Midland Corridor Transportation Study

November 17, 2022

olsson

COLORADO SPRINGS
OLYMPIC CITY USA

1. STUDY PURPOSE

Several studies have been prepared to plan for improvements to streets in the Old Colorado City (OCC) area and to the west along 31st Street. One of these studies was completed in 2019, when a partnership of organizations with an interest in Old Colorado City wrapped up the Old Colorado City Corridor Assessment. A key recommendation from this assessment was to narrow the cross section of Colorado Avenue through the OCC area to three lanes, in order to widen the sidewalks and add more parking by using angled parking spaces. Representatives from the Old Colorado City Partnership approached the City with this recommendation and asked that further technical analysis be done of this concept. This was the catalyst for the Midland Corridor Study, which took the 2018 Corridor Assessment recommendation and looked at it from the perspective of a larger corridor-wide study.

The purpose of this study was to use the data and findings from previous studies for use as part of a bigger-picture examination of "the Midland Corridor," and to answer these questions:

- What is the particular role of Colorado Avenue within the Midland Corridor?
- What transportation vision will address local and community needs? In other words, what should the ultimate overall transportation system look like?
- What transportation issues need to be addressed throughout the Midland Corridor?
- Do the visions for the Midland corridor from old planning documents still apply?

2. STUDY AREA BACKGROUND

The study area is shown in Figure 1. The boundaries are just west of 31st Street on the west, just north of Pikes Peak Avenue on the north, the railroad on the east, and Cimarron Street (US 24) on the south. The Midland Corridor includes the three east-west streets of Cucharras Street, Colorado Avenue, and Pikes Peak Avenue, as well as the Midland Trail.

2.1 SPECIAL DISTRICTS

The study area includes the Old Colorado City historic district and two maintenance districts.

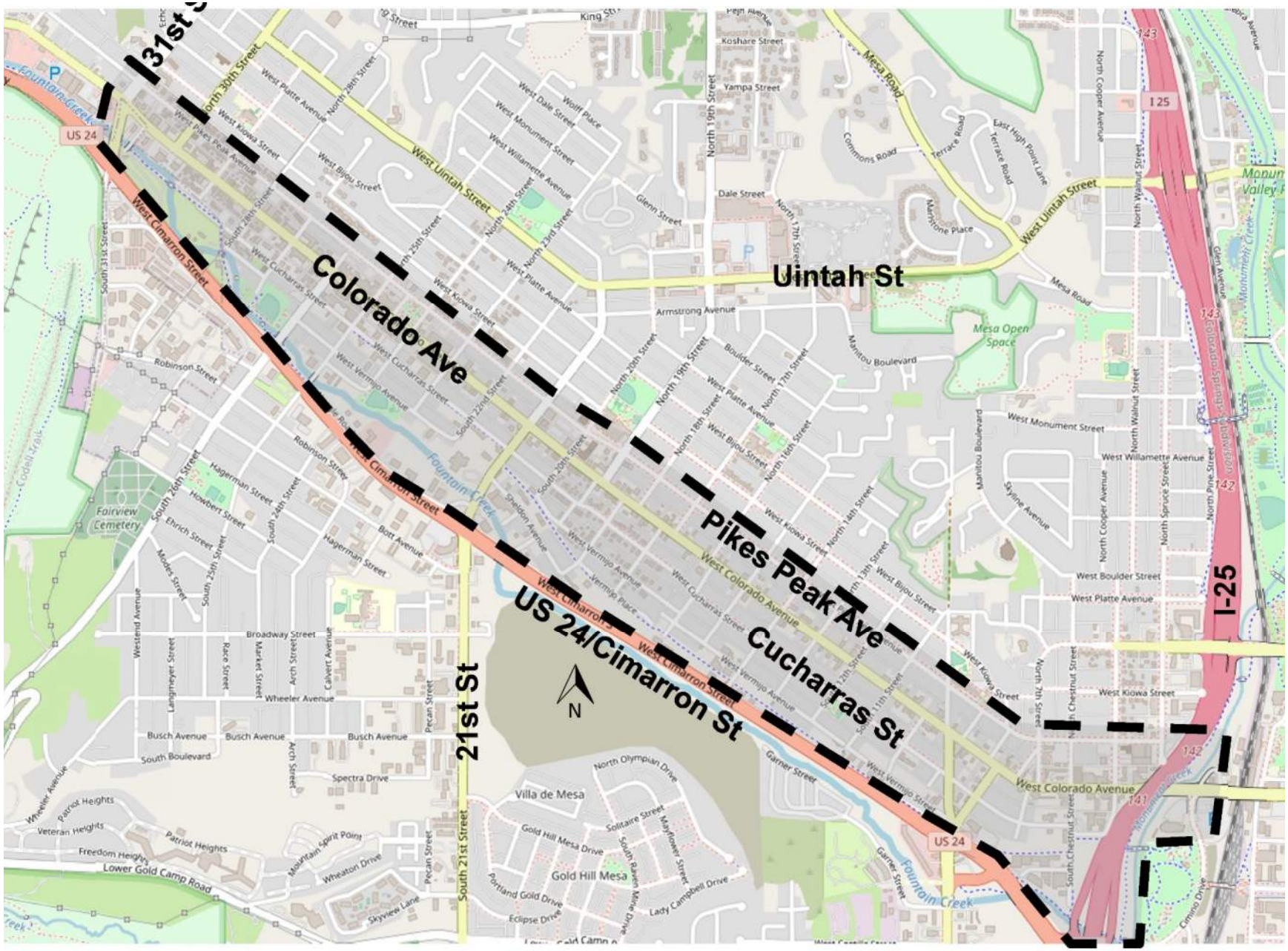
2.1.1 Old Colorado City Historic District

Old Colorado City, formerly Colorado City, was once a town. It is now a neighborhood within the City of Colorado Springs, and its commercial district is listed on the National Register of Historic Places. It was founded during the Pikes Peak Gold Rush of 1859 and was involved in the mining industry, with many residents employed by nearby mines. It was briefly the capital of the Colorado Territory (1861-1863). It is now a tourist area with boutique shops, art galleries, and restaurants. The Old Colorado City Historic District generally includes Colorado Avenue, Pikes Peak Avenue, and Cucharras Street, between 28th Street and 22nd Street.

2.1.2 Old Colorado City Security and Maintenance District

Special Improvement Maintenance Districts (SIMDs) provide financing for public improvement costs and/or are responsible for ongoing services or maintenance of improvements that are not provided by the City, Colorado Springs Utilities, or another entity such as a property owners association. The Old Colorado City Security and Maintenance District provides for those public improvements which have been uniquely developed for the Old Colorado City Development Area.

Figure 1. Midland Corridor Study Area



2.1.3 Colorado Avenue Special Improvement Maintenance District

The Colorado Avenue SIMD provides financing for maintenance of certain public facilities for merchants, residents, and property owners in the district of Colorado Avenue between Walnut Street and Chestnut Street, and Walnut and Chestnut streets between Pikes Peak Avenue and Cucharras Street.

2.2 COMMUNITY RESOURCES IN THE STUDY CORRIDOR

The study area is largely residential, with commercial and industrial land uses concentrated along the frontage of Colorado Avenue and within Old Colorado City. Community resources in the study area include the following:

- Schools – the University School (private, K-12), West Elementary School (public, K-5), West Middle School (public, 6-8), Buena Vista Elementary School (public, K-5)
- Public parks – Vermijo Park, Blunt Park, Cucharras Park, Bancroft Park
- Non-profits and churches
- Fire Stations - #5 at Colorado Avenue/29th Street and #3 at Colorado Avenue/Limit Street
- Post office – at Cucharras Street/25th Street
- Old Colorado City Library at Pikes Peak Avenue/Colbrunn Court
- Old Colorado City History Center at Pikes Peak Avenue/24th Street

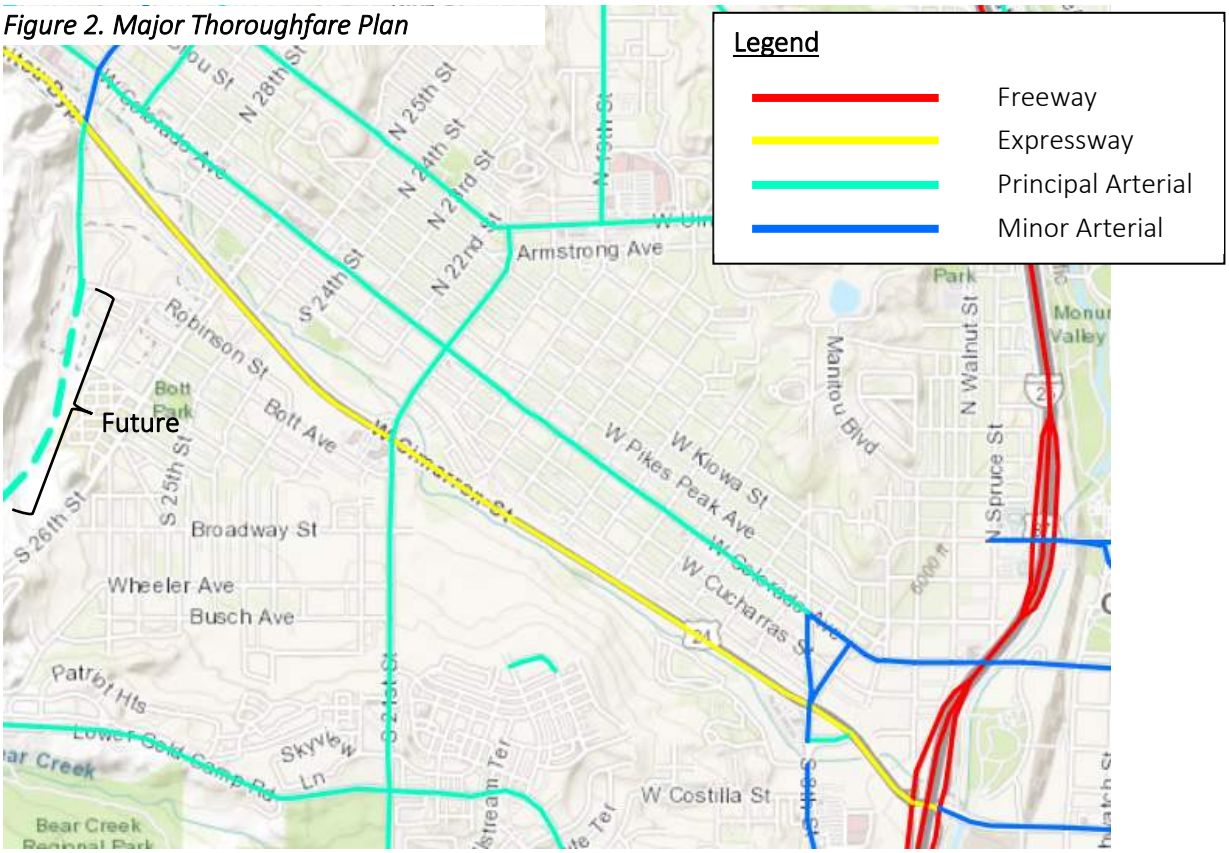
2.3 AREA PLANNING DOCUMENTS

The planning documents below guide the future development of the study area.

2.3.1 Colorado Springs Major Thoroughfare Plan

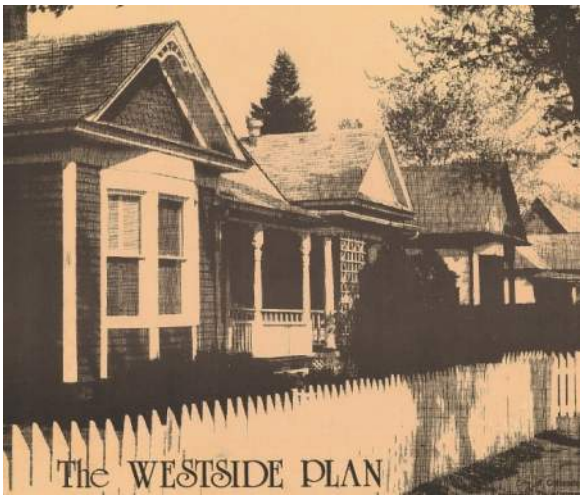
A screenshot of the Colorado Springs Major Thoroughfare Plan covering the study area is shown in Figure 2. In the study area, the following streets are classified as higher than a local/residential street:

Figure 2. Major Thoroughfare Plan



Colorado Avenue is classified as a minor arterial west of Limit Street, and as a principal arterial from Limit Street to points east, per the City's Major Thoroughfare Plan. Major roads intersecting the Colorado Avenue corridor are 31st Street (principal arterial), 30th Street and 21st Street (minor arterials), and Limit Street and 8th Street to the south (principal arterials). Parallel facility US 24 to the south is classified as an expressway, and parallel facility Uintah Street to the north is classified as a minor arterial. Interstate 25 (I-25) in the east part of the study area is classified as a freeway.

2.3.2 The Westside Plan (1979)



The Westside Plan is a redevelopment plan prepared in the late 1970s to determine the desire for development within the study area. It was prepared by a team of residents, business owners, and consultant and City planners, and was driven by objectives that convey the intent of "a balanced community in which various forms of development are possible without sacrificing or destroying any of the unique characteristics of the Westside study area."

The Westside Plan has these neighborhood objectives relating to transportation:

- Provide improved pedestrian and bicycle access throughout the Westside to accommodate and encourage alternative modes of transportation.
- Develop a traffic circulation system based on a street hierarchy approach to facilitate efficient movement of traffic based on existing and projected traffic volumes.

Subarea objectives pertaining to this study include:

- Reduce the traffic flow on Pikes Peak Avenue (and Kiowa Street) and encourage greater use of Colorado Avenue.
- Extend Uintah Street to 31st Street to improve traffic flow from Uintah Street to the Midland Expressway (US 24) and thereby minimize the impact of traffic on Westside residential neighborhoods.
- Develop more usable open space and a linear park along Fountain Creek and where possible connect the Fountain Creek open space to adjacent neighborhood parks and trail systems.
- On far west Colorado Avenue, improve traffic control throughout the area with consideration for more adequate pedestrian crossings.

The Westside Plan concludes with this list of recommendations for transportation:

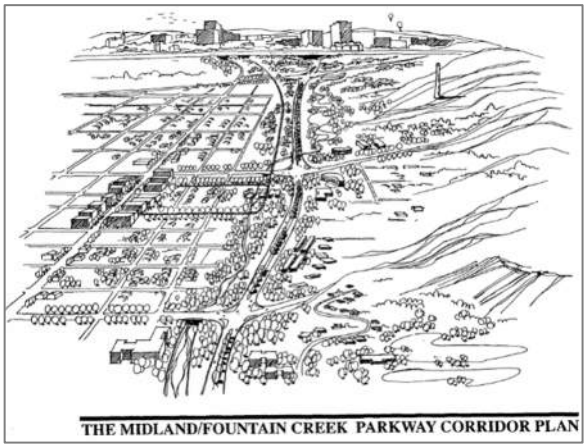
- Change the four-way stop control at Pikes Peak Avenue/21st Street to a pedestrian-actuated signal if its purpose is to protect the schoolchildren crossing 21st Street. The present stop sign and flashing light is not compatible with 21st Street as a minor arterial route.
- Grade-separate the signalized intersections along the Midland Expressway (US 24), with the 8th Street intersection being the priority.
- Construct a southwest loop connection comprised of a southbound extension of 31st Street turning eastward and connecting to Lower Gold Camp Road. The road would be classified as a major arterial.

- Along Colorado Avenue, establish distinct gateways to the Westside using street design and landscaping. Unite the areas to the north and south of Colorado Avenue by creating safe and pleasant pedestrian crossings.
- Connect all the open spaces, schools, activity centers, and residential areas through a system of bike routes and a bike trail along Fountain Creek. Keep bike routes on residential streets where possible. Include an adequate bicycle and pedestrian path in any bridge improvements on Colorado Avenue. A map in the Westside Plan shows on-street bike routes/lanes in this study area on 31st Street, 27th Street south of Pikes Peak Avenue, 26th Street south of Cucharras Street, Cucharras Street between 27th and 26th streets, 21st Street south of Pikes Peak Avenue, 19th Street north of Pikes Peak Avenue, Limit Street and 8th Street south of Pikes Peak Avenue, Walnut Street north of Colorado Avenue, Pikes Peak Avenue west of Chestnut Street, and Colorado Avenue east of Walnut Street.
- The possibility of reusing the streetcar tracks buried under Colorado Avenue was raised but dismissed in the study process because of the anticipated high cost.

The Westside Plan concludes with recommendations for a system of gateways, intersection hierarchies, and architectural and sign guidelines.

2.3.3 Midland/Fountain Creek Parkway Corridor Plan (1989)

This study created a concept plan to revitalize the Midland/Fountain Creek corridor west of I-25. The plan includes recommendations to:


THE MIDLAND/FOUNTAIN CREEK PARKWAY CORRIDOR PLAN

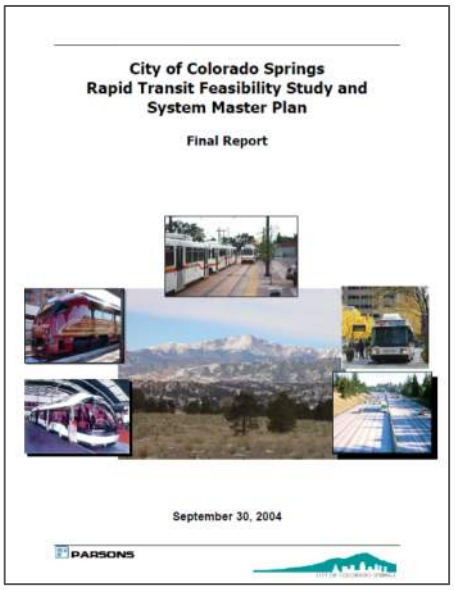
- Enhance Colorado Avenue with additional shade trees along its entire length.
- Create a continuous multi-use trail along Fountain Creek from Monument Creek to Schryver Park in Manitou Springs. The trail right-of-way should be at least 20 feet wide, and ultimately the trail could link to other trails along Bear Creek, the Foothills, and into the Pike National Forest.
- The corridor should include an electric trolley system with overhead wires running from downtown Colorado Springs to Bancroft Park. The trolley would run either along Colorado Avenue or along the railroad right-of-way (note: the railroad right-of-way is now used for the Midland Trail) west from I-25, then run on-street along 25th Street to Colorado Avenue, then along Colorado Avenue to 22nd Street.
- The railroad right-of-way should be considered for possible conversion into a linear park/trail corridor with a paved hike/bike path. (This has mostly been completed.)
- The intersection of 21st Street and Colorado Avenue should be improved to provide better traffic and pedestrian circulation.

2.3.4 Colorado Avenue Street Railway Feasibility Study (1995)

In the mid-1990s, a nonprofit group called the Pikes Peak Historical Street Railway Foundation mounted an effort to restore streetcar service to the old routes on Colorado Avenue. A 1995 feasibility study commissioned by the foundation estimated the streetcar would get 1.4 million riders annually and would be self-supporting with a fare of $1.25 per ride. City voters approved the idea in 1997, and foundation

officials made several predictions in subsequent years that streetcar service was just a couple of years away. The plan was halted after the Colorado Department of Transportation (CDOT) raised concerns about the route crossing I-25 on the Colorado Avenue bridge.

2.3.5 City of Colorado Springs Rapid Transit Feasibility Study and System Master Plan (2004)



The purpose of this system master plan was to identify broad corridors within which rapid transit services could be implemented with the assistance of federal New Starts funds. Through meetings with and presentations to community groups, technical resources, Citizens' Transportation Advisory Board (CTAB), and City Council, the project team reduced the original 22 prospective corridors to the top nine "most promising" corridors which included Academy Boulevard, Nevada Avenue, US 24 to Manitou Springs, Platte Avenue, Fountain Boulevard/US 24 Bypass, I-25, Garden of the Gods Road/Austin Bluffs Parkway, Union Boulevard, and Woodmen Road.

Through additional meetings, the project team completed a system-level screening process. This phase of the study examined possible combinations of the nine promising corridors to identify a three- to four-corridor system in which rapid transit services could best serve the Pikes Peak region. The system-level screening process provided a broad measure of how the corridors could function as a system based on overall feasibility, ridership, issues related to the human and natural environments, and cost. The four corridors selected through this system-level planning process are broad corridors of up to two miles in width. The US 24 corridor was not one of the four rapid transit corridors recommended, which were Nevada Avenue, Platte Avenue, Garden of the Gods Road/Austin Bluffs Parkway, and Academy Boulevard.

