





# **Stakeholder Committee**

Meeting #4 February 10, 2016

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### Welcome

Welcome to Stakeholder Meeting #4! Thank you for your continued commitment to the West Elizabeth Enhanced Travel Corridor Plan process.

This packet provides a summary of the work completed on the West Elizabeth Enhanced Travel Corridor Plan since the third Stakeholder Committee Meeting (December 2015). Based on the input received from the last Stakeholder Committee meeting and recent public outreach, the project team has refined the design approaches and has begun evaluating these approaches in order to develop a recommended design.

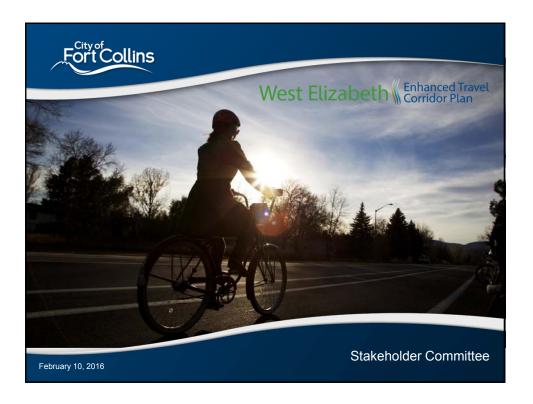
During this meeting we will share our evaluation methodology and initial results. We will also discuss how these results will influence which treatments are being considered for the recommended design, initial thoughts on the phasing of improvements, and the next steps in the process.

As a reminder, these packets will also be made available online so others can participate in the process and provide additional input. We highly encourage you to talk with your neighbors, friends, family, and colleagues about their ideas for the future of the West Elizabeth Corridor.

# **Process & Schedule**

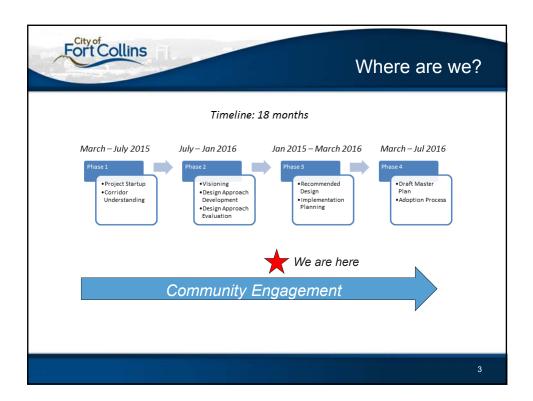
Planning Phase	Date	Stakeholder Committee Activities	Public Activities & Events				
Phase 1: Project Startup & Corridor Understanding	Mar - July 2015	Stakeholder Committee Selection; Stakeholder Committee Meeting #1 (July)	Listening Sessions; Walking Tours; WikiMap; Online Survey				
Phase 2: Visioning, Design Approach Development & Evaluation	July - Jan 2016	Stakeholder Committee Meeting #2 (September)  Stakeholder Committee Meeting #3 (December)	Visioning Events; Alternatives Open House; Online Survey				
 Phase 3: Recommended Design & Implementation Planning	Jan - Mar 2016	Stakeholder Committee Meeting #4 (February)	Questions of the Week, Recommended Design Workshops; Online Survey Community Presentations/ Listening Sessions				
Phase 4: Draft Master Plan & Adoption Process	Mar - July 2016	Stakeholder Committee Meeting #5 (April)	Draft Plan Open Houses; Online Survey; Community Presentations Listening Sessions				

## **Presentation Slides**





- Progress since December 2015 and next steps
- Design approach recap
- Design approach evaluation
- Recommended design approach
- Keypad polling
- Roundtable discussion





#### March 10, 2016 City Council

# We would like to present a preliminary recommended design approach

- Cross-section at key locations on the corridor
- Overall approach to transit service
- Identify key design and operational issues that we're resolving through the refinement of the recommended design approach

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#### Vision, Purpose & Need

- 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.



#### Four Design Approaches

- 1. Tweak & Tune (2016)
  - Adjust transit service routes, schedules and frequencies.
- 2. Transportation Systems Management (TSM) (Near-Term) Aims to improve transit, bicycle and pedestrian safety, comfort and convenience with minimal capital investment by implementing high-priority, near-term projects.
- 3. Traffic Calming (Long-Term) Has a focus on safety for all modes of transportation, with the introduction of BRT-style
  - transit service, similar to MAX, oriented towards existing areas with high ridership.
- 4. MAX on West Elizabeth (Long-Term)
  - Focuses on the introduction of BRT-style transit service, similar to MAX, through the West Elizabeth corridor once justified by land use patterns and ridership.



