a-five-year-pavement-management-plan

Once sites have been inspected and assessed, pavements are classified according to their condition to decide how they will be treated. This typically involves categorizing them into one of these three categories:

"Preventive Maintenance" is aimed at improving or extending the useful life of a pavement. Surface treatments and activities prevent the progression of defects and reduce the requirement for frequent maintenance and repair. Preventive maintenance treatments are used on pavements that are in good, very good, or exceptional overall condition. These treatments include crack sealing, chip sealing, rut filling, and thinner overlays.[16]

"Corrective Maintenance" is used when a road defect arises, such as lack of friction, mild to severe rutting, or widespread cracking. It is often called "reactive" maintenance and includes tasks such as structural overlays, milling and overlays, pothole fixes, patching, and crack repair. Corrective maintenance is far more reactive and expensive than preventative maintenance.[17]

"Emergency Maintenance" is executed in response to critical circumstances, such as blowouts or major potholes, that require quick repair for safety or to allow traffic to utilize the route. These treatments aim to temporarily glue the surface until more comprehensive rehabilitation or restoration can be completed.[18]

Figure 19 depicts a standard asphalt pavement deterioration curve, emphasizing the need for early preventative maintenance and rehabilitation actions to extend the pavement's lifespan.

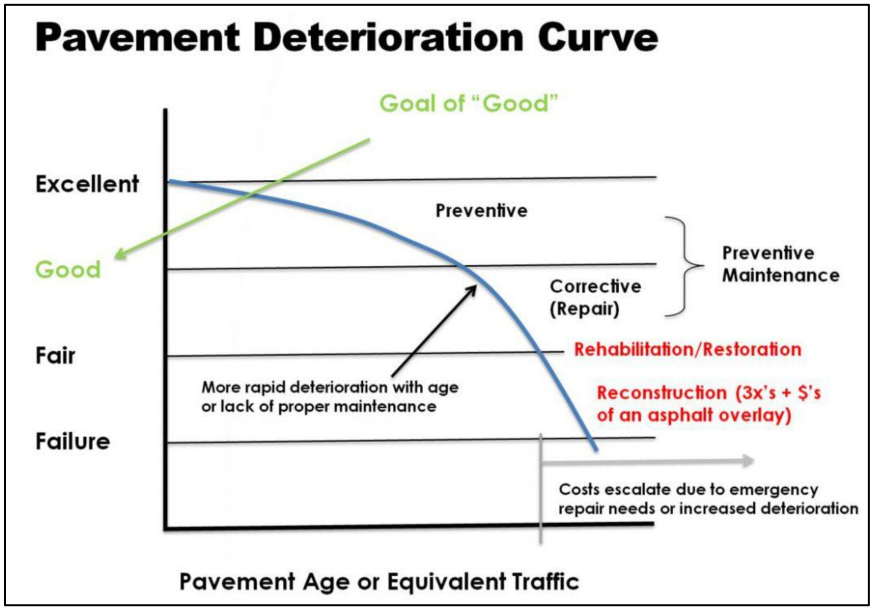


Figure 19: Pavement Deterioration Curve[19]

[16]Allen, B. W. (2023). A Guide to Incorporating Maintenance Costs into a Transportation Asset Management Plan. Washington D.C.: Transportation Research Board.
[17] Allen, B. W. (2023). A Guide to Incorporating Maintenance Costs into a Transportation Asset Management Plan. Washington D.C.: Transportation Research Board.
[18] Allen, B. W. (2023). A Guide to Incorporating Maintenance Costs into a Transportation Asset Management Plan. Washington D.C.: Transportation Research Board.

[19] Kaiser, T. Steps to Developing a Five-Year Pavement Management Plan. Retrieved from Benchmark Inc: https://www.benchmark-inc.com/resources/results/2019/01/17/steps-to-developing-a-five-year-pavement-management-plan.

Asset management and maintenance serve as vital components of maintenance scheduling to ensure efficient utilization of assets throughout their lifespan. Maintenance efforts are essential at all stages and must be integrated into life-cycle plans such as preservation and restoration. This method enables agencies to prepare comprehensive maintenance schedules that are linked with overall asset management goals. They can successfully extend asset service lifetimes while reducing long-term expenses resulting from deterioration and replacement[20]. Figure 20 shows the life cycle of an asset.

Parking Recommendations

For trips that require vehicles, having a place to safely park your car is helpful for ease and comfort, and for providing access for individuals that have personal mobility devices that are driven to their destination. Having adequate space to accommodate parking is important for members of the community to access goods and services that require vehicles.

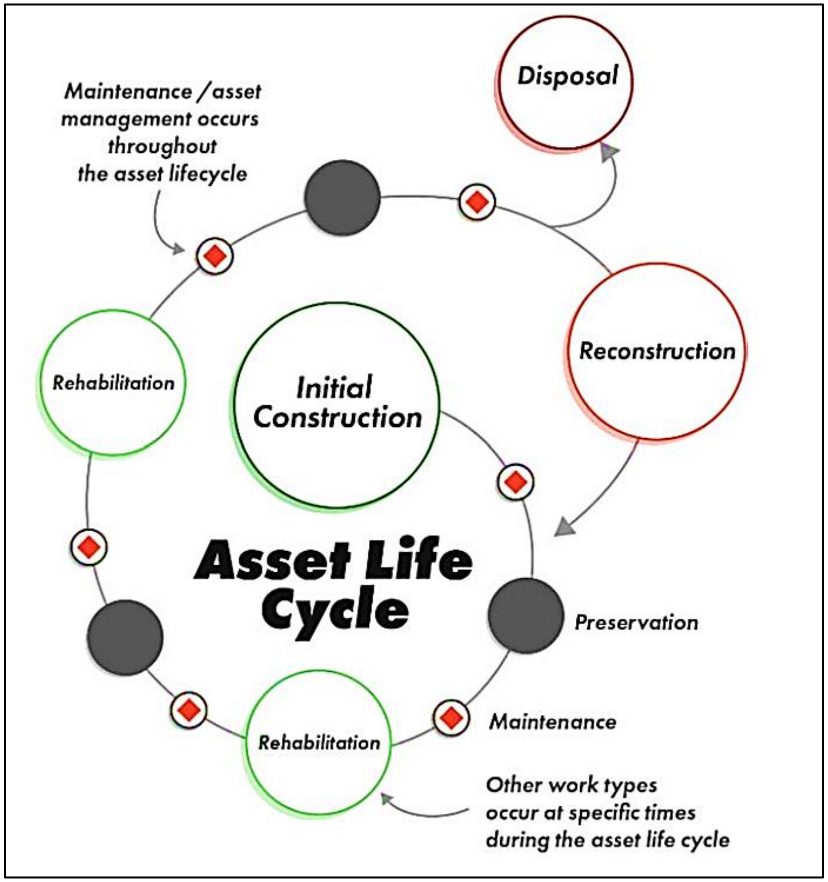


Figure 20: Asset Life Cycle[21]

[20] Allen, B. W. (2023). A Guide to Incorporating Maintenance Costs into a Transportation Asset Management Plan. Washington D.C.: Transportation Research Board.

[21] Allen, B. W. (2023). A Guide to Incorporating Maintenance Costs into a Transportation Asset Management Plan. Washington D.C.: Transportation Research Board.

Goal 2 – Ensure Traffic Safety for All Road Users

Providing safe routes that accommodate multiple modes of transportation is vital to creating a healthy and robust system. Pedestrians of all ages and abilities need their own space to move comfortably and with dignity to and from their destinations. These pedestrian paths should interact with the road system so that both drivers and walkers understand and appreciate each other's space. Additionally, there are other services and programs that can help facilitate travel, such as ride and bike share programs, and public transit, that should be included in the multimodal system.

Road Thoroughfare Plan

Due to the overall low traffic counts in the area, increasing road capacity does not appear to be necessary currently. The existing thoroughfare map, Figure 21, shows the road classification that is recommended to be maintained, until such time that traffic counts regularly exceed capacity.

Traffic Calming

"Traffic calming" is a term used to describe an approach to road safety improvements that lowers the likelihood of accidents through design. Some of these methods are commonly used in road design, such as speed humps and roundabouts. Others are less obvious, such as adding chicanes that force drivers to navigate around a central island to move through an intersection, or adding street trees, which visually narrow the road and encourage drivers to slow down.

Interventions can be either along the road or at intersections, and many have different levels of cost for testing and final construction. The National Association of City Transportation Officials (NACTO) has a comprehensive guide, *Urban Street Design Guide,* for the design and implementation of traffic calming measures. Map 12 shows areas that need to have interventions implemented, taken from community feedback and crash study data.

