



FEDERAL BOULEVARD

MULTIMODAL TRANSPORTATION STUDY

Stakeholder Working Group Meeting #2

December 10, 2020



Meeting Facilitation

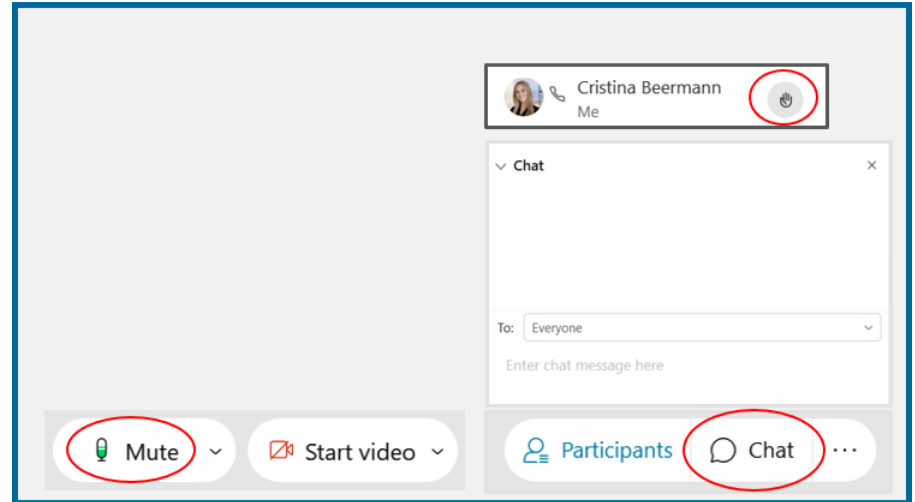
Ask Questions & Provide Comments

Webex Instructions

- Maintain mute
- Video
- Chat box
- Hand raise

Menti.com for feedback exercise

Go to www.menti.com and use the code 89 18 79 0



Welcome and Introductions

Introductions

Who We Are

The 'Partnership' management team:

- **Adams County:**

Chris Chovan

Senior Transportation and Mobility
Planner

- **City of Federal Heights:**

Tim Williams

Community Development Director

- **City of Westminster:**

Debra Baskett

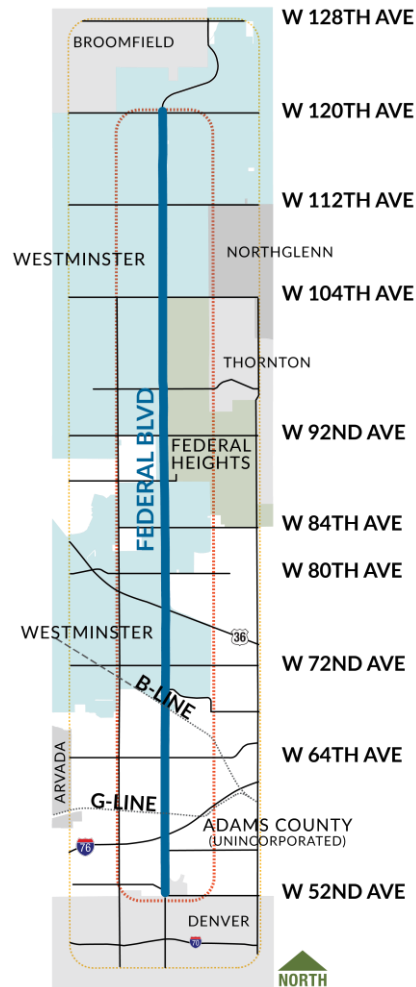
Senior Transportation and Mobility
Planner



Welcome

Agenda

- Introductions
- Study Process
- Stakeholder Engagement Update
- Needs and Conditions Summary
 - Stakeholder input
- Long Range Improvements
 - Stakeholder input
- Short Term Improvement Opportunity
- Next Steps



Working Group Members Roll Call

Thank you for joining us today! Please 'sign-in' by entering your name and organization (if applicable) in the Chat box on the bottom right of your screen.