#### **Transportation Systems Management**



Complete bike lanes, green bike lanes, two-stage turn queue boxes



**Access management** near King Soopers and Campus West

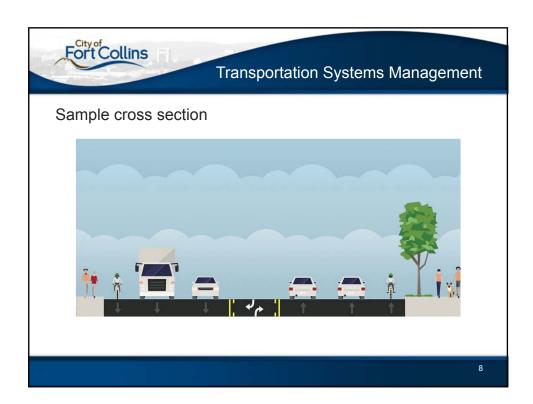


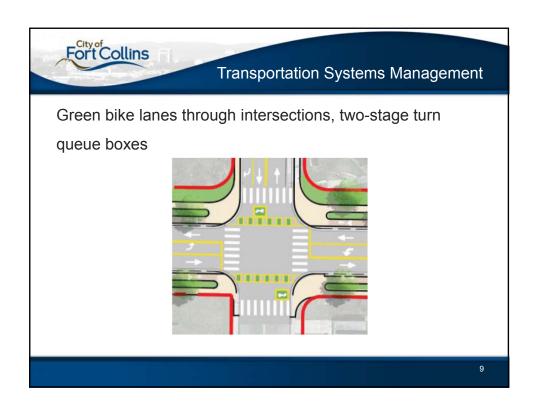
Bus stop amenities (shelters, benches, etc.), transit signal priority, CSU Equine Center transit station



 Complete sidewalk network to minimum standards, leading pedestrian intervals

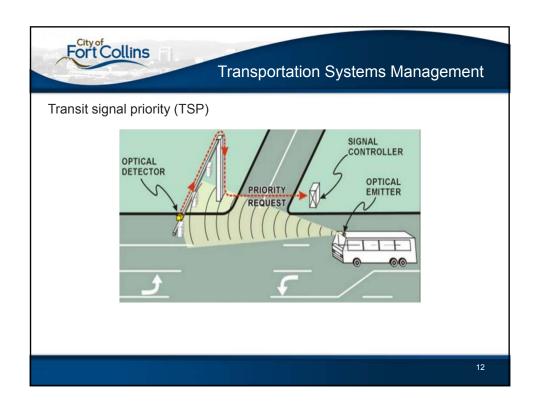
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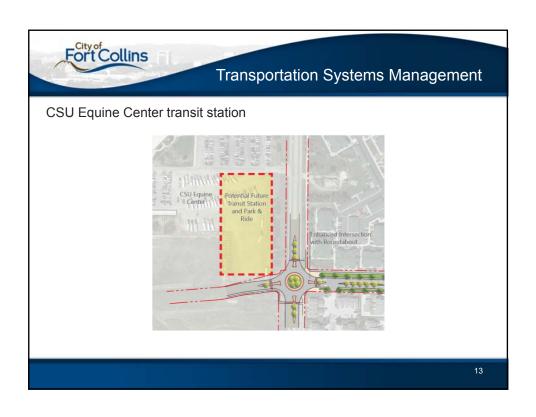


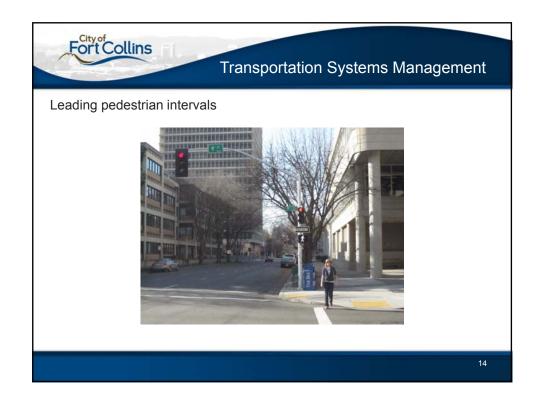














#### **Traffic Calming**



One-way protected bike lanes, green bike lanes through intersections, two-stage turn queue boxes, protected intersection at City Park Avenue