For the Urban Street Design Guide, visit: https://nacto.org/publication/urban-street-design-design-guide/

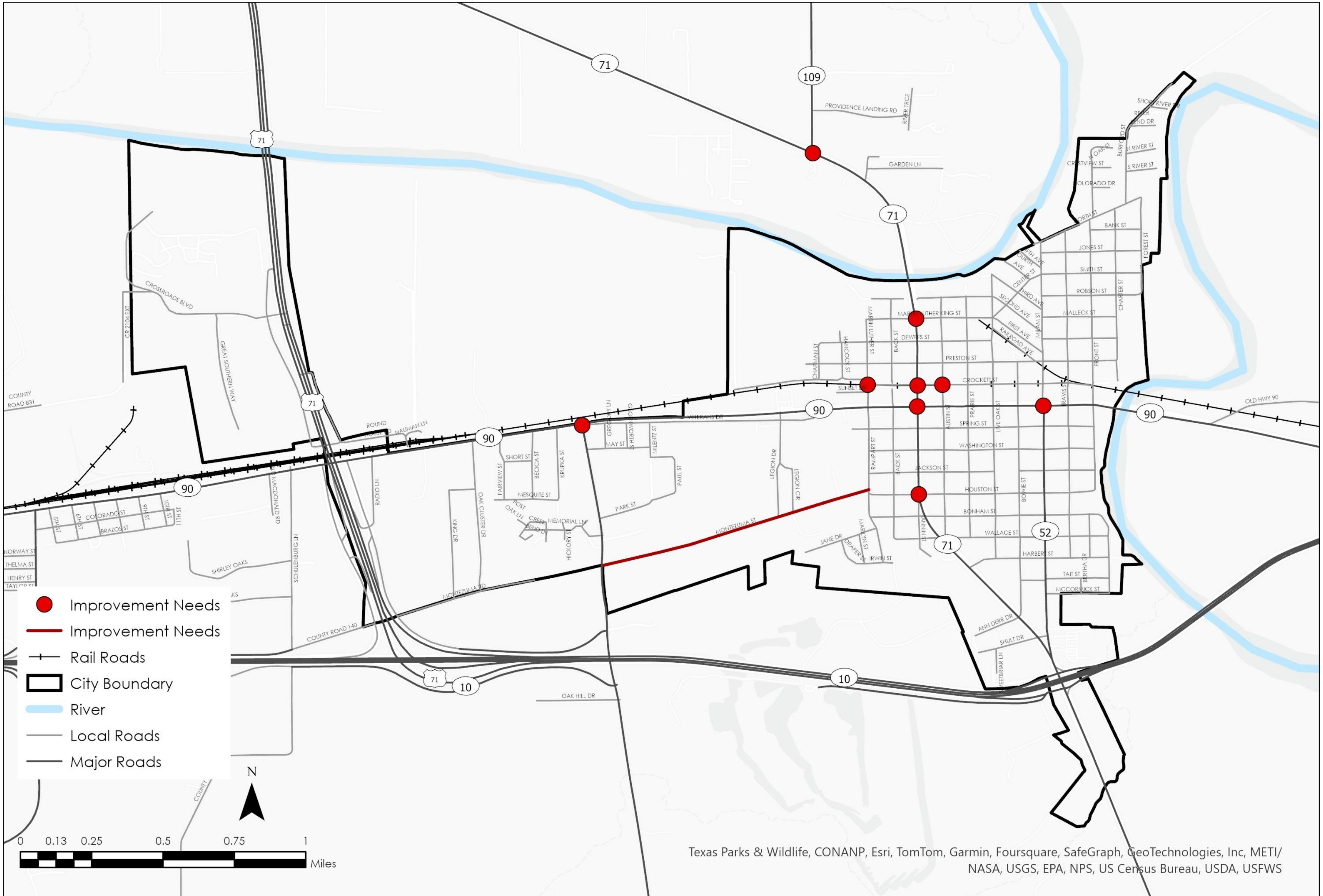


Figure 21: Safety Improvement Location

SAFE ROUTES TO SCHOOL

The Safe Routes to School (SRTS) program is a national pedestrian safety program that was created by the U.S. Department of Transportation to improve the safety of school-aged pedestrians around schools and in neighborhoods. The program also aims to increase physical activity and promote healthy daily exercise for children. There are federal grants available to create walking and cycling infrastructure around schools and to educate and promote the activity with students and parents. By creating an SRTS program, Columbus can promote safe commutes that benefit students and others in the community. For drivers, having safe routes means fewer children or other pedestrians walking in or near the roadway. Figure 22 shows an example of a pedestrian crossing made safer by the presence of a crossing guard and a crosswalk. Figure 23 shows the areas in a ½ mile radius around the schools in Columbus that fall within the recommended Safe Routes to School radius.

Find out more about how to implement a Safe Routes to School Program at https://www.transportation.gov/mission/health/Safe-Routes-to-School-Programs

Figure 22: Crossing Guard Helps a Family Cross the Road at a Crosswalk. [22]

[22] Change Lab Solutions. (n.d.). Safe Routes to School. ChangeLab Solutions. Retrieved May 2, 2024, from https://www.changelabsolutions.org/child-care-schools/safe-routes-school

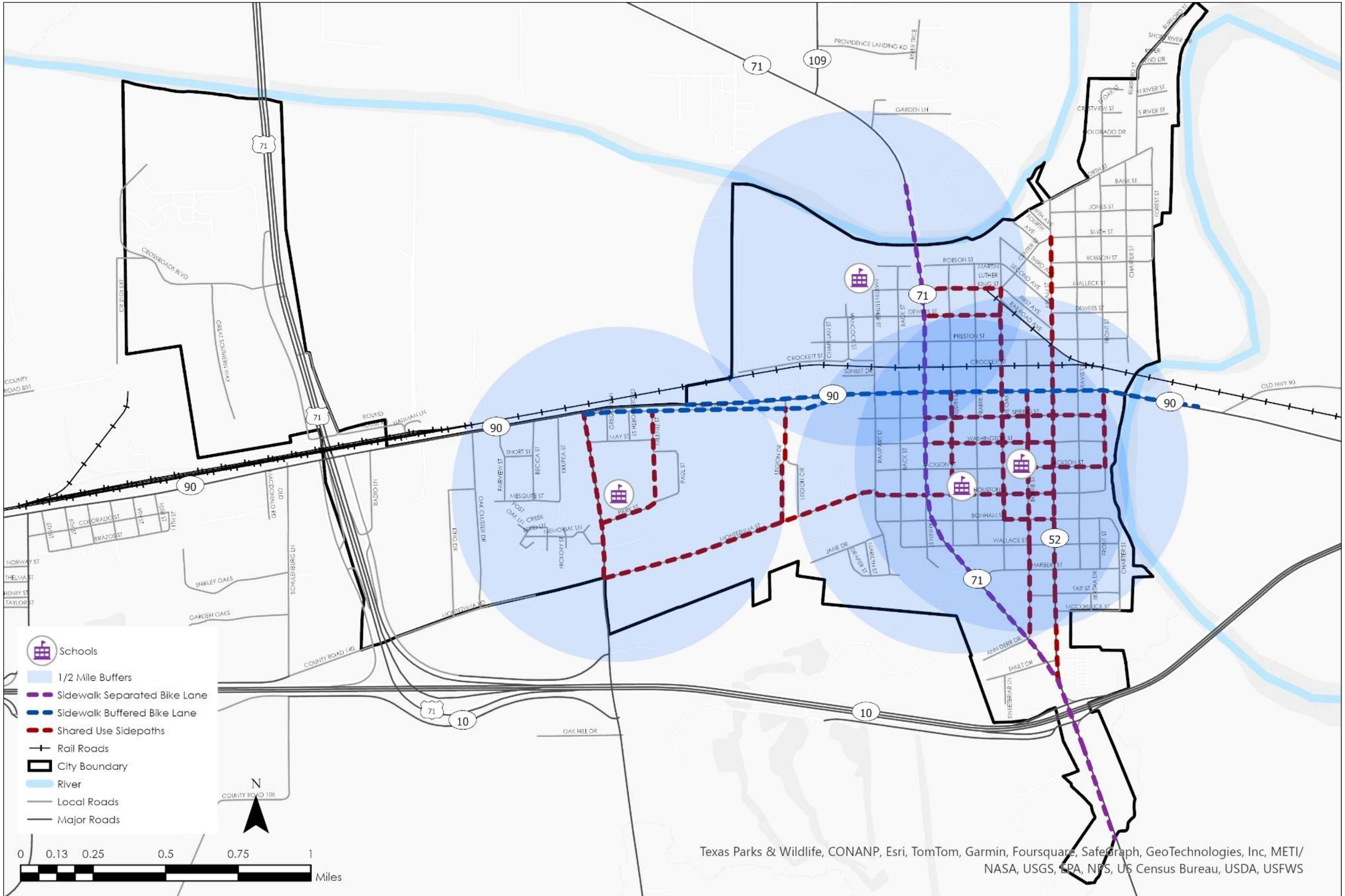


Figure 23: School Locations with ½ Mile Buffers

Complete Streets

"Complete Streets for Everyone" is an approach towards planning, building, operating, and maintaining streets that enables safety and accessibility for people of all ages, abilities, and mobility choices including pedestrians, cyclists, and transit riders. Figure 24 shows an example top-down view of a street before and after a Complete Streets treatment.

