

Date: December 5, 2023

To: Chair Ramos and Transportation and Mobility Commission members

CC: Rebecca Kennedy, Deputy Director, Community Development; Ryan Lopossa, Streets & Transportation Division Manager, Public Works; Kate Drennan, Principal Transportation Planner, Community Development

From: Emily Benoit, Senior Transportation Planner, Community Development

RE: **McGillivray Boulevard Safety and Mobility Project – Phase 2 Update**

Overview

The McGillivray Boulevard Safety & Mobility Project is exploring options to improve safety and comfort for all who travel on McGillivray Boulevard between SE Chkalov Drive and SE 164th Avenue. The project is in Phase 2: Develop Design Options and is working towards a recommendation and endorsement of a preferred design option in early 2024. Since the discussion with and feedback from the Transportation and Mobility Commission at the August 2023, the Project Team refined the design options and has conducted additional community engagement on these updated designs.

Design Options

Two draft design options have been advanced for evaluation in alignment with the project goals. This evaluation will help inform the recommendation and endorsement of a preferred design option.

Option #1: Curbside Mobility Lane

Option 1 would repurpose one vehicle travel lane in each direction to provide a 10-foot mobility lane next to the curb, intended for use by people walking and biking that would be separated from vehicle traffic by a parking lane and painted buffer with vertical delineators. (See Figure 1)

Option #2: Center Running Mobility Lane

Option 2 would repurpose one vehicle travel lane in each direction to provide a 10-foot mobility lane next to the center median and a 5-foot walking lane next to the curb in areas where there are no sidewalks and allow for consistent vertical delineators separating the vehicle travel lane from the mobility lane. (See Figure 2)

Both draft design options would include intersection treatments to improve crossings for people walking and biking. Those treatments include:

- High-visibility crosswalks to enhance visibility of pedestrians.

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- Use of green paint to indicate where people biking should wait and cross at intersections.
- Addition of Rectangular Rapid Flashing Beacon (RRFB) at existing mid-block crossing.
- Use of vertical delineators to tighten turning radii, specifically for right-turning vehicles, to reduce vehicle speed in conflict areas with pedestrians.