Access management near King Soopers and Campus West, roundabouts at Overland Trail and Ponderosa Drive, operational improvements at Shields Street, medians

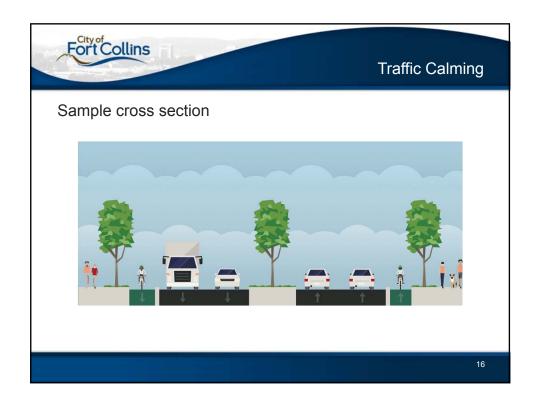


**High-frequency transit** along West Elizabeth-Constitution-Plum alignment

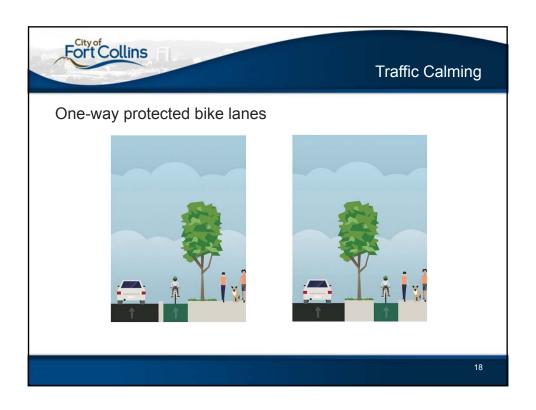


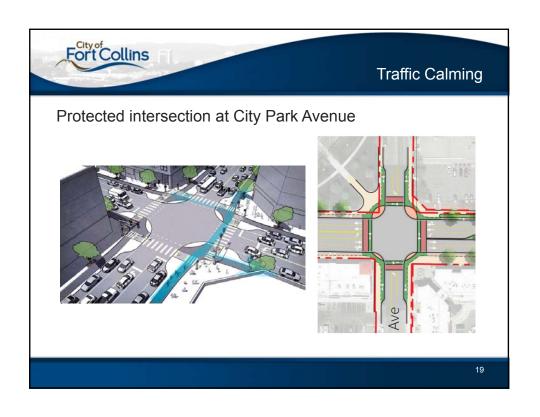
Complete sidewalk with landscaped separation where possible, leading pedestrian intervals

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#### MAX on West Elizabeth



One-way protected bike lanes, green bike lanes through intersections, two-stage turn queue boxes



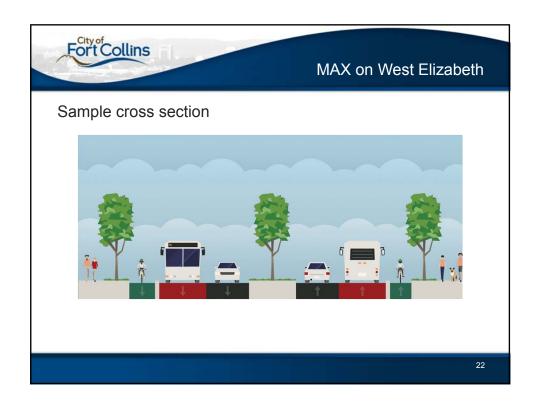
Access control near King Soopers and Campus West, roundabouts at Overland Trail and Ponderosa Drive, operational improvements at Shields Street, medians

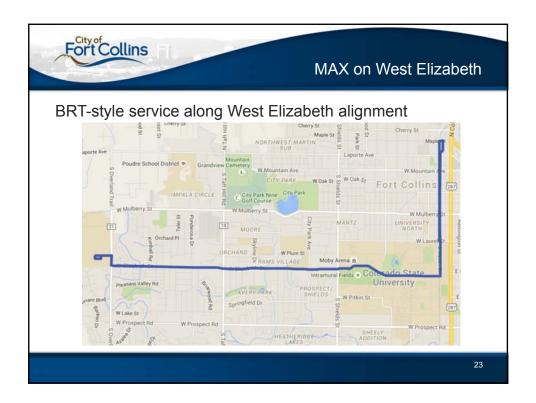


BRT-style service, similar to MAX, along West Elizabeth alignment with bus only lanes