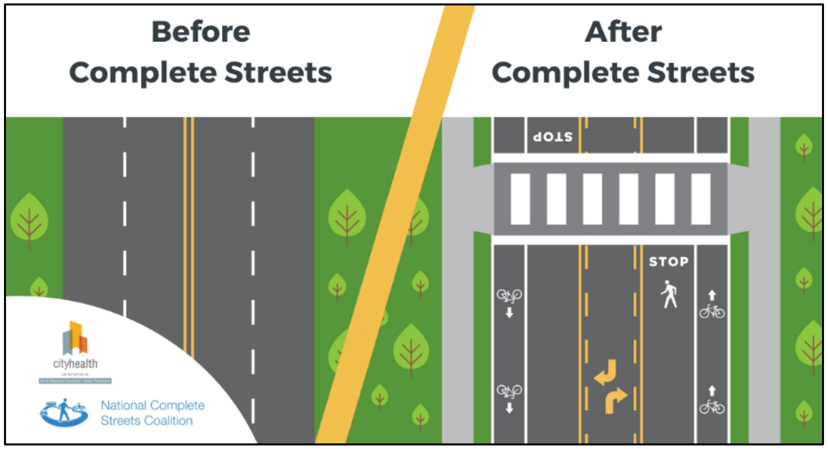


Figure 24: Complete Streets Program, Smart Growth America[23]

"Complete street is a process and approach not just a product or single type of street."[24]

Complete streets program aims to consider the needs of all people and the measures to make a street successful. This approach to designing streets responds to the unique needs of the community, this may include sidewalks, bike lanes, special bus lanes, accessible pedestrian signals, curb extensions, roundabouts, and more. The different contexts and needs of the users are different in rural, suburban, and urban communities, leading to different interventions for this approach. Figure 25 shows the implementation of a complete street approach in small towns and rural communities.

Figure 25: Implementing Complete Streets in Small Towns and Rural Communities[25]

[23] Complete streets. Smart Growth America. (2024, January 4). https://smartgrowthamerica.org/what-are-complete-streets/
[24] Complete streets. Smart Growth America. https://smartgrowthamerica.org/what-are-complete-streets/

[25] Complete streets. Smart Growth America https://smartgrowthamerica.org/implementing-complete-streets-small-towns-rural-communities/

The complete streets policy framework accounts for ensuring tangible changes and prioritizes the needs of vulnerable users. The elements below serve as best practices to create a policy to implement at any governance level.

The elements of Complete Streets include:[26]

- Establishing commitment and vision
- Prioritizing underinvested and underserved communities
- Applying projects to phases
- Allow clear exceptions
- Mandate coordination
- Adopting design guidelines
- Measure progress
- Creating an implementation plan

Railroad Crossings

At many railroad crossings within Columbus, there is difficulty for vehicles to cross the railroad tracks at grade, as well as a lack of safe pedestrian crossings. Bringing the road up to be level with the track at the crossing may require paving the road further back to flatten the incline. This grade difference also makes crossings difficult because there is no clear line of sight for pedestrians or vehicles to see oncoming traffic. Installing warning signs or lights may help road users to be more aware of oncoming traffic or pedestrians.

Resolving these issues requires coordination between the City of Columbus and the Union Pacific Railroad to install the appropriate paths that meet ADA requirements.

[26] Complete streets. Smart Growth America https://smartgrowthamerica.org/10-elements-of-complete-streets/

SIGNAGE AND WAYFINDING

A well-crafted wayfinding system encourages people to walk and bike, go the extra mile, explore new places, and foster a sense of community. It also helps to promote active transportation by creating a clear and attractive network that is easy to navigate. This section highlights some guiding core principles to develop an effective Wayfinding Signage System facilitating proper navigation throughout the city.

Core principles that aim to guide the placement and design of a wayfinding system are:[27]

1. Connecting places

Creating effective wayfinding for non-motorized users like bicyclists and pedestrians extends accessibility for the existing network. Prioritizing destinations into 3 levels: Recognizable districts, landmarks, and local destinations.

2. Promoting active travel

Helping to communicate access to destinations through walking and biking and reducing physical barriers for all types of trips. An effective wayfinding system enables the active transportation facilities to be more visible.

3. Maintaining motion

Facilitating continuous movement for walkers and bikers, making it clear and visible. Some elements like decision signs, confirmation signs, and turn signs. Along with that, enhanced navigational aids like pavement markings, mile markers, and map kiosks enable easy navigation.

Figure 26: Example of Pavement Marking[28]

4. Enhancing Predictability

Fostering predictability for users, enabling them to anticipate information at expected points. For example, decision signs are placed before intersections to help in navigation. Maintaining consistency in design elements like materials, dimensions, colors, and placement as well as uniformity through symbology and style. Moreover, complying with local, state, and federal guidelines ensures funding support and sustainability. Figure 26 shows examples of different pavement marking styles, depending on the location.

Figure 27 guides sign placement to enhance wayfinding and Figure 29 shows examples of different types of signs for wayfinding.

[27] Wayfinding design. Alta Planning + Design. (2017, October 9). https://altago.com/wayfinding-design/

[28] Wayfinding Design https://altago.com/wayfinding-design/

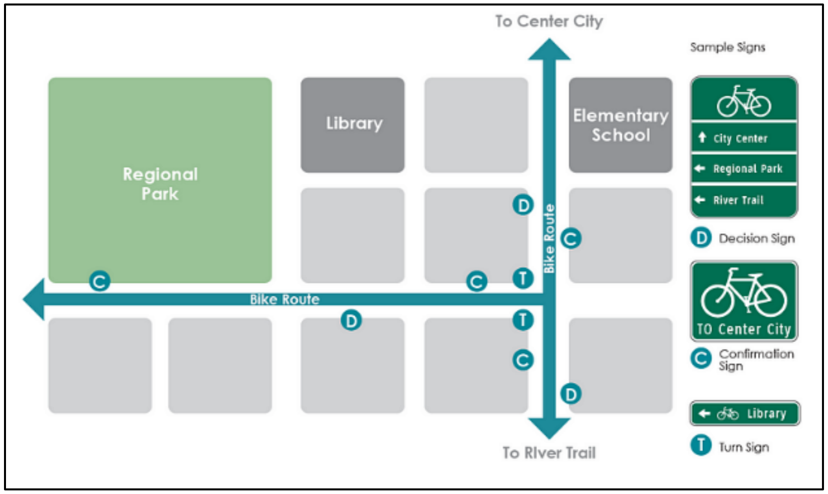


Figure 27: Typical Scenario for Placement of Signs[29]

5. Simplifying Information

Providing a manageable amount of information without hindering decision-making. Sign placement and information they convey are important and should be positioned in advance before major changes and confirmed on completion.

6. Accessibility

Complying signage ADA guidelines in terms of signage height and special considerations for people with limited education or English proficiency. Using universally understandable symbols along with bilingual texts for legibility. Figure 28 shows examples of preferred heights to make signage accessible.

