Prepared For:

City of Fort Collins

Presented By:

FEHR PEERS

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West Elizabeth Enhanced Travel Corridor Plan

project

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project

ACKNOWLEDGMENTS

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West Elizabeth Enhanced Travel Corridor Plan

project

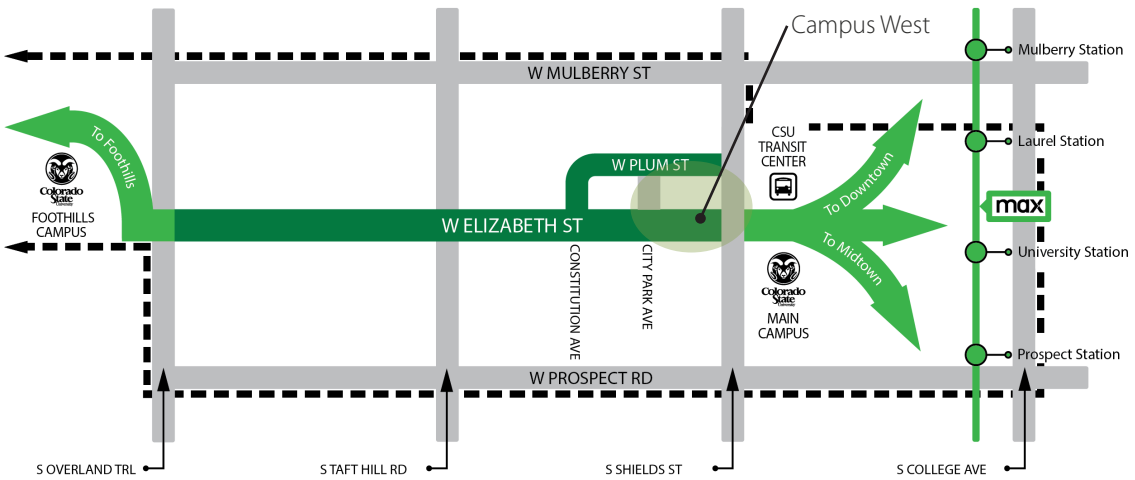
EXECUTIVE SUMMARY

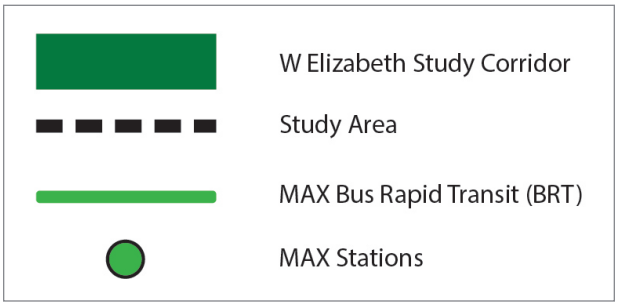
The West Elizabeth corridor is identified as one of several future Enhanced Travel Corridors (ETCs) in the City's Transportation Master Plan (2011). Each ETC will have a planning document that provides a roadmap to achieve a long-term multimodal vision for the corridor. The focus of the plan is to emphasize transit, biking and walking in a way the serves existing and future transportation and land use needs of each area.

The West Elizabeth ETC plan has a special focus on addressing existing deficiencies, such as inadequate transit service for the area's demands, incomplete bike and pedestrian networks, and higher than expected numbers of crashes in certain locations.

This document details the plan to improve upon and emphasize transit, biking and walking in the West Elizabeth Corridor. The Corridor is defined as West Elizabeth Street between Overland Trail and Shields Street, as well as segments of Plum Street, Constitution Avenue, and City Park Avenue. The study area also includes the surrounding network to address connections with the CSU Foothills Campus on the west, the CSU Main Campus on the east, and the rest of the community.

STUDY AREA


Campus West
W MULBERRY ST
Mulberry Station
To Foothills
FOOTHILLS CAMPUS
W PLUM ST
CSU TRANSIT CENTER
Laurel Station
To Downtown
max
W ELIZABETH ST
To Midtown
University Station
CONSTITUTION AVE
CITY PARK AVE
MAIN CAMPUS
Prospect Station
W PROSPECT RD
S OVERLAND TRL
S TAFT HILL RD
S SHIELDS ST
S COLLEGE AVE


W Elizabeth Study Corridor
Study Area
MAX Bus Rapid Transit (BRT)
MAX Stations

PLAN DEVELOPMENT

The West Elizabeth ETC Plan was developed through a combination of community engagement and rigorous technical analysis to inform decision-making. The project was guided by a set of principles that included:

- An emphasis on high-frequency transit, biking and walking to help accommodate growth (per the ETC definition)
- Work within the existing Public Right-of-Way (ROW) as much as possible
- Incorporate potential phasing from the beginning of the design development
- Learn from the evaluation to understand the trade-offs and make further refinements to the design

The plan was developed through a community-driven, context-sensitive process that occurred in 2015 -16. The planning effort included:

- The development of a community-driven **Vision** for the West Elizabeth Corridor
- A context-sensitive **Recommended Design** designed to meet the Vision
- **Phasing of Improvements** to achieve the Recommended Design, including Interim Improvements addressing high-need issues in the near-term
- An **Implementation Strategy** that includes cost estimates and potential funding sources
- **Other Network Considerations** for the study area, such as the larger bicycle facility network and parking

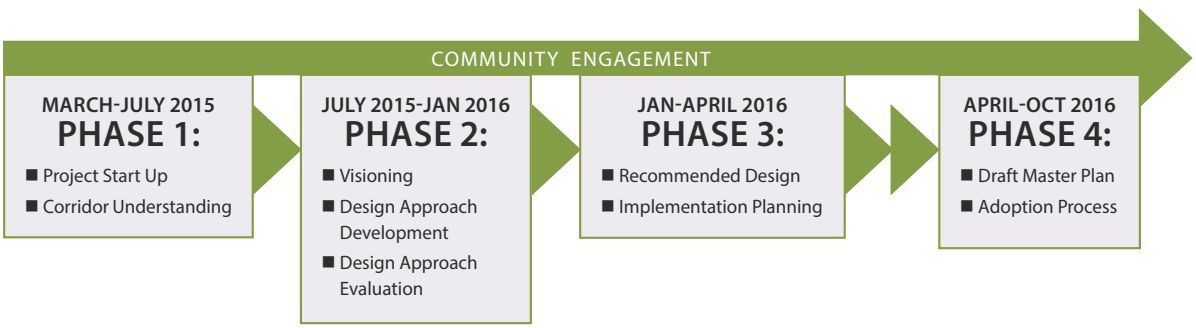
Vision

A Vision was developed for the West Elizabeth Corridor to define the long-term desired outcome from the West Elizabeth ETC Plan. The Vision for the West Elizabeth Corridor is that it shall:

- Be unique and adaptable to the distinctive characteristics of each corridor segment
- Be safe and comfortable for all users
- Encourage and prioritize public transportation and active transportation options
- Support the interconnectivity of all modes
- Be a beautiful and vibrant environment

COMMUNITY ENGAGEMENT HIGHLIGHTS:

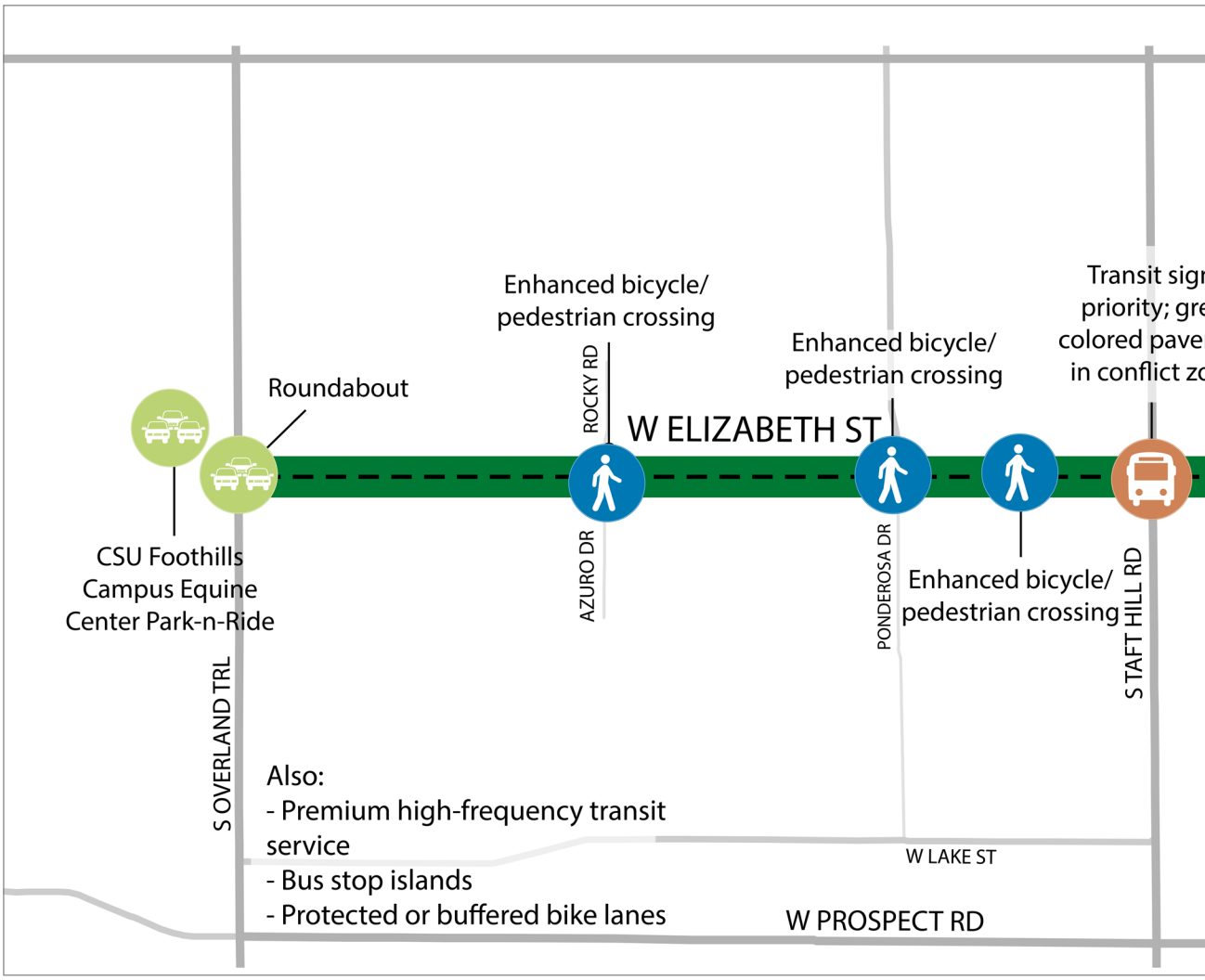
- A Stakeholder Committee made up of residents, property owners, students and other corridor stakeholders that met five times throughout the duration of the project
- Surveys (intercept, paper, text and Web-based)
- Community Open Houses in August 2015, December 2015 and June 2016
- Focus groups with business owners, multifamily property management, CSU facilities and administration, and alternative transportation advocates
- Neighborhood transit, bicycling and walking tours
- An Open Streets event in June 2015
- Listening sessions
- An online WikiMap

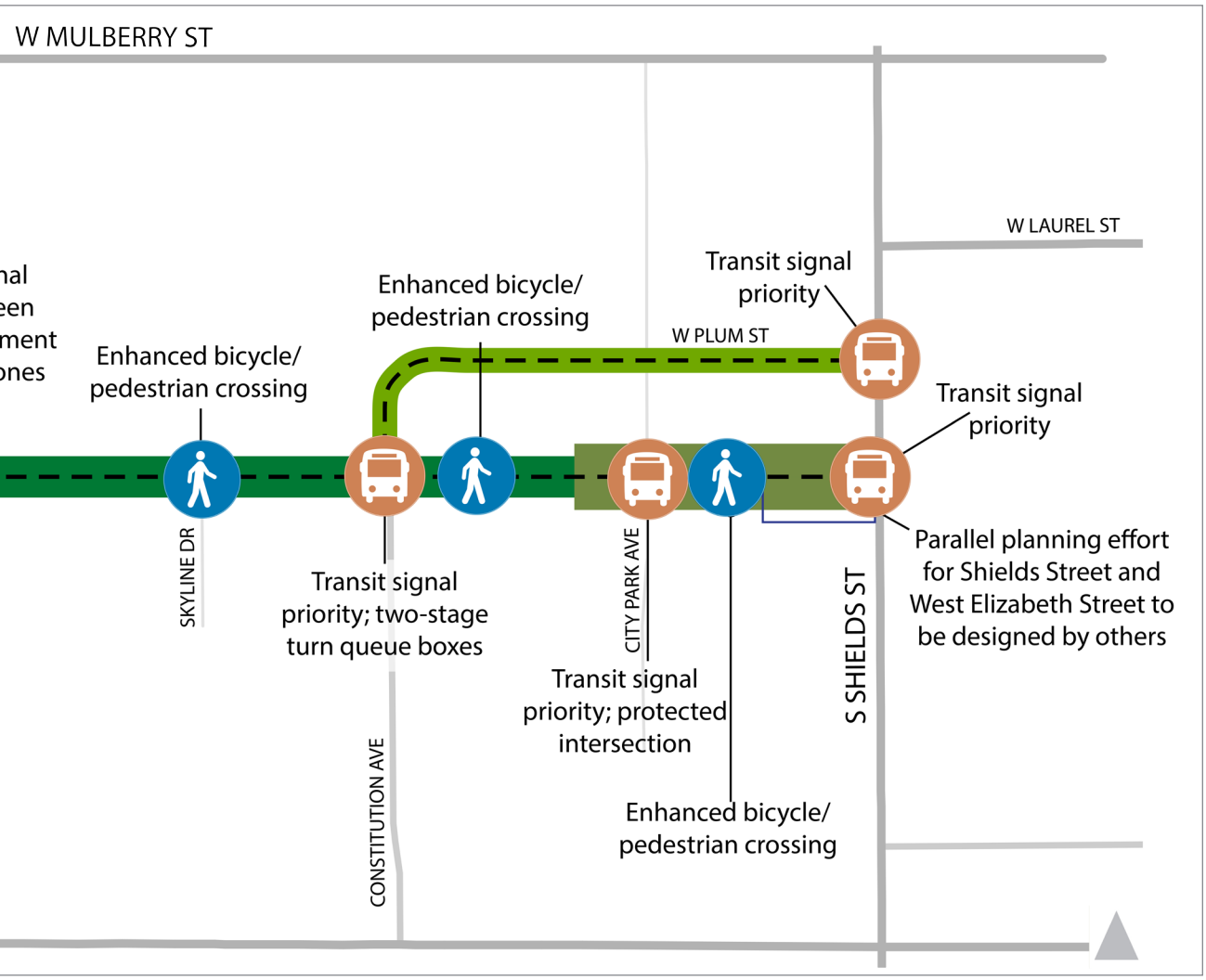


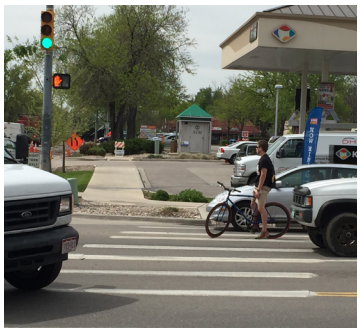

KEY QUESTION # 1 & 2
Please place a sticker in the box of your choice.
Bus
Walk
KEY QUESTION # 3

Recommended Design At-A-Glance

The Recommended Design includes enhancement for all modes. Key elements are depicted in the figure below and listed in the table on the following page.




W MULBERRY ST
W LAUREL ST
W PLUM ST
Transit signal priority
Enhanced bicycle/ pedestrian crossing
Enhanced bicycle/ pedestrian crossing
Transit signal priority
SKYLINE DR
Transit signal priority; two-stage turn queue boxes
CITY PARK AVE
Transit signal priority; protected intersection
S SHIELDS ST
Parallel planning effort for Shields Street and West Elizabeth Street to be designed by others
CONSTITUTION AVE
Enhanced bicycle/ pedestrian crossing
Four Travel Lanes with Left-Turns at Select Locations
Two Travel Lanes
Two Travel Lanes with Two-Way Left Turn Lane or Median
West Elizabeth Street Study Corridor



Recommended Design Key Elements

For People Biking	For People Driving
■ Protected or buffered bike lanes ■ Intersection treatments including green colored paint in conflict zones, two stage turn queue boxes and the pilot of a protected intersection ■ New or upgraded north-south crossings ■ Bike lane accommodations through bus stop islands	■ Safety improvements at locations with a demonstrated crash history ■ Four travel lanes in busiest segment and center turn lanes and medians throughout the corridor ■ Traffic calming through medians, separated facilities for other modes, and management of access to businesses ■ Roundabout at West Elizabeth/ Overland Trail
For People Walking or Using Mobility Devices	**For People Riding Transit**
■ Complete, ADA-compliant sidewalks ■ New or upgraded north-south crossings	■ Premium, high-frequency transit service on West Elizabeth Street connecting to Downtown ■ Transit Signal Priority (TSP) ■ Innovative bus stop islands ■ CSU Foothills Campus Transit Station and Park-n-Ride

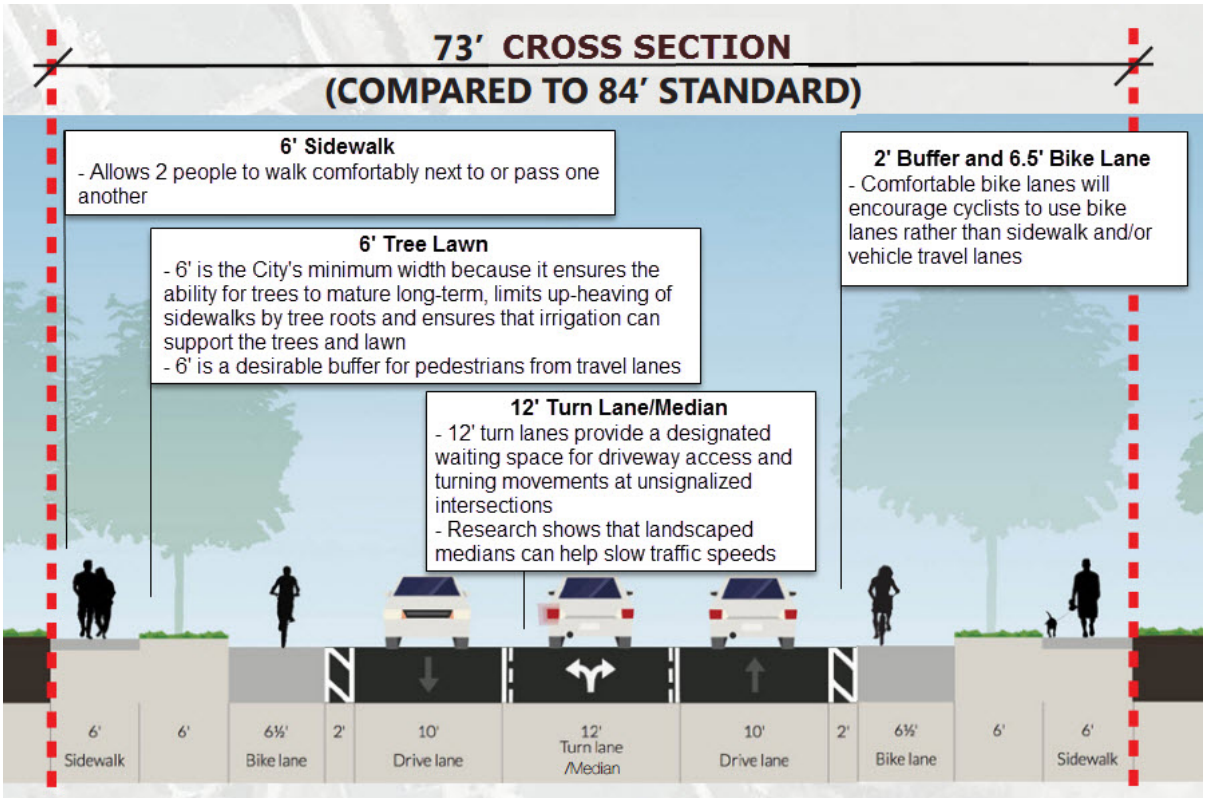
Phasing of Improvements

Construction of the Recommended Design improvements has been planned to take place in phases so that major deficiencies could be addressed without the need to wait for full funding to become available. This smaller set of near-term ("interim") improvements includes providing more adequate transit service and filling in gaps in the pedestrian and bicycle networks. The phased approach described in the Plan is designed to use public funds wisely and efficiently; specifically, the interim design was done with the longer-term Recommended Design in mind with the idea that constructing near-term improvements in the same place as future improvements would minimize potential throw-away costs.

PROPOSED FOR 2016	INTERIM IMPROVEMENTS	RECOMMENDED DESIGN
■ Tweak to improve upon the existing transit service ■ Skyline crossing relocation/improvement	■ Transit service and amenity improvements ■ Completion of the bike network ■ Completion of the sidewalk network (minimum standards)	■ High-frequency transit service ■ Protected/buffered bike lanes and protected intersection ■ Enhance pedestrian network (detached sidewalks) ■ Roundabout at Overland and access management improvements ■ Upgraded and new north-south crossings
		WHAT IF CAMPUS WEST REDEVELOPS? ■ BRT-like transit service ■ Changes in the Campus West Area
COST ESTIMATES <$	$$	$$$$$

Recommended Design Cross Section Key Elements

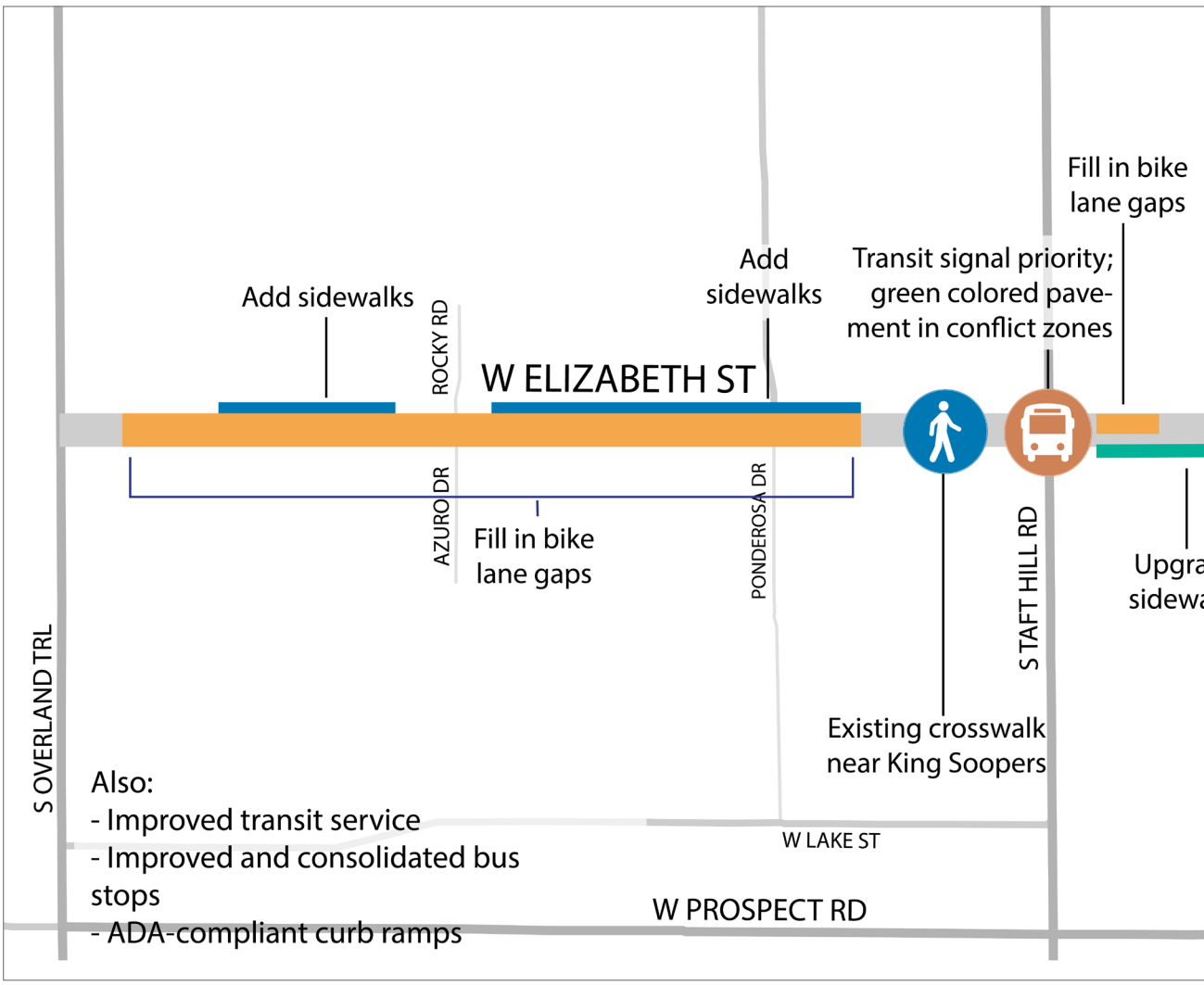
An annotated cross-section of the Recommended Design that describes key elements.

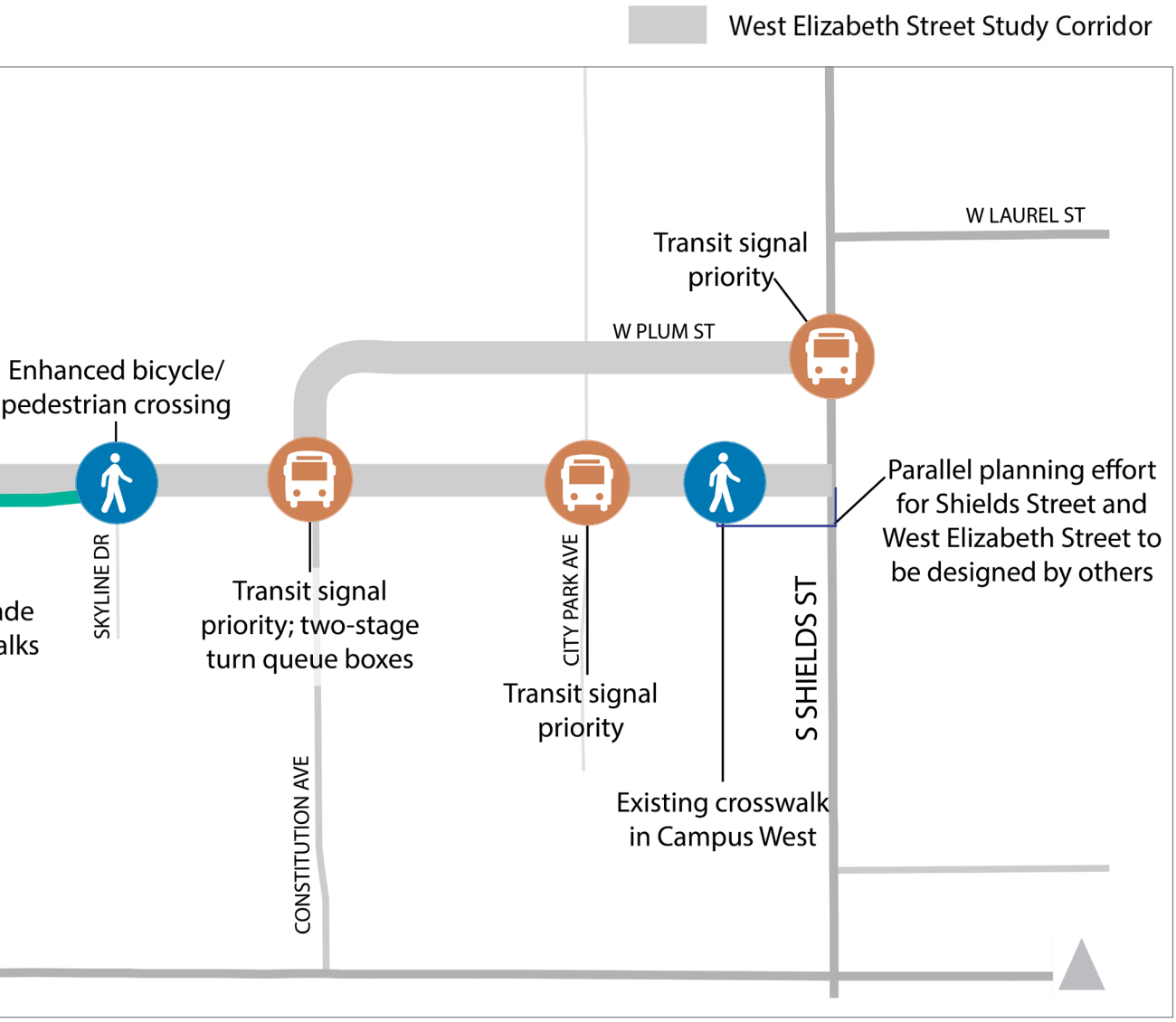



32 VIA ELIZABETH
68

Interim Improvements At-A-Glance

The proposed interim improvements are depicted in the figure below.




West Elizabeth Street Study Corridor
W LAUREL ST
Transit signal priority
W PLUM ST
Enhanced bicycle/ pedestrian crossing
SKYLINE DR
Transit signal priority; two-stage turn queue boxes
CITY PARK AVE
Transit signal priority
Parallel planning effort for Shields Street and West Elizabeth Street to be designed by others
S SHIELDS ST
Existing crosswalk in Campus West
CONSTITUTION AVE

Implementation Strategy

The Plan sets forth a phased strategy for implementing the recommended corridor improvements, depending upon funding availability.

- The first set of improvements will be implemented in August 2016 with tweaks to the transit routes serving the study area, some ADA-related bus stop improvements, and the relocation and upgrade of the bike/pedestrian crossing of West Elizabeth near Skyline using existing budgets.
- Interim Improvements would focus on the major deficiencies identified above. Ideally these improvements would occur within 2-5 years. To that end, the improvements were submitted to be included in the City's 2017-18 budget; the budget is developed through a competitive process and will not be finalized until Fall 2016.
- The Recommended Design is the long-term Vision for the corridor. The improvements were generally planned for a ten- to fifteen-year time-frame, though the actual timing is dependent on funding availability. If funding is secured sooner, the Recommended Design could be realized sooner.

The Recommended Design also includes planning concepts that would come into play if the Campus West area[1] redevelops. With Campus West redevelopment, additional design elements (e.g., enhanced bike and pedestrian facilities) are planned, as well as the implementation of a Bus Rapid Transit-style service on West Elizabeth connecting directly to MAX. The timing of this part of the Recommended Design will depend on private property owners' interest in redeveloping over time.

Other Network Considerations

The Plan includes other network considerations, such as:

- Parking
- Car Share
- Bicycle Network
- Bike Share

[1] *Campus West is generally the area along West Elizabeth between City Park Avenue and Shields Street.*

Next Steps

Key next steps to take after the adoption of this plan include:

- Complete 35 percent design of the Recommended Design, including a survey of the corridor, a drainage study and a utility study, to develop a more refined cost estimate for the corridor and any incremental projects for which the City may pursue funding.
- Inform the Federal Transit Administration (FTA) of the corridor's longterm plan by conducting a field review with FTA Region 8 staff.
- Complete a National Environmental Policy Act (NEPA) process of the Recommended Design based on FTA recommendations.
- Apply for incremental projects that are a part of the Recommended Design through appropriate funding sources, including Congestion Mitigation and Air Quality (CMAQ) and Transportation Alternatives Program (TAP).
- Apply for large-scale projects, possibly the entire Recommended Design, as a Transportation Investment Generating Economic Recovery (TIGER) discretionary grant. As shown by previously selected projects, it is common to submit three or more application submittals for TIGER discretionary grants before a project is selected.
- Update Master Street Plan to show segment of West Elizabeth between City Park Avenue and Taft Hill Road as Arterial 2 Lanes (instead of Arterial 4 Lanes).
- Incorporate relevant changes into CSU Master Plans.
- Explore strategies to support transit-oriented development in the Campus West area, including potential code changes, parking strategies, funding support and improvement districts that support market conditions.
- Coordinate with the Pedestrian Program and Bridge Replacement/ Maintenance Program to widen the bridge on Plum Street west of City Park Avenue to complete the bike lane and sidewalk through this stretch.
- Monitor the demands at the locations for the recommended enhanced pedestrian/bike crossings. Evaluation will be done using the criteria for implementing enhanced crossings found in the City's Pedestrian Plan to determine if and when installation of the crossings are appropriate.