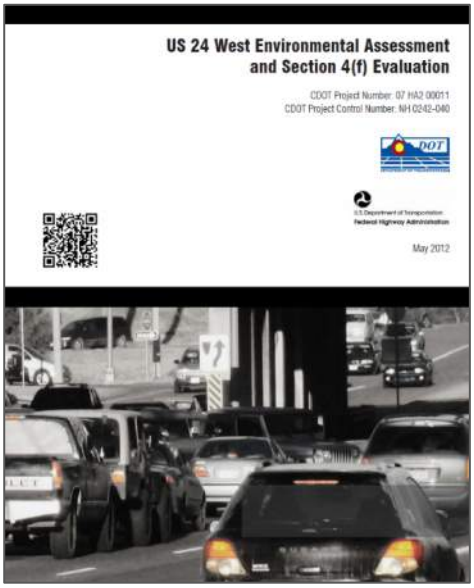
2.3.6 Colorado Springs Truck Route Map (2010)

The Colorado Springs Truck Route Map (effective January 1, 2010) shows two truck routes near the study area: US 24 and I-25. Accordingly, trucks are not permitted to use streets other than these unless they must use the street as a route for a delivery or pick-up. The Truck Route Map is currently being revised as part of the ConnectCOS effort, which is summarized later in this document.

2.3.7 CDOT US 24 West Environmental Assessment (2012)

The US 24 West Environmental Assessment (EA) analyzed the impacts of CDOT's proposal for improvements to a four-mile segment of US 24 from the Manitou Avenue interchange to I-25. The major features of the proposed improvements include grade-separated interchanges at 21st Street and 8th Street, modified signalized intersections at 31st Street and 26th Street, and overpasses at Ridge Road and 15th Street. A through lane would be added to US 24 in each direction between Ridge Road and 21st Street. Modifications would be made to the stretch of 31st Street from US 24 to Pikes Peak Avenue, including the intersection at Colorado Avenue. Additionally, a park-and-ride facility is proposed (to be built by others) at the northeast quadrant of US 24 and 31st Street, with access from Colorado Avenue.

The proposed action also includes completion of the Midland Trail between 25th Street and 21st Street, with north-south trail connections at each of the interchanges and intersections along the US 24 corridor. The 31st Street, 26th Street, and 21st Street bridges over Fountain Creek would all be reconstructed, and new permanent trail would be constructed as part of each bridge improvement. The new segments would go under each bridge in the vicinity of where they are currently located. The Midland Trail underpass at I-25 into America the Beautiful Park and connecting to the Pikes Peak Greenway would not be impacted by any proposed improvements.



The EA states that the proposed action would result in acceptable motor vehicle levels of service for the US 24 corridor that would help keep traffic off parallel routes. It also states that the proposed action does not preclude future transit alternatives. The Finding of No Significant Impact (FONSI) for the proposed modifications was signed by CDOT and Federal Highway Administration staff in 2012.

2.3.8 City of Colorado Springs Park System Master Plan (2014)

The City of Colorado Springs Park System Master Plan shows the Midland Trail and the Foothills Trail as existing urban trails in the study area. The Midland Trail is part of the larger East-West Connector route. Grade separations of the Midland Trail in the study area are listed as short- and mid-term priorities.

2.3.9 PPACG Regional Nonmotorized Plan (2015)

In the Pikes Peak Area Council of Governments' (PPACG) Regional Nonmotorized Plan, Old Colorado City and West Colorado Avenue are identified as key regional destinations connected by improvement corridors. Improvement corridors are specific to improvements for nonmotorized transportation.

Regional Route 18 runs from downtown Colorado Springs (at the intersection of the Pikes Peak Greenway and Cimarron Street) to downtown Manitou Springs. The route uses the Fountain Creek alignment and the Creek Walk alignment and falls within the jurisdictions of the City of Colorado Springs, the City of Manitou Springs, and El Paso County.

Corridor 4 connects the Broadmoor neighborhood to Old Colorado City, where currently no nonmotorized corridors exist. Importantly, the corridor establishes a crossing at US 24. This corridor travels east from the Broadmoor Hotel along Lake Circle to Mesa Avenue. It then travels north along Cresta Road. The corridor runs north on Cresta Road, which becomes 21st Street, crosses US 24 to Old Colorado City, and terminates at the intersection of Colorado Avenue and 21st Street.

Corridor 7 connects just south of Garden of the Gods Road to the Midland Trail via Chestnut Street and Walnut Street. From north to south the corridor crosses Fillmore Street, Uintah Street, and Colorado Avenue, and connects to existing trail networks beyond the Midland Trail, including the Sinton Trail and the Palmer-Mesa Trail.

Corridor 30 connects the Broadmoor Hotel to Colorado Avenue via 8th Street. The corridor starts at the Broadmoor Hotel and travels east along Lake Avenue to 7th Street. The corridor continues north along 7th Street to Cheyenne Road then onto 8th Street. The corridor crosses US 24 before connecting to Colorado Avenue.

2.3.10 Bancroft Park Action Plan (2017)

The guiding principles of the Bancroft Park Action Plan are to:

- Modify Bancroft Park to fit the existing and historic character of Old Colorado City and be respectful of the neighborhood context
- Provide a balance between the protection of the historic elements of the park and surrounding community with the renovation of the park
- Provide for both active and passive recreational needs within the community, to address everyday use as well as special events
- Create an action plan that is affordable and can be implemented

The action plan to achieve the project goals are:

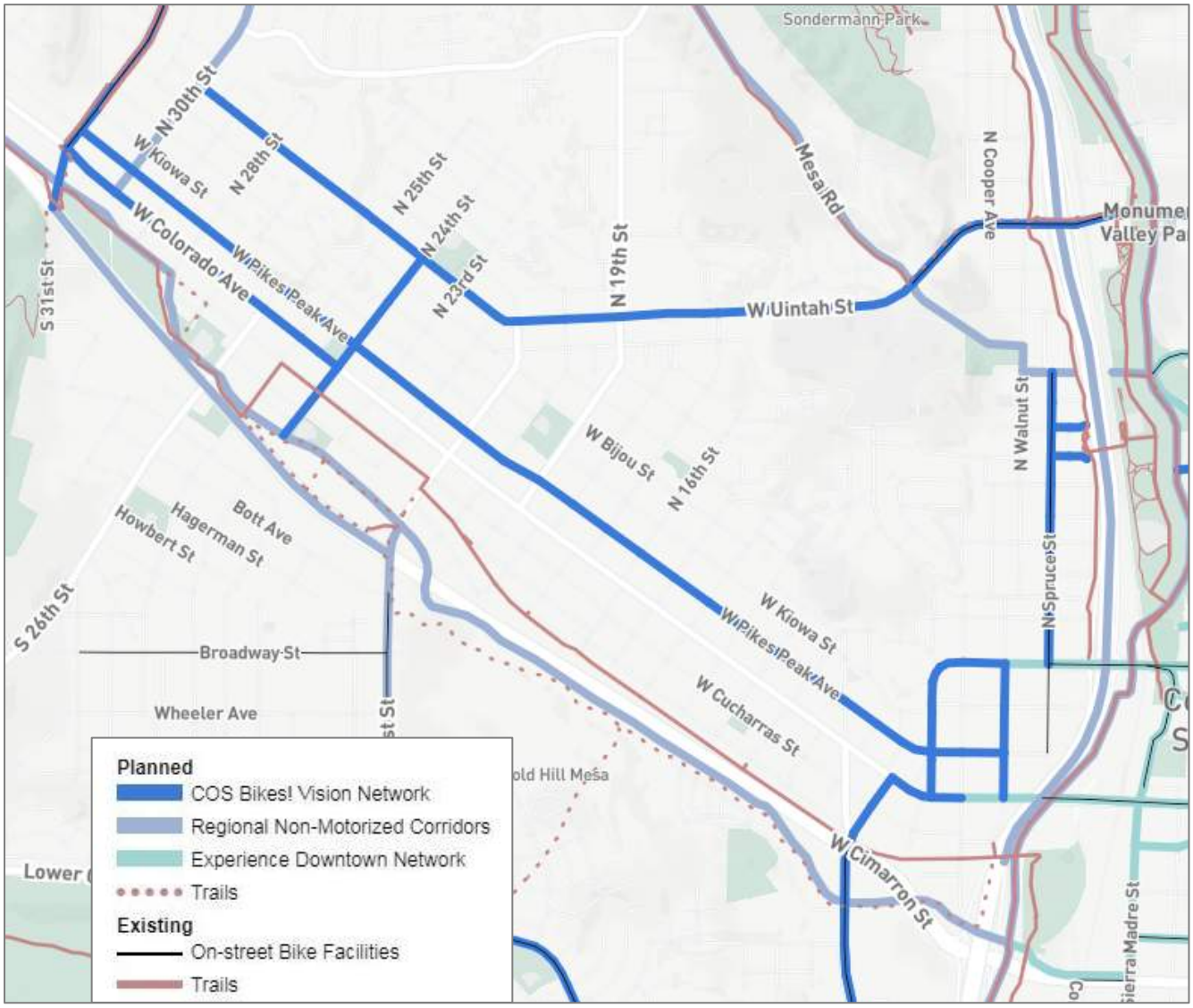
- Repair and improvement of the bandshell
- Placement of restrooms along Colorado Avenue, removed pavilion, improved park lighting, and enhanced park visibility from Colorado Avenue
- Passive recreation areas, open lawns, parking, playgrounds, enlarged plaza spaces
- Keep historic markers in place, expand interpretation opportunities, simplistic and symmetrical design, buildings to match historic character of park
- Improved hardscape and larger concrete plaza space for events
- Accessible ramps, concrete repairs, park amenities

The plan was implemented and the park reopened in the summer of 2020.

2.3.11 COS Bikes! Colorado Springs Bike Master Plan (2017)

The Bicycle Master Plan Vision Network (Figure 3) shows unspecified bicycle facilities along the Colorado Avenue corridor between 31st Street and 24th Street, and from 8th Street east past the railroad overpass. Bicycle facilities are shown on the parallel facility of Pikes Peak Avenue from 31st Street to Walnut Street. Bicycle facilities intersect the Colorado Avenue corridor along the crossing streets of 31st Street, 24th Street, 8th Street (to the south), 7th Street (to the north), and Walnut Street. 30th Street north of Colorado Avenue is shown as a planned regional non-motorized corridor.

Figure 3. COS Bikes! Vision Network Map



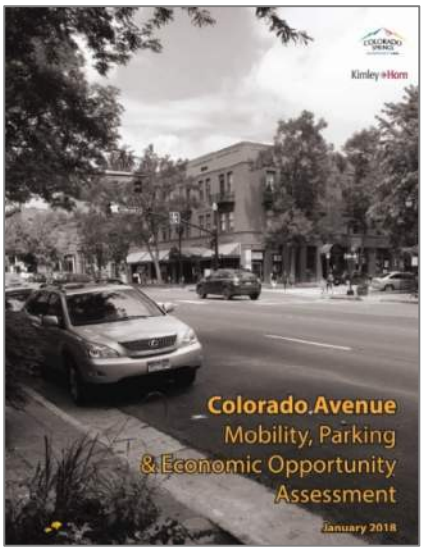
2.3.12 Colorado Avenue Mobility, Parking & Economic Opportunity Assessment (2018)

At the request of business owners, the City initiated an assessment of Colorado Avenue between 31st and 21st streets, with specific focus between 27th and 24th streets, to evaluate how the roadway and public infrastructure could better support the economic vitality of Old Colorado City. The study engaged residents and local business owners to evaluate the mobility choices and accessibility requirements within

Old Colorado City, the quality of the area's parking, and the safety and efficiency of the corridor's traffic operations within the District.

The goals of the study were to determine recommendations for:

- Mobility improvements in Old Colorado City that allow residents, employees, and visitors to get where they need to go reliably and efficiently.
- Improvements for accessibility so that Old Colorado City can be enjoyed by people of all ages and mobility levels.
- Transportation investments in Old Colorado City that contribute to an integrated sense of place.



The study notes that the reconstruction of the US 24/I-25 interchange that was completed in 2017 allows Colorado Avenue to operate more as a retail "Main Street" for Old Colorado City and reinforces the area as one of the city's top tourist destinations, and less of a regional transportation corridor.

The parking analysis done as part of this study found that on-street parking along Colorado Avenue between 31st and 21st streets was nearing capacity but that the public surface parking lots and on-street parking along side streets were underused.

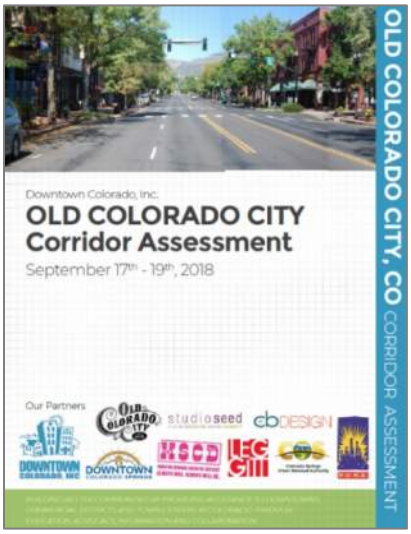
An accessibility analysis of Colorado Avenue between 31st and 21st streets found that most of the pedestrian facilities do not adhere to current American with Disabilities Act (ADA) guidelines. An assessment of the pedestrian realm found it over-programmed and cluttered, and it was pointed out that the curb height on the north side in some places interferes with parking functionality and accessibility.

As part of the study a traffic operations analysis was performed for the signalized intersections along Colorado Avenue between 31st and 21st streets. This analysis is discussed later in this report.

The study notes that Old Colorado City is an important destination for Colorado Springs and the popular land uses along Colorado Avenue will always be attractive to bicyclists from around the city. It recommends that depending on the ultimate configuration of Colorado Avenue, two bicycle mobility and safety improvements to the corridor are suggested: 1) if Colorado Avenue retains its existing cross section, or is reconfigured with a new cross section that cannot accommodate designated bike lanes, Pikes Peak Avenue should be upgraded from a designated Bike Route to a Bike Boulevard (use of Cucharras Street in creating a Complete Street Network is also mentioned); 2) if a reconfiguration of Colorado Avenue allows an on-street bike facility, it is suggested either a conventional bike lane or a protected bike lane be added to the roadway. Regardless of Colorado Avenue's ultimate configuration, the City should seek to complete the Midland Trail as an off-street facility between 25th and 21st streets. Deliberate improvements would occur over time and through redevelopment requests initiated by landowners.

The 2018 Colorado Avenue Mobility Plan presents three alternative cross sections for Colorado Avenue from 31st Street to 21st Street, each of which distributes space within the road right-of-way differently to favor the moving vehicle, the parking vehicle, or the pedestrian. The report states that the alternative that favors the pedestrian, "Option #3," shown in Figure 4 and Figure 5, appears to best meet the overall objectives of the study for mobility, accessibility, and placemaking, but that a more integrated long-range land use and community vision may not reach the same conclusion.

2.3.13 Old Colorado City Corridor Assessment (2018)



This study involved a privately-led assessment resulting in a list of short-term, mid-term, and long-term improvements for the Old Colorado City corridor. The stakeholder involvement process for the study revealed that traffic speeds on Colorado Avenue, the homeless, and underlit streets and sidewalks were the top concerns. Transportation recommendations included:

Short-Term Ideas

- Place grand gateways at the entrances to Old Colorado City at Colorado Avenue/27th Street and Colorado Avenue/24th Street, and at US 24/26th Street.
- Designate Colbrunn Court a "Festival Street" and allow it to be closed easily to motor vehicle traffic for special events.

Figure 4. Preferred Cross Section in Old Colorado City, from Colorado Avenue Mobility Plan

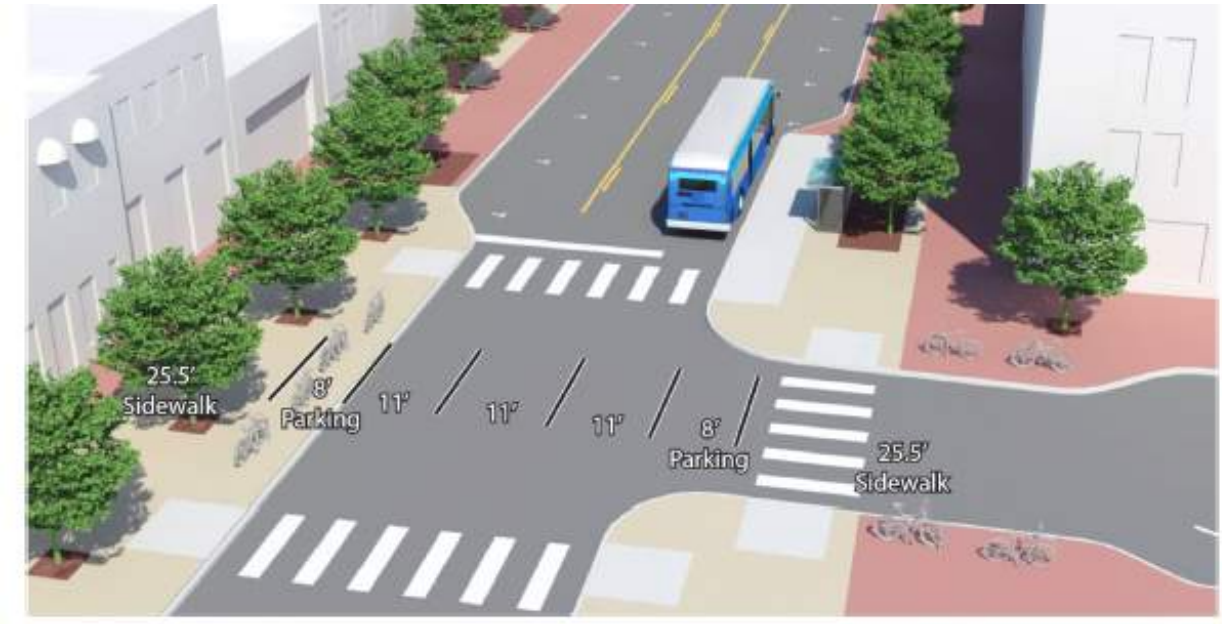
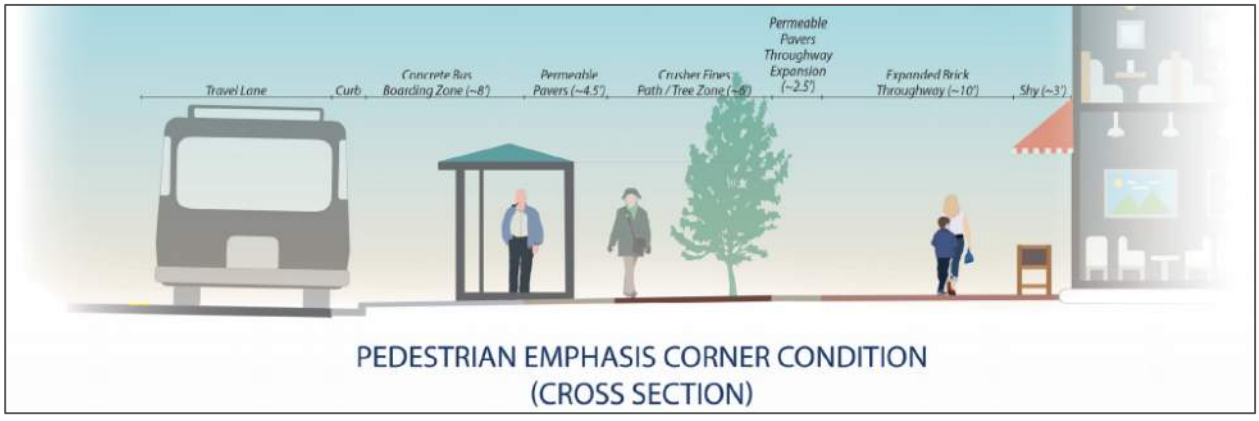


Figure 5. Preferred Corner Condition in Old Colorado City, from Colorado Avenue Mobility Plan



Mid-Term Ideas

- Streetlights along Colorado Avenue light the roadway but not the sidewalks. Consider pedestrian-scale lighting.
- Add bike racks, bike repair stations, and signage to connect bikeable roads to Old Colorado City.
- Surveys for the study did not support bike lanes on Colorado Avenue.
- Make the Mountain Metro Transit line #3 into a free shuttle route, from Downtown Colorado Springs through Old Colorado City to Manitou Springs.
- Focus on Old Colorado City as a place to begin and end hikes and bike rides to the Red Rocks Open Space (via a grade-separated crossing of US 24) and Garden of the Gods.

Long-Term (5-10 years) Ideas

- Correct the ADA accessibility issues of the existing sidewalks and curbs.
- Expand the width of sidewalks to provide a clear, unobstructed walking path of a consistent dimension throughout the Old Colorado City business district.
- Address long-term stormwater issues. If possible, upgrade underground systems when redesigning the street. Alternatively, incorporate above-grade stormwater features into the streetscape design with elements such as stormwater garden curb extensions, curbside stormwater gardens, green alleys, and bioswales in key locations.
- Use distinct identities and signage for trail connections to Garden of the Gods, Red Rock Canyon, and the Midland Trail.
- Add lighting to and formalize Cucharras Street as a bicycling street. Add sharrow pavement markings, bike lanes, or a two-way bike path.