Project Update

Study Process



Engagement

Update

- SWG Meeting #1
- Public Questionnaire
 - 250 responses
- Community Ambassadors
- Business outreach
- Stakeholder interview completion

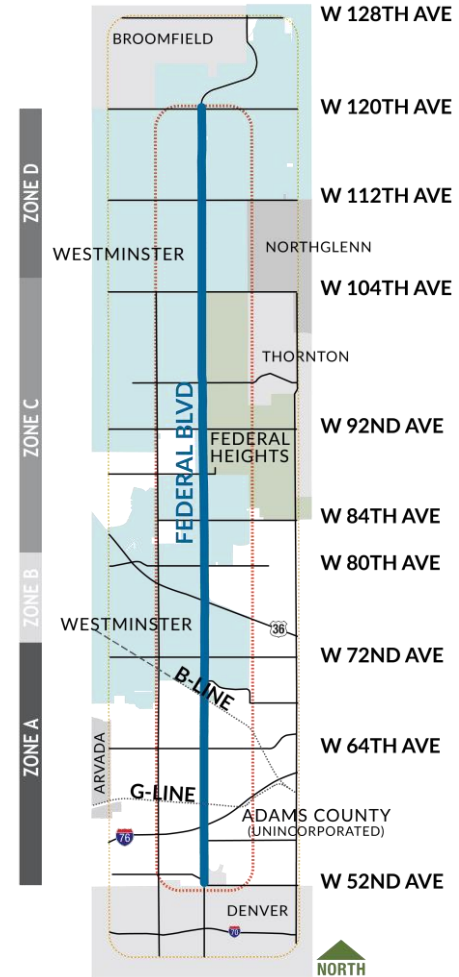
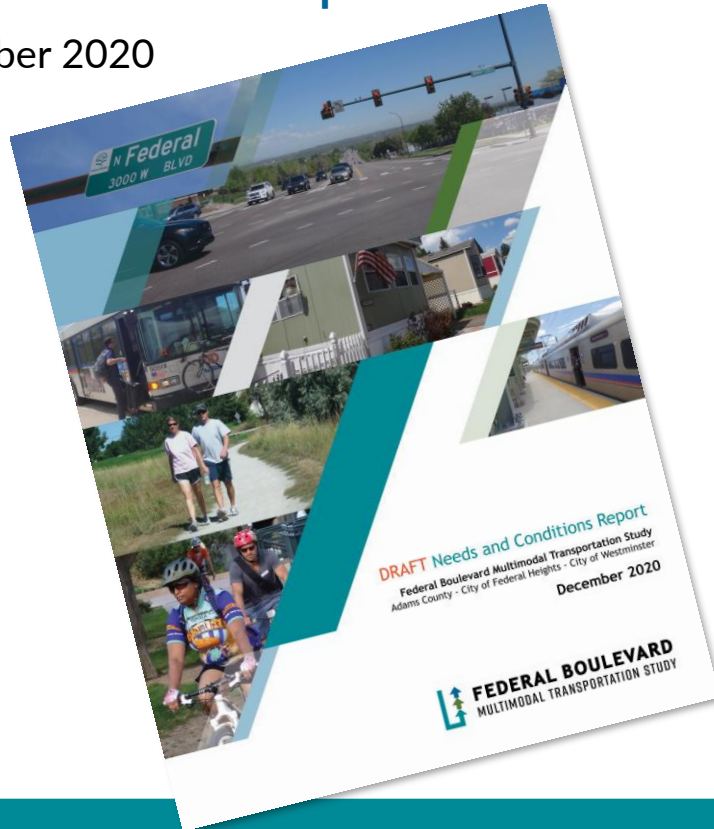


Needs and Conditions Findings

Needs and Conditions

Needs and Conditions Report

Draft December 2020



Needs and Conditions - Safety

Public and Stakeholder Input



When asked to indicate their top ranked concern along Federal Boulevard, 43% of questionnaire respondents selected:

“Safety & Comfortability (i.e. speeding, personal safety, lighting at nighttime, etc.)”

One survey respondent said they experience:

“General fear for safety along entire Federal corridor.”