"ENHANCED TRAVEL CORRIDORS (ETCs) ARE UNIQUELY DESIGNED CORRIDORS THAT ARE PLANNED TO INCORPORATE HIGH FREQUENCY TRANSIT, BICYCLING AND WALKING AS PART OF THE CORRIDOR. ETCs ARE INTENDED TO SUPPORT HIGH QUALITY ECONOMIC DEVELOPMENT OPPORTUNITIES FOR MIXED USE, TRANSIT ORIENTED DEVELOPMENT AND SUPPORT FORT COLLINS' ACTIVE LIFESTYLES AND ENVIRONMENTAL STEWARDSHIP GOALS."

section 1

INTRODUCTION

The West Elizabeth Enhanced Travel Corridor Plan includes a Vision, Recommended Design and implementation plan for a study area that includes West Elizabeth Street and nearby roadways.

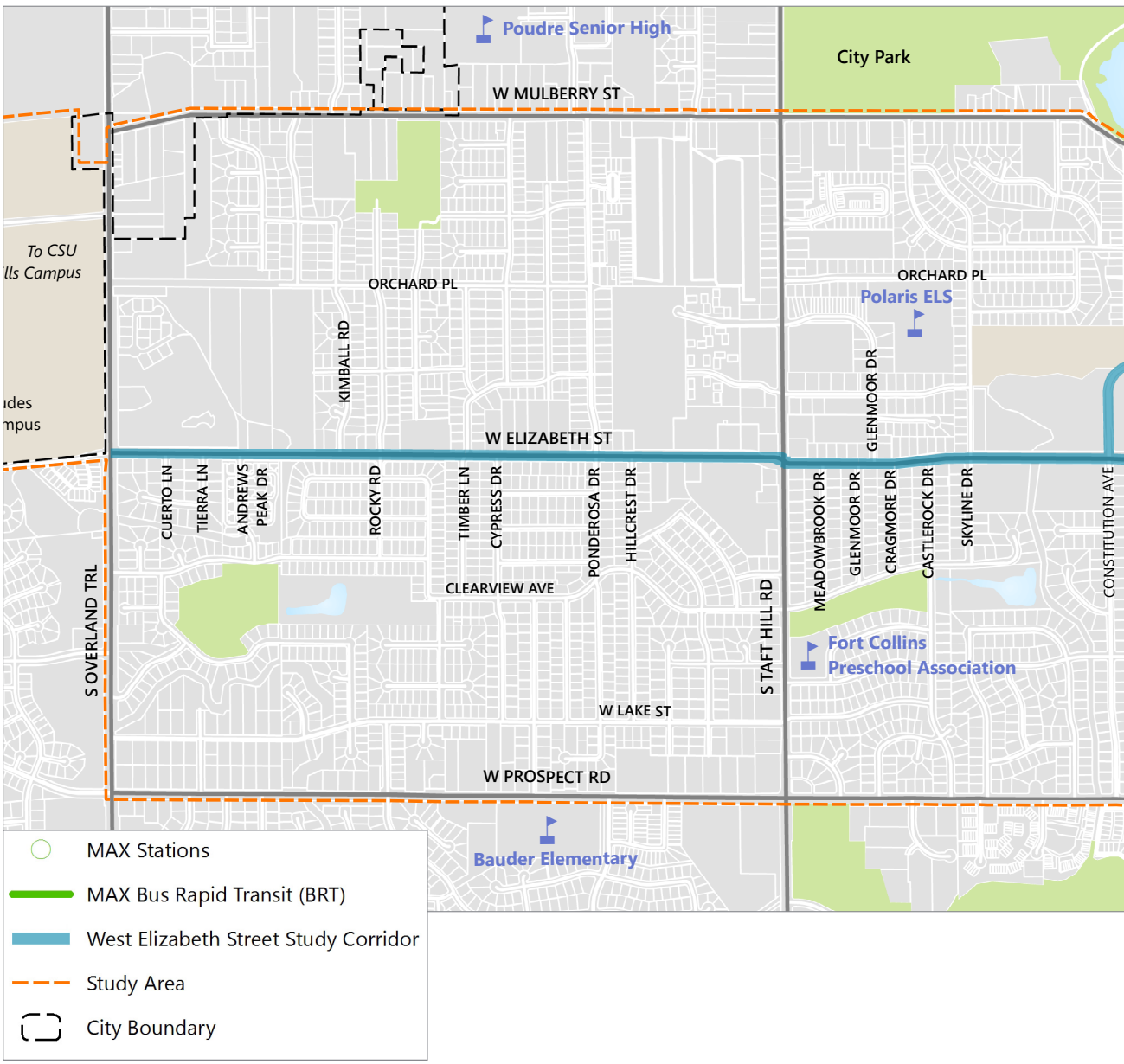
The West Elizabeth Enhanced Travel Corridor Plan is the result of applying the Enhanced Travel Corridor definition and concept to West Elizabeth Street. It was developed through a community driven, context sensitive process that occurred in 2015 and 2016. In some cases, Recommended Design elements of the West Elizabeth Enhanced Travel Corridor Plan are similar to design elements seen elsewhere in Fort Collins. However, in many cases the West Elizabeth Enhanced Travel Corridor Plan's Recommended Design elements are truly unique.

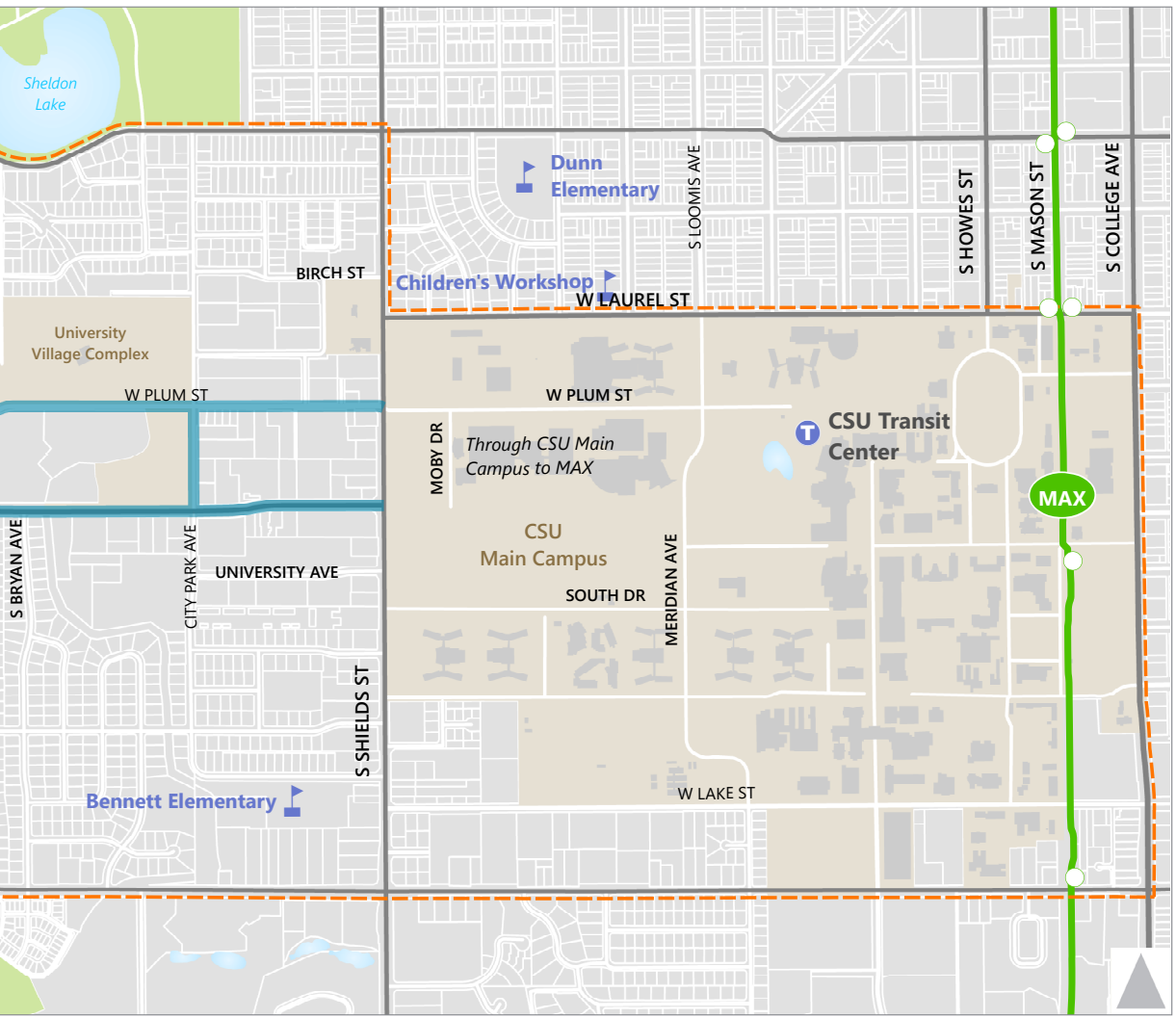
The West Elizabeth Enhanced Travel Corridor Plan includes:

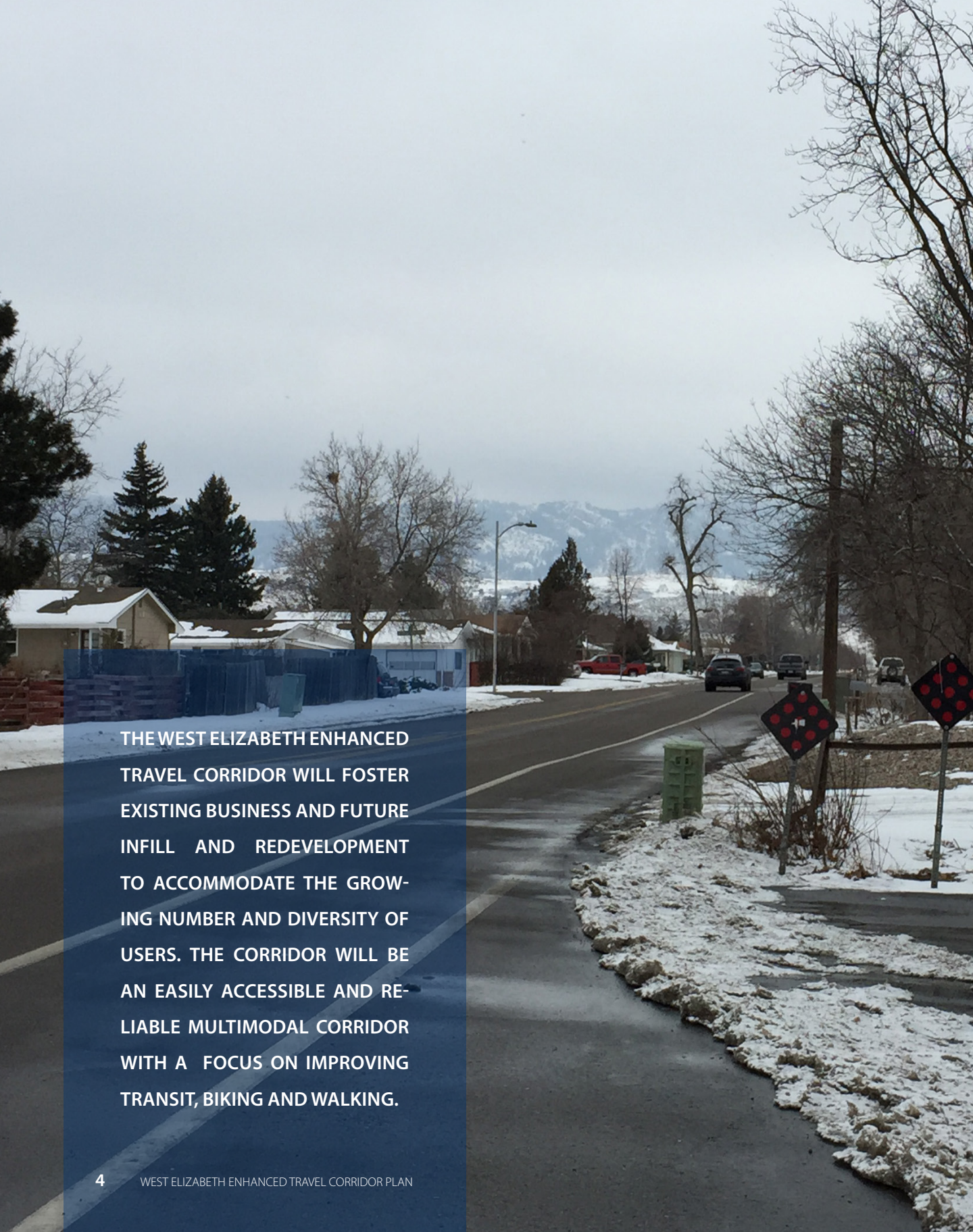
- The corridor's Vision, Purpose and Need
- The corridor's Recommended Design
- An implementation strategy for the Recommended Design including a phasing strategy, cost estimates, funding sources and other considerations

Figure 1: West Elizabeth Enhanced Travel Corridor Plan Study Area:

The West Elizabeth Enhanced Travel Corridor Plan study area includes West Elizabeth Street from Shields Street to Overland Trail, portions of Constitution Avenue, Plum Street and City Park Avenue, the CSU Main Campus and CSU Foothills Campus and nearby neighborhoods.




Sheldon Lake
Dunn Elementary
S LOOMIS AVE
S HOWES ST
S MASON ST
S COLLEGE AVE
BIRCH ST
Children's Workshop
W LAUREL ST
University Village Complex
W PLUM ST
W PLUM ST
MOBY DR
Through CSU Main Campus to MAX
CSU Transit Center
MAX
CSU Main Campus
S BRYAN AVE
CITY PARK AVE
UNIVERSITY AVE
SOUTH DR
MERIDIAN AVE
S SHIELDS ST
Bennett Elementary
W LAKE ST



THE WEST ELIZABETH ENHANCED TRAVEL CORRIDOR WILL FOSTER EXISTING BUSINESS AND FUTURE INFILL AND REDEVELOPMENT TO ACCOMMODATE THE GROWING NUMBER AND DIVERSITY OF USERS. THE CORRIDOR WILL BE AN EASILY ACCESSIBLE AND RELIABLE MULTIMODAL CORRIDOR WITH A FOCUS ON IMPROVING TRANSIT, BIKING AND WALKING.

section 2

VISION, PURPOSE & NEED

The Vision is the long term anticipated outcome of the West Elizabeth Enhanced Travel Corridor Plan's implementation. The Purpose defines the transportation problem being solved through implementation of the Plan and the role of the Plan in the problem solving process. The Need provides information to support the Purpose.

Appendix A includes the detailed Vision, Purpose and Need. Key excerpts from the Vision, Purpose and Need are included below and are important to understanding the impetus of the Plan.

VISION STATEMENT

The Vision for the West Elizabeth Enhanced Travel Corridor is to be an easily accessible and reliable multimodal corridor with an emphasis on connectivity to Colorado State University's Foothills Campus on the west and Colorado State University's Main Campus (including MAX stations) on the east. The corridor will be well integrated and well connected within the City, with a focus on improving transit, biking and walking. The corridor will foster existing business and future infill and redevelopment to accommodate the growing number and diversity of users in the corridor, which include students, families and seniors.

The network shall:

- Be unique and adaptable to the distinctive characteristics of each corridor segment.
- Be safe and comfortable for all users.
- Encourage and prioritize public transportation and active transportation options.
- Support the interconnectivity of all modes.
- Be a beautiful and vibrant corridor.

The goal of this Plan is to address the growing demand for transportation options by increasing and improving transit, bicycling and walking infrastructure and operations. Improvements shall provide users with highly efficient, reliable and frequent transit service as well as bicycling, walking, and driving options that are safe, comfortable, efficient and easy to use.

PROJECT PURPOSE

The Purpose of the West Elizabeth Street Enhanced Travel Corridor Plan is to develop a corridor plan that will serve existing and future transportation demands, with a focus on multimodal transportation improvements. Anticipated growth is expected through infill projects (development of vacant or under used land parcels within existing urban areas) and redevelopment with increased density within and around the study area, thereby increasing travel demand. The goal of this Plan is to address the growing demand for transportation options by increasing and improving transit, bicycling and walking infrastructure and operations. Improvements shall provide users with highly efficient, reliable and frequent transit service as well as bicycling, walking, and driving options that are safe, comfortable, efficient and easy to use. Improvements will foster economic vitality through high quality and attractive facilities, while remaining committed to the long term fiscal responsibility of the City.

Specifically, the Purpose is to:

- **Increase transit capacity, reliability and improve transit stop amenities** to accommodate current demand and future growth in population, student enrollment, and travel demand.
- I**mprove transit system connectivity** to and from West Elizabeth Street, Colorado State University's Main and Foothills Campuses, Downtown and other Transfort routes including MAX.
- **Improve pedestrian facilities for comfort, safety and accessibility** throughout the corridor.
- **Improve bicycling facilities for ease, comfort and safety** and to attract new riders.
- **Maintain vehicular mobility, improve safety and enhance access** to commercial properties in the corridor.
- **Support the interconnectivity** between travel modes.

STATEMENT OF PROJECT NEED

The specific needs to address in the corridor include:

- **Inability to support existing travel demands and anticipated growth,** which will exacerbate existing deficiencies in transit service, pedestrian facilities, bicycle facilities and vehicle safety.
- **Inadequate transit service** due primarily to insufficient system connectivity, low and inconsistent route frequencies, poor reliability, lack of capacity to serve current and future demands and lack of patron stop amenities.
- **Uncomfortable and incomplete pedestrian facilities and safety concerns** due to inconsistent and missing sidewalks, as well as sidewalks that are not Americans with Disabilities Act (ADA)-compliant; in addition, there are limited north/south crossing opportunities, and pedestrians experience significant delays crossing West Elizabeth Street.
- **Uncomfortable and inconsistent bicycle facilities and safety concerns** due to incomplete bike lanes and inadequate intersection treatments. There is also a higher than expected number of bicycle- and vehicle-related crashes in several locations.
- **Vehicular mobility, safety and access concerns** exist due to intersection and driveway turning conflicts, as well as queue spillback (traffic backed up at a left-turn lane, for example) at some signalized intersections.
- **Challenges connecting between modes for trips in the corridor** including inadequate pedestrian and bicycle facilities to and at transit stops and parking challenges in the corridor.

THE WEST ELIZABETH ENHANCED TRAVEL CORRIDOR PLAN TOOK PLACE OVER APPROXIMATELY 18 MONTHS. STAKEHOLDERS INCLUDED RESIDENTS, PROPERTY OWNERS, BUSINESS OWNERS, STUDENTS AND OTHER COMMUNITY STAKEHOLDERS. THEY WERE ENGAGED AND COLLABORATED WITH THROUGH A VARIETY OF COMMUNICATION METHODS AND EVENTS.

section 3

PLAN DEVELOPMENT

The West Elizabeth Enhanced Travel Corridor Plan was developed through a combination of community engagement and rigorous technical analysis to inform decision making.

COMMUNITY ENGAGEMENT

The West Elizabeth Enhanced Travel Corridor Plan took place over approximately 18 months in 2015 and 2016. Stakeholders were prioritized from the start through a community driven process that engaged residents, property owners, business owners, students and other community stakeholders. These stakeholders were engaged through a variety of communication methods and events, including:

- A Stakeholder Committee made up of residents, property owners, students and other corridor stakeholders that met five times throughout the duration of the project
- Community Open Houses in August 2015, December 2015 and June 2016
- Surveys (intercept, paper, text and Web-based)
- Listening sessions
- Focus groups with business owners, multifamily property management, CSU facilities and administration, and alternative transportation advocates
- An online WikiMap
- Neighborhood transit, bicycling and walking tours
- An Open Streets event in June 2015

Community feedback informed every aspect of this plan: the corridor's Vision, Purpose and Need; the design alternatives developed and analyzed in developing a Recommended Design; and refinements to the Recommended Design to ensure that the West Elizabeth Enhanced Travel Corridor Plan is supportable by the area's stakeholders and broad community that uses West Elizabeth Street.

Community Engagement -- Key Themes Identified

During the public engagement process to gather input on the West Elizabeth Street corridor's existing conditions, several common themes regarding the current experience of traveling in the corridor emerged. Below are key issues organized by transportation mode.

For People Riding Transit

- Overcrowded buses, people are left behind
- Not enough bus stop amenities
- Not enough service (e.g., late night, weekend, summer)

For People Biking

- Inconsistent facilities west of Taft Hill Road
- Lots of driveway conflicts in Campus West
- Challenging intersections (e.g., West Elizabeth Street/Taft Hill Road, West Elizabeth Street/City Park Avenue, West Elizabeth Street/Shields Street)
- High number of bicyclist crashes

For People Walking or Using Mobility Devices

- Inconsistent facilities, lack of sidewalks
- Not comfortable
- Largely not ADA-compliant
- Hard to cross West Elizabeth Street at key intersections
- Lack of sufficient midblock crossing opportunities

For People Driving

- Challenging to make left-turns to and from driveways
- Conflicts with pedestrians and bicyclists
- Speeding
- Sight distance issues

Appendix B includes a summary of feedback received through community engagement.

Technical Process

A rigorous technical process informed the West Elizabeth Enhanced Travel Corridor Plan to ensure that the outcomes of the recommendations would result in meaningful and measurable benefits to the corridor. The technical process informed community engagement by reporting various performance measures related to the corridor's Vision, Purpose and Need. Lastly, the technical process was completed in such a way to successfully position the City for available funding sources. Generally, the technical process included:

- Developing a thorough understanding of the corridor's existing conditions. **Appendix C** includes the Corridor Understanding Report.
- Identifying the corridor's Vision, Purpose and Need based on community engagement, the ***Transportation Master Plan's*** definition of an Enhanced Travel Corridor and key findings from the Corridor Understanding Report.
- Generating alternatives that responded to the Vision, Purpose and Need and explored the range of community values.
- Analyzing alternatives using a variety of performance measures to understand how well individual alternatives (or alternative elements) responded to the Vision, Purpose and Need. **Appendix D** includes the alternatives analysis.
- Developing a Recommended Design that incorporated the best performing elements from the alternatives analysis and refining the Recommended Design based on community feedback.

THE RECOMMENDED DESIGN ADDRESSES THE PROJECT'S VISION AND NEED BY IMPROVING CONDITIONS FOR PEOPLE RIDING TRANSIT, BIKING, WALKING AND DRIVING. IT KEEPS COST-EFFECTIVENESS, MINIMIZING IMPACT TO PROPERTY OWNERS AND PHASE IMPLEMENTATION AS KEY ELEMENTS.

section 4

RECOMMENDED DESIGN

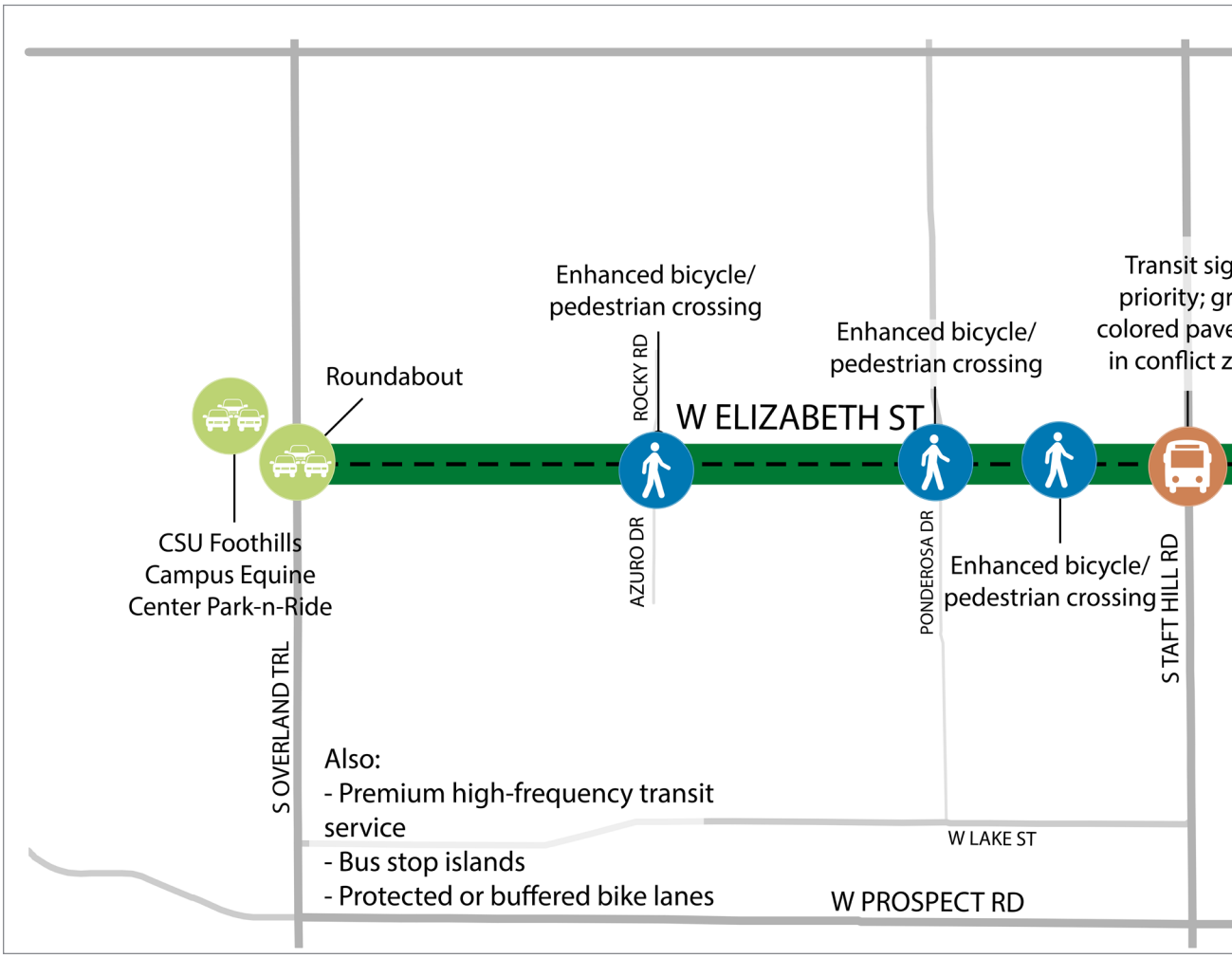
The Recommended Design defines the long term vision for the transportation network the in West Elizabeth Street corridor, including transit service and multimodal improvements. The Recommended Design will further guide infill and redevelopment and future capital improvement in the area.

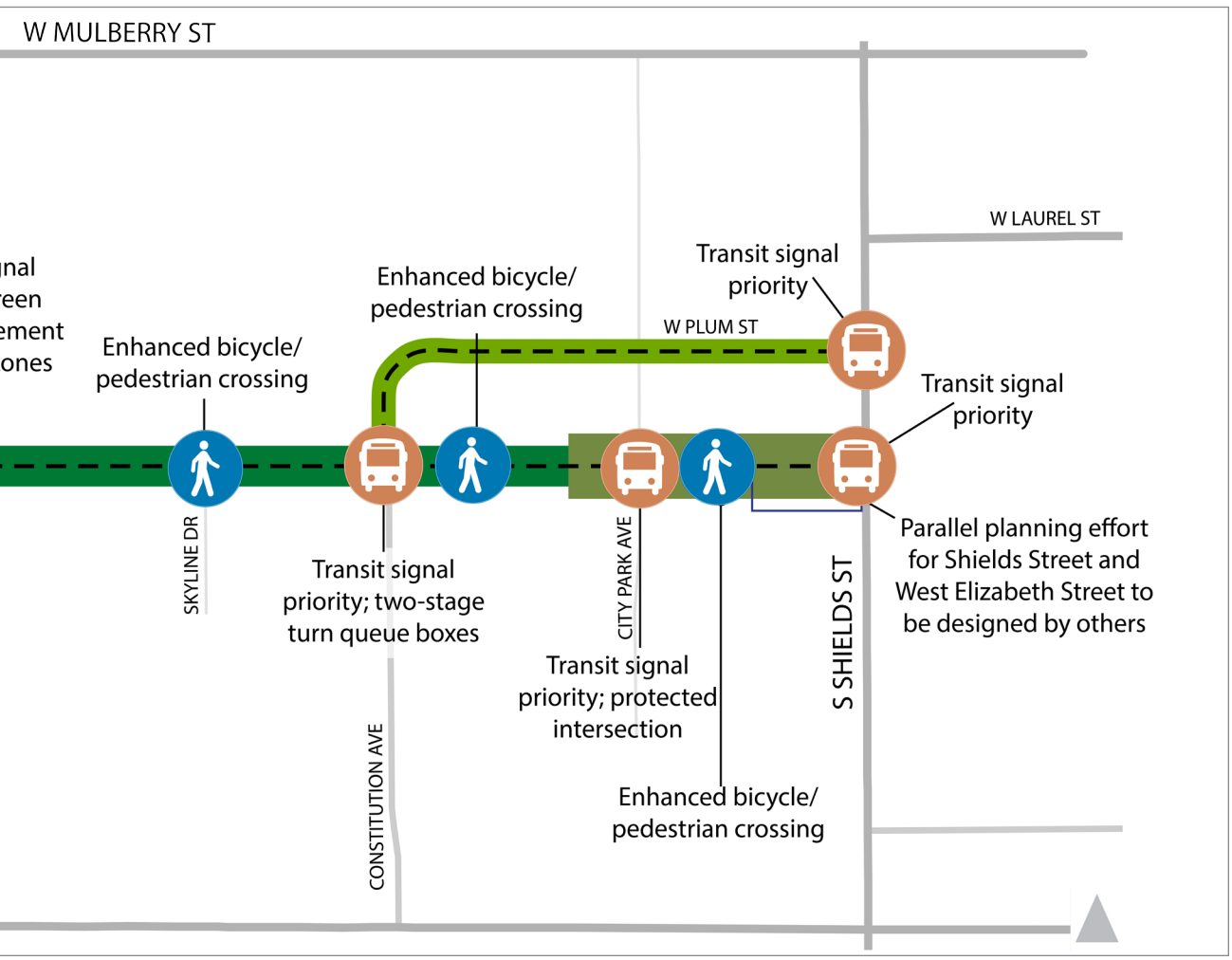
The Recommended Design for West Elizabeth Street was developed specifically to fulfill the project's Vision and to respond to its Purpose and Need. Additionally, three key principles guided the Recommended Design's development:

1. The Recommended Design should meet the project's Vision, Purpose and Need in a **cost-effective** manner.
2. The Recommended Design should **minimize impacts to private property owners** (including limiting right-of-way acquisition).
3. The Recommended Design should **be implementable in phases** and minimize throwaway costs.

The Plan proposes implementation of the Recommended Design in three main phases. The actual implementation of improvements will depend upon funding availability. In addition, the Recommended Design includes considerations for redevelopment, particularly in Campus West.

Figure 2: Recommended Design At-a-Glance:
The Recommended Design includes a variety of multimodal improvements to fulfill the corridor's Vision.




Four Travel Lanes with Left-Turns at Select Locations
Two Travel Lanes
Two Travel Lanes with Two-Way Left Turn Lane or Median
West Elizabeth Street Study Corridor
W MULBERRY ST
W LAUREL ST
W PLUM ST
Enhanced bicycle/ pedestrian crossing
Transit signal priority
Enhanced bicycle/ pedestrian crossing
Transit signal priority
SKYLINE DR
Transit signal priority; two-stage turn queue boxes
CITY PARK AVE
Transit signal priority; protected intersection
S SHIELDS ST
Parallel planning effort for Shields Street and West Elizabeth Street to be designed by others
CONSTITUTION AVE
Enhanced bicycle/ pedestrian crossing

KEY ELEMENTS FOR PEOPLE RIDING TRANSIT:

- **Premium, high-frequency transit service on West Elizabeth Street connecting to Downtown**
- **Transit Signal Priority (TSP)**
- **Innovative bus stop islands**
- **CSU Foothills Campus Transit Station and Park-n-Ride**

RECOMMENDED DESIGN ELEMENTS BY MODE

For People Riding Transit

The transit elements of the Recommended Design intend to improve the capacity, reliability and simplicity of transit service in the West Elizabeth Street study area, including both transit operational changes and transit-related infrastructure

Transit Operations

The Recommended Design's proposed transit operations include five key transit routes:

Route 3 – West Elizabeth Street Route: a cross town route that will run along West Elizabeth Street from the CSU Foothills Campus Equine Center, along West Elizabeth Street and Plum Street, through the CSU Main Campus, to the CSU Transit Center and continuing to Downtown Fort Collins and the Downtown Transit Center via Mason Street. Route 3 will provide a one seat ride for passengers from West Elizabeth Street to Downtown Fort Collins.

Route 31 – Plum Street Route: a circulator route that will operate similar to the existing Route 31 from the CSU Transit Center to Campus West via West Elizabeth Street and Plum Street.

Route 2 – West Prospect Road Route: a radial route that will run along Prospect Road from Overland Trail to Lake Street/College Avenue.

The HORN – a circulator that will serve destinations throughout the CSU Main Campus and CSU Veterinary School, similar to the existing HORN

The CSU Foothills Campus Shuttle – a circulator that will connect destinations within the CSU Foothills Campus off of Rampart Road and off of Laporte Avenue.