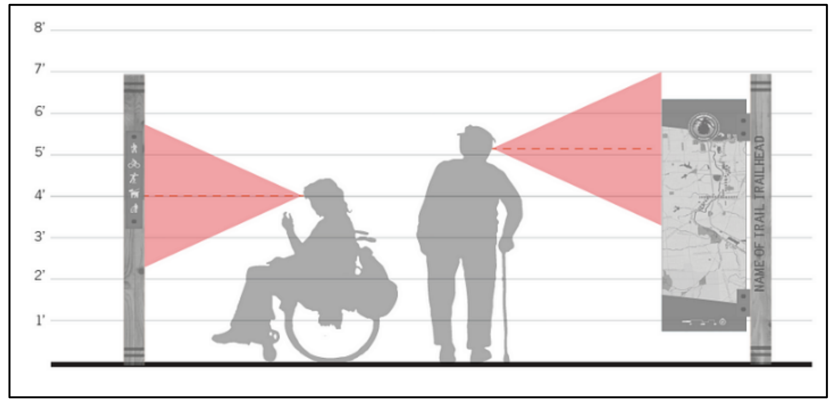


Figure 28: Example Sign Heights for Users of All Abilities [30]

[29] Wayfinding Design https://altago.com/wayfinding-design/

[30] Wayfinding Design https://altago.com/wayfinding-design/

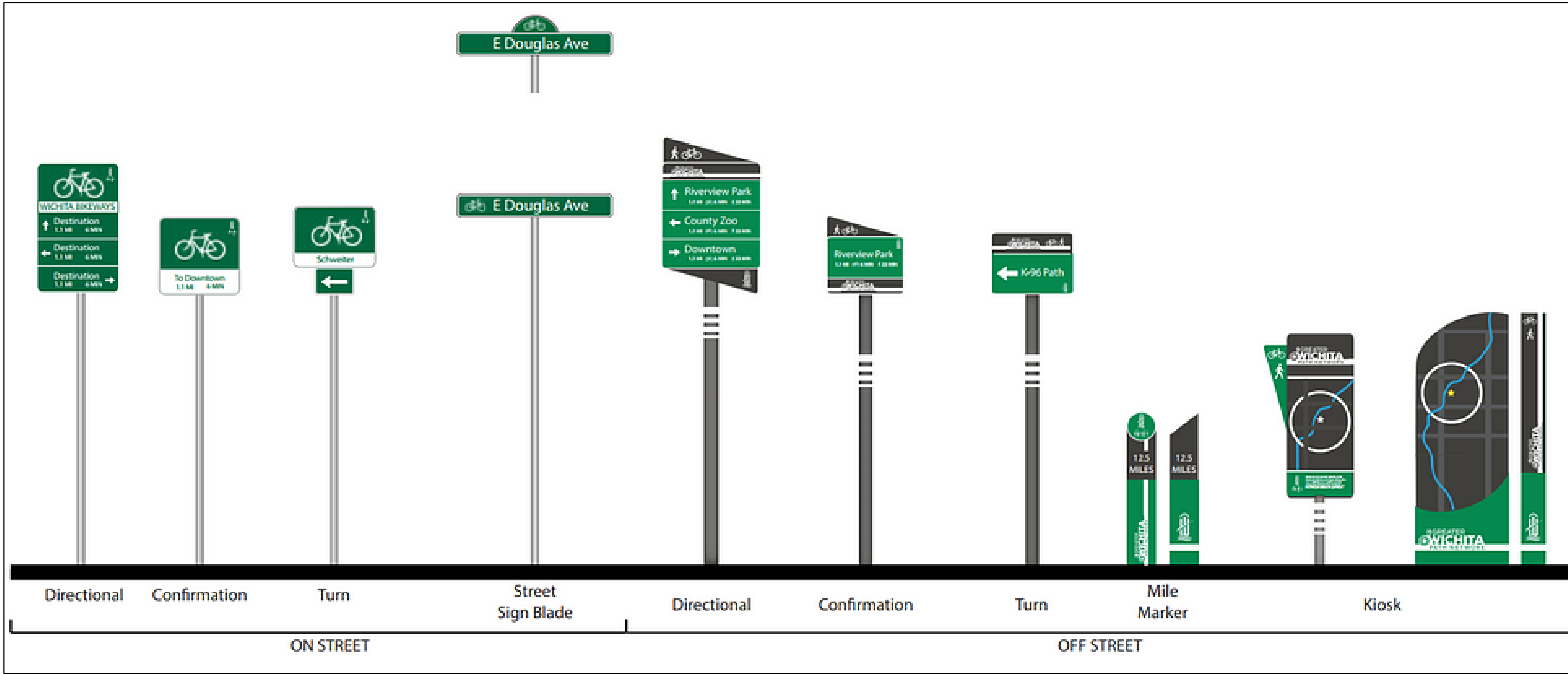


Figure 29: Wayfinding Signage Types & Examples [31]

[31] Wayfinding Design https://altago.com/wayfinding-design/

Transit Services

Rural transit can provide vital services and connectivity for residents who need a way to get to appointments, the store, or to see friends and family. Connecting residents with on-demand and paratransit services is an important part of ensuring that all members of the community can access services and resources.

By working with Colorado Valley Transit to provide more reliable and frequent services to Columbus, the City can keep its residents active and mobile in the community. In addition to providing service, it is important to ensure that the information provided is accurate and up to date so riders can make schedule adjustments and arrangements. Creating an outreach and education program that facilitates communication between the agency and riders will help to achieve this.

Bike and Ride Share

For visitors or residents who need to get around without their car, having access to public bikes, scooters, and ride-share services can be a useful way to get around to restaurants and bars, hotels, or appointments. Creating designated areas for users to retrieve and drop off their mobility devices keeps them accessible for future users and out of the way of other road and path users.

Designating pick-up and drop-off points for ride-share services can also keep traffic moving and allow passengers to get in and out of the vehicle safely.

Every road user should feel safe as they travel to and from their destination. Previous road design policies have often prioritized the comfort and preferences of drivers and lessened the space and peace of mind for pedestrians. These are issues that can be accounted for and addressed in how a city approaches the design of new roads and paths, and how it modifies existing roads and intersections to better serve public safety. These improvements not only protect pedestrians but also reduce the number and severity of car crashes, due to lower speed and the encouragement of driver awareness of the road.

Goal 3 - Provide Multimodal Options and Opportunities

Multimodal Thoroughfare Plan

Street Classification

Functional classification categorizes streets based on traffic flow and access, dividing them into local streets, collectors, and arterials. It offers standards for the future development of the city. Table 5 provides classification levels correlating to traffic volumes and speeds with examples of existing streets and recommended potential facilities for each.

Table 5: Street Classifications

Road Functional Classification	**Traffic Volumes/ Speeds**	**Existing Road Examples**	**Recommended Facilities**
Nonroad Corridors	-	Beason's Park	Shared Use Paths
Local and neighborhood roads	Lower than 2000 AADT	Montezuma St	Shared use Side paths
Collectors – Connecting major destinations	2000 - 6000 AADT	Walnut St	Sidewalks with Buffered Bicycle lanes
Arterials	6000 - 8500 AADT	SH-71	Sidewalks with Separated Bicycle lanes
Principal Arterials and Highways	Higher than 8000 AADT	I-10	Sidewalks with Physically Separated Bicycle lanes

Themed Paths

This section has been tailored to enhance pedestrian and bicyclist safety and accessibility, serving as a guide for creating streets for people of all ages and abilities. Moreover, offering strategies and resources to implement the city's growth and development. Figure 33, illustrates a map showing the locations and types of facilities proposed in this section.

Designing for All Ages & Abilities

This section highlights the need to create cities with streets that cater to the needs of Pedestrians and Bicyclists of all ages and abilities. This approach emphasizes safety, comfort, and equity in infrastructure design and aims to make it accessible to a wide range of people.

By implementing All ages and abilities criteria, cities can improve traffic safety, reduce congestion, promote healthy lifestyles, and foster economic development.

Reference Guides

The facility selection and recommendations in this document are derived from national best practices. Some of these guides are in Table 6.

Table 6: Reference Resources

Resources	**Organizations**
Urban Street Design Guide	National Association of City Transportation Officials
Designing All Ages and Abilities Bicycle Crossing	National Association of City Transportation Officials
Guide for the Planning, Design, and Operation of Pedestrian Facilities	American Association of State Highway and Transportation Officials
Small Town and Rural Multimodal Network Guide	Federal Highway Administration

Shared Use Paths

These paths are designed at a width of 10-12 feet accommodating two-way traffic with increasing width with impervious surfaces for developing park and trail infrastructure. Figure 30 shows a woman and a child biking along a shared-use path.

Figure 30: Example of Shared Use Paths

Shared Use Side Paths

These are designed at a width of 10 - 12 feet to accommodate two-way traffic. These are to be separated from the adjacent traffic by adding a grass strip of 3 feet with increasing width for roads with greater traffic volume and speed. Signage and paving should be marked on the side paths, adjacent roads, and intersections. Figure 31 shows an example of a shared-use side path separated from the road by a buffer of gravel and greenery.

Figure 31: Example of Shared Use Side Paths

Sidewalks with Buffered Bicycle Lanes

Buffered bicycle lanes have a painted 3 ft. buffer separating them from the adjacent vehicular traffic. The city can consider one-way or two-way lanes depending on the traffic volume and speeds to provide more vitality for the users.

Sidewalks with Separated Bicycle Lanes

Bicycle lanes are physically separated from vehicular traffic and the sidewalks. Also called protected bicycle lanes, the facility can be located within the road pavement or after the curb along the road. It could be one-way or two-way as per traffic needs. Figure 32 shows an example of a painted bike lane.

Figure 32: Example of Separated Bicycle Lanes

Intersections

Potential solutions for intersections can be summarized as protected intersections, dedicated intersections, and minor crossings.

Protected Intersections - Pedestrian pathways and bikeways are both setbacks from the roads and have a physical separation from vehicular traffic movement.

