Northeast 112th Avenue Safety and Mobility Project: Final Recommendations

October 2024

CITY OF Vancouver WASHINGTON

Northeast 112th Avenue Safety and Mobility Project: Final Recommendations

Prepared for

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Acronyms and Abbreviations

TMC	Transportation and Mobility Commission
TSP	Transportation System Plan
TWLTL	two-way left turn lane

1. Introduction

This report documents the final recommendations for the Northeast 112th Safety and Mobility Project (Project). The study area for the Project spanned NE 112th Avenue from McGillivray Boulevard to NE 51st Street in Vancouver, Washington, an approximately 3.3-mile-long corridor. Figure 1 shows the study area segments along the corridor.

The 112th Avenue Safety and Mobility Project studied opportunities to make travel safer and more comfortable for all users along Chkalov Drive and 112th Avenue between SE McGillivray Boulevard and NE 51st Street in coordination with future City proposed repaving projects. Recommendations in this report include striping revisions that leverage upcoming paving work, as well as complementary safety projects and programs to be addressed through the City's capital programming process. This Project began in spring 2023, with pavement work currently planned for Segment 1 in 2026 and Segment 2 in 2028.

Figure 1. Project Study Area

1.1 Process

Work began with development of the project evaluation criteria in Table 1 and a baseline condition report that outlined existing (2023) and future (2040) traffic and safety trends. This baseline traffic and safety information, in addition to prior plan recommendations, Transportation System Plan (TSP) policy, broader community outreach, and feedback from the Transportation and Mobility Commission (TMC) established the issues and needs that would be addressed by project recommendations.

Community outreach took place within two major milestones, with opportunities for feedback throughout the process (See Appendix C for detailed engagement findings). Milestone 1 public engagement occurred concurrently with the baseline conditions report in the summer and fall of 2023 and focused on gathering community feedback on existing conditions, needs and challenges. Outreach included digital engagement via a project website, social media, and e-newsletters, tabling sessions at communication locations and events, small group briefings, in-person and phone canvassing, and a digital survey which reached more than 23,000 community members. Milestone 1 feedback included:

- Strong support for improving road surfaces and widening lanes to improve comfort and safety for drivers as well as support for sidewalk improvements along the corridor.

- General support for improving safety, accessibility, and comfort for pedestrians.
- Mixed support for mobility/bike lanes – some community members opposed to mobility/bike lanes were concerned about removing space for cars and/or believe the corridor is unfit for bicycle/ small mobility use. Others wanted more robust infrastructure to separate bikes and small mobility users from fastmoving traffic.
- Desire to address vehicles speeding and traffic congestion throughout the corridor.

In late 2023 the project team developed near-term (associated with planned paving) and long-term corridor concepts to address the identified issues and needs. The concepts were reviewed with City Planning and Public Works staff, refined, and advanced for further discussions with the TMC and community. The team presented the concepts to the TMC in December 2023. Milestone 2 public engagement activities in the winter and spring of 2024 included many events similar to Milestone 1, as well as direct outreach to students at Evergreen High School and the Cascadia Technical Academy Career Fair. Outreach results were presented to the TMC in May 2024. Milestone 2 feedback included:

- Urgency for improving road surfaces and enhancing comfort and safety for drivers.
- Strong need for traffic calming measures and desire to accommodate future growth.
- Improving accessibility, comfort and safety for those who walk, bike and roll is important and desirable; however, similar to Milestone 1 feedback, sentiment was mixed regarding the removal of vehicle lanes to make room for people using other modes of transportation.
- Mixed reactions regarding proposed roadway restriping that would remove a lane and add mobility/bike lanes. While some community members express concern that the existing roadway is unsafe, uncomfortable and inaccessible for pedestrians and mobility/bike users, others share concerns that the proposed improvements would decrease the space available for vehicle traffic and increase congestion.

The feedback sourced from more than 20,000 community interactions informed restriping designs and long-term improvement concepts that were presented to the TMC in July 2024. The outcomes of final analysis and input will be brought as recommendations to the TMC in November 2024.

1.2 Goals and Evaluation Criteria

Based on the Project issues and needs, the team developed a set of evaluation criteria for guiding the development and selection of investments. Table 1 displays the evaluation criteria that, in addition to public, TMC, and staff feedback, guided creation of the recommended concepts and improvements captured in this report.

Table 1. Evaluation Criteria

Criterion	Questions the Team will Ask	How did we Measure It?
Mobility improvement for people walking, using a mobility device, bicycling, or using the bus.	Does the concept make it more comfortable and easier for people to walk, roll, bike, use a mobility device or use the bus? Does the concept avoid serious negative impacts to freight and personal vehicle travel in the corridor? Does the concept connect to past or planned mobility improvements?	Concept applies known best practices for increasing comfort and mobility for people walking, using a mobility device, bicycling, or using the bus. Concept maintains or improves transit travel time reliability. Concept meets traffic mobility standards on NE 112th Avenue Concept minimizes diversion to local streets or diversion is mitigatable.
'Safe Systems' approach to improvements for all users of the corridor, including people walking, using a mobility device, bicycling, driving, or using the bus.	Does the concept make it safer for people to walk, roll, bike, or use the bus? Does the concept make it safer for people driving?	Concept provides greatest safety benefits (based on literature review and safety countermeasure performance) relative to implementation cost. Concept would improve safety for people driving by applying known safety countermeasures.
Access to housing, businesses, jobs, services, parks and recreation, and educational opportunities.	Does the concept increase access to essential places as identified in the City's equity atlas? Does the concept increase access to businesses for people walking, using a mobility device, riding a bike, or using the bus?	Degree to which concept support increased access to businesses and services, based on improvements in transportation safety and comfort for all users in the corridor.
Greenhouse gas (GHG) reduction benefits.	Does the concept support the City's goals to reduce GHG emissions and/or reduce VMT? Does the concept provide benefits or mitigate burdens to equity populations specifically?	Degree to which concept supports mode shift, based on results from regional travel model.
Equitable outcomes.	Does the concept provide benefits or mitigate burdens to equity populations specifically?	Direct benefit (reduced transportation costs) or reduced burden to identified equity populations living or working within the corridor (within ¼ mile of NE 112th Avenue).

1.2.1 Vancouver TSP Context

The City's updated TSP identifies the NE 112th Avenue corridor as a Pedestrian Corridor, meaning the roadway is intended as a low-stress walking and rolling corridor. Additionally, the corridor is part of the Bike and Small Mobility Network, prioritized for low-stress cycling and used by people with small mobility devices such as scooters. Today, much of the corridor has sidewalks with no buffer that frequently abut the travel lane and are less than 6 feet in width, leading to higher-stress conditions for people walking and rolling along the corridor. There are limited and disconnected cycling facilities in the corridor, creating a high stress environment for cyclists.