Table 1 shows frequency, hours and vehicle types for the transit routes in the study area when CSU is in session; route frequencies are likely to be reduced during periods when CSU is out of session. Route 3, Route 31 and the HORN are expected to be the most productive routes in the study area. Therefore, frequencies on these routes will be high to increase the number of passengers the system can move and to minimize passenger wait times. With 10 minute or less frequencies Route 3, Route 31 and the HORN will all operate frequently enough that passengers do not need to consult a schedule prior to planning their trip. All of the routes will use standard Transfort buses, with the exception of the CSU Foothills Campus Shuttle, which will use a 25 passenger shuttle bus.

Table 1: *Transit Route Frequency & Vehicles Types*

Route	Frequency	Hours	Vehicle Type
2	AM-PM Peak: 15 minutes Evening: 30 minutes	7 AM – 10 PM	Standard Transfort buses
3	AM-PM Peak: 10 minutes Evening: 30 minutes	7 AM – 10 PM	Standard Transfort buses
31	AM-PM Peak: 5 minutes Evening: 10 minutes	7 AM – 7 PM	Standard Transfort buses
HORN	AM-PM Peak: 10 minutes Evening: 20 minutes	6:30 AM – 8 PM	Standard Transfort buses
CSU Foothills Campus Shuttle	All day: 30 minutes	7 AM – 7 PM	25 passenger shuttle bus

Transit Infrastructure

Transit Signal Priority (TSP) will be added to signalized intersections throughout the study area, in locations where possible and beneficial to transit operations. Transit Signal Priority reduces delay at traffic signals by holding green lights longer for approaching buses, giving the buses a higher priority at the intersection. Transit Signal Priority will be added in the east-west directions at the following intersections: West Elizabeth Street/Taft Hill Road, West Elizabeth Street/Constitution Avenue, West Elizabeth Street/City Park Avenue, and Plum Street/Shields Street. Transit Signal Priority will also be added to the Laurel Street/Meldrum Street intersection for the new Route 3, which will connect West Elizabeth Street to Downtown Fort Collins via the CSU Transit Center.

The Recommended Design includes innovative bus stop islands that have recently been installed successfully in progressive transit cities such as Seattle and Denver. In some cases the bus islands allow buses to stop in the travel lane while passengers board, which eliminates bus delay waiting to re-enter the travel lane. Bus stop islands that allow buses to stop in the travel lane are less impactful to adjacent private property compared to bus stop islands with pullouts. Generally, the Recommended Design includes bus stop islands that allow buses to stop in the travel lane although bus stop islands with pullouts are recommended at Skyline Drive. Other benefits of the bus stop islands are that they allow for passengers to get on and off the buses from both doors, which minimizes bus dwell time at each stop and allows people biking to pass to the right of the passenger boarding area rather than having to merge into the travel lane to pass the bus. Unique design elements, such as a raised pedestrian crossing across the bike lane or strategically placed planter bollards, will minimize the potential for conflicts between people biking and people walking, or using mobility devises, from the bus to the sidewalks. Bus stop islands will feature typical amenities such as signage, shelters, benches, trash cans and bike racks. Should Bus Rapid Transit (BRT)-style service eventually be implemented on the corridor, the bus stop islands are sufficiently large for future passenger amenities including enhanced shelters, benches, bike racks and kiosks.

A Park-n-Ride at the CSU Foothills Campus Equine Center will take advantage of the 720 space parking lot that is nearly empty on most days. The Park-n-Ride will include a transit station south of the Equine Center with space for passenger boarding and space for buses to layover between routes, if needed. Students, faculty and staff from areas in west Fort Collins bound for CSU Main Campus can park at the Park-n-Ride and ride the bus to the CSU Main Campus.

At the CSU Transit Center, minor modifications to Plum Street south of Allison Hall will allow Route 3 buses to drop-off and pick-up passengers at the CSU Transit Center without circulating through the transit center itself.

Other likely infrastructure improvements may be needed at the College Avenue/Lake Street intersection to facilitate the turning movements for the east leg of Route 2.

For People Biking

Consistent with the recommendations of the City's *Bicycle Master Plan* (2014). The Recommended Design includes one-way protected bike lanes and buffered bike lanes on West Elizabeth Street from Shields Street to Overland Trail. In locations where adequate space for protection exists the protection will consist of a raised

KEY ELEMENTS FOR PEOPLE BIKING:

- **Protected or buffered bike lanes**
- **Intersection treatments including green colored paint in conflict zones, two stage turn queue boxes and the pilot of a protected intersection**
- **New or upgraded north-south crossings**
- **Bike lane accommodations through bus stop islands**

Bottom Left: A two-stage turn queue box allows people biking to turn left in two stages without crossing multiple travel lanes

Bottom Right: A buffered bike lane provides a painted buffer between the bike lane and travel lane

Top Right: A protected bike lane provides a raised curb between the bike lane and travel lane

curb or other treatment to be determined in Final Design. In locations where there is not adequate space for protection there will be a painted buffer between the bike lane and the travel lane.

Various intersection treatments are recommended to make turning movements easier for people bicycling as well as to improve safety. Green colored pavement will be used in conflict zones where people bicycling have the right of way. Two-stage turn queue boxes will be used at signalized intersections so that people biking do not have to cross multiple travel lanes to access a left-turn lane.

The Recommended Design also includes the pilot of a protected intersection at the West Elizabeth Street/City Park Avenue intersection. The protected intersection features corner refuge islands that provide increased separation between vehicles and bicyclists, put the bicyclist stop bar ahead of the vehicle stop bar, set back the bicyclist crossings approximately one car length from the adjacent travel lane and allow for two-stage left-turns and free bicyclist right-turns.

The Recommended Design further implements the City's ***Bicycle Plan*** by providing a variety of north-south crossing treatments, including the protected intersection at City Park Avenue and on street bikeways on Constitution Avenue. Skyline Drive, on which a neighborhood greenway is proposed, is expected to be improved in summer 2016 with either a Rectangular Rapid Flashing Beacon (the crosswalk across Laurel Street at Sherwood Street is a local example of a Rectangular Rapid Flashing Beacon) or a Pedestrian Hybrid Beacon (the crosswalk across Taft Hill Road a Blevins Middle School is a local example of a Pedestrian Hybrid Beacon) at the West Elizabeth Street/Skyline Drive intersection to make crossing West Elizabeth Street safer and more comfortable. Ponderosa Drive is recommended to be improved in the future with enhancements for bicyclists such as medians that allow for people bicycling to cross West Elizabeth Street in two stages.

As described earlier, bus stop islands along the West Elizabeth Street corridor will allow people biking to pass to the right of the passenger boarding area. When buses are stopped, people biking will not have to merge into travel lanes to go around them. Unique design elements at the bus island stops will minimize the potential for conflicts between people biking and people walking, or using mobility devises, from the bus to the sidewalks.

For People Walking or Using Mobility Devices

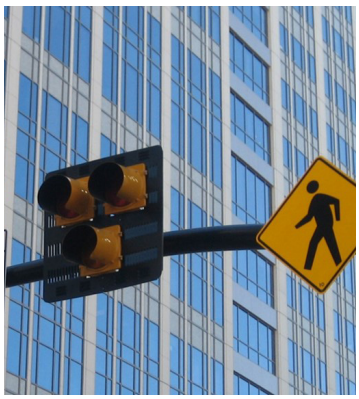
The Recommended Design will complete the sidewalk network on West Elizabeth Street. In most cases, new sidewalks will be detached with landscaping separating the clear sidewalk width from the adjacent travel lanes. In Campus West sidewalks will include an amenity zone for tree grates, street lighting, bike parking and other amenities separating the clear sidewalk width from adjacent travel lanes. In some cases where private property would be significantly impacted by the preferred detached sidewalk and landscaping between the adjacent travel lanes, sidewalks will be attached (directly adjacent to travel lanes). This condition occurs mostly west of Taft Hill Road. The complete sidewalk network will include accessible design elements throughout the corridor for people with disabilities, including ADA-compliant curb ramps.

People walking, or using mobility devises, will have new and upgraded crossings of West Elizabeth Street. In Campus West, the existing midblock crosswalk will be upgraded to feature a Pedestrian Hybrid Beacon (previously known as a HAWK beacon). A new crossing will be constructed near the Woodbridge Senior Apartments with a median and a Rectangular Rapid Flashing Beacon (the crosswalk across Laurel Street at Sherwood Street is a local example of a Rectangular Rapid Flashing Beacon). The existing crosswalk at Castlerock Drive will be relocated to Skyline Drive and upgraded to feature either a Rectangular Rapid Flashing Beacon or a Pedestrian Hybrid Beacon. Two future crossings will also be added once demand justifies their installation per the crossing policy in the City's ***Pedestrian Master Plan:*** one at Ponderosa Drive and another at Rocky Road/Azuro Drive. Lastly, the Recommended Design includes a roundabout at Overland Trail and West Elizabeth Street.

KEY ELEMENTS FOR PEOPLE WALKING OR USING MOBILITY DEVICES

- Complete, ADA-compliant sidewalks
- New or upgraded north-south crossings

Rectangular Rapid Flashing Beacons are user-actuated amber LEDs that use a flash pattern that is similar to emergency flashers on police vehicles.



A Pedestrian Hybrid Beacon is a user-actuated beacon that uses amber and red beacons to increase drivers' awareness of pedestrian crossings.


Lockman & Lockman
Drywall Systems, LLC
Office: 970-568-9152

For People Driving

The Recommended Design maintains four travel lanes with turn lanes on West Elizabeth Street's busiest segment between Shields Street and City Park Avenue. Between City Park Avenue and Constitution Avenue, West Elizabeth Street will transition to two travel lanes with a two-way left-turn lane. This three lane cross section will continue to Overland Trail with medians in certain locations where street and driveway access allow.

The Recommended Design includes a variety of design elements to improve safety at locations with a demonstrated crash history. In most cases access management in Campus West will allow for right-turns and left-turns into driveways and right-turns out of driveways. Left-turns out of driveways, which are a common cause of crashes in Campus West, will be prohibited between Shields Street and City Park Avenue. West of Taft Hill Road, access management will allow for right-turns and left-turns into and out of the King Soopers driveway. Driveways on the north side of West Elizabeth Street will be right-in/right-out. Lastly, a roundabout at Overland Trail will calm traffic on Overland Trail itself and improve the ease of turning onto and off of West Elizabeth Street.

KEY ELEMENTS FOR PEOPLE DRIVING:

- **Safety improvements at locations with a demonstrated crash history**
- **Four travel lanes in busiest segment and center turn lanes and medians throughout the corridor**
- **Traffic calming through medians, separated facilities for other modes, and management of access to businesses**
- **Roundabout at West Elizabeth/ Overland Trail**

West Elizabeth Street/Shields Street Intersection

Prior to and separate from the West Elizabeth Enhanced Travel Corridor Plan, the City and CSU entered into an Intergovernmental Agreement (IGA) addressing various CSU on-campus stadium impacts to nearby City streets. The IGA includes requirements for at-grade improvements at the intersection of West Elizabeth Street and Shields Street and identifies the potential for a grade-separated crossing of Shields Street to help accommodate bicycle and pedestrian movements across Shields Street. Since the IGA's approval, CSU and the City have been working on the design for the at-grade improvements and have completed a feasibility study for the grade-separated crossing. The at-grade improvements and underpass are now in design, a neighborhood meeting has been held and additional opportunities for public input will be provided as the process moves forward.

Due to the overlapping timing of the IGA efforts and the West Elizabeth Enhanced Travel Corridor Plan, and since the goals of each effort are generally in alignment, the detailed design for the West Elizabeth Street/ Shields Street intersection has been left to the IGA team. As such, the Recommended Design for the West Elizabeth Street corridor does not include the design for this area, and instead notes various considerations that should be taken in to account as the design moves toward finalization. These considerations include: business access, driveway crossings and connections to the midblock crossing in Campus West. The West Elizabeth Enhanced Travel Corridor Plan project team will continue to participate in the design work for this intersection to ensure that the final plans fit together well and the goals of the West Elizabeth Enhanced Travel Corridor Plan are carried forward.

RECOMMENDED DESIGN GRAPHICS

The following figures depict the Recommended Design for the West Elizabeth Enhanced Travel Corridor. The first two figures (Figures 3 and 4) are photosimulations that provide perspectives to people walking or using mobility devices. These are followed by the Recommended Design Cross Sections (Figures 5-8). The next set of figures provide an aerial view of the corridor depicting the differing design conditions by each segment and highlighting major intersections (Figures 9-16). The last graphic in this section is the transit route alignments proposed for the Recommended Design (Figure 17).

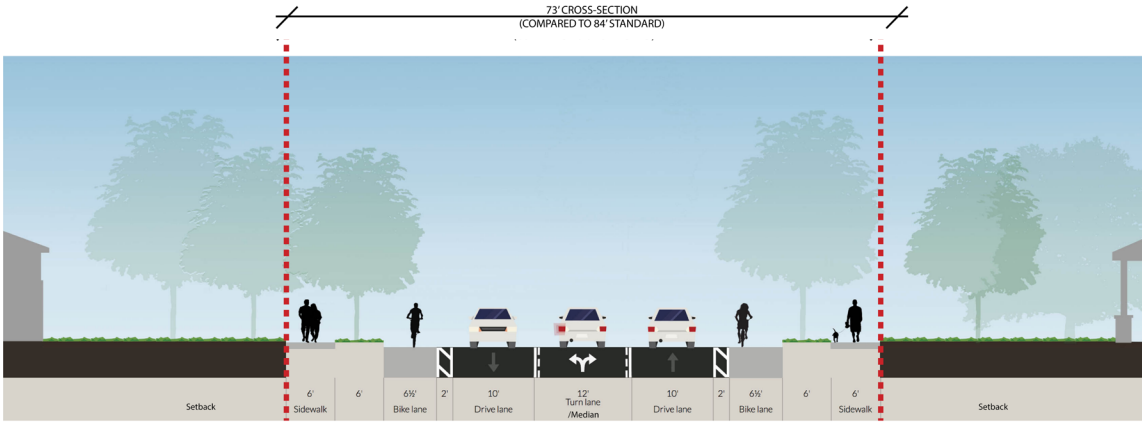
Figure 3: Photo simulation of West Elizabeth Street east of Skyline Drive:
A photo simulation of the Recommended Design as seen looking east from Skyline Drive with protected bike lanes, parkways and sidewalks, and planted median.

Photosimulation - West Elizabeth Protected Bike Lane and Enhanced Median

Figure 4: Photo simulation of West Elizabeth Street and City Park Avenue:
A photo simulation of the Recommended Design as seen at West Elizabeth Street and City Park Avenue with a protected bicycle intersection including corner safety islands, planter pots, pedestrian crosswalks and bike lanes.

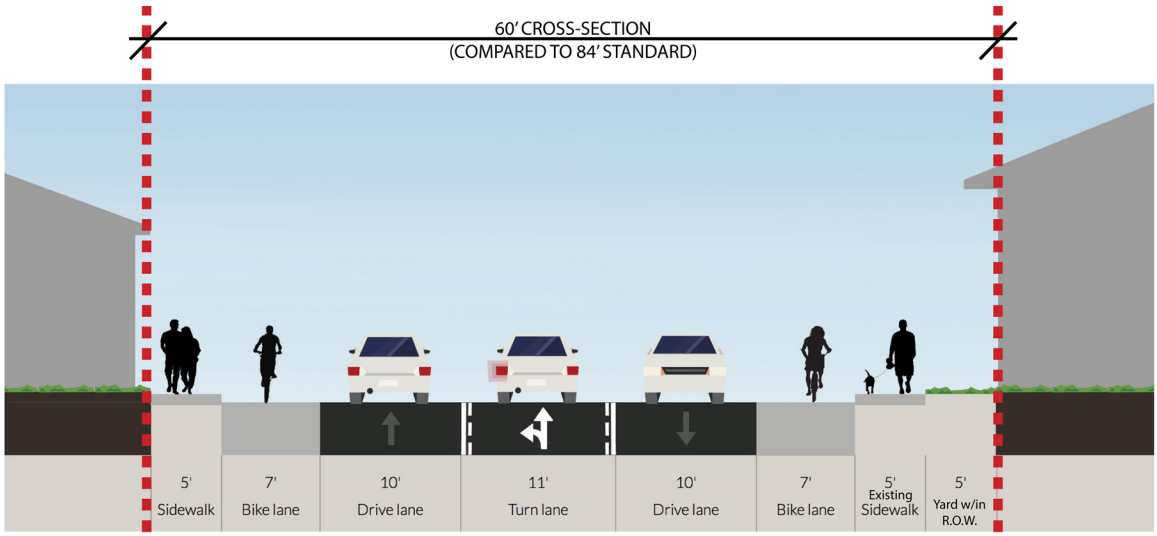
Photosimulation - City Park Ave. and West Elizabeth Protected Intersection

Figure 5: Recommended Design Cross Sections:
A cross-section of the Recommended Design between Overland Trail and Cypress Drive.



Overland Trail to Cypress Drive
Interim Condition: Attached Walk (if Right-of-Way no Available)
Existing Right-of-Way Varies 60'-100'

Figure 6: Recommended Design Cross Sections:
A cross-section of the Recommended Design between Cypress Drive and Ponderosa Drive.

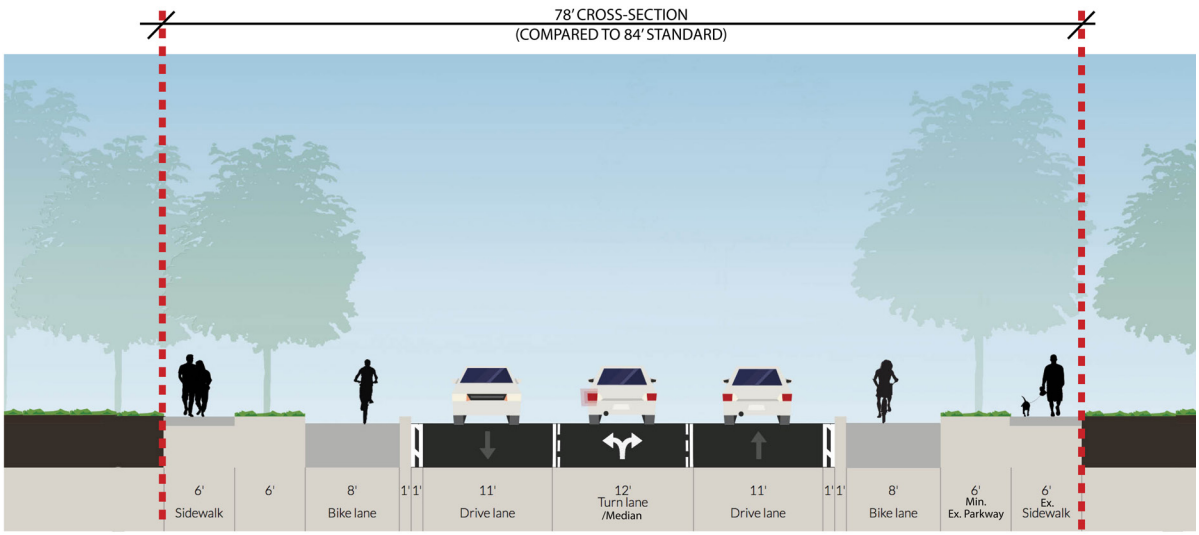


Cypress Dr. to Ponderosa Dr.

Figure 7: Recommended Design Cross Sections:

A cross-section of the Recommended Design between Taft Hill Road and City Park Avenue

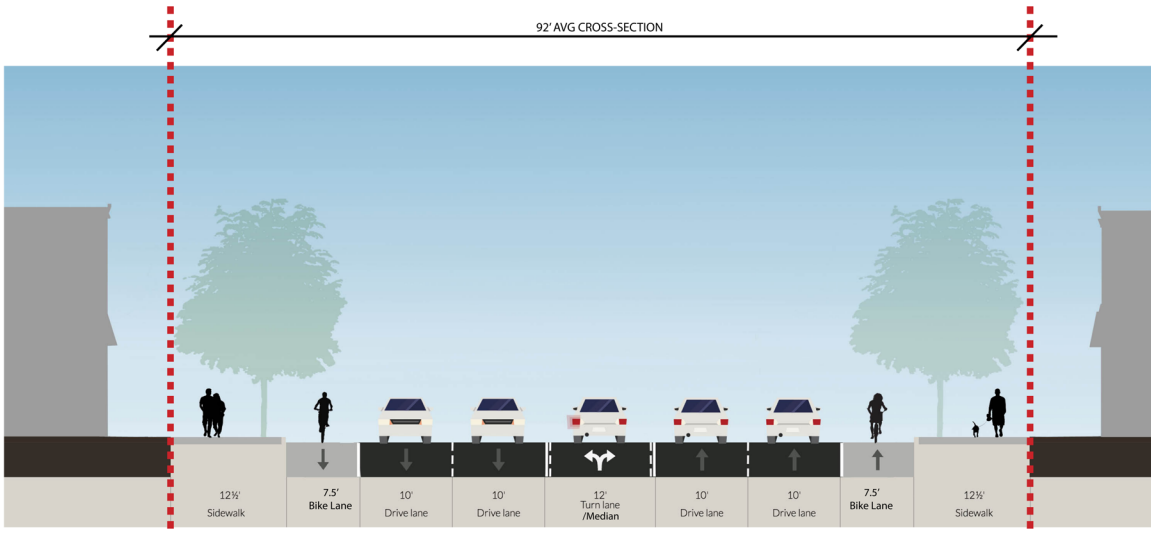
In commercial areas on the south side of West Elizabeth Street between approximately City Park Avenue and Consitution Avenue it may be more appropriate to replace the tree lawn parkway with a paved amenity zone.



Taft Hill Road to City Park Avenue

Figure 8: Recommended Design Cross Sections:
A cross-section of the Recommended Design between City Park Avenue and Shields Street.

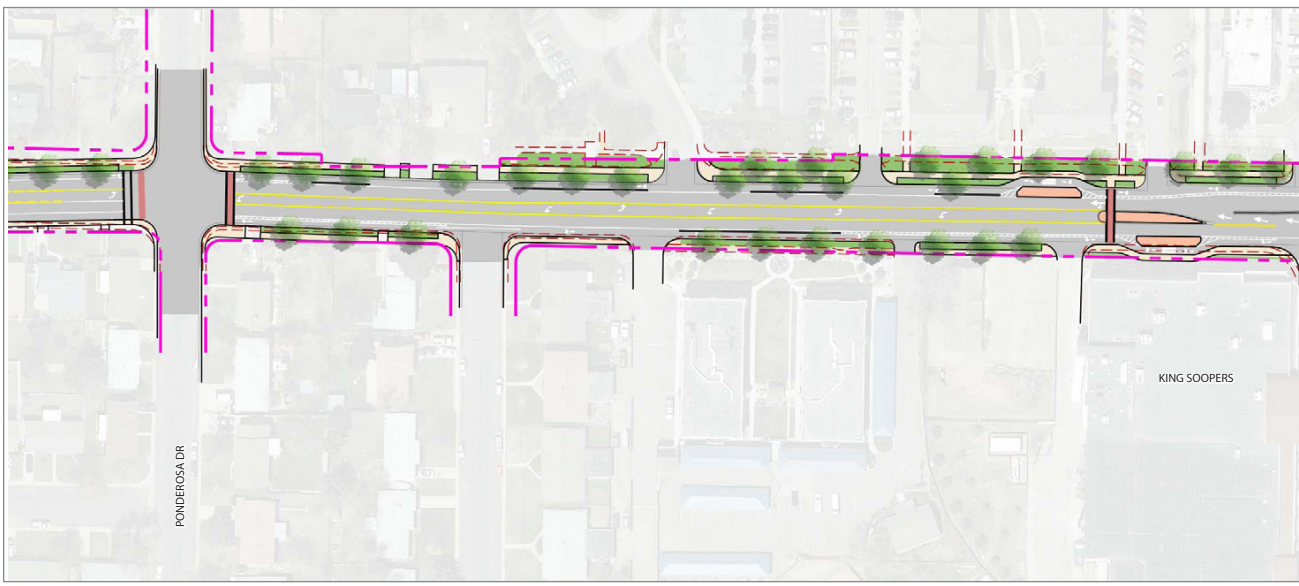
This cross-section assumes existing right-of-way; another cross-section that addresses redevelopment is described in the Plannning for Redevelopment Section of this report.

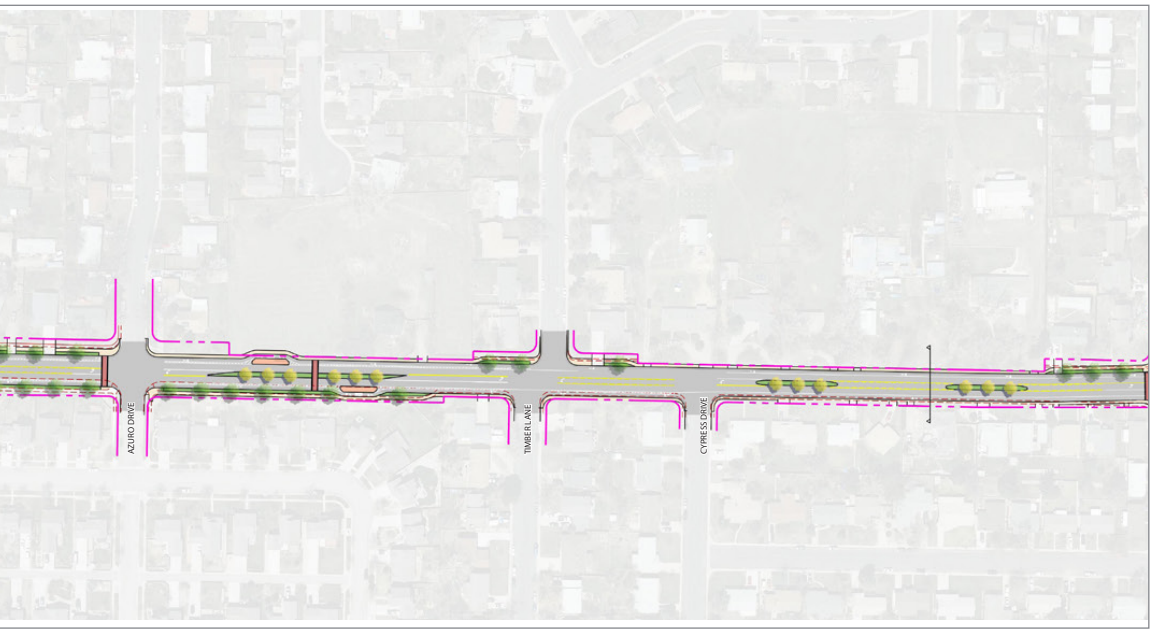


City Park Avenue to Shields Street - Recommended Design Without Redevelopment

Figure 9: Recommended Design Corridor Segments
Overland Trail to Ponderosa Drive

Figure 10: Recommended Design Corridor Segments:
Ponderosa Drive to Taft Hill Road




AZURO DRIVE
TIMBER LANE
CYPRESS DRIVE

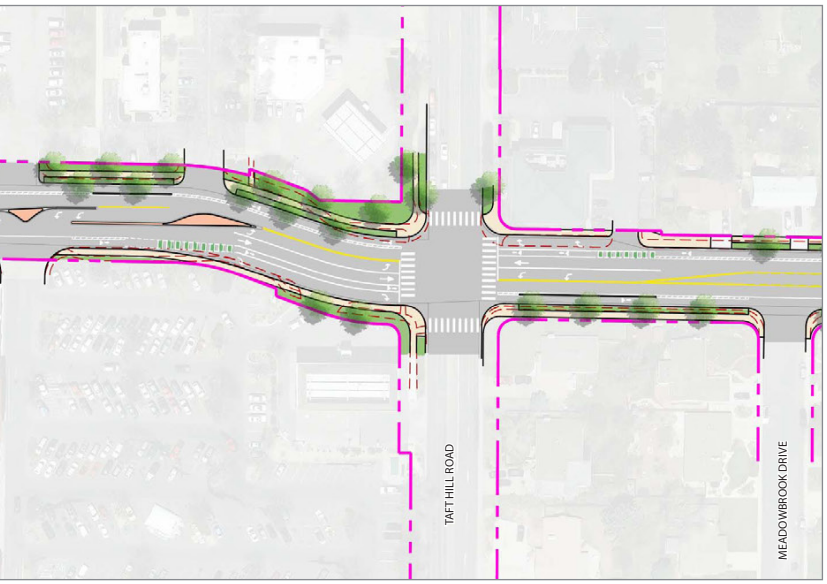
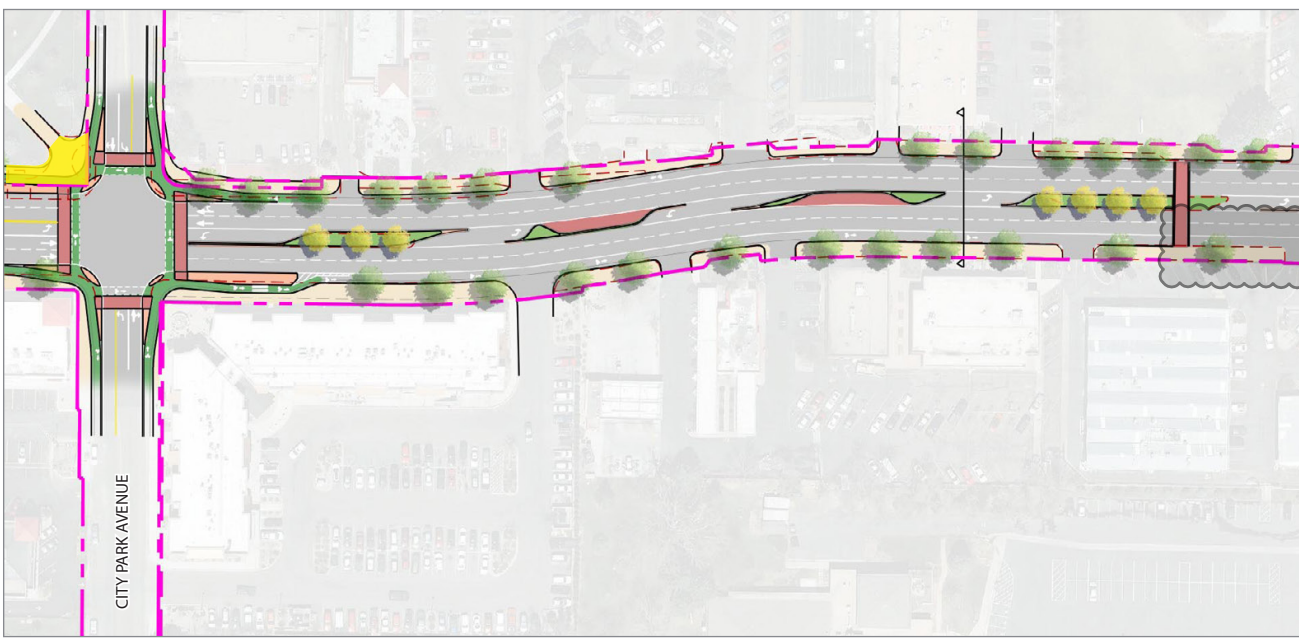
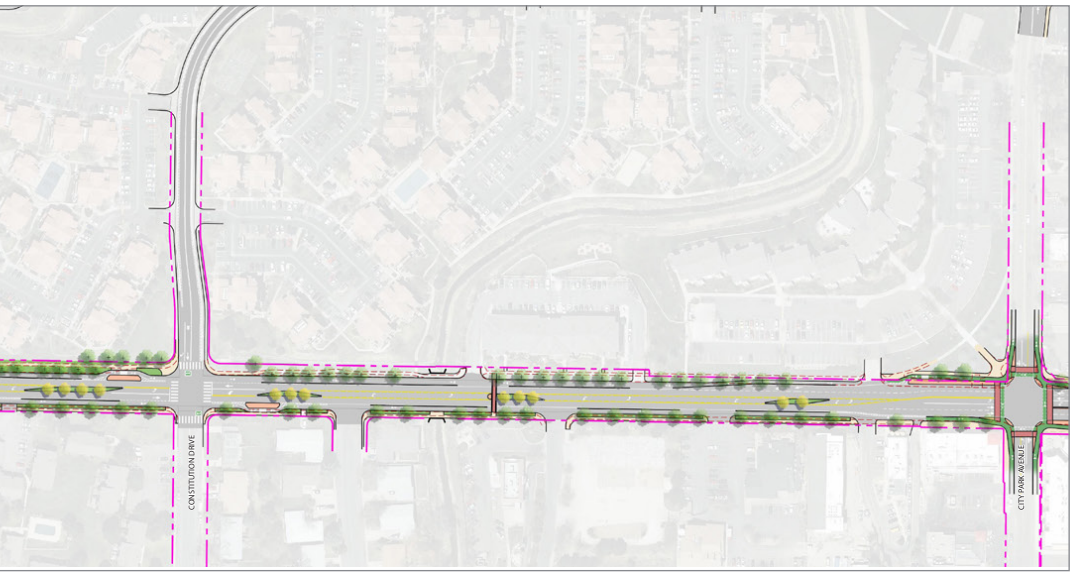
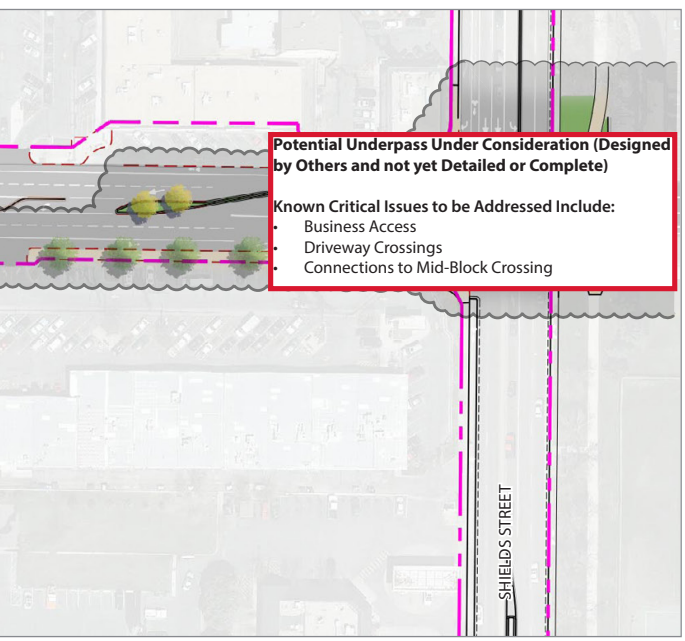

TAFT HILL ROAD
MEADOWBROOK DRIVE

Figure 11: Recommended Design Corridor Segments:
Taft Hill Road to City Park Avenue

Figure 12: Recommended Design Corridor Segments:
City Park Avenue to Shields Street







In commercial areas on the south side of West Elizabeth Street between approximately City Park Avenue and Consitution Avenue it may be more appropriate to replace the tree lawn parkway with a paved amenity zone..