The study report concludes with alternatives for long-term physical improvements for Colorado Avenue through Old Colorado City. The existing cross section is shown in Figure 6. The cross section options involve reducing the number of driving lanes on Colorado Avenue from four to two and providing a center left-turn lane, and differ in the treatment of on-street parking and sidewalk extensions. The cross section shown in Figure 8 is preferred because it reduces the crossing distance for pedestrians, allows for an expanded sidewalk on both sides of the street, and enables the curb height to be decreased for better accessibility on both sides of the street. The report states that the cross section shown in Figure 7 could be used as a preliminary phase.

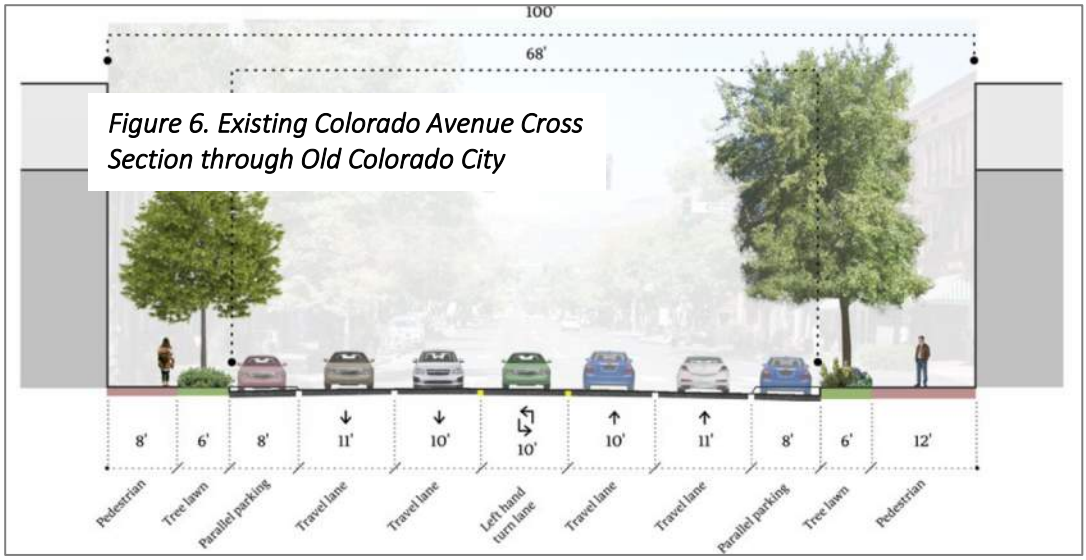


Figure 6. Existing Colorado Avenue Cross Section through Old Colorado City

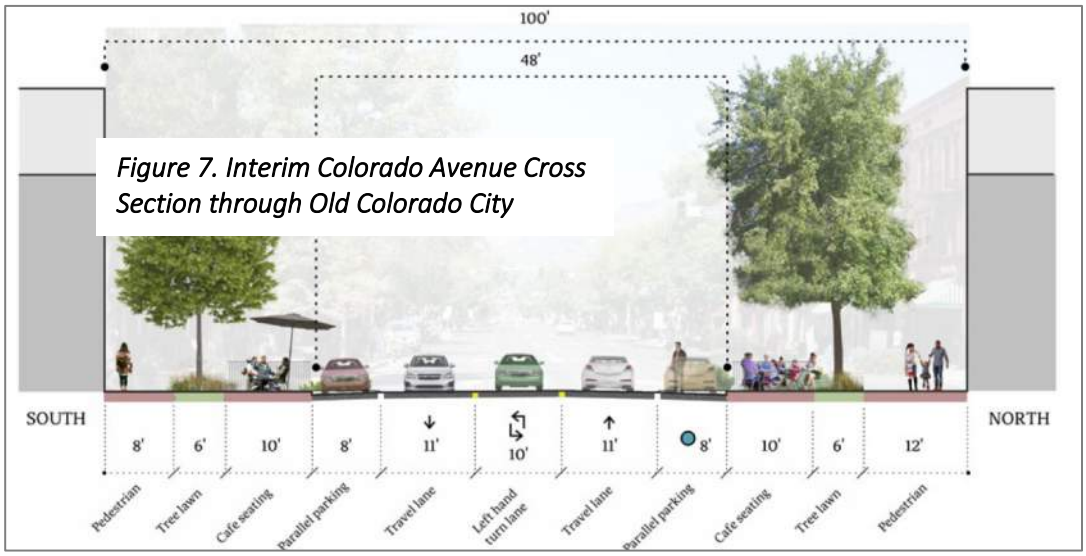


Figure 7. Interim Colorado Avenue Cross Section through Old Colorado City

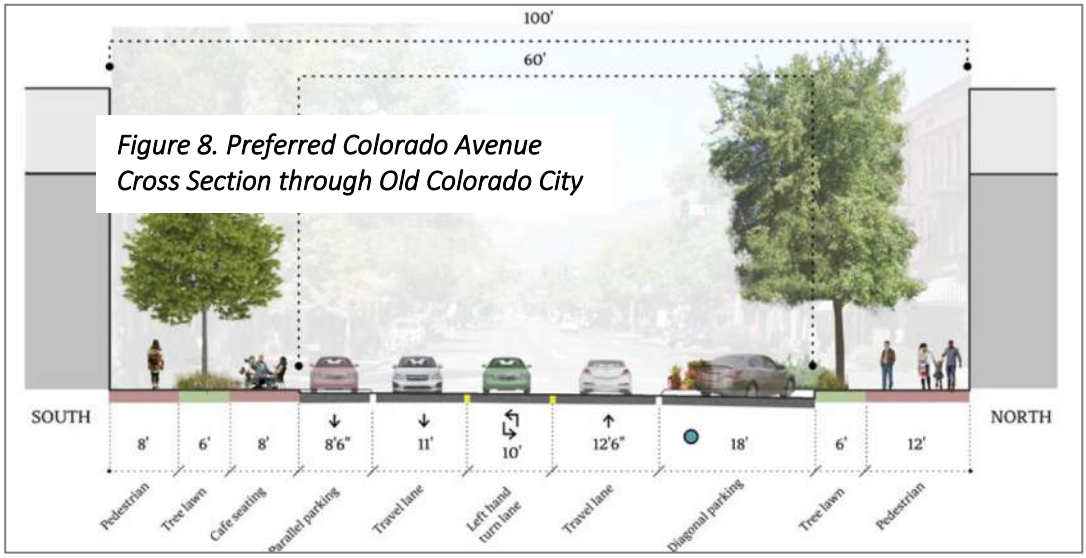


Figure 8. Preferred Colorado Avenue Cross Section through Old Colorado City

2.3.14 31st Street Traffic Operations and Safety Study (2019)

This study included a traffic operations and safety analysis for 31st Street from the US 24 intersection to Fontanero Street. The study concluded with a preferred alternative for improvements in this corridor, shown in Figure 9. The preferred alternative includes a five-lane cross section on Colorado Avenue east of 31st Street as well as the following:

- Construction of dedicated right-turn lanes for southbound 31st Street at US 24 and northbound 31st Street at Colorado Avenue
- Modifications to the US 24 westbound right-turn lane
- Relocation of the pedestrian crossing at US 24 to the west leg of the intersection
- Construction of a pedestrian signal at 31st Street and Pikes Peak Avenue
- Time-specific turning movement restrictions at Pikes Peak Avenue

Figure 9. Preferred Alternative from 31st Street Study

2.3.15 Colorado Springs Wayfinding Design Guide (2019)

This document provides guidance to the City for planning, designing, and implementing an effective bicycle wayfinding system. Two of the routes prioritized for wayfinding signs are in the Midland Corridor study area: Route C follows Bijou Street beginning at the intersection of Bijou Street/31st Street, turns south at 30th Street, and then follows Pikes Peak Avenue to Walnut Street. At Walnut Street the route turns south until Colorado Avenue, which it follows east and continues toward downtown. Route D begins at the 31st Street parking lot for Red Rock Canyon but enters the study area from the south at the intersection of US 24/26th Street. From that point it follows 26th Street north to Cucharras Street, then turns east to 25th Street, which it follows north to Pikes Peak Avenue. Route D connects to Route C at the intersection of Pikes Peak Avenue/25th Street.

Level 1 (Primary) Citywide Destinations in the Midland Corridor Study Area are Old Colorado City and the Midland Trail. Level 2 (Secondary) Local Destinations in the study area are the Westside Community Center, West Middle and Elementary schools, and Buena Vista Elementary School.

2.3.16 PlanCOS (2019)

PlanCOS is the Comprehensive Plan for the City of Colorado Springs that was adopted in early 2019. The plan has several policies and accompanying strategies that apply to this study corridor, including the following.

Policy RC-3.C: Encourage the creation and evolution of Creative Districts and Corridors (Typology 4) throughout the city through support and attraction of additional museums, performance venues, and galleries for the fine and performance arts.

Strategy RC-3.C-4: In coordination with the arts and culture community, establish new Creative Districts and Corridors, such as an East Platte Arts District and Colorado Avenue Creative Corridor.

Strategy RC-3.C-5: Complete access, parking, and shuttle feasibility studies within targeted Creative Districts and Corridors and implement agreed-upon solutions.

Policy SC-2.A: Systematically support and encourage the density and design needed to support this network (choice-based transit connecting to a larger regional transit system) beginning with Downtown, key corridors, activity centers, and trip generators.

Strategy SC-2.A-3: Plan and promote "high-capacity" transit in the Urban Core (Typology 1) and Established Suburban areas (Typology 2) in such corridors as Academy Boulevard, Nevada Avenue, Weber Street, Colorado Avenue, and Platte Avenue.

On the "Renowned Culture Framework" map, Old Colorado City is designated a Cultural and Tourist Attraction and Colorado Avenue within Old Colorado City is designated a Creative Corridor. Cultural and Tourist attributes and recommendations are:

- Strengthen branding and wayfinding
- Increase regional access and connectivity
- Focus on pedestrian experience
- Preserve character-defining features

Colorado Avenue is called out as a Reinvestment Area/Community Hub on the PlanCOS "Unique Places Framework" map, with a Community Activity Center just west of the Colorado Avenue/31st Street intersection. On the Vision Map, Fountain Creek is labeled a Complete Creek: A major waterway that serves as a stormwater, wildlife, and greenway corridor and which may provide additional complementary functions including non-motorized trail connections and routes for utilities.

Colorado Avenue is designated in PlanCOS as a "Special Focus (Multimodal)" Corridor on the "Strong Connections Framework" map. A Multimodal Corridor is a facility and planning approach that accommodates varied types of users but with a specific and concerted effort to promote effective transit service to connect key destination areas within the city. High-end transit service could include a bus rapid transit (BRT) line, a streetcar line, specialized bus or transit system, or fully autonomous transit vehicles. In many cases, and especially for Urban Core Streets with parallel streets, Multimodal Corridors should be planned and operated as Multistreet Corridors rather than as single streets. This approach allows for the benefits and impacts of all modes to be better managed and accommodated.

2.3.17 Mountain Metro Transit 2045 Regional Transit Plan (2020)

Old Colorado City is currently served by two Mountain Metropolitan Transit routes, Lines 3 and 16. Line 3, "Colorado Avenue," provides service every 30 minutes between Downtown Colorado Springs and Manitou Springs. Line 16, "Brookside Street," provides 60-minute service between Navajo Street/Nevada Avenue and Henderson Avenue/19th Street.

Most of the bus stops along Colorado Avenue consist of a sign and a bench. Both bus stops at the Goodwill Retail Store near 23rd Street, and the bus stop on the south side of Colorado Avenue at 25th Street, have a shelter for the bench.

The 2045 Regional Transit Plan for Mountain Metro Transit examined transit corridors using information from PlanCOS. The Midland Corridor falls along a "core transit corridor" connecting downtown Colorado Springs and downtown Manitou Springs. Core corridors are defined as primary corridors with potential for high capacity/high frequency transit; however, the study points out that not all core corridors are high frequency corridors.

Core corridors serve to create a network of higher frequencies and a wider service span. Core corridors should move riders expeditiously and safely by avoiding residential streets (where possible) populated by single family homes, active pedestrian crossings, and congested intersections. Core corridors benefit the overall network by providing high frequency connections to intermediate and local corridors. (As an example, 31st Street is categorized as an intermediate corridor.) The core corridors also encourage ridership through more spontaneous use of the system.

Riders on core corridors do not necessarily need to consult a schedule at peak times, but know a bus will arrive at a stop within 15 minutes.

The 2045 Regional Transportation Plan lists as an Unfunded Project Fixed Guideway Line #3 on West Colorado Avenue ($105.1 million). This is taken from a recommendation for the US 24 West Strategic Corridor from the Transportation System Management and Operations (TSMO) appendix of the Regional

Transportation Plan, to implement a fixed guideway system from Downtown Colorado Springs to Downtown Manitou Springs.

2.3.18 2045 Long Range Transportation Plan (2020)

The Long Range Transportation Plan (LRTP) is a strategy for the best use of public funds in meeting community goals. It provides the foundation for all other aspects of transportation decision-making for the Metropolitan Planning Organization (MPO) region by establishing the vision and goals for regional transportation, evaluating the system as a whole, and then identifying strategies for implementation.

The 2045 Long Range Transportation Plan for the Pikes Peak Region identifies these projects in the study area on the 2045 Fiscally Constrained List:

US 24/31st Street Intersection Improvements

The LRTP lists an improvement project at the intersection of US 24 and 31st Street, described as minor widening of the eastbound auxiliary lane on US 24 at 31st Street. CDOT is the sponsoring agency. The 2022-2025 Transportation Improvement Plan (TIP) had funding programmed for the project for the year 2022. The TIP is the short-range plan that implements the goals of the LRTP, and identifies specific projects to which federal, state, and local funds will be allocated.

31st Street Bridge Over Camp Creek Replacement

The LRTP also lists an improvement project for the 31st Street bridge over Camp Creek replacement, which includes the environmental clearances and design for the bridge extending from Fountain Creek just north of US 24 to Echo Lane. The design and clearances were completed in 2019.

31st Street

The fiscally-constrained project list includes the 31st Street project ($20 million) sponsored by the City of Colorado Springs, but it is not yet in the TIP. The project description is as follows:

> For this project, improvements are being considered between Fontanero Street and Colorado Avenue only. Convert the concrete channel to a naturalistic rock lined channel. The proposed channel will narrow the existing roadway along the 31st Street bridge and require the reconstruction of four bridges along the corridor. The four bridges over Camp Creek and along the 31st Street project area are at various stages of their service life. The roadway will be narrowed to accommodate a new trail plus the drainage improvements.

Colorado Avenue Roadway Improvements

The fiscally-constrained project list includes the Colorado Avenue Road Improvements project. It is included in the 2023-2027 TIP with a combination of federal grant and local match funding in the years 2025 ($669k), 2026 ($663k), and 2027 ($446k). The project description is as follows:

> This portion of Colorado Avenue is currently under study which will identify specific transportation improvements for Colorado Avenue between 31st Street and Cimino Drive. Since Colorado Avenue in the LRTP is limited to the section between 33rd Street and Limit Street the project limits have been adjusted to only include the section within these limits. As identified in the LRTP, the project could involve the conversion of segments of Colorado Avenue from a four lane road to a three lane road with the center lane being a two way left turn lane to improve safety and traffic flow. The study will also identify operational and safety improvements for the corridor. The project will enhance ADA accessibility with curb, gutter, sidewalk, and ramp improvements. Stormwater, conduit/ telecommunications, and utility improvements are also part of the project. The study will determine what parking and/or bike lanes improvements (if any) are recommended through the public vetting process. The corridor is located within the PPACG Top 10 Regional Non-motorized corridors and on

> the City of Colorado Springs Bike Master Plan. This project will bring the roadway up to City standards, provide economic benefits to Old Colorado City by improving the pedestrian environment and addressing parking issues, speeding traffic and enhancing transit facilities.

US 24/31st Street Park and Ride

A new park-and-ride at the intersection of US 24 and 31st Street, a proposal from CDOT's US 24 West Environmental Assessment (2012), is listed on the 2045 Fiscally Constrained Project List, sponsored by CDOT with a cost of $5 million. It is not yet listed on the TIP.

31st Street and Pikes Peak Crossing Improvement Project

In the approved 2022-2025 TIP, funded in 2023, and sponsored by the City of Colorado Springs, the project is described as follows:

> The installation of traffic control devices at Pikes Peak Ave and 31st to include a pedestrian activated signal, time restricted vehicular movements and wayfinding signage will remove a barrier to safe pedestrian and cyclist crossings along an important non-motorized corridor, thereby strengthening the connections between the commercial and tourist nodes of Old Colorado City, Downtown Manitou Springs, and building upon the recent revitalization efforts on the east side of Manitou Springs.

2.3.19 ConnectCOS (2022)

ConnectCOS is the City's Intermodal Transportation Plan that was being updated at the same time as this Midland Corridor Study. The ConnectCOS study culminated in a list of recommended projects for the city. Several of these are within the Midland Corridor Study area, and a smaller subset was forwarded to the PPRTA3 ballot list for vote in November of 2022. The Pikes Peak Rural Transportation Authority (PPRTA) is a collaborative effort among six regional governments to improve and maintain roads and support public transit. The PPRTA funds transportation improvements through a voter-approved incremental one-cent sales tax within member jurisdictions. Fifty-five percent of revenue is allocated to capital improvement projects, 35% to maintenance activities, and 10% for transit. Originally approved by ballot issue to begin in 2004, the capital projects portion of the tax was set to expire in 2013, before being reapproved by voters in 2012 and extended through 2023.

The premise of the PPRTA is reflected in its motto of "Promises Made, Promises Kept." This commitment is honored by listing the specific projects to be built with each voter-approved ballot issue. The PPRTA has built a legacy of trust by completing the projects in two sequential 10-year programs.

The next 10-year program of projects (PPRTA3) is being developed to form another extension by ballot in November of 2022 that would continue the program through 2033. As in the past, the program includes first priority "A list" and second priority "B list" projects. The A list projects represent a fiscally-constrained expectation based on anticipated tax revenues. The B list projects provide further direction where revenues may exceed expectations and a ready list of additional investments. By adopted program guidelines, B list projects may not be initiated until A list projects are completed.

The needs-driven projects identified by ConnectCOS as necessary for the long-range transportation vision (including those from this study) are being considered for potential inclusion in PPRTA3. Projects within or adjacent to the Midland Corridor Study are shown in Table 1 below.

Table 1. Midland Corridor Study Area Projects Identified in ConnectCOS

Project	PPRTA List
Midland Trail Improvements program as a regional collaboration project with multiple agencies	A
Midland Trail Completion (21st St to 25th St)	A
Colorado Ave Improvements - 21st St to Limit St	A
Colorado Ave Improvements - 28th St to 21st St	A
Colorado Ave Improvements - Limit St to I-25	B
8th Street Improvements - US 24 to Fountain Creek	B
Camp Creek Bridge - Bijou St to Fountain Creek	B
31st St/Camp Creek Roadway and Trail Improvements - Kiowa St to Fontanero St	B
Other Programs to be funded within PPRTA3: Transit Service Enhancements Transit Stop and Station Improvements Sidewalk Infill Traffic Signal Systems Upgrade State and Federal Discretionary Grant Match (multijurisdictional)	A and B

3. EXISTING TRAFFIC CONDITIONS

3.1 MOTORIZED VEHICLE COUNTS

Because this study was conducted during a time with anomalous traffic conditions (the COVID-19 pandemic), the study team relied primarily on counts taken pre-pandemic (before March 2020). CDOT had historical daily traffic counts on Colorado Avenue east of 31st Street, east of 17th Street, and east of 8th Street, and the City website had historical daily traffic counts on Pikes Peak Avenue and Cucharras Street (Figure 10). The 31st Street Study and Colorado Avenue Mobility, Parking & Economic Opportunity Assessment had turning movement counts for intersections along Colorado Avenue from 31st Street to 21st Street (Figure 11). To supplement the pre-pandemic data already available, new traffic turning movement counts were completed at the intersections of Colorado Avenue with 31st Street, 30th Street, 21st Street, Limit Street, 8th Street, and Walnut Street in July of 2021 (also in Figure 11). All new count data is included as Appendix A to this report.