Table 2 lists relevant projects on NE 112th Avenue that are included in the City of Vancouver's TSP.

Table 2. NE 112th Avenue Projects in Vancouver TSP

Project Location	Project Name
TSP Project List	• NE 112th Ave: Protected mobility/bike lane from city limit (just north of Fourth Plain) to NE 18th St. Include sidewalk infill and add crossing. • NE 112th Ave: Protected mobility/bike lane from NE 18th St to McGillivray Blvd. Include sidewalk infill and add crossing.
Six-Year Transportation Improvement Program List in TSP	• NE 112th Ave (E Mill Plain Blvd – NE 28th St): Corridor improvements to bring NE 112th Ave up to urban arterial standards, and address safety and accessibility issues for all modes of travel. Originated from 112th Corridor Subarea Plan (2011).

Source: Vancouver TSP, 2024

Additionally, adjacent parallel streets such as NE 110th Avenue, have been identified as low-stress Neighborhood Greenways in the TSP. Table 3 lists relevant projects that intersect with NE 112th Avenue that are recommended in the TSP.

Table 3. TSP Projects Intersecting with NE 112th Avenue Study Area in Vancouver TSP

Project Name
• NE 106th–110th Ave: Network of Neighborhood Greenways connecting from NE 112th Ave and Morrow Road to a new MUP (#248) across I-205
• NE 109th Ave: Protected mobility/bike lane from NE 39th St to NE Burton Rd
• NE 124th Ave: Neighborhood greenway from NE 39th St to NE 28th St
• NE 49th St: Protected mobility/bike lane from NE 112th Ave to NE 137th Ave
• Burton Rd/NE 28th St: Upgrade existing mobility/bike lane to protected mobility/bike lane from I-205 to NE 138th Ave
• Four Seasons Lane: Neighborhood greenway from NE 28th St to NE 18th St
• NE 124th Ave: Neighborhood greenway from NE 28th St to NE 18th St
• East Powerline Trail: Implement trail from 86th to 192nd Streets in partnership with other agencies
• NE 123rd–127th Ave: Neighborhood greenway in the Fircrest and Cascade Park West neighborhood between NE 18th St and SE 11th St
• NE 117th Ave and NE 5th St: Neighborhood greenway from SE 7th St to NE 124th St
• NE 9th St: Upgrade existing mobility/bike lane to protected mobility/bike lane from NE 108th Ave to NE 136th Ave
• Mill Plain Blvd: Add protected mobility/bike lane from I-205 to Olympia Dr

Project Name
• SE 7th St: Upgrade existing mobility/bike lane to buffered mobility/bike lane from SE Chkalov Dr to SE 136th Ave
• SE McGillivray Blvd: Upgrade existing mobility/bike lane to protected mobility/bike lane from SE Chkalov Dr to SE Bella Vista Rd

Source: Vancouver TSP, 2024

1.3 Issues and Needs Summary

The Project team analyzed the NE 112th Avenue corridor through site walks, GIS analysis, and online resources including Google Earth to gather data on existing conditions. This analysis helped develop pertinent issues and needs on the NE 112th Avenue corridor. The findings and corridor facility gaps listed below and depicted in Figure 2 formed the starting point for developing solutions later in the process.

1.3.1 Cycling Facilities

- No mobility/bike lanes are present throughout most of the corridor, and where present, are disconnected.
- Several areas along NE 112th Avenue are considered “difficult connections” which is defined by the City of Vancouver as an area with higher speeds and/or volumes, combined with narrow lane widths or other barriers for cyclists.

1.3.2 Pedestrian Facilities

- Marked pedestrian crosswalks are present only at signalized intersections throughout the corridor, and in some places, are up to a half mile apart.
- Between NE 9th Street to NE 18th Street, sidewalks are missing on the east side of the street.
- From 39th Street to 51st Street, a fence or wall runs directly parallel to the sidewalk for approximately 900 feet without street lighting. This may result in a less comfortable experience for people walking or using a mobility device, due to the tunnel-like experience of walking between a wall and fast-moving traffic.
- Curb-tight sidewalk in much of the corridor is uncomfortable for people walking due the lack of separation between sidewalks and higher speed travel lanes.

1.3.3 Transit Users

- Lack of enhanced crossings to access bus stops away from signalized intersections.
- Low/no street lighting at bus stops.

1.3.4 Traffic

- Narrow (less than 10-foot) travel lane widths in some segments.
- Poor road surface condition (potholes).

- The City has standards for vehicle mobility that apply to much of the Project corridor. These standards require that a certain minimum vehicle speed be maintained during peak travel times and affect the ability to consider certain design concepts that further slow travel times in areas with higher congestion. The City's 2017 Concurrency Corridors Classification[1] lists the following concurrency threshold speeds along NE 112th Avenue:
  - Between Mill Plain Boulevard and 28th Street – 11 mph.
  - Between 28th Street and 51st Street – 15 mph.
- In general, traffic volumes are higher north of NE 18th Street and lower south of NE 18th Street to SE McGillivray Boulevard.
- Speeding is particularly prevalent between 9th and 39th Streets.
- Intersections with high levels of vehicle delay today include SE Chkalov Drive/ Mill Plain Boulevard, NE 112th Avenue / NE 23rd Street, and NE 112th Avenue / NE 28th Street.

1.3.5 Corridor Safety

- Previously identified safety hot spots in the Transportation System Safety Analysis (2018) and the Local Road Safety Plan (2016–2020):
  - NE 112th Avenue segment of NE 28th to NE 39th Streets.
  - SE Chkalov Drive/SE Mill Plain Boulevard Intersection.
  - Intersections with NE 18th, NE 28th, NE 39th, NE 49th, and NE 51st Streets.
- 399 crashes were reported in the NE 112th Avenue corridor between 2017 and 2021. Four of these were fatal crashes and 11 were severe injury crashes. 22 crashes involved pedestrians or bicyclists.
- Three of the fatal crashes involved pedestrians and occurred during dusk or dark conditions.
- The Local Road Safety Plan (2022) ranked the SE Chkalov Drive / SE Mill Plain Boulevard intersection as having the highest crash frequency and severity within the entire city. The same safety analysis found the roadway segment with the highest crash incidence across the city was on SE Chkalov Drive between SE 7th Street to SE Mill Plain Boulevard (the south end of Project corridor).

1.3.6 Corridor Destinations

- The Southern end of the corridor has a greater number of community destinations such as the Salvation Army, Evergreen Memorial Gardens on the corner of NE 112th Avenue and NE 9th Street, Mannahouse Christian Academy just east of NE 112th Avenue, Wal-Mart Supercenter to the west of NE 112th Avenue and Interstate 205, and Legacy-GoHealth Urgent Care, Fred Meyer and Trader Joe's located adjacent to the NE Chkalov Drive and Mill Plain Boulevard intersection.