Figure 13: An aerial view of the Recommended Design at Overland Trail.

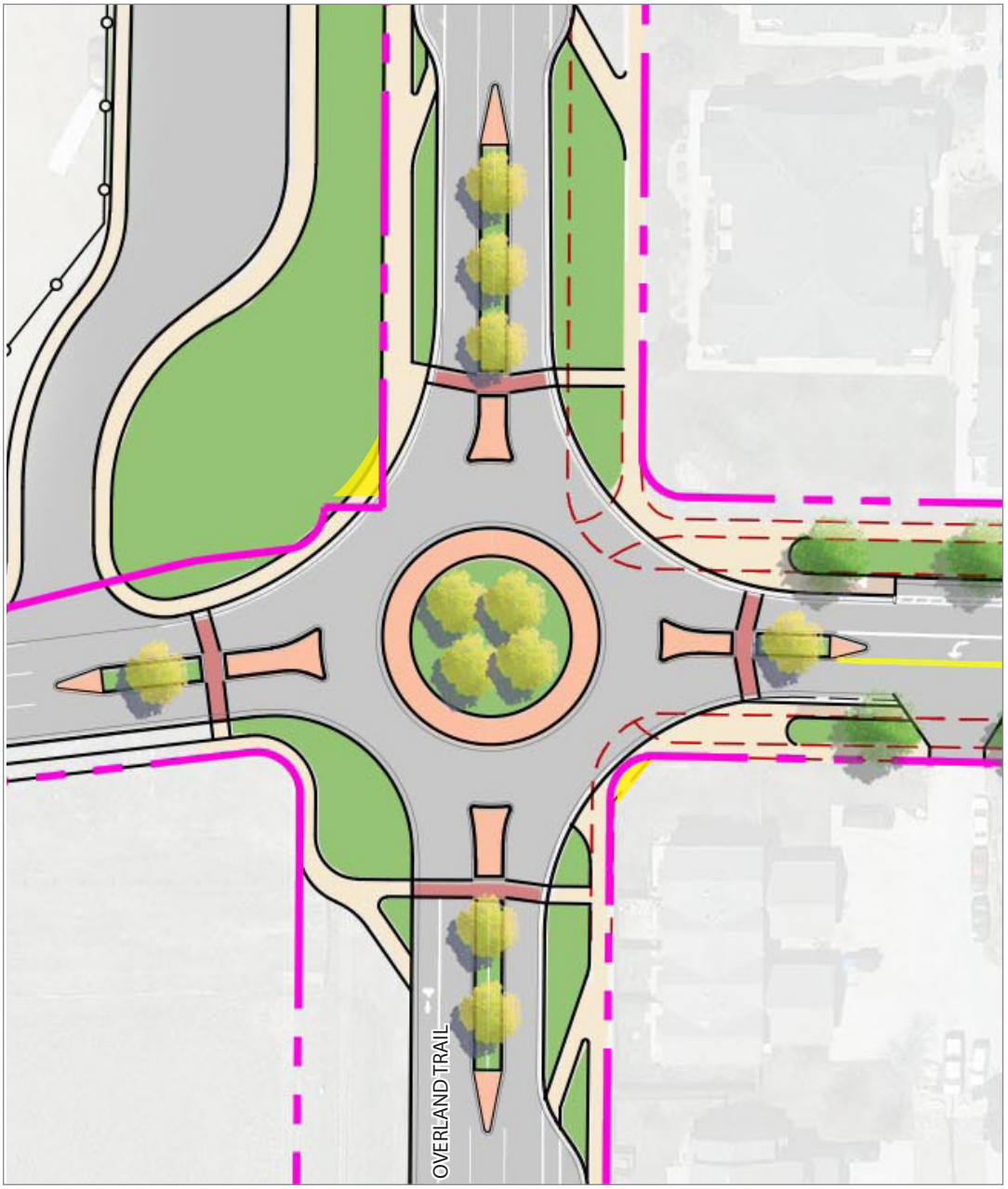


Figure 14: An aerial view of the Recommended Design at Taft Hill Road.

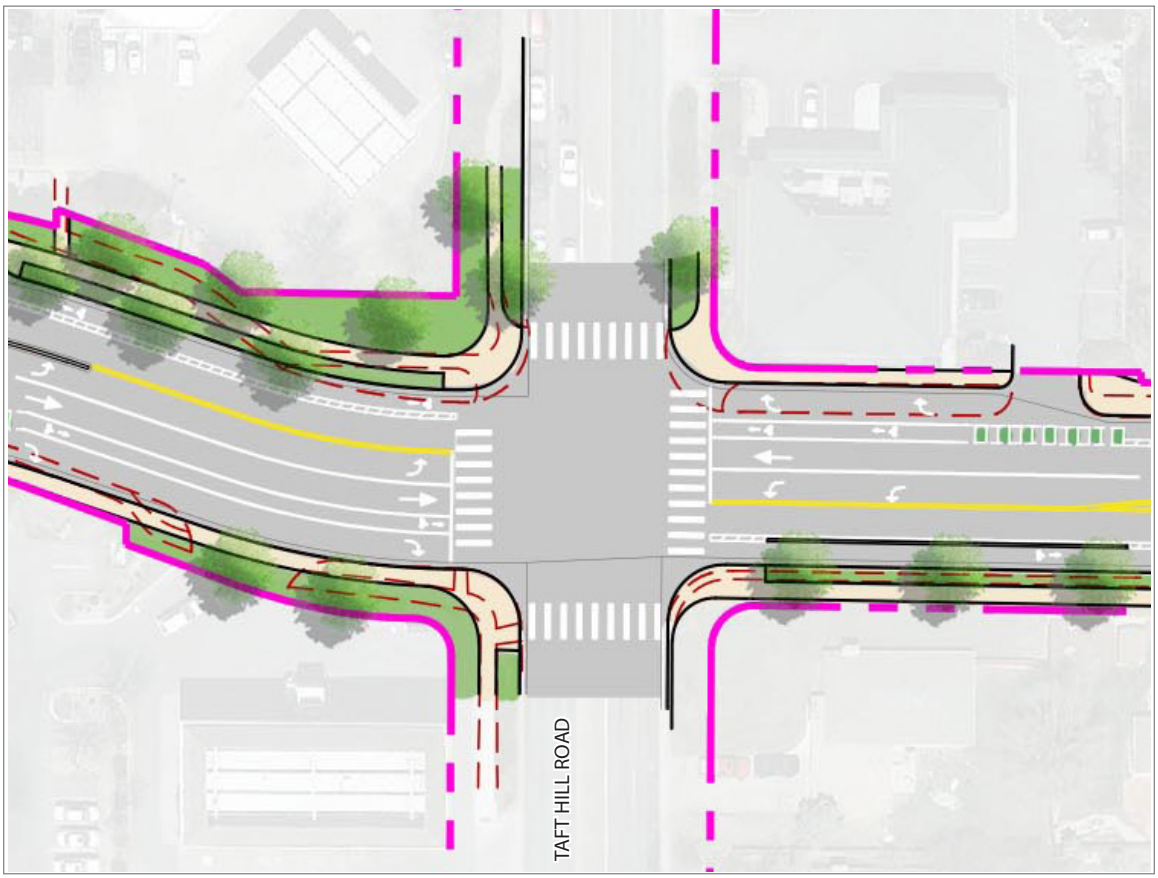


Figure 15: An aerial view of the Recommended Design at Constitution Avenue.

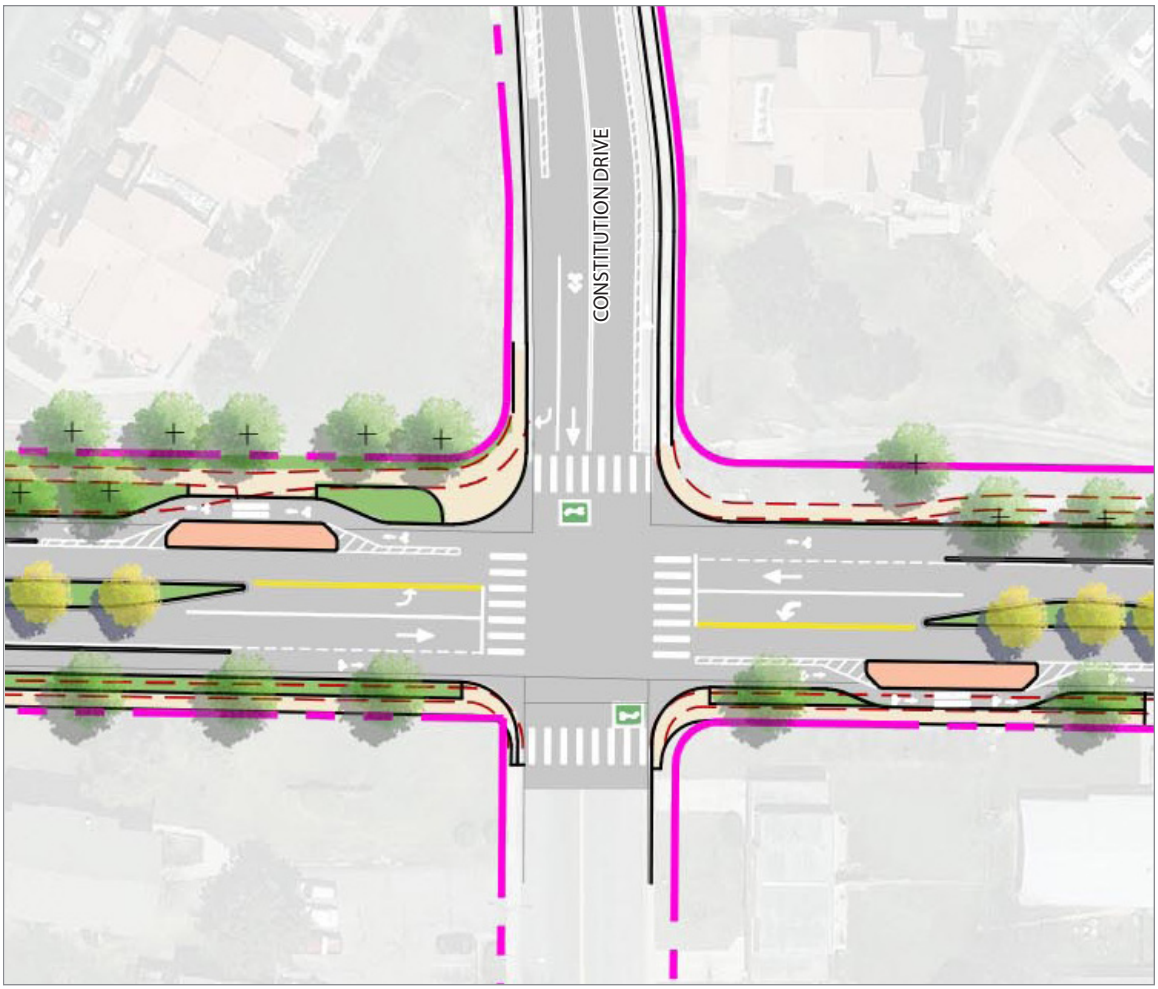


Figure 16: An aerial view of the Recommended Design at City Park Avenue.

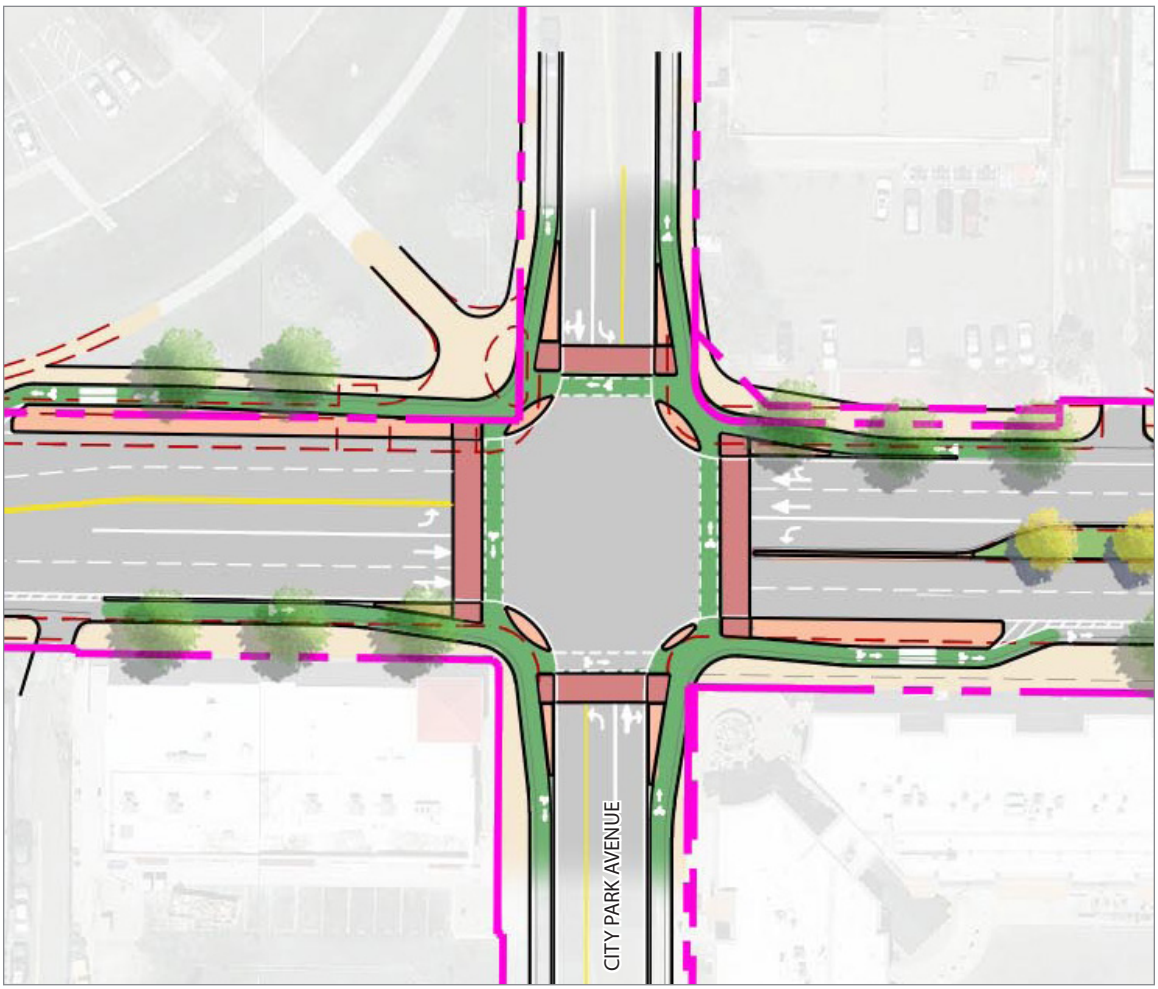
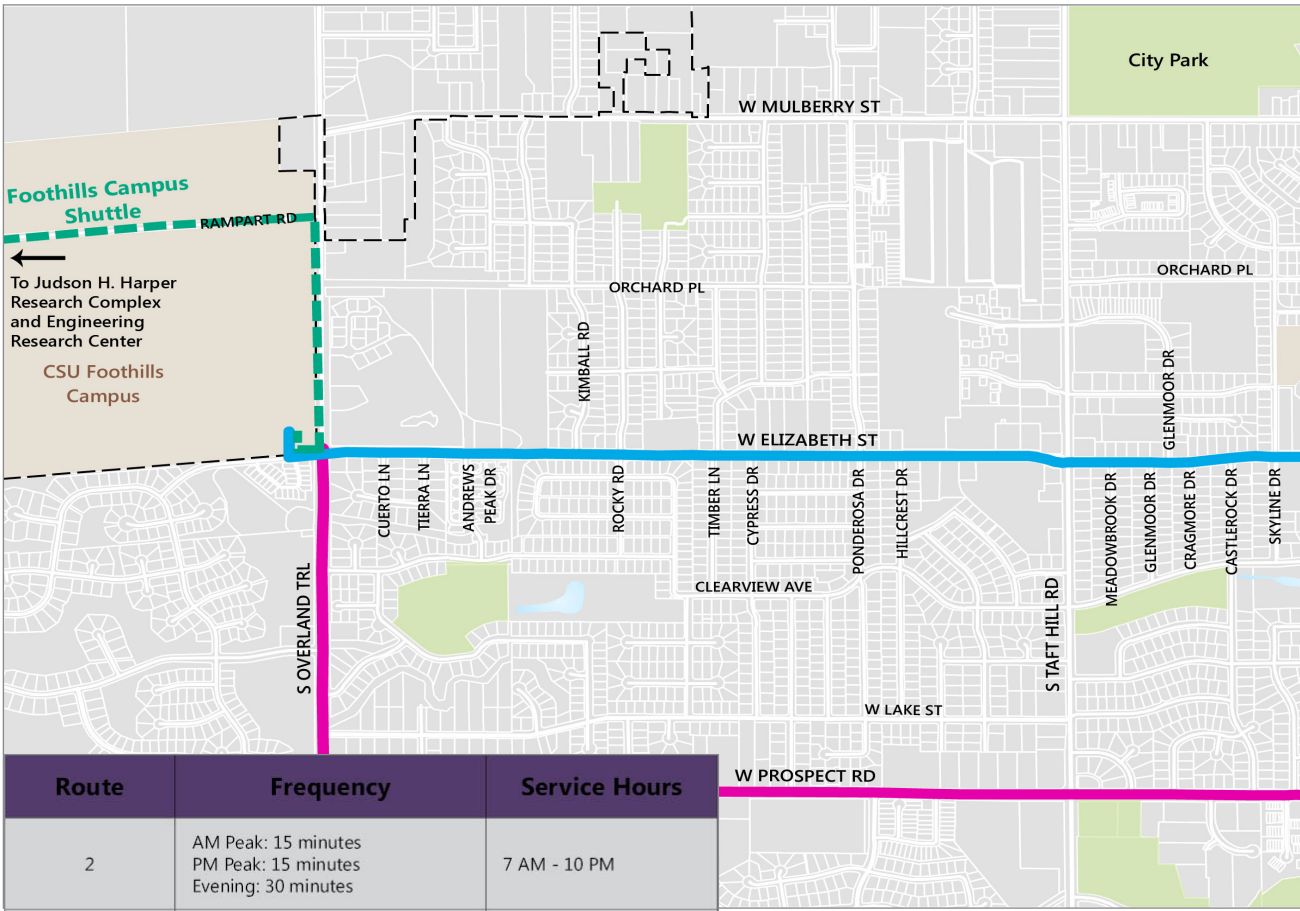
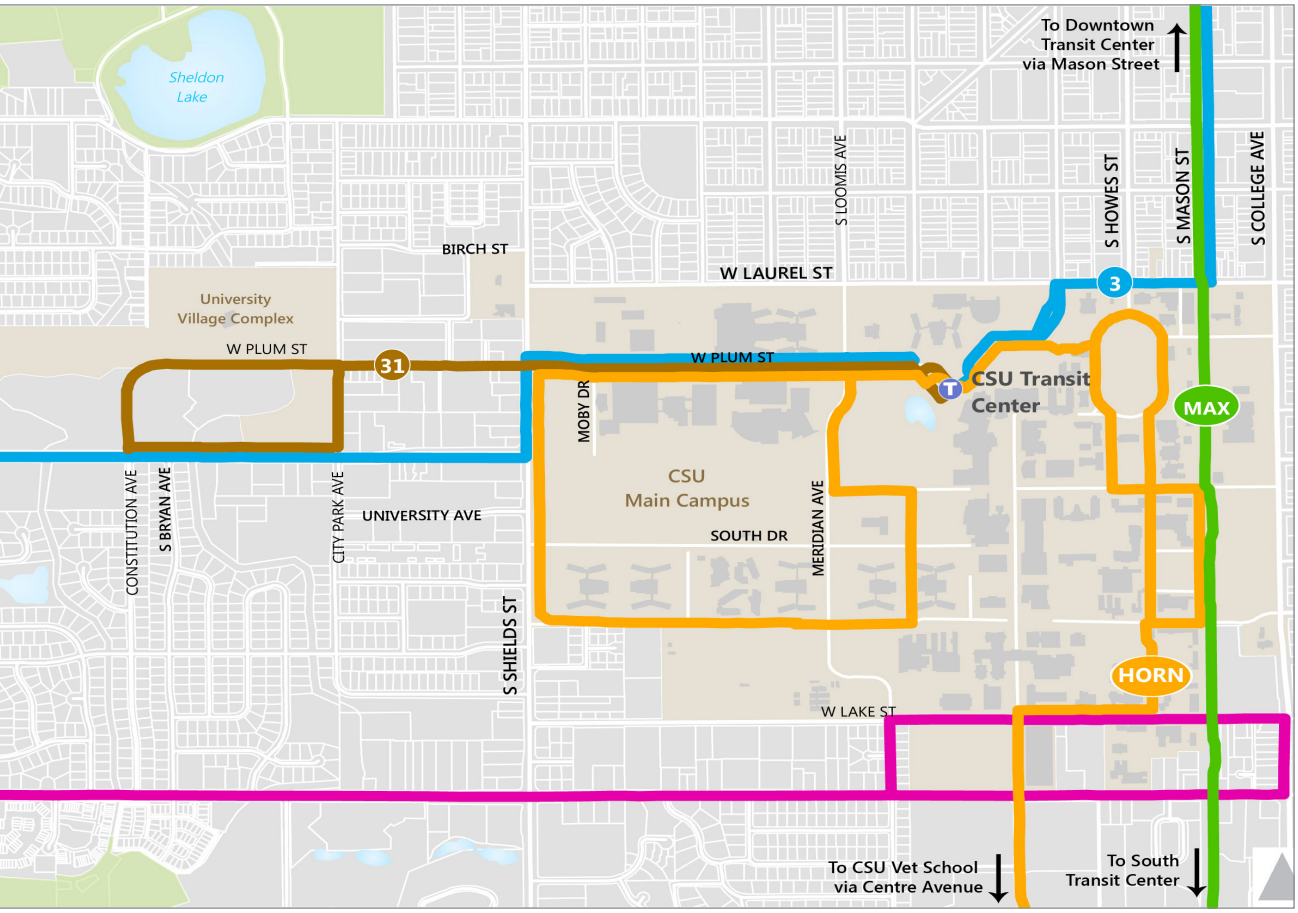


Figure 17: Recommended Design Transit Routes:

The Recommended Design's transit service will be frequent and provide premium amenities for transit patrons.



Route	Frequency	Service Hours
2	AM Peak: 15 minutes PM Peak: 15 minutes Evening: 30 minutes	7 AM - 10 PM
3	AM Peak: 10 minutes PM Peak: 10 minutes Evening: 30 minutes	7 AM - 10 PM
31	AM Peak: 5 minutes PM Peak: 5 minutes Evening: 10 minutes	7 AM - 7 PM
HORN	AM Peak: 10 minutes PM Peak: 10 minutes Evening: 20 minutes	6:30 AM - 8 PM
Foothills Campus Shuttle	All day: 30 minutes	7 AM - 7 PM



Recommended Design

Recommended Alignment

- Route 2
- Route 3
- Route 31
- Horn
- Foothills Campus Shuttle
- City Boundary
- Existing MAX Line

URBAN DESIGN AND PLANNING FOR REDEVELOPMENT

Planning for redevelopment, particularly in Campus West, ensures that the corridor is adaptable to future changes. Planning for redevelopment in Campus West is focused between Shields Street and City Park Avenue and assumes that the Recommended Design is otherwise complete on the corridor.

Land Use and Built Form

Existing properties have already begun to redevelop and additional redevelopment is likely in the future. The existing Land Use Code regulations set the stage for redevelopment that is intended to create a vibrant, pedestrian-oriented, mixed use commercial district. A variety of elements will contribute to this environment. Buildings will be multistory and oriented toward the street with parking behind. The buildings will feature a combination of public spaces such as courtyards, corner plazas, paseos or raised terraces. This plan is consistent with the *Campus West Community Commercial District Planning Study Report* (2001) recommending additional north-south connectivity toward Plum Street and University Avenue to break up the large blocks and improve the walkability to nearby destinations off of West Elizabeth Street.

Currently in the study area residential land uses are focused on Plum Street and commercial land uses are focused on West Elizabeth Street. Currently transit service in the study area is significantly influenced by home-to-school trips and is therefore focused on Plum Street. As Campus West redevelops, West Elizabeth Street may become the epicenter of both commercial and residential activity in the area. Such land uses would generate more diverse trip types using the transit system and may justify shifting the focus of transit service from Plum Street to West Elizabeth Street. Once land use patterns resulting in more diverse trip types are apt to occur on West Elizabeth Street, expansion of Bus Rapid Transit (BRT)-style transit to West Elizabeth Street may be viable.

Bus Rapid Transit-Style Service on West Elizabeth Street

Bus Rapid Transit (BRT) is a rapid transit mode that combines various physical, operating and system elements into a permanently integrated system with a quality image and unique identity. In Fort Collins MAX is an example of a service that features many of the elements typical of BRT, including dedicated right-of-way, specially designed stations and unique vehicles.

BRT-style service on West Elizabeth Street would operate similar to MAX, though not in a dedicated right-of-way, running along West Elizabeth Street from the CSU Foothills Campus Equine Center Park-n-Ride, through the CSU Main Campus (generally parallel to University Avenue), to Mason Street and continuing to Downtown Fort Collins and the Downtown Transit Center. Similar to Route 3, BRT-style service on Elizabeth Street would operate at 10 minute frequencies during the AM peak, midday and PM peak. In the evening it may operate at 15 or 30 minute frequencies.

In addition to supportive land use on West Elizabeth Street, BRT-style service will be most direct if it uses an alignment central to the CSU Main Campus generally parallel to University Avenue. Through the West Elizabeth Enhanced Travel Corridor Plan, CSU indicated that support does not currently exist for such an alignment. However, the City should continue to work with CSU to understand if support for this alignment may exist in the future. In the event that supportive land use forms on West Elizabeth Street without support from CSU for an alignment generally parallel to University Avenue, the City and CSU may choose to implement an interim BRT-style service on Plum Street.

A variety of BRT-supporting elements can be implemented once transit service is upgraded on West Elizabeth Street, including: branding, articulated buses, styled transit stations with shelters and seating, off board fare payment technologies and passenger information and wayfinding. Off board fare payment, whether with ticket machines or future ticketless technologies, would significantly reduce bus dwell time at stops as it would allow for all door boarding.

Each of these elements can be designed with a unique style to match that of the West Elizabeth Street corridor while still unifying the Transfort brand.

Other Infrastructure

Redevelopment and its resulting changes to the built form create a real opportunity to effect transportation infrastructure change in Campus West. Specifically, once properties are assembled and parceled, buildings can be located with regularly spaced, consolidated access points. Right-of-way can be dedicated on both sides of West Elizabeth Street to accommodate 12 foot sidewalks with a 10 foot amenity zone as currently identified in the ***Campus West Community Commercial District Planning Study Report*** (2001). Protected bike lanes, previously infeasible in Campus West due to the frequent spacing of driveways, can be constructed. And, a BRT stop can be provided midblock by relocating the existing midblock crosswalk. Other design considerations may include elements to improve environmental sustainability, such as bioswales built into parkways or center medians to help improve the water quality from runoff generated in the area.

The 16th Street Mall in Denver is an example of a roadway that successfully mixes transit vehicles with people walking or using mobility devices.

Urban Design

As a part of the West Elizabeth Enhanced Travel Corridor Plan's community engagement, an effort was made to understand what the community felt was the overriding character of the corridor. While there was not a strong consensus regarding the overall theme for West Elizabeth Street, many community engagement participants generally identified the corridor's already artful, unique feel which was attributed to the existing eclectic urban design and public art installations on the corridor (such as the foundations on street light poles in Campus West). Many community engagement participants also thought it would be appropriate to distinguish the design of Campus West from the CSU Main Campus.

Figure 18: Urban Design Elements:
Artful urban design elements will create a cohesive look and feel for the corridor.

