

Date: March 15, 2023
To: Chair Ramos and Transportation and Mobility Commission Members
From: Emily Benoit, Senior Transportation Planner, Community Development
CC: Rebecca Kennedy, Deputy Director, Community Development
Ryan Lopossa, Streets and Transportation Division Manager, Public Works
RE: McLoughlin Boulevard Complete Street Evaluation and Recommendations

Background

In response to the adoption of the 2016-2021 Strategic Plan, adoption of a Complete Streets policy in 2017, and in alignment with the City's Pavement Management Program, City Staff initiated the McLoughlin Safety Improvement Project in January 2018. The Project included sections of three roadways – McLoughlin Blvd from E Reserve St to Brandt Rd, Brandt Rd from McLoughlin Blvd to Mill Plain Blvd, and Mill Plain Blvd from Brandt Rd to MacArthur Blvd – with improvements anticipated to be phased, with McLoughlin Blvd starting first in alignment with planning pavement work. Proposed safety improvements were intended to benefit people of all ages and abilities who walk, bike, roll, use a mobility device, take transit, and drive.

City Staff recommended and Council supported a two-part project on McLoughlin Blvd from E Reserve St to Brandt Rd that included permanent traffic calming and enhanced pedestrian crossings, and a pilot that included buffered mobility lanes to provide an all ages and abilities facility.

The Project, starting in Summer 2019, implemented the following permanent safety and mobility improvements along the corridor:

- Sixteen speed cushions on McLoughlin Blvd between E Reserve St and Brandt Rd.
- Two enhanced pedestrian crossings on McLoughlin Blvd at E 32nd Ave and E 13th St, with rectangular rapid-flashing beacon (RRFB) lights that activate with a push button.

The pilot elements, also installed in Summer 2019, implemented the following temporary safety and mobility improvements along the corridor:

- Buffered mobility lanes on McLoughlin Blvd between E Reserve St and Grand Pl, resulting in the removal of approximately 30 on-street parking spaces.
- Painted sharrows (shared lane bicycle markings) on McLoughlin Blvd between Grand Blvd and Brandt Rd.

Council embedded a post project evaluation process for all Complete Streets projects to determine how the added safety and mobility elements function, and to recommend refinements and changes if needed. The permanent elements were evaluated to determine if refinements would be needed, while the pilot elements were evaluated to determine if either refinements or wholesale changes should be recommended.

Collection of post-project evaluation data for McLoughlin Blvd was delayed until September 2022 due to changes in travel patterns associated with the COVID-19 pandemic. The evaluation of the permanent and pilot project elements is informed by this data collection, and the performance improvements in the project area supports additional safety improvements for the corridor. These would be implemented in conjunction with the next repaving project, scheduled to occur in 2025.

Technical Findings

Pre- and post-project traffic volumes and speeds, transit ridership data, collision data, level of traffic stress and parking utilization were collected along the corridor to compare the impacts of the project elements. Pre-project data was collected in 2018 and 2019 and post-project data was primarily collected in September 2022.

Bicycle Volumes

Bicycle ridership in all periods was higher on the west end of the corridor, in proximity to significant destinations including Hudson's Bay High School, Clark College, and the Washington State School for the Blind. Bicycle volumes declined in the a.m. peak hour and remained stable during the p.m. peak hour between the pre- and post-project conditions. The COVID-19 pandemic may have influenced the number of people biking and using small mobility devices as travel patterns shifted. The increase in remote work and hybrid classes may have reduced the number of people using mobility lanes for the a.m. peak hour commute.

Bicycle Level of Traffic Stress

The bicycle level of traffic stress (LTS) was calculated for both east and west travel directions along McLoughlin Blvd. LTS considers the speed limit, average daily traffic, and type of bicycle facility to create an overall level of stress for mobility lane users. LTS scores range from 1 (low stress for people biking) to 4 (high stress). The pre-project facilities yielded LTS of 2 and 3, whereas the post-project facilities yield LTS scores of 1 and 2. The post-project segments with an LTS score of 2 are the westbound section between E Reserve St and W St, which has non-buffered mobility lanes and the segment between Grand Blvd and Brandt Rd which has painted sharrows, or shared lane bicycle markings.

Vehicle Volumes and Speeds

Vehicle volumes from 2018 to 2022 decreased. While we don't have data on the exact causes of this decline, it coincides with the COVID-19 pandemic and subsequent travel pattern changes, indicating that it has been a major contributing factor. Regardless of the causes, the reduction in vehicles combined with the corridor improvements contribute to the corridor being an attractive route for bicyclists and small mobility users.