Complete sidewalk with landscaped separation m where possible, leading pedestrian intervals



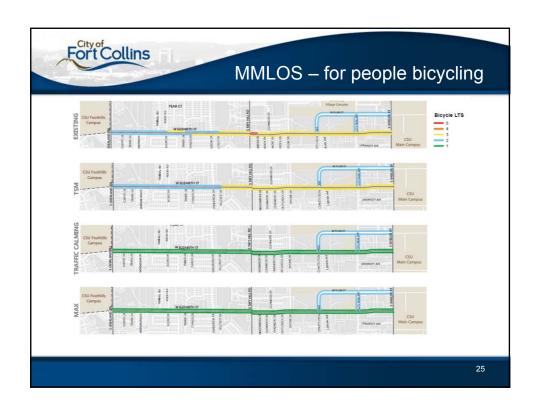


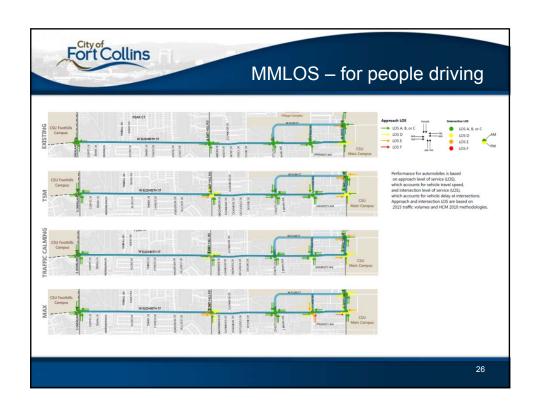
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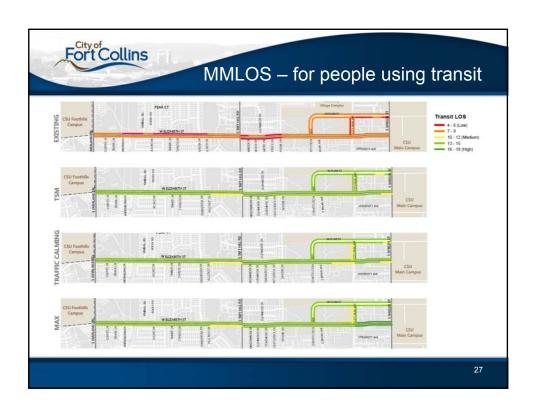
#### Design approach evaluation

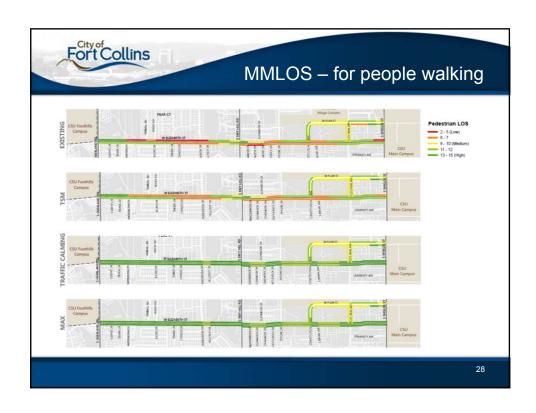
- Qualitative evaluation based on Transportation Master
   Plan goals and West Elizabeth Vision, Purpose & Need
- Detailed, performance-measured based design approach analysis: comfort, safety, mobility (travel time, LOS) for all modes

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#### **Qualitative Evaluation**

West Elizabeth Corridor Plan

	Griteria (based on a lew, medium, high, n/a ranking)													
Design Approaches	Multi-model													
	High frequency transit	Reliable transit	Sufficient transit capacity	Covenient/ efficient bicycling and welking	Sicyclot and pedectrian cufety	Complete pedestrian network	Comfort for bicyclists	Vehicular safety	Vehicular efficiency and convenience	economic	and attractive public spaces	Well-connected	Fiscal responsibility	Community support
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#### **Preliminary** Recommended Design Approach