Lighting

Seating

Walls

Wayfinding & Placemaking Elements

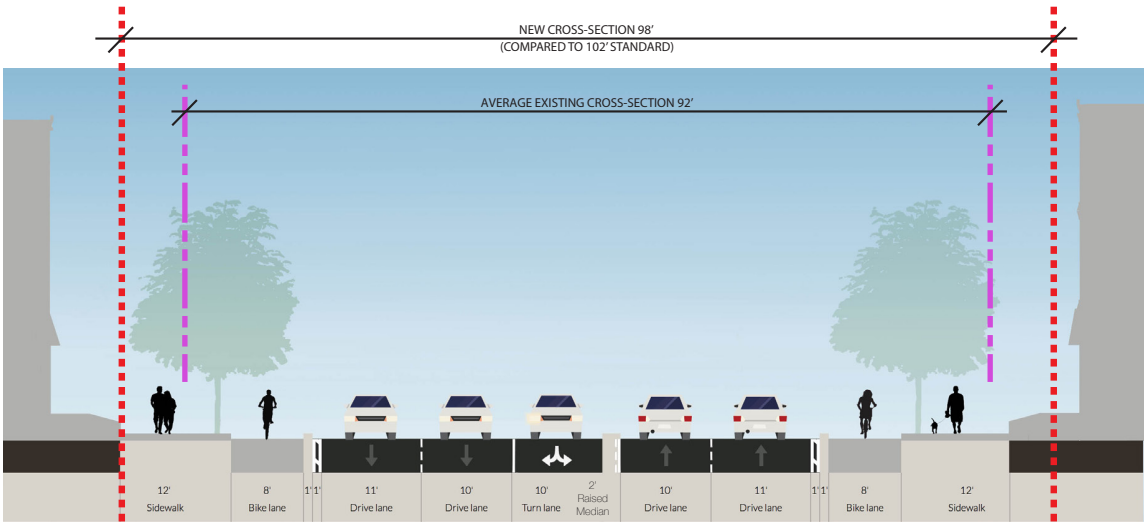
Transit Shelters

Covered Bike Parking

Planters

Bike Racks

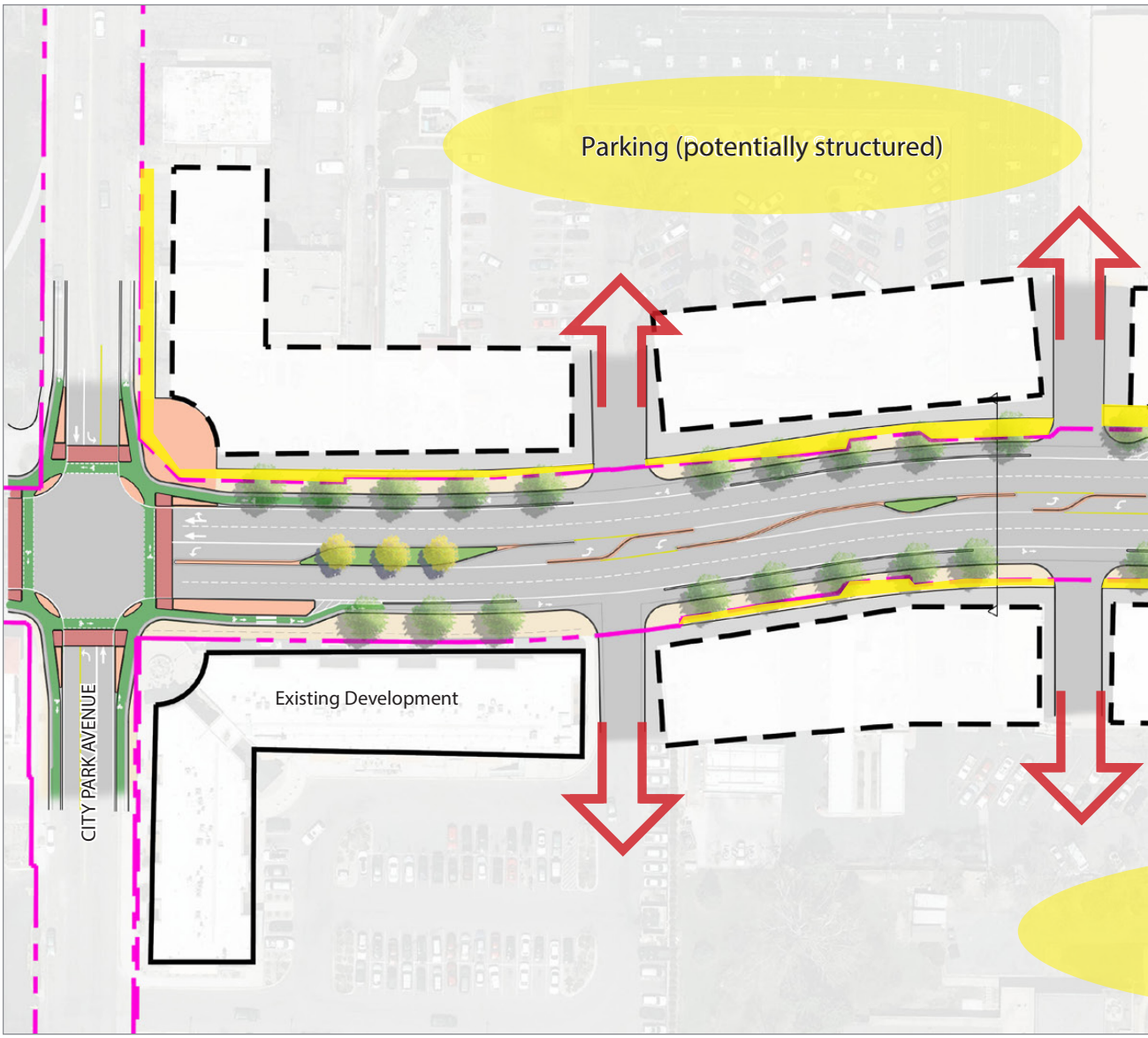
Figure 19: Planning for Redevelopment Cross Section:
A cross-section of the Recommended Design that plans for redevelopment between City Park Avenue and Shields Street.



City Park Avenue to Shields Street - Recommended Design With Redevelopment

Existing Condition in Campus West

Figure 20: Planning for Redevelopment Conceptual Design.
An aerial view of the Recommended Design that plans for redevelopment in Campus West. Key elements include: Buildings closer to the street, parking behind or underneath buildings (possibly structured), consolidated driveway access and a pedestrian spine connecting up to Plum Street and down to University Avenue.



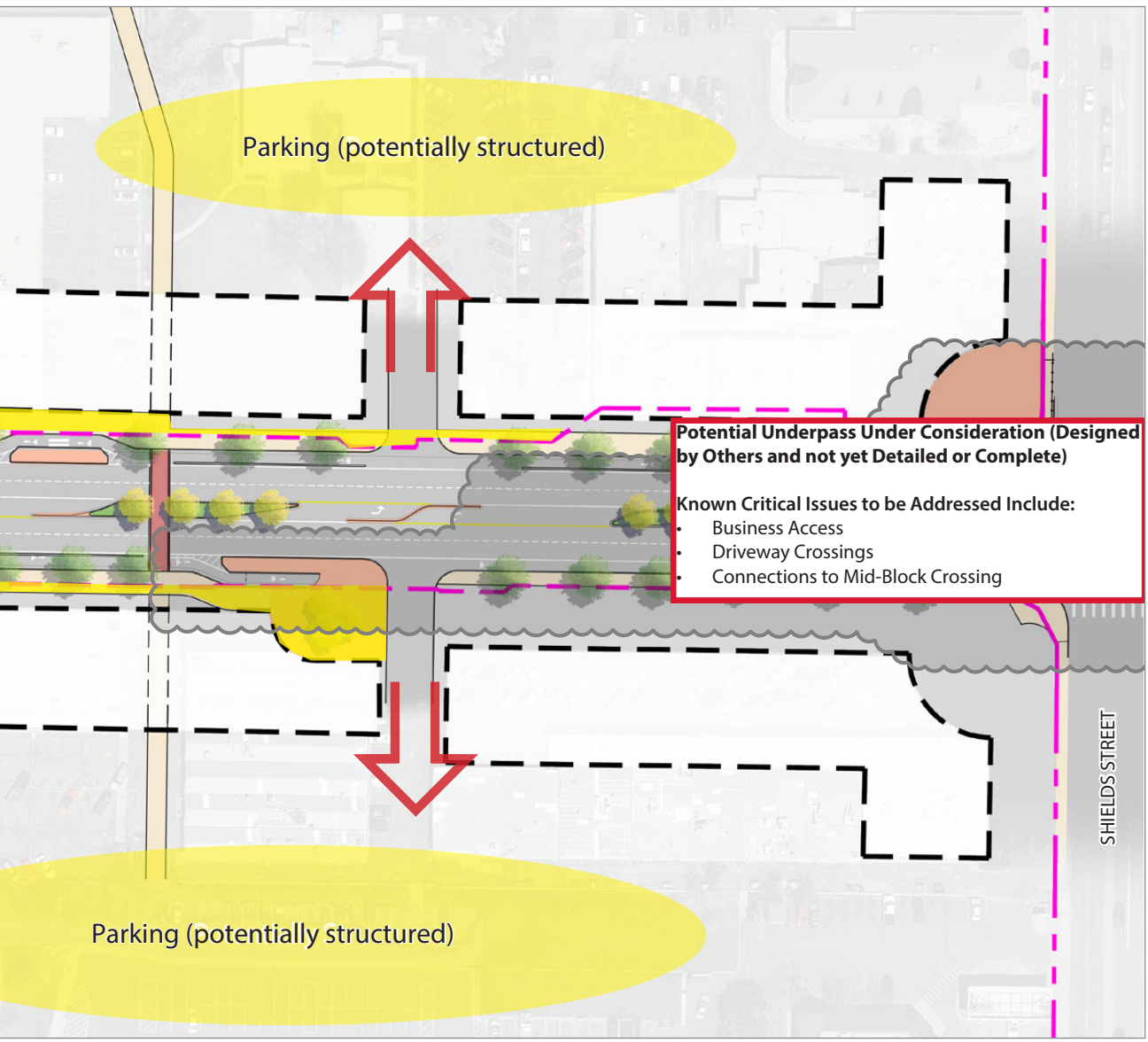
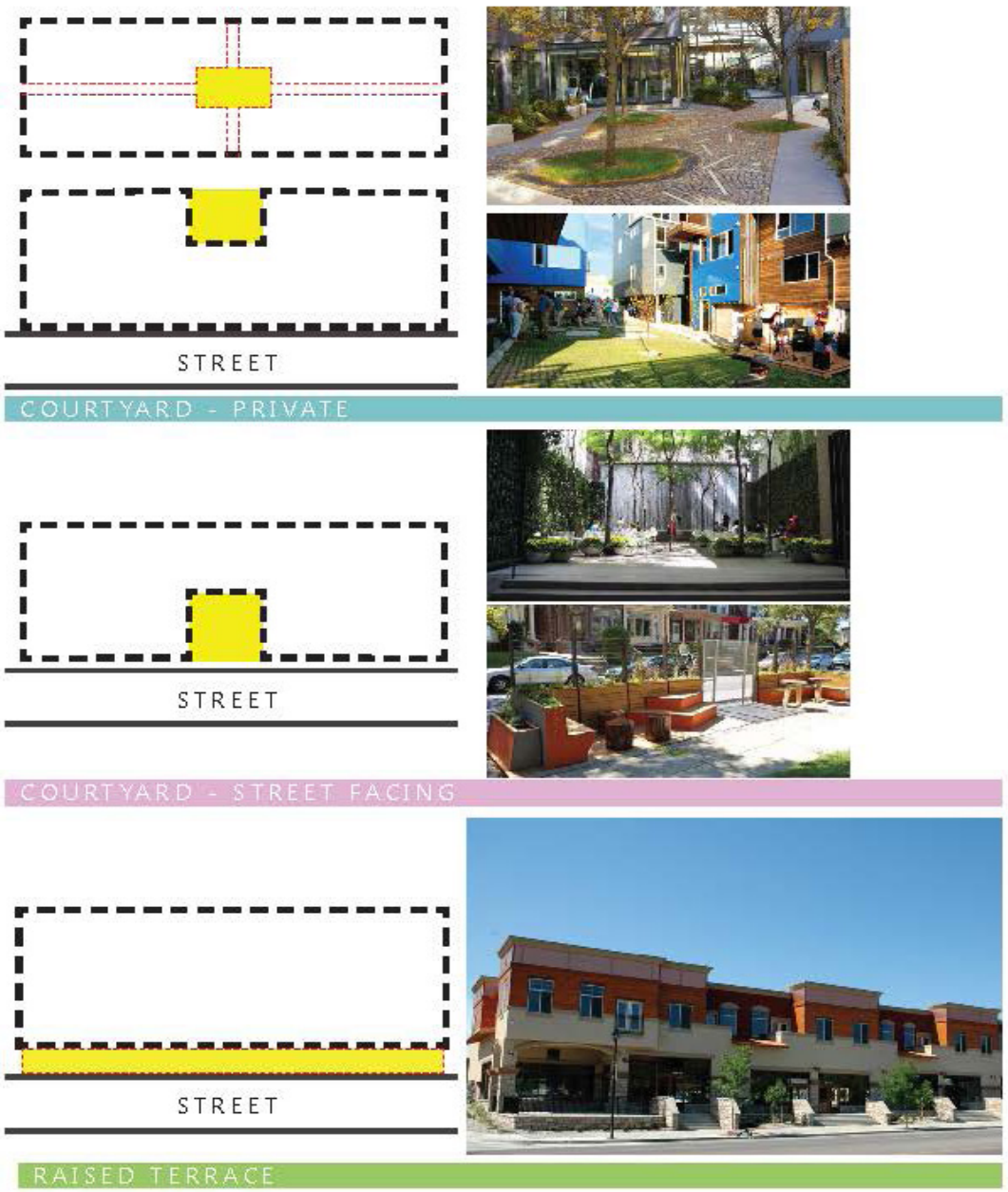
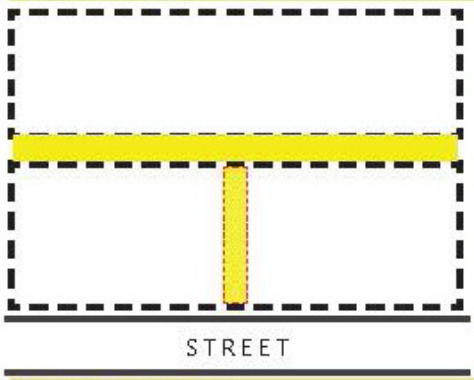

Parking (potentially structured)
Potential Underpass Under Consideration (Designed by Others and not yet Detailed or Complete)
Known Critical Issues to be Addressed Include:
• Business Access
• Driveway Crossings
• Connections to Mid-Block Crossing
SHIELDS STREET
Parking (potentially structured)

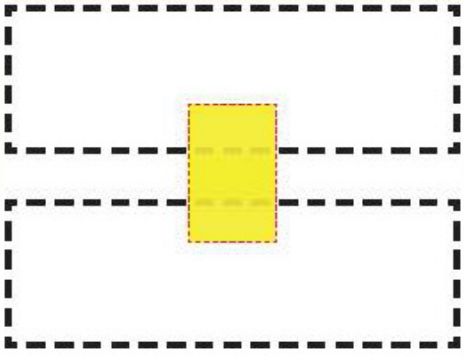
Figure 21: Planning for Redevelopment Urban Design.
With redevelopment, new buildings on Campus West will feature a variety of privately-owned public spaces such as courtyards, raised terraces, corner plazas and paseos.



CORNER PLAZA

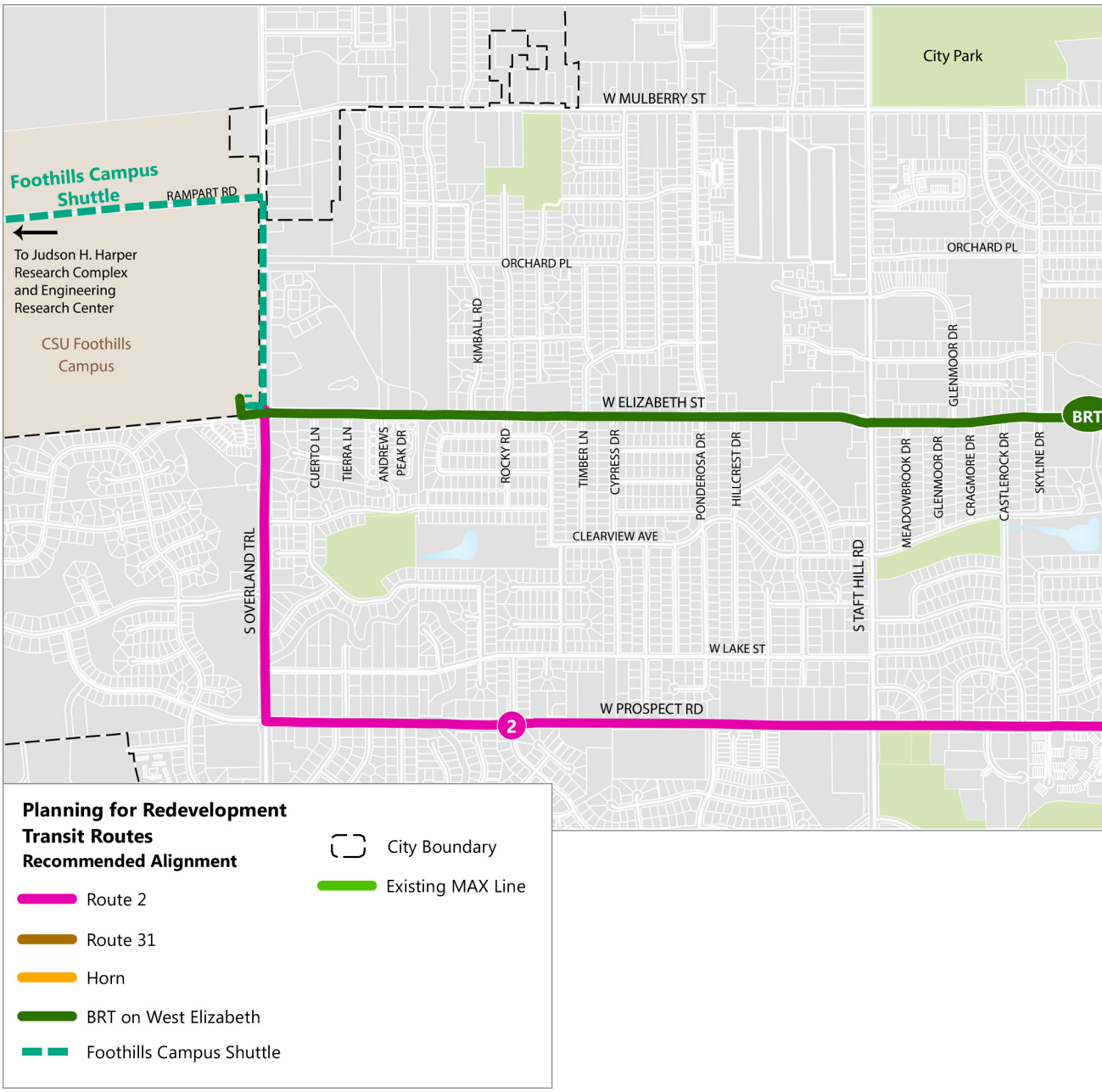


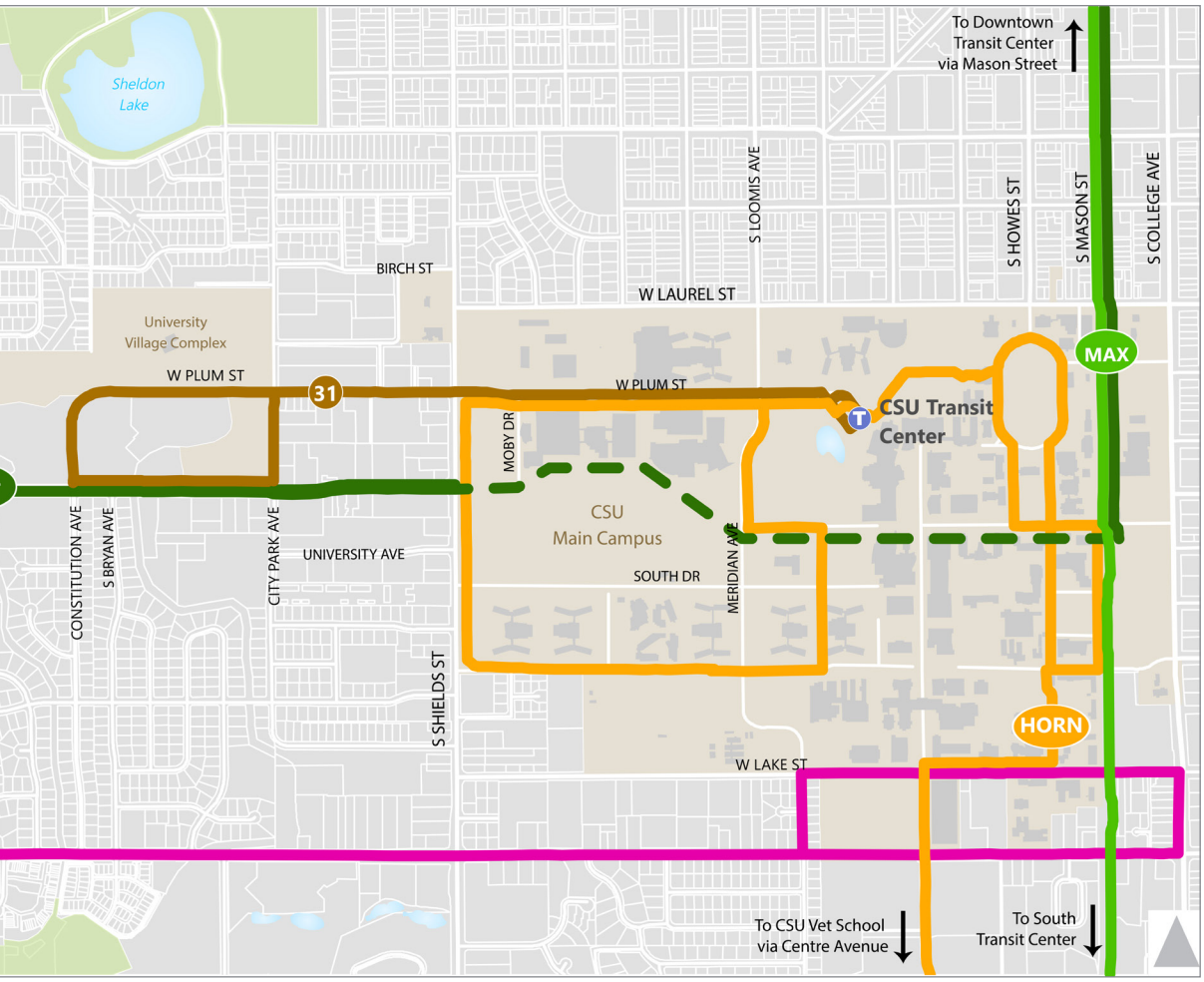
PASEO/ALLEY



CONNECTIVITY

Figure 22: Planning for Redevelopment Transit Routes:
Redevelopment in the corridor will be a catalyst for BRT-style transit service.





Through the West Elizabeth Enhanced Travel Corridor Plan, CSU indicated that support does not currently exist for such an alignment. However, the City should continue to work with CSU to understand if support for this alignment may exist in the future. In the event that supportive land use forms on West Elizabeth Street without support from CSU for an alignment generally parallel to University Avenue, the City and CSU may choose to implement an interim BRT-style service on Plum Street.

Recommendations recognize that study area roadways operate as a system and also includes elements on Constitution Avenue and Plum Street.

RECOMMENDATIONS FOR OTHER STREETS

Constitution Avenue & Plum Street

For people biking, the Recommended Design for Constitution Avenue and Plum Street from West Elizabeth Street to Shields Street includes buffered bike lanes, consistent with the recommendations of the City's Bicycle Master Plan (2014). West of City Park Avenue, an existing canal bridge is too narrow for both bike lanes and sidewalks. The Recommended Design includes the widening of this bridge to provide for continuous buffered bike lanes. Additionally, there are occasional obstructions in the sidewalk on Plum Street (including streetlight poles) and segments with narrow sidewalks that are not ADA-compliant; these obstructions would be removed as a part of the Recommended Design, and sidewalks would be upgraded through redevelopment to the benefit of people walking.

OTHER NETWORK CONSIDERATIONS

Parking

As transit is improved along West Elizabeth Street, there may be an increase in unintended park-n-ride activity in nearby neighborhoods and surface parking. This effect has been realized on the Mason Street corridor with the implementation of MAX. Recent increases in parking permit prices at CSU may further increase the likelihood of unintended park-and-ride activity. At the same time, CSU has invested over $1 million in biking, walking, and transit in an effort to reduce parking demand.

While the new Park-n-Ride at the CSU Foothills Campus Equine Center will, in part, alleviate demand for unintended park-and-ride activity by creating a formal area for it, additional parking management practices may be necessary. A Residential Parking Permit Program (RP3) may be necessary to control parking within single family neighborhoods. For multifamily housing and commercial properties, a new parking district may be more appropriate. In a parking district, participating property owners would pay into a common fund used to implement a parking

management and enforcement strategy. The City may also incur some of the costs of such a management and enforcement strategy. Existing zoning can inform where a Residential Parking Permit Program or Parking District may be appropriate; however, the exact boundaries for such programs will change year to year as development occurs and land uses change.

Car Share

Additional car share in the West Elizabeth Street study will provide personalized mobility for a variety of situations, especially corridor residents who take public transit but need a car sometimes or corridor residents who occasionally need a second car. Car share reduces the need for residents of the corridor to own a car and makes it easier for corridor residents and visitors to primarily rely on other modes (including bicycling, transit and walking) and access a car for special occasions.

Future focus areas for car share (i.e. areas in which car share will be more viable) include locations with high residential or employment density.

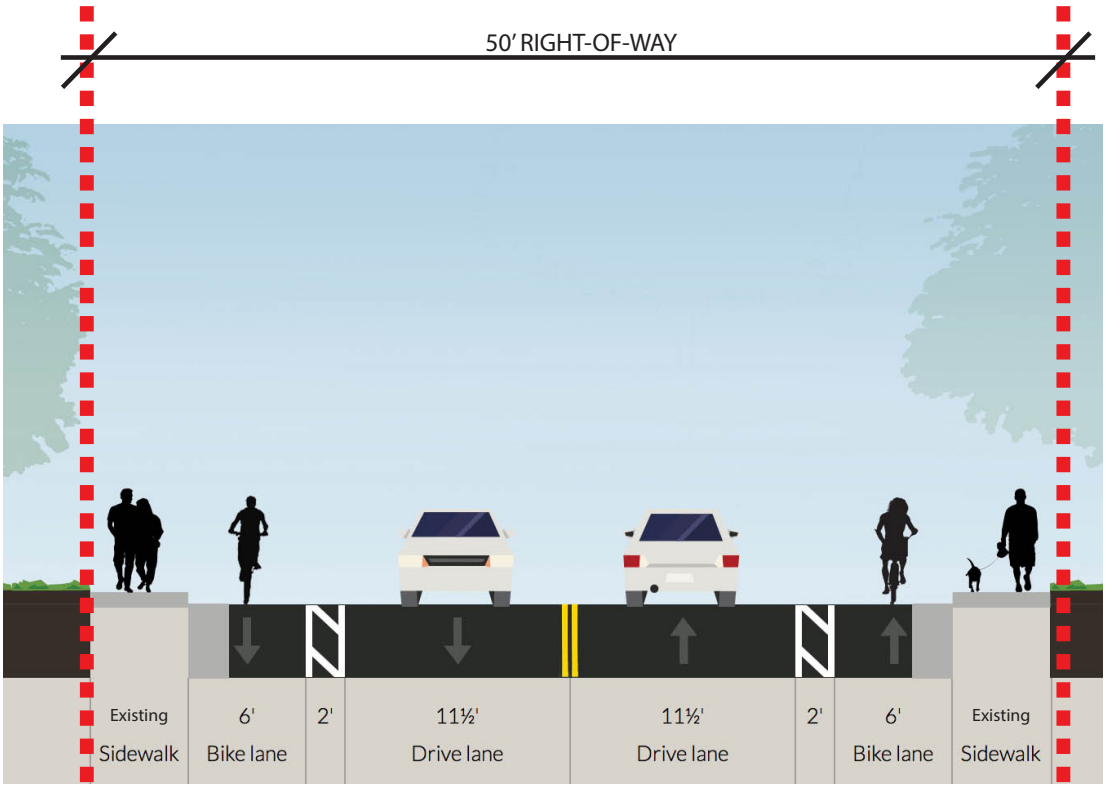
Bicycle Network

Through the development of the West Elizabeth Enhanced Travel Corridor Plan, revisions to the full build bicycle network in the Bicycle Master Plan were identified. Specifically, a neighborhood greenway is now recommended on Skyline Drive south of West Elizabeth Street to connect the bike lanes north of West Elizabeth Street to Avery Park and the Springfield Drive neighborhood greenway. In addition, Plum Street provides a low-stress alternative to biking on West Elizabeth. Through this plan, it is now recommended to have buffered bike lanes with a connection through University Village to Skyline (implemented summer 2016)

Bike Share

Bike share launched in Fort Collins in April 2016, and the City has a Bike Share Business Plan for future expansion of the system. CSU desires 10 to 15 stations on its Main Campus but currently has no plans for stations at the CSU Foothills Campus. Additionally, three high quality locations for bike share stations were identified in the Bike Share Business Plan in the West Elizabeth Street study area: near the Plum Street/City Park Avenue intersection, in Campus West and near the commercial land uses at the West Elizabeth Street/Taft Hill Road intersection.

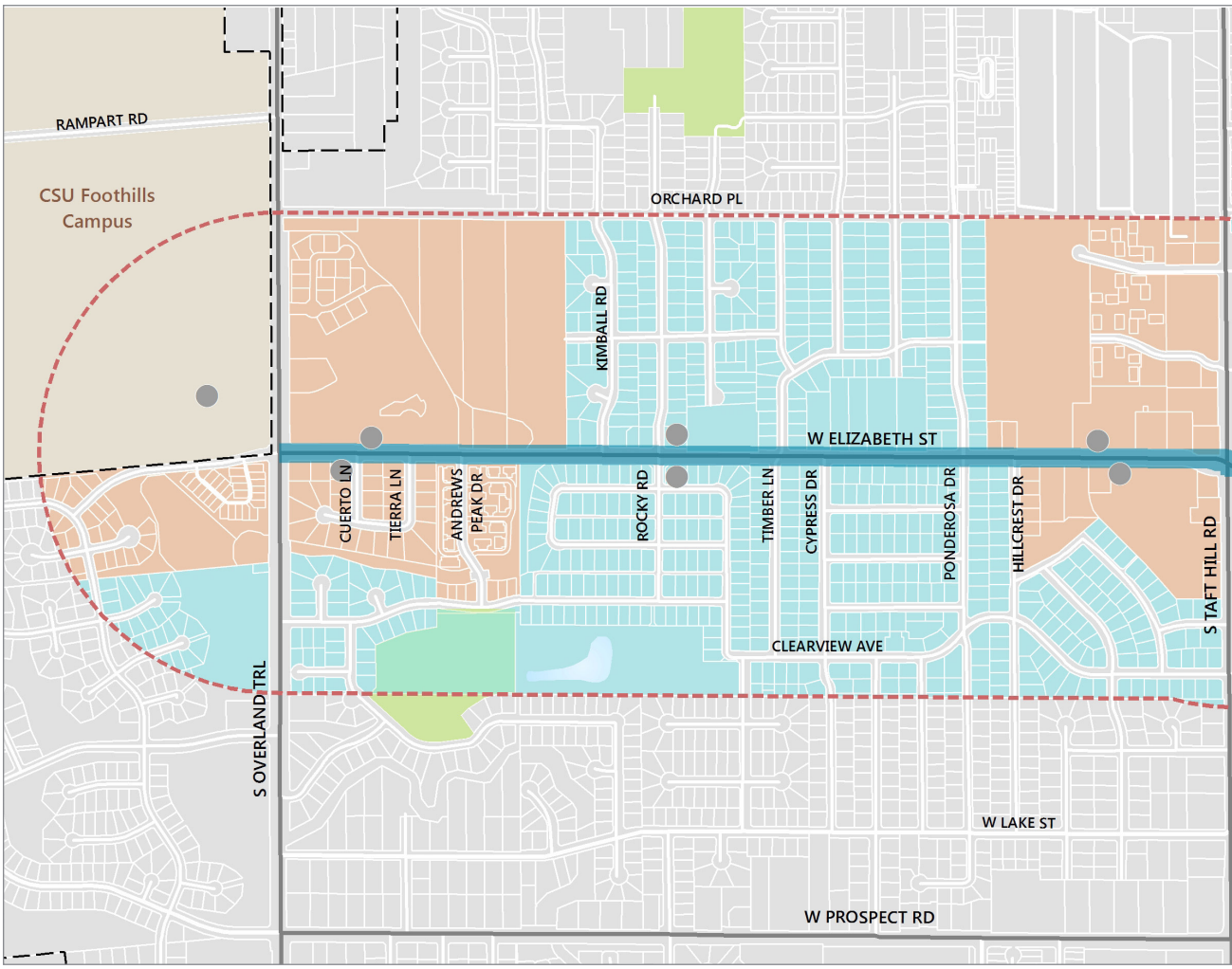
Figure 23: Recommended Design Cross Sections:
Constitution Avenue and Plum Street



Section: Plum Street/Constitution Avenue west of City Park Avenue


WAIT HERE
SHIELDS

Figure 24: Parking Management Focus Areas:
Parking management, either in the form of a Residential Parking Permit Program or a parking district, will help discourage undesired park-n-ride activity.