- Survey Respondent

Needs and Conditions - Safety

High crash rate - especially for pedestrians



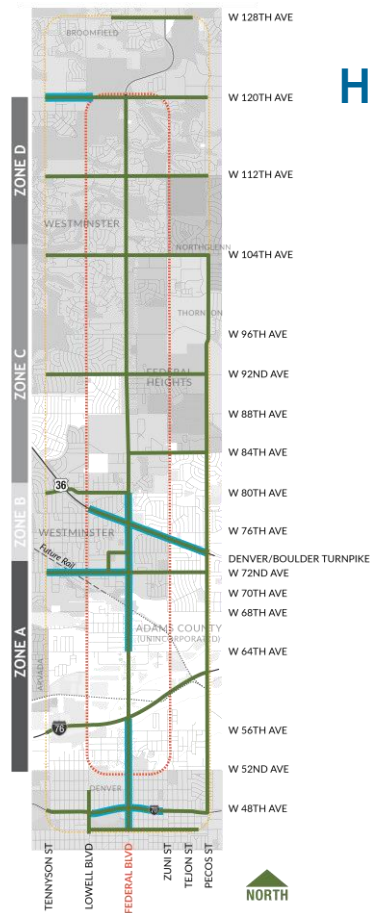
Crash/Injury Data

Type	Total Crashes (KSI Data)
Pedestrian	60
Bicyclist	16
Automobile Occupant	138
TOTAL	214

Source: DRCOG Regional Vision Zero High-Injury Network and Critical Corridors, 2013-2017

LEGEND

- High Injury Network (DRCOG Vision Zero)
- High Injury Network Critical Corridor (DRCOG Vision Zero)
- Study Area Boundary
- Influence Area



Needs and Conditions - Pedestrian & Bicycle

Public and Stakeholder Input



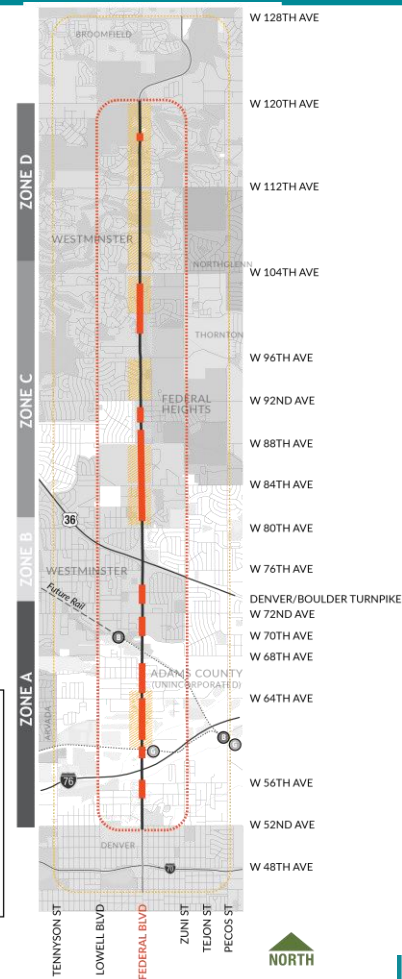
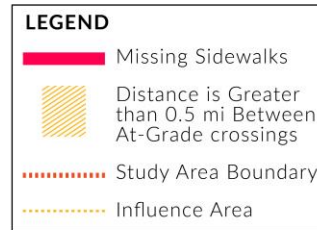
The most frequently noted corridor-wide experience associated with concerns for safety was a lack of pedestrian and bicycle facilities, i.e. consistent sidewalks, pedestrian connections, safe biking options along/around the Federal corridor

“There are long stretch(es) of Federal that don't even have sidewalks, and some aren't even wide enough. And with the speeding along Federal there needs to be a barrier along the street to protect people walking”

- *Survey respondent*

Needs and Conditions - Pedestrian & Bicycle

Challenging Experience for Walking/Biking



Needs and Conditions - Transit

Public and Stakeholder Input



In the 1st SWG meeting, we asked what needs were most important to you and the communities you serve. 71% of you said:
“Connections to mobility options including bus, rail, sidewalks and trails”

One-on-one interviewees nearly unanimous in emphasizing the need for major transit improvements

“BRT, high capacity and high-quality transit service should be considered to improve reliability.”