[1] https://www.cityofvancouver.us/sites/default/files/fileattachments/public_works/page/12038/concurrency_adminmanual03-05-2012.pdf

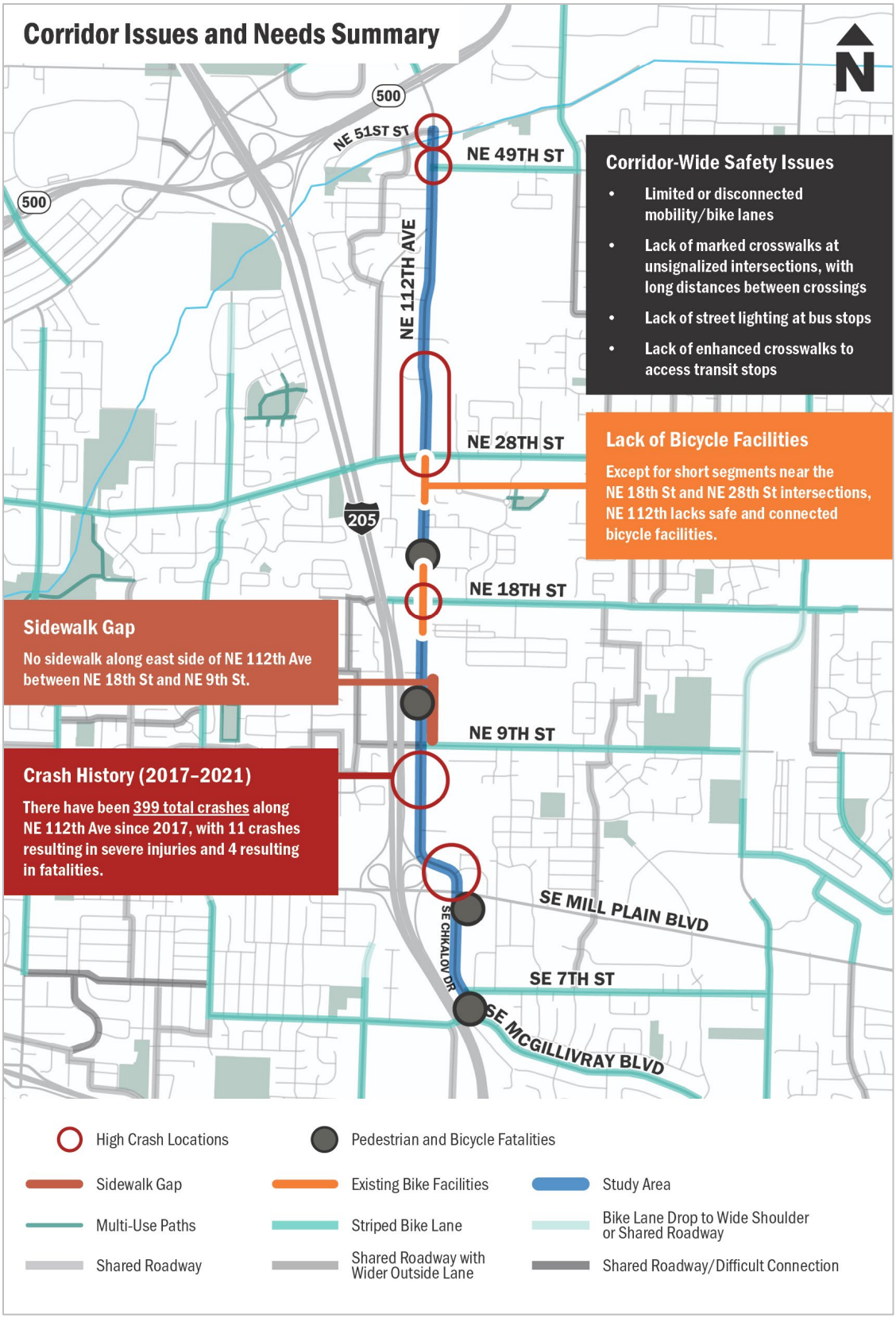


Figure 2. Corridor Issues and Needs Summary

2. Concepts Review

2.1 Concepts Development

The Project team developed design concepts to address issues in the corridor in late 2023 through early 2024. These concepts considered multiple factors with inputs from the TMC, public engagement and City staff. The primary considerations that influenced development of the concepts are shown in Table 4.

Table 4. Key Considerations During Concept Development

Factor	Considerations
Vancouver TSP Guidance	NE 112th Ave is part of the City's modal networks from the Vancouver TSP: ▪ Walking and Rolling Network → Improvements should plan for expected high levels of walking or rolling and create a low-stress connection for users. ▪ Bicycle and Small Mobility Network → Improvements should provide a low-stress environment for people walking, rolling, or biking. → Improvements ideally adhere to NACTO design guidance ▪ Proposed Enhanced Transit Corridors → Improvements should support access to transit and enhance transit speed and reliability. ▪ Freight Corridors → Improvements should consider and support economic development by delivering safe, reliable access for trucks and carriers of freight.
Project-Specific Evaluation Criteria	▪ Recommended improvements addressed evaluation criteria to maximum extent.
Community Engagement	▪ Improvements reflected concerns heard from historically underserved communities in study area. ▪ Project team balanced concerns heard from community with other key considerations developed during project process, such as adopted TSP policy for the corridor.
Vehicle Mobility Standards and available ROW	▪ Traffic analysis indicates that future traffic volumes are supportive of a lane reconfiguration (also called a "road diet") in the corridor between McGillivray and NE 18th Street and that one travel lane in each direction could be removed without violating traffic mobility standards. North of NE 18th, corridor traffic increases substantially. Roadway restriping that removes travel lanes north of NE 18th would increase traffic such that vehicle mobility standards would not be met in future years. Therefore, a roadway restriping was considered only south of NE 18th Street. ▪ North of NE 18th Street, the available curb-to-curb space varies but generally is not sufficient to add continuous buffered mobility/bike lanes. Roadway expansion could impact existing structures in some places in this section of the corridor.
Project Costs	▪ Lower-cost improvements can be implemented with City of Vancouver pavement work planned for 2026 and 2028. ▪ Higher-cost investments that provide significant value to the NE 112th Ave corridor could be implemented as future capital projects.
Available Funding	▪ Developed improvements that can be implemented in the near term as part of repaving projects. ▪ Long-term projects should be aligned with grant funding sources and programmed through the Transportation Improvement Program.

* From Existing and Future Traffic and Safety Analysis, August 2023, Parametrix

NACTO = National Association of City Transportation Officials; ROW = right-of-way; TSP = transportation system plan

2.2 Concepts Analysis

2.2.1 Corridor-wide Bike and Small Mobility Concepts

Table 5 and Table 6 show near-term and long-term project concepts along the NE 112th Avenue corridor that aim to improve mobility for people walking and rolling corridor wide. A no-build option was *not* considered, as no-build conditions do not address TSP policy nor Project evaluation criteria. Proposed near-term projects (Table 5) coincide with pavement work planned for 2026 and 2028, while proposed long-term projects (Table 6) would be programmed through the Transportation Improvement Program as funding allows.