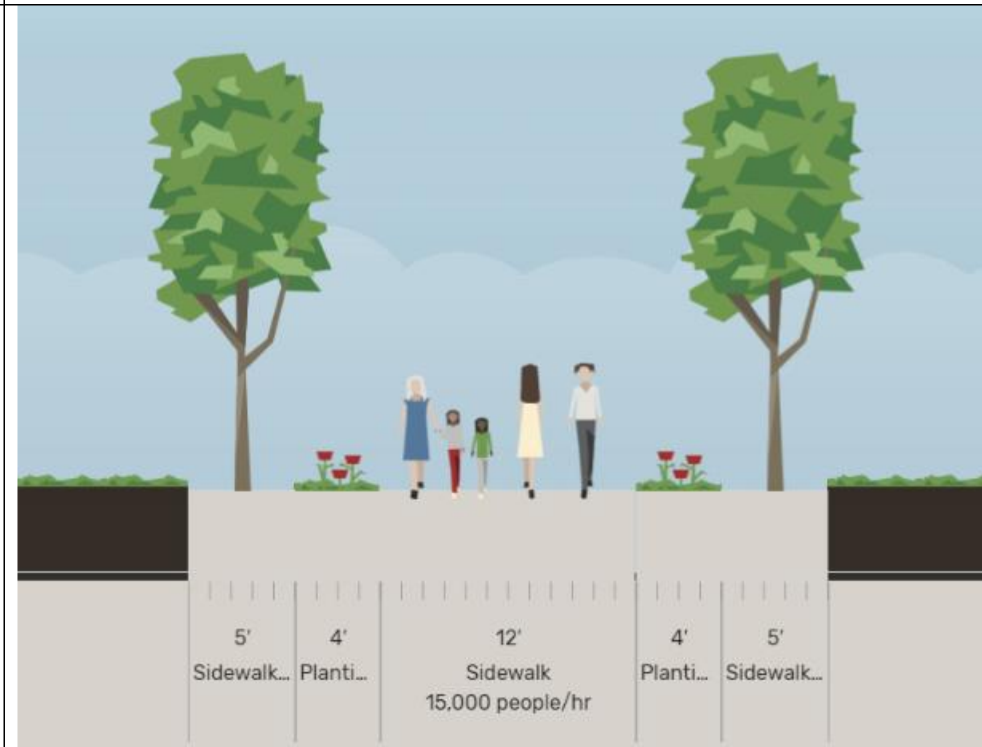
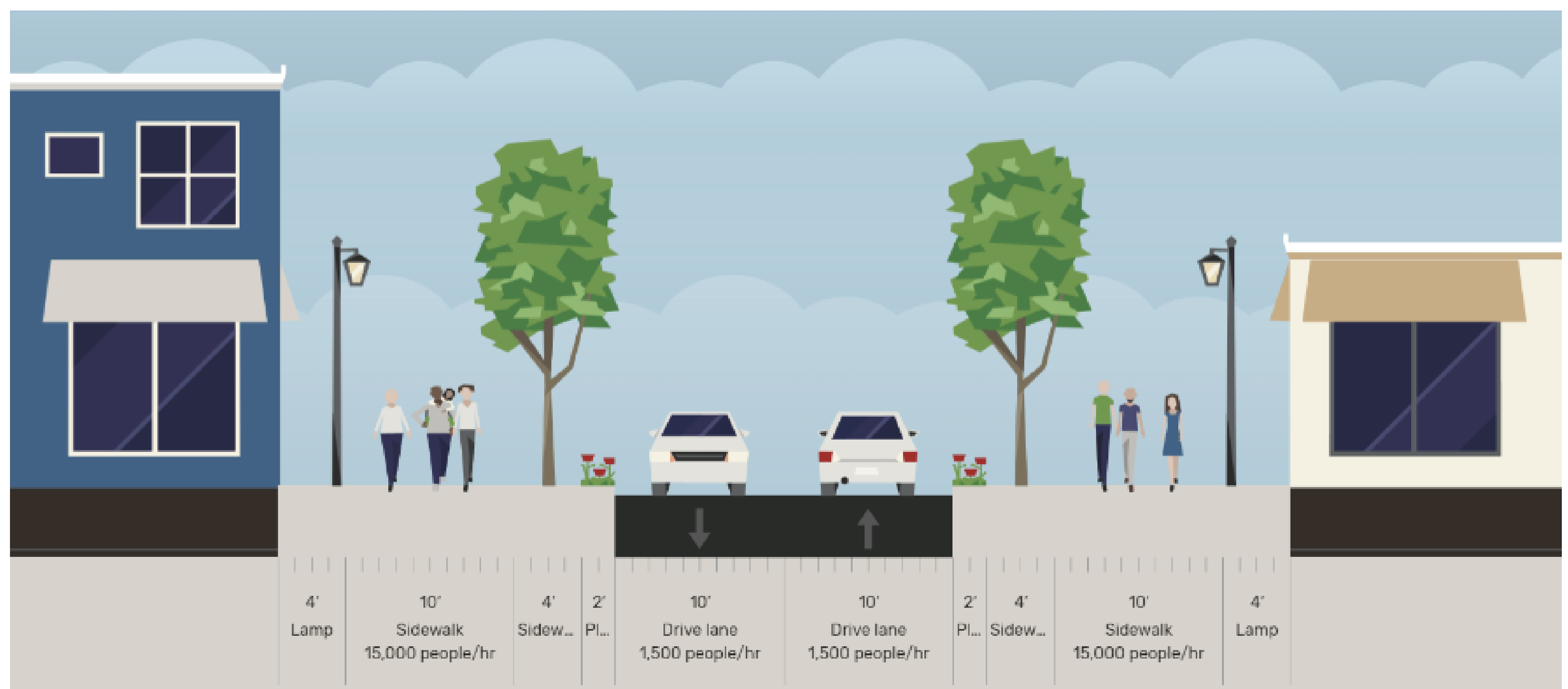
Dedicated Intersections - Bikeways usually have a dedicated path across the intersection but a setback could be caused between the motorized vehicle lane and the bike lane.

Minor Crossings - Crosswalks or Bicycle Crossing operated by signaled flashing beacons, refuge medians, and other design features to create a yield or traffic calming condition for approaching motorized vehicles allowing safe passage for both pedestrians and cyclists.

Tourism Trails

Tourism trails can offer connections to green spaces, historical sites and districts, downtown, and other shopping areas. These trails can also be targeted towards specific events, such as the Colorado River 100, to showcase a town's offerings to visitors.

The Colorado River 100 is a kayak and canoe event that brings competitors along the Colorado River through the City of Columbus. Tourism trails in Columbus could provide connections from the river into town, bringing in visitors, and the trails along the river would be for residents' benefit in off-seasons as well.

Road Classification	Facility Type	Width and Specifications	Cross-sectional Examples
Nonroad Corridors	Shared Use Paths	Width of 10-12 feet	
Local and Neighborhood Roads	Shared Use Side paths	Width of 10-12 feet with a 3 feet green buffer from the road	