Figure 1. Option #1: Curbside Mobility Lane

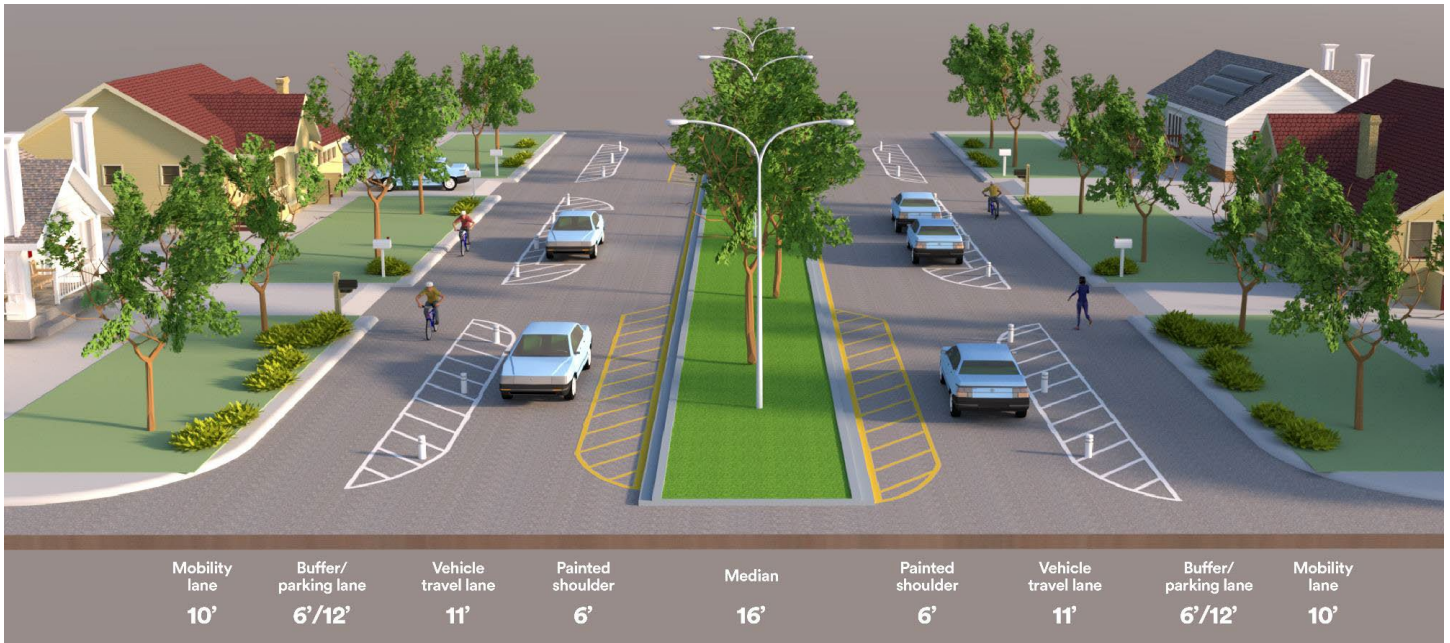
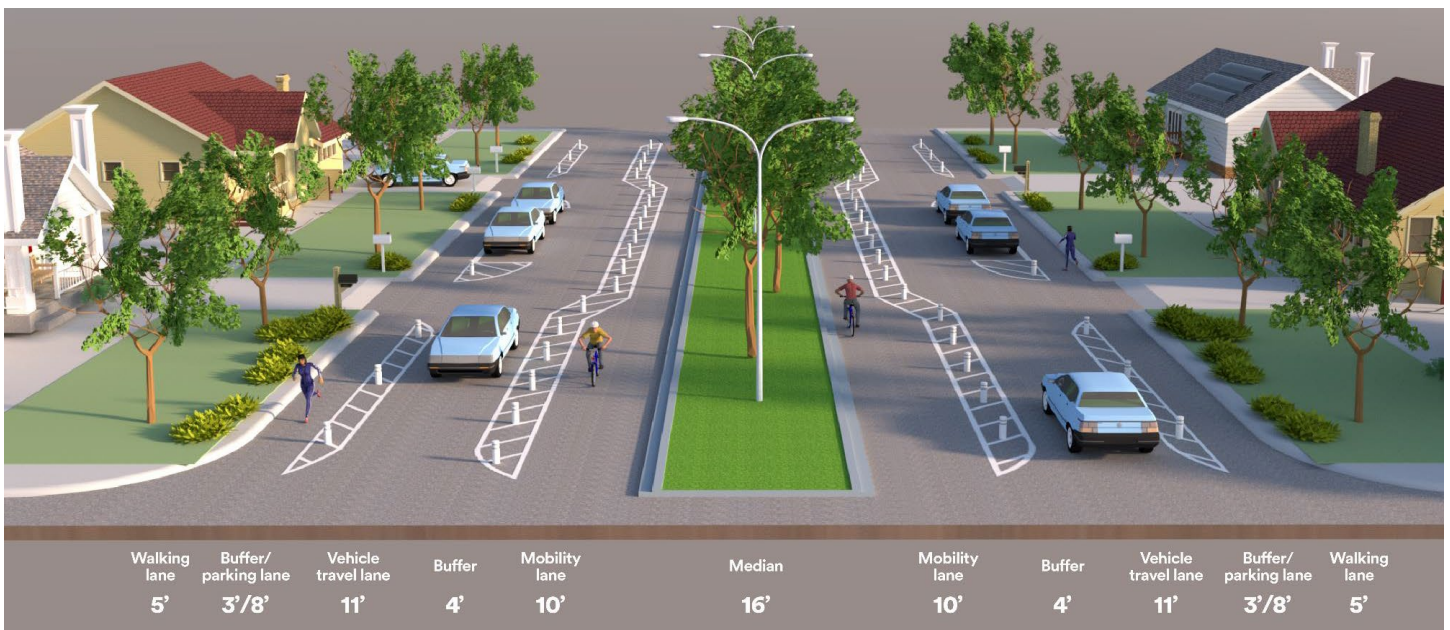


Figure 2. Option #2: Center Running Mobility Lane



Phase 2: Design Options Community Engagement Update

Phase 2: Design Options for the Project began in April 2023 with the development of three preliminary design options. Input on the design options was gathered through in-person and online events between July and November 2023.

Touchpoint 1: Preliminary Design Options

The first touchpoint in Phase 2 was regarding three preliminary design options. This began with community members during July in the form of seven small group community conversations. Feedback gathered during the community conversations, from the Transportation and Mobility Commission at the August 2023 meeting, and evaluation of the preliminary design options for alignment with the project goals resulted in removal of one of the three preliminary design options.

Touchpoint 2: Draft Design Options

Input from Touchpoint 1 helped inform updates to the two remaining design options for Touchpoint 2. In September 2023, an online survey was posted on the Project's [BeHeard](#) page which provided community members an opportunity to share their input on the two refined draft design options, Option #1: Curbside Mobility Lane and Option #2: Center Running Mobility Lane.