3.2 TRAFFIC SPEEDS

The posted speed limit on Colorado Avenue is 30 mph except for the stretch that includes Old Colorado City, between 28th and 22nd streets, where the posted speed limit is 25 mph. The speed limit on both Cucharras Street and Pikes Peak Avenue is 25 mph. A speed study of the corridor conducted in 2017 as part of the Colorado Avenue Mobility, Parking & Economic Opportunity Assessment showed that the prevailing 85th percentile of Colorado Avenue traffic is traveling between 32 and 38 mph.

3.3 RIGHT-OF-WAY WIDTH

Colorado Avenue has a right-of-way width of 100 feet for most of the study corridor. Starting from the west, the right-of-way width is 100 feet until just east of 20th Street. Between 20th and 19th streets, the right-of-way width narrows to 85 feet. The right-of-way width remains 85 feet until the curve between McKinley Place and 7th Street, where it widens out to 100 feet again.

West of 19th Street, Cucharras Street has a right-of-way width of 60 feet. Between 19th Street and 18th Street the road alignment shifts and the right-of-way width varies. From 18th Street to just west of 16th Street the right-of-way width is again 60 feet. The alignment shifts again and the right-of-way narrows, and then east of 16th Street the right-of-way widens to 80 feet. The right-of-way width on Pikes Peak Avenue is 60 feet west of 19th Street and 80 feet east of 19th Street.

From 31st Street to 25th Street the Midland Trail does not have a dedicated right-of-way of a uniform width. There is no dedicated right-of-way for the Midland Trail between 25th and 21st streets. East of 21st Street the trail is in a City-owned right-of-way with a varying width.

3.4 PAVEMENT WIDTH

Colorado Avenue within most of the study area has a pavement width of 60 feet, centered within the right-of-way. Within the limits of Old Colorado City, there are places where the curb has been brought in closer to the roadway centerline as “bulb-outs” to shorten pedestrian crossing distances, and other places where the curb has been moved back to create parallel parking spaces. In the eastern part of the corridor there are also some stretches between McKinley Place and I-25 where the curb has been brought back closer to the property line to create parallel parking spaces.

The pavement widths of both Cucharras Street and Pikes Peak Avenue vary from approximately 26 feet to more than 38 feet. The Midland Trail has a continuous paved width of 12 feet, which is the design standard for the City’s Tier 1 trails.

Figure 10. Daily Traffic Volumes in Study Area

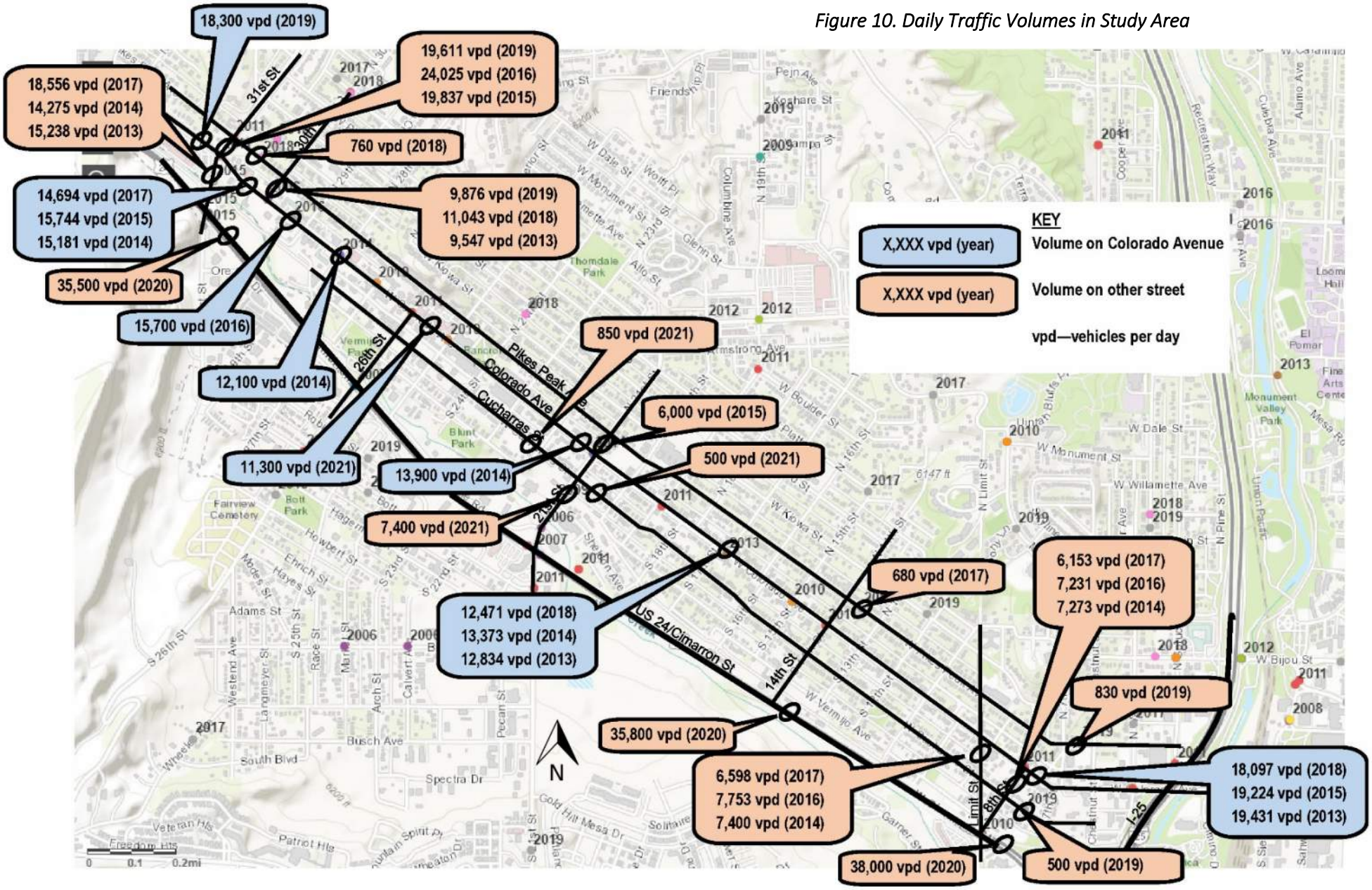
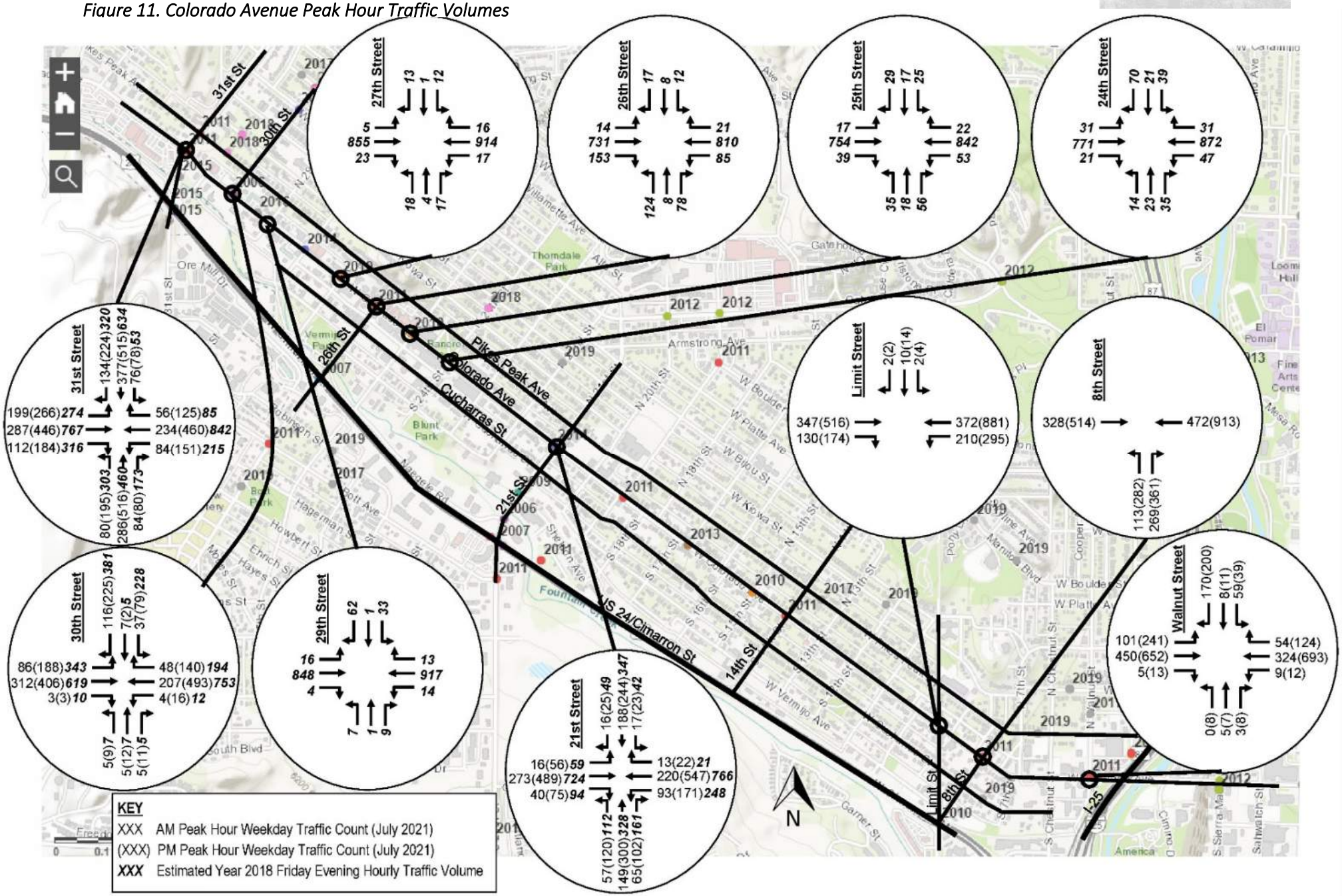


Figure 11. Colorado Avenue Peak Hour Traffic Volumes



3.5 PARKING

On-street parallel parking is permitted along most of Colorado Avenue in the study area. It is generally unmarked and unprotected and shares space with the outside through lane in each direction. Within Old Colorado City and near I-25 some blocks have curb-protected parallel parking. On-street parking is free except within and just outside Old Colorado City (from 27th Street to 22nd Street), where it is metered. There is also metered parking on 26th, 25th, and 24th streets and Colbrunn Court in the blocks adjacent to Old Colorado City. Several off-street parking lots are available near Old Colorado City, and offer free, metered, or paid parking.

Free on-street parallel parking is permitted on both Cucharras Street and Pikes Peak Avenue, as well as on the numbered streets running perpendicular to the corridor outside of the Old Colorado City area. On Cucharras Street between 12th and 11th streets and between 10th and 7th streets, there are wide unpaved areas with no curb between the road and the sidewalk, used for perpendicular parking on one or both sides of the street. Cucharras Street has some metered parallel parking near 25th Street in the Old Colorado City area.

The City of Colorado Springs requires off-street parking for most new buildings or changed land uses, but properties located within parking-exempt districts are exempted from the provision of the minimum number of off-street parking spaces for specific land uses. The City has two established areas in which there is no additional off-street parking required, one of which is the Old Colorado City Parking-Exempt District. The area is bounded on the north by the south line of Pikes Peak Avenue, on the south by the north line of Cucharras Street, on the east by the west line of 24th Street, and on the west by the east line of 26th Street.

There is also one planned provisional overlay area along Colorado Avenue in which parking standards have been varied to allow some relief to businesses located within that specified zone district. This allows for the following provisions for all properties zoned C-5/P on Colorado Avenue between 23rd and 7th streets:

- Minimum Parking Spaces Required:
  - Single-family dwelling units: No requirement
  - Multi-family dwelling units: One space per unit
  - Office: One space per 800 square feet
  - Retail: One space per 600 square feet
  - Restaurants: One space per 200 square feet
  - Other uses: Maximum of 20% reduction
- Off-Site Parking: In fulfilling the amended parking requirements in the C-5/P zone, parking spaces may be provided off-site within 500 feet on Colorado Avenue. A guaranteed access easement will be required as evidence of secured off-site parking.

3.6 SIDEWALKS AND CURBS

Colorado Avenue in the study corridor has continuous sidewalk of varying widths on both sides of the street. The Colorado Avenue Mobility, Parking & Economic Opportunity Assessment identified that many of the existing curb ramps are not accessible according to current guidelines. The curb along Colorado Avenue varies in height. About 1,000 feet of the westbound side of Colorado Avenue (from 2624 to 2426 West Colorado Avenue) has a “double curb” as shown in Figure 12. This was constructed due to the grade difference between the building entrances and the street. Past studies have noted that this curb design may interfere with opening the door of an adjacent parked car.

Cucharras Street has standard curb on both sides except for the blocks between 12th and 11th streets and 10th and 7th streets mentioned in the parking write-up above. Pikes Peak Avenue has standard curb and gutter throughout the study area. Both Cucharras Street and Pikes Peak Avenue have continuous sidewalks. Like the sidewalks on Colorado Avenue, there are places along both streets where the sidewalks and ramps would not be considered accessible under current guidelines.

Figure 12. Double Curb in Old Colorado City

3.7 STREETLIGHTS

Streetlights are located at regular spacing along the entire study length of Colorado Avenue. Throughout most of the study area street lighting consists of standard 30-foot-tall poles with six-foot cobrahead arms and 250-watt luminaires. In the Old Colorado City historic area, lighting is on shorter, decorative poles. Underneath the I-25 bridge there are wall-mounted streetlights on either side of Colorado Avenue. Streetlights on Cucharras Street and Pikes Peak Avenue are generally dimmer (100 watt), mounted on wood utility poles and only at intersections and a few mid-block locations. Some older high-pressure sodium streetlights have been replaced with LED-equivalents. There are no lights specifically for the Midland Trail.

3.8 CRASH HISTORY

The City of Colorado Springs provided crash data for the study area for the five-year period from August 30, 2015, to August 30, 2020. Crashes were reported both at intersections and along roadways (not necessarily attributed to an intersection). Figure 13 shows the number of crashes occurring at intersections and along the major roadways. The sections below present some observations about the number and types of crashes that have occurred in the study area in a recent five-year period.

Two fatalities occurred in the five-year period. Both were pedestrians, during night-time hours, in the year 2019. One was the result of an impaired driver and occurred near the intersection of Colorado Avenue/Cimino Drive (east of I-25). The other fatality occurred near Colorado Avenue/25th Street.

These are other locations that appeared to have a higher number of crashes than would be expected:

Pikes Peak Avenue/31st Street

Although the traffic entering the intersection of Pikes Peak Avenue/31st Street is substantially lower than that at the intersection of Colorado Avenue/31st Street, the number of crashes that occurred at the Pikes Peak Avenue/31st Street intersection in five years (54) was nearly as high as the number of crashes that occurred at the Colorado Avenue/31st Street intersection in the same amount of time (61). The City has plans to signalize and make other modifications at the Pikes Peak Avenue/31st Street intersection soon. Additionally, modifications for the 31st Street corridor were recommended in the 2018 31st Street study report. Consequently, this study will not be looking at recommendations for this area.

Pikes Peak Avenue/21st Street

Nine crashes occurred at this all-way stop intersection, which seems high considering that every driver should be coming to a full stop there. Four of the crashes occurred when a northbound driver on 21st street was struck by a through driver on Pikes Peak Avenue; all of those were attributed to a failure to yield right-of-way (running a stop sign). An additional two crashes were fixed-object type (fence, tree).

Colorado Avenue/28th Street

Fifteen crashes occurred at this unsignalized intersection in the study period, as compared to five at the Colorado Avenue/29th Street intersection and 10 at the intersection of Colorado Avenue/27th Street (both signalized). Colorado Avenue does not have dedicated left-turn lanes here; rather, drivers turning left off of Colorado Avenue must wait to do so in the shared inside through lane. Four of the 15 crashes were eastbound rear-ends; three crashes occurred when a northbound through vehicle on 28th Street was struck perpendicularly by a vehicle traveling through on Colorado Avenue.

Colorado Avenue/19th Street

Sixteen crashes occurred at this unsignalized intersection, which has no dedicated left-turn lanes from Colorado Avenue, and which also has an unusual offset of centerlines of approximately 70 feet. Four of the crashes occurred when a southbound left-turning vehicle was struck by a westbound vehicle on Colorado Avenue. Three crashes were eastbound rear-end type.

Colorado Avenue/15th Street

Twenty crashes occurred at this signalized intersection, which has no dedicated left-turn lanes on Colorado Avenue. Six crashes occurred between through-moving vehicles on Colorado Avenue and through-moving vehicles on 15th Street; four of those were a result of a driver running a red signal. Four additional crashes occurred between left-turning and opposite-direction through-moving vehicles on Colorado Avenue. Three crashes were eastbound rear-end type.

It should be noted that the intersection of Colorado Avenue/15th Street has a traffic signal but the intersection of Colorado Avenue/14th Street does not; however, it is 14th Street and not 15th Street that has access (right-in/right-out only) to Cimarron Street (US 24).

Colorado Avenue/14th Street

Eighteen crashes occurred at this unsignalized intersection, which has no dedicated left-turn lanes on Colorado Avenue. Half of those were between through-moving vehicles on Colorado Avenue and through or left-turning vehicles from 14th Street. An additional three crashes occurred between left-turning vehicles and opposing through vehicles on Colorado Avenue.

Colorado Avenue/8th Street

Sixteen crashes occurred at this intersection, which has one-way northbound traffic only on 8th Street. This number appears high as compared to the nearby intersection of Colorado Avenue/Limit Street, which had ten crashes in the same period even though the entering traffic volumes should be approximately the same. There were no trends in the types of crashes that happened here.

Colorado Avenue/Walnut Street

This intersection had 22 crashes in the five-year period, including four that occurred between an eastbound left-turning vehicle and a westbound through vehicle. An additional four crashes were westbound rear-end type. The intersection is signalized and has dedicated left-turn lanes on Colorado Avenue, which are operated as permissive-only.

In general, some things that may have prevented many of these crashes were:

- Slowing down motor vehicles
- Making it easier for everyone-- vehicles, pedestrians, and cyclists -- to cross the street
- Separating through-moving and left-turning vehicles
- Separating through-moving and parked vehicles

Intersections with the Most Crashes in Five Years

Intersection	No. of Crashes
Colorado Avenue/31st Street	61
Pikes Peak Avenue/31st Street	54
Colorado Avenue/21st Street	33
Colorado Avenue/30th Street	25
Colorado Avenue/Walnut Street	22
Colorado Avenue/15th Street	20
Colorado Avenue/14th Street	18
Colorado Avenue/26th Street	17
Colorado Avenue/19th Street	16
Colorado Avenue/8th Street	16

Legend

XX Crashes at the intersection

XX Crashes not attributed to an intersection

Number includes crash involving pedestrian

Number includes crash involving cyclist

N

Figure 13. Crashes in Five Years (August 2015 – August 2020)

3.9 TRAFFIC OPERATIONS

Existing traffic conditions were simulated using the current intersection geometry and signal timing plans and the Synchro/SimTraffic software. Signalized intersection level of service (LOS) is defined in terms of a weighted average control delay for the entire intersection during a specified time period. Control delay quantifies the increase in travel time that a vehicle experiences due to the traffic signal control. Table 2 summarizes the LOS criteria for signalized intersections, as described in the *Highway Capacity Manual 2010*.

Table 2. Level of Service Criteria for Signalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)	General Description
A	≤10	Free Flow
B	>10 – 20	Stable Flow (slight delays)
C	>20 – 35	Stable flow (acceptable delays)
D	>35 – 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 – 80	Unstable flow (intolerable delay)
F[1]	>80	Forced flow (congested and queues fail to clear)

Source: *Highway Capacity Manual 2010*, Transportation Research Board, 2010.
1. If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0 LOS F is assigned to the individual lane group. LOS for overall approach or intersection is determined solely by the control delay.

An existing conditions intersection capacity analysis was performed as part of the Colorado Avenue Mobility, Parking & Economic Opportunity Assessment for the intersections in the Old Colorado City area. The analysis hour was a summer Friday evening in 2018. The results of that analysis are shown in Figure 14.