In the near-term, the gap in the mobility/bike lane between NE 18th Street and NE 28th Street on 112th Avenue would not be fully addressed; a proposed Neighborhood Greenway east of 112th Avenue on NE Four Seasons Lane would provide a north-south connection for people biking or using a small mobility device as an alternative to using the 112th Avenue corridor along this segment. Long-term projects would address this gap by seeking the remaining right-of-way required to build a shared-use path along the east side of 112th Avenue.

SE McGillivray Boulevard to Mill Plain Boulevard is not included in near-term projects as there is currently no planned paving project in this segment of SE Chkalov Dr.

Table 5. Near-Term Bike and Small Mobility Concepts Analysis

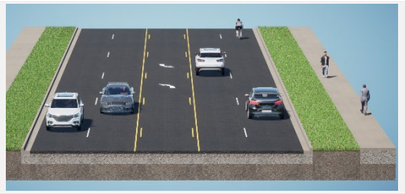
	Mill Plain to 18th St	North of 9th St near Evergreen Memorial Gardens	18th to 28th St	28th to 51st St	NE 106th – 110th Ave / NE Morrow Rd & NE Four Seasons Ln Neighborhood Greenways
Existing Configuration	▪ Four travel lanes and one TWLTL. ▪ Travel lanes range in width from 9–10 feet. ▪ Lane configuration varies at intersections.	▪ Four travel lanes and one TWLTL. ▪ Travel lanes range in width from 9–10 feet.	▪ Four travel lanes and one TWLTL. ▪ Travel lanes range in width from 9–10 feet. ▪ Lane configuration varies at intersections.	▪ Four travel lanes and one TWLTL. ▪ Travel lanes range in width from 12–14 feet. ▪ Lane configuration varies at intersections.	▪ NE 106th–110th Ave. → Two travel lanes, two parking lanes. → 40 feet wide. ▪ NE Morrow Road. → Two travel lanes, parking on one side. → ~26 feet wide. ▪ NE Four Seasons Lane. → Two to three travel lanes. → 30–43 feet wide.
Concept					▪ Configure as a neighborhood greenway. Neighborhood greenways are low-volume, low-speed streets prioritized for people walking and rolling. A mix of traffic calming and other features are typically applied to greenways (see concept description below).
Concept Description	▪ Repave road. ▪ Restripe to one general purpose travel lane in each direction plus TWLTL. ▪ Widen travel lanes. ▪ Add buffered/protected mobility/bike lane.	▪ Potential lane configuration could include a wide northbound lane shared between people bicycling, rolling, and walking to address east-side sidewalk gap, with a standard mobility/bike lane provided in the southbound direction.	▪ Repave road and match existing configuration.	▪ Repave road. ▪ Restripe to add standard bike and mobility/bike lane.	▪ Install traffic calming treatments. ▪ Install signage and wayfinding. ▪ Stripe shared lane markings on pavement. ▪ Enhance comfort for people walking, biking, and rolling.
Alignment with Evaluation Criteria	▪ Project provides multimodal benefits to all users, including drivers, people walking and rolling, and transit users. ▪ Increases ability to reach destinations by walking, rolling, or taking the bus. ▪ Encourages travel by low emission modes. ▪ Investments will support positive outcomes for vulnerable road users.	▪ Project provides multimodal benefits to all users, including drivers, people walking and rolling, and transit users. ▪ Increases ability to reach destinations by walking, rolling, or taking the bus. ▪ Encourages travel by low emission modes. ▪ Investments will support positive outcomes for vulnerable road users.	• Does not address evaluation criteria. Physical constraints and high traffic volumes mean that no near-term concept could be developed that address the evaluation criteria or TSP policy. However, a long-term concept is included later in this report and a proposed parallel neighborhood greenway in the near-term would help alleviate the gap in this segment.	▪ Project provides multimodal benefits to all users, including drivers, people walking and rolling, and transit users. ▪ Increases ability to reach destinations by walking, rolling, or taking the bus. ▪ Encourages travel by low emission modes. ▪ Improvements address areas rating higher on Vancouver Equity Index 2020. ▪ Investments will support positive outcomes for vulnerable road users.	▪ Increases ability to reach destinations by walking, rolling, or taking the bus. ▪ Encourages travel by low emission modes. ▪ Improvements address areas rating higher on Vancouver Equity Index 2020 (NE 109th St and NE Morrow Rd).
Alignment with Public Feedback	▪ About 42% of respondents in Milestone 2 engagement chose “comfortable” or “very comfortable” when evaluating the concept. ▪ Generally, there was mixed feedback about lane reconfiguration concepts in the corridor.	▪ About a third of comments in Milestone 2 engagement called for traffic calming, improved sidewalks, and protected mobility facilities. ▪ Generally, there was mixed feedback about lane reconfiguration concepts in the corridor.	▪ 49% of respondents in Milestone 2 engagement said they were “comfortable” or “very comfortable” with the concept. ▪ Generally, there was mixed feedback about lane reconfiguration concepts in the corridor.	▪ 47% of respondents in Milestone 2 engagement said they were “comfortable” or “very comfortable” with the concept. ▪ Generally, there was mixed feedback about lane reconfiguration concepts in the corridor.	▪ Nearly 45% of respondents preferred to bike or roll on a route parallel to NE 112th Ave.
Alignment with Policy	▪ TSP notes NE 112th Ave as a Pedestrian Corridor, intended as a low-stress walking and rolling corridor. Concept improves comfort for these travel modes. ▪ TSP notes NE 112th Ave as part of the Small Mobility Network, prioritized for low-stress cycling and small mobility devices. Concept improves comfort for these travel modes. ▪ Future traffic volumes/speeds are forecast to meet concurrency standards.	▪ TSP notes NE 112th Ave as a Pedestrian Corridor, intended as a low-stress walking and rolling corridor. Concept improves comfort for these travel modes ▪ TSP notes NE 112th Ave as part of the Small Mobility Network, prioritized for low-stress cycling and small mobility devices. Concept improves comfort for these travel modes, but does not provide a buffered facility for the entirety of this segment.	▪ Traffic volumes make it difficult to implement a lane reconfiguration and meet vehicle mobility standards. ▪ This concept does not strictly align with TSP policy; however long-term concepts would address this.	▪ TSP notes NE 112th Ave as a Pedestrian Corridor, intended as a low-stress walking and rolling corridor. Concept improves comfort for these travel modes. ▪ TSP notes NE 112th Ave as part of the Small Mobility Network, prioritized for low-stress cycling and small mobility devices. Concept improves comfort for these travel modes, but does not provide a buffer for mobility lanes due to inadequate roadway space. ▪ Traffic volumes make it difficult to implement a lane reconfiguration and meet vehicle mobility standards. ▪ Lane narrowing permits standard mobility/bike lane while maintaining vehicle capacity.	▪ TSP notes NE 109th Ave as a potential low-traffic street to divert small mobility uses from NE 112th Ave.
Additional Benefits	▪ Widens travel lanes to standard widths.	N/A	▪ Addresses community feedback about high number of potholes.	N/A	▪ Addresses community desire for bike and small mobility route parallel to NE 112th Ave.