#### Key elements:



For people biking: one-way protected bike lane, green bike lanes through intersections, two-stage turn queue boxes, protected intersection at City Park Avenue (pilot)



For people driving: access management near King Soopers and Campus West, roundabouts at Overland Trail and Ponderosa Drive, operational improvements at Shields Street, medians



For people riding transit: high-frequency transit along West Elizabeth-Constitution-Plum alignment



For people walking: complete sidewalk with landscaped separation where possible, leading pedestrian intervals



# Preliminary Recommended Design Approach

#### Phased approach to transit:

- 2016: Tweak & Tune
- Near-term: Tweak & Tune + bus stop amenities + transit signal priority
- Mid-term: high-frequency transit along West Elizabeth-Constitution-Plum alignment
- Long-term: BRT-style service, similar to MAX shifts to West Elizabeth alignment upon meeting various triggers; consider how long-term redevelopment may affect Campus West

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#### Today's activities

- Keypad polling
- Roundtable discussion

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# **Next Steps**

#### **Tasks**

- Continue the evaluation of design elements
- Develop/refine recommended design
- City Council Work Session March 10

#### **Public Outreach**

"Question of the Week"

## **Next Stakeholder Meeting**

April (tentative)

# Appendix A Stakeholder Committee Meeting #3 Summary





#### Stakeholder Committee Meeting #3

West Elizabeth Enhanced Travel Corridor Plan December 2, 2015 – 6:00-8:00 pm

#### Present:

Aaron Buckley
Laurel Grimm
Jay Henke
Justie Nicol
Troy Ocheltree
Peter Rhoades
Jean Robbins
Jordan Sowell
Dave Thompson

#### Absent:

Alison Anson Madi Book Rick Callan Edward Kendall Gail McKee Bonnie Michael Gene Schoonveld Michael Werner

#### Staff & Consultants:

Charles Alexander, Fehr & Peers Associate Amy Lewin, FC Moves Senior Transportation Planner Rachel Prelog, FC Moves Intern Carly Sieff, Fehr & Peers Transportation Planner

#### Agenda

6:00-6:10 - Dinner, settle-in

6:10-6:20 - Introductions, Project update/review

6:20-6:45 - Overview of draft Design Approaches

6:45-7:45 – Small group break-out to review draft Design Approaches

7:45-8:00 - Wrap-up, Next steps

Stakeholder committee members were provided workbooks which served as a tool to help guide participants through the information presented in the agenda above. This included general information relevant to the plan as well as specific activities and information pertinent to the current planning activities.



#### Small group breakout - comments on Design Approaches

#### General

- Would like a consistent number of lanes (not too many changes)
- Additional street lighting at City Park & Elizabeth
- Plum needs maintenance
- Pedestrian crossings should be raised speed tables
- Address access at King Soopers further
  - Turning in/out of King Soopers still is too challenging
  - Roundabout at King Soopers access?
- Property lines on north east corner of West Elizabeth and Rocky Road are not accurate
- There is limited sight line heading north on Overland towards Elizabeth – consider for roundabout
- Like the raised cycle tracks
- Use speed tables where raised cycle track crosses driveway accesses
- Make connection to the low stress bike network to provide a north/south connection
  - Address bike lanes along City Park
- Like the HAWK signal at Skyline Dr.
- Make sure bikes can cross at skyline using midblock crossing signal

#### **Traffic Calming**

- · Like the primary bus service on Plum
- Like the two way stop at City Park & Plum
- Consider split phasing at Plum & Shields
- Medians too long not enough room for traffic (near Elizabeth and Constitution)
- Like the two left turn lanes and transit option (Elizabeth & Shields)
- Concerned about the congestion in the westbound left turn lane and northbound left turn lane- design isn't doing enough (Elizabeth & Taft Hill)
- Roundabout at Ponderosa: good for increased











bus service, good for cars (slower left turns), but potentially bad for pedestrians

- Need more traffic calming between Ponderosa & Overland
- Concerned about the number of bus stops
- Concerned about long-term bus use, is this going to be enough?