Vehicle speeds declined by 2-7 MPH in the middle of the corridor near Grand Blvd but increased by 1-3 MPH on each end of the corridor near E Reserve St and Brandt Rd. Vehicle speeds are slower in the middle of the corridor where speed cushions were installed.

Service Provider Feedback

Service providers were contacted to assess the impact of the Project on their operations. In general, feedback was positive and indicated either positive or no impact for all elements.

- C-TRAN indicated that the mobility lanes and speed cushions on McLoughlin Blvd did not adversely affect bus operations, including bus travel times and passenger access to bus stops. Bus operators reported that the buffered mobility lanes have made passing people bicycling or using small mobility devices easier.
- The City's Public Works' Solid Waste Division, whose waste collection contractor is Waste Connections, indicated that the Project did not create any negative impacts on waste collection. The Division's Staff expressed appreciation for the Project Team's collaborative and proactive communication efforts as this project was planned and implemented.
- Staff from Hudson's Bay High School indicated they have not seen any detrimental impacts from the Project. They commented that the Project may have improved safety for students by separating cars from people walking, biking, and using small mobility devices.
- Staff from the Washington State School for the Blind reported that the school had not witnessed any detrimental impacts from the Project.
- The Vancouver Fire and Police Departments also reported no negative impacts from the Project.

City Council and the Transportation and Mobility Commission

On November 5, 2018, City Staff held a workshop with City Council to share the traffic analysis, planned community engagement, and recommend the pilot project. On April 15, 2019, City Staff communicated with City Council on the design analysis and alternatives, community engagement process and next steps for the pilot project, and Council confirmed direction to move forward with the Project. On July 24, 2019, City Staff communicated with City Council on project constraints regarding mail delivery in the corridor and the final design concept. City Staff will communicate the evaluation findings and safety recommendations to Council in April 2023.

The Transportation and Mobility Commission (TMC) was formed in late 2020, after the implementation of the Project. City Staff will communicate the evaluation findings and safety recommendations to the TMC in April 2023.

V. Evaluation and Recommendations to Improve Safety

Overall, the post-project evaluation indicates that the Project is functioning well and has increased safety for all users and reduced vehicle volumes compared to pre-project conditions. Safety improvements have lowered bicycle level of traffic stress and provided an important connection for bicycle and small mobility travel in the City of Vancouver. The overall recommendation is to maintain the existing roadway design with several refinements that will improve safety and functionality of the roadway for all users. No additional parking removal is proposed.

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The following refinements are recommended to increase safety and functionality of the corridor:

- Add painted hash marks inside the mobility lane buffer between E Reserve St and Grand Blvd to create a visual narrowing effect for drivers.
- Extend the buffered mobility lanes on McLoughlin Blvd all the way to Grand Blvd, which currently end at Grand Pl.
- Add painted bike boxes to the eastbound and westbound approaches at the Grand Blvd and E Reserve St intersections to reduce bicycle-motor vehicle conflicts.
- Reduce the width of speed cushions to not extend into the mobility lanes to improve comfort for mobility lane users.
- Continue monitoring crash rates and user behavior, including drivers.

Additionally, the City should consider the following recommendations near the Project to create safer connections in the transportation network, if resources allow:

- Add sharrows on E 13th St (McLoughlin Blvd to Idaho St/Manzanita Way), Idaho St at Boise Ave, and along Idaho St (at Manzanita Way to N Devine Rd) to create a connection to existing projects at N Devine Rd and the Burnt Bridge Creek Trail. This also provides a lower stress local mobility route parallel to the much busier arterial route on E Mill Plain Blvd.
- National Association of City Transportation Officials (NACTO) guidelines for All Ages and Abilities Bikeways indicate that the Grand Blvd-Brandt Rd segment is appropriate for a bicycle boulevard based on vehicle volumes and speeds. Bicycle boulevards include elements such as shared lane markings and wayfinding signs for cyclists.

With the Complete Streets Policy and Complete Streets Program, this project is the first to be implemented and reach the evaluation stage, the last step in the Complete Street project lifecycle, and provide recommendations to continue improving safety on the City's transportation network.

Attachment(s):

- McLoughlin Blvd Complete Street Evaluation Framework (March 2023)
- McLoughlin Blvd Complete Streets Project Presentation (March 2023)
- [McLoughlin Project Implementation Plan](#) (July 2019)

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