Community members were asked to provide input on how well each design option aligned with the three project goals (Lower Vehicle Speeds, Improve Safety & Comfort, and Improve Intersections) and share concerns they may have or additional improvements that they believe would result in better alignment with the project goals. From the survey, community members input supported that Design Option #1: Curbside Mobility Lane would advance all three project goals more than Design Option #2: Center Running Mobility Lane. Community members also believe that additional design features would help to further advance the goals such as having more concrete at the intersections, installing a traffic signal at SE 136th Avenue and filling sidewalk gaps.

As community engagement for Touchpoint 2 is ending, a comprehensive Engagement Summary for all of Phase 2 is forthcoming. Current online survey results are summarized in Table 1.

Phase 2 Engagement Numbers (as of November 2023)

- 7 Community Conversations with 50 Total Participants
- 3 Neighborhood Association Presentations with Q&A Sessions
- 17,160 Mailed Postcards to Promote Community Conversations and Online Survey
- 680 Online Survey Responses
- 40 Written Comments Submitted
- 10 Phone Calls with Project Staff

Table 1: Online Survey Feedback on Draft Design Option by Support and Concern

Design Option	Support	Concern
Option 1: Curbside Mobility Lane	<ul style="list-style-type: none"> • Providing one lane for people walking/biking is easier for drivers • Wide mobility lanes allow families to ride side-by-side • More familiarity with configuration than Option 2 	<ul style="list-style-type: none"> • Lack of separation for users in the mobility lane • Reduction in parking near homes • Breaks in the vertical separation due to driveways • Parked cars are too exposed to traffic in the travel lane
Option 2: Center Running Mobility Lane	<ul style="list-style-type: none"> • Providing separated space for people walking from people biking • More consistent vertical separation for mobility lanes 	<ul style="list-style-type: none"> • Challenges for users accessing center running mobility lane from McGillivray Boulevard • Mobility lane conflicts with left-turning vehicles • High learning curve associated with lane configuration • Maintenance

Addressing Community Member Concerns on the Design Options

There were a few consistent concerns felt by some community members that completed the online survey and attended Neighborhood Association meetings regarding roadway design, including that:

- **Concern:** Design options would be less effective at reducing speeds and improving driver compliance with existing stop-signs than automated enforcement or enhanced police presence.
 - The Project Team has been in contact with the Vancouver Police Department about enforcement efforts on McGillivray Boulevard. Roadway design changes¹ such as those proposed in the Project are also a proven and impactful tool to reduce speeds and increase safety.







¹ For more information about the impact of roadway design for increasing safety for pedestrians, a good resource is [Smart Growth America’s Dangerous by Design 2022 Report](https://smartgrowthamerica.org/dangerous-by-design/): <https://smartgrowthamerica.org/dangerous-by-design/>.

- **Concern:** Repurposing a vehicle travel lane would increase congestion and vehicles would divert onto neighborhood streets surrounding McGillivray Blvd, increasing bad driver behavior.
 - Congestion or diversion are not anticipated to increase significantly due to the Project. In the near term, a lane could be repurposed without substantially increasing delay or queuing at intersections. In the mid-term (2035) and horizon year (2045), delay and queuing will increase with or without the Project. Vehicle volumes are not forecasted to increase above 13,500, below the 15,000 capacity expected for a two-lane roadway.
- **Concern:** Design options would limit access for emergency responders and residential service providers such as mail delivery and trash pick-up.
 - The Project Team has been in contact with the Vancouver Police Department and Vancouver Fire Department about the design options for McGillivray Boulevard to ensure the roadway design will not negatively impact emergency response times.
 - Any elements added to the roadway will not change existing mailbox and driveway access for residents. Proposed designs will help improve sightlines for drivers, pedestrians and people using small mobility devices. Service providers, such as delivery drivers, mail carriers and garbage truck operators can use the parking lane to stop temporarily and unload or load as they do today.

Phase 2: Design Options Evaluation

Both design options were evaluated in alignment with the project goals and corresponding evaluation criteria developed at the beginning of Phase 2. From this evaluation, **Option 1: Curbside Mobility Lane better achieves the project goals overall and compared to Option 2: Center Running Mobility Lane.** Results of the evaluation are summarized in Table 2 and findings per project goal are expanded upon below.

Table 2: Design Option Evaluation Summary

Project Goal	Option 1: Curbside	Option 2: Center Running
1. Lower Vehicle Speeds		
2. Improve Safety & Comfort		
3. Improve Intersections & Crossings		

Significant Improvement      No Improvement

Goal #1: Lower Vehicle Speeds

Lower vehicle travel speeds on the corridor to improve safety for all users regardless of how they travel and to reduce cut-through traffic to support the local road context.

Design options that advance this goal should include:

- Include striping design configurations known to reduce vehicle speeds.
- Include traffic calming elements known to reduce vehicle speeds and volumes.

