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# Platte Ave.

A **ConnectCOS** Community Corridor



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## Corridor Study Report

Prepared for:



City of Colorado Springs  
30 S. Nevada Avenue  
Colorado Springs, CO 80903

Prepared by:



Felsburg Holt & Ullevig  
3 South Tejon Street, Suite 300  
Colorado Springs, CO 80903  
719.314.1800

In association with



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# Table of Contents

	Page		Page
<b>Chapter 1: Introduction .....</b>	<b>1</b>	<b>Chapter 6: Solution Refinement .....</b>	<b>31</b>
Purpose of the Study	1	Corridor-wide East-West Bicycle Connection	31
Process	1	Corridor-wide Transit Enhancements	35
Planning Context	3	Platte Avenue and Nevada Avenue Intersection	37
Study Usage	3	El Paso Street and Shooks Run Trail Overpass	39
Study Area	4	Union Boulevard Intersection Operations	41
<b>Chapter 2: Planning Framework .....</b>	<b>6</b>	North-South Bicycle Connection – US Olympic and Paralympic Training Center and Memorial Park	43
ConnectCOS Mobility Goal Framework	6	<b>Chapter 7: Recommendations .....</b>	<b>45</b>
Functional Objectives	8	Corridor-wide Recommendations	45
<b>Chapter 3: Stakeholder and Community Engagement..</b>	<b>9</b>	Character Area Recommendations	48
Public Involvement Plan	9	Policy and Process Recommendations	67
Approach	9	<b>Chapter 8: Urban Design Elements .....</b>	<b>70</b>
Stakeholder Oversight	10	Strategies of the Streetscape Toolbox	70
Public Engagement	11	<b>Chapter 9: Next Steps .....</b>	<b>72</b>
<b>Chapter 4: Needs and Ambitions .....</b>	<b>15</b>		
Needs	15	<b>Appendices</b>	
Ambitions	16	Appendix A: Public Engagement Information	
<b>Chapter 5: Solution Development .....</b>	<b>18</b>	Appendix B: State of the Corridor	
Personal Mobility	18	Appendix C: Transportation Operations Report	
Resource Efficiency	19	Appendix D: Solutions Development Memo	
Community Benefit	19	Appendix E: Urban Design Toolbox	
		Appendix F: Recommendation Delivery Tool	

## List of Figures

	Page
Figure 1. Study Process .....	2
Figure 2. Corridor Elements .....	4
Figure 3. Corridor Study Area.....	5
Figure 4. Functional Objectives within the Project Process.....	8
Figure 5. Character Area Ambitions .....	17
Figure 6. Solution Priorities .....	18
Figure 7. Traffic Levels and Lane Capacities – Platte Avenue...21	
Figure 8. Key Redevelopment Areas .....	22
Figure 9. Downtown Potential Solutions Map (Being revised) ...24	
Figure 10. Middle Shooks Run Potential Solutions Map.....	26
Figure 11. Knob Hill Potential Solutions Map.....	28
Figure 12. Eastern Reaches Potential Solutions Map .....	30
Figure 13. East-West Bicycle Connection Alternatives .....	32
Figure 14. Corridor-wide Transit Opportunities .....	35
Figure 15. Union Boulevard/Platte Avenue Widening Exhibit .....	41
Figure 16. Recommended Bicycle Network Connections .....	47
Figure 17. Downtown Platte Avenue Streetscape Overview .....	50
Figure 18. Platte Avenue Downtown Perspective – Future.....	51
Figure 19. Bijou Street Downtown Perspective .....	52
Figure 20. Kiowa Street Downtown Perspective .....	53
Figure 21. Cascade Multimodal Reconfiguration and I-25 Connectivity Concept .....	54
Figure 22. El Paso/Shooks Run Trail Park Cover Overpass Streetscape Plan .....	56
Figure 23. El Paso/Shooks Run Trail Park Cover Overpass Concept.....	57

Figure 24. Platte Avenue through Central Knob Hill Streetscape Plan .....	60
Figure 25. Central Knob Hill Platte Avenue Future Concept .....	61
Figure 26. Platte Avenue/Circle Drive Widening.....	62
Figure 27. Platte Avenue at Academy Boulevard Intersection – Potential Future Redevelopment Scenario .....	65
Figure 28. Platte Avenue/Academy Boulevard Quadrant Road Intersection Future Perspective .....	66
Figure 29. Downtown Character Area Typology Map and Typology Examples .....	71
Figure 30. Recommended Delivery Tool.....	73

## List of Tables

Table 1. ConnectCOS Evaluation of Corridor Needs .....	7
Table 2. Summary of Critical Mobility Needs.....	15
Table 3. Traffic Operations Performance Summary .....	21
Table 4. East-West Bicycle Connection Alternative Comparison.....	33
Table 5. Transit Alternative Comparison .....	36
Table 6. Platte Avenue/Nevada Avenue Intersection Alternative Comparison .....	38
Table 7. El Paso Street/Shooks Run Trail Overpass Alternative Comparison .....	39
Table 8. Union Boulevard Intersection Alternative Comparison.....	42
Table 9. North-South Bicycle Connection Alternative Comparison.....	43
Table 10. Table of Recommendations .....	45

# Chapter 1: Introduction

The Platte Avenue Corridor Study (PACS) is a micro-scale implementation of the processes established in ConnectCOS, similar to the corridor's role within Colorado Springs. Serving as one of the primary east-west pathways through Colorado Springs, Platte Avenue exhibits a unique environment and set of challenges while also presenting many opportunities.

Three key conditions or triggers make the PACS particularly timely and the subject corridor worthy of investment:

- **Changing transportation demands:** Travel demand for all modes is significant and likely to increase as destinations east of Powers Boulevard (CO-21) continue to be built out and increase in activity.
- **Community momentum:** With the momentum behind PlanCOS, and subsequently ConnectCOS, to make bold investments toward creating the future for Colorado Springs, the Platte Avenue corridor presents a tremendous opportunity for the City to put its planning into practice.
- **Development Potential:** A market and economic analysis for the Platte Avenue corridor found that while the rest of Colorado Springs and El Paso County has grown and developed, the Platte Avenue corridor has remained mostly the same in the past several decades and seen limited investment and development. However, there is also significant opportunity for the (re)development of housing, retail, office, and industrial uses throughout the corridor that could catalyze economic development and support community health and vitality for the residents, travelers, and visitors of the corridor and the City.

## Purpose of the Study

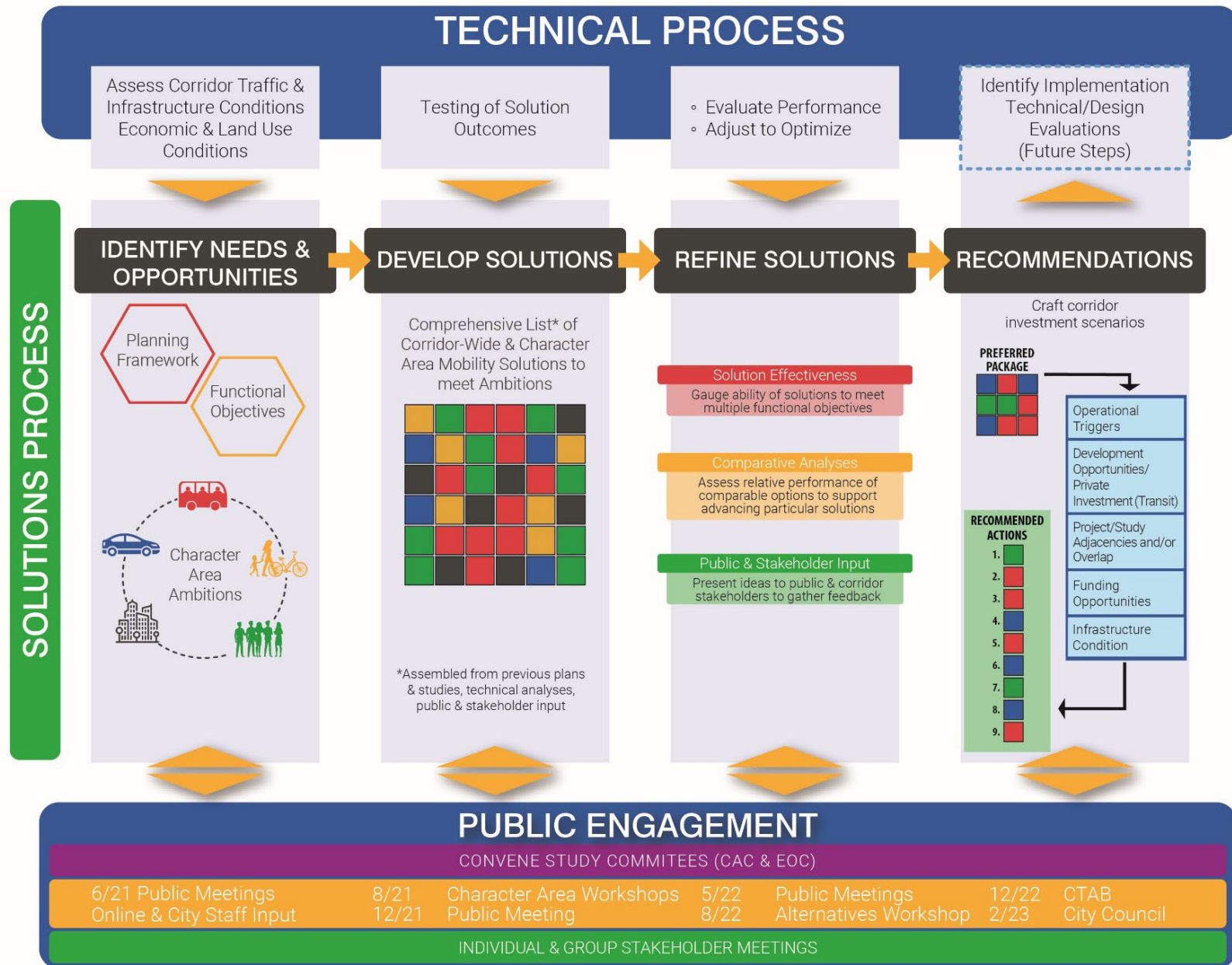
The Platte Avenue corridor has always been part of the backbone of the City's transportation network, providing one of the limited number of east-west connections across Colorado Springs. Travel demand for all modes is significant and likely to increase as destinations east of Powers Boulevard (CO-21) continue to be built out and increase in activity.

The ConnectCOS Plan presents a model for how the City can intentionally invest and make changes toward a desired future state of the City. With its adoption in 2023, the Plan established an overall framework for the City's transportation and mobility system. Through its identification of critical corridors (including Platte Avenue), the Plan is built to create studies that yield details on corridor needs and recommendations. Though the Plan presents a framework for action, the PACS identifies and better defines specific projects with which to move forward by analyzing corridor-specific needs, collaborating with community members, and providing tools for taking projects toward design and construction. The PACS provides a flexible tool for advancing Platte Avenue within the fixed planning framework established by ConnectCOS. The PACS presents a tremendous vehicle for the City to advance the ConnectCOS Plan by recommending actions that can be implemented.

## Process

The study process is depicted graphically on **Figure 1**. Throughout the study, technical and engagement processes have supported the development, evaluation, and selection of corridor solutions.

Figure 1. Study Process



The Technical Process provided quantitative measures to describe corridor conditions and test the ability of solutions to address current and future needs. Technical analyses have considered travel patterns and traffic operations, infrastructure condition, and economic development conditions. Public engagement activities have supported every step of the process via numerous small group meetings, online interactions, and in-person public meetings. The solutions process built a list of ideas to meet the functional objectives and then refined these ideas to reach a set of recommendations poised for implementation.

## Planning Context

### PlanCOS

PlanCOS recognizes several roadway typologies identifying street characteristics and the enhancements that should be considered to support them. PlanCOS designates the Platte Avenue corridor as a Multimodal Corridor and a Smart Street Corridor, as well as a “Mature/Redeveloping Corridor” between Union and Academy.

PlanCOS’s Thriving Economy theme addresses a vision of furthering Colorado Springs’ economic health when making land use decisions moved forward by actions such as diversifying the local economy but also building on the city’s current strengths, thinking regionally, and remaining fiscally responsible through land use decision-making. PlanCOS also provides a vision and framework for enhancing the quality, diversity, and safety of city neighborhoods. The PACS includes seven neighborhoods, and these neighborhoods are categorized into three neighborhood typologies, in addition to the downtown area.

### ConnectCOS

The ConnectCOS Multimodal Transportation Plan, adopted in early 2023, provides a renewed vision for the regional transportation system, including the Platte Avenue corridor. The PACS effort relies

heavily on the foundation set in place by ConnectCOS, and subsequent sections of this report reinforce this connection.

### COS Bikes!

COS Bikes! puts forth a bicycle Vision Network that highlights streets in Colorado Springs where appropriate bicycle infrastructure is recommended to improve connectivity and access to City destinations.

### Downtown Master Plan

While mostly focused on land use and development, the Downtown Master Plan identifies the Platte Avenue Gateway and the Bijou/Kiowa Gateway as two transportation/mobility-related visions for the Platte Avenue corridor.

### Other Related Plans and Recommendations

- Shooks Run Redevelopment Plan – Envision Shooks Run
- Acacia Park and the Three Historic Downtown Parks

## Study Usage

The PACS is an extension of the ConnectCOS Multimodal Transportation Plan, building on the framework and content of the Plan to identify corridor-level solutions and recommend next steps toward implementing those solutions. The corridor study document and appendices are to be used:

- By **the City of Colorado Springs** to assist in developing and delivering transportation infrastructure projects that meet community and mobility priorities. Study recommendations are assembled to be flexible; such that solutions can be positioned for funding and implemented over time;
- By **the general public and neighborhood groups** to enhance understanding of the future vision for the Platte Avenue

corridor and assist in collaboration with the City in meeting the study functional objectives;

- By **community developers** to create land use opportunities that are consistent with the desired outcomes within the corridor study area, and the importance of ensuring that development work; and
- To assist **design professionals** in properly translating the study objectives and recommendations to a higher level of detail that will be experienced as physical realities in the corridor.

## Study Area

Figure 2 depicts the elements that compose the corridor for the purposes of PACS. While this corridor study centers on Platte Avenue as the corridor backbone, it is not limited to Platte Avenue and instead considers all of the major transportation and land use factors within a defined “travelshed” of Platte Avenue. A travelshed considers all facets of a corridor that connect two locations, including the roadways, the parallel and intersection roadway network, trails, and transit routes, and also consider the land use contexts surrounding transportation facilities.

Figure 2. Corridor Elements

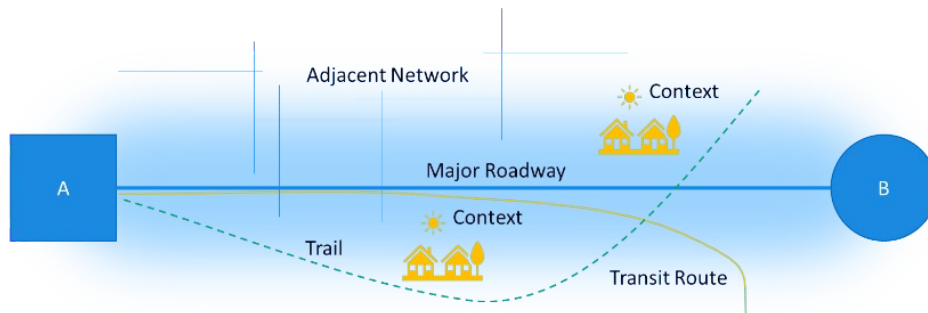


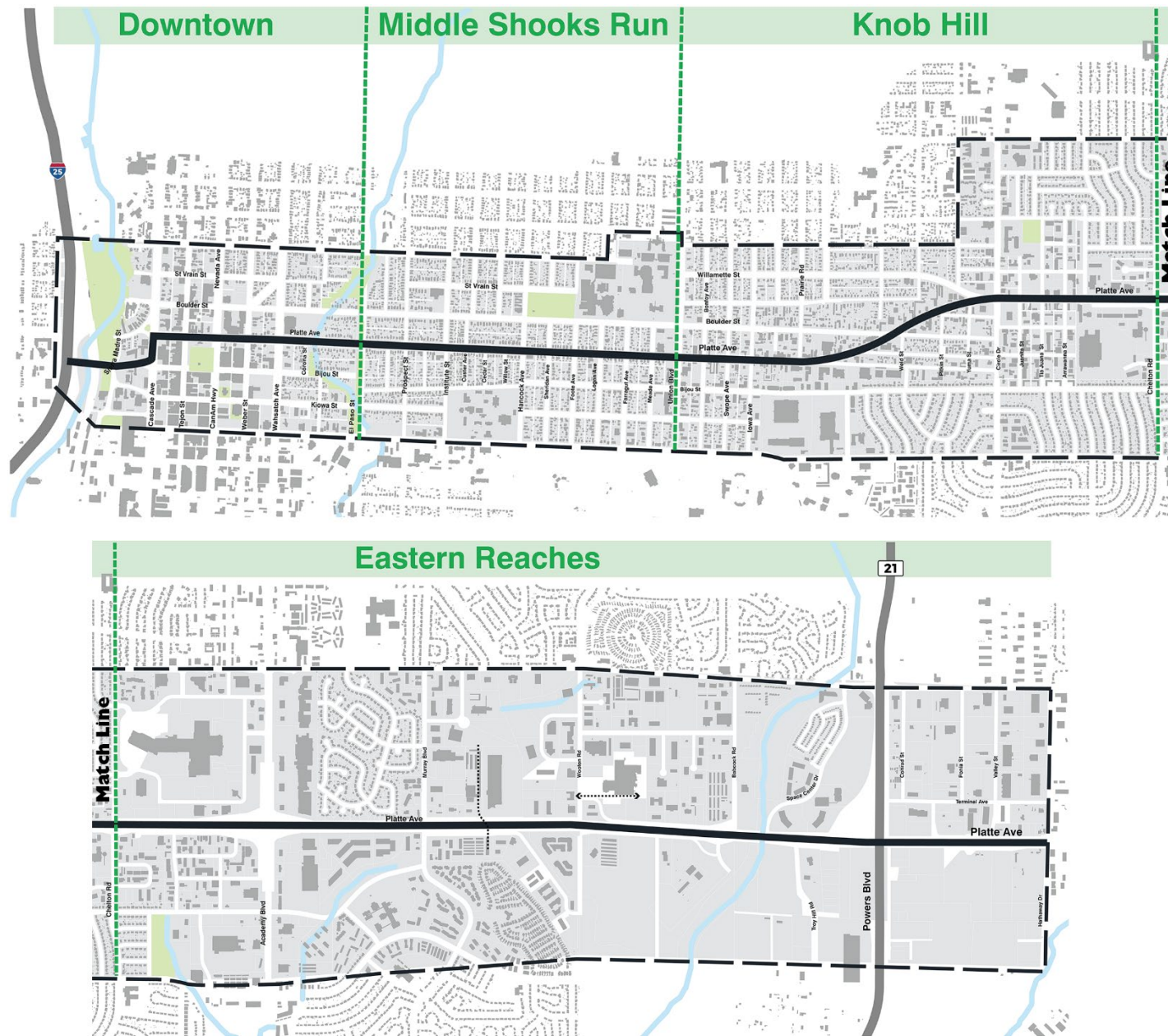
Figure 3 depicts the 7-mile study area. This length traverses four character areas designated to ensure that the uniqueness of each section is given appropriate attention while considering the whole. The four character areas include:

- **Downtown Character Area:** Walkable streets and the highest density occur in the downtown area.
- **Middle Shooks Run Character Area:** Established residential area with lush tree canopies and bungalow-style homes.
- **Knob Hill Character Area:** Transitions from a residential area to a commercial zone with large parcels constructed in the 1980s.
- **Eastern Reaches Character Area:** The roadway splits with an increased speed limit that gives the thoroughfare an interstate feel that reaches beyond the corridor's extents.