Table 6. Long-Term Bike and Small Mobility Concepts Analysis

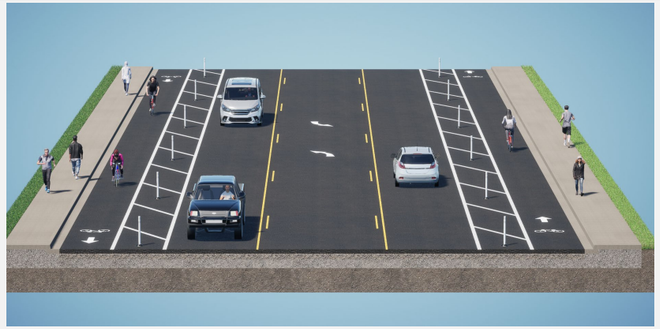
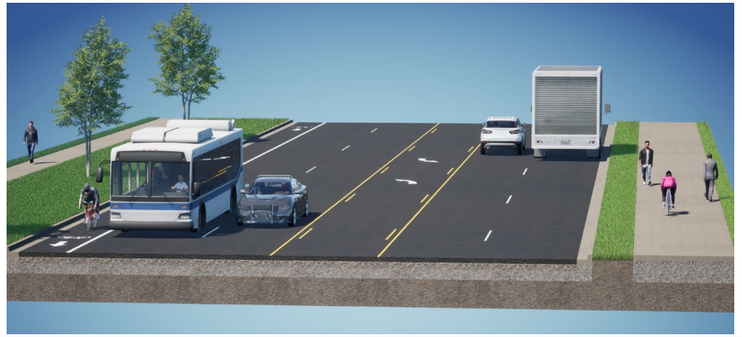
	McGillivray – Mill Plain Blvd	18th to 51st St	
Existing Configuration	▪ Four travel lanes and one TWLTL. ▪ Travel lanes range in width from 11–14 feet. ▪ Lane configuration varies at intersections.	▪ Four travel lanes and one TWLTL. ▪ Travel lanes range in width from 9–14 feet. ▪ Lane configuration varies at intersections.	
Concept			
Concept Description	▪ Two 11-foot travel lanes and one 14-foot TWLTL. ▪ Two 6-foot, small mobility/bike lanes with 6-foot painted buffers and vertical posts. ▪ Two dedicated turn lanes provided at both the northbound and southbound approaches serving the Mill Plain Blvd intersection.	**Concept 1** ▪ Four 11-foot travel lanes. ▪ One 10- foot TWLTL. ▪ Two-way 12-foot shared-use path. ▪ Lane configuration varies at intersections.	**Concept 2** ▪ Three 10-foot travel lanes and one 11-foot travel lane. ▪ One 10-foot TWLTL. ▪ Two-way 12-foot shared-use path. ▪ One 5-foot small mobility lane. ▪ Lane configuration varies at intersections.
Alignment with Evaluation Criteria	▪ Project provides multimodal benefits to all users, including drivers, people walking and rolling, and transit users. ▪ Increases ability to reach destinations by walking, rolling, or taking the bus. ▪ Encourages travel by low emission modes. ▪ Improvements address areas rating higher on Vancouver Equity Index 2020. ▪ Investments will support positive outcomes for vulnerable road users.	▪ Project provides multimodal benefits to all users, including drivers, people walking and rolling, and transit users. ▪ Increases ability to reach destinations by walking, rolling, or taking the bus. ▪ Encourages travel by low emission modes. ▪ Improvements address areas rating higher on Vancouver Equity Index 2020. ▪ Investments will support positive outcomes for vulnerable road users. ▪ Concept 2 would require roadway widening and cost more than Concept 1 and provide relatively marginal additional benefit relative to cost; Concept 1 is recommended.	
Alignment with Public Feedback	▪ About 45% of respondents in Milestone 2 engagement chose “comfortable” or “very comfortable” when evaluating the concept. ▪ Respondents in Milestone 2 engagement desired comfortable/accessible sidewalks and adequate space for people walking, biking, or using a small mobility device.	▪ Respondents in Milestone 2 engagement desired comfortable / accessible sidewalks and adequate space for people walking, biking, or using a small mobility device.	
Alignment with Policy	▪ TSP notes NE 112th Ave as a Pedestrian Corridor, intended as a low-stress walking and rolling corridor. Concept improves comfort for these travel modes. ▪ TSP notes NE 112th Ave as part of the Small Mobility Network, prioritized for low-stress cycling and small mobility devices. Concept improves comfort for these travel modes. ▪ Lower traffic volumes permit roadway restriping.	▪ TSP notes NE 112th Ave as a Pedestrian Corridor, intended as a low-stress walking and rolling corridor. Concept improves comfort for these travel modes. ▪ TSP notes NE 112th Ave as part of the Small Mobility Network, prioritized for low-stress cycling and small mobility devices. Concept improves comfort for these travel modes.	

Table 7 evaluates potential locations for enhanced midblock pedestrian crossings which were found to be a central need identified by the community during outreach. The evaluation used the City of Vancouver's Pedestrian Crossing Policy as a guide for evaluating the need for, and priority of, potential enhanced midblock crossing locations. The rankings were determined using the distance between crossings, annual average traffic data connections to major destinations and bus stops, pedestrian crash severity (2017–2021), Equity Zone score, Traffic Safety Services Association rank (2018) and Local Road Safety Plan score (2016–2020).

The evaluation and ranking also includes the public's ranking for these investments. Milestone 2 public engagement asked community members to rank their most important locations for new pedestrian crossings along NE 112th Avenue. Figure 3 depicts the approximate location of the proposed crossings along the Project corridor. Exact crossing locations and features would be determined during a future design process using engineering judgement.

Two areas on the southern portion of the study shown in Figure 3, Mill Plain and I-205 NB Off-Ramp and SE 7th and Fred Meyer, ranked high with the public for future investments. Due to multiple existing signalized crossings within close proximity in this area, there are currently few opportunities to implement enhanced crossings, and these areas were deprioritized (Table 7). However, the Project team believes that the crossings in these areas are uncomfortable today in large part due to the number of lanes and traffic volumes/speeds in these areas. Therefore, the proposed lane reconfiguration, discussed in *Section 3- Recommendations Summary*, would improve crossing comfort at signals for these locations in the future.

