Living Lab Conclusion

The city is in the process of wrapping up the Living Lab program that was initiated in 2013 as part of the Transportation Master Plan update. The following provides a status update and recommendation for each of the remaining Phase I and II projects:

Phase I Projects

Baseline Road – Protected Bike Lanes

The city Transportation Division has removed the concrete parking blocks along the existing the pilot project segment and performed the following refinements in July, 2016:

- Flexible bollards from 30th Street to 37th were shifted from every 30 feet to every 60 feet to reduce visual impacts.
- Protected bike lanes were extended from 37th Street to Mohawk Drive, which included the installation of bollards to provide a continuous protected bike connection between the University of Colorado Boulder campus, Bear Creek multi-use path and the Meadows on the Parkway Shopping Center.

Bike counters were installed prior to the extension of the protected bike lanes; however, no immediate change in bicycle volume was observed following the extension. As the bicycle low stress network is built out over time and Baseline Road is linked with other low stress routes, it's possible bicycle volume will increase.

Folsom Street/Arapahoe Avenue Intersection - Bike Box

The bike box facility was tested as part of a Federal Highways Administration "request to experiment" process. Benefits of the bike box include heightened visibility of the bicyclists at the intersection and the motor vehicle right turn restriction on red to mitigate the "right hook" type of crash. Bicyclists however, did not make use of the green box in terms of queuing in front of vehicles within the travel lane. Staff is currently examining a design alternative that would remove the green box component of the facility, but still provide the bicyclists with increased visibility and "right hook" crash mitigation.

University Avenue – Back-in Angle Parking

This facility provides a safety benefit for bicyclists as no crashes have occurred involving a motor vehicle entering or exiting a parking space and a bicyclist since the project was installed in September, 2013. In the three years prior to installation, two crashes between motor vehicles and bicyclists occurred as a result of motor vehicles pulling into or backing out of the parking stall into the path of a bicyclist. A few minor crashes between motor vehicles have occurred since the project's inception, which typically involves a motor vehicle striking a parked car when backing up into the parking stall. Parking compliance is fair at best. The table below represents the number of citations issued over that last 3.5 years.

2013	2014	2015	2016	Total
August-December	January-December	January-December	January-December	
1396	1116	1000	911	4423

Boulder Junction – Shared Street and Multi-way Boulevard Facilities

Baseline data for the Shared Street and Multi-way Boulevard has been collected and the following information provides key observations from this initial analysis.

The Boulder Junction facilities were designed as a means to achieve both multimodal transportation access and placemaking; however, the projects are in their infancy in terms of transportation data as well as their role to encourage people to congregate within or nearby the facilities. This is due to early stage of the development in the district and a few parcels of land that have not yet been developed in the general vicinity of the facilities. As Boulder Junction continues to develop, so will its sense of place and the multimodal transportation system. The baseline data collected through the Living Lab program will be helpful for staff to compare to over subsequent years. Staff is continuing to monitor the Boulder Junction area shared street and multi-way boulevard and will provide future updates to TAB regarding their results over time.

Phase II Projects

Folsom Street Pilot Project – Valmont Road to Colorado Avenue

This project was installed in July 2015 to demonstrate bicycle treatments that have the potential to increase safety and usability for all travelers. The project involved repurposing vehicle travel lanes from Valmont Road to Canyon Boulevard and installing enhanced bicycle facilities. The travel lanes on Folsom Street between Canyon Boulevard and Arapahoe Avenue were not repurposed at the time of initial installation. Buffered bike lanes were installed from Arapahoe Avenue to Colorado Avenue in Summer 2015 and extended in the Spring 2016 in conjunction with CU construction projects.

In Fall 2015, Folsom Street between Canyon Boulevard and Spruce Street was restored to four vehicle lanes. These modifications were successful at improving the flow of vehicle traffic in this section of the corridor, including at the Pearl Street and Canyon Boulevard intersections. Since then, vehicle travel times along the entirety of corridor have returned to pre-Living Lab conditions. These changes also helped to address the community concerns regarding increased traffic congestion and travel time increases.

Today, travel lane repurposing and protected bike lanes remain in place from Valmont Road to Spruce Street and have not had a major impact on normal traffic flow. Additional bicycle counters were installed along the corridors at the time of initial project installation and reveal that bike use was highest when the full project was in place; however, it is unknown if this increase was due to the enhanced facility, or because the Folsom Street pilot project was receiving a lot of attention in the media at the time. Nevertheless, an analysis of daily bicycle volumes versus average daily temperature suggests that even after the project was modified, bicycle volumes have remained higher than the pre-project volumes.

The total number of crashes along the corridor has decreased by about 10% since the pilot project was installed. However, crashes involving bicyclists have increased since the installation, specifically those involving left-turning vehicles or bicyclists riding on the sidewalk. Staff is working to mitigate these crashes using the strategies set forth in the Safe Streets Boulder report. Please click on the Folsom Street data summary for more information.

The Folsom Street corridor will be included in the upcoming Low Street Multimodal Network Analysis with the understanding that additional north-south routes for bicycling through the city needs to be identified and planned for as part that network analysis. Staff recommends keeping the existing bicycle facility treatments installed along the Folsom Street corridor and continuing to monitor the safety and bicycle use over time.