Goal #1 Findings:

Both design options propose to narrow the amount of space allocated to vehicles through lane repurposing and narrowing of the remaining travel lane from the 12-foot lanes that are provided today to one 11-foot lane in each direction.

Studies have shown that reducing the number of vehicle travel lanes and narrowing lanes are effective ways to lower speeds on a roadway. According to the Federal Highway Administration (FHWA), studies completed after a four-lane roadway was reduced to two-lanes found that both the 85th percentile speed and the number of excessive speeders (people traveling more than six miles per hour over the speed limit) were reduced².

Both design options also include chicanes, design elements that require vehicles to follow S-shaped path on the road, which would be achieved through striping, placement of vertical delineators, and on-street parking. Chicanes, which create a horizontal diversion of traffic, have also been shown to lower speeds on a corridor.

As both design options include these features, it is expected that both Design Option #1 and Design Option #2 would achieve the goal of lowering speeds on McGillivray Boulevard.

Goal #2: Improve Safety & Comfort

Make the corridor safe and comfortable for people of all ages and abilities to walk, bike, roll, use small mobility devices, and access transit.

Design options that advance this goal should include:

- Provide additional space for vulnerable users within the existing roadway.
- Increase separation between mobility lane users and vehicle travel lanes.
- Lower the level of traffic stress experienced by people who walk, bike, roll, use small mobility devices and access transit.
- Improve sightline visibility at intersections.

² https://safety.fhwa.dot.gov/road_diets/guidance/info_guide/ch3.cfm#s332

Goal #2 Findings:

Key factors in being able to successfully lower the level of traffic stress experienced by people walking and riding a bicycle or other small mobility devices is the amount of space provided to these users and separation from vehicles.

Both design options create allocated space for these users through the addition of a 10-foot mobility lane in Design Option #1 and Design Option #2. Design Option #2 also includes a 5-foot walking lane, which would be intended for people walking where there are no sidewalks on the corridor.

Both design options include vertical separation using on-street parking and delineators. Design Option #2 allows for a more consistent vertical barrier for people using the mobility lane due to its placement next to the median, which eliminates the need to create breaks in the vertical protection in order to access residential driveways. Despite the more robust barrier, it is expected that users would be more comfortable with Design Option #1 given its existing familiarity and the expectation that people riding bicycles and other small mobility devices would be located to the right of vehicles in a curb adjacent space.

Both design options include consolidation of on-street parking. This would allow on-street parking to be strategically located where parking is utilized today, such as near the intersection at SE 136th Avenue, to ensure that vehicles parked on-street do not limit visibility near intersections or driveways.

The evaluation of the two design options found that both Design Option #1 and Option #2 would improve safety and comfort for all users on McGillivray Boulevard.

Goal #3: Improve Intersections & Crossings

Improve safety and comfort at intersections and crossings on the corridor.

Design options that advance this goal should include:

- Improve striping design at intersections to clearly delineate space for all users.
- Improve signage preceding and at intersections to communicate appropriate speeds, stops and roadway space for all users.
- Reduce crossing distances at intersections and mid-block crossings.
- Limit on-street parking removal to locations with a safety benefit or to improve sightline visibility at intersections or crossings.

Goal #3 Findings:

The primary benefit of both design options at the intersections is the reduction in the number of potential conflict points experienced by all who travel on the corridor. Today, there are a total of eight potential conflict points with vehicles traveling through the intersections, by reducing the number of

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travel lanes on McGillivray Boulevard from four lanes to two lanes, the number of conflict points are reduced to four.

Restriping to reduce the number of lanes at the intersection will also reduce the number of vehicle travel lanes that pedestrians, bicyclists, and other small mobility users will need to navigate at the intersections. Both design options also include signing and striping to improve visibility and clearly delineate where people walking and bicycling should wait and where they should cross at the intersections.

While both design options improve intersections, the unfamiliar design required of Option #2 with the mobility lane at the median instead of the curb, resulted in the finding that Design Option #1 would better address concerns and improve safety and comfort for all users at intersections along McGillivray Boulevard.

Next Steps

The Project Team will refine the design options to identify a preferred design option based on continued feedback from community members, the Transportation and Mobility Commission and coordination with project stakeholders, including the City's Public Works Department, C-TRAN, emergency responders, and other service providers along the corridor.

A public hearing will be held by the Transportation and Mobility Commission in February 2024 to recommend a preferred design option. That recommendation will then be presented to the City Council for endorsement in Spring 2024. Following the recommendation and endorsement of a preferred design option, Phase 3: Design Improvements will be initiated ahead of and in coordination with the anticipated pavement work for planned implementation in the summer of 2025.

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