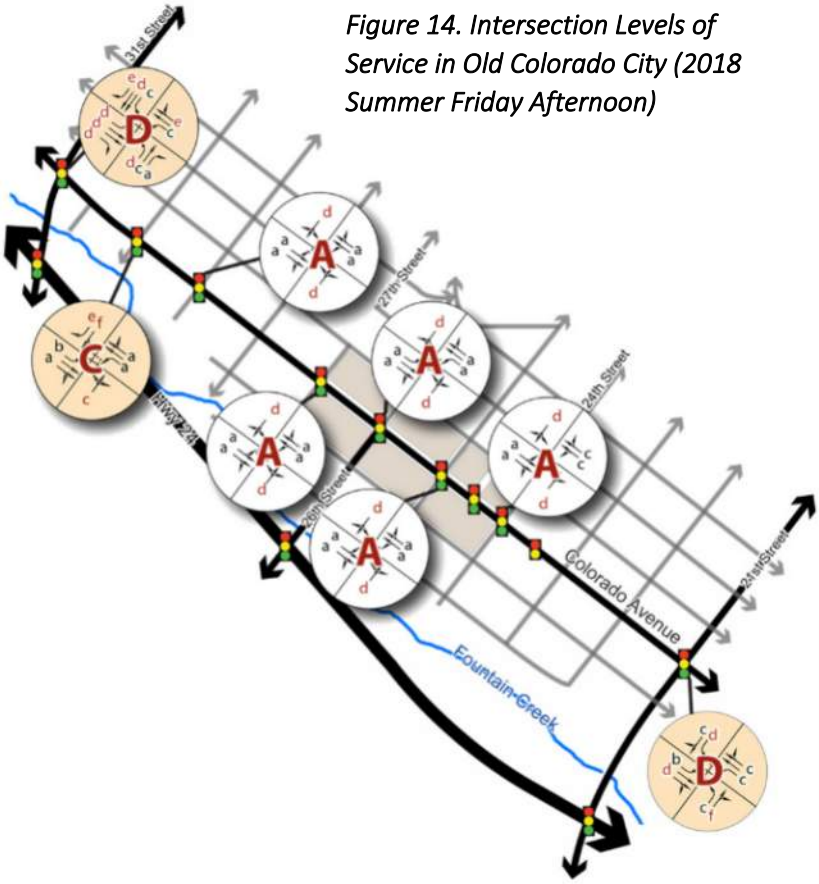


Figure 14. Intersection Levels of Service in Old Colorado City (2018 Summer Friday Afternoon)

The Colorado Avenue Mobility, Parking & Economic Opportunity Assessment traffic analysis only looked at intersections in the west part of the study area during the summer Friday evening peak, while the larger Midland Corridor study area includes additional intersections further east. Accordingly, additional counts were collected during the course of this study and analyzed for capacity in the AM and PM weekday periods. The results of this analysis are shown in Table 3. The capacity analysis worksheets are included in Appendix B. Local streets Cucharras Street and Pikes Peak Avenue are not capacity concerns and consequently were not analyzed.

Table 3. Existing Conditions Level of Service Analysis – Peak Hours (July 2021 Weekday Counts)

Intersection	EB	WB	NB	SB	Overall	Comments
Colorado Avenue/31st Street						
AM	B	A	D	C	C	SB movement: through queue sometimes blocks access to right- and left-turn pockets (22% of cycles)
PM	C	B	D	C	C	NB movement: left- and through/right queues sometimes extend to US 24 intersection (6% of cycles) SB movement: through queue sometimes blocks access to right- and left-turn pockets (33% of cycles)
Colorado Avenue/30th Street						
AM	A	A	D	D	B	
PM	A	A	C	D	B	
Colorado Avenue/21st Street						
AM	A	A	D	D	B	NB movement: through queue sometimes blocks access to right-turn pocket (33% of cycles) SB movement: through queue sometimes blocks access to left-turn pocket (14% of cycles)
PM	B	B	C	C	C	NB movement: through queue sometimes blocks access to right-turn pocket (46% of cycles) NB movement: through queue extends into Cucharras intersection (3% of cycles) SB movement: through queue sometimes blocks access to left-turn pocket (20% of cycles)
Colorado Avenue/Limit Street						
AM	B	A	--	E	A	
PM	A	A	--	E	A	
Colorado Avenue/8th Street						
AM	A	A	D	--	B	
PM	A	B	D	--	B	
Colorado Avenue/Walnut Street						
AM	D	D	A	A	B	
PM	E	D	A	A	A	Poor eastbound LOS attributed to having no protected left-turn phase/eastbound left-turn movement may warrant a protected left-turn phase at some point in the future.

3.10 BICYCLE FACILITIES

The bicycle network serving the study area includes both on- and off-street facilities. The recently reconstructed section of Colorado Avenue west of 31st Street includes on-street bike lanes that end just short of the 31st Street intersection. On the east end of the study corridor Colorado Avenue has on-street bike lanes that begin just east of Walnut Street, pass under I-25, and continue past the railroad.

The parallel east-west bicycle facilities in the study area include the Midland Trail, a Tier 1 Trail which extends from Manitou Springs to Colorado Springs, and the Pikes Peak Avenue bike route. The Midland Trail generally parallels Fountain Creek and US 24. The trail is not continuous, however, and a portion of the Midland Trail alignment, between 25th and 21st streets, is signed as a Bike Boulevard along 25th Street and Cucharras Street. Alternatively, cyclists can ride on-street between 25th and 21st streets using

the low-speed/low-volume Naegele Road. Pikes Peak Avenue, one block north of Colorado Avenue, is a designated bicycle route.

Existing north-south bicycle facilities intersecting the study corridor are:

- Bike lanes on 31st Street north of Colorado Avenue
- A bike route on 30th Street north of Pikes Peak Avenue
- A bike route on 25th Street south of Pikes Peak Avenue
- A bike route on 19th Street north of Colorado Avenue
- A bike route on 17th Street north of Colorado Avenue
- A bike route on Walnut Street south of Colorado Avenue
- Bike lanes on Walnut Street north of Colorado Avenue
- Bike lanes on Spruce Street north of Pikes Peak Avenue
- A bike route on Cimino Drive south of Colorado Avenue

Stations for Pike Ride, an electric bike-share service, have recently been added at three locations in the study area on the north side of Colorado Avenue – at Bancroft Park, at the 21st Street bus stop, and at 7th Street next to Cerberus Brewing. Pike Ride is currently working with the City of Colorado Springs and CDOT to finalize the locations of additional new stations in the study area, and plans to apply for a grant from CDOT to fund completion of the stations.

As another way of learning about the neighborhood and its transportation issues, the consultant and the City's Senior Bicycle Planner took a bicycling tour of the corridor streets on October 12, 2020. A larger group of stakeholders also took a riding tour of the study area on March 3, 2021. General observations regarding on-street cycling in the Midland Corridor were:

- The Colorado Avenue bike lane east of I-25 has a pavement joint in the middle of the lane.
- "On" and "off" ramps exist between on-street bike lanes and wide sidewalks east of Walnut Street. Pavement markings on the sidewalks to indicate this have faded. (Wayfinding signs have been added here since the bicycling tours to direct cyclists to use the ramps.)
- Pikes Peak Avenue has very few stop signs.
- 30th Street is challenging to cross on Pikes Peak Avenue
- 31st Street is also challenging to cross on Pikes Peak Avenue, but there are plans for it to be signalized.
- Old signs remain of bike routes that are no longer designated bike routes.
- The Pike Ride stations front Colorado Avenue, but cyclists ride on Cucharras Street and Pikes Peak Avenue.
- Naegele Drive is a good alternative to Cucharras Street for the missing Midland Trail connection.
- An informal poll of cyclists on the tour revealed that most felt comfortable riding a bike on Pikes Peak Avenue and Cucharras Street, but not on or crossing Colorado Avenue because of the fast-moving motor vehicle traffic.

3.11 STORMWATER DRAINAGE

According to data provided by the City, Colorado Avenue has only short segments of storm drain parallel to and within its right-of-way. There is storm drain along Colorado Avenue between 31st and 30th streets, between 25th and 24th streets, between 18th and 15th streets, between Limit Street and 9th Street, and between McKinley Place and Chestnut Street. These pipes, and other stormwater flows in Colorado Avenue, connect to pipes in the perpendicular numbered side streets.

Cucharras Street has no storm drain lines parallel to and within its right-of-way within the study area. Pikes Peak Avenue has short segments of parallel storm drain in its right-of-way between 31st Street and 30th Street, between 29th Street and 28th Street, and then on the east end of the study area between Walnut and Spruce streets. Both Cucharras Street and Pikes Peak Avenue have some inlets tying to perpendicular storm drain facilities in several of the numbered side streets.

All stormwater west of 7th Street in the study area is carried to Fountain Creek to the south and west. The storm drain system in the study area to the east carries flows to Monument Creek or to a retention pond near I-25.

4. PREVIOUS PUBLIC AND STAEKHOLDER INPUT

Several previous and on-going studies have gathered input on items that also pertain to this study. These are presented below.

4.1 OLD COLORADO CITY CORRIDOR ASSESSMENT (PRIVATE, 2018)

This private study had considerable stakeholder input that was summarized as follows:

The top concern is safety, specifically:

- Traffic speeds. Reports show that average speeds on Colorado Avenue are significantly higher than posted limits, causing safety hazards for pedestrians and drivers alike.
- Homelessness. Loitering in the commercial district and in alleys is of significant concern to residents and business owners.
- Lighting. The perception of an unsafe environment due to dark and undefined spaces was a major concern heard from attendees at a stakeholder meeting for this study.

Several themes that emerged from the stakeholder engagement were

- Community safety
- Activation of Bancroft Park
- A “year-round” community
- More walkable area
- Lighting
- Alley activation

4.2 COLORADO AVENUE MOBILITY, PARKING & ECONOMIC OPPORTUNITY ASSESSMENT (2018)

This study covered a subarea of the larger Midland Corridor area. Below is a summary of public input.

What is working well in Old Colorado City?

- Four traffic lanes on Colorado Avenue
- Independent retail and restaurants
- Streetscape (e.g., seating, landscaping, artwork)
- Availability of parking

What is not working well?

- Event locations (e.g., Farmers Market)
- Littering
- Lighting
- Pavement conditions (e.g., cracking sidewalks)
- Availability of parking
- Police presence (e.g., panhandling, reported drug sales in area, break-ins, vehicles speeding)

Assets in Old Colorado City

- Bancroft Park
- Free parking
- Santa's Cabin
- Horse alleys
- Local stores
- Patio seating at area restaurants
- Library
- Historic charm

Challenges in Old Colorado City

- Bancroft Park (needs more amenities and repair)
- Pavement conditions of sidewalks and streets
- High traffic speeds
- Lack of signs and wayfinding
- Panhandling and vagrancy
- Lack of parking
- Lack of bike lanes

Other themes heard from stakeholders throughout the corridor study included:

- Bancroft Park is important and needs improvement
- The historic character of the District is important
- Parking is important to the profitability of the area
- Streetscape and landscape improvements are needed
- Lighting is important along the corridor and decorative lighting should be considered
- Intersections are a challenge for both pedestrians and cars
- District wayfinding and pedestrian signs are needed
- Signal timing should be evaluated
- Sidewalk and pavement repairs are desired

4.3 31ST STREET TRAFFIC OPERATIONS AND SAFETY STUDY (2019)

The 31st Street study dealt mainly with issues on the west end of the Midland study area, but the public made these comments that pertained to the larger Midland Corridor:

- Traffic headed over the mountains on US 24 should be on US 24 and not on 31st Street, Fontanero Street, or Colorado Avenue.
- Improvements are needed at the Pikes Peak Avenue crossing of 31st Street.
- It is too dangerous to ride a bike on Colorado Avenue.

4.4 CONNECTCOS (2022)

ConnectCOS is the City's Intermodal Transportation Plan that was being updated at the same time as this Midland Corridor Study. ConnectCOS had a robust public input process, including an online survey at the beginning of the study in late 2020 that allowed respondents to associate their comment with a location in the city. The following comments were linked to locations within the Midland Corridor Study Area.

- The crossing of US 24 over to Red Rocks Canyon Park should be made safer for bicyclists and pedestrians
- Bicycling on Colorado Avenue is dangerous
- Crossing Colorado Avenue as a bicyclist or pedestrian should be made easier
- More speed enforcement is needed on Colorado Avenue
- Street lighting is needed under I-25
- The bike lane termination needs to be improved under I-25
- Bike lanes should be added to Colorado Avenue

- Colorado Avenue needs a streetscape update. The SIMD should be maintaining, and not constructing/implementing, the streetscape.
- The number of lanes on Colorado Avenue in Old Colorado City should be decreased from five to three
- Wider sidewalks are needed in Old Colorado City
- A suggestion to replace the former passageway of the Midland Trail under I-25, which was eliminated as part of the I-25/Cimarron interchange project
- A suggestion to add a marked crosswalk on Walnut Street at Pikes Peak Avenue or Kiowa Street.
- A suggestion for decorative crosswalks
- Cars don't stop for people crossing at the Midland Trail/Cucharras Street crossing at 21st Street. This is a dangerous crossing that needs to be improved.
- The Midland Trail is sketchy and feels unsafe
- Cyclists must cross heavy tourist traffic at 31st Street when traveling on Pikes Peak Avenue
- Mountain Metro Transit Bus Line 3 needs more frequent headways
- The Colorado Avenue/28th Street intersection needs a stop light
- Traffic signals should be more responsive to pedestrian calls
- Please make it illegal for Colorado Avenue eastbound traffic to turn right on the red light at Limit Street. Cars rarely stop or even slow down to make this exaggerated right-hand turn onto Limit. Pedestrians crossing northbound are hidden behind trees.
- Cucharras Street at 11th Street needs a speed bump or stop sign as well as better lighting. Vehicles aggressively speed though this intersection passing Cucharras Park. Please add a stop sign and street lighting to this area.
- Road diet with bike lanes on all of Colorado Avenue
- Back-in angle parking on Colorado Avenue
- The main parts of Old Colorado City, including Bancroft Park, need more bike parking
- Could use some bike lane infrastructure and/or turn signaling for cyclists getting across US 24 on 26th Street
- The Pikes Peak Avenue/31st Street intersection needs improvement
- Can we PLEASE introduce bike lanes on Colorado Avenue? We are robbing our small business owners of valuable business by diverting bike traffic to Pikes Peak Avenue. I, as well as many others, want to ride our bikes on Colorado Avenue!
- Old Colorado City is not safe to access on a bike. If your destination is Old Colorado City you want to ride on Colorado Avenue, not Pikes Peak Avenue
- A beat patrolman and better lighting along the sidewalks of Colorado Avenue, especially between 31st and 8th/Limit streets, would help me feel a little less in imminent danger at night-time

5. STAKEHOLDER INVOLVEMENT

A Stakeholder Committee was assembled at the beginning of this study to guide its development. The committee members represented a variety of organizations, including the City, other agencies, and groups with an interest in the study area. Appendix C presents a roster of Stakeholder Committee members.

The Stakeholder Committee held its kickoff meeting by videoconference on December 2, 2020. The purpose of this meeting was to introduce the study to the members and explain what was being asked of

them as a stakeholder. After the kickoff meeting, a survey was sent out to the committee members to gain an understanding of their concerns in the study area.

The stakeholder survey included a variety of questions to understand how stakeholders viewed current strengths and challenges of the Midland corridor, desired outcomes of the study, what kind of transportation system they envisioned for the corridor, and suggestions on ways to reach community members. Stakeholders frequently mentioned the connectivity between Downtown Colorado Springs, Old Colorado City, and Manitou Springs as a positive quality of the corridor. The existing bus route along Colorado Avenue, presence of a strong business community, and robust multimodal use throughout the corridor were also recurrently identified as existing strengths in the corridor. The grid network which enables multiple parallel routes for multimodal transportation, the variety of destinations along the corridor, and presence of the Midland Trail were all cited as contributors to the abundance of pedestrians and bicycles moving within the corridor, which should be preserved.

Despite these high points, stakeholders recognized much opportunity for improvements. Stakeholders overwhelmingly pointed to the need for safer and more comfortable bike and pedestrian facilities throughout the corridor, and the corresponding aspiration to slow down traffic along Colorado Avenue. Suggested improvements were consistent among the various stakeholders, including providing transportation mode options in the corridor, improved crossings to minimize barriers to all road users, better (wider) sidewalks, increased parking for cars and bikes, improved wayfinding signs, ADA accessibility improvements, and improved signal timing. The Midland Trail was also seen to have its own set of challenges, including stressful road crossings, inadequate wayfinding, and perceived safety concerns due to illegal camping along the trail. Finally, parking was identified as important to the function of the corridor.

Overall, stakeholders primarily pointed to the need to prioritize multimodal transportation including bikes, pedestrians, transit, and scooters within the corridor, though not necessarily all on Colorado Avenue itself. Such improvements were seen to be not only a benefit to the community and culture, but also to the economic vitality of businesses along and throughout the corridor.

The stakeholder committee continued to meet periodically throughout the course of the study with the sixth and final stakeholder meeting being a March 29, 2022, preview of the second and final public information meeting presentation.

6. PUBLIC INVOLVEMENT

In addition to meetings with the stakeholder committee, virtual and in-person meetings were held throughout the study with business owners, residents of the study area, and City officials. Appendix D includes more detailed information on all of the stakeholder and public outreach events. Two public involvement meetings were held during the course of the study; the first public meeting is summarized below. A summary of the second public meeting, which was held at the conclusion of the study, is provided later in this report.

6.1 MAY 19, 2021, VIRTUAL PUBLIC MEETING

This meeting was held close to the beginning of the study, so its purpose was to introduce the study and gather input from attendees on what their transportation concerns were in the study area. The meeting was held virtually due to COVID-19 concerns at the time. Thirty-four attendees watched some or all of the public meeting, which was recorded for future viewing.

After the May 2021 public information meeting an online survey was offered to get feedback on the Midland Corridor. General sentiments expressed in the survey responses were the following:

- We need to complete the Midland Trail and make it feel safer
- Preserve the historic feel of the Colorado Avenue corridor
- Continue to provide transit and further improve it
- Make Colorado Avenue easier to cross
- Slow down speeds on Colorado Avenue
- Improve transportation safety in the corridor
- Encourage the economy of Old Colorado City and the Near Westside (the business area just west of I-25)
- Complete the cycling network through the corridor
- More parking is needed
- Fix a handful of infrastructure problem spots throughout the corridor

Based on the input received at and after the public meeting, the stakeholder committee concluded:

- Increasing safety, boosting the economy, and serving all transportation modes are the goals for the corridor
- Most important through the Old Colorado City area is wider sidewalks and continued and improved transit
- If space is freed up on Colorado Avenue that could be used for other purposes, more parking is preferred rather than on-street bike lanes.

7. TREATMENT OPTIONS

Based on the data collection effort, review of past planning studies, and stakeholder and initial public input, the project team developed treatments for the roadways in the corridor as well as at spot locations throughout the study corridor. These are described in the sections below.

7.1 COLORADO AVENUE CROSS SECTIONS

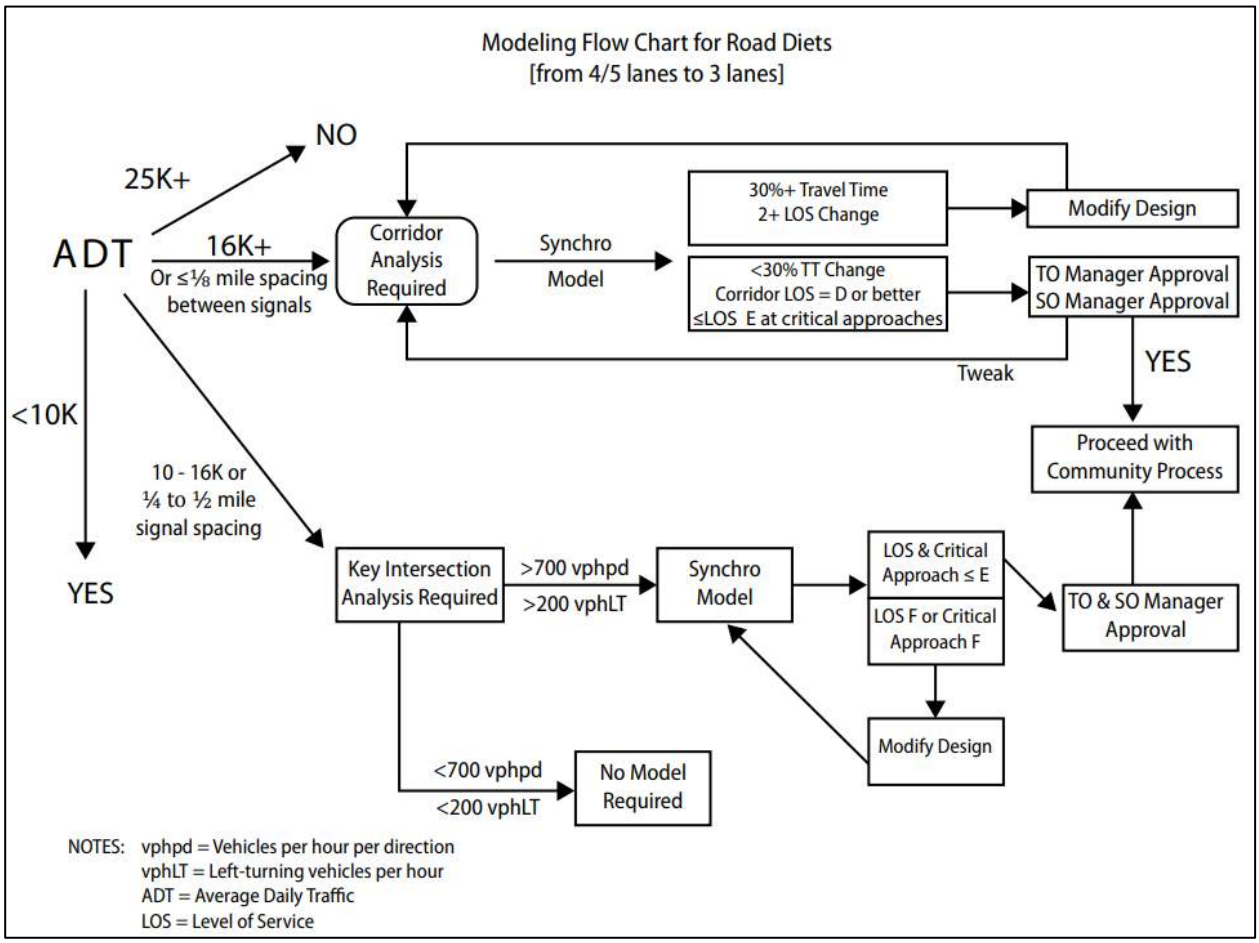
Many different types of users throughout the project corridor regularly compete for space, from cyclists and pedestrians to personal vehicles and transit, and most recently, electric scooters. Fortunately, the study area has several parallel east-west rights-of-way that can be used for all of these modes of travel, including transit, cars, bikes, and pedestrians.