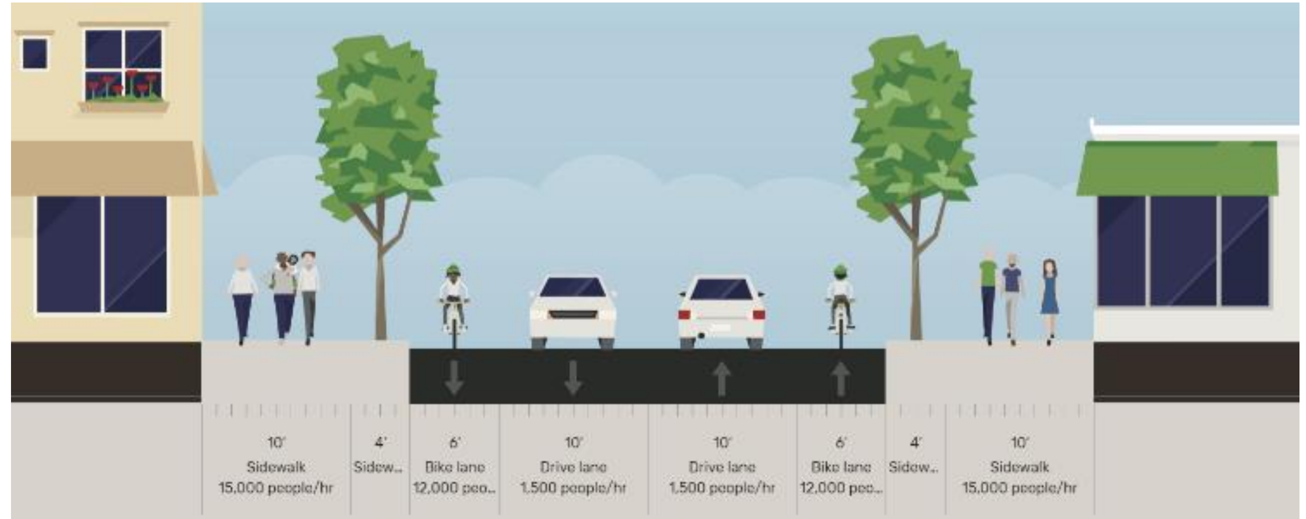
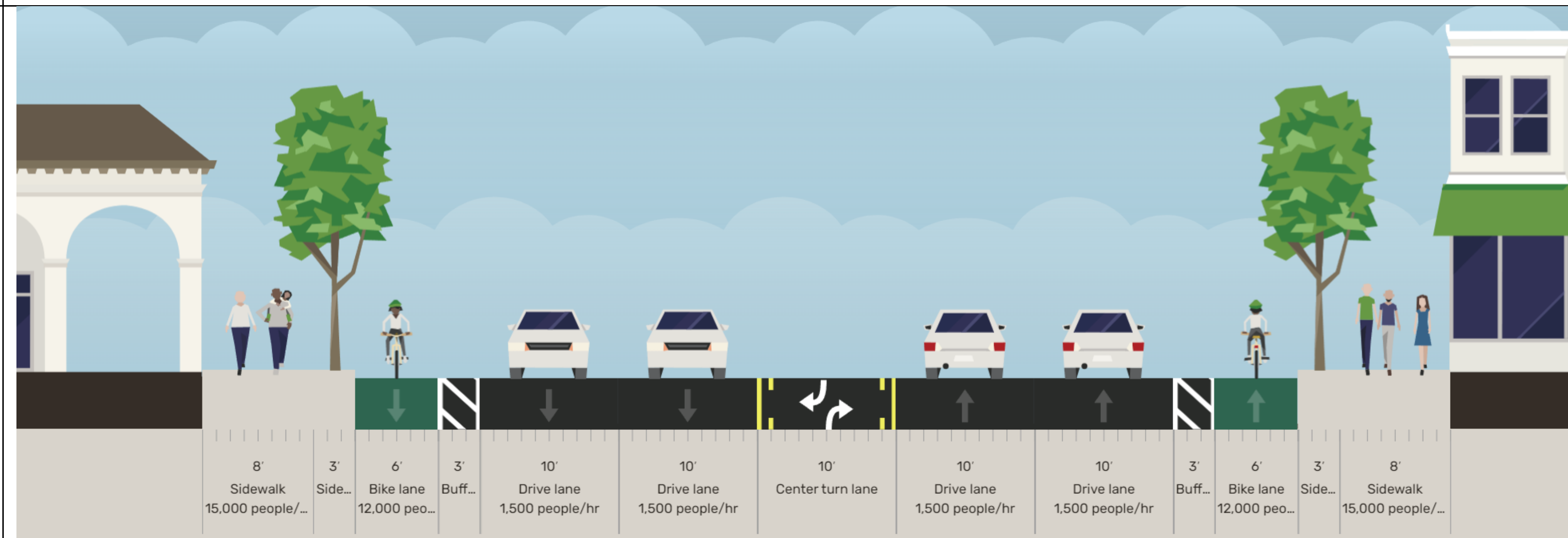
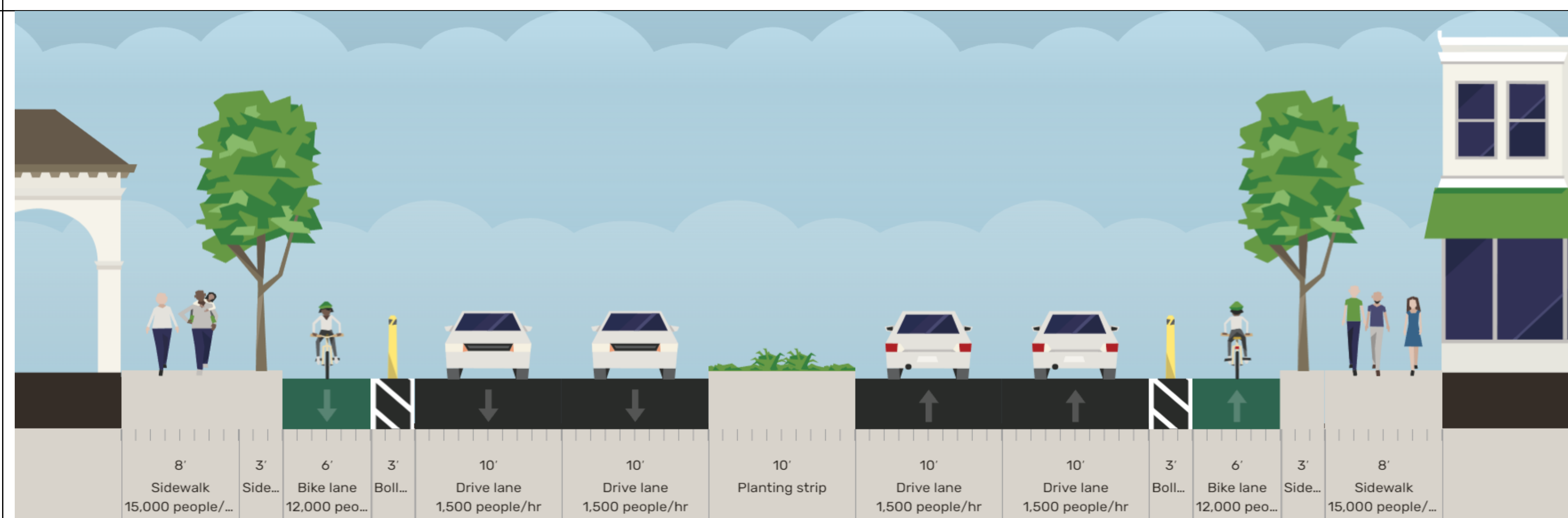
Collectors – Connecting Major Destinations	Sidewalks with Separated Bicycle lanes	Physically separated from vehicular traffic and the sidewalks	
Arterials	Sidewalks with Buffered Bicycle lanes	Painted 3 feet buffer separating bicyclists from the adjacent vehicular traffic	
Principal Arterials and Highways	Sidewalks with Physically Separated Bicycle lanes	Painted 3 feet buffer preferably with bollards or other protecting devices separating bicyclists from the adjacent vehicular traffic	

