Proposed Intersection Improvements and Bicycle/Pedestrian Underpass at Shields and Elizabeth Streets

May 25, 2016

Tonight’s Neighborhood Meeting

- City Planning / Improvement Efforts To Date
- Summary of Current Conditions / Challenges
- CSU Planning / Improvement Efforts To Date
- Overview of the Proposed At-Grade Improvements
- Overview of the Proposed Underpass Project
- Project Review and Public Process
- Question & Answer Session
City’s Efforts In the Area

City’s Past Efforts

- West Central Neighborhoods Plan (1999)
- Elizabeth Improvements Constructed (2004)
- Transportation Master Plan (2011)
- Pedestrian Plan (2011)
- Arterial Intersection Prioritization Study (2012)
- City’s Student Housing Action Plan (2013)
- City of Fort Collins Bicycle Plan (2014)
- West Central Area Plan (2015)
Recurring Themes for This Area

- Keep through traffic on arterials (minimize cut-through)
- Enhance safety
- Improve function and operations to minimize congestion, emissions
- Need safe and reliable arterials that are easy to cross
- Better accommodate crossings of arterials to and from CSU
- Support bikes and pedestrians and separate modes where possible
- Enhance the intersection to allow better accessibility to the surrounding businesses

Recent Studies at Shields / Elizabeth

- Top Tier Project
  - Congestion, Safety, Multi Modal Conflicts
- Bicycle Master Plan
  - Second Ranked Priority Intersection on 2020 Network
- Student Housing Action Plan
  - Recommends grade separation at Shields/Elizabeth
- West Central Area Plan
  - Identified as “Short-Mid Term” Intersection Project
  - Reviewed potential for grade-separation
West Elizabeth Enhanced Travel Corridor

At Shields / West Elizabeth:
• Vehicle congestion
• Challenging for pedestrians / bikes to cross Shields
• Long delays for bikes/pedestrians
• More crashes than expected

Study of Crossings along Shields Street

<table>
<thead>
<tr>
<th>Location</th>
<th>Bike/Ped Demand</th>
<th>Entering Vehicles</th>
<th>Cost</th>
<th>Feasibility/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laurel Street</td>
<td>31</td>
<td>3,229</td>
<td>$</td>
<td>Existing crossing accommodates need</td>
</tr>
<tr>
<td>Plum Street</td>
<td>259</td>
<td>2,950</td>
<td>$$</td>
<td>High demand - Not feasible as removal of structures is required</td>
</tr>
<tr>
<td>Elizabeth Street</td>
<td>310</td>
<td>3,846</td>
<td>$$$</td>
<td>Underpass feasible – Highest existing and future demand – Highest conflict area</td>
</tr>
<tr>
<td>Between University Ave and South Drive</td>
<td>20-30</td>
<td>2,775</td>
<td>$</td>
<td>Low demand</td>
</tr>
<tr>
<td>Between Springfield Dr and Pitkin Street</td>
<td>42</td>
<td>2,775</td>
<td>$</td>
<td>At grade signalized crossing already funded</td>
</tr>
<tr>
<td>Lake Street</td>
<td>45</td>
<td>2,937</td>
<td>$$</td>
<td>Existing crossing accommodates need</td>
</tr>
</tbody>
</table>
Current Conditions and Anticipated Challenges

Shields at West Elizabeth - Vehicles

- 50,000 vehicles per day enter the intersection (up 20% since 2009)
- Generally heavy congestion on Shields
- Northbound left turn at Level of Service F in peak hour (creates cut-through traffic in neighborhoods)

Shields looking north
Proposed Intersection Improvements and Underpass
At Shields and West Elizabeth Streets

• Heaviest vehicular / bike / pedestrian corridor in City of Fort Collins

• More than 2,000 bikes per day cross Shields (up 40% increase since 2009)

• In a peak hour, 140 bikes and 120 pedestrians cross Shields

Shields at West Elizabeth – Bikes / Pedestrians

2010-2014 (five years)

• More crashes than expected: 154 total with 28 injury crashes

• Bike crashes: 3 in the past five years

• Pedestrian crashes: 2 in past five years

Shields at West Elizabeth – Safety
Proposed Intersection Improvements and Underpass
At Shields and West Elizabeth Streets

Accessibility for Campus Community:
- 7,500 – 10,000 students currently live west of campus in this corridor
- Improve access between campus and the surrounding businesses and neighborhoods on a daily basis and during events on campus (at Moby Arena, etc.)