Pikes Peak Avenue and Cucharras Street both offer a comfortable east-west route for bikes, parallel to Colorado Avenue. However, it is difficult for bikes to locate destinations on Colorado Avenue while traveling on these parallel roads, and it is additionally challenging and uncomfortable for bikes to cross Colorado Avenue. ***Providing direction towards specific destinations on Colorado Avenue through wayfinding signage*** could alleviate the difficulty of locating destinations on Colorado Avenue from these parallel roadways. ***Additionally, improved crossings on Colorado Avenue would provide a safer and more comfortable way for cyclists to cross Colorado Avenue*** from either Pikes Peak Avenue or Cucharras Street.

As mentioned earlier, the goals for the corridor are to increase safety, boost the economy, and serve all transportation modes. Most important in Old Colorado City are wider sidewalks, transit, and parking. The cross sections for Colorado Avenue presented later in this report were designed to achieve those goals.

To meet the goal of improving safety, Colorado Avenue would have a three-lane cross section where traffic volumes allow. This would help to slow down speeds, allow space for a dedicated left-turn lane, and make the road narrower to cross. In general, the City of Colorado Springs will consider a three-lane section if the daily traffic volume is at or below 14,000 vehicles per day (vpd), or if the daily traffic volume is below 18,000 vpd with more analysis and justification. As a comparison, the Federal Highway Administration (FHWA) cites in its *Road Diet Informational Guide* (2014) the City of Seattle's flow chart (Figure 15) for determining when a reduction from five to three lanes may be appropriate. Seattle will consider reducing the number of lanes when a street's average daily traffic (ADT) is between 10,000 and 16,000 vpd or quarter- to half-mile signal space, or even between 16,000 and 25,000 vpd with less than one-eighth-mile signal spacing, if intersection and corridor analyses suggest the street will still function acceptably.

Figure 15. City of Seattle Modeling Flow Chart for Road Diet Feasibility Determination



Existing and forecast traffic volumes for the year 2045 (discussed later on in Section 9 of this report) on Colorado Avenue are shown in Figure 16 and both volumes would be taken into consideration when making a decision to eliminate driving lanes.

Figure 16. Colorado Avenue Characteristics

To meet the goal of boosting the economy, ***the Colorado Avenue cross section would prioritize parking for cars, ensure that there is adequate space for deliveries, provide wayfinding to direct people from parallel facilities, and create more sidewalk space for businesses to use in Old Colorado City***.

To meet the goal of serving all transportation modes, first, the number of traffic lanes on Colorado Avenue would be sized to fit the volume: ***where daily traffic volumes are less than 14,000 vpd the cross section would have three lanes. For pedestrians, wider sidewalks would be built where space allows, especially in the Old Colorado City and Near Westside business areas. An eight-foot continuous sidewalk appears to be the maximum width that can be provided continuously in Old Colorado City without disturbing most of the trees. Because transit cannot be located onto the parallel local streets it would continue to share space with the driving lanes on Colorado Avenue. Finally, because there are already three nearby parallel bike routes, where more space is made available by removing traffic lanes on Colorado Avenue, the space would be used for more car parking rather than for on-street bicycle lanes.*** Cyclists could continue to use the shared Colorado Avenue travel lane like they do now.

Old Colorado City and the Colorado Avenue corridor are similar to two other tourist areas in Colorado. Boulder and Fort Collins are considered two of the most bike-friendly communities in the nation. Boulder does not allow bikes to be ridden on Pearl Street, its famous four-block long pedestrian mall lined with restaurants and shops. In Fort Collins there are no bike facilities on College Avenue through Old Town, Fort Collins' "premier destination for business and culture," and Old Town is part of a dismount zone. Rather, these communities bring cyclists close to where the action is and then provide ample bike parking. The same is recommended for Colorado Avenue.

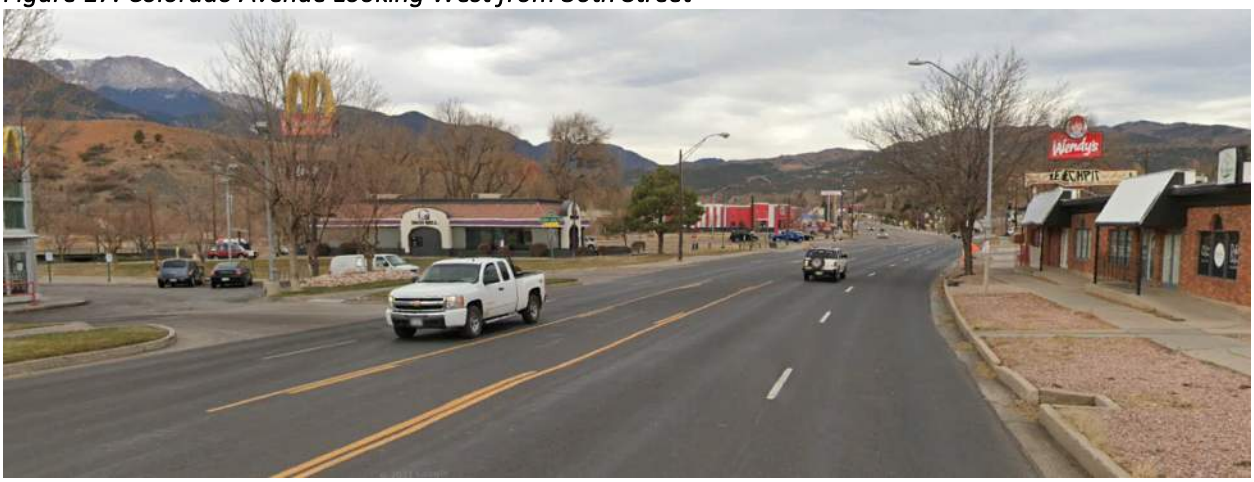
The following cross sections were developed through this study to help achieve the goals of increasing safety, boosting the economy, and serving all modes of transportation.

7.1.1 31st Street to 29th Street

Characteristics of this segment of Colorado Avenue, which is the farthest west of all the segments in the study corridor, are the following:

- 100' right-of-way width, 60' pavement
- Two driving lanes in each direction and left-turn lane
- No on-street parking
- Signalized crossings at 31st, 30th, and 29th streets
- ADT: 16,000 vpd now/18,400 vpd 2045

Figure 17. Colorado Avenue Looking West from 30th Street



On the west end of the study corridor, between 31st and just east of 30th Street, Colorado Avenue has a five-lane cross section. This is needed for traffic capacity at the 31st Street intersection, and it is not recommended to decrease the number of driving lanes. There is not on-street parking now, but adjacent businesses generally have off-street lots with ample parking. The intersections at 31st Street, 30th Street, and 29th Street are all signalized. A travel pattern from the intersection of US 24/31st Street to 30th Street and points farther north (for instance, Garden of the Gods Park) causes traffic volumes on Colorado Avenue to drop off east of 30th Street.

Near this end of the corridor, Colorado Avenue has on-street bike lanes west of 31st Street, 31st Street has on-street bike lanes north of Colorado Avenue, and the Foothills and Midland trails serve pedestrians and bicyclists.

Proposed Treatments

Although the long-term plan is to connect the Midland Trail under 31st Street along Fountain Creek, a shorter-term recommendation is to ***construct a two-way off-street trail along the south side of Colorado Avenue between 31st Street and 29th Street***. Additionally, ***a new off-street connection could be made between the Midland Trail and the new Colorado Avenue trail at the 29th Street alignment.*** Cyclists can already use Golden Lane Road, a low-volume, low-speed route between the Midland Trail and Colorado Avenue. Cyclists on Pikes Peak Avenue can cross Colorado Avenue at the signals at 30th or 29th to reach these new facilities. All of these new connections would help to get trail traffic up to the businesses and residences closer to Colorado Avenue, and are shown in Figure 18.

No modifications are recommended to the Colorado Avenue driving lanes in this segment.

Figure 18. Potential New Trail Connections on West End of Midland Corridor

7.1.2 29th Street to 24th Street

Characteristics of this segment of Colorado Avenue, which passes through Old Colorado City, are the following:

- 100' right-of-way width, 59' to 70' of pavement
- Two driving lanes in each direction with left-turn lane and parallel parking
- Signalized crossings at 29th Street, 27th Street, 26th Street, 25th Street, Colbrunn Court, 24th Street
- ADT: 12,000 vpd now/15,400 vpd 2045

Figure 19. Colorado Avenue Looking East from 26th Street

Unlike the segment to the west, this part of Colorado Avenue is overbuilt for the traffic volumes it carries now and is expected to have in the future.

Figure 20 and Figure 21 show the same street in two different locations. On the top is Colorado Avenue through Old Colorado City. On the bottom is Manitou Avenue through Manitou Springs. Both are popular tourist attractions in the area, but the upper photo shows that the current roadway cross section supports an

impression of "Fast and Furious" travel through Old Colorado City, whereas the bottom photo supports a "Slow and Social" feel. Business owners in Old Colorado City and other stakeholders have voiced that the vibrant and bustling atmosphere seen in the bottom photo is the aim for this area, not a street where a driver can quickly speed past the shops and restaurants.

Figure 20. Colorado Avenue Through Old Colorado City

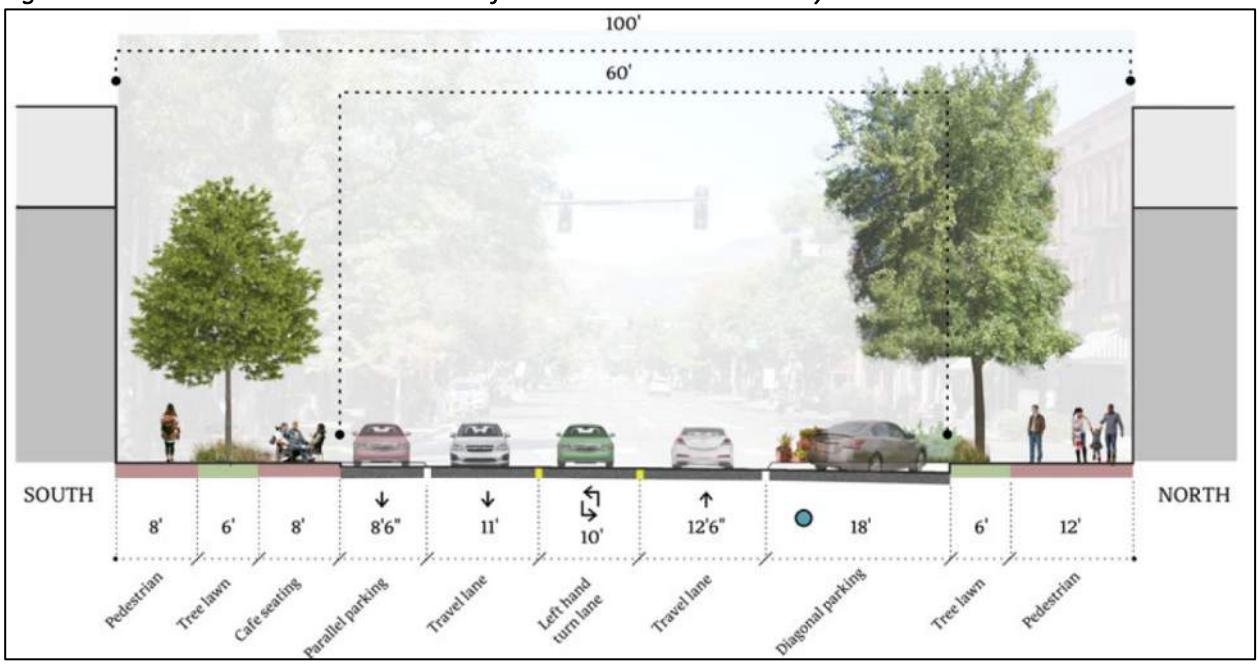
Figure 21. Manitou Avenue Through Manitou Springs Business District

A notable characteristic of Old Colorado City now is the narrowness of the existing sidewalks, shown in Figure 22. In most places the sidewalk is 7.5-feet wide; however, in some places it narrows down to less than five feet. In contrast, there is about 18 feet between the face of the buildings and the face of the curb, but the space is not currently being used most effectively. In some areas, about six feet is being used for the double curb, required because of the difference in grade between the road and the sidewalk.

Figure 23 shows the recommended cross section from the 2018 Old Colorado City Corridor Assessment that the City was asked to consider as part of this Midland Corridor study. ***It provides a single driving lane in each direction, a center turn lane that can alternately be used for deliveries, diagonal parking on one side of the street, and parallel parking on the other. The sidewalk widths would be increased on both sides.*** Having parallel parking on one side of the street and angle parking on the other provides a compromise between maximizing sidewalk space (which would occur with parallel parking on both sides) and maximizing the number of on-street parking spaces (which would occur with diagonal parking on both sides).

Figure 22. Sidewalk and Curb in Old Colorado City

Figure 23. Colorado Avenue Cross Section from 2018 Old Colorado City Corridor Assessment



Road Diet Demonstration Project

With the onset of COVID-19 and its associated restrictions on indoor dining, in 2020 businesses were turning to other options to serve customers. Outdoor dining and seating arrangements evolved as a way to address the

indoor dining limitations; however, dedicated outdoor space was needed to provide for these outdoor seating arrangements. Accordingly, the idea of developing "parklets" in the study area was explored. The parklets would be temporary and constructed in the outside travel lane in each direction on Colorado Avenue through Old Colorado City, and would be designed as outdoor seating for restaurant customers. The City is prepared to implement such a demonstration project, which would also show how Colorado Avenue would function with a single driving lane in each direction.

Proposed One-Way Operation of 25th Street North of Colorado Avenue

Another idea that was investigated during this study was the concept of making 25th Street between Colorado Avenue and Pikes Peak Avenue one-way southbound (Figure 24). This would create a couplet with the adjacent northbound-only Colbrunn Court. It was thought that by restriping this segment of 25th Street as one-way that more parking spaces could be added, something several of the adjacent business owners had requested. However, laying out the parking concept revealed that the new layout would only yield two additional spaces, which was not deemed to be beneficial enough to warrant the construction cost and permanent disruption to traffic flow: whereas Colbrunn Court does not have feeder roads on either end, this 25th Street segment would abut to two-way streets on both ends. The proposal was eventually dismissed.

Figure 24. 25th Street Concept Plan – One-Way Between Pikes Peak Avenue and Colorado Avenue

Proposed Treatments

The cross section shown in Figure 23 would help to accomplish the goals set forth at the beginning of this study to reduce traffic speeds, narrow the crossing distance, and provide wider sidewalks through Old Colorado City. The new cross section eliminates the wasted space created by the existing "double curb" as the grade of the road could be raised closer to sidewalk elevation. Reconstructing the curb and sidewalk would allow the

pedestrian path to be built wider and made ADA-accessible. Additionally***, a concept drawing using this cross section between 28th Street and 24th Street suggests that about 95 more on-street parking spaces*** could be provided in those blocks over what exists now, by providing 45-degree angle parking spaces on the north side of the street.

7.1.3 24th Street to 8th Street

Characteristics of this segment of Colorado Avenue are the following:

- 100' right-of-way west of 20th Street, 85' right-of-way east of 20th Street, 59' of pavement
- Two driving lanes in each direction. Left-turn lanes at signals but parallel parking otherwise.
- Signals at 24th Street, 21st Street, 15th Street, Limit Street, and 8th Street
- One signalized pedestrian crossing, between 24th Street and 23rd Street
- ADT: 14,000 vpd now/15,400 vpd 2045

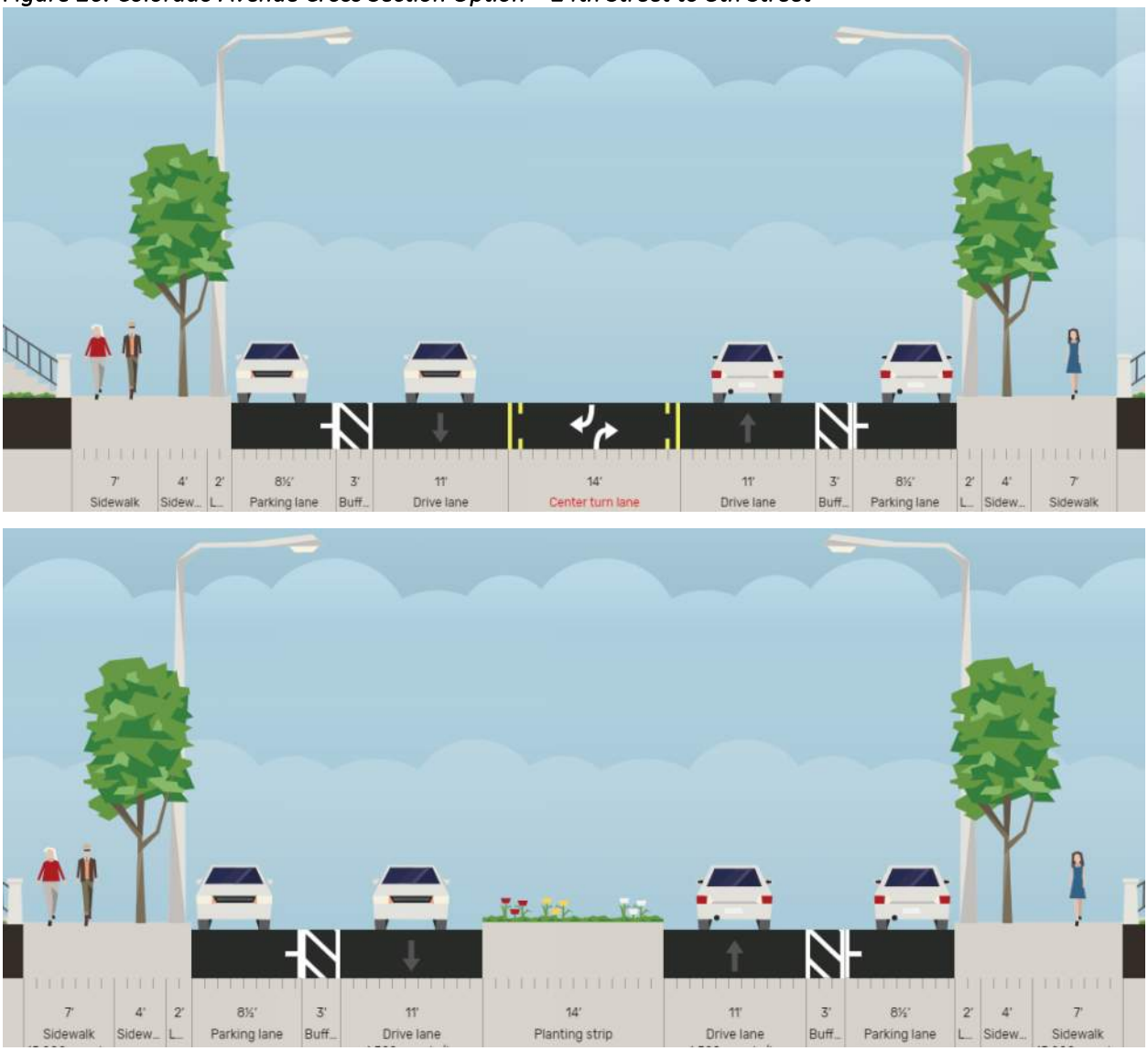
Figure 25. Colorado Avenue Looking West from 22nd Street

This stretch of Colorado Avenue, between 24th and 8th streets, is a transition out of Old Colorado City. It has two driving lanes in each direction and parallel parking, but at the signalized intersections the parallel parking is removed to provide left-turn lanes. Like the stretch through Old Colorado City, the traffic volumes on Colorado Avenue in this segment should allow a three-lane section to accommodate current and future traffic volumes.