Table 7: Road and Sidewalk Cross-Sections

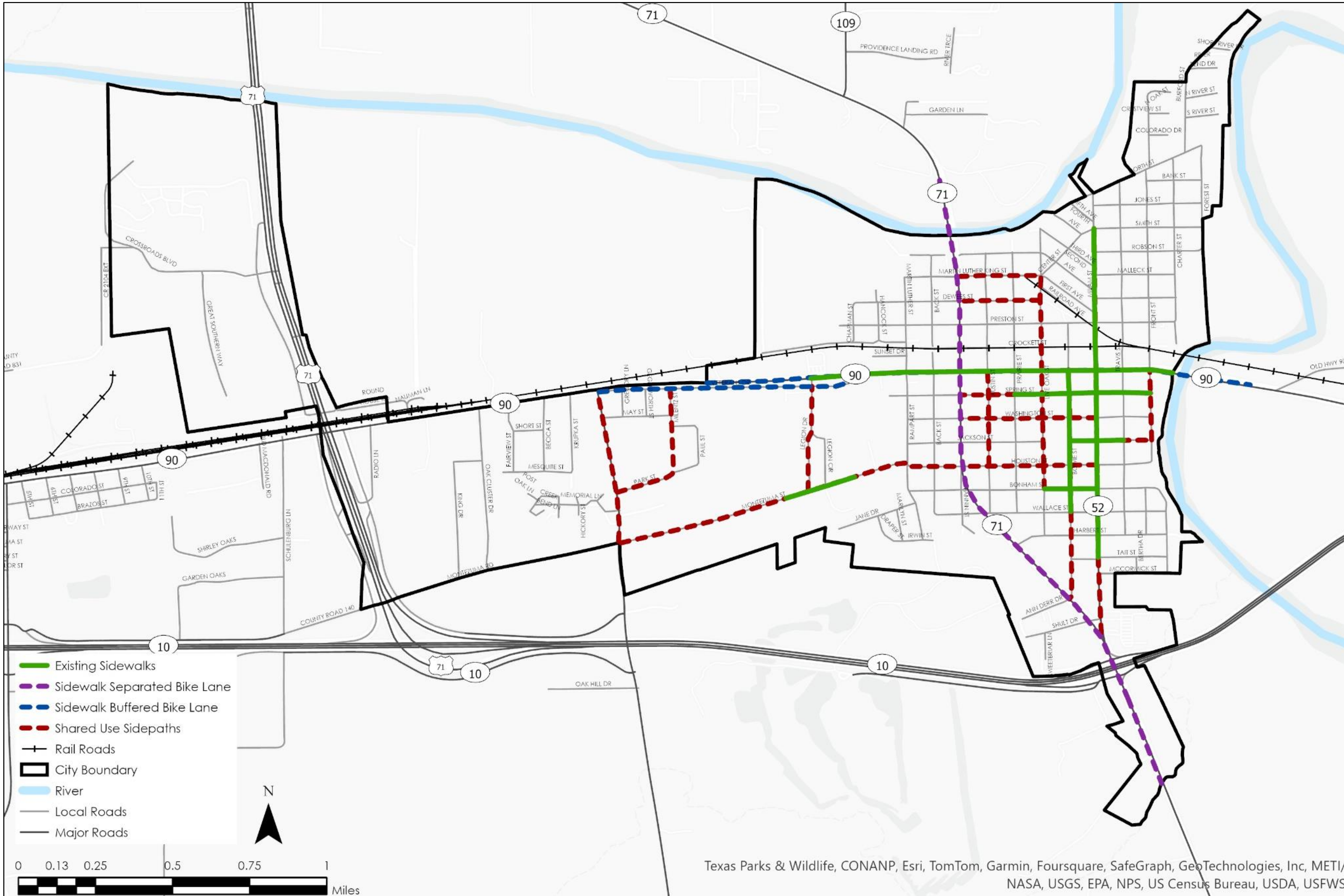


Figure 33: Map Showing Proposed Facilities

Implementation

The next phase of the City of Columbus's transportation network will begin with implementing programs and policies that facilitate and create a more complete and safer network. This section outlines the goals, objectives, and action items that can be used to organize projects moving forward. This is shown in the implementation table in Table 8.

The Table

The table is divided into sections based on the goals that the objectives and actions are working to complete. Each lists a timeline for completion, the project lead agency or organization, and potential funding sources.

Goals

The goals outlined in the table are taken from the community feedback and are meant to organize the major themes. For this plan, those themes were safety, multimodal accessibility, and maintenance.

Objectives

Each goal has a series of objectives that tackle different aspects that come together to achieve that goal. They are more specific and include more detailed parameters for success.

Action Items

Every objective has action items that are more project-specific and task-specific and meant to be used in tandem to achieve the objectives. These are set with a timeline for completion and can be used to set priority within an objective.

Timeline

The timeline for this plan is broken up into three sections: Ongoing, 1-5 years, and 5-10 years.

Ongoing is meant for action items that should be continuously enacted for the life of the plan or represent a policy change.

1-5-year action items are meant to be completed more easily or address a need that has urgency.

5-10-year action items are more complex or involve collaboration with an outside entity that is less accessible.

Responsible Departments/Organizations

These are the parties that are going to be most heavily involved in the implementation of this objective. The list is not exhaustive and will likely involve additional stakeholders as each project is developed, but this list covers the parties that should be involved.

Funding

This section lists outside funding sources that cover the types of projects included in the objective.

Table 8: Implementation Table

Goals	Objectives	Action Items	Timeline			Responsible Departments/ Organizations	Funding
			Ongoing	*1-5 Years*	*5-10 Years*		
1.0 Create a reliable and efficient system	**1.1** Maintain and update roads and paths.	**1.1.1** Create a road baseline condition inventory.		✓		City of Columbus Public Works Department	-Operating Budget
		1.1.2 Create a pedestrian baseline condition inventory.		✓			
		1.1.3 Update inventory on an annual basis.	✓				
		1.1.4 Address scheduled maintenance each year.	✓				
	1.2 Work with TXDOT to implement changes and maintain roads.	**1.2.1** Meet with TxDOT partners regularly to ensure collaboration between the City and the agency.	✓			City of Columbus, Texas Department of Transportation	-Operating Budget
		1.2.2 Document resident concerns related to TxDOT-controlled roads and rights-of-way.	✓				
	1.3 Improve parking options in high-demand areas.	**1.3.1** Identify areas that lack adequate parking capacity.		✓		City of Columbus, Economic Development Board, Union Pacific Railroad, Texas Department of Transportation	-Operating Budget
		1.3.2 Work with Union Pacific Railroad to acquire an open lot on Crockett Street to convert into a surface parking lot for Downtown.			✓		
		1.3.3 Re-orient all parking within Downtown to 45-degree parking.		✓			
2.0 Ensure traffic safety for all road users	**2.1** Improve safety in areas with high pedestrian activity, such as schools.	**2.1.1** Implement a Safe Routes to Schools program with Columbus Independent School District for areas within ½ miles of schools in Columbus.		✓		City of Columbus, Columbus ISD, Texas Department of Transportation	-Safe Routes to School Program (SRTS) -Mobility, Access & Transportation Insecurity: Creating Links to Opportunity Research and Demonstration Program
		2.1.2 Prioritize areas around schools to submit for Safe Routes to School grants.		✓			
		2.1.3 Reroute traffic around schools to improve traffic flows during peak times.		✓			
	2.2 Update intersection designs using the NACTO guidelines to facilitate safe travel.	**2.2.1** Perform traffic study to identify areas with traffic flow issues and that lack adequate pedestrian crossing infrastructure.		✓		City of Columbus Public Works Department, Texas Department of Transportation	- Surface Transportation Block Grant Program - 23 USC 133 - Railroad Crossing Elimination Grant -FTA's Enhanced Mobility of Seniors & People with Disabilities program -Mobility, Access & Transportation Insecurity: Creating Links to Opportunity Research and Demonstration Program
		2.2.2 Update and recalibrate signal timing to improve traffic flow and pedestrian safety.	✓				
		2.2.3 Create a pedestrian crossing across Milam Street between Shult Drive and the westbound IH 10 access road.		✓			
		2.2.4 Improve railroad crossings at intersections with the UPRR along Crockett Street to improve traffic and pedestrian safety.			✓		
		2.2.5 Block the intersection from US 90 to Veterans Drive at Cardinal Lane to prevent through traffic.		✓			
		2.2.6 Use traffic calming design intervention at Milam Street and Walnut Street to improve traffic safety.		✓			
		2.2.7 Use traffic calming design intervention at Fannin Street and Walnut Street to improve traffic safety.		✓			
		2.2.8 Use traffic calming design intervention at Houston Street and Fannin Street to improve traffic safety.		✓			

Goals	Objectives	Action Items	Timeline			Responsible Departments/ Organizations	Funding
			Ongoing	1-5 Years	5-10 Years		
		2.2.9 Use traffic calming design intervention at Dr Martin Luther King Jr Street and Fannin Street to improve pedestrian and traffic safety.		✓			
	2.3 Improve lighting and street furniture options	**2.3.1** Create a street lighting inventory and survey to identify areas that lack adequate lighting and street furniture.		✓		City of Columbus Public Works Department, Texas Department of Transportation	-Safe Streets for All (SS4A) -Safe Routes to School Program (SRTS) -FTA's Enhanced Mobility of Seniors & People with Disabilities program
		2.3.2 Install new streetlights until full coverage is achieved.	✓				
		2.3.3 Add lighting and signs to increase visibility at the intersection of FM 109 and SH 71 to improve traffic safety.		✓			
		2.3.4 Create a design guideline for street aesthetics in historic district and downtown.			✓		
		2.3.5 Install benches and trashcans along pedestrian paths.		✓			
		2.3.6 Create a bench donation program to increase seating options along pedestrian areas.	✓				
		2.3.7 Work with the community to identify areas that need improved wayfinding.	✓				
		2.3.8 Create a wayfinding system for navigational accessibility.	✓				
		2.3.9 Identify areas that lack adequate wayfinding and add signage as appropriate.		✓			
	2.4 Incorporate traffic calming and road diet designs for new roads and during resurfacing maintenance, in compliance with the "Complete Streets" method.	**2.4.1** Create Complete Streets Commitment and Vision Statement to orient road safety goals and projects.		✓		City of Columbus, City of Columbus Public Works Department, Texas Department of Transportation	-Operating budget
		2.4.2 Create an improvement priority list for roads identified to require traffic calming.			✓		
		2.4.3 Require appropriate traffic calming design installation of future developments.		✓			
3.0 Provide multimodal pedestrian improvements	**3.1** Increase sidewalk connectivity between residential and commercial areas.	**3.1.1** Create sidewalk condition inventory.		✓		City of Columbus Public Works Department, City of Columbus Parks Department, Texas Department of Transportation	-Surface Transportation Block Grant (STBG) -Safe Streets for All (SS4A)
		3.1.2 Increase built sidewalk length along city roads.	✓				
		3.1.3 Create a sidewalk incentive program to encourage property owners to build portions of sidewalks on their properties.	✓				
	3.2 Incorporate bicycle infrastructure into road and path designs.	**3.2.1** Add bicycle lanes to Milam Street, Montezuma Street, and Veterans Drive.			✓	City of Columbus Public Works Department, City of Columbus Parks Department, Texas Department of Transportation	-Transportation Alternatives (TA) Set-Aside -Surface Transportation Block Grant (STBG) -Safe Streets for All (SS4A) -Safe Routes to School Program (SRTS)
		3.2.2 Create bicycle parking requirements for businesses that are adjacent to bicycle infrastructure.	✓				
		3.2.3 Install updated bicycle parking Downtown and at the parks.		✓			
	3.3 Install crosswalks to improve pedestrian safety.	**3.3.1** Survey to identify the intersections and other locations with high pedestrian traffic to add crosswalks.	✓			City of Columbus Public Works Department, Texas Department of Transportation	-Safe Streets for All (SS4A) -Safe Routes to School Program (SRTS)