- Stakeholder quote

Needs and Conditions - Transit

Significant Connections to Regional Transit Service

- Over 1,600 daily riders on Route 31 (within the study area, 2019)



Needs and Conditions - Traffic Operations

Public and Stakeholder Input



22% of respondents noted traffic congestion as their top-rated concern along the corridor

Common request of questionnaire respondents:
“Better use of timed intersection signals”

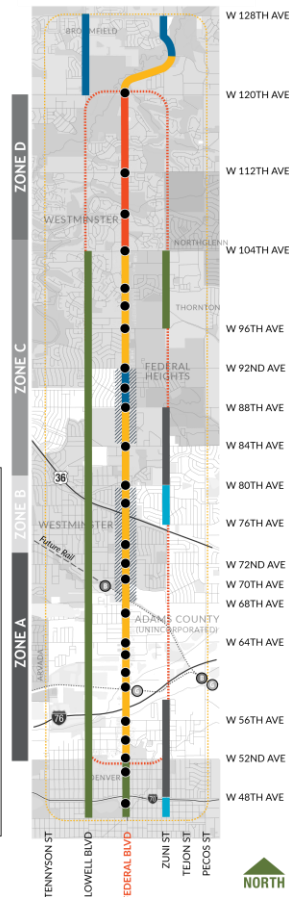
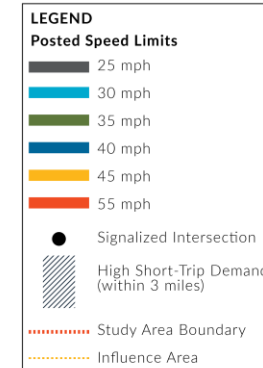
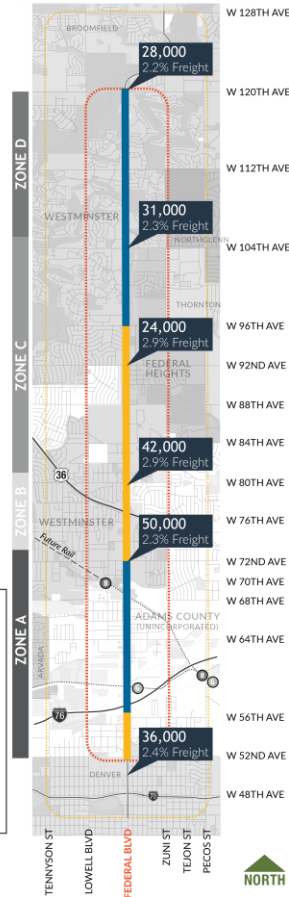
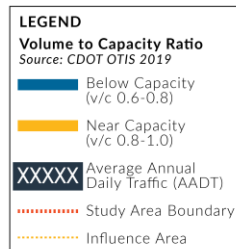
“Lanes are narrow, drivers are constantly speeding, there is no barrier between sidewalks and roads, crosswalks are poorly marked.”

- Survey respondent

Needs and Conditions - Traffic Operations

Important Corridor within the Local/Regional Mobility Network

- Most of corridor is below capacity, though some segments are still congested
- Posted speeds range from 40 to 55 mph within study area



Draft Mobility Needs

The Federal Boulevard Multimodal Transportation Study will...

- Focus on **safe, equitable, consistent, and high-quality** options
- Build on **existing multimodal facilities** (trails, rail, etc.)
- Identify **attainable alternatives** to driving alone
- Generate recommendations for **walking, rolling, biking, transit, driving, and freight**

Group Activity - Menti

Go to www.menti.com and use the code 89 18 79 0

Stakeholder Input

Goals of this Exercise

We've developed a set of transportation and mobility tactics based on:

- The Needs & Conditions analysis
- Stakeholder input

We'd like your feedback on the benefit and priority of each tactic.

There are three categories of tactics in the polling exercise

1. **Multimodal connections** – i.e. sidewalks, scooters, first and last mile connections to transit
2. **Movement of people** – i.e. how efficiently we move people along the corridor by bus, car, bike, etc.
3. **Corridor enhancements** – i.e. corridor beautification, landscaping, medians, etc.