The character areas are not meant to be hard jurisdictional or neighborhood boundaries but are instead loosely defined at areas where there is a change in either roadway or land use characteristics of the corridor. Between each character area is a transitional zone where roadway and land use characteristics may take on elements of either adjacent character areas.



Figure 3. Corridor Study Area



# Chapter 2: Planning Framework

## ConnectCOS Mobility Goal Framework

Alongside 15 other Critical Corridors across the city, the Platte Avenue corridor was assessed against the ConnectCOS Goal Framework elements to reveal deficiencies and critical needs related to each goal area. **Table 1** provides a review of the Platte Avenue corridor needs based on this framework.

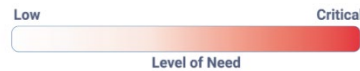
- **Safe (Updated):** High crash densities can be seen sporadically throughout the corridor, with the downtown area consistently having a higher crash occurrence. In addition to quantitative safety conditions shown through crash data, the perception of safety concerns along Platte Avenue is also an issue. The roadway has minimal lighting that is not consistent throughout the corridor and very few bus stops have lighting, making active transportation conditions uncomfortable and potentially unsafe at night.
- **Equitable:** The main question to answer for the Equity goal is “Do the transportation facilities serve the transportation needs of travelers and current and future land uses on the corridor?” Various data sets and observations indicate that transportation facilities within the PACS area do not provide adequate mobility choices.
- **Sustainable:** The “three pillars” of sustainability are economy, environment, and society. From an economic standpoint, the existing conditions analysis highlighted economic challenges of the corridor, including the absence of investment and more limited development as compared to the rest of the city. The “environmental” considerations include assessment of green infrastructure and tree cover, connectivity to parks

and open space, and environmental resources or constraints on the corridor that would impact potential projects or development along the corridor. The “society” aspect considers metrics related to quality of life for corridor residents and users. The “quality of life” assessment included availability and accessibility via multiple modes of essential services along the corridor, including grocery stores, housing options, and healthcare services.

- **Efficiently Reliable:** This goal element includes an assessment of current and future anticipated vehicular (traffic and transit) performance of the roadways within the study area and an assessment of transportation infrastructure condition.
  - ▶ A traffic performance “score” calculated for each roadway allowed comparison among roadways. Platte Avenue was within the 30 percent poorest performing roadways in the city based on this relative scoring.
  - ▶ When analyzed for this study (2021), the system-wide mean of transit routes having on-time performance was 92.02 percent. Route 5, the main bus route serving riders traveling east-west along the corridor via Boulder Street, had an on-time performance just below 92.00 percent.
  - ▶ A critical need was identified where a roadway segment’s volume-to-capacity (v/c) ratio exceeds 1 and there is no additional right-of-way (ROW) or other constraints to widening the road to accommodate additional vehicular travel lanes. This condition often indicates that additional “people moving” capacity is necessary beyond just “vehicle moving” capacity.

Table 1. ConnectCOS Evaluation of Corridor Needs

Corridor	Segment	SAFE			EQUITABLE		SUSTAINABLE		
		Crashes	Emergency Response	Personal Safety	Appropriate	Context	Economy	Environment	Quality of Life
Platte Avenue	Academy Boulevard to Marksheffel Road	Light Red	Light Red	Light Red	Light Red	Light Red	Light Red	Light Red	Light Red
Platte Avenue	I-25 to Academy Boulevard	Light Red	Light Red	Light Red	Light Red	Light Red	Light Red	Light Red	Light Red



Corridor	Segment	RELIABLE			ACCESSIBLE			CONNECTED		
		Travel Time	Person Capacity	Good Repair	Intuitive	Comfortable	Connections	Land Use	Neighborhood	Economy
Platte Avenue	Academy Boulevard to Marksheffel Road	Light Red	Light Red	Light Red	Light Red	Light Red	Light Red	Light Red	Light Red	Light Red
Platte Avenue	I-25 to Academy Boulevard	Light Red	Light Red	Light Red	Light Red	Light Red	Light Red	Light Red	Light Red	Light Red

- Accessible:** This goal element considers the ease with which various travelers using various modes can travel along and navigate the corridor. A key element of accessibility, as defined by ConnectCOS, is compatibility of modes within the corridor, including how different modal facilities interact with and connect to each other. Another consideration is how intuitive is it to travel along the corridor and navigate to your destination. Other considerations related to the “accessible” goal for the Platte

Avenue corridor is the lack of existing infrastructure to support modal connections along the corridor.

- Connected:** This goal element considers connectivity from three lenses. The first is the connection or compatibility between the roadway function and the anticipated or desired land uses for that area. The second is the corridor’s ability to connect people to key local and regional activity centers within Colorado Springs. Finally, the third element of connectivity is the ability of the corridor to connect neighborhoods and the community.

## Functional Objectives

The functional objectives shown on the right were identified for the PACS. PACS applies the goals and needs evaluation of ConnectCOS to identify context-specific functional objectives and the actions that will achieve them for the Platte Avenue corridor.

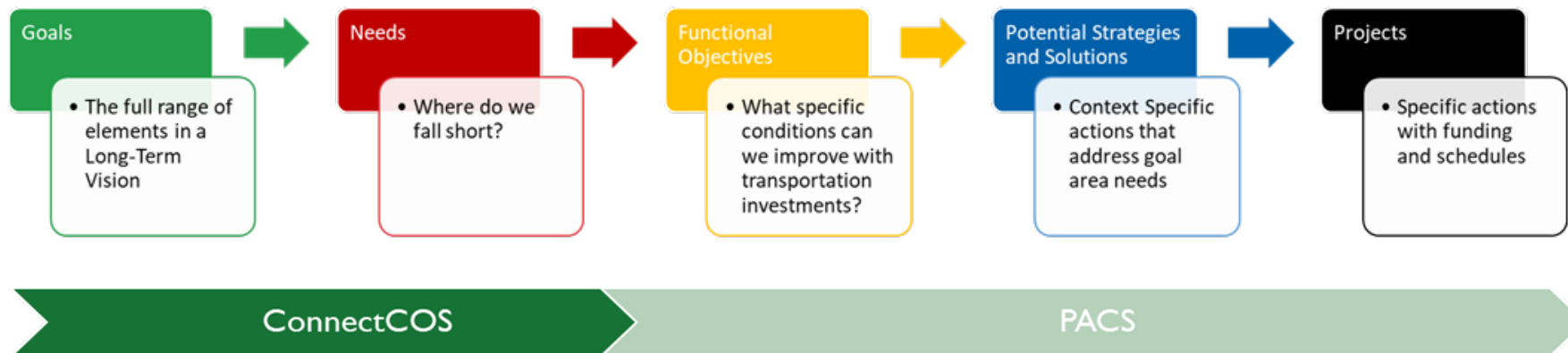
Figure 4 highlights the relationship among goals, needs, functional objectives, and solutions.



The Platte Avenue Corridor should...

- **Maintain and enhance east-west connectivity and capacity for current and future traffic as the primary function** of the corridor, considering travel times, network connectivity, and activity centers served.
- Support **Downtown as a destination** – while connectivity between I-25 and the eastern reaches is important, the character of the Downtown portion of the corridor should prioritize the vision for Downtown
- **Establish a consistent identity** for the corridor while integrating and enhancing the different character areas and the transitions between
- **Integrate the corridor into the community** to create an ‘Avenue’, visual connections, and context-specific **placemaking** opportunities
- **Invest in the corridor** to support the significant opportunity presented by Platte Ave to positively impact Citywide **economic and equity outcomes**
- Provide **safe, efficient, and comfortable transportation options** along and across the corridor to enhance mobility for those who drive, ride, walk, or roll

Figure 4. Functional Objectives within the Project Process



# Chapter 3: Stakeholder and Community Engagement

To ensure the PACS addresses the current and future transportation and mobility needs of the transportation users of the corridor and surrounding neighborhoods, the project team conducted outreach and engagement activities to gather community and stakeholder input. Input was sought during three primary phases of the planning process, as described in this chapter. Engagement milestones closely aligned with the technical milestones so that residents, employees, business owners, visitors, and commuters could learn from the ongoing technical analysis. Doing so provided the public an opportunity to process the technical information and then provide more feedback about the future of transportation and mobility in Colorado Springs. The project team used various in-person and online engagement tools to collect input that supplemented the technical analysis.

## Public Involvement Plan

The robust public involvement plan (**Appendix A**) outlined strategies, tactics, and implementation measures to be carried out by the project team and the City of Colorado Springs to support stakeholder engagement and dissemination of information about the PACS. The public engagement processes looked to empower stakeholders who live, work, and use Platte Avenue with knowledge and awareness of the work being undertaken. The process also focused on providing decision-makers with information, guidance, and clear accountability for the path forward for Platte Avenue and the adjacent communities, businesses, and regional destinations.

## Approach

### COVID-19 Response

With the constantly evolving national, state, and local guidance surrounding the COVID-19 pandemic, the approach to stakeholder and community involvement prioritized individual safety. The project team took precautions to prioritize public safety and mitigate the impacts of COVID-19 while creating opportunities for meaningful public engagement. The project team recognized the value of receiving public feedback in person, where possible, and understood that holding virtual meetings can be a barrier. As such, the project team made every effort to ensure members of the public had an opportunity to engage within their comfort level. Virtual engagement activities were offered throughout the project, and smaller group and one-on-one meetings with the project team were also available upon request.

### Equitable and Inclusive Engagement

The public involvement process for the study was closely aligned with technical milestones. Platte Avenue residents, workforce, business owners, visitors, travelers, and commuters were educated on the technical components. The project team was aware of societal inequities and actively strived to address them through inclusive engagement.

The project's approach to engagement emphasized the following key principles:

- Go to the audiences instead of wondering why no one shows up,
- Be innovative to enhance awareness and generate interest,
- Leverage existing systems and partners to enhance participation,
- Include a broad cross-section of the socioeconomic spectrum, including underserved and young people, and
- Conduct a transparent data-driven process.

## Digital Engagement

A key element of public engagement was to deploy innovative strategies and interactive digital tools, especially during the pandemic, to enable people to provide input from the comfort of their homes. In addition to virtual meetings and workshops, the suite of digital engagement tools included the following:

- GoCOS!: Mobile app for City news and events
- Social Pinpoint: Interactive survey platforms
- Social media: Facebook, Twitter, and Nextdoor to generate awareness
- City's web platform: Project website to help combat misinformation, educate stakeholders, and engage Colorado Springs residents throughout the study

To establish and maintain an open line of communication with the public, the project team set up a dedicated project email and database, building on the PlanCOS and ConnectCOS projects. The project team coordinated responses to questions and comments.

## Grassroots Engagement

In addition to traditional communication materials (newsletters, emails, fact sheets, FAQs, etc.), the project team produced signage,

bilingual flyers, and other types of grassroots materials that were distributed to local businesses and project partners. The project team also called local businesses and project partners to encourage attendance and participation in public meetings and key engagement events milestones.

## Stakeholder Oversight

Throughout the study, two committees guided the project: the Executive Oversight Committee (EOC) and the Community Advisory Committee (CAC).

### Executive Oversight Committee (EOC)

The EOC, appointed by the Project Management Team (PMT), included representatives from City agencies, staff, and other technical stakeholders. The EOC advised on the overall conduct of the planning process, provided subject matter expertise, reviewed technical aspects of the evaluation, and advised on the overall messaging. The EOC met approximately quarterly throughout the process.

### Community Advisory Committee (CAC)

The CAC was a diverse representation of the broader community that helped build informed consent around potential solutions and shared information with their constituents. The CAC was composed of approximately 30 individuals representing various community interests including neighborhoods, City boards and commissions, businesses and employers, healthcare, housing and human services, mode-specific organizations, and education. At key decision-making points, CAC meetings were held to review project information in advance of broader engagement activities. CAC members provided key feedback and acted as a sounding board for the project team before sharing information more broadly.

# Public Engagement

## Stakeholder Interviews and Focus Groups

Early in 2021 and at the onset of the PACS, the project team met with approximately 50 corridor-specific stakeholders over several weeks to conduct small group discussions, topical workshops, and one-on-one interviews. Stakeholders represented a diverse range of project partners and community members who live and work along Platte Avenue. The discussions helped the project team gain insight into their mobility and placemaking priorities, opportunities, and challenges for further consideration in the PACS. Input was provided through the following high-level themes:

- Platte Avenue is poised for a multimodal transformation that better serves the surrounding neighborhoods.
- The corridor is a gateway corridor to many destinations, but the current character is unwelcoming and not a good first impression.
- The corridor is a key transit route that functions reasonably well and experiences high ridership.
- There is a desire to walk and bike in the adjacent neighborhoods, but crossing Platte Avenue presents significant challenges.
- Accessing I-25 from Platte Avenue is difficult.
- The City has received feedback that living directly on Platte Avenue compromises quality of life because of the traffic, inability to cross the street, and noise.

## Public Meetings

In the interest of transparency and inclusion, the project team hosted regular opportunities for the public to engage with project leadership and stay informed on the project progress, as well as the City's overarching transportation goals. Public meetings were

important for ensuring that the public received accurate information from the onset and at ongoing intervals throughout the project. Public meetings were held approximately twice a year throughout the project.

## First Public Meeting (June 2021)

On June 9, 2021, the project team held the first public meeting. Due to ongoing public health precautions related to COVID-19, the meeting was held virtually through Microsoft Teams Live. The live meeting included a presentation and a 10-question survey with questions related to how and why people currently travel along Platte Avenue, current challenges encountered along Platte Avenue, and desired improvements. Themes heard during the meeting included:

- Participants most like the following aspects of Platte Avenue:
  - ▶ Trees and greenery,
  - ▶ Historic architecture, houses, and areas of importance for the City,
  - ▶ East-west connection across the City, and
  - ▶ Knob Hill Art District.
- Participants most like the following aspects of Platte Avenue:
  - ▶ Walking (for leisure, going to parks, or accessing businesses),
  - ▶ Visiting Black Sheep,
  - ▶ Driving downtown or to the east side of town, and
  - ▶ Viewing Knob Hill Art District (on bike or foot).
- Participants want to see the following changes as a part of the PACS:
  - ▶ Traffic flow and speed along the corridor,
  - ▶ Increase economic activity for businesses,

- ▶ Increase safety for pedestrians, cyclists, and drivers,
- ▶ A vision and core purpose that meet the demands of the roadway,
- ▶ Increase aesthetics,
- ▶ Reduce noise from traffic, and
- ▶ Increase walkability.

### Second Public Meeting (December 2021)

The public meeting scheduled to take place virtually on December 15, 2021, was cancelled due to extreme weather and power outages across the City of Colorado Springs. In response, and in an effort to keep the public informed about the study, a recording of the meeting content was posted on the project website available for public consumption. The recording included information and content originally scheduled to be presented live. The goals of the second public meeting were to provide an update on work completed to-date; review analysis to-date, recommendations, and potential alternatives; provide a look ahead; and identify how the public can continue to contribute feedback. The video recording can be found on the project’s website. To respond to the recorded public meeting, the community was encouraged to provide their feedback through a digital comment card. The comment card remained live on the PACS website from December 23, 2021, through January 21, 2022. The project team summarized comment card responses in conjunction with community and neighborhood meetings.

### Third Public Meeting (May and June 2022)

A series of public meetings was held in conjunction with ConnectCOS in May and June 2022. The purpose of the meetings was to share a comprehensive update on both ConnectCOS and the PACS. Due to the integrated nature of the two projects, combined open houses provided the public an opportunity to understand how the technical analysis of ConnectCOS influenced

the PACS. Initially, information about the PACS was to be featured only at the open houses on May 16, 17 and 25; however, this plan was adjusted to include the May 31 and June 7 open houses in response to growing community interest in that project. These in-person open house meetings provided information about draft recommended alternatives for the PACS.

To ensure equity in the sharing of feedback, community members were able to provide input to the project team through various means. Public input at the open houses was collected via comment cards and through conversations with attendees. Many residents who had either attended the open houses or reviewed the materials on the project website opted to send comments via email.

In total, the project team received 62 emails from residents regarding ConnectCOS and the PACS. Most feedback, whether in support of or in opposition to the draft recommendations, centered on the themes of safety, efficiency, cost, necessity, and community character.

Below is a high-level sample of what was communicated by the public:

- A robust transit network, as part of the ConnectCOS project, was generally well-received by the public. Residents shared enthusiasm for the potential of additional transit options to eventually support a reduction in personal vehicle use. Still, some residents pointed out that the current transportation infrastructure requires many people to use personal vehicles. The future consideration of the Southwest Chief and Front Range Passenger Rail station in Colorado Springs was seen as positive, and residents were enthusiastic about direct service to the city. Residents look forward to learning more about the related economic development opportunities once a site has been determined.



- Residents were supportive of any measures that might improve safety (e.g., a reduction in speeding and reckless driving), as well as improvements to signalized intersections and crosswalks.
- Another priority involved bicycle and pedestrian safety. Residents would like to see protected bike lanes and the inclusion of sidewalks in areas where there are currently none. Residents also placed importance on repairs to current roads, such as filling potholes and repairing sidewalks.
- Support was shared for the PACS, particularly for the inclusion of bicycle lanes and increased multimodal transit. Like the ConnectCOS feedback, some residents expressed support for the one-way couplet with Platte Avenue and Boulder Street, highlighting its potential to accommodate multimodal efficiency and address speeding concerns along the corridor. However, most of the feedback collected was in opposition to the draft recommended (transformational) alternative that included the one-way couplet. Residents primarily expressed concerns related to impacts on neighborhood character and safety. Many respondents believed that the one-way couplet would lead to an increase in speeding, noise, and emissions, all of which would negatively impact the character of the community and trigger a reduction in property values. Residents did not want to see the medians removed as this would constitute a reduction of greenery. There was also concern that the one-way couplet would lead to increased use and speeds on the north-south roads between Platte Avenue and Boulder Street, which would comprise the couplet. Residents also shared the perception that access to Memorial Hospital and the various schools along the

corridor would be hindered, and that crossing the road would become more hazardous.

- Residents raised questions about where funding for each project would come from.

**Appendix A** includes a summary of the comments received.

### **Community Survey (June and July 2021)**

Social Pinpoint is a map-based tool that was available on the project website for public engagement and to collect public input on the project from June 6 to July 14, 2021. The online mapping tool prompted participants to identify what they appreciated, or thought was working well along the corridor, as well as current concerns and perceived challenges. Responses were organized into five possible categories that respondents were asked to select: community, bicycle, pedestrian, transit, and vehicular. The project team received over 100 comments using the tool, as well as an additional 154 “up votes” to existing public feedback either affirming or agreeing with those comments. The public results from Social Pinpoint supplemented the technical corridor analysis.

### **Community Workshop (August 2021)**

In August 2021, the PACS project team held three segment-specific workshops engaging select geo-targeted community members, including business and property owners, residents, students, workforce, as well as transportation and land use experts, to inform proposed alternatives and next steps in the process. Using PowerPoint, Poll Everywhere, drone video of the study area, and interactive activities in Miro, the project team held three engaging workshop experiences for participants. The workshops provided the project team with location-specific feedback to supplement the alternatives development process.

## Community Office Hours, Stakeholder Meetings, and Neighborhood Meetings (January and February 2022)

The project team held two virtual community office hour sessions on January 6, 2022, and January 10, 2022. Office hours gave the community an opportunity to further engage with the project team through an interactive small group setting and have their questions answered. Approximately 30 participants attended.