Goals	Objectives	Action Items	Timeline			Responsible Departments/ Organizations	Funding
			Ongoing	*1-5 Years*	*5-10 Years*		
		3.3.2 Install crosswalks at all intersections where appropriate as identified in the survey.	✓				-FTA's Enhanced Mobility of Seniors & People with Disabilities program -Mobility, Access & Transportation Insecurity: Creating Links to Opportunity Research and Demonstration Program
		3.3.3 Use the North American City Transportation Officials (NACTO) guidelines to select appropriate crosswalk design components for developer site plans.	✓				
	3.4 Increase ride-share and public transit accessibility.	**3.4.1** Create a rideshare drop-off and pick-up spot downtown.		✓		City of Columbus, Economic Development Board, H-GAC, Bike-share company partner	-Congestion Mitigation and Air Quality Improvement Program (FHWA) -FTA's Accelerating Innovative Mobility (AIM) -Mobility, Access & Transportation Insecurity: Creating Links to Opportunity Research and Demonstration Program -FTA's Enhanced Mobility of Seniors & People with Disabilities program
		3.4.2 Partner with the bike-share company to provide public bikes within the city.			✓		
		3.4.3 Work with Colorado Valley Transit to increase on-demand and paratransit services.	✓				
		3.4.4 Collaborate with Colorado Valley Transit to ensure their website is up to date with accurate travel information.	✓				
		3.4.5 Create an outreach and educational program that alerts Colorado Valley Transit riders of updates and schedules.		✓			

Funding Opportunities

Safe Routes to School Program (SRTS)

- Grantor: TX Department of Transportation
- Purpose: The Program's objectives are 1) to enable and encourage children in grades K-8, including those with disabilities, to walk and bicycle to school; 2) to make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age; and 3) to facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools.
- Eligibility: State agencies and political subdivisions
    - Eligible recipients include, but are not limited to: schools (public & private), school districts, cities, state agencies, counties, regional planning councils, MPOs, public or non-profit organizations working on behalf of a school/district
- Funding limitations: The project can be on any public right-of-way within a 2-mile radius of an eligible school.
- More information: https://ftp.dot.state.tx.us/pub/txdot-info/library/pubs/cit/srts_app_instructions.pdf

Mobility, Access & Transportation Insecurity: Creating Links to Opportunity Research and Demonstration Program

- Grantor: Federal Transit Administration through the University of Minnesota-Center for Transportation Studies
- Purpose: Explore and implement strategies to improve people's mobility and access to daily needs and evaluate outcomes and impacts upon individuals and communities, and to support an equitable, integrated transportation system that meets transportation needs for low-income individuals and/or communities of need.
- Eligibility: State agencies, collegiate entities, nonprofit or for-profit organizations
- Funding limitations: All activities leading to the establishment of a research and demonstration program that will explore interventions to ensure mobility access and evaluate outcomes and impacts. Eligible demonstrations must target low-income people and communities that routinely experience a lack of reliable transportation. All demonstrations should share similar characteristics of the target population, urban context, and availability of public transportation resources.
- More information: https://www.transit.dot.gov/research-innovation/mobility-access-transportation-insecurity-creating-links-opportunity-research

Surface Transportation Block Grant Program

- Grantor: Federal Highway Administration
- Purpose: To offer flexible funding for the preservation and improvement of any Federal-aid highway, bridge, or tunnel project on any public roads, pedestrian infrastructure, bicycle infrastructure, and capital transit projects.
- Eligibility: States and localities
- Funding limitations: 55% of a state's apportionment from the STBG must be allotted to urban areas with a certain population in proportion to the state's population. The remaining 45% may be used anywhere in the state.
- More information: https://www.fhwa.dot.gov/bipartisan-infrastructure-law/stbg.cfm

Railroad Crossing Elimination Grant

- Grantor: Federal Railroad Administration
- Purpose: This program provides funding for highway-rail or pathway-rail grade crossing improvement projects that focus on improving the safety and mobility of people and goods.
- Eligibility: States, political subdivisions of a state, local government or group of governments, public port authority, MPO, any combination of the listed recipients
- Funding limitations: Funding is approved through FY26, 20% is allocated for rural areas, 5% is allocated for counties with fewer than 20 people per square mile.
- More information: https://railroads.dot.gov/sites/fra.dot.gov/files/2022-06/Railroad%20Crossing%20Elim%20Grants%20Fact%20Sheet_0.pdf

Enhanced Mobility of Seniors & People with Disabilities Program

- Grantor: US Department of Transportation
- Purpose: Provides a formula allotted fund to states to distribute to nonprofit groups for meeting the transportation needs of older adults and individuals with disabilities where services are unavailable.
- Eligibility: States and designated recipients are direct recipients
    - Eligible recipients include: private nonprofit organizations, states and local governments, operators of public transportation
- Funding limitations: Funds are available for the fiscal year of appointment plus two additional years
- More information: https://www.transit.dot.gov/funding/grants/enhanced-mobility-seniors-individuals-disabilities-section-5310

Safe Streets for All (SS4A)

- Grantor: US Department of Transportation
- Purpose: To test and implement projects that promote roadway and pedestrian safety to reach Zero Deaths on roadways.
- Eligibility: Political subdivisions of a State, which includes counties, cities, towns, transit agencies, and other special districts, an MPO, and a Federally Recognized Tribe

- A State CANNOT be the primary recipient of the grant.

- Funding limitations: Three (3) project submission deadlines, only one (1) is for implementation submissions. Open until FY26. It is a 80% reimbursement grant, and none of the local funds can come from Federal sources.
- More information: https://www.transportation.gov/grants/SS4A

Transportation Alternatives (TA) Set-Aside

- Grantor: Federal Highway Administration
- Purpose: To provide funding for pedestrian and bicycle infrastructure projects, recreational trails, and safe routes to school across Texas.
- Eligibility: States, local governments, regional transportation authorities, transit agencies, natural resource or public land agencies, school districts, local education agencies, schools, tribal governments, MPOs that serve an urbanized area with a population of 200,000 or fewer, non-profit entities, any other local or regional governmental entities with responsibility for or oversight of transportation or recreational trails
- More information: https://www.fhwa.dot.gov/bipartisan-infrastructure-law/ta.cfm

Congestion Mitigation and Air Quality Improvement Program

- Grantor: Federal Highway Administration
- Purpose: For transportation projects designed to reduce traffic congestion and improve air quality, particularly in areas of the country that do not attain national air quality standards. This includes shared-use and micromobility improvements, diesel replacements, modernized facilities, and alternative fuel projects.
- Eligibility: State, local governments
- Funding limitations: Funded through FY26, money is distributed ultimately by TxDOT
- More information: https://www.fhwa.dot.gov/environment/air_quality/cmaq/

Accelerating Innovative Mobility (AIM)

- Grantor: Federal Transit Administration
- Purpose: The primary objectives of AIM are to: Foster innovative transit technologies, practices and solutions that advance the state of practice for public transportation in the U.S., Leverage private sector investments in mobility for the benefit of transit, Ensure innovative technologies and practices permit interoperability across systems and modes, Share results of innovative mobility solutions with the transit industry and stakeholders
- Eligibility: States, local governments, MPOS, Private for-profit and not-for-profit organizations, Private operators of transportation services, public transportation agencies, State/local government DOTs, and Federally recognized Indian tribes, Bus or vehicle manufacturers or suppliers, Banking or financial institutions, Other organizations including research consortia or not-for-profit industry organizations, institutions of higher education, and other

- Funding limitations: The federal share of project costs under this program is limited to 80 percent. Proposers may seek a lower federal contribution. The applicant must provide the local share of the net project cost in cash, or in-kind, and must document in its application the source of the local match.
- More information: https://www.transit.dot.gov/AIM

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