Proposed Treatments

This cross section shown in Figure 26 could be accomplished ***through restriping only, and the extra space from the eliminated driving lanes would be used to provide a continuous center turn lane and buffer space between the parallel parking and the driving lane. At several places along this stretch of the corridor a raised median could be placed without blocking any left-turn access***. Raised medians are not just beneficial as a place for landscaping, they can also be a location for gateway signs, and they allow a refuge for crossing pedestrians and cyclists.

Figure 26. Colorado Avenue Cross Section Option – 24th Street to 8th Street



7.1.4 8th Street to Walnut Street

Characteristics of this segment of Colorado Avenue are the following:

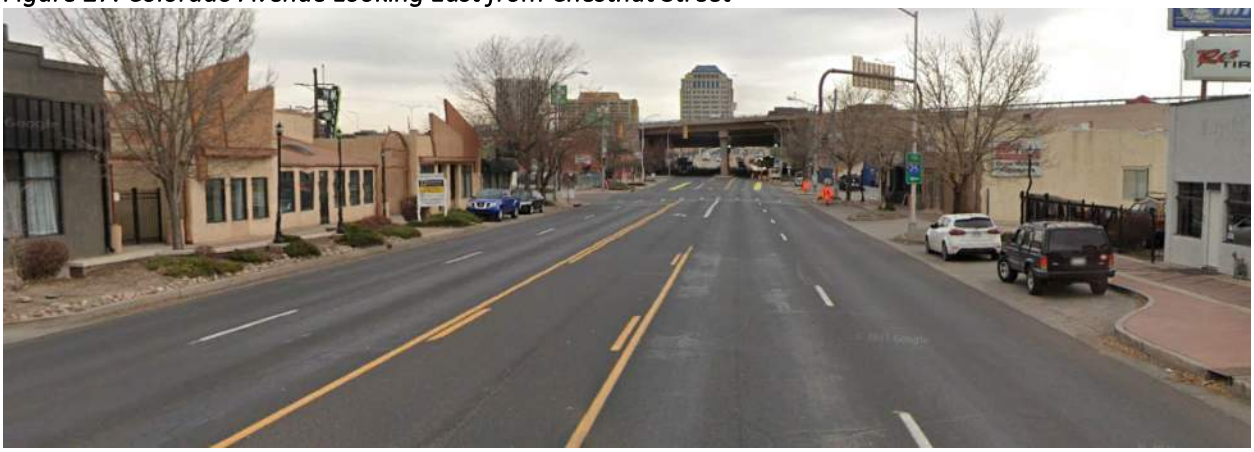
- 100' right-of-way, 60' of pavement
- Two driving lanes in each direction and left-turn lane. Some curb-protected parallel parking.
- Signalized crossing at Walnut Street
- ADT: 19,000 vpd now/20,800 vpd 2045

The segment from 8th Street to Walnut Street is at the easternmost end of the corridor. This segment has a 100-foot right-of-way with two driving lanes in each direction and a center turn lane (Figure 27). The volumes here are higher than they are to the west because of the traffic pattern between 8th Street-Limit Street and Downtown. Currently there is one signalized crossing at the Walnut Street intersection.

Proposed Treatments

A three-lane cross section is not being considered here because of the higher daily traffic volume. Currently there is one signalized crossing in this segment at the Walnut Street intersection. One of the recommendations

Figure 27. Colorado Avenue Looking East from Chestnut Street



of this study is to ***add a traffic signal at the Colorado Avenue/Chestnut Street intersection*** to allow for a protected crossing midway between the two existing traffic signals at 8th Street and Walnut Street. ***Short segments of raised median could be constructed in the two-way left-turn lane of this segment of Colorado Avenue for landscaping, gateways, and pedestrian and cyclist refuge***.

Public participation from businesses and residences in this area was minimal during this study. Through research of historic documents it was learned that in the mid-1980s an organization of businesses alternately called the Colorado Gateway Merchants Association and the Near Westside Merchants Association was established in this area. Reestablishing such a group would be recommended as a way of advocating for the types of improvements that are desired in these blocks. As an example, currently there are some parallel parking spaces in front of the businesses in this segment, but also areas where the curb extends to the driving lane and trees have been planted. ***A focused study with more intensive public and business-owner involvement should be conducted to determine local preferences for streetscape improvements in this "Near Westside" segment of Colorado Avenue.***

7.1.5 Walnut Street to Cimino Drive

Characteristics of this segment of Colorado Avenue are the following:

- 100' right-of-way, 60' of pavement
- Two driving lanes in each direction and left-turn lane. Some parallel parking built into parkway.
- Bike lanes develop under I-25 and continue east to Cimino Drive
- Signalized crossings at Walnut Street and Cimino Drive
- ADT: 19,000 vpd now/20,800 vpd 2045.

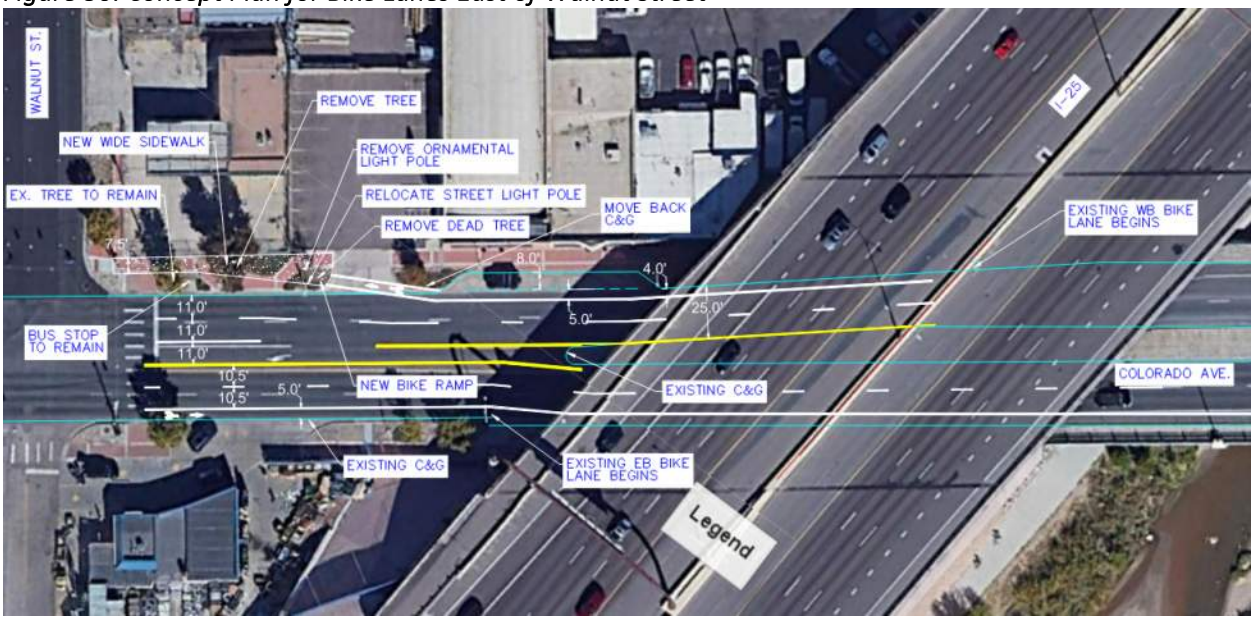
The final segment of Colorado Avenue begins at Walnut Street, continues under the I-25 bridge, and ends at Cimino Drive. Traffic volumes indicate two driving lanes in each direction are needed here. Figure 28 and Figure 29 show the existing cross sections on either side of I-25. The wide bike lanes on the east side of the bridge narrow down under the bridge and cyclists are directed onto the sidewalk. Because the traffic volumes in this stretch do not support removing a driving lane, the focus would be on ***providing a continuous on-street bike lane to connect to Walnut Street, which already has bike lanes.*** Figure 30 shows how this could be done with minimal impact to the existing streetscape.

During the public and stakeholder input process, there were comments that Colorado Avenue underneath the I-25 overpass needed street lighting. ***There are already three wall-mounted streetlights on each side of Colorado Avenue under I-25; it is possible that they are not functioning properly and should be assessed.***

Figure 28. Colorado Avenue Looking East Under I-25

Figure 29. Colorado Avenue Looking West Under I-25

Figure 30. Concept Plan for Bike Lanes East of Walnut Street



7.1.6 Colorado Avenue Speed Limit

Earlier in this report it was mentioned that the posted speed limit on Colorado Avenue is 25 mph between 28th and 22nd streets and 30 mph elsewhere in the study area but that the prevailing 85th percentile speed of traffic is between 32 and 38 mph. This indicates that the existing road design is not effective in yielding the desired speed. If no changes are made to the design of Colorado Avenue to help enforce a lower speed, it is not recommended to change the posted speed limit.

If modifications are made to the design of Colorado Avenue that influence a change in most driver behavior to slow driving speeds, a lower posted speed limit on Colorado Avenue may be appropriate. These modifications might include narrower and/or fewer driving lanes, more on-street parking, or other sources of on-street "friction." Eleven-foot driving lanes are the minimum recommended by the City on Colorado Avenue because of its use as a transit route.

The speed limit is currently posted at 25 mph on both Cucharras Street and Pikes Peak Avenue. If and when both streets in the study area are designated bike boulevards and are considered for bike boulevard improvements, a lower speed limit could be part of the modifications.

7.2 OVERALL TRANSPORTATION VISION

In addition to determining the vision for Colorado Avenue, another goal of this study was to determine what the ultimate transportation system in the study area should look like. While all transportation modes need to be accommodated in the corridor, they do not necessarily all need to be accommodated on Colorado Avenue. Figure 31 shows a compilation of the existing plans for multimodal corridors, namely, the corridors shown in the City's Bike Master Plan Vision Network and in the Pikes Peak Area Council of Governments' Regional Nonmotorized Corridor, in the study area.

Figure 31. Currently-Planned Multimodal Corridors

Figure 32 shows this study's proposal for accommodating the modes at the street level in the study area:

- The light gray lines show higher-function streets where motor vehicles need to be a priority.
- Transit lines are shown in dashed red on Colorado Avenue, Uintah Street, and some connecting streets.

- Bicycles are prioritized on the Midland Trail, Cucharras Street, and Pikes Peak Avenue. There are other existing on-street bikeways as well.
- Pedestrians are allowed on most streets except on US 24 and I-25. Pedestrians should be at the forefront in Old Colorado City and in the "Near Westside" (the segment between 8th Street and I-25).

Figure 32. Concept Plan to Accommodate All Users at the Street-Level in the Midland Study Area

7.3 SPOT TREATMENTS

Another purpose of this study was to identify transportation issues throughout the study corridor that may need to be addressed. Much of the input received through the public survey as well as public input received through the ConnectCOS outreach identified locations where transportation infrastructure may need attention.

7.3.1 29th Street Trail Connection

On the west end of the corridor, there is an opportunity to connect the Midland Trail up to Colorado Avenue at the 29th Street intersection, to connect to the existing signal there and points north, or to a new proposed multi-use trail on the south side of Colorado Avenue (see Figure 33).

Figure 33. 29th Street Trail Connection to Midland Trail

7.3.2 Colorado Avenue/21st Street Intersection

Concerns about traffic congestion at the Colorado Avenue and 21st Street intersection were mentioned in study reports as long ago as 1989, and this intersection is currently the most congested along the corridor. If the number of lanes on Colorado Avenue is decreased, operations at this intersection will not improve. One concept that could improve traffic flow at the intersection is a roundabout; however, in the very highest peaks of daily traffic, a roundabout could cause long queues on Colorado Avenue. A similar-size roundabout was recently constructed in Albuquerque, New Mexico, at the intersection of Candelaria Road/Rio Grande Boulevard, and adequately handles about the same traffic volumes. ***Further study of options is needed at the Colorado Avenue/21st Street intersection and could be studied using funding from the PPRTA Roadway Safety and Traffic Operations Program Fund. Improvements to this intersection should be part of the Colorado Avenue Road Improvements project funded by grant and/or PPRTA.***

7.3.3 Midland Trail Improvements

Although finishing the Midland Trail between 21st and 25th streets is the ultimate goal, more modest improvements could be made in the meantime. The first recommendation is to ***improve the locations where the trail crosses channelized right-turns along US 24.*** This is a project that is ready to be constructed as a collaboration between the City and CDOT. The trail crossings will become raised at the 8th Street, 21st Street, and 31st Street locations where the Midland Trail alignment crosses the channelized right-turn lanes.

Another recommendation is for the Midland Trail crossing of 21st Street. Currently at this location, trail users can travel south to Naegele Road and cross 21st Street at the signalized crossing at US 24. Alternatively, they can travel north to Cucharras Street. Cucharras Street is a designated bicycle boulevard; however, there is no protected crossing of 21st Street on Cucharras Street. ***A traffic signal or other crossing safety treatment, such as a bike-permeable median, could be considered at the intersection of Cucharras Street/21st Street*** to make it easier to cross 21st Street. Finally, ***increased wayfinding, using the City's new bikeways wayfinding standards, is recommended between the trail and the parallel side streets***.

For the ultimate Midland Trail, the City is considering three options. The first alignment, shown in yellow in Figure 34, would follow the alignment of Fountain Creek and pass underneath 21st Street. The 21st Street bridge would need to be reconstructed to allow this. The trail would then continue to follow Fountain Creek to US 24 where it would wrap around back to the northeast corner of US 24 and 21st Street. The second alignment, shown in green in Figure 34, would follow the alignment of Naegele Road, but would be upgraded to a barrier-separated facility. It would not cross underneath 21st Street; rather, cyclists would continue to have to cross 21st Street at-grade at US 24. Preliminary cost estimates are showing that the alignment along Fountain Creek would cost on the magnitude of 10 times what the alignment along Naegele Road would cost. The third option, shown in purple in Figure 34, would be a hybrid of the first two options. It would follow Naegele Road east of 25th Street, but would still pass under 21st Street to avoid having to cross it at-grade.

These three Midland Trail completion options will need to be vetted and compared to the available funding so that one can be selected and forwarded for design and construction.

Perceived safety concerns due to illegal camping along the Midland Trail were heard often from the public throughout the study process. ***Measures of crime prevention through environmental design are encouraged; in this instance that could involve clearing away overgrown vegetation in all of the trail right-of-way to keep the sightlines of trail users clear.***

Figure 34. Potential Layouts for Midland Trail between 25th Street and 21st Street

7.3.4 Bike Boulevard Improvements

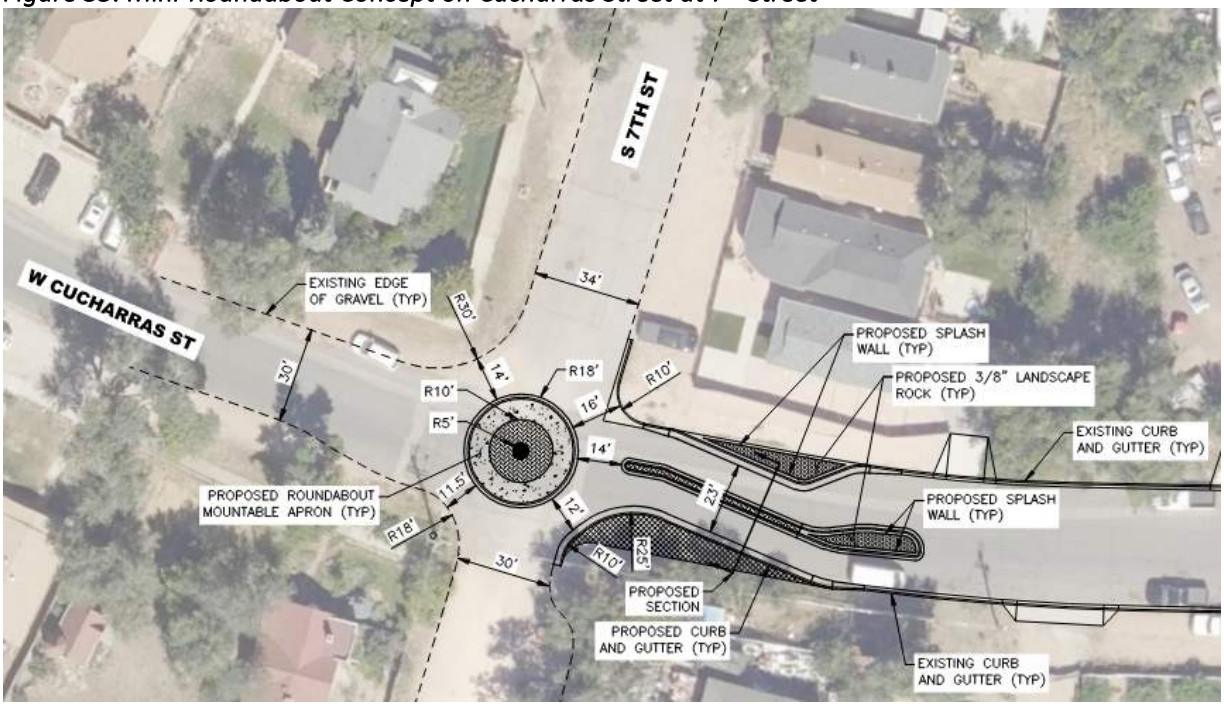
Both Pikes Peak Avenue and Cucharras Street are already designated as bike routes; Cucharras Street between 21st and 28th streets is designated as a bike boulevard because it serves as the alignment for the Midland Trail. One of the recommendations from this study is to ***upgrade both Pikes Peak Avenue and Cucharras Street to bicycle boulevards***. A bicycle boulevard, also called a "neighborhood greenway," is a type of bikeway composed of a low-speed street which has been "optimized" for bicycle traffic. Bicycle boulevards discourage cut-through motor-vehicle traffic but allow local motor-vehicle traffic. They are designed to give priority to bicyclists as through-going traffic and are a way to create a connected network of streets with good bicyclist comfort and safety. Components that could be added to these streets might include:

- Branded street name and wayfinding signs
- Different speed limits

- Special branded bike boulevard pavement markings
- Advance stop bars
- Green guidance pavement markings
- Design features that prohibit through-moving motor vehicles but allow through moving bicycles ("bike-permeable medians")
- A change in traffic control to limit the number of stops that a cyclist has to make

One way of changing the traffic control at the stop-controlled intersection of two local streets is to construct a mini-roundabout and allow all-way yield control. A mini-roundabout has been planned and designed by the City already at the Cucharras Street/7th Street intersection; this roundabout was specially designed to prevent long trucks from entering it. Another suitable location for a mini-roundabout may be at Cucharras Street/14th Street, because 14th Street has access to US 24.

Figure 35. Mini-Roundabout Concept on Cucharras Street at 7th Street



7.3.5 Bike Route Modifications

The City's Bike Master Plan, COS Bikes!, presents a bicycle Vision Network—a selection of streets in Colorado Springs targeted for bicycle infrastructure. The Vision Network comprises recommended corridors already identified as part of the 2015 PPACG Regional Non-motorized Plan, the 2016 Experience Downtown Master Plan, and over 200 new miles of recommended corridors from the COS Bikes! development process. COS Bikes! does not specify the type of bicycle facility to implement; rather, it provides a toolbox to be used for design decisions.

Some of the recommendations as part of this Midland Corridor Study depart slightly from the Bicycle Vision Network. First, the Vision Network shows a bicycle facility along the Colorado Avenue corridor between 31st Street and 24th Street. This Midland study is recommending a new off-street two-way trail along Colorado Avenue between 31st Street and 29th Street but is not recommending any bike facility on Colorado Avenue between 29th Street and 24th Street itself. Instead, cyclists would be directed to Pikes Peak Avenue, Cucharras Street, or the Midland Trail to connect between 29th Street and 24th Street.

Next, the Vision Network shows a bicycle facility on 8th Street north of US 24 to Colorado Avenue, turning east and then following Colorado Avenue to Chestnut Street. Because of traffic volumes and the cross sections of the roads, neither 8th Street nor Colorado Avenue is a comfortable route for an on-street bike lane; additionally, 8th Street is one-way northbound. This study recommends alternate routes for this bike connection. For travel to and from the east of the Midland Trail and 8th Street, cyclists would use the Midland Trail, crossing Chestnut Street to access Walnut Street and then Colorado Avenue. For travel to and from the west of the Midland Trail and 8th Street, cyclists would use the Midland Trail and then connect to 10th Street and then Cucharras Street.