In February 2022, the project team held various meetings with community organizations and neighborhoods along the corridor. The project team also hosted seven stakeholder one-on ones, as well as multiple meetings with residents and neighbors from the Middle Shooks Run Neighborhood, the Boulder Street Neighborhood Group, and residents at the intersection of Sheridan Avenue and Platte Avenue. These meetings helped inform the continued technical analysis.

## Central Platte Community Workshop (August 2022)

Given the significant feedback received about the one-way couplet at the third public meeting, the project team conducted additional engagement activities to further inform alternative development and selection within the central portion of the study area – encompassing the Middle Shooks Run and Knob Hill character areas. These activities were premised on the determination that the

one-way couplet alternative would not be advanced as the recommended alternative in the study. Further input was sought to help the project team identify the appropriate recommendation.

Held in August 2022, the Central Platte Community Workshop engaged a group of stakeholders and the general public in an effort to broaden examination of multimodal transportation alternatives to support a functional, thriving Platte Avenue corridor into the future. This workshop involved an intensive, in-person two-day format intended to gather an overall direction and understanding of community values to help inform decisions. Joining the breakout sessions, working discussions and community forums were 133 participants. A summary of the workshop is provided in **Appendix A**.

## CTAB and City Council Work Session Presentations

Draft study recommendations were shared with the Citizens Transportation Advisory Board (CTAB) in December 2022 and with Colorado Springs City Council at the February 27, 2022, Work Session. Presentations addressed the draft recommendations emerging from the study. Discussion with each of these bodies occurred to understand critical perspectives and help to inform the ultimate study outcome.

# Chapter 4: Needs and Ambitions

## Needs

The State of Corridor document in **Appendix B** provides detailed information about corridor conditions. The document contains information about the corridor context (including land use, economic and cultural resources), infrastructure condition, and its ability to serve multimodal transportation needs now and into the future. The document culminates with a summary of critical needs.

**Table 2** summarizes the key findings from the assessment of the corridor facilities within the PACS area related to each ConnectCOS

Table 2. Summary of Critical Mobility Needs

Goal Area	Key Needs to Address	Goal Area	Key Needs to Address
Safe	<ul style="list-style-type: none"> <li>• High number of bike/ped crashes</li> <li>• Intersection crash hot spots</li> <li>• Improve perception of safety at crossings and bus stops</li> </ul>	Reliable	<ul style="list-style-type: none"> <li>• Platte Avenue among 30% worst performing roadways within the city</li> <li>• Unacceptable intersection delay at multiple intersections that cannot be improved with signal timing</li> <li>• Multiple bridges/structures in poor/unacceptable condition</li> <li>• Stormwater infrastructure in poor condition or non-existent</li> </ul>
Equitable	<ul style="list-style-type: none"> <li>• Corridor residents need mobility options</li> <li>• Corridor users need mobility options</li> <li>• High transit propensity uses throughout the corridor</li> </ul>	Accessible	<ul style="list-style-type: none"> <li>• Lack of continuity for pedestrian facilities degrades pedestrian comfort and accessibility to destination and transit</li> <li>• Incompatibilities among modes on the same roadway, resulting in the comfort of one mode to be degraded at the expense of another</li> <li>• Desire for corridor to be a gateway for various contexts</li> <li>• Need improved transit transfer station at Citadel Mall (location and amenities)</li> </ul>
Sustainable	<ul style="list-style-type: none"> <li>• Desired economic investment in multiple locations throughout corridor</li> <li>• Need for affordable housing options</li> <li>• Need for improved multimodal access to corridor services in eastern portion of the corridor</li> </ul>	Connected	<ul style="list-style-type: none"> <li>• Incompatibilities between land use context and transportation function throughout the corridor</li> <li>• Need to reduce Platte as a neighborhood barrier</li> <li>• Need to elevate Platte's function for east-west mobility with multiple modes especially as a critical link in the Transit Vision Network of enhanced transit corridors identified in ConnectCOS</li> </ul>

Goal Framework element. Elements where critical needs were identified helped guide the development of solutions and eventually shaped recommendations for the corridor to advance transportation and mobility goals.

The Transportation Operations Technical Report is provided in **Appendix C**. In this analysis, Existing 2022 and long-term 2045 traffic volumes at several study intersections were analyzed to determine improvements that may be needed along Platte Avenue to accommodate existing and future projected traffic volumes.

# Ambitions

## Development of Ambitions

The corridor functional objectives serve as guiding principles for a high performing corridor. Striving to address each objective throughout the PACS study area was the foundation for identifying and evaluating potential corridor investments and solutions.

While functional objectives are corridor-wide principles, the uniqueness of each character area in the corridor required the objectives to be taken to a deeper level of detail to define corridor and character area ambitions. Character area ambitions were defined through the input received in the public process – they are intended to document the ambitions voiced by the community and guide development of recommended actions. The ambitions were grouped into five categories: *Vehicular, Transit, Bicycle and Pedestrian, Community, and Surrounding Land Uses*. The study seeks to leverage Platte Avenue ROW in the service of these ambitions.



**Vehicular** ambitions are related to providing safe and efficient movement for automobiles through the corridor. **Transit** ambitions seek to provide service that is travel-time competitive and attractive for riders. **Bicycle and Pedestrian** ambitions provide a corridor experience that is navigable for active modes. **Community** ambitions

seek to reflect and advance the role of the corridor in placemaking within each character area. **Surrounding Land Use** ambitions guide private investment toward positive economic outcomes through current land use and future redevelopment opportunities.

Ambitions were identified within each category and for each character area. Character area-specific ambitions define a successful Platte Avenue corridor across a range of travel modes and community development outcomes. Input that helped identify each character area’s ambitions included community and stakeholder input, direction and outcomes from previous plans and studies, input from City staff in various departments, and technical analyses related to traffic, land use, structural, and economic development. **Figure 5** identifies each character area’s ambitions.

## Use of Ambitions

The functional objectives were considered foundational principles for any potential solutions defined during the study. To meet these functional objectives, more detailed ambitions were defined as the basis for creating ideas within each character area to maximize effectiveness in meeting functional objectives.

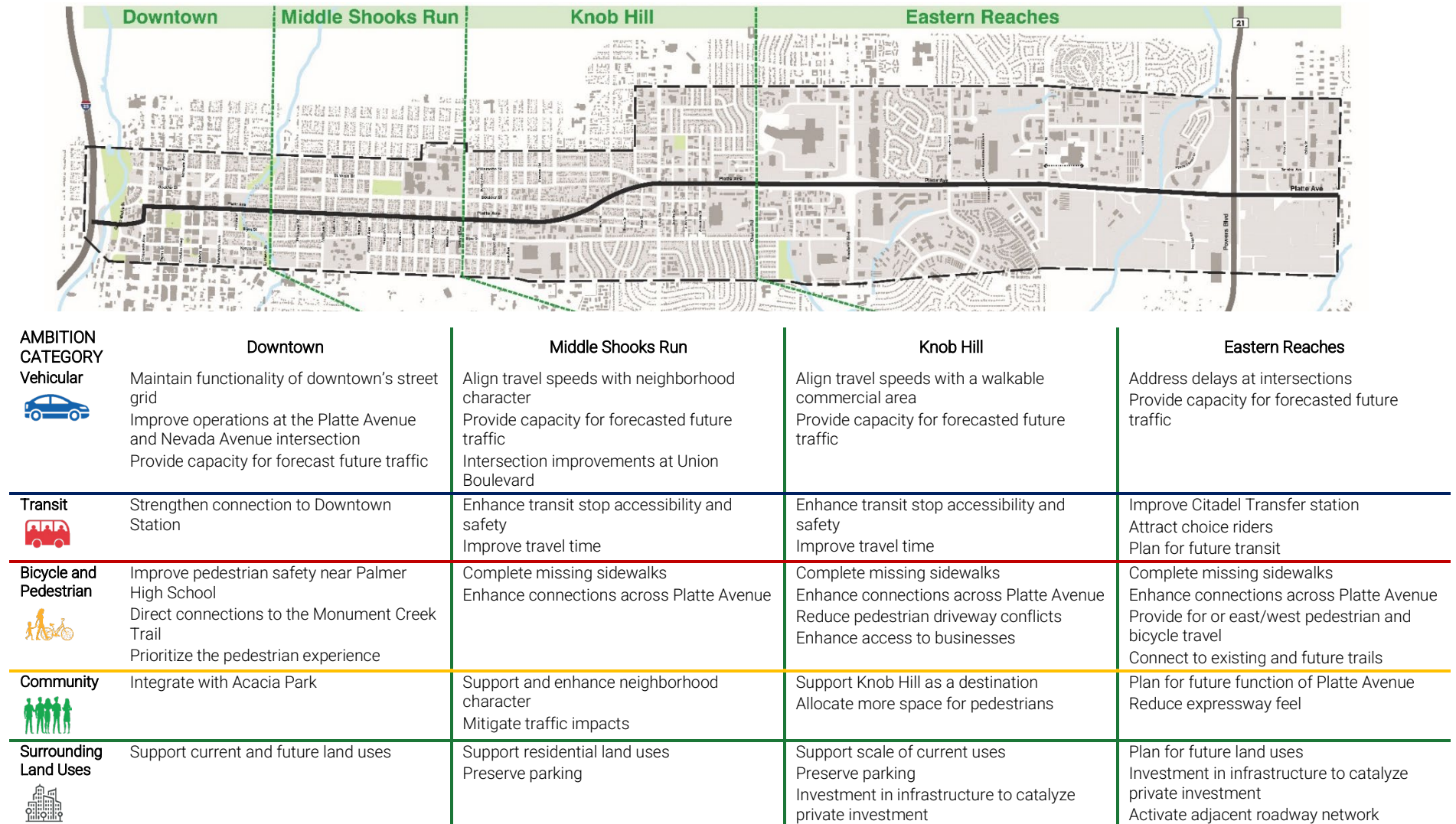
The project team identified a wide range of solution options to be considered to both address needs and create alignment with ambitions. Ambitions were also used to help assemble combinations of solutions options, called alternatives, evaluated against multiple factors, including the ability to meet the ambitions, to work toward identifying a recommended suite of solution options for the corridor. The ambitions highlighted the need for tradeoffs in alternatives evaluation, understanding that some viable solution alternatives would not equally be able to address all ambitions.

This idea that not every combination of solutions can equally advance all ambitions for each character area and fulfill multiple functional objectives was translated during a solution development process by recognizing a range of solution performance.

Alternatives developed in the spirit of meeting all ambitions of the specific character area were termed transformational; meaning that they often require a higher level of investment and could potentially result in greater impacts or changes to the area in question.

Incremental alternatives are those that would require a lower investment level and impact but would not necessarily meet all ambitions to the extent that a transformational alternative would be able to.

Figure 5. Character Area Ambitions



# Chapter 5: Solution Development

Solutions were developed to fulfill the ambitions of each character area, while maintaining alignment with the corridor functional objectives. A wide range of potential solutions were considered based on the identified needs and opportunities presented by technical analyses. Solutions supported community land use, environment, and quality of life goals documented in PlanCOS and focused on fundamental priorities documented in ConnectCOS (see **Figure 6**) that transportation investments should provide:

- personal mobility for all users;
- be resource efficient in service to stewardship of public resources; and
- serve the community.

Potential solutions were developed to meet these investment priorities, refined, and selected to be advanced as recommendations.

## Personal Mobility

Solutions were developed to serve adjacent users and needs within each character area with tailored mobility options, as well as to serve the role of the corridor in the citywide multimodal network. The Platte Avenue corridor must continue to serve as a primary east-west vehicle route, while also increasing functionality as an enhanced transit corridor. Solutions also needed to address active modes of transportation, including defining dedicated facilities connecting downtown to the Eastern Reaches for pedestrians and cyclists of all abilities. Connections for these modes across the vehicular and transit facilities were also a priority for solutions to be considered.

Figure 6. Solution Priorities



This priority requires that a recommended solution for the entire corridor respect the various contexts of each character area while: *Meeting current and growing future traffic demands.* Additional travel lanes may be needed where growth exceeds provided lane capacity at intersections or along roadway segments. Such investments, properly directed, can address traffic bottlenecks and help to preserve east-west traffic throughput. Widening roadways and intersections is a traditional solution worthy of consideration where its application can be balanced with other functional objectives.

*Adding functionality for travel-time competitive transit as identified by the ConnectCOS Transit Vision Network.* To serve the high ridership of today and the enhanced network of the future, potential solutions included dedicated transit lanes, shared lanes and/or transit-specific intersection improvements such as queue jumps. Solutions must recognize the existing Route 5 as one of the highest ridership routes within the current system, as well as the need for a travel time competitive connection between the Downtown Station and the convergence of routes at the Citadel Mall transfer station. The role of this link in the enhanced Transit Vision Network of ConnectCOS is critical.

*Completing critical connections for bike and pedestrian facilities comfortable to a wide range of users.* Solutions were defined to better accommodate active transportation modes along and across the corridor. The Platte Avenue corridor connects significant existing facilities such as the Sand Creek and Shooks Run trail systems. It also connects major activity centers with neighborhoods with populations that require additional mobility choices. A solutions priority was to identify a consistent and continuous route for cyclists to connect downtown through the Eastern Reaches and provide a comfortable pedestrian experience.

## **Resource Efficiency**

Much of the corridor ROW is constrained within a mature built environment. However, the character area ambitions reflect a community desire to better serve specific functions. Resource efficient solutions were developed and compared to provide enhanced service within existing ROW.

Ideas included strategies where traffic analyses indicated opportunities to reallocate ROW space to new or enhanced uses, to reconfigure roadways and intersections to leverage the full capabilities of the existing street grid to distribute and move traffic,

and to introduce alternative intersection types to serve the context and traffic.

By considering the entire roadway network and its capacity for carrying vehicles, it is possible to reallocate vehicular travel lanes to other uses such as enhanced transit, parking, or a better pedestrian experience. Evaluating roadway capacity alone can often leave little room for the pedestrian experience, which is emphasized throughout the corridor and prioritized downtown. Providing a flexible and future-ready transit network can provide critical people-capacity through the corridor and a more flexible system for meeting future needs.

## **Community Benefit**

Solutions were developed based on their potential to catalyze economic development and provide a platform for the generation of vitality and commerce. Specific land use opportunities were considered. Specifically, the project team considered solutions to attract private investment at locations along the corridor, including the areas of Knob Hill and the Citadel Mall. Future land use and the appropriate transportation network in the Eastern Reaches and beyond were considered in the development of solutions for all modes.

Included in the study process was an evaluation of economic impact and potential development scenarios that would generate economic return, provide needed upgrades to existing housing stocks, and provide opportunities to address community needs for affordable housing, address grocery deserts, and support existing neighborhoods. Potential solutions also considered environmental design, streetscape, and first/last mile connections.

This chapter identifies the comprehensive list of corridor-wide and character area-specific solution options considered in the study. The Solution Development phase includes both how and where

solution options were identified, as well as the initial high-level testing of solutions for feasibility and alignment with the PACS functional objectives and ambitions.

## Technical Analyses

The technical analyses helped identify additional needs and opportunities to be considered in relation to the ambitions and often identified potential solutions to address them. For example, traffic analyses at key intersections highlighted current and future capacity challenges for the study to consider, in line with vehicular ambitions. Similarly, economic and land use analyses identified opportunity areas throughout the corridor where transportation investments could support economic growth.

The following subsections summarize the technical analyses completed, the needs and opportunities, and the potential solution options, brought forward for consideration in the study.

### Traffic Analyses

With the functional objectives recognizing the importance of the corridor to serve current and future traffic, the study completed detailed traffic analyses to identify future needs. These analyses were used to not only shape traffic related solutions, but also leverage opportunities to reallocate ROW to better meet other objectives and the specific ambitions of each character area.

Traffic forecasting and analyses were completed to evaluate the current and future operational condition of Platte Avenue and to

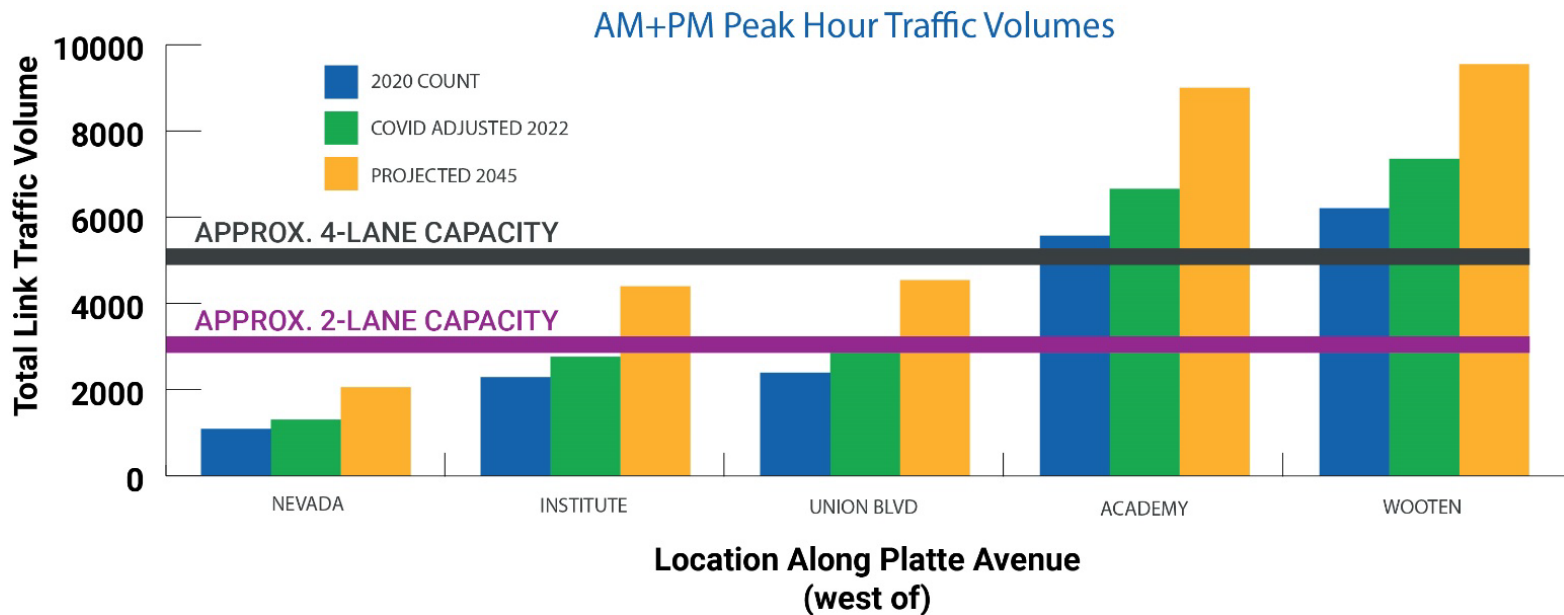
identify potential improvement needs. Weekday AM and PM peak hour traffic counts conducted in Year 2020 were adjusted for COVID impacts, increased to 2022 levels, and then further projected to Year 2045 conditions. An initial review of peak hour link traffic volumes was performed to evaluate the general use levels along Platte Avenue. **Figure 7** depicts these levels compared with the approximate capacity of a 4- or 6-lane Platte Avenue.

Platte Avenue currently provides 4 travel lanes throughout the majority of the study corridor, with the exception of the portion between Boulder Street and Academy Boulevard. As shown on **Figure 7**, link traffic volumes along Platte Avenue west of Union Boulevard are projected to remain within 4-lane capacity, while volumes increase farther east and exceed the capacity of a 4-lane Platte Avenue. While these generalized capacity comparisons provide a reasonable initial assessment of traffic flow conditions, peak hour intersection analyses are necessary to identify the extent of current and future congestion within the Platte Avenue study corridor.