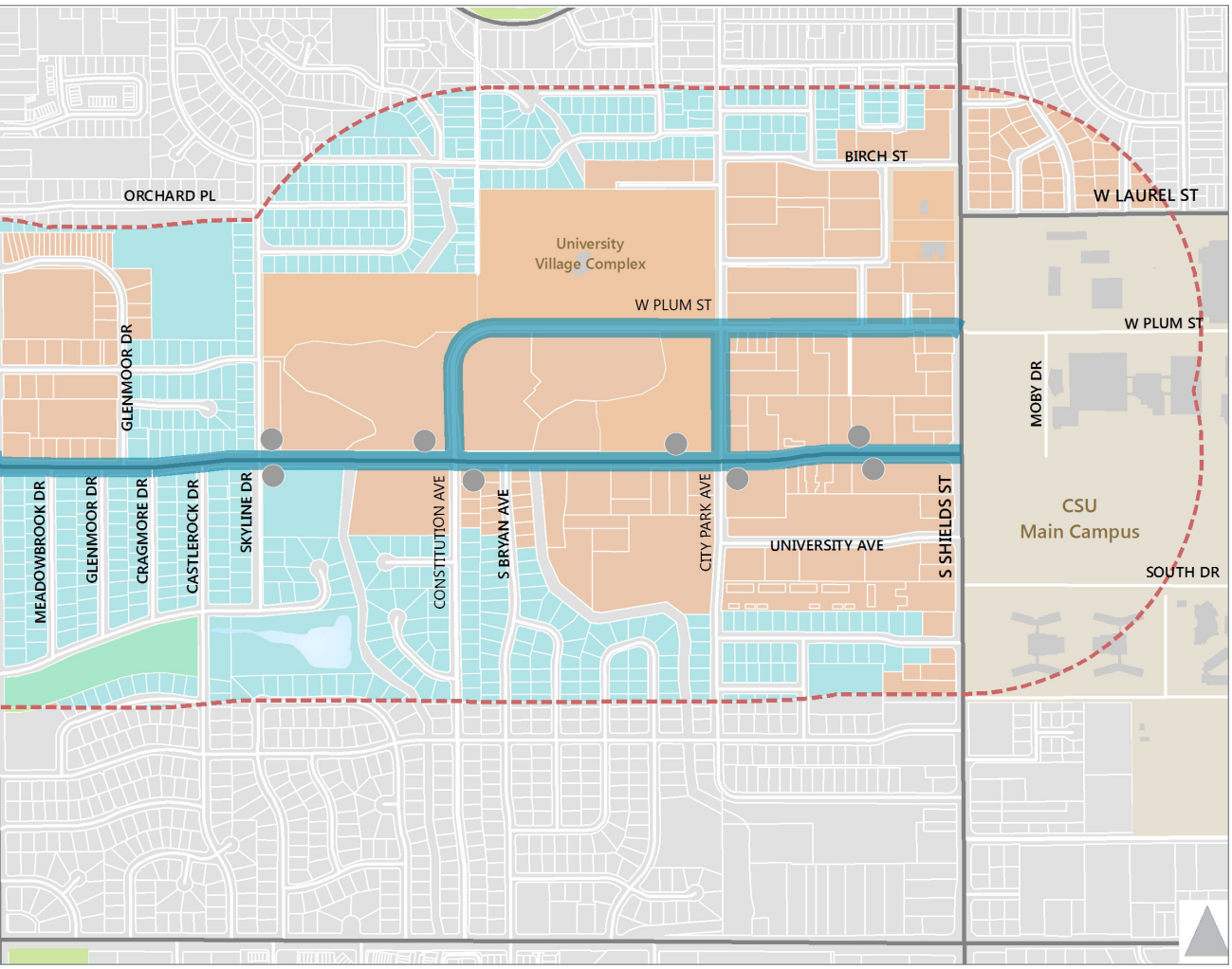
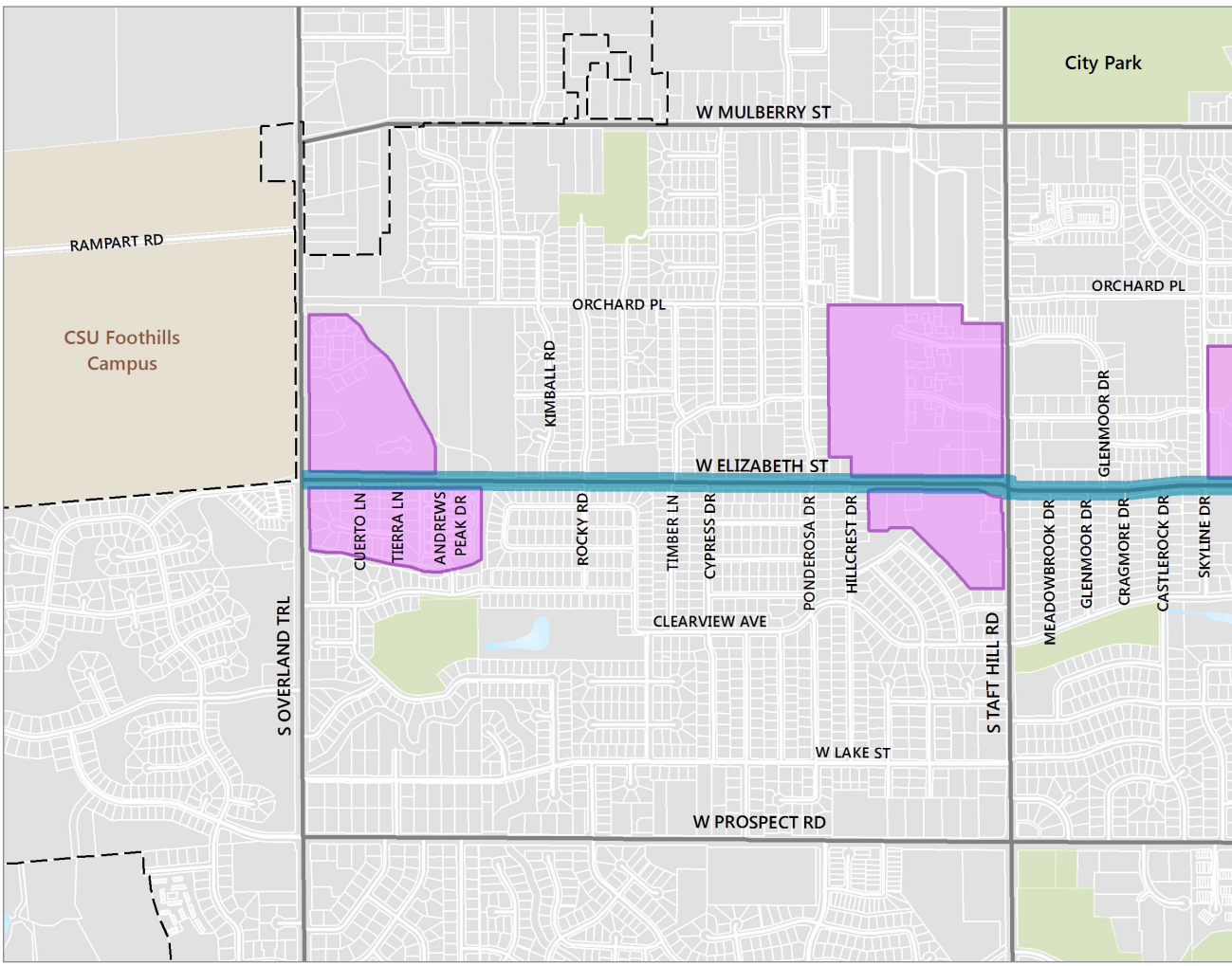

ORCHARD PL
BIRCH ST
W LAUREL ST
University
Village Complex
W PLUM ST
W PLUM ST
GLENMOOR DR
MOBY DR
MEADOWBROOK DR
GLENMOOR DR
CRAGMORE DR
CASTLEROCK DR
SKYLINE DR
CONSTITUTION AVE
S BRYAN AVE
CITY PARK AVE
UNIVERSITY AVE
S SHIELDS ST
CSU
Main Campus
SOUTH DR
1/4 Mile Study Corridor Buffer
Parking Management District Focus Areas
Residential Parking Permit Program Focus Areas
MAX Station (Phase 4)
West Elizabeth Street Study Corridor
City Boundary

Figure 25: Car Share:
Additional car share in the corridor will provide additional mobility options without owning a car.



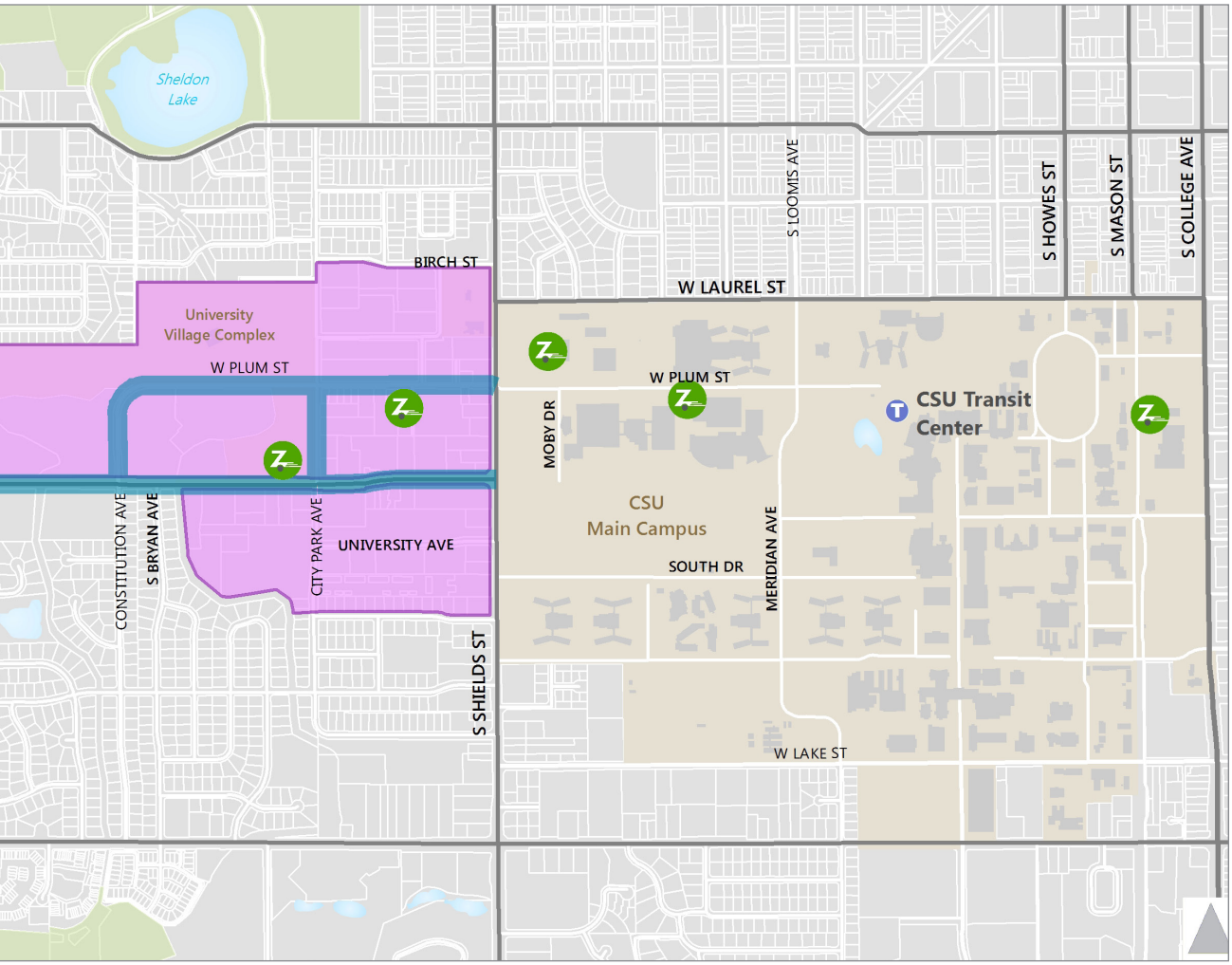
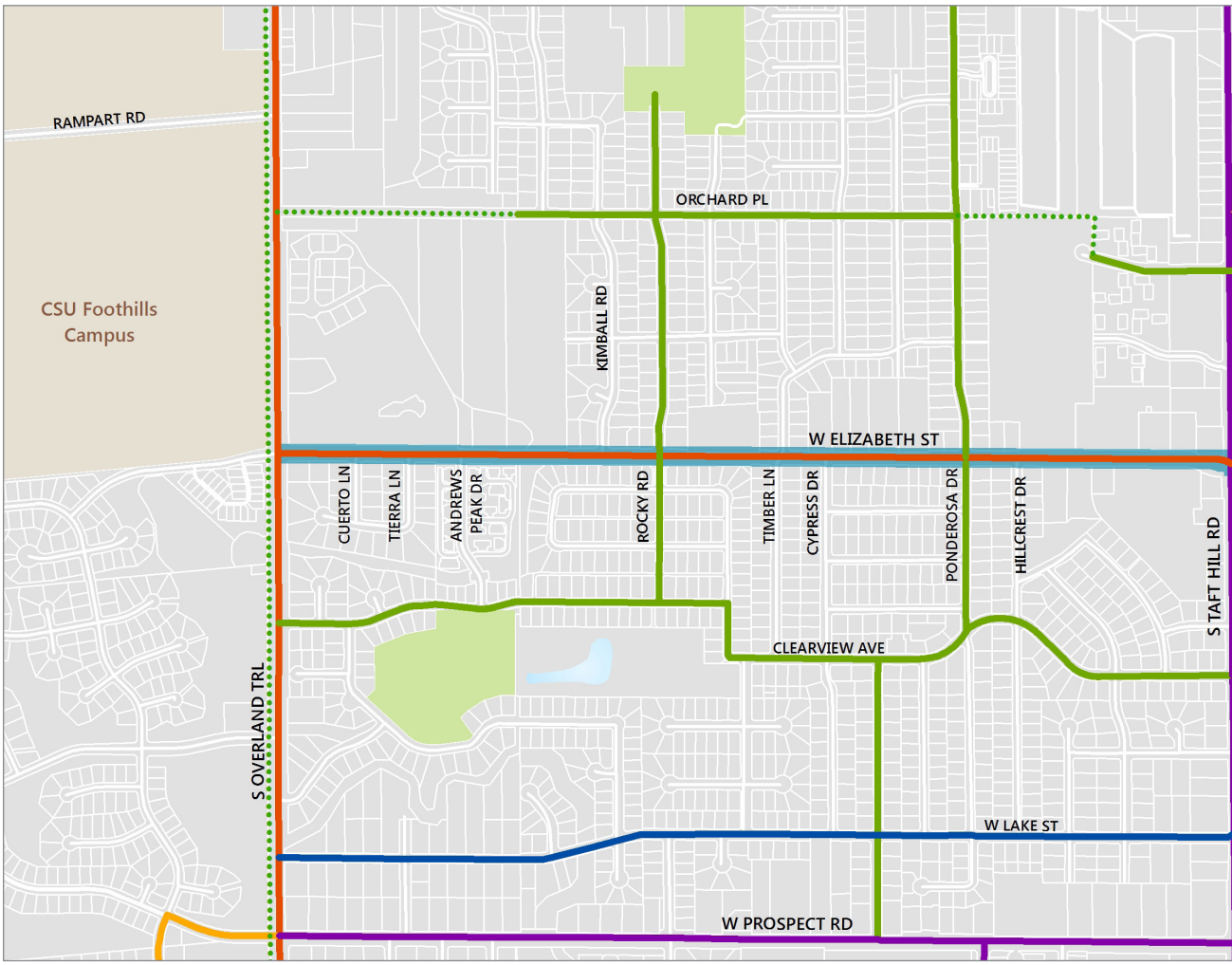
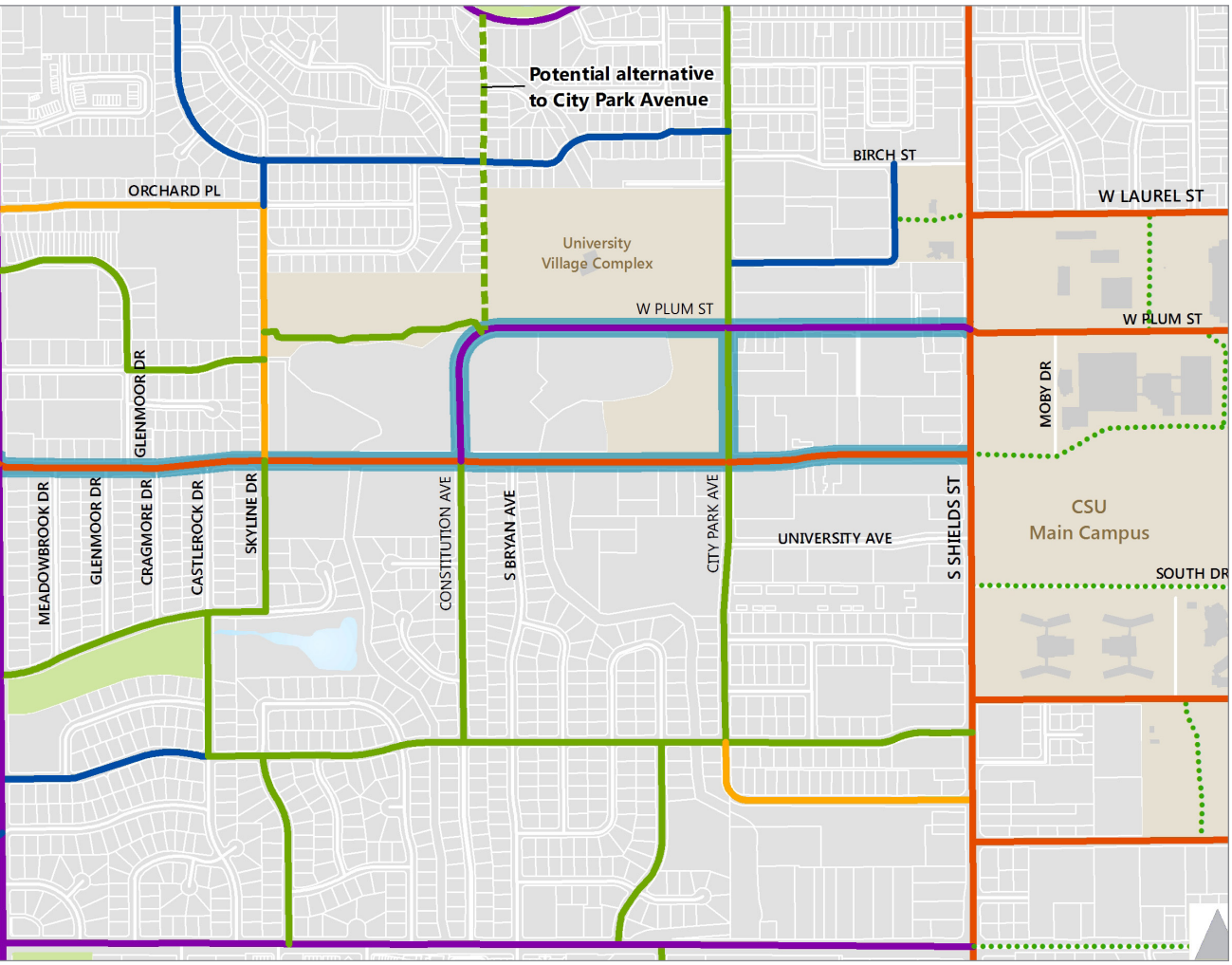

Sheldon Lake
BIRCH ST
University Village Complex
W PLUM ST
CONSTITUTION AVE
S BRYAN AVE
CITY PARK AVE
UNIVERSITY AVE
S SHIELDS ST
S LOOMIS AVE
W LAUREL ST
S HOWES ST
S MASON ST
S COLLEGE AVE
W PLUM ST
MOBY DR
CSU Transit Center
CSU Main Campus
SOUTH DR
MERIDIAN AVE
W LAKE ST
Existing Zipcar Location
Proposed Car Share Focus Area
West Elizabeth Street Study Corridor
City Boundary

Figure 26: Bike Network:
The West Elizabeth Enhanced Travel Corridor Plan is designed to integrate seamlessly with the citywide bicycle network.



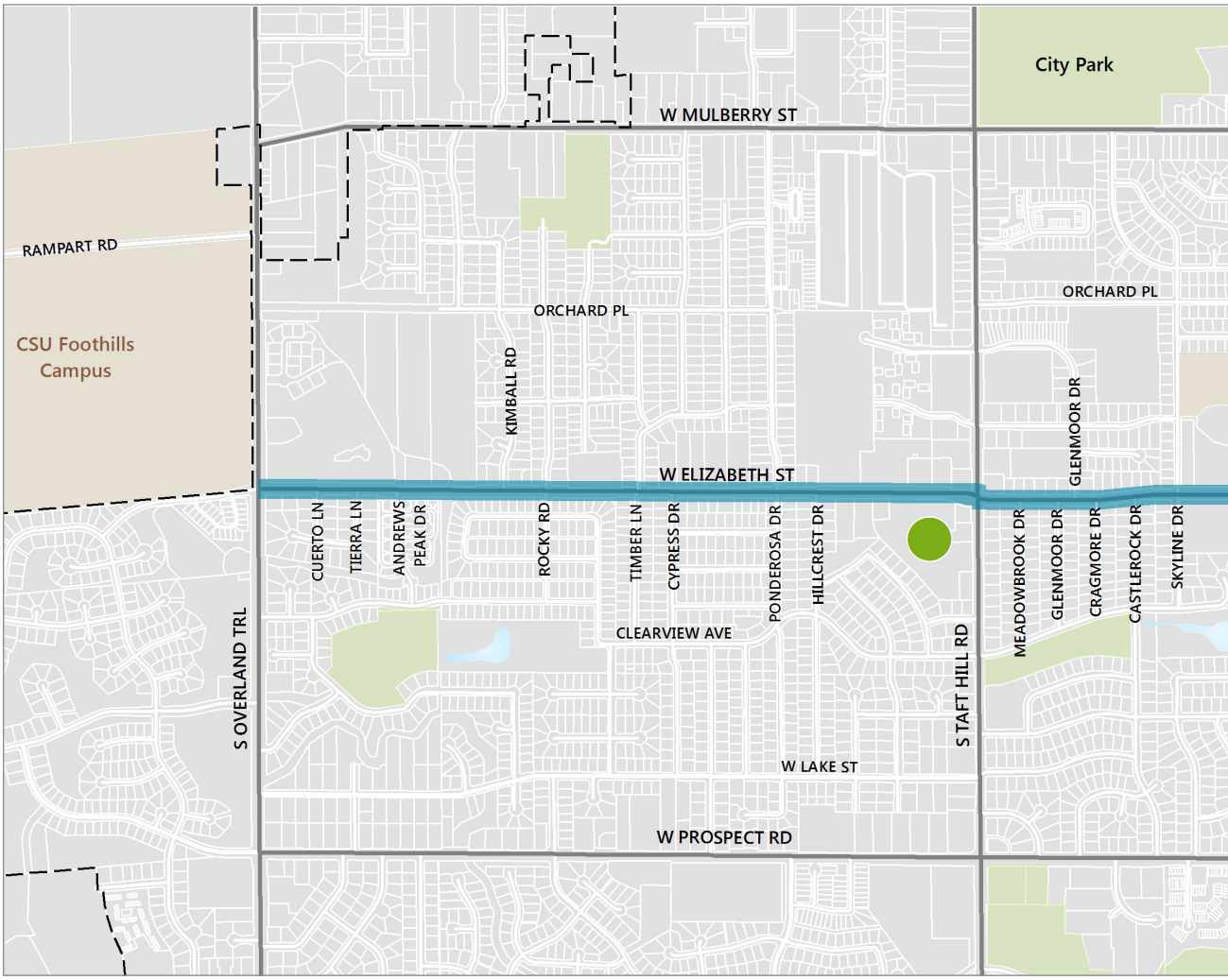


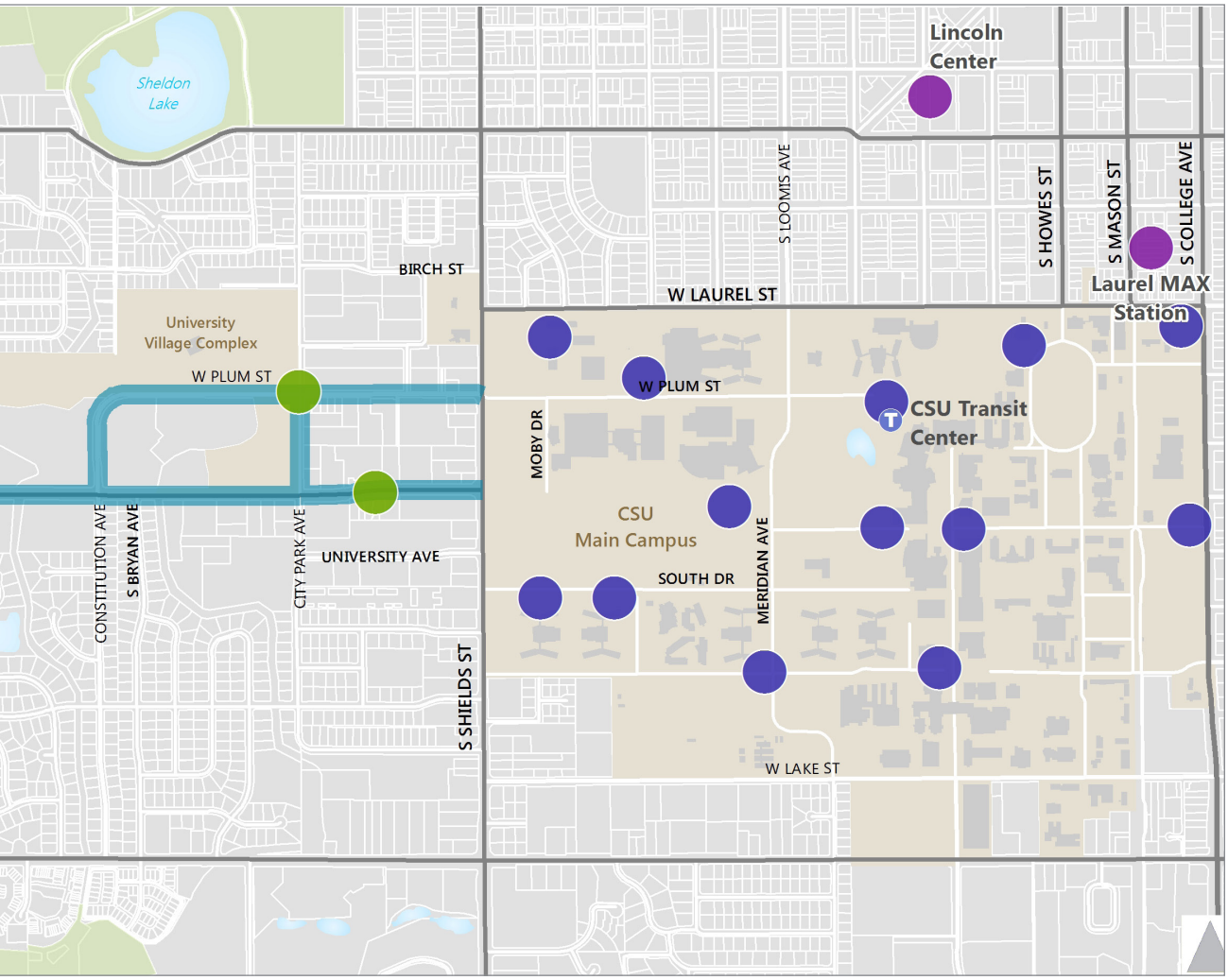
Bicycle Network Full Build Plan

- Buffered Bike Lane
- Bike Lane
- Neighborhood Greenway
- Neighborhood Greenway Alternative
- Protected Bike Lane
- Shared Lane Markings
- Shared-Use Path
- West Elizabeth Street Study Corridor
- City Boundary

Source: Fort Collins Bicycle Master Plan, 2014 (with updates from the West Elizabeth Enhanced Travel Corridor project)

Figure 27: Bike Share:
Bike share on the CSU Main Campus and on the West Elizabeth Street corridor will provide an additional mobility option in the area.




Sheldon Lake
Lincoln Center
S LOOMIS AVE
S HOWES ST
S MASON ST
S COLLEGE AVE
Laurel MAX Station
BIRCH ST
W LAUREL ST
University Village Complex
W PLUM ST
W PLUM ST
MOBY DR
CSU Transit Center
CSU Main Campus
CONSTITUTION AVE
S BRYAN AVE
CITY PARK AVE
UNIVERSITY AVE
SOUTH DR
MERIDIAN AVE
S SHIELDS ST
W LAKE ST
Existing Bike Share Station Locations
Recommended Bike Share Station Locations
CSU Desired Bike Share Station Locations
West Elizabeth Street Study Corridor
City Boundary

FULFILLING THE PROJECT VISION

The Recommended Design was specifically developed to the fulfill project Vision:

- **Be unique and adaptable** to the distinctive characteristics of each corridor segment

  The Recommended Design is context sensitive proposing different treatments throughout the corridor.
  Examples include:
  Phased implementation – improvements are recommended to be phased-in over time and as properties redevelop to adapt to the changing demands in the corridor, including transit service and bicycle and pedestrian facilities.)

  Bicycle facility design – protected and buffered bike lanes adapt to the context of the surrounding area.

  Sidewalk network – pedestrian facilities differ throughout the corridor to create a complete pedestrian network while minimizing impacts to private property.

  Travel lanes – the number of travel lanes in the corridor varies depending on traffic volumes.

- **Be safe and comfortable** for all users

  The Recommended Design emphasizes safety and comfort by integrating the following improvements:
  Bus stop islands – convenient, easily accessible bus stops with enhanced amenities to improve patron comfort and safety.

  Bicycle facility design – protected or buffered bike lanes and the pilot of a protected intersection at West Elizabeth Street/ City Park Avenue improve comfort and safety for people biking.

  North/south crossings – additional north/south crossings are recommended to improve the comfort and safety of crossing West Elizabeth Street.

Street design – medians, parkways, pedestrian crossings and a roundabout are recommended to calm traffic and reduce conflict points between users.

- **Encourage and prioritize public transportation** and active transportation options

  The Recommended Design encourages and prioritizes public transportation and active transportation options through the following treatments:

  Premium/high-frequency transit service – transit service is high-frequency with enhanced passenger amenities, including bus stop islands that help reduce bus dwell time and delay pulling back into traffic

  Protected/buffered bike lanes and bus stop islands – bicycling is encouraged by improved separation from vehicles via protected/buffered bike lanes and a bike lane behind bus stop islands

  Sidewalk network – the pedestrian environment is improved to help encourage more walking in the corridor

- **Support the interconnectivity** of all modes

  The Recommended Design supports interconnectivity for all modes through the following:

  Improved bus stops – integration of bike parking and premium passenger amenities at stops make it easier to walk or bike to transit.

Park-n-Ride and future parking considerations – a Park-n-Ride is recommended at the CSU Foothills Campus Equine Center to decrease the need for people driving from far away to park at CSU Main Campus. Additionally, a parking district is recommended at key areas in the corridor to decrease informal park-n-ride activity as transit service is enhanced.

- **Be a beautiful and vibrant** corridor

  The Recommended Design provides for a beautiful and vibrant corridor through the following enhancements:

  Sidewalk network – the pedestrian environment is improved to include parkways with landscaping between the sidewalk and adjacent travel lanes.

  Street design – the street design includes medians with landscaping to help beautify the corridor.

  Urban design – unique, artful urban design elements will be incorporated into the public realm and the private realm.

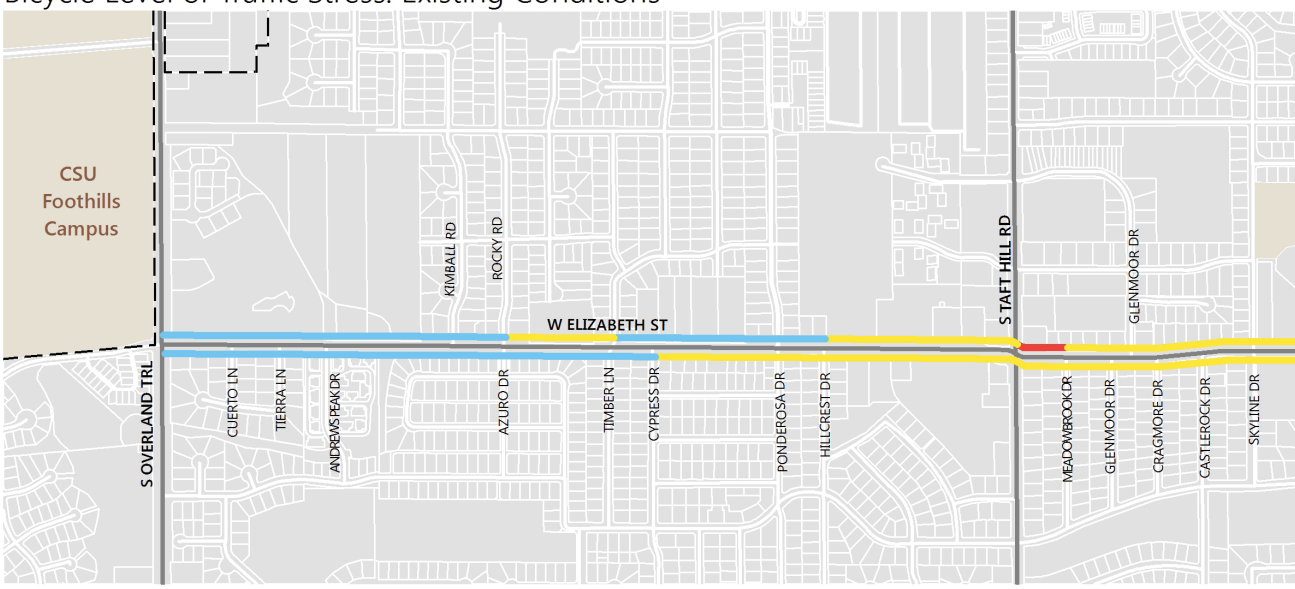
  Redevelopment – future redevelopment in the Campus West area will provide privately-owned public spaces that foster a vibrant environment for corridor visitors.

Appendix F describes how the West Elizabeth Enhanced Travel Corridor Plan responds to the Project Need.