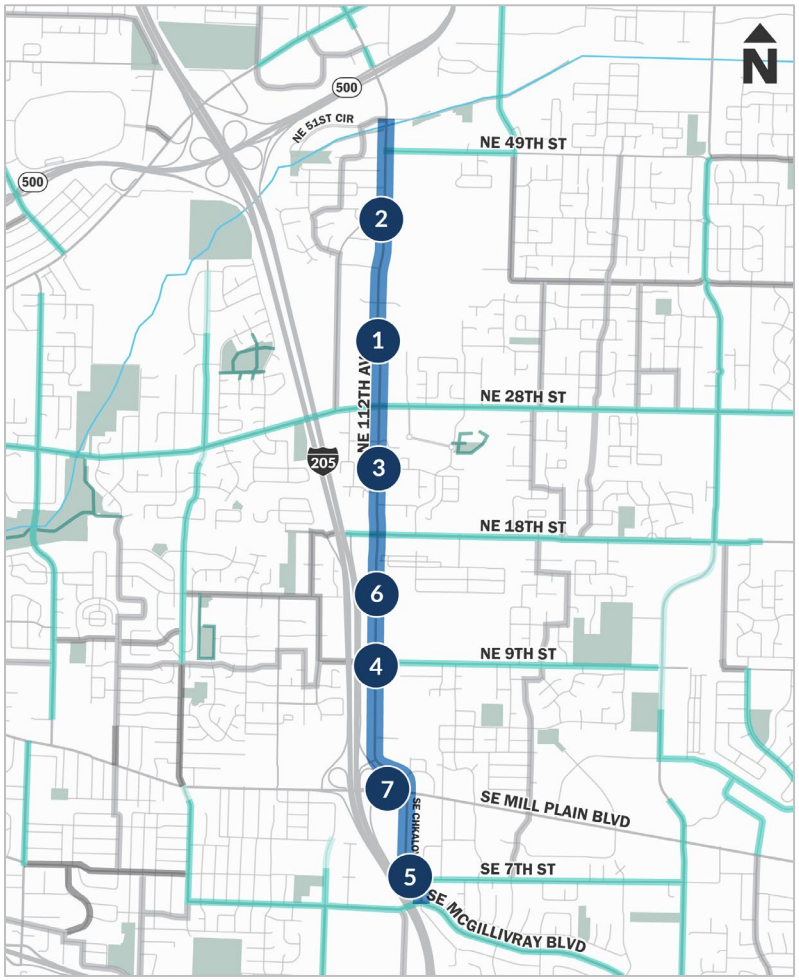


Figure 3. Enhanced Crossing Locations by Ranking (Table 7)

Table 7. Midblock Pedestrian Crossing Evaluation

Crossing Segment / Location	Evaluation Criteria: Distance Between Crossings	ADT	Major Destinations	Existing/Planned Bus Stops	TSSA Rank (2018)	LRSP Score (2016–2020)	Ped Crash Severity (2017–2021)	Equity Zone Score	Milestone 2 Engagement – Enhanced Pedestrian Crossings (146 Responses)	Enhanced Crossing Location Rank (1 = Highest)
NE 39th–NE 49th	2.9	5	2	5	2.9	3	2	3.5	6	2
NE 28th–NE 39th	5.0	5	2	5	2.9	4	0	3.6	5	1
NE 18th–NE 28th	4.5	5	1	5	2.9	2	3	2.1	4	3
NE 9th–NE 18th	4.6	4	1	5	2.9	2	1	1.3	3 (Tied)	6
I-205 NB Off-Ramp–NE 9th	3.6	5	2	5	4.3	2	0	1.6	3 (Tied)	4
Mill Plain–I-205 NB Off-Ramp	1.7	5	2	0	4.3	2	0	1.6	2	7
SE 7th–Fred Meyer	2.2	5	2	0	4.3	5	1	2.8	1	5

Due to SE 7th–Fred Meyer and Mill Plain–I-205 NB off-ramp areas having multiple signalized crossings, location was deprioritized

LRSP = Local Road Safety Plan; TSSA = Traffic Safety Services Association

2.2.2 Corridor-wide Safety Improvement Concepts

Table 8 provides an overview of safety improvement concepts recommended for locations throughout the NE 112th Avenue corridor. Safety improvements are aligned with analysis of the predominant causes of crashes in the corridor; safety concepts focus on established countermeasures that mitigate the prevalent crash types in the corridor. These safety improvements are in addition to the recommended near- and long-term roadway restriping and mobility/bike improvements that also will improve safety in the corridor.

Table 8. Safety Improvement Concepts

Safety Improvement Concept	Locations	Safety Issue Addressed
Enhanced Crossings (discussed in prior sections)	▪ NE 46th St ▪ NE 34th St ▪ NE 23rd St ▪ Vicinity of Salvation Army ▪ SE 7th St	▪ Long distances between enhanced or signalized pedestrian crossings. ▪ Locations serve existing or planned bus stops and lack integration with walking / rolling infrastructure for deboarding bus riders.
Relocate Bus Stops to Area with Proposed Enhanced Crossing	▪ Southbound bus stop at NE 46th St	▪ Existing bus stop lacks enhanced crossing.
Street Lighting	▪ NB bus stop south of NE 46th St ▪ NB and SB bus stops at NE 34th St ▪ NB bus stop immediately north of NE 28th ▪ Any new midblock crossings	▪ Insufficient lighting present. ▪ Creates uncomfortable environment for bus riders.
Sidewalk Repair/Maintenance	▪ Approx. NE 41st St–NE Morrow Rd	▪ Deteriorated paved surface for people walking or rolling.
Leading Pedestrian Intervals (LPI)	▪ NE 18th St ▪ NE 28th St ▪ NE 49th St ▪ SE McGillivray Blvd	▪ Insufficient crossing time for people walking or rolling. ▪ Addresses pedestrian crossing conflict with turning vehicles.
Review Signal Timings	▪ All arterial intersections	▪ Insufficient clearance times for traffic during some times of day may be increasing risky driver behavior.
Medians/Access Control	▪ SE McGillivray Blvd–Mill Plain Blvd	▪ More potential conflict points with multiple driveways. ▪ Drivers turning left out of driveways. ▪ Turning movement collisions.
	▪ Fred Meyer driveway	▪ Congestion and backup due to drivers turning left out of driveway.
High Visibility Backing Plates on Signals	▪ At all traffic signals that do not have them today	▪ Some drivers have crashed due to failing to stop at traffic signals; backing plates increase the visibility of the signal from afar.