#### MAX on West Elizabeth

- Additional BRT stations past King Soopers and Foothills?
- Add two stage crossing at Ponderosa & Elizabeth

#### **CSU Transit Connection**

Prefer transfer at CSU transit center to downtown rather than at MAX

#### Concept drawing can be from the project website, fcgov.com/westelizabeth













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# **Appendix B Evaluation Materials**



#### West Elizabeth Street Design Approach Analysis Evaluation Criteria

Each criterion used to evaluate design approach elements on West Elizabeth Street is defined and described below. Each criterion is based on either the Fort Collins Transportation Master Plan (TMP) or the West Elizabeth Enhanced Travel Corridor Purpose & Need Statement. The specific principle or policy from the TMP being referred to is referenced following the criterion description.

- <u>Multi-modal transportation network</u>- a transportation network that allows for the safe, accessible and convenient use of all modes.
  - High frequency transit service- Creates a transit service that runs frequently enough (15 minute or less headways) to allow users to make trips without consulting a schedule; service is frequent enough to allow for the convenient use of the transit network to major destinations (TMP Policy T10.6, Purpose & Need Statement)
  - Reliable transit- Creates a transit service that runs consistently on schedule to allow users to arrive at their destination predictably (TMP Policy T10.2, Purpose & Need Statement)
  - Sufficient transit capacity- Creates a transit service that provides or can provide enough capacity to meet the current and anticipated future demand for transit, with available space for all desiring riders (Purpose & Need Statement)
  - Convenient and efficient bicycling and walking- Creates pedestrian and bicycle
    infrastructure that conveniently and efficiently provides access to key destinations and
    transit stops (TMP Policy T11.1 and T12.1, Purpose & Need Statement)
  - Bicyclist and pedestrian safety- promotes safe bicycling and walking (TMP Policy T8.1, Purpose & Need Statement)
  - Complete pedestrian network- Creates a sidewalk network that is complete and ADA accessible (TMP Principle T12, Purpose & Need Statement)
  - Comfort for bicyclists- Creates a network of bicycle facilities that is complete and comfortable for all users, by providing continuous designated bicycle facilities along segments and at crossings (TMP Principle T11, Purpose & Need Statement)
  - Vehicular safety- Reduces the negative safety impacts associated with vehicle turn conflicts at driveways and queue spillbacks at intersections (TMP Principle T18, Purpose & Need Statement)
  - Vehicular efficiency and convenience- Creates a transportation network that allows for efficient and easy use of vehicles by minimizing congestion and increasing mobility in alignment with level of service standards (TMP Principle T13 and T25, Purpose & Need Statement)
- **Supports existing economic conditions** Promotes economic vitality for existing businesses along and near the corridor by easing access for all modes and creating an attractive environment for customers (*TMP Policy T2.1*, *Purpose & Need Statement*)
- **Beautiful, vibrant and attractive public spaces** Creates an aesthetically appealing corridor consisting of a well-designed streetscape (*TMP Policy T4.4, Purpose & Need Statement*)



- Well-connected Creates a transportation network that provides safe and comfortable access between modes and to destinations including pedestrian and bicycle access to transit (TMP Policy T9.2, Purpose & Need Statement)
- **Fiscal responsibility**-Supports a model for development that allows the City of Fort Collins to be financially strong and economically resilient by implementing cost-effective projects that consider operations and maintenance costs (*TMP Policy T6.2 and T14.2, Purpose & Need Statement*)
- **Community support** Reflects the vision and values of the community (*TMP Principle T24, Purpose & Need Statement*)