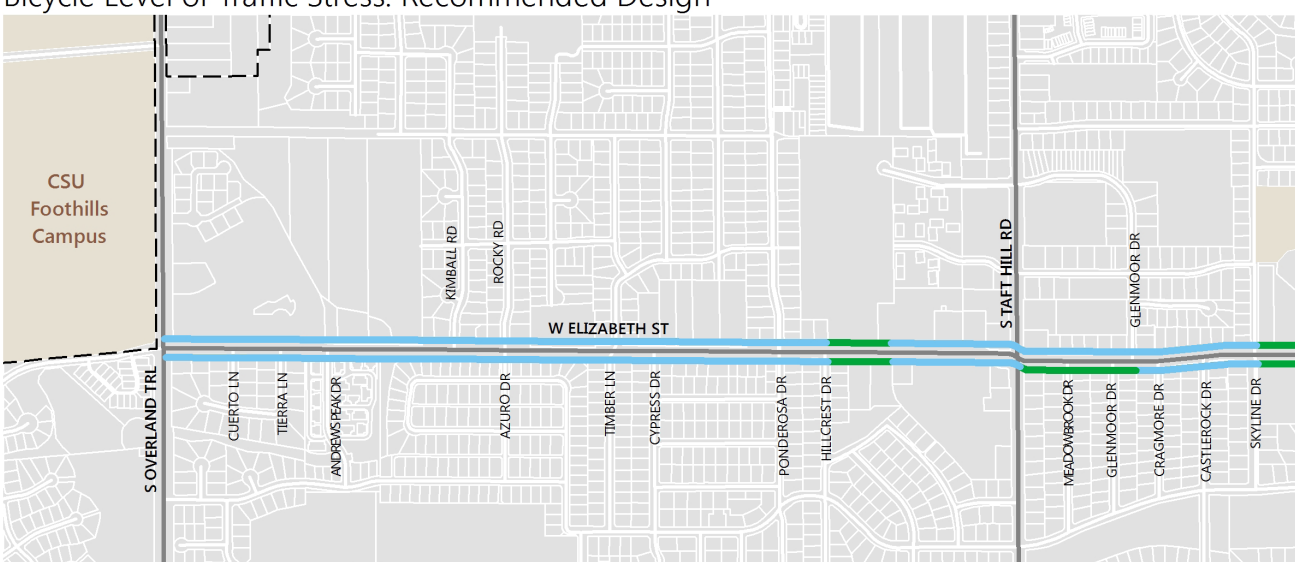
Figure 28: Multi-modal Level of Service (MMLOS) Before/After: Bicycle

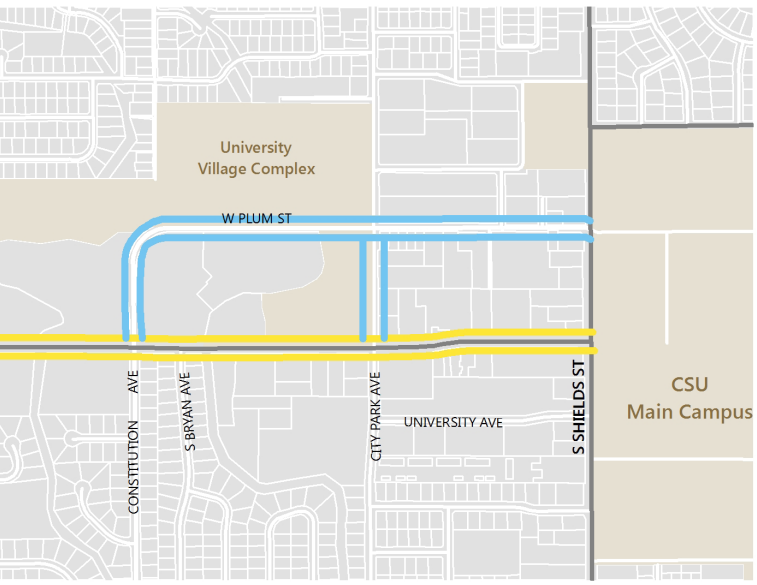
MMLOS for bicyclists significantly improves with implementation of the Recommended Design.

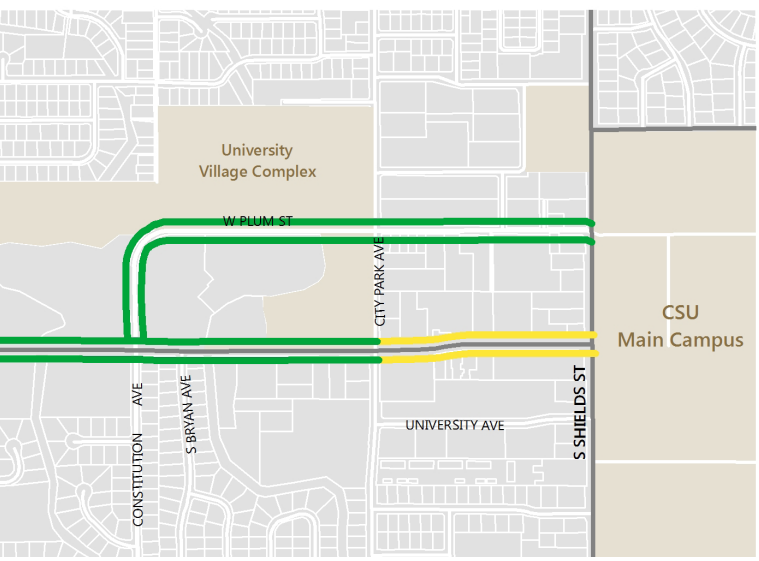
Bicycle Level of Traffic Stress: Existing Conditions



Bicycle Level of Traffic Stress: Recommended Design







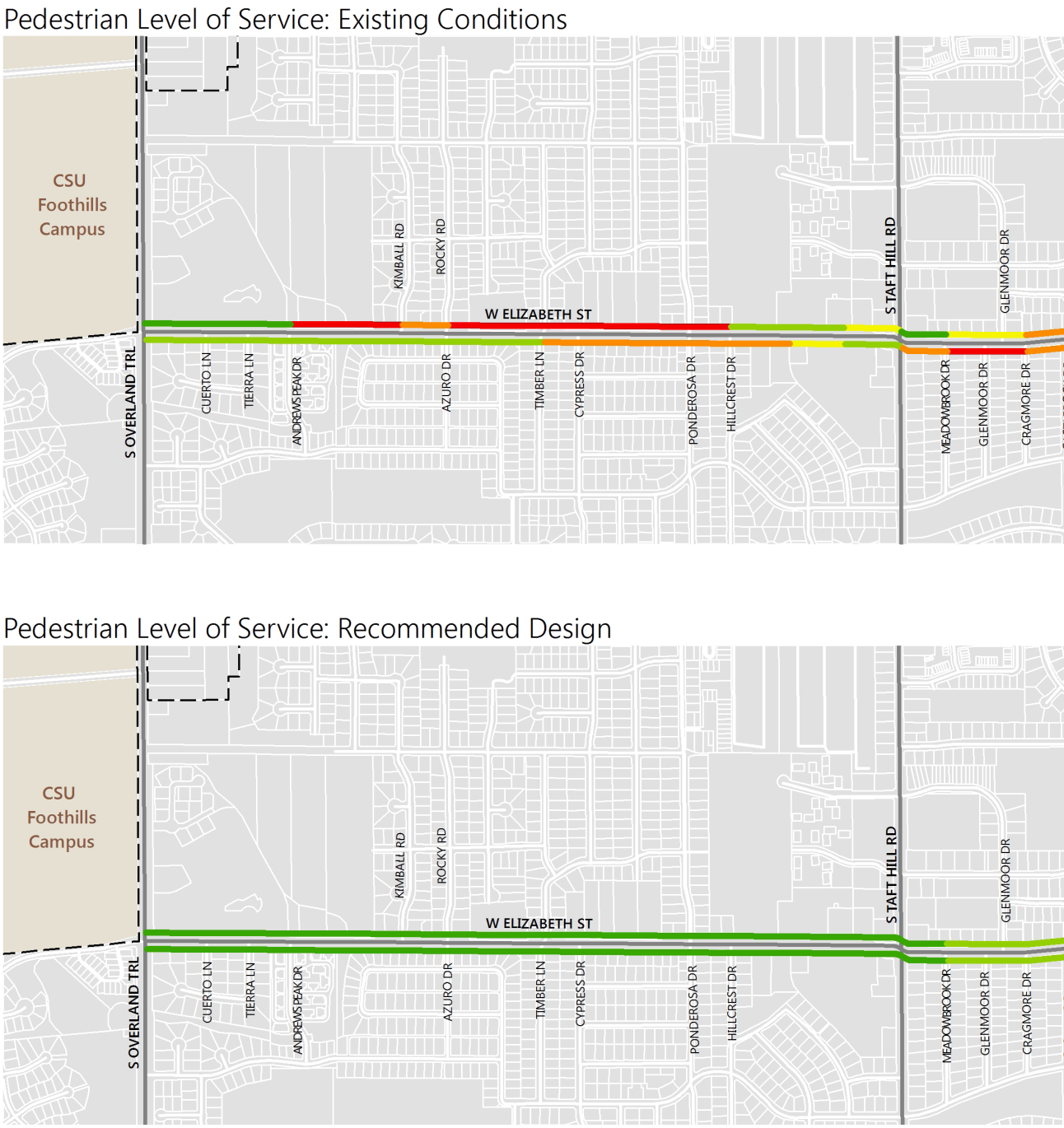
Bicycle LTS

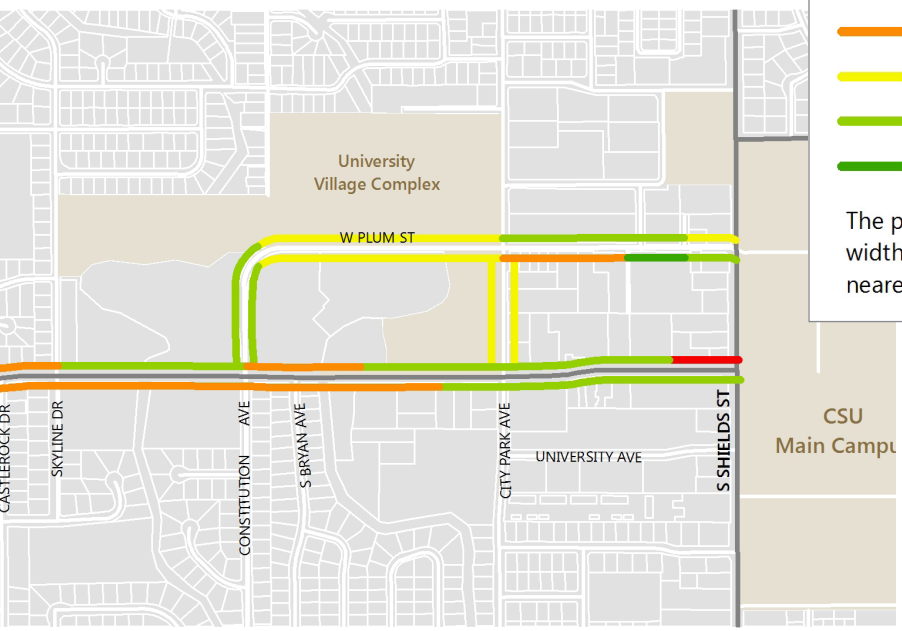
- 1
- 2
- 3
- 4
- 5

LTS applies the same methodology that is used in the 2014 Bicycle Master Plan. The score from 1-5 represents the level of bicyclist comfort based on traffic volume, speed, number of lanes, and presence and quality of the bikeway.

Figure 29: Multi-modal Level of Service (MMLOS) Before/After: Pedestrian

MMLOS for pedestrians significantly improves with implementation of the Recommended Design.





Pedestrian LOS

- 2 - 5 (Low)
- 6 - 7
- 8 - 10 (Medium)
- 11 - 12
- 13 - 15 (High)

The pedestrian score is based on sidewalk width, buffer width and distance to the nearest crossing.

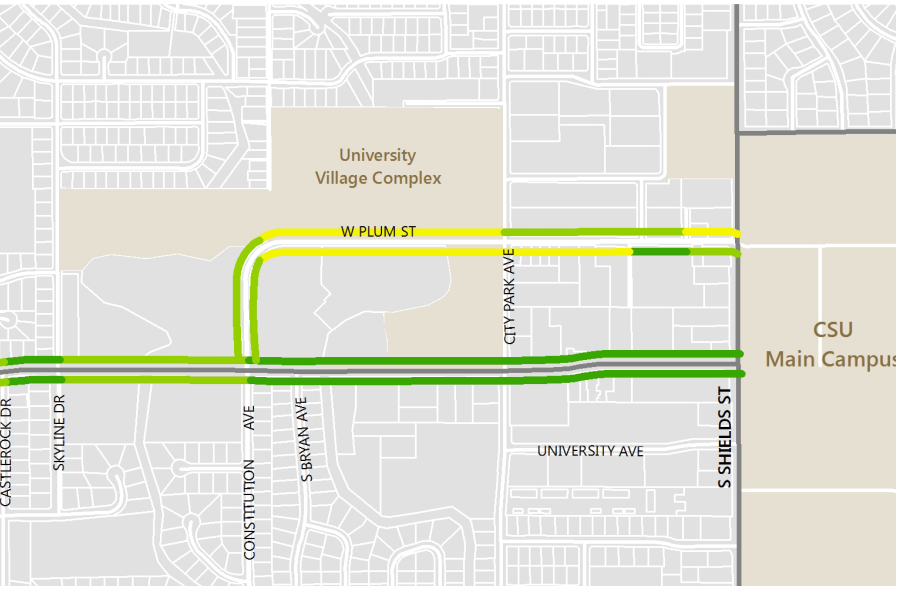


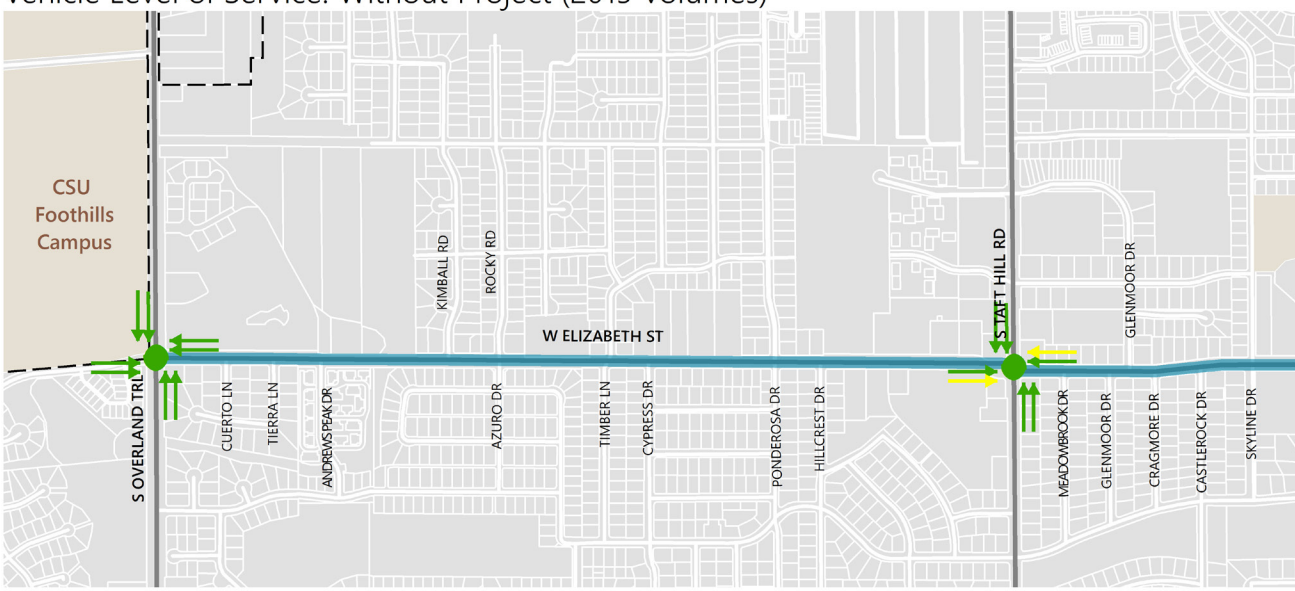
Figure 30: Multi-modal Level of Service (MMLOS) Before/After: Motor Vehicle

Vehicular Level of Service: Existing Volumes (2015) with Existing Conditions and Vehicular Level of Service: Existing Volumes (20

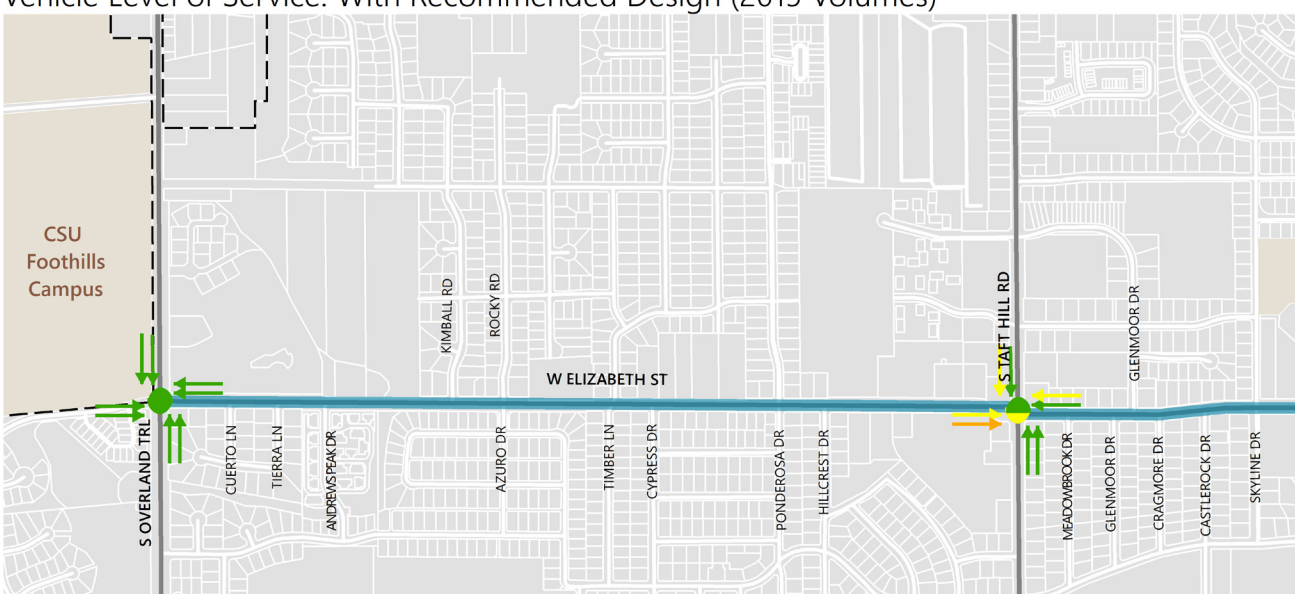
Level of Service for vehicles is maintained at a reasonable level with implementation of the Recommended Design.

Appendix G *includes detailed traffic operations calculations for 2015 and 2040 conditions.*

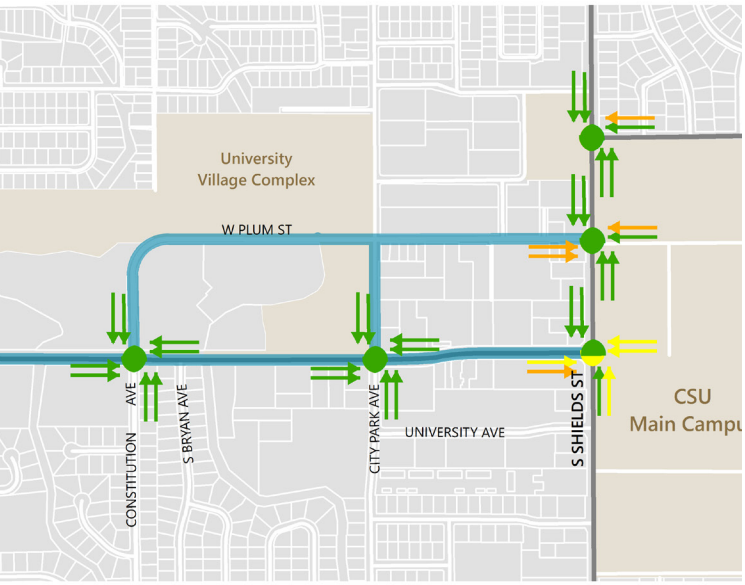
Vehicle Level of Service: Without Project (2015 Volumes)

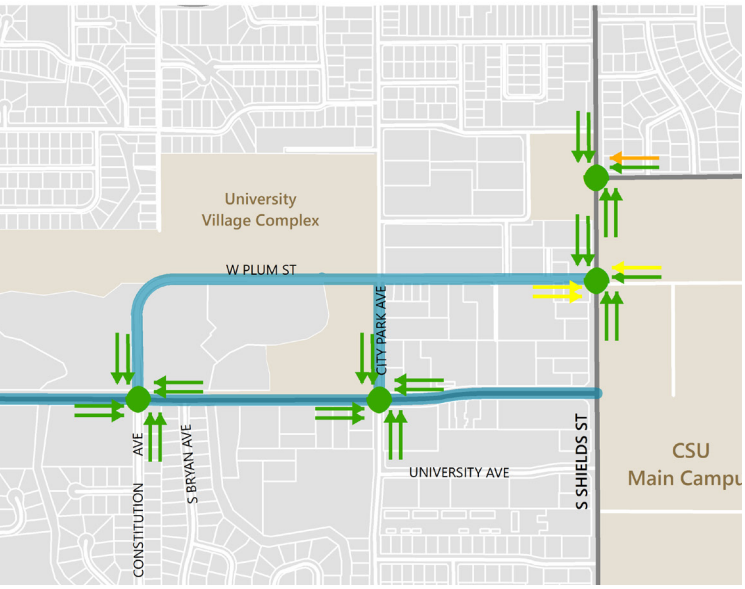


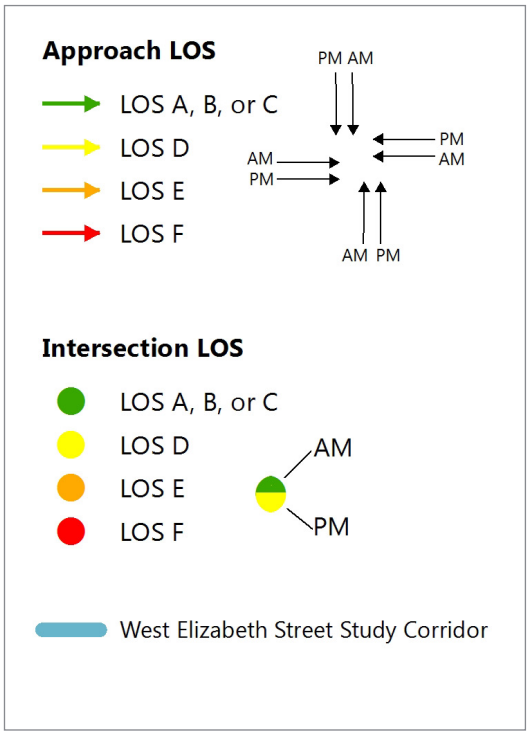
Vehicle Level of Service: With Recommended Design (2015 Volumes)



015) with Recommended Design.







Potential Underpass Under Consideration (Designed by Others and not yet Detailed or Complete)

Known Critical Issues to be Addressed Include:
- Business Access
- Driveway Crossings
- Connectiions to Mid-Block Crossing

THE RECOMMENDED DESIGN'S DEVELOPMENT IS IMPLEMENTABLE IN THREE KEY PHASES. ADDITIONALLY, THE ENHANCED TRAVEL CORRIDOR PLAN IS PREPARED TO BE ADAPTABLE TO FUTURE CHANGES THAT MAY AFFECT THE CORRIDOR.

section 5

IMPLEMENTATION

Implementing the West Elizabeth Enhanced Travel Corridor Plan will take many years. During this time, the City will implement early project phases, conduct further planning and environmental studies, refine the Recommended Design, and pursue a variety of funding sources.

RECOMMENDED DESIGN PHASING

A key principle that guided the Recommended Design's development was that it should be implementable in phases. The plan for implementation of the Recommended Design presented here includes three main phases, although the Recommended Design may ultimately be implemented as multiple projects depending on the availability of funding. Additionally, the Enhanced Travel Corridor Plan is prepared to be adaptable to future changes that may affect the corridor.

Technicalanalysisandthepublicprocesshelpedshapethetransitservicechanges,whichare focusedonthehighestdemandareaofthecorridor.The2016transitserviceincludesnewand modified routes as well as existing routes.

The **first phase** includes transit service changes, bus stop consolidation and upgrades, and an improved bicycle/pedestrian crossing of West Elizabeth at Skyline; these changes were implemented starting in August 2016.

The interim design implements elements that address the highest need, such as sidewalk and bike lane gap closures and additional transit service. This is the **second phase.** A budget offer in the City's biennial budget process, Budgeting for Outcomes, for 2017-18 has been submitted to fund the interim design. The budget will be finalized in fall 2016; however, it cannot currently be guaranteed that the interim design will be included.

Building upon the first and second phases, completion of the Recommended Design is the **third phase.** Because funding for further design and construction has not yet been secured, there is currently no estimate of when the Recommended Design will be complete. Planning for redevelopment, particularly in Campus West, ensures that the corridor is adaptable to future change.

PROPOSED FOR 2016	INTERIM IMPROVEMENTS	RECOMMENDED DESIGN
■ Tweak to improve upon the existing transit service ■ Skyline crossing relocation/improvement	■ Transit service and amenity improvements ■ Completion of the bike network ■ Completion of the sidewalk network (minimum standards)	■ High-frequency transit service ■ Protected/buffered bike lanes and protected intersection ■ Enhance pedestrian network (detached sidewalks) ■ Roundabout at Overland and access management improvements ■ Upgraded and new north-south crossings
		WHAT IF CAMPUS WEST REDEVELOPS? ■ BRT-like transit service ■ Changes in the Campus West Area
COST ESTIMATES <$	$$	$$$$$

2016 Transit Service Changes

In August 2016 Transfort implemented a variety of transit service changes to improve the capacity and reliability of transit service in the West Elizabeth Street study area. Technical analysis and the public process helped shape the transit service changes, which are focused on the highest demand area of the corridor, on West Elizabeth Street between Ponderosa Drive and the CSU Main Campus. The 2016 transit service includes new and modified routes as well as existing routes.

New and modified routes:

Route 3: a new radial route that will run east/west along West Elizabeth Street and Plum Street from West Elizabeth Street/Ponderosa Drive intersection to the CSU Transit Center.

Route 33 (CSU Foothills Campus Shuttle): a new radial route connecting the CSU Foothills Campus to the CSU Main Campus utilizing Mulberry Road and Laporte Avenue.

Existing routes that will remain:

Route 2: the existing loop route that runs south on Shields Street, west along Prospect Road, north on Overland Trail and then east on West Elizabeth Street back to the CSU Transit Center.

Route 31: the existing radial route that connects the Plum Street neighborhood to the CSU Transit Center.

Route 32: the existing loop route that runs west along West Elizabeth Street, south on Overland Trail, then east on Prospect Road back to the CSU Transit Center.

The HORN: the on-campus circulator route that links the CSU South Campus to the CSU Main Campus, including the Lory Student Center and Moby Arena.

In addition to new and modified routes, three existing bus stops on West Elizabeth Street will be consolidated with nearby stops to improve bus travel time and reliability.

KEY ELEMENTS 2016 TRANSIT SERVICE CHANGES

- Route 3, a direct, radial route from between Ponderosa Drive and CSU
- The Foothills Campus Shuttle, directly between the CSU Transit Center and the CSU Foothills Campus

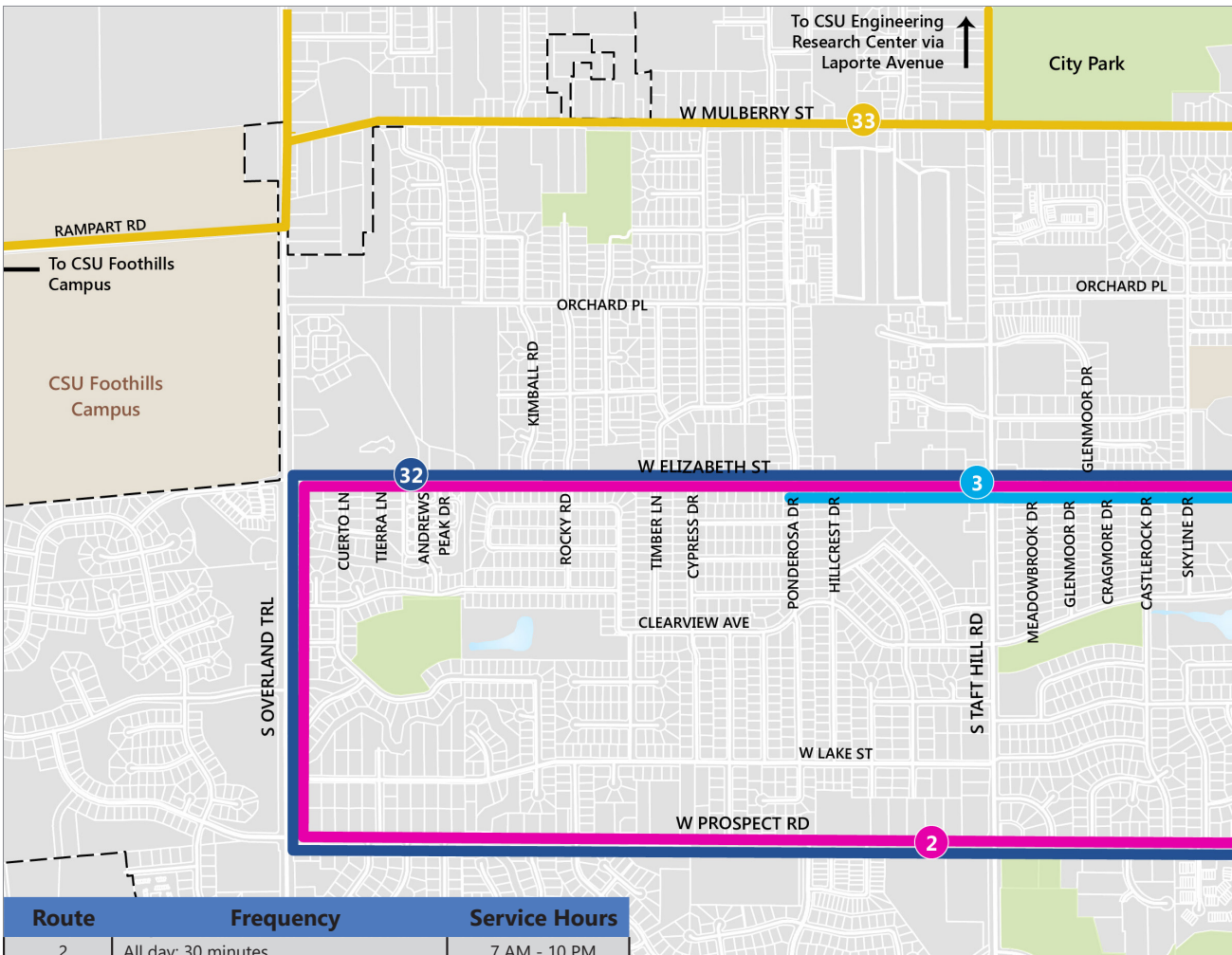
Table 2 shows frequencies, service hours and service enhancements during peak periods of demand for transit service as a part of the 2016 transit service changes.