Safety Improvement Concept	Locations	Safety Issue Addressed
Red Light / Speed Cameras ▪ State policy (ESHB 2384, 2024) requires jurisdictions to analyze intersections, gather data, and weigh alternative safety interventions to install cameras. State and local policy is not conductive to their installation in the corridor today; however, policy is changing frequently and they should be considered as a tool in the future as state and local policy evolves. ▪ Must post notices 30 days prior to camera activation. ▪ Must report annually on crashes and tickets issued. ▪ Must report revenue collected and how revenue has been used.[2]	▪ Entire corridor north of Mill Plain Boulevard.	▪ Drivers failing to stop at traffic signals. ▪ Speeding.
Speed Feedback Signage	▪ NE 9th St–NE 18th St.	▪ Drivers speeding.
Reduce Speed Limits	▪ SE McGillivray Blvd–NE 51st St.	▪ Drivers speeding. However, speed reductions alone are unlikely to influence speeding behavior. Speed limit reductions must be coupled with other interventions to be successful. ▪ Increases level of comfort for other roadway uses outside a vehicle.
Refreshed Crosswalk Pavement Markings	▪ SE McGillivray Blvd–NE 51st St.	▪ Low crosswalk visibility to drivers.

3. Recommendations Summary

3.1 Proposed Paving Program Improvements (2026–2028) – Near-Term Improvements

Based on the evaluation in prior sections, this section recommends a package of improvements that can be implemented in the near-term as lower-cost interventions aligned with the planned City repaving of the corridor scheduled in phases to occur in 2026 and 2028. These improvements are assumed to be mostly restriping efforts and would be implemented within the existing "curb-to-curb" pavement on the roadway. Proposed near-term improvement diagrams are referenced in Figure 4.

No additional pedestrian improvements (e.g., sidewalk repair or additions, or new enhanced crossings) are included here, but are discussed in the subsequent section. The City may incorporate these into the near or mid-term improvements depending on funding availability.

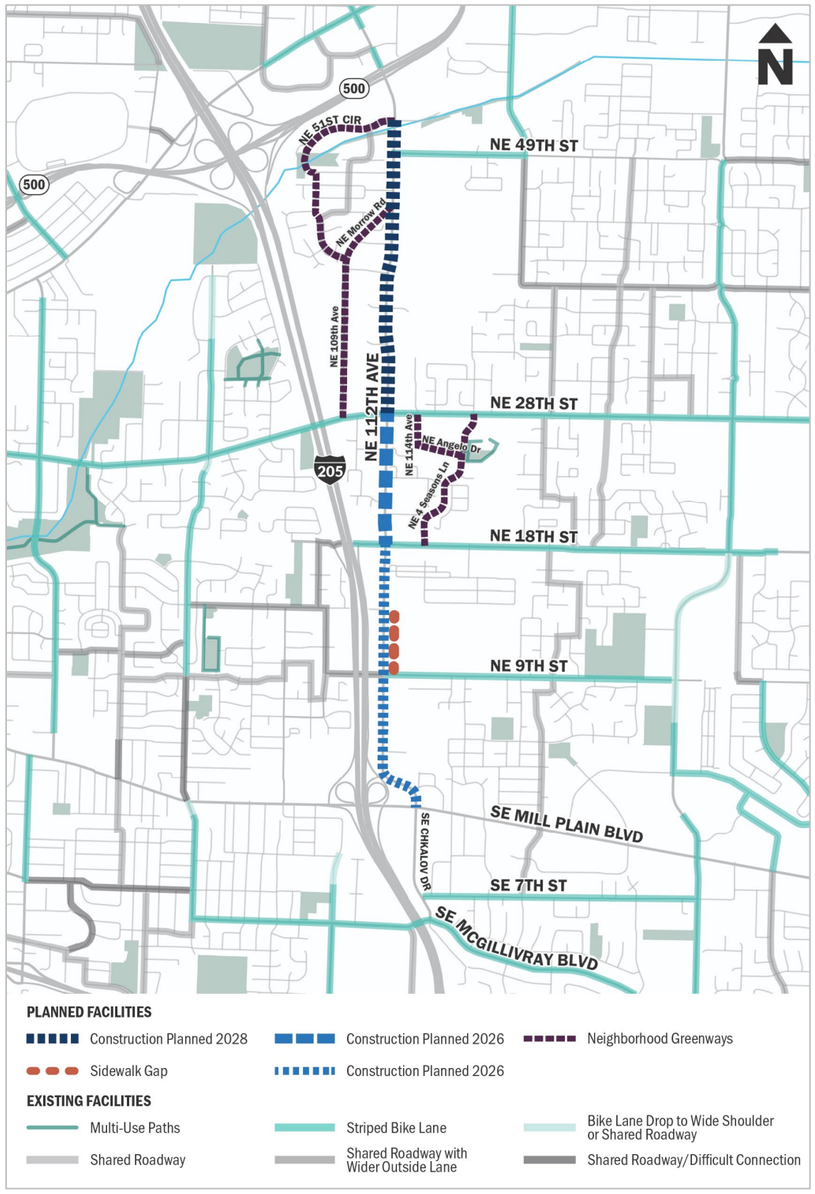
Proposed 2026 improvements enhance connections in the southern segment of NE 112th by adding a buffered mobility/bike lane from NE 18th Street to SE Mill Plain Boulevard. There currently is no connection provided to an existing bike facility at SE Mill Plain Boulevard. The nearest connection will be further south at SE Chkalov Drive and SE 7th Street. In 2028, a new mobility/bike lane would be

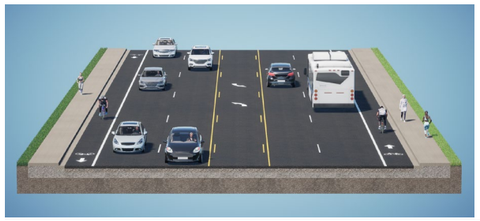
[2] https://washingtonstatestandard.com/2024/03/26/washington-wants-drivers-to-slow-down-a-new-law-may-help/

added during restriping between NE 49th Street and NE 28th Street. This allows for connections to existing facilities at NE 28th Street and NE 49th Street.

To address the need to close pedestrian system gaps, a proposed near-term improvement to coincide with repaving would be to connect the existing sidewalk gap in the vicinity of Evergreen Memorial Gardens on the east side of NE 112th Avenue just north of NE 9th Street. Although this would require additional design outside of this Project, the potential lane configuration could include a wide northbound lane for cycling and walking to address the existing gap.

A proposed parallel bike route to the Project corridor is depicted in Figure 4. This route would provide a low-stress route in the northern portion of the corridor adjacent to the amenities along NE 112th Avenue. This suggested route has less interaction with vehicles and signalized intersections resulting in a more comfortable experience.