Peak hour intersection traffic operations analyses were conducted (see detail in **Appendix C**) to understand where there might be current and future traffic operations bottlenecks and needs along the corridor. Specifically, the existing and future analyses identified intersections where traffic operations are or will be considered unacceptable based on the City's traffic operations standards, which identify a minimum intersection operational goal of Level of Service (LOS) D or better.



Figure 7. Traffic Levels and Lane Capacities – Platte Avenue



Analyses of existing (2022) and future (2045) conditions at 28 signalized intersections along Platte Avenue and Boulder Street revealed that most intersections and traffic movements currently operate at standard levels, as summarized in **Table 3**.

Table 3. Traffic Operations Performance Summary

Performance Metric	Current (2022)	Year 2045
% acceptable intersection Level of Service	95%	86%
% acceptable movement Level of Service	79%	75%

Though nearly all intersections currently operate at acceptable levels, some movements/intersections show congestion for particular peak hour patterns. Without capacity enhancements, future growth is expected to add to the number of intersections operating poorly.

By Year 2045, the top intersection bottlenecks along Platte Avenue would include Murray Boulevard, Wooten Boulevard, Circle Drive, and Union Boulevard.

### Economic Development Analyses

Economic development analyses revealed opportunities for infrastructure investments to contribute to economically beneficial redevelopment. Two significant opportunities were identified at Knob Hill and Citadel Mall, as shown outlined in dashed red lines on **Figure 8**.

These areas were selected given the potential positive impact each can have on the overall character and experience of the corridor, as well as the existing land uses and opportunities for future commercial and mixed-use redevelopment.

The State of the Corridor document in **Appendix B** provides more information about the market study, how these opportunities were identified, and other redevelopment or economic and social benefit potentials within the corridor. This analysis includes evaluating these alternatives from the perspective of Community Benefits and Economic Benefits related to tax revenue and future land values.

Figure 8. Key Redevelopment Areas



## Initial Testing of Solution Options

This section describes the comprehensive suite of multimodal solution options identified to address needs and leverage opportunities in each character area, showing:






1. **Ambitions:** Reminder of the character area ambitions.
2. **Traffic/Technical Analysis Findings:** Discussion about technical findings to test general feasibility, mainly related to if the option would maintain acceptable traffic conditions along the corridor.
3. **Solutions and Opportunities:** List of each solution and an indication of which ambitions are satisfied by the idea.
4. **Map:** Graphical depiction of solutions within that character area.

Testing the solutions via technical analyses and confirming alignment with ambitions helped screen out solutions that were either not feasible to implement or did not align with character area ambitions. **Solutions that were considered feasible and in line with corridor ambitions were advanced to the Solution Refinement activities** (discussed in **Chapter 6**). The final recommendations outlined in the report are discussed in **Chapter 7**.

**Appendix D** provides additional information about the development of solutions.

## Downtown Character Area

### Ambitions

Ambition Category	Ambition
<b>Vehicular</b> 	Provide capacity for forecast future traffic Maintain functionality of downtown's street grid Improve operations at the Platte Avenue and Nevada Avenue intersection
<b>Transit</b> 	Strengthen connection to Downtown Station
<b>Bicycle and Pedestrian</b> 	Improve pedestrian safety near Palmer High School Direct connections to the Monument Creek Trail Prioritize the pedestrian experience
<b>Community</b> 	Integrate with Acacia Park Add to the vibrancy, activity, and artfulness of downtown
<b>Surrounding Land Uses</b> 	Support current land uses

Note: Colored dots=ambition categories addressed

### Traffic Analysis Findings

- Current and future traffic volumes along **Platte Avenue** indicate 2 lanes would be sufficient.
- **Bijou and Kiowa Streets'** current and future traffic volumes indicate 2 lanes would be sufficient; however, insurmountable traffic operations challenges would occur with conversion of Bijou and Kiowa one-way streets to two-way streets.
- Left turn movements at the **Platte Avenue/Nevada Avenue** intersection can be redistributed to other intersections within the grid.



### Opportunities and Solutions






- Lane/ROW reallocation on Platte Avenue, Bijou and Kiowa Streets provides capacity while prioritizing pedestrian travel and enhancing Downtown ●●●●
- Nevada Avenue and Weber Street intersection improvements address Palmer High School safety ●●
- Tejon Street Intersection Pedestrian & Aesthetic Improvements enhance Downtown and emphasize pedestrian experience ●●●
- Creates flexible street along Acacia Park ●●
- Adjust Cascade Avenue intersection and Cascade Avenue to handle I-25 connection traffic and serve multimodal traffic ●●

Figure 9. Downtown Potential Solutions Map



## Middle Shooks Run Character Area

### Ambitions

Ambition Category	Ambition
<b>Vehicular</b> 	Align travel speeds with neighborhood character Provide capacity for forecasted future traffic Intersection improvements at Union Boulevard
<b>Transit</b> 	Enhance transit stop accessibility and safety Improve travel time
<b>Bicycle and Pedestrian</b> 	Complete missing sidewalks and construct infrastructure to ADA compliance Enhance connections across Platte Avenue
<b>Community</b> 	Support and enhance neighborhood character Mitigate traffic impacts
<b>Surrounding Land Uses</b> 	Support residential land uses Preserve parking

Note: Colored dots=ambition categories addressed

### Traffic Findings

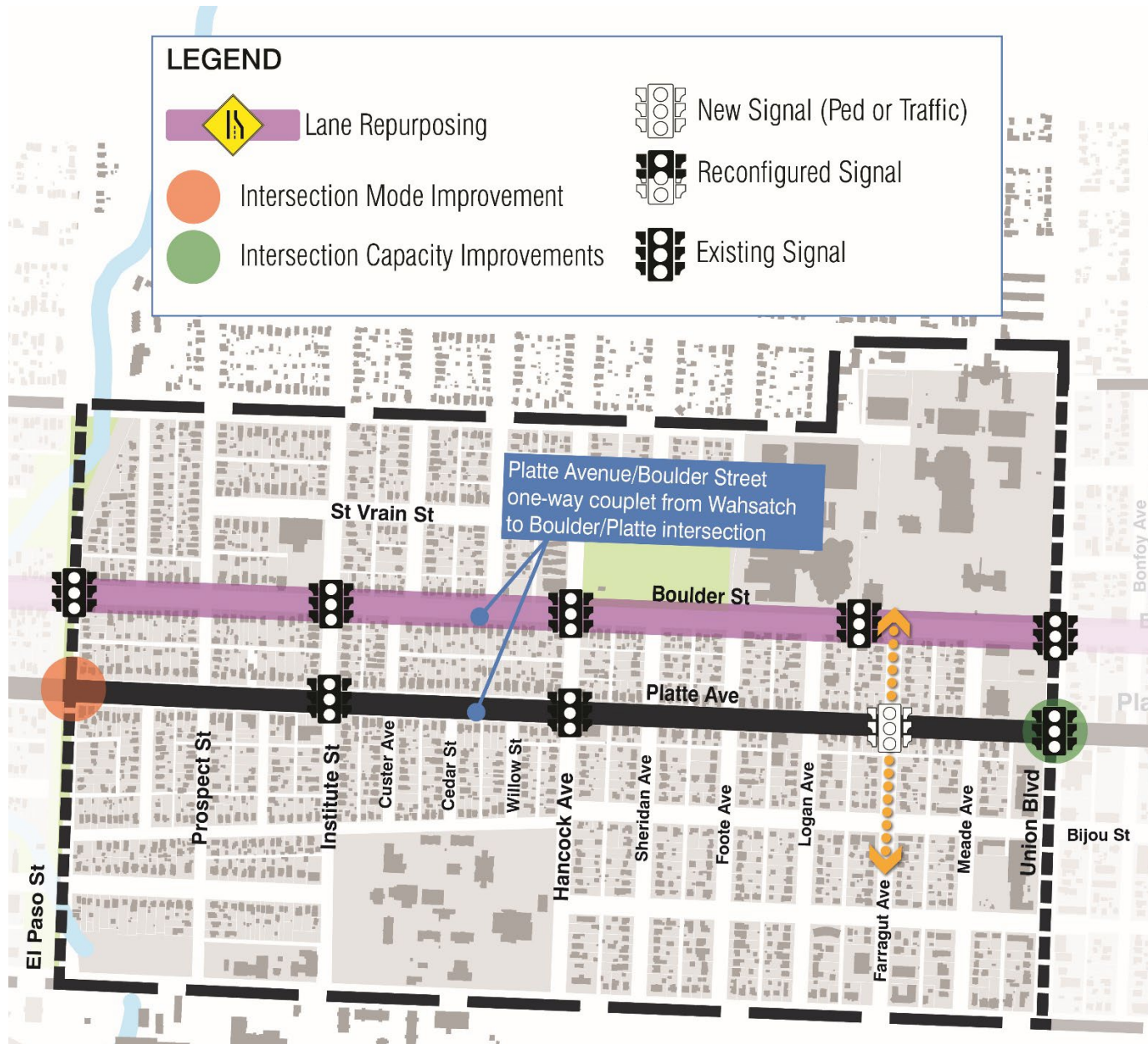
- **Platte Avenue and Boulder Street** combined current and future traffic operations indicate some flexibility to reallocate lanes/ROW; e.g., current and future traffic volumes along **Boulder Street** indicate 2 lanes would be sufficient
- **Platte Avenue/Union Boulevard** intersection shows future increasing traffic congestion if left in current configuration
- **Platte Avenue** travel speeds average 30 to 36 miles per hour (mph)



### Opportunities and Solutions






- Address Infrastructure needs at El Paso Street grade separation by:
  - Converting intersection and trail crossing to at-grade ●●●
  - Reinstating current configuration ●●●●
  - Replacing existing structures to support new larger single bridge deck that supports public use ●●●●
- Reallocate Boulder Street ROW to provide additional transit, bicycle and pedestrian facilities ●●●
- Implement Platte Avenue/Boulder Street one-way couplet, reducing required lanes and allocating space to bicycle, enhanced transit and public space ●●●●
- Provide additional east-west and north-south bicycle network connections ●●

Figure 10. Middle Shooks Run Potential Solutions Map



# Knob Hill Character Area

## Ambitions

Ambition Category	Ambition
 <b>Vehicular</b>	Align travel speeds with a walkable commercial area Provide capacity for forecasted future traffic
 <b>Transit</b>	Enhance transit stop accessibility and safety Improve travel time
 <b>Bicycle and Pedestrian</b>	Complete missing sidewalks Enhance connections across Platte Avenue Reduce pedestrian driveway conflicts Enhance access to businesses
 <b>Community</b>	Support Knob Hill as a destination Allocate more space for pedestrians
 <b>Surrounding Land Uses</b>	Support scale of current uses Preserve parking Investments in infrastructure to catalyze private investment

Note: Colored dots=ambition categories addressed

## Traffic/Technical Findings

- **Platte Avenue and Boulder Street** combined current and future traffic operations indicate some flexibility to reallocate lanes/ROW; e.g., current and future traffic volumes along **Boulder Street** indicate 2 lanes sufficient
- **Platte Avenue** intersections with **Union Boulevard** and **Circle Drive** show future increasing traffic congestion if left in current configuration
- **Platte Avenue** travel speeds average 35–36 mph
- **Chelton Road/Platte Avenue** intersection difficult to navigate on foot/bike
- Land use analyses indicate **economic development opportunities** exist within Knob Hill neighborhood

## Opportunities and Solutions

- Reallocate Boulder Street ROW to provide additional transit, bicycle, and pedestrian facilities ●●●●
- Implement Platte Avenue/Boulder Street one-way couplet, reducing required lanes and allocating space to bicycle, enhanced transit and public space ●●●●●
- Position Knob Hill for economic investment and redevelopment opportunities through people-central infrastructure focus ●●
- Improve east-west and north-south bicycle network connections ●●
- Consider congestion treatments at Platte Avenue/Union Boulevard intersection, including:
  - Leverage one-way couplet operational efficiencies ●●●●
  - Widen Platte Avenue to 6 lanes from west of Union Boulevard to Boulder Street ●
  - Maintain 4-lane section with Environmental Design ●●●●
- Improve Circle Drive intersection ●






Figure 11. Knob Hill Potential Solutions Map





## Eastern Reaches Character Area

### Ambitions

Ambition Category	Ambition
<b>Vehicular</b> 	Address delays at intersections Provide capacity for forecasted future traffic
<b>Transit</b> 	Enhance Citadel Transfer Station Attract choice riders Plan for future transit
<b>Bicycle and Pedestrian</b> 	Complete missing sidewalks Enhance connections across Platte Avenue Provide for east/west pedestrian and bicycle travel Connect to existing and future trails
<b>Community</b> 	Plan for future function of Platte Avenue Reduce expressway feel
<b>Surrounding Land Uses</b> 	Plan for future land uses Investments in infrastructure to catalyze private investment Activate adjacent roadway network

Note: Colored dots=ambition categories addressed

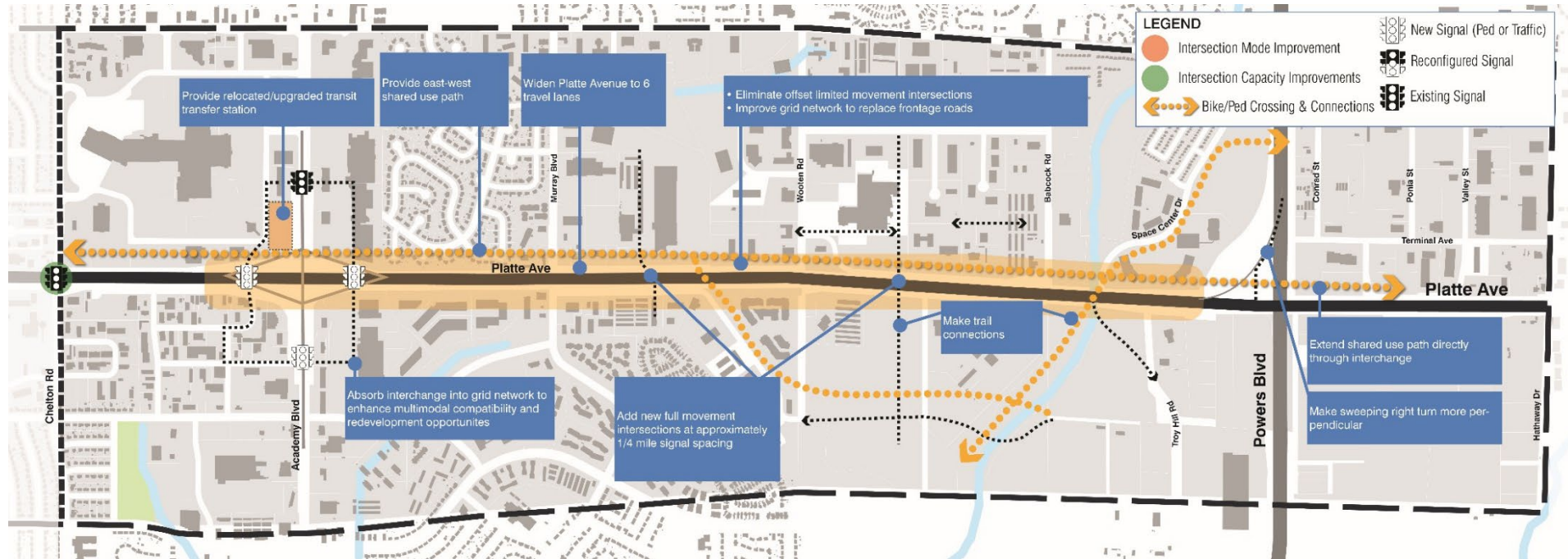
### Traffic/Technical Findings

- **Platte Avenue** intersections with **Murray** and **Wooten Boulevards** show congestion now and into the future
- **Platte Avenue/Academy Boulevard** interchange ramp terminals show reserve capacity-indicating flexibility with future treatment
- Land use analyses reveal **economic development opportunities** in Citadel Mall area

### Opportunities and Solutions

- Provide intersection widening at bottleneck locations ●
- Widen Platte Avenue from 4 to 6 travel lanes ●
- Reconfigure Platte Avenue/Academy Boulevard interchange to Quadrant Road Intersection ●●●●
- Position Citadel Mall for redevelopment opportunities ●●●
- Improve east-west and north-south bicycle network connections, tying into existing trail system and providing new east-west shared use path ●●
- Reduce expressway feel of Platte Avenue by:
  - Improving supporting roadway network continuity by reconfiguring/adding parallel roadway connections ●●●
  - Reconfigure/eliminate existing frontage roads to improve local access and reduce expansive roadway envelope ●●●
  - Reconfiguring Powers Boulevard southbound off-ramp to more of right angle ●●●

Figure 12. Eastern Reaches Potential Solutions Map



# Chapter 6: Solution Refinement

The technical and conceptual analyses described in **Chapter 5** resulted in a set of multimodal solution options that are considered both technically feasible and generally in alignment with the corridor functional objectives and character area ambitions. Solution refinement activities involved further evaluation of each remaining solution option to uncover the narrower set of solution options that would **most effectively and most favorably** move the Platte Avenue corridor toward the vision set forth by the functional objectives and character area ambitions.

A set of comparative analyses described below discuss the process of assessing relative performance of comparable solution options to help identify the most favorable option to advance. Criteria considered in the Comparative Analyses included:

- **Technical Performance:** Performance relative to traffic operations expectations, land use or economic opportunities, or alignment with other City plans and initiatives.
- **City Staff Input:** As the operators and maintainers of city infrastructure and overall networks, are there additional considerations from City staff on feasibility or favorability of different solution options based on other factors such as near-term developments (i.e., is one solution better aligned with known development that is occurring in the city) or other planned investments (i.e., is there a solution option that would advance another City infrastructure priority while also advancing Platte Avenue priorities)?
- **Public and Stakeholder Input:** Feedback and preferences from the public and corridor-specific stakeholders.

- **Effectiveness in Meeting Ambitions:** Extent to which the option can advance functional objectives or character ambitions, both in the number of objectives and ambitions it can advance and the extent to which the solution can advance them.

There were six solution focus areas where comparative analyses were conducted to help further evaluate and refine solution options toward a more favorable or preferred option:

- Corridor-wide east-west bicycle connection,
- Corridor-wide transit enhancements,
- Platte Avenue/Nevada Avenue intersection operations,
- El Paso Street/Shooks Run Trail overpass,
- Union Boulevard intersection operations, and
- North-south bicycle connection between the US Olympic and Paralympic Training Center and Memorial Park.

This section evaluates the various alternatives identified during solution identification and indicates how each alternative aligns with various ambitions; however, the evaluations in this section do not designate or indicate the recommended alternative. Chapter 7 provides final recommendations from this study.

## Corridor-wide East-West Bicycle Connection

One functional objective of the study is to provide safe, efficient, and comfortable transportation options along and across the corridor to enhance overall mobility. There is currently no continuous east-west facility to enable safe and efficient bicycle trips along the corridor.