Finally, the Vision Network shows a bicycle facility on 7th Street north of Colorado Avenue turning east and then following Bijou Street to Walnut Street. The intersection of Colorado Avenue/7th Street is not signalized, making it difficult to cross. Additionally, the stretch of Bijou Street headed westbound up to 7th Street is steep for a bicyclist. The preferred route for cyclists would use the existing Walnut Street route, which has a signal at Colorado Avenue. All of these routes are shown in Figure 37.

The City's Bicycle Vision Network should be edited to reflect these recommendations for non-motorized travel.

7.3.6 Parking

The parking utilization studies done as part of the 2018 Colorado Avenue Mobility, Parking & Economic Opportunity Assessment found that on-street parking along Colorado Avenue between 31st and 21st streets was nearing capacity but that the public surface parking lots and on-street parking along side streets were underused. However, many stakeholders and members of the public mentioned that they thought the Old Colorado City area needed more parking spaces.

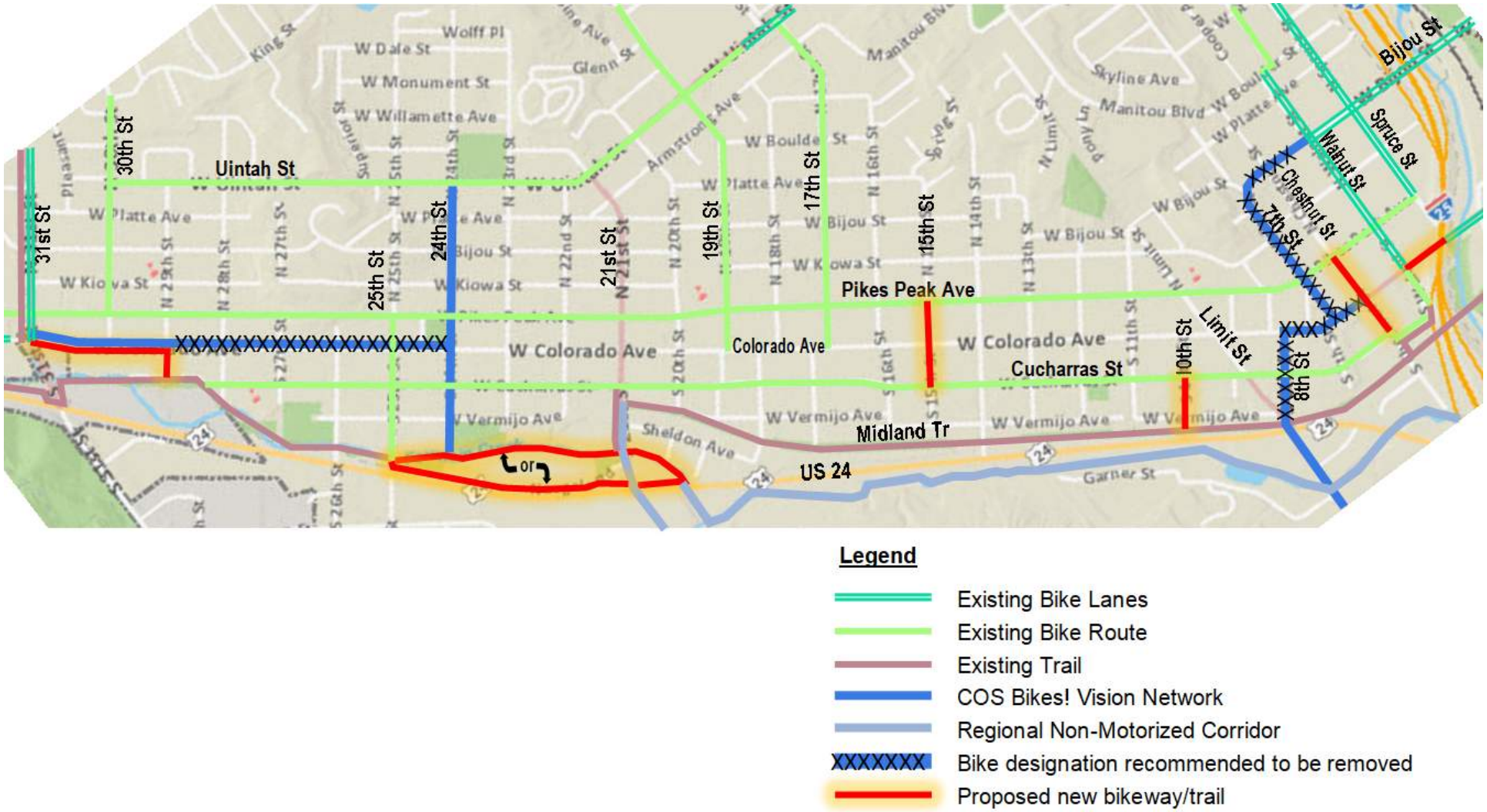
The Old Colorado City District is one of two parking-exempt districts within the City. The parking-exempt district specifies that no additional off-street parking is required to be provided with new development or with change of use. Reduction or elimination of minimum parking requirements is one strategy to reduce obstacles for new, infill and redevelopment. However, this also results in redistributing the responsibility of providing parking to the City or private businesses. Parking requirements outside of the exempt district follow a traditional zoning formula for determining the number of parking spaces required to be provided by an establishment. No changes to motor vehicle parking requirements are being proposed as part of this study.

The alternative cross section presented for the segment of Colorado Avenue between 28th Street and 24th Street, the "heart" of Old Colorado City, could add about 95 on-street parking spaces in those blocks over what exists now, by allowing 45-degree angle parking on the north side of the street. On the far east end of the study corridor, between 8th Street and Walnut Street, there is ample right-of-way for reconfiguring on-street parking to increase the number of spaces. Coordination with business owners in that segment needs to occur to determine how they would like this right-of-way to be used.

Additional bike parking was requested by multiple parties during the survey, stakeholder, and public input opportunities of this study, and should be considered with any improvement projects along Colorado Avenue. Bancroft Park, Old Colorado City, and the Near Westside are the main places where cyclists may want to park and travel on-foot, but there may be other locations as well.

Figure 36. Alley Bike Parking in Old Town Fort Collins, CO

Figure 37. Proposed Bicycle Plan for Midland Corridor Study Area



7.3.7 Transit

The Mobility Framework map from PlanCOS has identified Colorado Avenue through Old Colorado City as a Special Focus Corridor, and specifically as a Multimodal Corridor, with the western portion of this study area recognized as a Major Destination Area. The vision from PlanCOS for this type of corridor is to accommodate varied types of users but with a specific focus on making the corridor effective for transit service, such as BRT or a streetcar line, and to connect areas recognized as key destination areas. Importantly, PlanCOS also points out that Multimodal Corridors should be planned and operated as "Multistreet Corridors" rather than as single streets, meaning that planning this particular multimodal corridor would also include streets that parallel Colorado Avenue, such as Cucharras Street and Pikes Peak Avenue.

ConnectCOS lists Colorado Avenue between downtown Colorado Springs and 31st Street as one of seven "High-Priority Transit Corridors" in its Transit Vision Network, with service enhancements and stop improvements funded within PPRTA3. The alternative cross sections presented for Colorado Avenue earlier in this report would continue to accommodate the existing Mountain Metro Transit bus line and any enhancements, including higher frequency buses, transit signal priority, or upgraded bus stops, that are envisioned for Colorado Avenue. Several members of the public endorsed the concept of reintroducing streetcars to the corridor in the future.

7.3.8 Gateway Signing

The concept of gateway signing has been used in other parts of the City to help announce entry into an identified neighborhood and to assist in slowing the traffic moving through the neighborhood, simply by placing a sign at the entrance to the neighborhood. This idea has been explored for implementation in the Old Colorado City area, specifically to alert visitors of their arrival to the neighborhood and business district of Old Colorado City. The Organization of Westside Neighbors (OWN) and Old Colorado City Partnership (OCCP) have been involved in development of this concept, and have expressed interest in the gateway signage as a way to distinguish the neighborhood at a few of its many entry points. Suggested locations identified for implementation include 31st Street, 26th Street, and 21st Street coming from US 24. Gateway signing for Downtown is being installed for eastbound travel just east of Colorado Avenue/Walnut Street. ***This study recommends implementation of gateway signing for the Old Colorado City neighborhood and business district***. ***The City should continue to work with OWN and OCCP to determine locations for the signing.***

7.3.9 Storm Drain Improvements

The review of existing conditions did not reveal any major storm drain issues in the study area. Modifications to the Colorado Avenue sidewalk or curb line would compel a comprehensive drainage analysis and the accompanying storm drain modifications as part of design and construction.

8. CONSISTENCY WITH PREVIOUS PLANNING DOCUMENTS

Earlier in this report it was discussed that this area has previously been studied as part of several other planning efforts. Many of the resulting planning documents include recommendations for the Midland Corridor study area and are listed in the bullet points below. The recommendations from this current study are consistent with those of the previous planning documents and appear to still be the vision of the residents, business owners, and other stakeholders.

- Safer and more pleasant pedestrian crossings of Colorado Avenue (1979*)
- Continuous trail along Fountain Creek (1979, 1989, 2012, 2018)

- Keep bike routes on residential streets where possible/No stakeholder support for bike lanes on Colorado Avenue (1979, 2018)
- Center island in certain areas of Colorado Avenue (in Near Westside) (1987)
- if Colorado Avenue has a new cross section without bike lanes, Pikes Peak Avenue should be upgraded from a designated bike route to a bike boulevard (2018)
- Correct the ADA accessibility issues of the existing sidewalks and curbs (2018)
- Expand the width of sidewalks to provide a clear, unobstructed walking path of a consistent dimension throughout Old Colorado City (2018)
- Address long-term stormwater issues (2018)
- Use distinct identities and signing for trail connections (2018)
- Formalize Cucharras Street as a bicycling street (2018)
- Preferred cross section through Old Colorado City – 22' amenity zone one side, 18' amenity zone other side, two driving lanes, center left-turn lane, diagonal parking south side, parallel parking north side (2018)
- Higher-capacity transit on Colorado Avenue (2019, 2020)
- Improve the Colorado Avenue/21st Street intersection for better pedestrian and traffic circulation (1989)

Three recommendations from past planning documents were made in past studies but were not further investigated as part of this project. However, nothing recommended in this study would preclude these from happening:

- Include an electric trolley system from downtown Colorado Springs to Bancroft Park (1989)
- Build a park-and-ride lot near US 24/31st Street (2012, 2020)
- Make bus line #3 into a free shuttle (2018)

***Key to Planning Documents**

1979 – Westside Plan
1987 – Near West Colorado Avenue Revitalization Design Guidelines
1989 – Midland/Fountain Creek Parkway Corridor Plan
2012 – US 24 Environmental Assessment
2018 – Colorado Avenue Mobility, Parking & Economic Opportunity Assessment and/or Old Colorado City Corridor Assessment
2019 – PlanCOS
2020 – 2045 Long Range Transportation Plan

9. TRAFFIC IMPACTS

Traffic volume forecasts for the future year 2045 were obtained from the PPACG. In general, they showed that existing traffic volumes in the Midland Corridor are expected to grow by approximately 10 percent by that year. Accordingly, turning movement volumes from the current year were escalated by 10 percent to produce a year 2045 "No Build" scenario for both the AM and PM peak hours.

To consider the option of narrowing the number of lanes on Colorado Avenue in some segments, this study also has a "Proposed" scenario, which simulates a situation in which the number of lanes on Colorado Avenue is modified to have one through lane in each direction and a two-way left-turn lane from 28th Street to 8th Street.

These future year scenarios were simulated, again using the Synchro/SimTraffic software, and assessed using the LOS criteria for signalized intersections shown earlier in Table 1. The results of the analysis are summarized in Table 3 below.

Table 2. Anticipated Future Year (2045) Levels of Service

Intersection	EB	WB	NB	SB	Overall
Colorado Avenue/31st Street					
No-Build AM	B	A	D	C	C
Proposed AM	B	A	D	C	C
No-Build PM	D	E	D	C	D
Proposed PM	D	E	D	C	D
Colorado Avenue/30th Street					
No-Build AM	A	A	D	D	B
Proposed AM	A	A	D	D	B
No-Build PM	A	C	C	D	C
Proposed PM	A	B	C	E	C
Colorado Avenue/21st Street					
No-Build AM	A	B	D	D	C
Proposed AM	A	B	D	D	C
No-Build PM	B	A	D	D	C
Proposed PM	C	C	D	E	C
Colorado Avenue/Limit Street					
No-Build AM	B	A	--	E	A
Proposed AM	A	A	--	E	A
No-Build PM	A	A	--	E	A
Proposed PM	A	A	--	E	A
Colorado Avenue/8th Street					
No-Build AM	A	A	D	--	B
Proposed AM	A	A	D	--	B
No-Build PM	A	B	D	--	B
Proposed PM	A	B	D	--	B
Colorado Avenue/Walnut Street					
No-Build AM	D	D	A	A	B
Proposed AM	D	D	A	B	B
No-Build PM	E	D	A	A	B
Proposed PM	E	D	A	A	B

Simulations show that these are the expected queuing issues in the year 2045 "No-Build" scenario:

<u>Colorado Avenue/31st Street</u>

- Northbound left-turn and through/right-turn queues extend into US 24 intersection
- Southbound through-traffic queue blocks access to the right- and left-turn pockets

<u>Colorado Avenue/21st Street</u>

- Northbound through-traffic queue blocks access to the right-turn pocket
- Northbound through-movement queue extends into Cucharras Street intersection
- Southbound through-traffic queue blocks access to the left-turn pocket
- Southbound through-movement queue extends into Pikes Peak Avenue intersection

Modifications to the lane geometrics on Colorado Avenue between 29th Street and 8th Street would cause these queueing issues to occur more frequently than they do today or in the 2045 "No-Build" scenario, but still would be expected to occur fewer than half of the cycles in the AM and PM peak hours.

In addition to the intersection-level capacity analysis shown above, the ongoing citywide transportation study ConnectCOS conducted analysis on city roadways to identify congested corridors. INRIX data, the PPACG travel demand model, and a methodology using volume-to-capacity ratio (V/C) were used to evaluate current year capacity and congestion conditions, as well as future year scenarios to estimate levels of roadway congestion in the year 2045. This analysis confirmed that as of the year 2020, Colorado Avenue has excess vehicle capacity and is predicted in 2045 to continue to have excess vehicle capacity.

10. CONCLUSIONS AND NEXT STEPS

The Midland Corridor study area is just one of several neighborhoods in the Westside, which is currently undergoing a comprehensive master planning process. The reduced-lane cross section recommended for certain segments of Colorado Avenue in this study will be further vetted through the public as part of the Westside Neighborhood Plan, which will have a larger public outreach component. However, technical analysis and recent experience by the City both suggest that with the traffic volumes carried by Colorado Avenue, a three-lane section between 28th Street and Limit Street can operate acceptably and achieve the goals set for the Midland Corridor - to improve livability through slower traffic speeds, easier crossings, and wider sidewalks through Old Colorado City.

Funding for projects recommended in this study could come from PPRTA, MMOF (multimodal transportation and mitigation options fund), and Downtown Revitalization grants. Additionally, the City has secured $1.5 million in federal funding through PPACG programmed for 2025.

While some of the more ambitious projects considered in this study, like reconstructing Colorado Avenue to a three-lane section, will need to be further vetted, some improvement recommendations could from this study could be funded sooner rather than later. These are things like bike boulevard improvements, trail connections, and mini-roundabouts, that were mentioned earlier in this report.

10.1 APRIL 6, 2022, HYBRID (IN-PERSON & VIRTUAL) PUBLIC MEETING

The Midland Corridor Study concluded with a final public meeting. This meeting was held as a "hybrid" event, meaning that it was held in-person but could be watched live online. About 23 people watched the event online, while 25 attended in person. The purpose of the meeting was to present to the public the findings and recommendations that have been presented in this report. No major revisions were made to the recommendations presented in this report based on input received at this public meeting, with the qualification that ***the transformation to a three-lane cross section on Colorado Avenue would be further vetted through the Westside Neighborhood Master Plan process before it is implemented***.

10.2 IMPLEMENTATION PLAN

Table 4 on the following pages contain a list of projects that emerged through this study.

Table 4. List of Projects from the Midland Corridor Study

Project	Responsible Party	Funding Source	Priority
Further evaluate the cross section recommendations for Colorado Avenue presented in this study document through the Westside Neighborhood Plan.	City of Co. Springs	(Underway)	High
Reconstruct Colorado Avenue between 28th and 24th streets to provide a single driving lane in each direction, and a center turn lane that can alternately be used for deliveries. Improve on-street parking, pedestrian facilities, and streetscape, and make other safety improvements as warranted.	City of Co. Springs	Federal grant and/or PPRTA	High
Conduct a detailed study of geometric and operational options for the Colorado Avenue/21st Street intersection.	City of Co. Springs	PPRTA Roadway Safety and Traffic Operations Program Fund	High
Consider the installation of a traffic signal at the Colorado Avenue/Chestnut Street intersection.	City of Co. Springs	PPRTA Congestion and Incident Management Signal Improvement Program Fund	High
Modify Colorado Avenue near the I-25 underpass to provide a continuous on-street bike lane from Walnut Street to Cimino Drive.	City of Co. Springs	PPRTA On-Street Bikeway Improvement Program Fund	High
Further analyze the three Midland Trail completion options between 25 th Street and 21st Street presented in the study and compare to the available funds so that one option can be selected and forwarded for design and construction.	City of Co. Springs	PPRTA3 “A” List project	High
Improve the locations where the Midland Trail crosses channelized right-turns along US 24.	City of Co. Springs	(Underway)	High
Modify the City’s Bicycle Vision Network to reflect the recommendations for non-motorized travel included in this Midland Corridor Study.	City of Co. Springs	PPRTA On-Street Bikeway Improvement Program Fund	High
Evaluate the wall-mounted streetlights on each side of Colorado Avenue under I-25 and ensure they are working properly.	City of Co. Springs	General Fund or CDOT	High

Project	Responsible Party	Funding Source	Priority
Conduct a focused study with more intensive public and business-owner involvement to determine what improvements should be made and what the streetscape should look like in the "Near Westside" segment of Colorado Avenue between Limit Street and I-25.	City of Co. Springs	PPRTA3	Medium
Along Colorado Avenue, where there is a two-way left-turn lane, identify locations for short segments of raised median and construct these for the placement of landscaping, gateway features, and/or pedestrian and cyclist refuge.	City of Co. Springs	PPRTA3	Medium
Reconfigure the Colorado Avenue cross section between 24th and 8th streets by restriping only, to provide one driving lane in each direction, a continuous center turn lane, and a buffer space between the parallel parking and the driving lane.	City of Co. Springs	State or Federal Grant	Medium
Designate both Pikes Peak Avenue and Cucharras Street as bicycle boulevards and upgrade both to provide more of the features of a typical Bike Boulevard such as mini-roundabouts and distinctive signing and pavement markings. Include modifications at Limit Street and 8th Street to improve east-west crossings.	City of Co. Springs	PPRTA On-Street Bikeway Improvement Program Fund	Medium
Conduct a study to determine if a traffic signal or other crossing treatment, such as a bike-permeable median, could be constructed at the intersection of Cucharras Street/21st Street to assist in cyclist crossing of 21st Street.	City of Co. Springs	PPRTA On-Street Bikeway Improvement Program Fund	Medium
Install bike racks/bike parking on the numbered streets near Old Colorado City and other places along the corridor that may be draws for cyclists.	City of Co. Springs	City of Co. Springs/ Businesses	Medium
Install additional wayfinding signs, using the City's new bikeways wayfinding standards, between the Midland Trail and the parallel side streets, to provide direction for bicyclists towards destinations on Colorado Avenue.	City of Co. Springs	PPRTA On-Street Bikeway Improvement Program Fund	Medium
Implement gateway signing for the Old Colorado City neighborhood and business district.	City of Co. Springs	City of Co. Springs/ Businesses/State or Federal Grant	Medium

Project	Responsible Party	Funding Source	Priority
Construct a two-way east-west off-street trail along the south side of Colorado Avenue between 31st Street and 29th Street.	City of Co. Springs	PPRTA Pedestrian Transportation Improvements Program Fund	Low
Improve the existing trail connection between the Midland Trail and 11th Street, including paving the trail and adding wayfinding signs.	City of Co. Springs	PPRTA Pedestrian Transportation Improvements Program Fund	Low
Construct a new north-south off-street trail connection between the Midland Trail and the south end of the 29th Street pavement.	City of Co. Springs	PPRTA Pedestrian Transportation Improvements Program Fund	Low
Make transit service enhancements and stop improvements along Colorado Avenue consistent with its designation as a "High-Priority Transit Corridor" in ConnectCOS.	City of Co. Springs	Proposed PPRTA3 program fund	Low