Multimodal Connections

Tactics

- 1 Identify sidewalk gap locations and bring all sidewalks to minimum widths for each zone
- 2 Identify and implement a safe and functional bicycle network within the study boundaries
- 3 Focus on last/first mile connections to transit stops, stations, etc. including shelters, lighting, etc. within each zone
- 4 Determine locations within each zone for implementation of scooter/e-bike facilities

Movement of People

Tactics

- 1 Implement traffic calming measures (narrow vehicular travel lanes, intersection operations)
- 2 Implement safety improvements (to address locations with high crash frequency)
- 3 Consolidate driveways and/or curb cuts (to improve safety and mobility)
- 4 Implement transit priority measures to improve transit speed and reliability (signal priority, queue jump lanes, etc.)

Corridor Environment

Tactics

- 1 Improve landscaping
- 2 Develop and implement a public art program
- 3 Streamline signage
- 4 Implement transit stop enhancements consistent within each zone
- 5 Implement street/sidewalk lighting standards for each zone

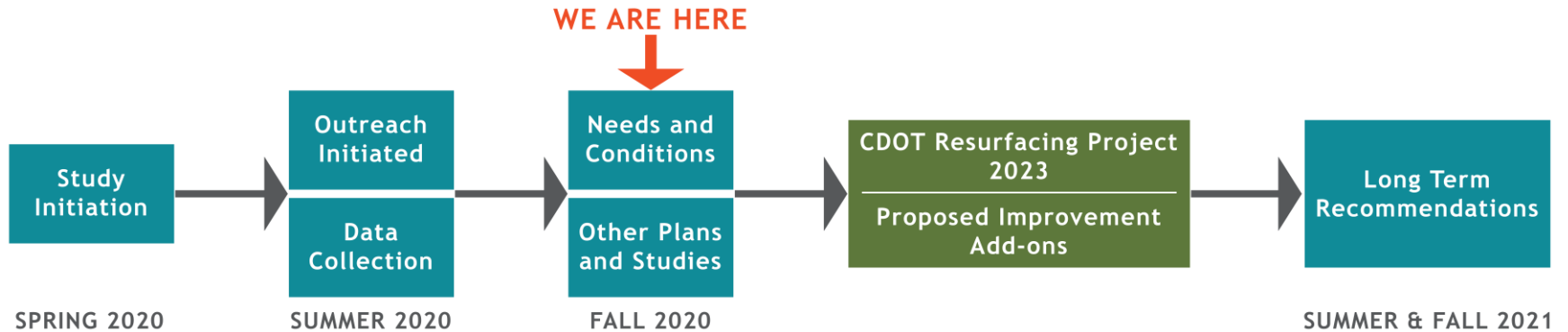
Discussion

Short Term Improvement Opportunity

Study Process



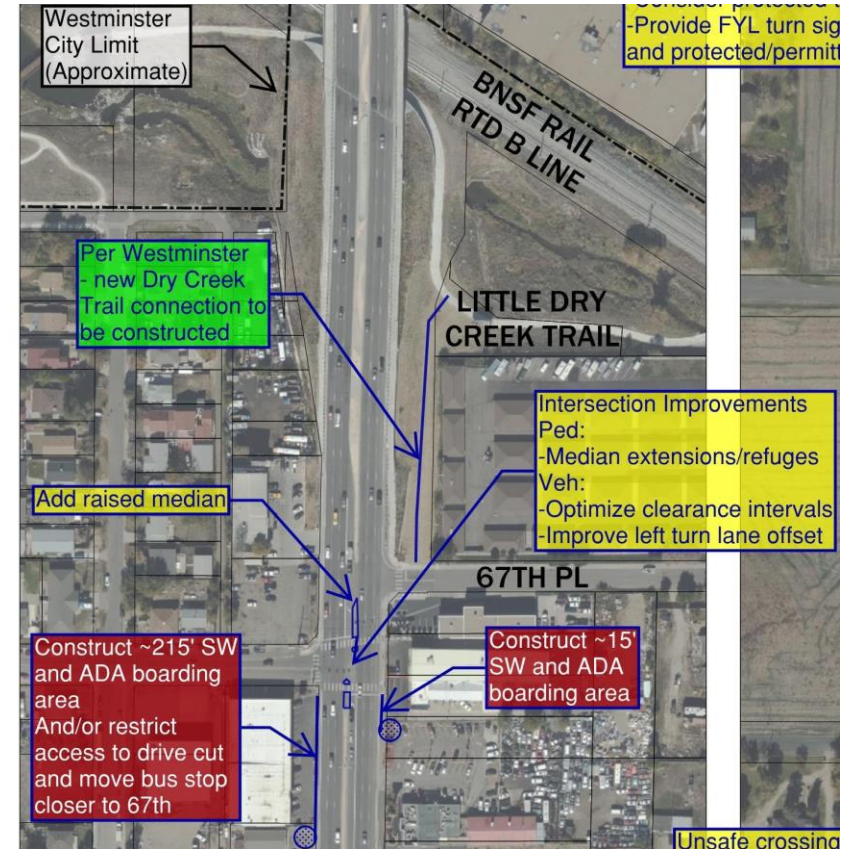
Study Process



Short Term Opportunity

CDOT Repaving Project