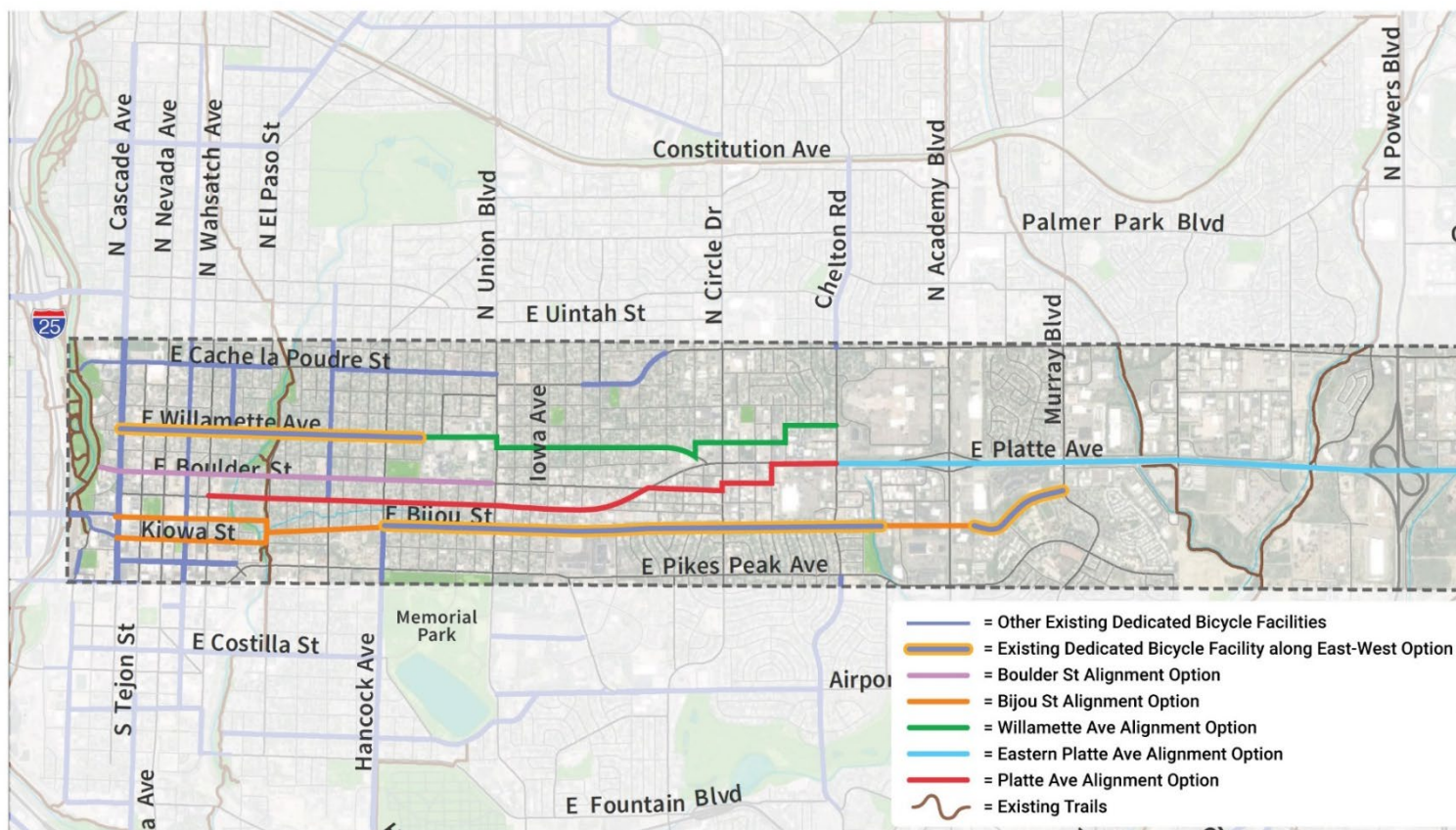
A set of solution options to address this gap includes (see Figure 13):

- Implementing a separated bicycle facility along Platte Avenue between Wahsatch Avenue and Circle Drive in conjunction with reallocation to one-way configuration.
- Closing gaps between existing east-west bicycling facilities within the corridor to provide continuous facilities between Cascade Avenue and the Sand Creek Trail. Candidates include Bijou Street and Willamette Avenue.

- Implementing new bicycle lanes along Boulder Street as identified in COS Bikes! Vision Network.
- Implementing a shared use path on the north side of Platte Avenue between Chelton Road and the Sand Creek Trail in conjunction with the roadway widening activities in the Eastern Reaches.

Table 4 provides an alternative comparison based on ambitions met by each option.

Figure 13. East-West Bicycle Connection Alternatives



Platte Avenue Corridor Study 21224-01 7/18/23

Table 4. East-West Bicycle Connection Alternative Comparison

Option	Advantages	Disadvantages	<div style="display: flex; justify-content: space-between; align-items: center;"> <span>Ambition</span> <span>✓ Good</span> <span>✓+ Great</span> </div>				
			Vehi- cular	Transit	Bike/ Ped	Commu- nity	Land Use
<b>Connecting existing facilities within Bijou Street alignment</b>	<ul style="list-style-type: none"> <li>Provides a continuous and direct connection between Cascade Avenue and Murray Boulevard.</li> <li>Leverages multiple existing bicycling facilities along Bijou Street.</li> <li>Provides an opportunity to connect to Shooks Run Trail.</li> <li>Implements portions of COS Bikes! Vision Network along Kiowa and Bijou.</li> <li>Avoids routing through Circle Drive intersection.</li> </ul>	<ul style="list-style-type: none"> <li>Requires some north-south street improvements to address connectivity where street grid is not aligned.</li> </ul>	✓+		✓+	✓	✓
<b>Separated bicycle facility along Platte Avenue in conjunction with one-way reconfiguration</b>	<ul style="list-style-type: none"> <li>Provides dedicated, separated facility through areas with high potential demand (neighborhoods and Knob Hill business district).</li> <li>Is accommodated within existing ROW from both a physical and traffic perspective with proposed reconfiguration to one-way operations on Platte and Boulder.</li> <li>Creates additional space between vehicle travel lanes and homes along Platte Avenue to elevate the pedestrian environment.</li> </ul>	<ul style="list-style-type: none"> <li>Lacks public support for one-way couplet configuration that is needed to provide the facility.</li> <li>Two-way cycling facility along a -one-way street may be confusing to cyclists, especially at termination points for one-way streets.</li> </ul>	✓	✓	✓+	✓+	✓

Option	Advantages	Disadvantages	Ambition				
			Vehi- cular	Transit	Bike/ Ped	Comm- unity	Land Use
Connecting existing facilities along Willamette Avenue alignment	<ul style="list-style-type: none"> <li>Implements portions of COS Bikes! Vision network on Willamette.</li> <li>Leverages existing facilities on Willamette Avenue that are well liked by the community.</li> </ul>	<ul style="list-style-type: none"> <li>No agreed upon alignment alternative to navigate through Memorial Hospital and US Olympic and Paralympic Training Center (USOPC) campuses.</li> <li>Does not provide full east-west connectivity along the corridor, as Willamette Avenue would terminate before Circle Drive.</li> <li>Does not avoid routing through Circle Drive intersection</li> </ul>	✓			✓+	✓
New bicycle lanes along Boulder Street	<ul style="list-style-type: none"> <li>Implements portions of COS Bikes! Vision network on Boulder Street.</li> <li>Public and stakeholder interest for bicycle lanes on Boulder Street, including from Memorial Hospital and USOPC.</li> </ul>	<ul style="list-style-type: none"> <li>Does not provide full east-west connectivity along the corridor, as Boulder Street would terminate before Circle Drive.</li> <li>Does not avoid routing through Circle Drive intersection.</li> <li>Not enough ROW to add bicycle lanes without impacting another function (travel lane, on-street parking, transit lane).</li> </ul>		✓	✓	✓+	
Shared use path on the north side of Platte Avenue in Eastern Reaches	<ul style="list-style-type: none"> <li>Sufficient ROW to add in path in addition to necessary roadway widening.</li> <li>Provides east-west bicycling connectivity that is currently not provided in Eastern Reaches.</li> <li>Provides opportunity to connect to Sand Creek Trail.</li> <li>Provides opportunity to connect to future multiuse pathways envisioned along US 24 in ConnectCOS.</li> </ul>	<ul style="list-style-type: none"> <li>Concerns with interaction between path and existing intersections/interchanges (especially the grade separated interchange at Academy Boulevard).</li> <li>Does not improve ability for bicyclists to cross Platte Avenue in the north-south direction.</li> </ul>	✓	✓	✓+	✓+	✓

## Corridor-wide Transit Enhancements

A functional objective of the PACS is to provide safe, efficient, and comfortable transportation options along and across the corridor to enhance mobility. Coupled with functional objectives related to enhancing east-west connectivity and capacity and investing in the corridor to support economic and equity outcomes, it was important that the PACS consider how the transit network may be best enhanced and accommodated within the corridor to advance functional objectives. Further, specific transit ambitions for each character area contributed to the generation and evaluation of solution options.

Currently, Mountain Metro Route 5, which runs along Boulder Street between downtown and the Citadel Mall transfer center, is **one of the highest ridership routes in the entire Mountain Metro network, and the ConnectCOS Transit Vision Network identifies the Platte Avenue corridor as a future enhanced transit corridor.** Investments for the Platte Avenue corridor resulting from this study look to bolster and elevate the transit services provided along the corridor to better connect key corridor destinations, anchored by the Downtown Station, Memorial Hospital, and the Citadel transfer station. Other investments look to attract choice riders and plan for and accommodate future transit opportunities that result from other investments in the City, including along the Academy Boulevard corridor and with the significant growth and development occurring in the eastern reaches of Colorado Springs.

Corridor-wide transit opportunities include:

- Providing dedicated transit lanes along corridor facilities between downtown and the Citadel transfer station as a result of this study
- Maintaining existing transit routes along the corridor while making investments that create flexibility to provide dedicated transit lanes in the future
- Adjusting existing transit routes to provide existing service while most optimally aligning with future transit investment opportunities along the corridor.

Some specific options are depicted on **Figure 14**, and **Table 5** presents an alternative comparison based on ambitions met by each option.

Figure 14. Corridor-wide Transit Opportunities



Table 5. Transit Alternative Comparison

Option	Advantages	Disadvantages	Ambition				
			Vehic-ular	Transit	Bike/ Ped	Commu-nity	Land Use
<p>Provide dedicated transit lanes for Route 5 along Platte Avenue and Boulder Street in conjunction with one-way configuration</p>	<ul style="list-style-type: none"> <li>Provides dedicated lanes along route with existing high ridership, creating opportunities for enhanced services to attract choice riders.</li> <li>Is accommodated within existing ROW both from a physical and traffic perspective with proposed reconfiguration to one-way operations on Platte and Boulder.</li> <li>Provides direct connection into downtown and improves connection to Knob Hill via Platte Avenue.</li> </ul>	<ul style="list-style-type: none"> <li>Lacks public support for one-way configuration that would be needed to provide the facility.</li> <li>Existing ROW on Boulder Street cannot accommodate a dedicated transit lane and bike lane while still retaining on-street parking.</li> </ul>	✓+	✓+	✓	✓	✓
<p>Maintain existing Route 5 along Boulder Street while making investments that improve transit stops (amenities and accessibility) and enabling future enhanced transit investments</p>	<ul style="list-style-type: none"> <li>Maintains service for existing, high ridership route.</li> <li>Connects to key destinations, including Memorial Hospital and Citadel Mall.</li> <li>Does not preclude future investments to provide enhanced transit along the corridor.</li> </ul>	<ul style="list-style-type: none"> <li>Does not make any near-term investments to elevate and enhance transit in the corridor or improve the Citadel Mall transfer station.</li> </ul>	✓		✓	✓	



Option	Advantages	Disadvantages	Ambition				
			Vehicular	Transit	Bike/Ped	Community	Land Use
Implement new higher capacity transit route on Pikes Peak Avenue to connect downtown to future developments east of Powers Boulevard	<ul style="list-style-type: none"> <li>Provides the most direct route into downtown.</li> <li>Provides enhanced services to services along Pikes Peak Avenue that have transit propensity, including the School for the Deaf and Blind, Memorial Park, and significant amount of higher density development occurring along Pikes Peak Avenue.</li> </ul>	<ul style="list-style-type: none"> <li>Dedicated transit lane is likely not possible based on future traffic volumes.</li> <li>Does not provide service to Memorial Hospital, USOPC, and potentially Citadel Mall (depending on selected route east of Union).</li> <li>May not contribute to opportunity to enhance Citadel Mall transfer station.</li> </ul>	✓	✓		✓	✓

## Platte Avenue and Nevada Avenue Intersection

Improving the intersection at Platte Avenue and Nevada Avenue is a key ambition for the Downtown Character Area. The intersection currently operates as a signalized intersection with a statue of General William Jackson Palmer centered in the middle. Drivers who want to turn left must drive past the statue to make a left turn, which is an unorthodox and more difficult maneuver.

This intersection also sees a significant amount of pedestrian traffic, especially during school arrival, lunch, and dismissal hours, as Palmer High School is adjacent to this intersection.

To improve the operations and safety of this intersection, two alternative intersection configurations were evaluated:

- Restricting left turns at the intersection.
- Reconstructing the intersection into a roundabout.

**Table 6** presents an alternative comparison based on ambitions met by each option.

Table 6. Platte Avenue/Nevada Avenue Intersection Alternative Comparison

Option	Advantages	Disadvantages	Ambition				
			Vehic-ular	Transit	Bike/ Ped	Commu-nity	Land Use
<b>Restricting left turns</b>	<ul style="list-style-type: none"> <li>Improves intuitiveness and safety of intersection for turning vehicles.</li> <li>Improves safety of intersection for crossing pedestrians.</li> <li>Provides opportunity to implement additional intersection improvements that may be desired to improve pedestrian experience of the intersection.</li> </ul>	<ul style="list-style-type: none"> <li>Requires left-turning vehicles to use a different intersection.</li> </ul>	✓		✓+	✓+	✓+
<b>Converting to a roundabout</b>	<ul style="list-style-type: none"> <li>Simplifies left-turning movements for vehicles by circulating around the statue.</li> <li>Improves integration of General Palmer statue into the intersection.</li> </ul>	<ul style="list-style-type: none"> <li>Complicates pedestrian crossings of the roundabout and requires signalized crosswalks on each leg of the roundabout.</li> <li>Requires a two-lane roundabout for the north-south Nevada Avenue approaches in current conditions and is likely to require two-lane approaches in all directions in 2045 conditions, further complicating pedestrian crossing of the roundabout and likely requiring expansion of the existing ROW to accommodate the roundabout geometry.</li> </ul>	✓			✓	

## El Paso Street and Shooks Run Trail Overpass

As noted previously, three existing structures at the intersection of El Paso Street and Platte Avenue require improvement to address structural aging and some physical damage. Three solution options were considered:

- Eliminate the grade separation between El Paso Street and Platte Avenue to bring Platte Avenue up to grade so that the Platte/El Paso intersection and the frontage roads that currently provide access to the homes along Platte Avenue would be at the same grade.

- Replace the three deficient structures and make necessary improvements to retaining walls to reinstate the current configuration of this intersection and trail crossing, including reopening El Paso Street as a north-south roadway.
- Replace existing structures to support a new larger single bridge deck (rather than multiple decks) that supports expanded space and functionality on the bridge deck.

Table 7 presents an alternative comparison based on ambitions met by each option.

Table 7. El Paso Street/Shooks Run Trail Overpass Alternative Comparison

Option	Advantages	Disadvantages	Ambition				
			Vehicular	Transit	Bike/Ped	Community	Land Use
Eliminate the grade separation between El Paso Street and Platte Avenue	<ul style="list-style-type: none"> <li>• Minimizes current and future risks to adjacent homes and costs related to rebuilding and future maintenance of compromised bridges and retaining walls.</li> <li>• Provides consistency between treatment of El Paso Street and Shooks Run at Boulder Street and Platte Avenue (Boulder Street is currently at-grade).</li> <li>• Eliminates Platte Avenue underpass, which is currently seen as a culprit for noise and fast vehicle speeds in that area.</li> </ul>	<ul style="list-style-type: none"> <li>• Removes ability to provide a trail overpass for Shooks Run.</li> <li>• Removes separation between homes and Platte Avenue and existing parallel parking that El Paso homes currently have.</li> </ul>	✓+				✓

Option	Advantages	Disadvantages	Ambition				
			Vehicular	Transit	Bike/Ped	Community	Land Use
Replace three existing structures to reinstate current configuration	<ul style="list-style-type: none"> <li>Reinstates El Paso Street north-south connection across Platte, retains current on-street parking for adjacent homes, and continues to provide trail overpass.</li> </ul>	<ul style="list-style-type: none"> <li>Requires further structural evaluations on retaining walls and bridge abutments to make sure the option is viable in the long term.</li> </ul>	✓		✓	✓	✓
Replace existing structures to support a new larger single bridge deck	<ul style="list-style-type: none"> <li>Reduces the number of structures to be maintained.</li> <li>Creates unique placemaking opportunity to implement a park cover on the wider bridge deck.</li> </ul>	<ul style="list-style-type: none"> <li>Requires further structural evaluations on retaining walls and bridge abutments to make sure the option is viable – constructability is currently considered uncertain.</li> <li>Permanently limits connection between El Paso Street and Platte Avenue.</li> </ul>	✓		✓	✓+	✓

## Union Boulevard Intersection Operations

The Union Boulevard intersections with Platte Avenue and Boulder Street require changes to maintain acceptable traffic operations currently and more significantly in the future. Specific issues include turn lane queuing exceeding available storage length and unacceptable levels of delay at intersection approaches. Traffic analyses found intersection improvements that are necessary for current conditions, including adding turn lanes at both the Platte Avenue and Boulder Street intersections. However, to accommodate projected future traffic, the intersection will require significant reconstruction and widening that would impact not only the existing ROW and curb lines but adjacent property and buildings along Union Boulevard and along Platte Avenue.

The comparative analysis relevant to this question about the future of the Platte Avenue/Union intersection considered three scenarios:

- Widen Union Boulevard and Platte Avenue to provide necessary configurations to accommodate traffic (Figure 15)
- Implement one-way operations on Platte Avenue and Boulder Street through Union Boulevard intersections to improve efficiency and to avoid having to widen Union Boulevard
- Develop Platte Avenue optimized 4-lane section to maximize community ambitions while deferring widening.

Figure 15. Union Boulevard/Platte Avenue Widening Exhibit

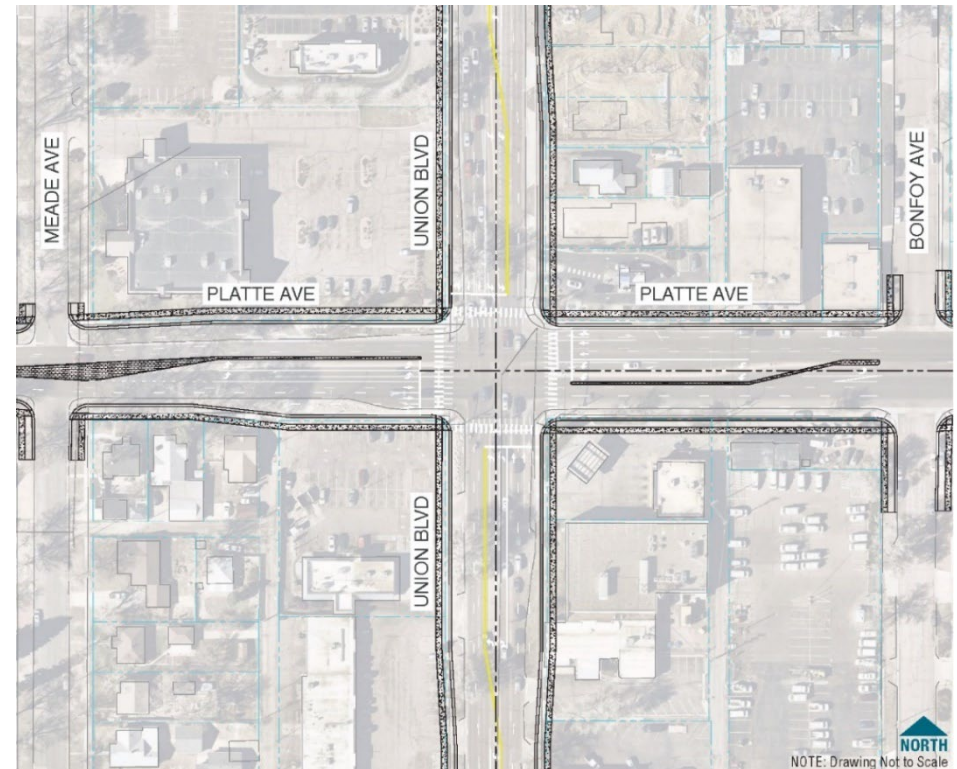


Table 8 presents an alternative comparison based on ambitions met by each option.