Table 2: *2016 Transit Route Frequencies & Service Hours*

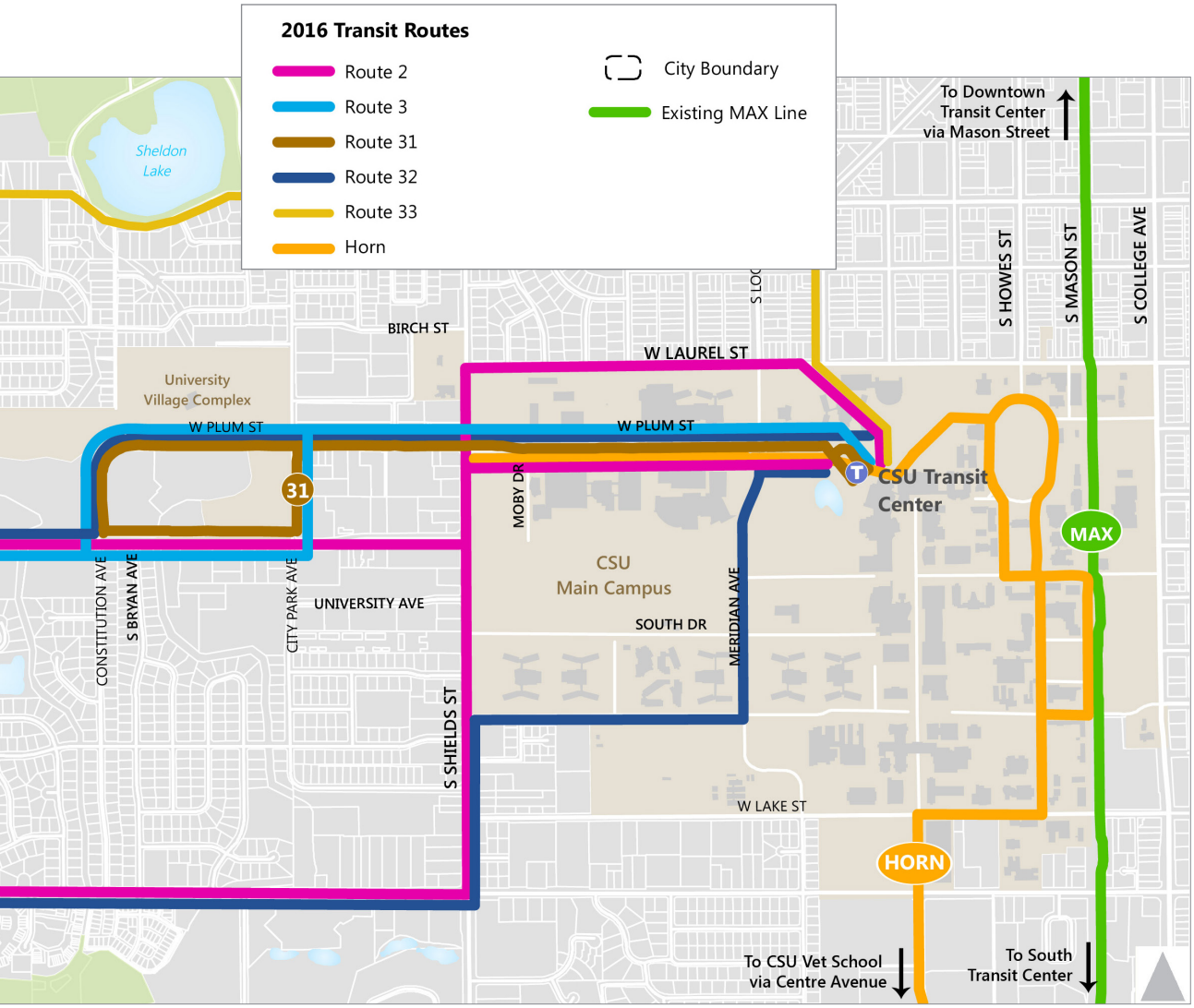
Route	Frequency (CSU out of session, if service changes)	Hours	Peak Period Service Enhancements
2	All day: 30 minutes	7:00 AM – 7:00 PM	Trailer bus during morning hours when CSU is in session
3	All day: 15 minutes (All day: 30 minutes)	7:00 AM – 10:00 PM	N/A
31	All day: 10 minutes[1]	7:00 AM – 7:00 PM	Trailer buses during morning hours (2 additional) and afternoon hours (1 additional) when CSU is in session
32	All day: 30 minutes[1]	7:00 AM – 7:00 PM	Trailer bus during morning hours when CSU is in session
33	All day: 60 minutes[1]	7:00 AM – 7:00 PM	N/A
HORN	All day: 10 minutes[1] (All day: 30 minutes)	7:00 AM – 7:00 PM	N/A

Notes: 30 series routes only operate when CSU is in session.

Figure 31: 2016 Proposed Transit Routes:
Transfort implemented these service changes in August 2016.



Route	Frequency	Service Hours
2	All day: 30 minutes	7 AM - 10 PM
3	All day: 15 minutes All day (CSU out of session): 30 minutes	7 AM - 10 PM
31	All day: 10 minutes	7 AM - 7 PM
32	All day: 30 minutes	7 AM - 7 PM
HORN	All day: 10 minutes All day (CSU out of session): 30 minutes	7 AM - 7 PM
Foothills Campus Shuttle	All day (CSU out of session): 60 minutes	7 AM - 7 PM


2016 Transit Routes
Route 2
Route 3
Route 31
Route 32
Route 33
Horn
City Boundary
Existing MAX Line
Sheldon Lake
University Village Complex
BIRCH ST
W LAUREL ST
W PLUM ST
W PLUM ST
31
CONSTITUTION AVE
S BRYAN AVE
CITY PARK AVE
UNIVERSITY AVE
MOBY DR
CSU Main Campus
SOUTH DR
MERIDIAN AVE
S SHIELDS ST
W LAKE ST
CSU Transit Center
T
MAX
HORN
To Downtown Transit Center via Mason Street
S HOWES ST
S MASON ST
S COLLEGE AVE
To CSU Vet School via Centre Avenue
To South Transit Center

KEY ELEMENTS OF THE INTERIM DESIGN:

- Complete, ADA-compliant sidewalks
- Complete bike lanes between Shields Street and Taft Hill Road
- Additional transit service

Phase Two - Interim Design

A budget request has been submitted for the interim design, which includes elements of the Recommended Design with the highest need, such as sidewalk gap closures, ADA-compliant curb ramps, bike lane gap closures and additional transit service. These improvements have been proposed to be funded through the City's biennial budget for 2017-18. The budget will be finalized in fall 2016; however, it cannot currently be guaranteed that the interim design will be included. The elements in the interim design are formed such that the full Recommended Design can later be constructed with minimal throwaway costs.

For people riding transit, routes in the study area will be implemented similar to the Recommended Design although some routes themselves change and other routes have lower frequencies.
The CSU Foothills Campus Shuttle will continue to operate between the CSU Transit Center and CSU Foothills Campus destinations off of Rampart Road and Laporte Avenue (in the Recommended Design, the CSU Foothills Campus Shuttle will operate exclusively on the CSU Foothills Campus once an on campus roadway connection is available between Rampart Road and Laporte Avenue). **Table 3** shows frequencies and vehicle types for the transit routes in the study area after implementation of the interim design.

Transit Signal Priority at signalized intersections will be implemented with the interim design. Basic bus stop amenities, including ADA-compliant platforms and signage, will be constructed. Lastly, the City is working with CSU to make improvements to the CSU Foothills Campus Equine Center facility to provide for a Park-n-Ride and transit turnaround which will significantly improve transit operations efficiency and provide a Park-n-Ride opportunity for CSU students, faculty and staff.

For people biking green colored pavement will be added to conflict zones where people biking have the right-of-way. Two-stage turn queue boxes will be installed at City Park Avenue as an interim solution (until implementation of the pilot protected intersection) and at Constitution Avenue. Bike lane gaps will be closed throughout the corridor, including the existing gaps at the Taft Hill Road intersection and on the north side of West Elizabeth Street west of Hillcrest Drive. For people walking or using mobility devices ADA-compliant sidewalks and curb ramps will be completed along West Elizabeth Street. These sidewalk gaps are primarily between Skyline Drive and Taft Hill Road (on the south side of West Elizabeth Street) and between Hillcrest Drive and Andrews Peak Drive (on the north side of West Elizabeth Street).

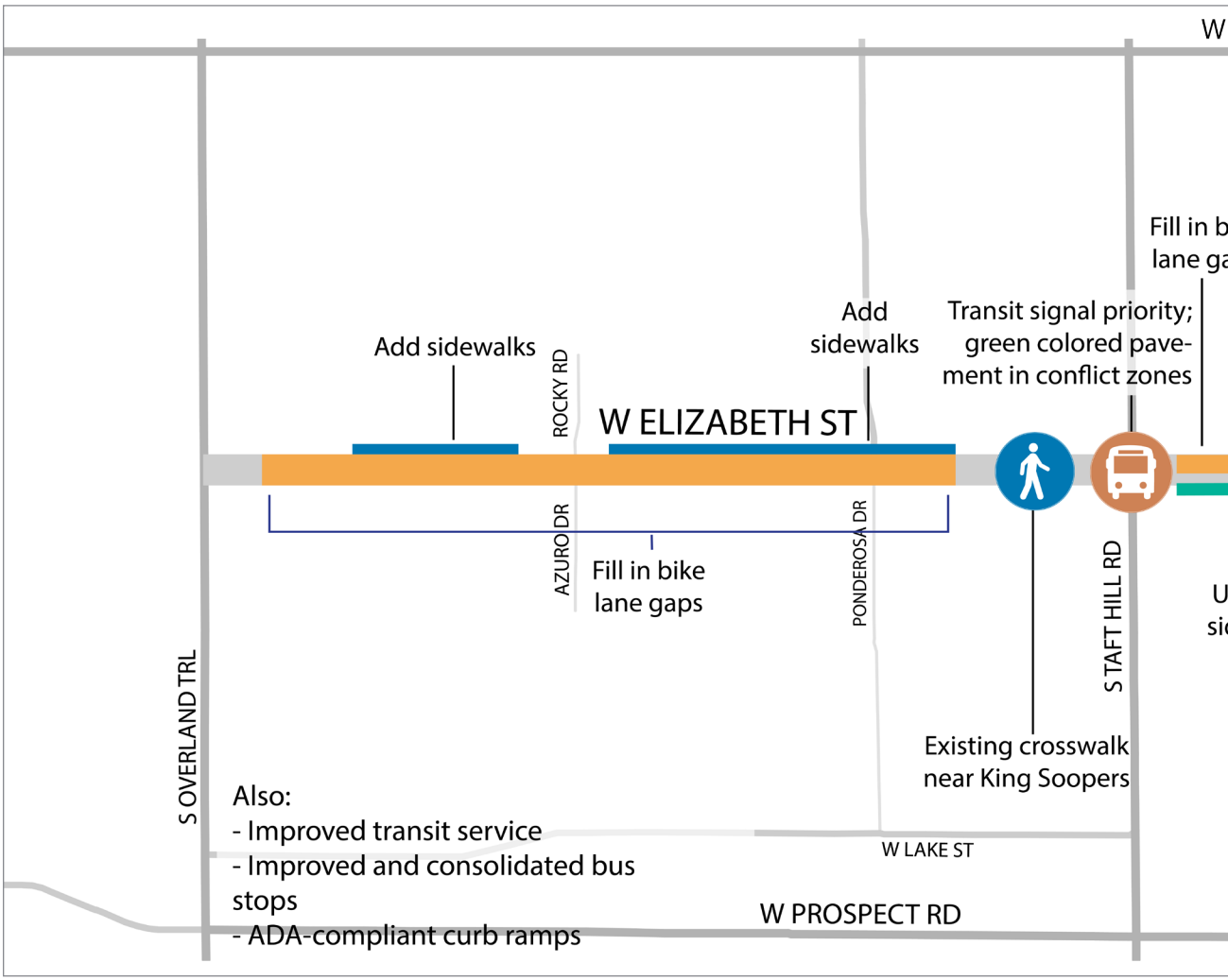
Table 3: *Interim Design Transit Route Frequencies, Service Hours & Vehicles Types*

Route	Frequencies	Service Hours	Vehicle Type
2	All day: 30 minutes	7 AM - 7 PM	Standard Transfort buses
3	AM-PM Peak: 15 minutes Evening: 30 minutes	7 AM – 10 PM	Standard Transfort buses
31	All day: 10 minutes	7 AM – 7 PM	Standard Transfort buses
HORN	AM-PM Peak: 10 minutes Evening: 20 minutes	6:30 AM – 8 PM	Standard Transfort buses
33 (CSU Foothills Campus Shuttle)	All day: 60 minutes	7 AM – 7PM	25 passenger shuttle bus

Notes: 30 series routes only operate when CSU is in session.

Figure 32: Interim Improvements At-A-Glance:
The interim design includes elements of the Recommended Design with the highest need, such as sidewalk gap closures, ADA-compliant curb ramps, bike lane gap closures and additional transit service.

Appendix E includes a conceptual, aerial view of the interim design.



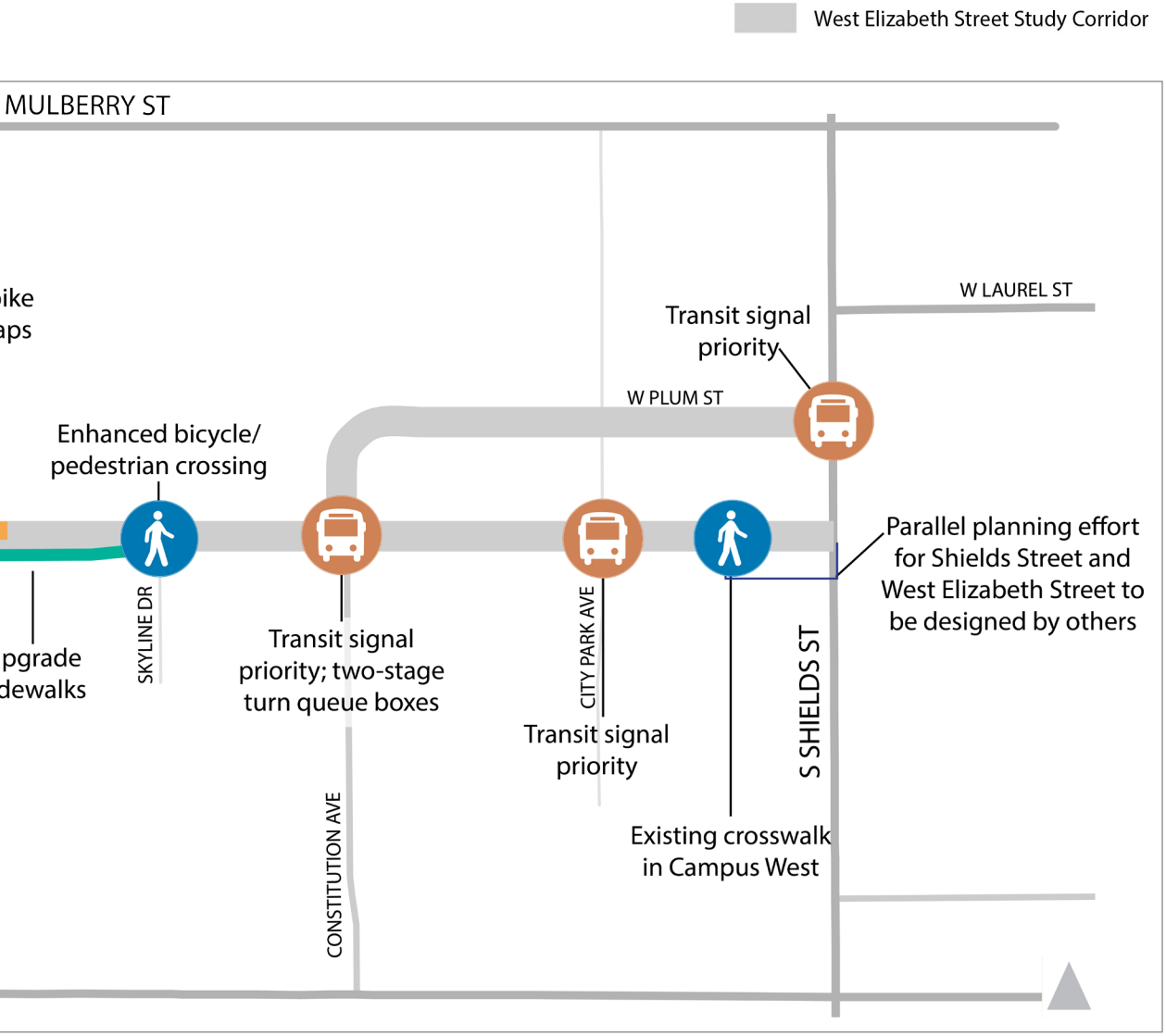
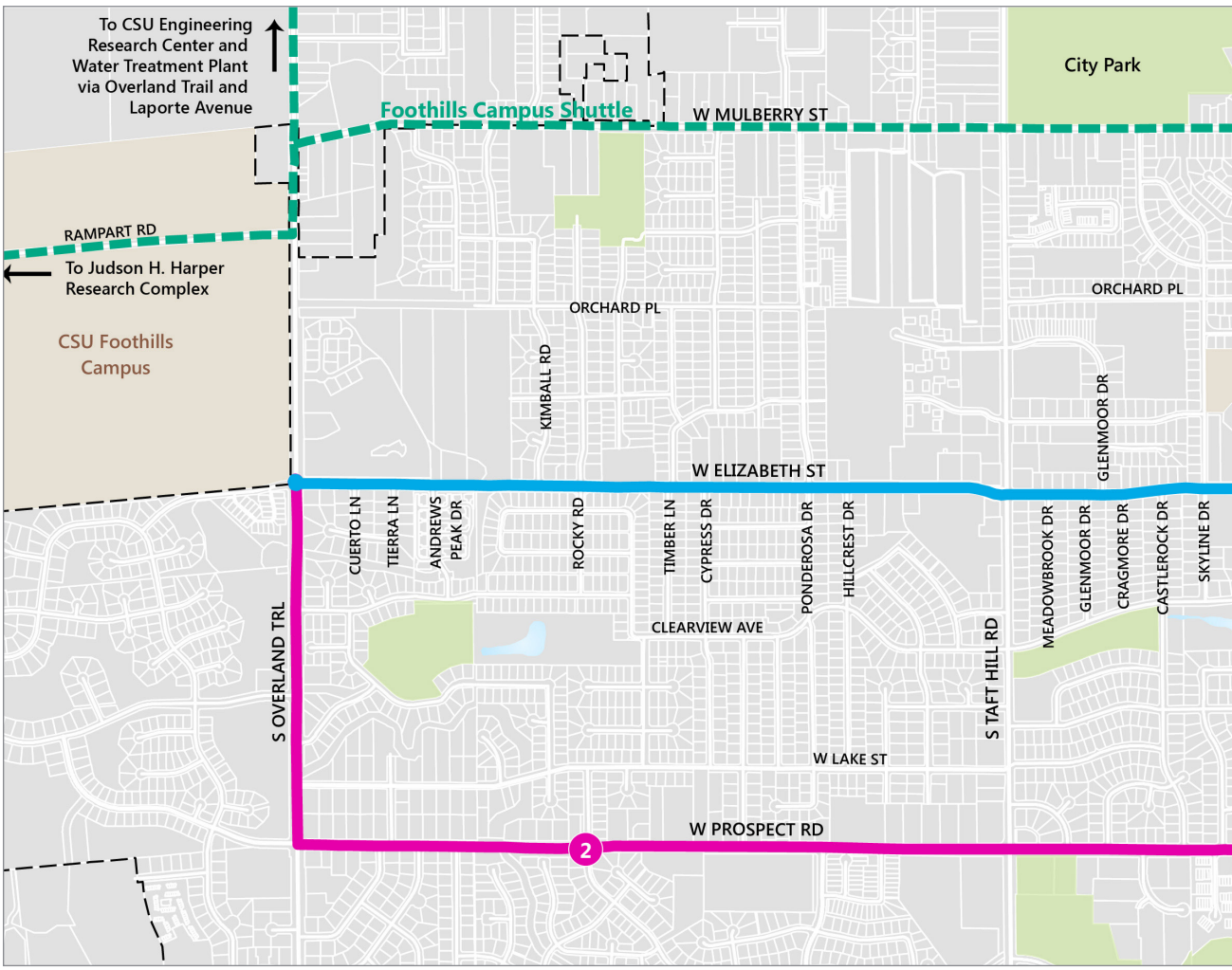
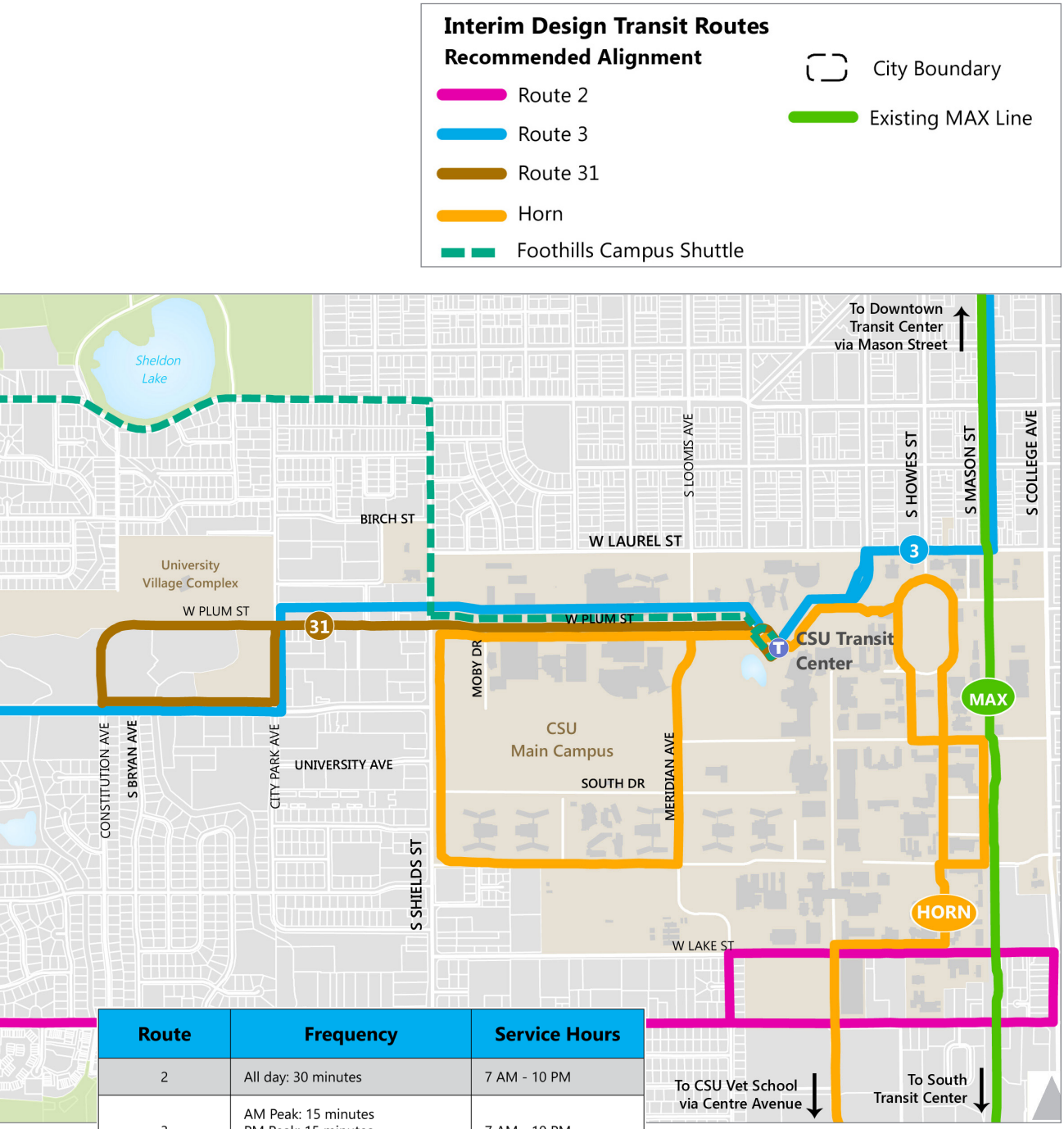
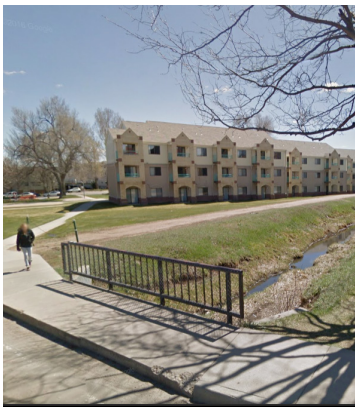

West Elizabeth Street Study Corridor
MULBERRY ST
ike
aps
W LAUREL ST
Transit signal priority
W PLUM ST
Enhanced bicycle/ pedestrian crossing
pgrade
dewalks
SKYLINE DR
Transit signal priority; two-stage turn queue boxes
CITY PARK AVE
Transit signal priority
Parallel planning effort for Shields Street and West Elizabeth Street to be designed by others
S SHIELDS ST
CONSTITUTION AVE
Existing crosswalk in Campus West

Figure 33: Interim Design Transit Routes:
Transit service with the interim design will include more efficient transit routing so that Transfort can more cost-effectively provide higher frequency service in the area.





Route	Frequency	Service Hours
2	All day: 30 minutes	7 AM - 10 PM
3	AM Peak: 15 minutes PM Peak: 15 minutes Evening: 30 minutes	7 AM - 10 PM
31	All day: 10 minutes	7 AM - 7 PM
HORN	AM Peak: 10 minutes PM Peak: 10 minutes Evening: 20 minutes	6:30 AM - 8 PM
Foothills Campus Shuttle	All day: 60 minutes	7 AM - 7 PM



COST ESTIMATES & FUNDING SOURCES

Cost estimates include both capital costs and ongoing operations and maintenance expenses. Detailed cost estimates are included in Appendix H.

Capital Cost Estimates

Capital costs to implement the West Elizabeth Enhanced Travel Corridor Plan include the costs of final design, infrastructure construction and transit vehicles. The cost estimates of each phase are:

- Interim Design **(second phase)**

  Design - $300,000

  Infrastructure costs – $1.4-$2.6 million ($2.0 million most probable cost)

  Transit vehicles – one additional vehicle necessary at approximately $400,000 each

- Recommended Design **(third phase)**

  Design - $2-4.5 million

  Infrastructure costs – $13.0-24.3 million ($18.7 million most probable cost)

  Transit vehicles – four additional vehicles necessary at approximately $400,000 each

- Recommended Design's planning for redevelopment

  Infrastructure costs – $1.2-2.3 million ($1.7 million most probable cost)

  Transit vehicles – five BRT vehicles necessary (including one spare) at approximately $800,000 each

  BRT-like amenities – 12-14 stations at approximately $100,000-250,000 per station

Ongoing Cost Estimates

As elements of the West Elizabeth Enhanced Travel Corridor Plan are implemented, ongoing costs associated with operations and maintenance of new facilities and services will need to be identified and included in ongoing budgets.

Operating Expenses

The Plan recommends significant improvements to the transit service in the West Elizabeth Street corridor study area. Ongoing annual cost estimates for each phase are:

Near-term 2016 transit service changes **(first phase)** – an additional $160,000 per year is being shifted from an under performing route to fund the 2016 transit service changes on West Elizabeth Street.

Interim Design **(second phase)** - $2.05 million

Recommended Design **(third phase)** - $7.31 million

Recommended Design's planning for redevelopment $7.63 million

The West Elizabeth Street Enhanced Travel Corridor Plan's Recommended Design includes a diverse set of projects that require an equally diverse and resourceful plan to implement.

Maintenance Considerations

Some high quality elements, such as protected bike lanes, new landscape medians and potential custom transit station amenities, will require more time to maintain and may require the purchase of specialized equipment, incurring higher maintenance costs. For example, based on analysis completed for the ***Bicycle Master Plan,*** the Fort Collins Streets Department estimated that it costs $17,900 per year to sweep and plow one mile of protected bike lane (compared to $3,970 per year to sweep and plow one mile of standard bike lane).

As elements go through final design, the project management team shall work closely with the Transfort, Streets Department, Forestry, and the Parks Department to identify mitigation requirements, context appropriate materials, and maintenance responsibilities. Cost estimates based on the final design and the maintenance considerations will be integrated into future budget requests at the time the recommended facilities are built. Additional information on maintenance costs is included in **Appendix H.**

Funding Sources

The West Elizabeth Street Enhanced Travel Corridor Plan's Recommended Design includes a diverse set of projects that require an equally diverse and resourceful plan to implement.

Table 4 shows funding recommendations for all three phases of the project.

As new funding opportunities arise out of federal, state or local actions, momentum and progress on the corridor add tremendous weight to those awarding grants or prioritizing funding.

The phases identified in **Table 4** are not necessarily consecutive and will have periods of overlap. For example, the National Environmental Policy Act (NEPA) process could begin relatively soon and last a year or more. Meanwhile Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grants and other grants should be pursued. An important and complex corridor like West Elizabeth Street will need an ongoing champion who is dedicated to aggressively pursue funding and overall project support.

Table 4: *Funding Sources*

Phase	Potential Source(s)	Implementation Steps or Actions
2016 Transit Service Changes (first phase)	N/A – does not require additional funding	Transfort to implement transit service changes in 2016
Interim Design (second phase)	Budgeting for Outcomes for infrastructure Congestion Mitigation and Air Quality Improvements (CMAQ) Program for transit service upgrades and/or transit signal priority	Apply during the CMAQ call for projects, summer 2016
Recommended Design (third phase)	Transportation Alternatives Program (TAP) or Great Outdoors Colorado (GOCO) for smaller-scale projects Transportation Investment Generating Economic Recovery (TIGER) or Building on Basics (BOB) 3.0 for corridor-wide improvements	Apply during the TAP call for projects, summer 2016
Planning for Redevelopment	Federal Transit Authority (FTA) Section 5309 (Small Starts) for Bus Rapid Transit CMAQ for Bus Rapid Transit TIGER for Bus Rapid Transit	Conduct a field review with FTA Region 8 staff, summer 2016 Initiate a NEPA process along the corridor based on FTA recommendation

TRACKING PERFORMANCE

As elements of the West Elizabeth Enhanced Travel Corridor Plan are implemented, tracking the corridor's performance will be important for demonstrating the Plan's benefits, acquiring future funding and possibly refining the Recommended Design. There are a variety of performance measures that should be tracked over time to understand the Plan's effects:

- Health and safety, as measured by crashes, vehicular travel speed and crime on the corridor
- Multimodal effects, as measured by user delay, travel time, travel time reliability, user counts, mode split and vehicle miles traveled (per capita)
- Economic development, as measured by commercial and residential vacancies, tax yields and property values
- Culture, as measured by arts creation and community participation in area events

A CRITICAL NEXT STEP IN IMPLEMENTING THE SHORT-TERM AND LONG-TERM ACTIONS OF THE WEST ELIZABETH ENHANCED TRAVEL CORRIDOR PLAN IS TO IDENTIFY A PROJECT CHAMPION (EITHER AN INDIVIDUAL OR A DEPARTMENT).

section 6

NEXT STEPS

A critical next step in implementing the short-term and long-term actions of the West Elizabeth Enhanced Travel Corridor Plan is to identify a Project Champion (either an individual or a department). The Project Champion's responsibility is to regularly identify and coordinate next steps, including pursuing grant opportunities or submitting projects to Budgeting for Outcomes, the City's budgeting process.

Key next steps to the implementation of the West Elizabeth Enhanced Travel Corridor Plan are:

- Complete 35 percent design of the Recommended Design, including a survey of the corridor, a drainage study and a utility study, to develop a more refined cost estimate for the corridor and any incremental projects for which the City may pursue funding.
- Inform the Federal Transit Administration of the corridor's long-term plan by conducting a field review with FTA Region 8 staff.
- Complete a National Environmental Policy Act (NEPA) process of the Recommended Design based on FTA recommendations.
- Apply for incremental projects that are a part of the Recommended Design through appropriate funding sources, including CMAQ and TAP.
- Apply for large-scale projects, possibly the entire Recommended Design, as a TIGER discretionary grant. As shown by previously selected projects, it is common to submit three or more application submittals for TIGER discretionary grants before a project is selected.

- Update Master Street Plan to show segment of West Elizabeth between City Park Avenue and Taft Hill Road as Arterial 2 Lanes (instead of Arterial 4 Lanes).
- Incorporate relevant changes into CSU Master Plans.
- Explore strategies to support transit-oriented development in the Campus West area, including potential code changes, parking strategies, funding support, and improvement districts that support market conditions.
- Coordinate with the Pedestrian Program and Bridge Replacement/ Maintenance Program to widen the bridge on Plum Street west of City Park Avenue to complete the bike lane and sidewalk through this stretch.
- Monitor the demands at the locations for the recommended enhanced pedestrian/bike crossings. Evaluation will be done using the criteria for implementing enhanced crossings found in the City's Pedestrian Plan to determine if and when installation of the crossings are appropriate.

For any competitive grant, more letters of support or City Council actions voicing support for the project will increase the project's competitiveness. However, public and political support for a project can wane when implementation slows. One of the Project Champion's responsibilities is to continuously generate support for the project. Continuing implementation of the West Elizabeth Enhanced Travel Corridor Plan, even in small steps, is a key to maintaining consistent project support.

FURTHER PLANNING

Through the West Elizabeth Enhanced Travel Corridor Plan's development process, the futures of City Park Avenue and Shields Street were explored at a high-level. This process revealed that further corridor planning is necessary on these streets to identify a community - and City-supported vision for infrastructure on these corridors.

APPENDICES

Appendix A: Vision, Purpose & Need

Appendix B: Community Engagement Summary

Appendix C: Corridor Understanding Report

Appendix D: Alternatives Analysis Summary

Appendix E: Conceptual Design and Phasing Summary

Appendix F: Responding to the Project Need

Appendix G: Traffic Operations Calculations

Appendix H: Cost Estimates Summary and Methodology

Appendix I: Maintenance Considerations

Appendix J: Final Design Considerations

West Elizabeth Enhanced Travel Corridor Plan