- I-70 to 92nd Avenue
- Repaving, Curb Ramp Improvements to ADA standards
- Construction begins 1st quarter 2023
- Partners recognized opportunity to request additional improvements



Example Recommendations and Description

Leading Pedestrian Interval

A leading pedestrian interval (LPI) gives pedestrians the opportunity to enter an intersection 3-7 seconds before vehicles are given a green indication. With this head start, pedestrians can better establish their presence in the crosswalk before vehicles have priority to turn left.



Example Recommendations and Description

Countdown Pedestrian Crossing Signal

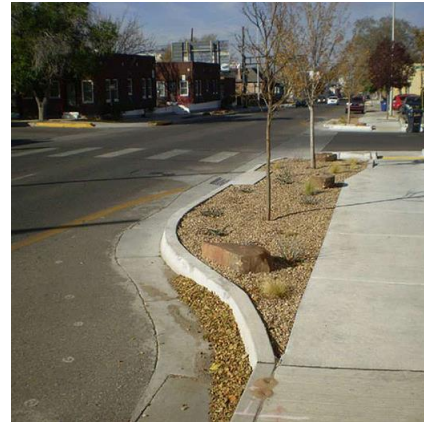
These systems provide pedestrians with the remaining seconds available before the pedestrian phase ends.



Example Recommendations and Description

Curb Extensions and Directional Curb Ramps

Curb extensions are only recommended in a few specific areas where there is unused roadway width on streets crossing Federal Blvd.



Example Recommendations and Description

Median Refuge / Extension

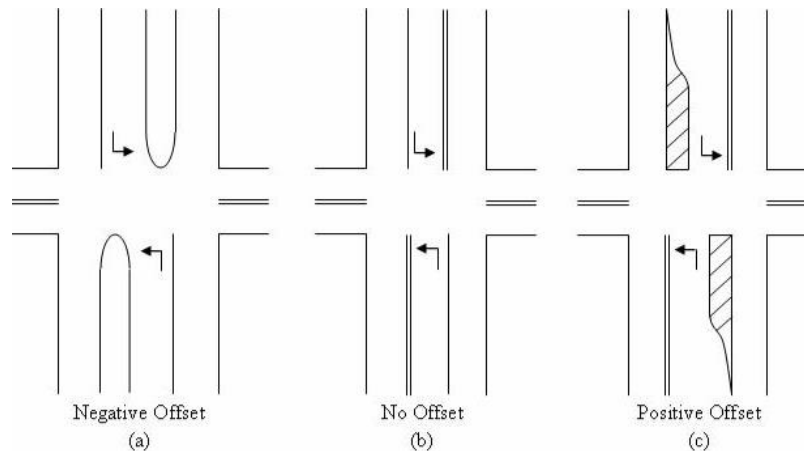
An area in the middle of a roadway where a crossing pedestrian can take shelter from approaching traffic in either direction. A median refuge allows a pedestrian to cross each direction of approaching traffic in a separate step.