Stadium Game Day:
- In the peak hour after a game, more than 1,000 bikes/pedestrians will need to cross Shields at West Elizabeth
- Concurrently with heavy vehicular volumes along Shields and in Moby parking lot

Planning for the Future

CSU’s Efforts In the Area
At Shields / West Elizabeth:

- Heavy bike and pedestrian volumes
- Poor Levels of Service for vehicles
- Recommends improvements including additional lanes

The CSU Parking and Transportation Master Plan is incorporated into the CSU Physical Master Plan, approved by Board of Governors April 2014.

Available online:
https://www.fm.colostate.edu/files/forms/Parking_Transportation_Master_Plan_Study.pdf

CSU On-Campus Stadium

- Seats 41,000 people
- Transportation framework includes strong multi-modal element with a focus on better access to campus
- City and CSU entered into Intergovernmental Agreement (IGA) that outlines infrastructure improvements needed for the Stadium
- Goal of improvements is to address game day needs that cannot be addressed operationally
- Ensure that improvements are good investment and also support daily needs
How Shields/Elizabeth is listed in IGA

Part C: Transportation Improvements:

CSU agrees to construct or to fund the following improvements to be completed .... prior to the first Major Event held at the Stadium:

Lane improvements at Elizabeth and Shields

IGA Dated April 13, 2015, Section C “Transportation Improvements,” Page 8

How Shields/Elizabeth is listed in IGA

Part D: Additional and Ongoing Study:

The Parties [CSU and City] are fully committed to implementing the following projects as soon as practicable:

Grade-separated pedestrian and bike crossings or other improvements to address crossing issues on Shields Street between Laurel Street and Bennett Court.

IGA Dated April 13, 2015, Section D “Additional or Ongoing Study,” Page 9
Proposed Intersection Improvements and Underpass At Shields and West Elizabeth Streets

- Enhanced pedestrian crossing at Laurel St. and Washington Ave., Summer 2016
- Domestic water line replacement around The Oval, May 16 - Aug. 2016
- Gas line replacement, May 16 - Aug. 2016
- New chilled water lines on East Dr. from Pitkin St. to University Ave., May 16 - Aug. 2016
- New Chemistry Research Building, Winter 2016 - Fall 2017
- New Biology Building, Fall 2015 - Fall 2017
- New CSU Health & Medical Center, Winter 2016 - Summer 2017
- New bike/pedestrian underpass at Prospect Rd. and Center Ave., Nov. 2015 - July 2016

Proposed At-Grade Intersection Improvements

- New sanitary sewer service on Whittier St. for Stadium Row, from Lake St. to Wallenberg Dr., May 2 - Aug. 2016
- Domestic water line replacement on Pitkin St., May 16 - July 2016
- New sidewalk on south side of Lake St. from Shields St. to Center Ave., June - Aug. 2016
- Enhanced sidewalk on east side of Whittier St. from Prospect Rd. to Lake St., June - Aug. 2016
- Parking lot expansion at Aggie Village, July - Sept. 2016

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Proposed At-Grade Intersection Improvements (with underpass)

Proposed At-Grade Intersection Improvements
At Shields and West Elizabeth Streets

Proposed At-Grade Intersection Improvements
Shields Street - View Looking South
Proposed Underpass Project

Grade-Separated Crossing Feasibility Study

Spring 2016 Feasibility Study Addressed:

- What problems are we trying to solve?
- Overpass vs. underpass
- Floodplain
- Best location for a grade-separated crossing (including Plum St. vs. Shields St.)
Proposed Underpass Project – Concept Plan

View Looking West Towards Shields on South Side of Elizabeth

Benefits of Grade Separation

- Improved intersection function and operations:
  - Reduced overall delay by 25%
- Increased safety:
  - Reduced number of conflict points among modes
  - Reduction in overall delay reduces rear-end crashes
- Eliminated crossing delay for bikes / pedestrians
- Increased comfort and safety for active modes of travel
- Gateway opportunity for Colorado State
- Aesthetic improvements to area
Important Issues To Be Addressed

- Business access changes and improvements
- Preservation of parking
- Trail crossing of Campus West access
- Design is evolving
- Timeline (When this project may start construction)

Estimated Construction Timeframe

For At-Grade Improvements and Underpass Project:

- Start date dependent on right-of-way acquisitions
- Duration anticipated at 10-month total
- Construction would be phased and would be planned to not keep the entire area closed for that duration
- Goal is to minimize disruption to businesses during construction
Proposed Public Process for the Intersection Improvement and Underpass Projects

- Comments received tonight will be forwarded to the design-build team
- City Review
- Follow-up Underpass Neighborhood Meeting: Tentatively Scheduled for July 2016

Additional Informational Opportunity:
- Open House for West Elizabeth Enhanced Travel Corridor: June 16, 6 – 8 pm, Westminster Presbyterian Church
Questions and Comments