Table 8. Union Boulevard Intersection Alternative Comparison

Option	Advantages	Disadvantages	Ambition				
			Vehicular	Transit	Bike/Ped	Community	Land Use
Widen Union Boulevard/Platte Avenue Intersection	<ul style="list-style-type: none"> <li>Alleviates intersection delay and queuing projected to occur.</li> </ul>	<ul style="list-style-type: none"> <li>Results in property impacts, including to existing buildings.</li> <li>Creates a wider intersection that is harder for pedestrians and bicyclists to cross.</li> </ul>	✓+			✓=	✓+=
Convert Platte Avenue and Boulder Street to one-way operations between Wahsatch and the Boulder Street/Platte Avenue intersection	<ul style="list-style-type: none"> <li>ROW reallocation would accommodate enough travel lanes to carry projected traffic while also freeing up additional ROW to serve new purposes, such as bike lanes, transit lanes, on-street parking, or additional streetscape/public space.</li> <li>One-way operations would make it easier for pedestrians to cross Platte and Boulder.</li> <li>Traffic speeds can be more easily regulated in a one-way configuration without subsequently impacting throughput.</li> </ul>	<ul style="list-style-type: none"> <li>Lacks public and corridor stakeholder support for one-way configuration that would be needed to provide the facility.</li> <li>Requires further investigation of impacts to north-south ladder streets.</li> </ul>	✓	✓+	✓	✓	
Improve existing 4-lane cross section	<ul style="list-style-type: none"> <li>Does not result in impacts to property/buildings or changes to existing two-way operations.</li> <li>Allows the addition of new signals and designated crossing locations for bicycles and pedestrians without increasing crossing width.</li> <li>Retains on-street parking through Knob Hill.</li> </ul>	<ul style="list-style-type: none"> <li>Results in intersection operations at Union/Platte that have delay and queuing beyond what is considered acceptable levels.</li> </ul>			✓	✓	✓

## North-South Bicycle Connection – US Olympic and Paralympic Training Center and Memorial Park

ConnectCOS identifies the need for a north-south bicycle connection between the USOPC, located at the intersection of Boulder Street and Union Boulevard, and Memorial Park, located along Pikes Peak Avenue west of Union Boulevard. This connection would close a gap in the existing north-south bicycling network and provide a dedicated facility to address expressed demand between

the facilities at Memorial Park and the USOPC and the surrounding Middle Shooks Run neighborhood.

Three options for making this north-south connection were evaluated:

- Construct a separated shared use path on the west side of Union Boulevard
- Implement an on-street bike boulevard on Meade Avenue
- Implement an on-street bike lane on Farragut Avenue

Table 9 presents an alternative comparison based on ambitions met by each option.

Table 9. North-South Bicycle Connection Alternative Comparison

Option	Advantages	Disadvantages	Ambition				
			Vehi- ular	Transit	Bike/ Ped	Comm- unity	Land Use
<b>Shared-use path on Union Boulevard (west side)</b>	<ul style="list-style-type: none"> <li>• Leverages existing, wide sidewalk.</li> <li>• Crossings at major intersections already signalized.</li> <li>• Provides a dedicated, separated facility.</li> <li>• Provides opportunity to connect to Willamette Avenue bike route north of USOPC.</li> <li>• Has been discussed with USOPC previously as a viable option.</li> </ul>	<ul style="list-style-type: none"> <li>• Union is a high-volume roadway, which is a more stressful corridor for multimodal users than smaller, neighborhood streets.</li> <li>• ROW may not be sufficient to accommodate path for the entire length and may require additional ROW to be acquired, especially at intersections.</li> <li>• Requires reconstruction of existing sidewalk/path</li> </ul>			✓		
<b>Bike boulevard on Meade Avenue</b>	<ul style="list-style-type: none"> <li>• Neighborhood street provides a less stressful corridor for multimodal users.</li> <li>• Provides direct connection into USOPC at northern terminus along Boulder Street.</li> </ul>	<ul style="list-style-type: none"> <li>• Current unsignalized crossings of major corridors.</li> <li>• Does not provide a designated facility, as bike boulevards are on-street, shared facilities.</li> </ul>	✓		✓	✓	✓

Option	Advantages	Disadvantages	Ambition				
			✓=	✓+=	Good	Great	
			Vehi- ular	Transit	Bike/ Ped	Commu- nity	Land Use
<b>Bike connection along Farragut Avenue</b>	<ul style="list-style-type: none"> <li>• Neighborhood street provides a less stressful corridor for multimodal users.</li> <li>• Traffic calming/diversions already exist at the intersection with Platte Avenue.</li> <li>• Direct connection into Memorial Park entrance at southern terminus along Pikes Peak Avenue.</li> </ul>	<ul style="list-style-type: none"> <li>• Current unsignalized crossings of major corridors.</li> <li>• May require removal of on-street parking.</li> </ul>	✓		✓+	✓+	



# Chapter 7: Recommendations

Chapter 7 addresses recommendations emerging from the PACS. The recommendations are listed and described in tabular form in Table 10, along with the rationale for selection and next steps.

Graphical depictions of the recommendations follow each character area throughout Table 10.

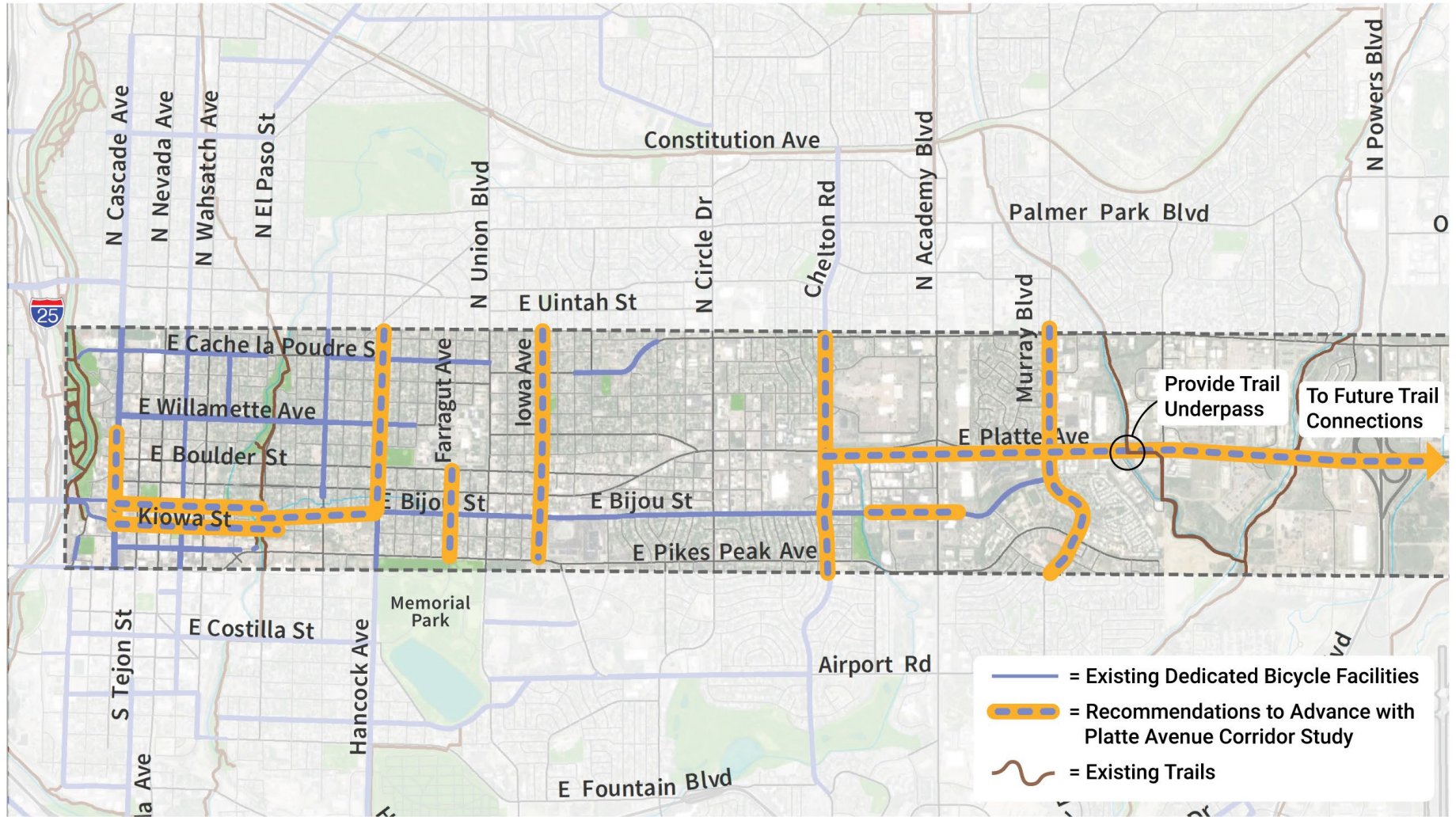
## Corridor-wide Recommendations

Table 10. Table of Recommendations

Recommendation	Description	Reasoning	Next Steps
<b>Corridor-Wide</b>			
<p><b>East-west Bicycle Network Connections along Bijou Street alignment</b></p> <p>Figure 16 shows all the recommended bicycle network connections to support the Platte Avenue corridor functional objectives and ambitions.</p>	<p>Pursue designated east-west bicycling facilities that generally follow the alignment of Bijou Street between downtown and the Sand Creek Trail. Includes connections to Monument Creek Trail, Shooks Run Trail, and Sand Creek Trail and may include use of Kiowa Street in downtown given the one-way configuration of Bijou and Kiowa.</p>	<ul style="list-style-type: none"> <li>Creates continuous east-west corridor along a single alignment and avoids routing through Circle Drive intersection.</li> <li>Strongly aligns with multiple ambitions for the corridor, while not relying on the one-way reconfiguration of Platte and Boulder, which was deemed unfavorable.</li> <li>Ties into PPRTA B-list project “Bijou St Bridge Reconstruction over Shooks Run” and PPRTA B: 203 Chelton Rd Bike Lanes.</li> </ul>	<ul style="list-style-type: none"> <li>Identify more specific details about the preferred alignment, including connection across El Paso Street, connection to Shooks Run Trail, connection to Sand Creek Trail, and connection with downtown one-way roadway.</li> <li>Prioritize opportunities to provide protected bicycling facilities during more detailed study and design efforts.</li> </ul>

Recommendation	Description	Reasoning	Next Steps
<b>Corridor-Wide</b>			
<b>Transit Infrastructure Enhancements</b>	<p>Improve safety, accessibility, and comfort of existing transit stations/stops, as needed:</p> <ul style="list-style-type: none"> <li>Investing in all-weather bus shelters with lighting.</li> <li>Improving multimodal connections to bus stops, including addressing sidewalk conditions or filling gaps and improving physical connectivity to bicycle infrastructure.</li> <li>Improving or adding safe pedestrian crossing locations at bus stop locations.</li> <li>Providing ADA accessibility at and around bus stops.</li> </ul>	<ul style="list-style-type: none"> <li>Existing Route 5 along Boulder/Platte is one of the most productive routes within the Mountain Metro system. Regardless of intentions for enhanced transit, investment in enhancing local bus operations to elevate the comfort, efficiency, and personal safety of riders is important for providing a multimodal corridor.</li> </ul>	<ul style="list-style-type: none"> <li>Survey existing infrastructure at and around bus stops to identify where improvements are warranted, including ADA compliance and accessibility for people of age.</li> <li>Pursue more detailed design concepts and/or procurement activities needed to move toward eventual implementation.</li> </ul>
<b>Corridor Transit Operational Enhancements</b>	<p>While it is recommended that a high-capacity transit route be identified for the corridor, there is not enough information at this time to provide a specific route recommendation.</p>	<ul style="list-style-type: none"> <li>Investment in high-capacity transit must be in alignment with the larger network-level vision and plans and must be driven by development ambitions/opportunities. These drivers are not currently defined enough to identify the most feasible and opportunistic route.</li> </ul>	<ul style="list-style-type: none"> <li>Revisit after completion of City's long-range transit plan and additional bus rapid transit (BRT) studies OR based on development opportunities that would leverage transit investments (either at Citadel Mall or another site along the corridor).</li> </ul>

Figure 16. Recommended Bicycle Network Connections



Platte Avenue Corridor Study 21224-01 7/18/23

## Character Area Recommendations

Recommendation	Description	Reasoning	Next Steps
<b>Downtown</b>			
<b>Platte Avenue ROW reallocation and pedestrian enhancements</b> Figure 17 Figure 18	Reconfigure the existing Platte Avenue ROW to provide one travel lane in each direction, a center turn lane, and appropriate turn lanes at intersections on Platte Avenue and reallocate the remaining ROW to the pedestrian realm. Includes pedestrian enhancements to Platte Avenue/Tejon Street intersection, pedestrian and bicycle enhancements to the Platte Avenue/Weber Street intersection and enhancement to the Acacia Park frontage to Platte Avenue to provide a flexible street configuration	<ul style="list-style-type: none"> <li>Aligns with functional objectives and Experience Downtown Master Plan to make Platte Avenue more of a pedestrian-focused street, while still providing roadway configuration necessary to accommodate current and future traffic.</li> </ul>	<ul style="list-style-type: none"> <li>Pursue more detailed design concepts needed to move toward eventual implementation, including ADA compliance and accessibility for people of age.</li> <li>PPRTA B: 328</li> </ul>
<b>Platte Avenue/Nevada Avenue intersection enhancements and left turn restriction</b> Figure 18	In conjunction with Platte Avenue ROW reallocation, reconstruct the intersection to provide curb extensions and median refuges across Platte Avenue and, in turn, restrict left turns at all legs of intersection.	<ul style="list-style-type: none"> <li>Aligns with functional objectives and Experience Downtown Master Plan to make Platte Avenue more of a pedestrian-focused street, while still providing roadway configuration necessary to accommodate current and future traffic</li> <li>Improves the safety of the intersection for both pedestrians (by creating shorter crossing distances) and drivers (by removing confusion for left-turning vehicles related to the General Palmer statue.</li> </ul>	<ul style="list-style-type: none"> <li>Implement east-west left turn restriction with signage.</li> <li>Pursue more detailed design concepts needed to move toward eventual implementation, including ADA compliance and accessibility for people of age.</li> </ul>

Recommendation	Description	Reasoning	Next Steps
<b>Downtown</b>			
<b>Bijou (Figure 19) and Kiowa Streets (Figure 20) lane reallocation</b>	Reconfigure the existing ROW to provide two travel lanes, a bike lane, and parallel parking, for each one-way street. Reallocate the remaining ROW to the pedestrian realm.	<ul style="list-style-type: none"> <li>Aligns with functional objectives to elevate the pedestrian experience of the corridor in downtown, while still providing roadway configuration necessary to accommodate current and future traffic.</li> </ul>	<ul style="list-style-type: none"> <li>Pursue more detailed design concepts needed to move toward eventual implementation, including ADA compliance and accessibility for people of age.</li> <li>PPRTA B: 328</li> </ul>
<b>Cascade Avenue Multimodal Improvements Figure 21</b>	Reconfigure Cascade Avenue between Boulder Street and Kiowa Street to provide a dedicated bicycle lane (or slip lane) in the outer lane in both directions and bicycle-specific treatments at intersections of Cascade with Platte Avenue, Bijou Street, and Kiowa Street. Include installation of a channelized right-turn lane for southbound Cascade between Platte Avenue and Bijou/I-25 ramps.	<ul style="list-style-type: none"> <li>Facilitating a more distinct connection between Platte Avenue and I-25 is a functional objective and provides an opportunity to consider both vehicular and multimodal connectivity of the roadways between Platte Avenue and I-25.</li> <li>An outer lane bike lane, instead of a middle bike lane on southbound Cascade Avenue improves safety of bicyclists by reducing the likelihood of vehicles weaving over the bike lane to make the right-turn onto Bijou Street/to I-25.</li> <li>The channelized right-turn lane from southbound Cascade Avenue to westbound Bijou Street/I-25 creates a more direct connection to I-25 by avoiding the Bijou Street/Cascade Avenue intersection and provides a clearer route from a wayfinding perspective.</li> </ul>	<ul style="list-style-type: none"> <li>Pursue more detailed design concepts needed to move toward eventual implementation, including ADA compliance and accessibility for people of age.</li> </ul>