	Criteria (based on a low, medium, high, n/a ranking)													
Design Approaches	High frequency transit	Reliable transit	Sufficient transit capacity	Convenient/ efficient bicycling and walking	Multi-modal  Bicyclist and pedestrian safety	Complete pedestrian network	Comfort for bicyclists	Vehicular safety	Vehicular efficiency and convenience	Supports existing economic conditions	Beautiful, vibrant, and attractive public spaces	Well-connected	Fiscal responsibility	Community support
Tweak & Tune Design Approach														
People biking: do nothing				Low	Low		Low		High	Medium		Low	High	Low
People driving: do nothing					Low		Low	Low	Medium	Low	Low	Medium	High	Low
People riding transit: Adjust transit service routes, schedules and frequencies	Medium	Low	Medium						High	Medium	Medium	Low	High	Medium
People walking: do nothing				Low	Low	Low				Low	Low	Low	High	Low
Transportation Systems Management (TSM) Design Approa	ach	I							ı			T T		
People biking: Complete bike lanes where missing, green bike lanes through intersections, two-stage turn queue boxes where appropriate				High	Medium		Medium		High	Medium		Medium	High	Low
People driving: Access control at key locations: between Shields Street & City Park Avenue, between Taft Hill Road and Hillcrest Drive					High		High	Medium	Medium	Medium	Low	Medium	High	Medium
People riding transit: Adjust transit service routes, schedules and frequencies (same as Tweak & Tune), basic bus stop treatments (shelters, benches, etc.), transit signal priority, transit station at CSU Equine Center	High	Medium	Medium						Medium	High	Medium	Medium	High	Medium
People walking: Complete sidewalk network to minimum ADA width, leading pedestrian intervals				High	High	Medium				Medium	Medium	Medium	High	Medium
Traffic Calming Design Approach														
People biking: One-way cycle tracks on West Elizabeth Street, green bike lanes through intersections, two-stage turn queue boxes where appropriate, pilot protected intersection at West Elizabeth Street/City Park Avenue				Medium	High		High		Medium	High		High	Medium	High
People driving: Access control at key locations: between Shields Street & City Park Avenue, between Taft Hill Road and Hillcrest Drive, roundabouts at West Elizabeth Street/Overland Trail and West Elizabeth Street/Ponderosa Drive, dual eastbound left- turn lanes at West Elizabeth Street/Shields Street, medians where feasible					High		High	High	High	Medium	High	High	Medium	High
People riding transit: Implement BRT-style service with articulated buses and stations, transit signal priority, transit station at CSU Equine Center; transit service to focus along West Elizabeth-Constitution-Plum route	High	High	High						Medium	High	High	Medium	Medium	High
People walking: Complete sidewalk network with landscape separation where possible, leading pedestrian intervals				High	High	High				High	High	High	Medium	High
MAX on West Elizabeth Design Approach														
People biking: One-way cycle tracks on West Elizabeth Street, green bike lanes through intersections, two-stage turn queue boxes where appropriate				Medium	High		High		Medium	High		High	Medium	High
People driving: Access control at key locations: between Shields Street & City Park Avenue, between Taft Hill Road and Hillcrest Drive, roundabouts at West Elizabeth Street/Overland Trail and West Elizabeth Street/Ponderosa Drive, dual eastbound left- turn lanes at West Elizabeth Street/Shields Street, medians where feasible					High		High	High	High	Medium	High	High	Medium	High
People riding transit: Implement BRT-style service with articulated buses and stations, transit signal priority, transit station at CSU Equine Center; transit service to focus along West Elizabeth route with bus only lanes	High	High	High						Medium	Low	High	Medium	Medium	Medium
People walking: Complete sidewalk network with landscape separation where possible, leading pedestrian intervals				High	High	High				High	High	High	Medium	High

the bikeway.

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



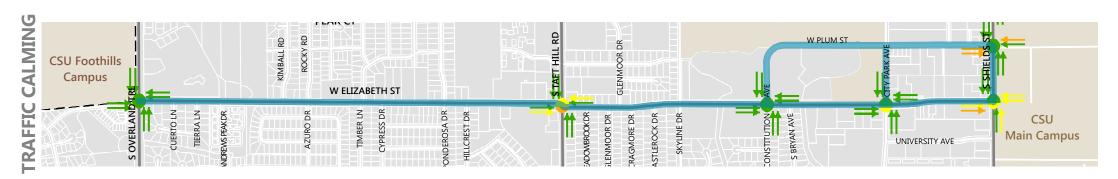


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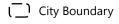




Performance for automobiles is based on approach level of service (LOS), which accounts for vehicle travel speed, and intersection level of service (LOS), which accounts for vehicle delay at intersections. Approach and intersection LOS are based on 2015 traffic volumes and HCM 2010 methodologies.







West Elizabeth Street Study Corridor



The transit score is based on transit reliability

(roadway LOS) and built environment factors

including proximate walkways and bikeways

and bus stop amenities.

**Transit LOS** 

4 - 6 (Low)

\_\_ 10 - 12 (Medium)

7 - 9

13 - 15

16 - 18 (High)





( City Boundary

The pedestrian score is based on sidewalk

width, buffer width and distance to the

nearest crossing.

**Pedestrian LOS** 

8 - 10 (Medium)

2 - 5 (Low)

13 - 15 (High)

6 - 7

11 - 12





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