Example Recommendations and Description

Left Turn Positive Offset

Adding a left turn positive offset to intersections on Federal Blvd would allow left turning traffic to see oncoming traffic more clearly, allowing a driver to better determine safe gaps for completing turning movements. Most of existing Federal Boulevard has a raised median and has negative left turn offset at intersections.



Example Recommendations and Description

Reflective Signal Tape Around Signal Heads

The use of retroreflective borders on existing signal backplates to increase the visibility of traffic signals (particularly at night or under low-visibility conditions) is a simple, inexpensive countermeasure that can reduce crashes by improving driver awareness of traffic signals.



Example Recommendations and Description

Hybrid Pedestrian Beacon Signal (HAWK)

A pedestrian hybrid beacon is a relatively new type of crossing treatment used to both warn and control traffic at a pedestrian crossing. It is actuated by a pedestrian push button, and uses a combination of circular yellow and red traffic signal displays to first warn motorists of a pedestrian that is about to cross the street, then requires the motorist to stop for the pedestrian crossing.



Drivers		Pedestrians	
...will see this	... will do this	... will see this	... will do this
	Proceed with Caution		Push the Button to Cross
	Slow Down (Pedestrian has activated the push button)		Wait
	Prepare to Stop		Continue to Wait
	STOP! (Pedestrian in Crosswalk)		Start Crossing
	STOP! Proceed with Caution if Clear		Continue Crossing (Countdown Signal)
	Proceed if Clear		Push the Button to Cross

Example Recommendations and Description

Rectangular Rapid Flash Beacons (RRFB)

RRFBs are user-actuated amber LEDs that supplement warning signs at unsignalized intersections or mid-block crosswalks.



Example Recommendations and Description

Sidewalk Extensions to Bus Stops / Alighting Areas

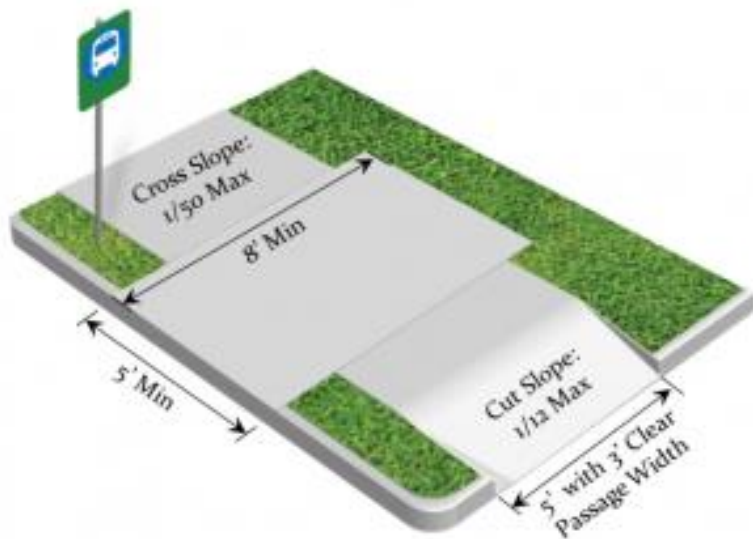
There are significant stretches of Federal Blvd without adequate pedestrian facilities. This limits mobility for all users and makes access to the transit resources on Federal Blvd difficult or impossible to access for some communities. By adding sidewalk connections to the nearest sidestreet, users will have an ADA accessible path into the adjacent neighborhoods.



Example Recommendations and Description

ADA Boarding Area at Transit Stops

Similar to the lack of sidewalk access to transit facilities on Federal Blvd, many bus stops do not have adequate facilities for ramp loading available to the users or the bus drivers. Installing these 8' by 5' level concrete pads increases access for all users during loading and unloading.



Example Recommendations and Description

Transit Priority Lane

Transit priority lanes can be installed on Federal Blvd in several locations where there is already a paved shoulder or auxiliary/turn lane. By allowing busses to use this existing space, transit speed and reliability on the corridor will improve.



Next Steps

Thank You!



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