Figure 17. Downtown Platte Avenue Streetscape Overview

STREETSCAPE PLAN  
DOWNTOWN SECTION - ACACIA PARK



Figure 18. Platte Avenue Downtown Perspective – Future



Figure 19. Bijou Street Downtown Perspective

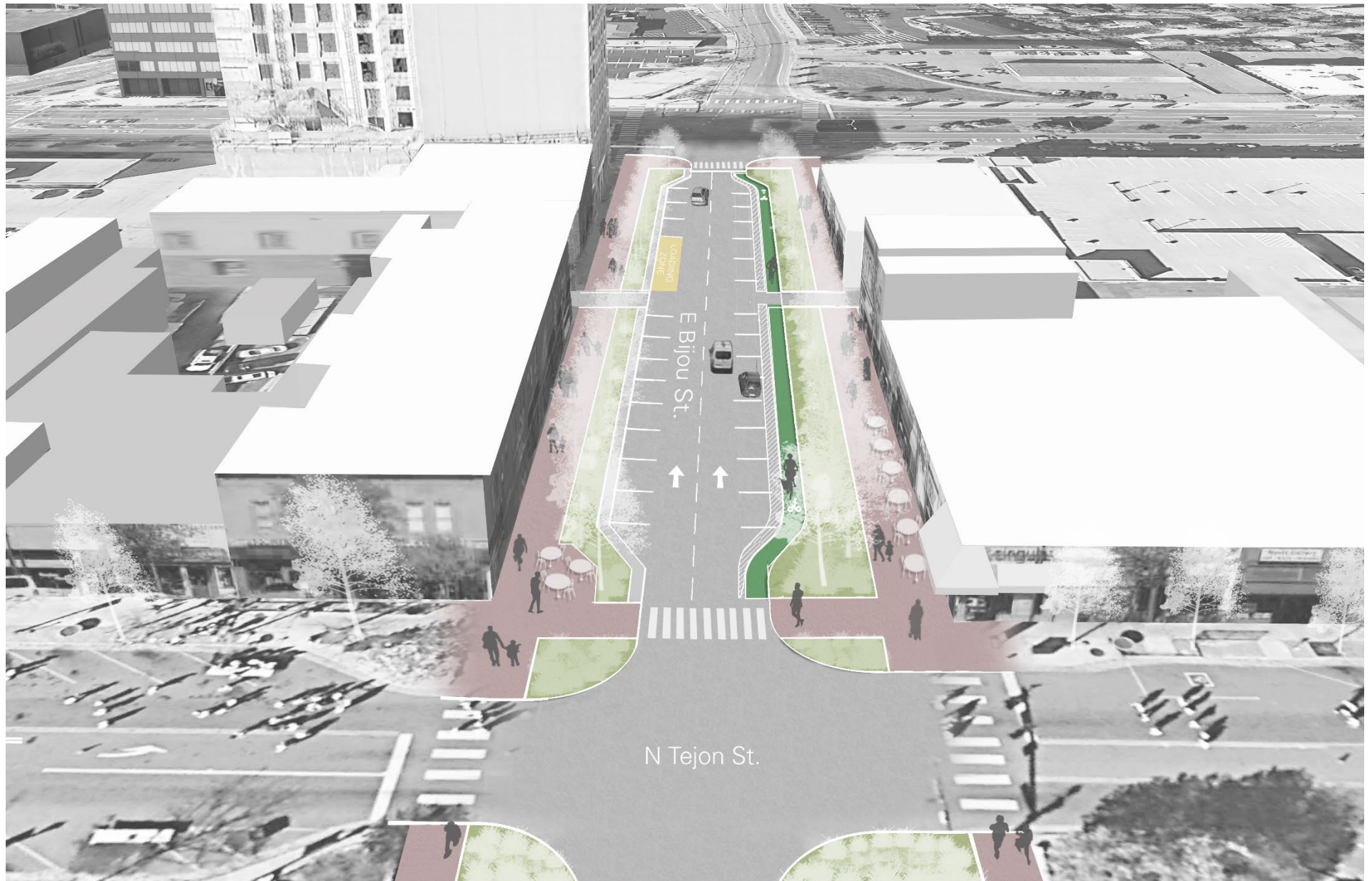




Figure 20. Kiowa Street Downtown Perspective



Figure 21. Cascade Multimodal Reconfiguration and I-25 Connectivity Concept



Recommendation	Description	Reasoning	Next Steps
<b>Middle Shooks Run</b>			
<b>El Paso Street/Shooks Run Trail Park Cover</b> Figure 22 Figure 23	Reconstruct El Paso Street/Shooks Run Trail overpass to consolidate the number of bridge structures and provide an extended “park cover” overpass that includes greenspace and pedestrian placemaking amenities (Figure 23).	<ul style="list-style-type: none"> <li>• Park cover option capitalizes on significant community placemaking opportunity at this overpass that is already considered a community asset and gathering space.</li> <li>• Retains parking for homes along Platte Avenue at this location, which the public considered a high priority.</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct more in-depth evaluation of the existing bridge abutments and retaining walls to confirm constructability of recommended park cover option. During future design, consider ways to address concerns related to noise resulting from underpass.</li> <li>• PPRTA A: 121</li> </ul>
<b>North-south multimodal connection at Farragut Avenue</b> Figure 16	Implement a bicycle lane on Farragut Avenue between Boulder Street and Pikes Peak Avenue, including providing bicycle crossing accommodations at the intersections of Farragut with Pikes Peak Avenue and Boulder Street.	<ul style="list-style-type: none"> <li>• Provides direct connection into Memorial Park entrance at existing traffic signal to facilitate the crossing of Pikes Peak Avenue.</li> <li>• Allows a dedicated bicycling facility that provides a logical connection point to all three facilities (UCHealth, USOPC, and Memorial Park).</li> <li>• Leverages existing traffic calming installations at Platte Avenue.</li> </ul>	<ul style="list-style-type: none"> <li>• Pursue more detailed design concepts needed to move toward eventual implementation.</li> </ul>
<b>Boulder Street</b>	No recommended changes to current configuration or functionality	<ul style="list-style-type: none"> <li>• Provides future opportunities for multimodal improvements without impacting properties or travel lane configurations at this time.</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor conditions of corridor for any changes that may warrant reevaluation of corridor</li> </ul>

Figure 22. El Paso/Shooks Run Trail Park Cover Overpass Streetscape Plan

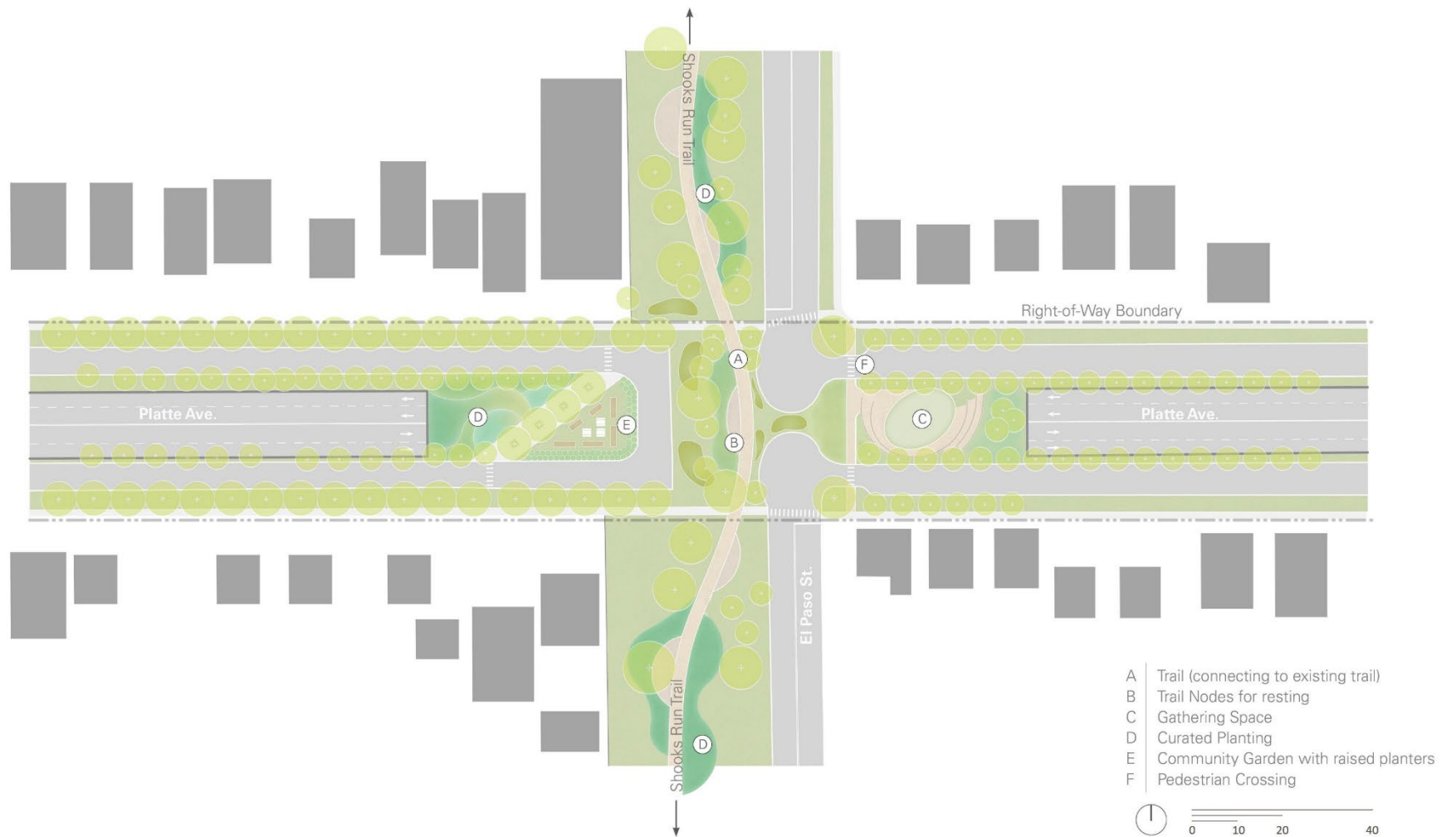


Figure 23. El Paso/Shooks Run Trail Park Cover Overpass Concept



Recommendation	Description	Reasoning	Next Steps
<b>Knob Hill</b>			
<p><b>Optimize existing 4-lane cross section for Platte Avenue for non-motorized travel and placemaking</b></p> <p>Figure 24 Figure 25</p>	<p>Introduce ¼ mile spaced signals along Platte Avenue to manage speeds and assist crossings. These are recommended at Platte Avenue/Boulder Street, Platte Avenue/Platte Place, and Platte Avenue/Iowa Avenue.</p> <p>Seek ways to allocate additional roadside space to pedestrian amenities and implement design features that promote safety and security (pedestrian lighting, pedestrian amenities, and high roadside visibility).</p>	<ul style="list-style-type: none"> <li>• Provides some advancement for ambitions for the character area related to bicycle and pedestrian, community, and land use, while not relying on the one-way reconfiguration of Platte and Boulder, which was deemed unfavorable.</li> <li>• Provides ROW flexibility and positions the corridor for future land use opportunities without impacting properties or travel lane configurations at this time.</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct technical evaluations to confirm locations and the viability of signalized intersections (including if full signal or just pedestrian-activated signal is most appropriate).</li> <li>• Include recommended design features and ROW allocation as part of future improvements that might occur, including ADA compliance and accessibility for people of age.</li> <li>• PPRTA A: 121</li> <li>• Implement the near-term addition of dual eastbound and westbound left turn lanes. Monitor traffic conditions at Platte Avenue/Union Boulevard and Boulder Street/Union Boulevard to determine if more significant geometric or operational investments need to occur in the future to address congestion.</li> </ul>

Recommendation	Description	Reasoning	Next Steps
<b>Knob Hill</b>			
<b>Circle Drive Intersection enhancements</b> <b>Figure 26</b>	Reconstruct the Platte Avenue/Circle Drive intersection to provide: <ul style="list-style-type: none"> <li>• Dual southbound left turn lanes</li> <li>• Three northbound through lanes</li> <li>• A separate westbound right turn lane with overlap right turn traffic signal phasing</li> </ul>	<ul style="list-style-type: none"> <li>• Existing traffic conditions necessitate improvements to maintain acceptable operations at the intersection.</li> </ul>	<ul style="list-style-type: none"> <li>• Pursue more detailed design concepts needed to move toward eventual implementation, including ADA compliance and accessibility for people of age.</li> <li>• PPRTA B: 331</li> </ul>
<b>Platte/Chelton improvements</b>	The future addition of bike lanes to Chelton Road between Galley Road and Pikes Peak Avenue will include a crossing of Platte Avenue. It is anticipated that the bike lane crossing will reallocate one northbound and one southbound travel lane along Chelton Road to provide space for the bike lanes. Improvements to pedestrian crossings such as additional curb refuge area and refreshed pavement markings will be included.	<ul style="list-style-type: none"> <li>• Chelton Road is an important linkage in the active transportation network with proximity to Citadel Mall and active retail. Investment is needed to maximize safety crossing Platte Avenue.</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct design effort and implement through project PPRTA B: 203. Can be built as a standalone project.</li> </ul>

Figure 24. Platte Avenue through Central Knob Hill Streetscape Plan

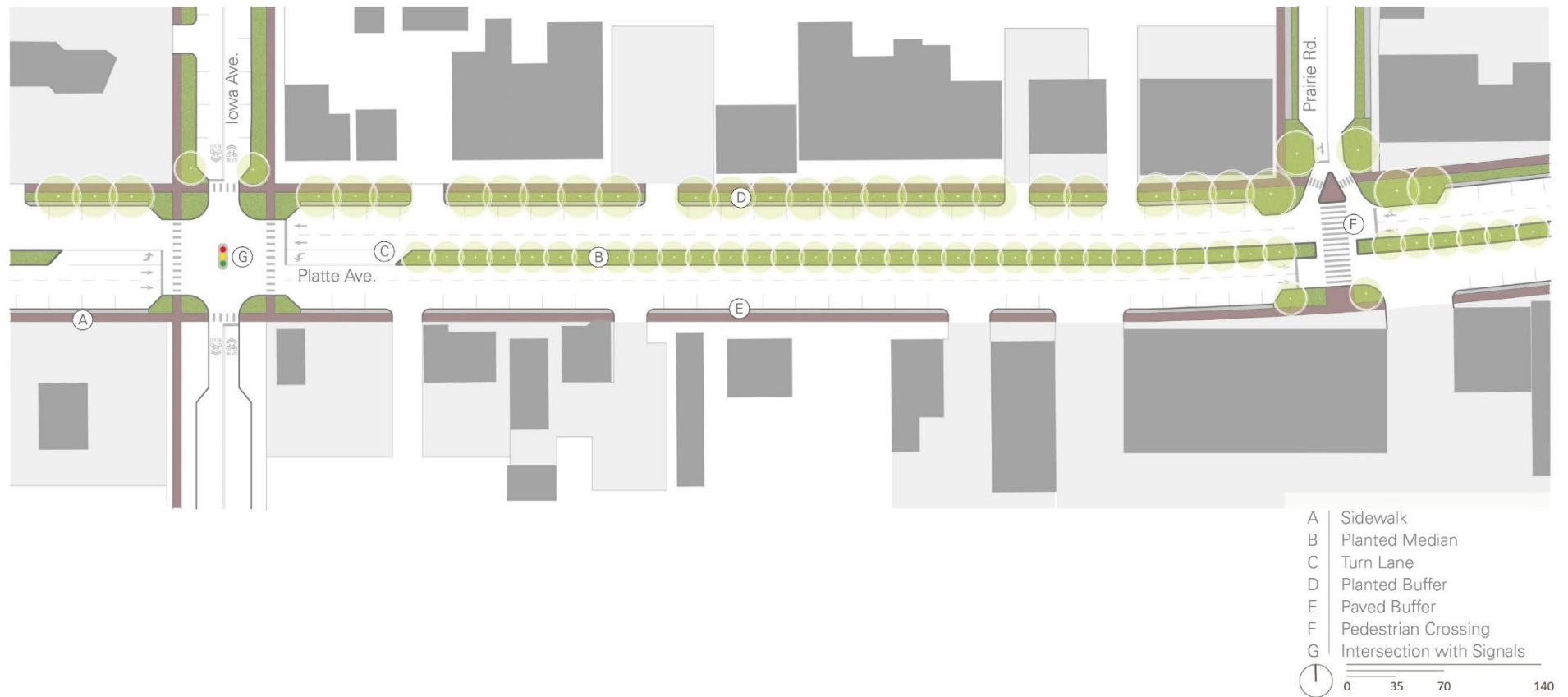




Figure 25. Central Knob Hill Platte Avenue Future Concept



Figure 26. Platte Avenue/Circle Drive Widening



Recommendation	Description	Reasoning	Next Steps
<b>Eastern Reaches</b>			
<p><b>Platte widening to 6 lanes east to Powers Boulevard</b>  <b>Figure 27</b>  <b>Figure 28</b></p>	<p>Widen Platte Avenue between Chelton Road and Powers Boulevard to provide 3 travel lanes in each direction (6-lane cross section).  Reconstruct the Platte Avenue/Wooten Road intersection to provide:</p> <ul style="list-style-type: none"> <li>• A third eastbound through lane by converting the eastbound right turn lane to a shared eastbound through/right turn lane and removing the eastbound acceleration lane from the northbound right turn.</li> <li>• A third westbound through lane by converting the westbound right turn lane to a shared westbound through/right turn lane and remove the westbound acceleration lane from the southbound right turn.</li> </ul> <p>Reconstruct the Platte Avenue/Murray Boulevard intersection to provide:</p> <ul style="list-style-type: none"> <li>• A third eastbound and westbound through lane and remove the eastbound and westbound acceleration lanes from the northbound and southbound right turns</li> <li>• Dual westbound left turn lanes</li> <li>• Northbound and southbound overlap right turn phasing</li> </ul>	<ul style="list-style-type: none"> <li>• Existing traffic conditions necessitate improvements to maintain acceptable operations at intersections.</li> </ul>	<ul style="list-style-type: none"> <li>• Pursue more detailed design concepts needed to move toward eventual implementation.</li> <li>• PPRTA B: 332</li> </ul>

Recommendation	Description	Reasoning	Next Steps
<b>Eastern Reaches</b>			
<b>Platte Avenue/Academy Boulevard Quadrant Road Intersection</b> Figure 27 Figure 28	Reconfigure the Platte Avenue/Academy Boulevard Diamond interchange into a Quadrant Road Intersection (QRI).	<ul style="list-style-type: none"> <li>The QRI option shows the ability to operate at acceptable LOS into the future. Development of a QRI at this location provides the additional benefits of opening land adjacent to Platte Avenue currently occupied by the diamond interchange; providing compatibility with and connections to the recommended east-west shared use path; eliminating the need for left turn lanes on the Academy Boulevard bridge over Platte Avenue thereby creating additional pedestrian space; setting the stage for a potential new transit transfer station within a redeveloped Citadel Mall area.</li> </ul>	<ul style="list-style-type: none"> <li>Determine phasing options and identify appropriate initial phase. Coordinate with Platte Avenue widening effort.</li> <li>PPRTA B: 330</li> </ul>
<b>East-west Shared-Use Path</b> Figure 27 Figure 28	Provide a continuous and accessible shared-use path along Platte Avenue from Chelton Road to Powers Boulevard and improve intersection crossings to maximize utility of shared-use path, including the Chelton Road intersection.	<ul style="list-style-type: none"> <li>Completion of a continuous path will provide a linkage through an area currently lacking devoted bicycle or pedestrian infrastructure and will connect pathways that currently terminate to accommodate improved regional travel.</li> </ul>	<ul style="list-style-type: none"> <li>Complete with widening of Platte Avenue, PPRTA B: 332. Coordinate with PPRTA B: 203, Chelton Road Bike Lanes Galley Road to Pikes Peak Avenue.</li> </ul>
<b>Powers Interchange ramp modification</b>	Adjust current southbound off-ramp to decrease radius.	<ul style="list-style-type: none"> <li>Improves spacing from downstream intersections and provides a configuration more compatible with arterial-type roadway.</li> </ul>	Integrate with widening project.

Figure 27. Platte Avenue at Academy Boulevard Intersection – Potential Future Redevelopment Scenario

STREETSCAPE PLAN  
EASTERN REACHES SECTION

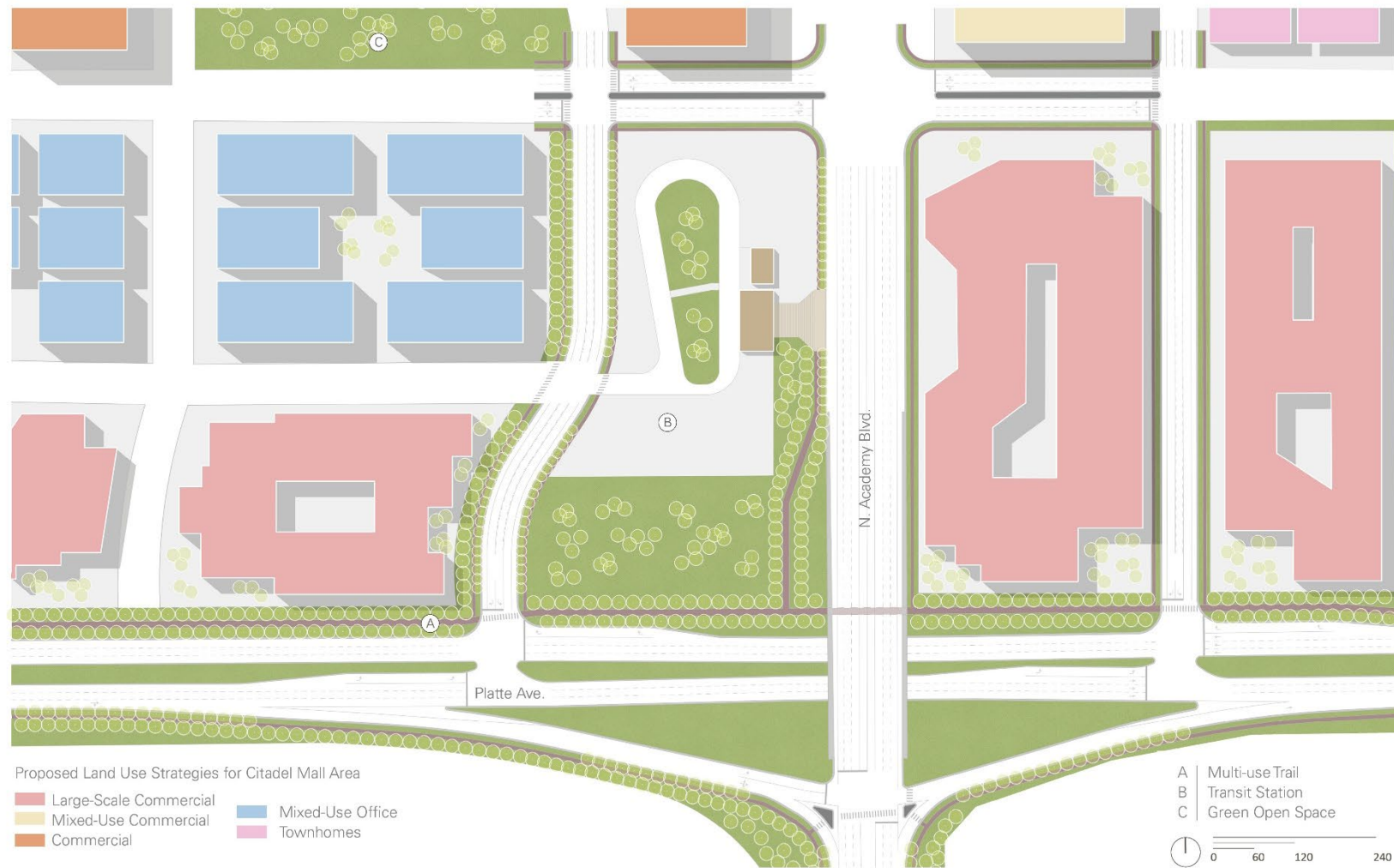


Figure 28. Platte Avenue/Academy Boulevard Quadrant Road Intersection Future Perspective



## Policy and Process Recommendations

In addition to the infrastructure-specific recommendations detailed previously, critical policy and process considerations are recommended to help advance the corridor toward the vision outlined in the functional objectives and ambitions.

In some cases, policy/non-infrastructure changes or activities will be required to achieve success in some ambition categories, including:

- Community
- Land Use
- Transit

These required changes/activities are described in greater detail below.

### Land Use Policy Recommendations

The Community and Land Use ambitions for the corridor consider how transportation investments and public ROW investments can positively influence the pedestrian and community experience of the corridor, its economic development trajectory, and the corridor's land uses. However, infrastructure alone will not achieve the type of outcome that is described within the functional objectives and ambitions. A shift in some of the land use standards or development processes will be important to consider:

**Zoning Overlay:** Establishing a zoning overlay along the corridor will facilitate land uses that are desired but that are currently not present and are not enabled by the City's current zoning code. This is particularly important for the areas in Knob Hill and around the Citadel Mall, where the most significant changes to current land use and development patterns are desired.

- According to the market and economic analysis, Knob Hill has the potential to become a new destination, potentially accommodating new workforce housing and small-scale businesses. The MX-L zoning in the Knob Hill area focuses on commercial uses that are typically large in scale and high-volume traffic generators. This does not align with the proposed walk-up commercial and overall intent to create a walkable environment to support the envisioned Arts District in Knob Hill.
- The Citadel Mall area is zoned as MX-M, which focuses on commercial and service uses. The preferred land use scenario from this study envisions this area as a new core and destination, including a variety of housing types and scales, especially multifamily, as well as land uses that allow for employment (office).

A zoning overlay would enable development more in-line with the corridor community and land use vision.

### Environmental Design

It is intended that infrastructure projects emerging from the PACS will be designed to address the surroundings advancing a corridor experience that promotes objectives and ambitions such as human comfort and safety, corridor identity/character, sustainable design and economic development.

**Urban Design Standards: Chapter 8** provides more detail on a proposed Urban Design Toolbox for the corridor that identifies various potential solutions for enhancing elements of the pedestrian realm. The City should consider how urban design expectations and design review processes for new development or redevelopment along the corridor can be updated and strengthened to implement Toolbox elements. This may include updating or influencing multiple departmental processes to make sure design reviews are consistently implementing the Toolbox elements for

various public and private infrastructure elements, ranging from roadway elements to stormwater/green infrastructure, and pedestrian realm amenities.

Alongside the Urban Design Toolbox, it is recommended that the City integrate Crime Prevention through Environmental Design (CPTED) measures into the design of projects within higher-crime locations to reduce and minimize fear of crime.

### Transit Infrastructure Standards

The transit ambitions for this study are two-fold. One element considers how to take transit to the next level by considering how enhanced transit operations can be implemented along the corridor. The second considers how to elevate the existing transit services, irrespective of any operational enhancements, to make sure that transit passengers are provided a safe, efficient, and comfortable transit experience.

The future possibility of enhanced transit within the corridor is to be further studied and identified in a recommended BRT Feasibility Study for the corridor. However, the City may consider changes to some existing processes for project identification or delivery that could facilitate benefits or efficiencies for potential future transit enhancements:

- When undertaking any projects that involve disrupting existing pavement (mainly roadway or intersection reconstruction), consider including technology improvements in the project, such as installing fiber communications that would be important for future improvements such as BRT or any “smart corridor” upgrades.
- When undertaking intersection reconstruction, consider upgrading traffic signal infrastructure or technology that

would allow future enhancements and transit operational strategies like queue jumps or transit signal priority.

- When undertaking widening or reconstruction projects, design the improvements in a way that will not preclude future enhanced transit strategies (i.e., design intersection upgrades to not preclude future queue jumps or design roadway cross sections that would not preclude future dedicated transit lanes or enhanced transit stations/stops).

To achieve the latter goal of providing safe and comfortable amenities for all transit modes, the City should consider updating design and amenity standards for transit stations and stops that would include providing:

- All-weather shelters at every stop
- Lighting at every stop
- More intentional multimodal connectivity to and from transit stops, including sidewalk and bicycle facility connectivity, crosswalks, bicycle storage infrastructure, and other elements that generally elevate the experience of a transit passenger at transit stops.

### Traffic Operations Flexibility

There is often tension between facilitating walkable, pedestrian-oriented destinations and optimizing traffic efficiency and flow through an area. In areas along the corridor where greater pedestrian-scale or mixed use development is desired, such as downtown and the neighborhoods of Middle Shooks Run and Knob Hill, there will be the need to balance expectations for traffic operations with the need for infrastructure (designated pedestrian crossings, median refuge islands, wide sidewalks) and design elements (crossing distances, streetscape features). As such, it is recommended that a more context-sensitive approach to



evaluating traffic operations, including LOS, be taken based on desired land uses and area development.

The City's Engineering Criteria Manual (Traffic Criteria Manual Section III) states that, when being addressed in a traffic impact study, intersection measures should include improvements that will provide LOS D or better conditions at intersection approaches. As described previously, the LOS D goal has been used to identify intersection widening strategies within the PACS.

The functional objectives reflect a Platte Avenue corridor that can deliver acceptable peak hour vehicular traffic operations while accommodating multimodal mobility and safety and complementing the neighborhood context. Balancing these objectives may occasionally impact vehicular mobility. It is recommended that traffic operations goals be kept flexible within the Platte Avenue corridor to allow for some LOS impacts when space within the ROW is more appropriately allocated to serve the context and/or other travel modes. The City may also consider available research on the subject of multimodal LOS standards, which may be useful for a context sensitive approach.

This recommended context-sensitive approach will be particularly important when evaluating the long-term solution for the Union/Platte intersection, which is expected to operate at LOS F by 2040.

As presented in the infrastructure recommendations in this chapter, two potential infrastructure projects could address the eventual failing traffic operations at this intersection – widening the intersection and portions of Union, which will require acquisition of ROW and impacts to existing properties and buildings; or converting Platte and Boulder to operate as one-way roadways, which was deemed unfavorable in public opinion during this study. If neither of these options is considered acceptable, then the City may have to accept LOS F operations at the intersection in favor of maintaining or strengthening land use and community benefits. It may be relevant to prioritize context-sensitive approaches to traffic in the areas identified for a recommended zoning overlay described earlier in this chapter.

# Chapter 8: Urban Design Elements

The ability to meet all functional objectives effectively is closely tied to the experience of the corridor, which can be significantly influenced by urban design elements. Accordingly, throughout the PACS, the functional objectives served as a reminder to create recommendations that not only include vehicular infrastructure improvements but also deliver multimodal, economic improvements, safety, and aesthetic improvements to the public realm. Critical overall goals include creating a corridor that is equitable, accessible, sustainable, and reliable.

To provide a mechanism for this effort, a Streetscape/Urban Design Toolbox was developed. Within the Toolbox are a variety of recommendations, such as intersection improvements, sidewalk design, and recommendations for medians along Platte. These recommendations are not intended to be specific to a particular location or project but rather adaptable to fit within the site's varied contexts along the corridor and existing constraints. Addressing these elements of the pedestrian realm will help make Platte Avenue a safer and more accessible corridor, while contributing to an improved public realm for residents and visitors.

A Streetscape Toolbox is a kit-of-parts. Within this kit-of-parts are various potential solutions for enhancing different elements of the pedestrian realm. Solutions are meant to be flexible and fit the many differing corridor conditions. The solutions are to be considered for implementation in concert with the recommendations in Chapter 7 and do not supersede or conflict with these recommendations.

## Strategies of the Streetscape Toolbox

The Streetscape Toolbox focuses on several strategies that informed the development of the solutions for the overall Streetscape Toolbox. Strategies include the following:

- Improve Walkability and Pedestrian Access
- Increase Human Comfort and Safety
- Enhance the Corridor's Overall Identity and Character
- Incorporate Sustainable Design Strategies
- Support Existing and Future Economic Development

Each strategy is achieved through multiple methods, creating a more holistic approach.

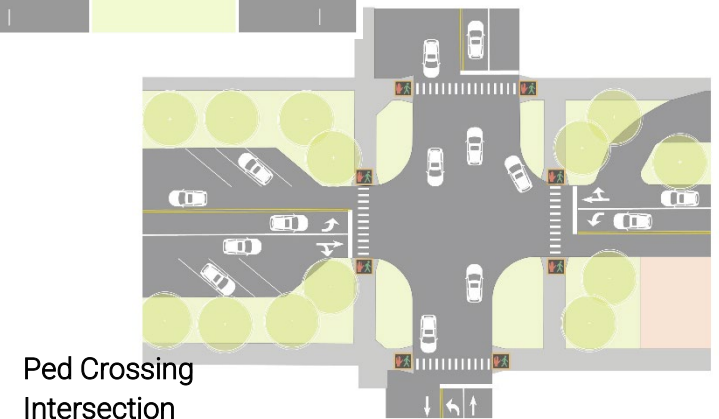
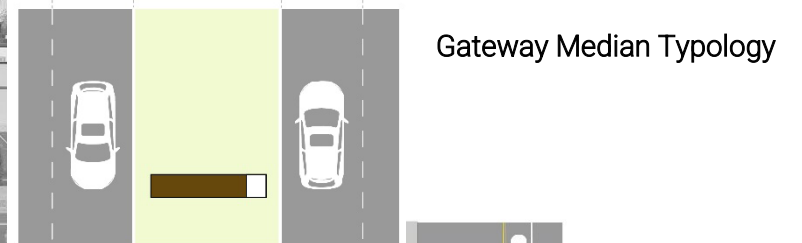
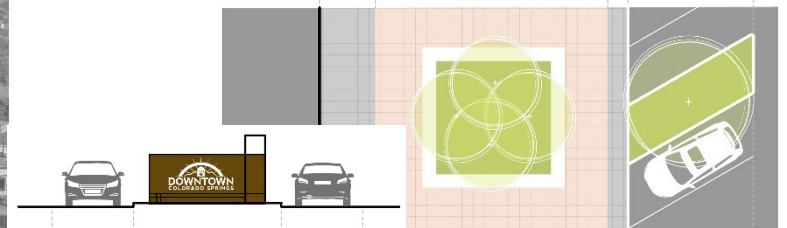
**Appendix E, Urban Design Toolbox**, contains the following elements:

- Sidewalk Typologies
- Median Typologies
- Intersection Typologies
- Stormwater Management Typologies
- Planting Strategies
- Site Furnishings

**Figure 29** depicts a typology map for the Downtown Character Area as an example of the toolbox content.

**Appendix E** provides the full Streetscape/Urban Design Toolbox.

Figure 29. Downtown Character Area Typology Map and Typology Examples



# Chapter 9: Next Steps

The recommendations provided in **Chapter 7** form long-term plans for the Platte Avenue corridor between Cascade Avenue and Powers Boulevard. The projects are intended to be implemented over time and will follow many paths toward delivery.

Many factors will influence the way the projects are further defined and built. Factors identified by the project team include the following:

- **Opportunities**
  - ▶ **Economic Development opportunities:** As addressed in the report, many opportunities are present for investing in transportation infrastructure to catalyze and/or complement economic development.
  - ▶ **Funding opportunities:** PPRTA 3 provides a funding mechanism for transportation improvements throughout the Pikes Peak region. Several Platte Avenue recommendations will be funded through PPRTA 3.

Various federal and state grant opportunities are released throughout the year to provide funding for the design and/or implementation of transportation projects. Each grant program has a different focus area, and identifying projects that align best with the intent of the grant will make an application most competitive and most likely to be awarded funding.

- **Conditional triggers**
  - ▶ **Traffic operations:** Known locations throughout the corridor will require operational investments to maintain acceptable peak hour traffic operations into the future
  - ▶ **Infrastructure conditions:** Physical infrastructure conditions at multiple locations within the corridor will require attention to ensure public safety into the future.
- **Project relationships**
  - ▶ **Adjacencies:** Recommendations within the same character area can be considered for parallel implementation.
  - ▶ **Dependence:** Some projects should be combined to maximize benefits to the traveling public.

The table in **Appendix F** is a tool to summarize all recommendations from this study and identify associated delivery considerations. The list includes various characteristics of each project so that the list can be easily navigated and sorted as implementation opportunities or requirements arise. These characteristics are shown on **Figure 30** and each category explained in more detail on the following pages. Of note, the tool as included in **Appendix F** is a summary of project information known at the time of publication of this report. Future changes may alter the information.

Figure 30. Recommended Delivery Tool

Character Area	Recommendation Name	ID	Functional Objectives alignment	Extent of influence on corridor	Project Characteristics						
					Address current/future traffic operations challenge	Elevating transit	Pedestrian enhancement	Bicycle enhancement	Elevating community and placemaking	Supporting land uses	Multimodal safety-specific enhancement

Alignment with ConnectCOS goals	Project Relationships			Next Step Actions	Identified Funding Source	Keywords for Funding Eligibility
	Prerequisite	Correlated	Combine	A = Study/ Further Analysis; B = Detailed Design		

The Recommendation Delivery Tool in **Appendix F** includes the following information for each recommendation:

- **Character Area:** The character area in which the recommendation is located.
- **Recommendation Name**
- **ID:** Unique identifier for the recommended project. If the project was identified in ConnectCOS, the same ID was used here. In some cases, this study helped refine a previous recommendation by identifying multiple recommended projects that stem from one ConnectCOS project. For these, the ConnectCOS ID number was retained, but a sequence of decimal places was used to indicate the different recommendations (e.g., project number 121, as identified in ConnectCOS, and ID 121.2 and 121.3 as additional recommendations that relate to 121 but go beyond that original project).
- **Functional Objective Alignment:** While all recommended projects advance one or more corridor functional objectives (as the main criteria for project identification), this evaluation identifies those projects that advance multiple or all the functional objectives and most holistically advance

the corridor toward the vision for the corridor. Each project’s ability to address or advance each of the six functional objectives was evaluated. The projects with the potential to make the greatest impact to the broadest number of functional objectives are indicated as "Best" in the Implementation Plan table.

- **Extent of influence on corridor:** Indicates how broad or localized the impacts of the recommendation are expected to be. For example, recommendations related to a specific intersection are likely to have mainly a localized impact (indicated as low [‘L’] in the table), while longer stretches of roadway reconstruction or restriping are likely to have broader impacts outside the character area in which it is located (indicated as high [‘H’] in the table).
- **Project Characteristics:** The specific focus, characteristics, and/or components will help quickly identify projects that are most appropriate for certain funding opportunities or other triggers for implementation. For example, if there is a grant opportunity targeting placemaking, it will be easy to identify the most relevant projects using these columns. The characteristics identified in the table align with the

study's ambition categories (vehicular, transit, bicycle/pedestrian, community, and land use) in addition to a category that identifies projects that have a specific focus on multimodal safety:

- ▶ Address current/future traffic operations challenges
  - ▶ Elevate transit
  - ▶ Pedestrian enhancement
  - ▶ Bicycle enhancement
  - ▶ Elevate community and placemaking
  - ▶ Supporting land uses
  - ▶ Multimodal safety-specific enhancement
- **Alignment with ConnectCOS goals:** This study is intended to build from the foundation established by ConnectCOS relative to the vision and goals for transportation in the city. Each recommendation was evaluated for alignment with each of the six ConnectCOS goals [Safe, Equitable, Sustainable, Reliable, Accessible, and Connected] based on the recommendation's ability to advance that goal area. Projects identified as having "High" association with a particular goal indicate those that can advance that goal most significantly, understanding many projects will advance multiple ConnectCOS goals at varying levels. In addition to providing an assessment of goal alignment, this column can also help filter projects that are the best fit for certain funding opportunities based on the focus for that specific opportunity (safety, equity, etc.).
  - **Project Relationships:** Some interrelationships and interdependencies between the recommended projects, as well as between recommendations from this study and other recommended projects from ConnectCOS, will impact the ability of some projects to be implemented or may

increase efficiencies when implementing projects. These columns indicate three types of relationships between projects:

- ▶ **Prerequisite:** Indicates other projects that must be completed first before pursuing implementation of that specific project.
- ▶ **Correlated:** Indicates other projects (both from this study and from ConnectCOS) that may have an influence on the recommended project in question but that do remain independent from an implementation perspective (i.e., both recommendations could be implemented completely independently without conflict). Considering correlated projects together could provide efficiencies for implementation. For example, it might be during actual construction to reduce the number of times there are construction impacts, such as traffic control or detours/closures; or it might be during design to make sure projects work together and/or are on a similar timeline if they are to be undertaken along the same roadway.
- ▶ **Combine:** Indicates projects that should be combined for design and implementation. Projects indicated for combination are those that are so closely correlated that the advancement of one project without consideration of the other would be detrimental to the ultimate success of one or both projects in the long term.

- **Next Step Actions:** Because this corridor study is a planning study, none of the projects identified in the table can go straight to implementation. In all cases, there is at least one more step that is necessary before preparing for implementation:
  - ▶ *Study/Further Analysis:* Indicates that additional analysis or planning is needed to provide a greater level of detail and/or further refine the recommendation before undertaking any design activities.
  - ▶ *Detailed Design:* Even projects that do not need further refinement through analysis need to go through the design process before implementation. The design process usually includes additional public and stakeholder involvement.
- **Identified Funding Source:** Indicates if the project is already identified for funding through the PPRTA program. Other funding sources may be secured over time, such as grant funding, local funding, or potentially other regional or state resources.
- **Keywords for Funding Eligibility:** Most funding sources, such as grants or funding programs, have a focus area that they are targeting, especially federal grants. Focus areas are driven by the current administration's focuses. This column indicates some of the keywords that are frequently being seen as focus areas for federal grant eligibility. These may change over time as priorities change.

# Appendix A: Public Engagement Information



# Appendix B: State of the Corridor

# Appendix C: Transportation Operations Report

# Appendix D: Solutions Development Memo

# Appendix E: Urban Design Toolbox

# Appendix F: Recommendation Delivery Tool