Concurrent with NE 112th Avenue construction planned in 2028

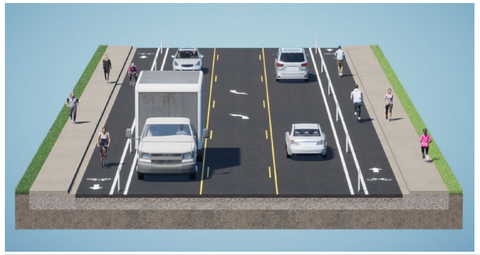
- Repave road
- Restripe to add standard mobility/bike lane

Concurrent with NE 112th Ave construction planned in 2026

- Repave road

Connect sidewalk gap in vicinity of Evergreen Memorial Gardens (north of NE 9th) on east side of NE 112th Avenue

- Sidewalk or shared path difficult to construct due to cemetery
- Potential lane configuration could include wide northbound lane for cycling and walking to address east-side sidewalk gap
- Requires further design



Concurrent with NE 112th Avenue construction planned in 2026

- Repave road
- Restripe to one travel lane in each direction
- Widen travel lanes
- Add buffered mobility/bike lane

Parallel Neighborhood Greenways

- Proposed bike routes would allow for a low-stress experience for users adjacent to the NE 112th Avenue corridor

Figure 4. Overview of Near-Term Proposed Improvements

3.2 Additional Recommended Investments

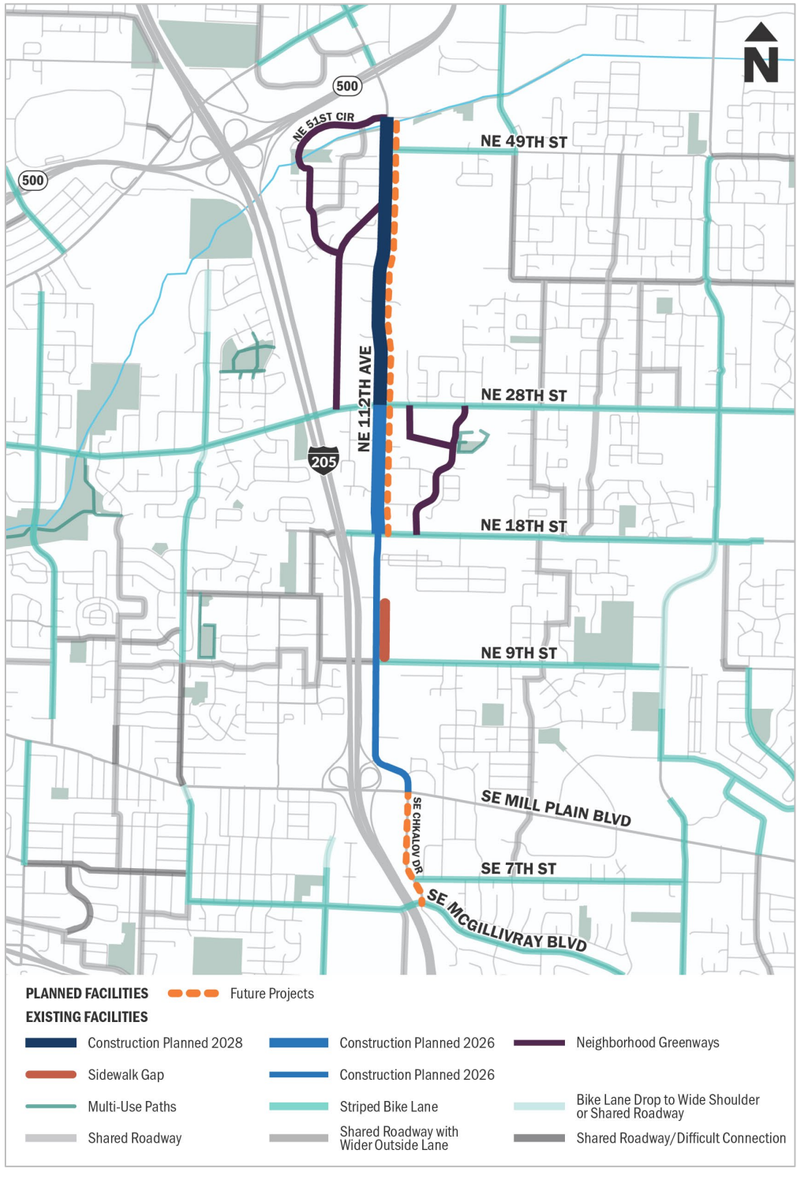
This section provides additional recommended investments for the NE 112th Avenue corridor. Proposed investments could be included as part of planned paving projects or programmed for future investment based on available funding and City priorities.

3.2.1 Long-Term Improvements (2028 and beyond)

The City will implement more substantial concepts as funding becomes available. Proposed long-term improvements generally expand space for people walking, rolling, or biking with hardscaped, raised, and separated infrastructure to enhance comfort. Right-of-way acquisition may be necessary to achieve some concepts. The diagrams below show long-term improvement concepts and reference Figure 5 for locations.

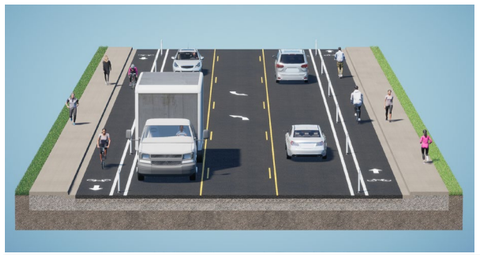
On the northern portion of the corridor, from NE 18th Street to NE 51st Street, a future capital project would provide a shared-use path on the east side of NE 112th Avenue. This would provide a protected area for pedestrians, bicyclists and small mobility devices to travel through this portion of the corridor. This recommendation aligns with feedback gathered from the Project's outreach activities and would more fully address the Project's evaluation criteria and TSP policy for the corridor.

Another future project could coincide with future repaving from SE McGillivray Boulevard to Mill Plain Boulevard. It is recommended to implement roadway restriping along this portion of SE Chkalov Boulevard similar to the roadway restriping that will be implemented immediately north of this location from Mill Plain Boulevard to NE 18th Street in the near-term. This highly traveled area includes corridor destinations such as Fred Meyer, Legacy-GoHealth Urgent Care, and Trader Joe's among other popular community amenities.



Recommended Future Capital Project

Develop shared-use path on east side, from NE 18th Street to NE 51st Street



Recommended Future Project

Implement roadway restriping with future repaving from SE McGillivray Blvd to Mill Plain Blvd

Figure 5. Overview of Long-Term Proposed Improvements

3.2.2 Recommended Pedestrian, Transit, and Safety Improvements

Figure 6 and Table 9 depict recommended safety improvements at specific locations throughout the NE 112th Avenue corridor that will support transit and pedestrian safety. The concepts were prioritized by general cost assumptions, constructability, and outreach findings. These improvements address the need to increase safe and comfortable crossings in the corridor, enhance transit access, and improve overall road user safety in the corridor.

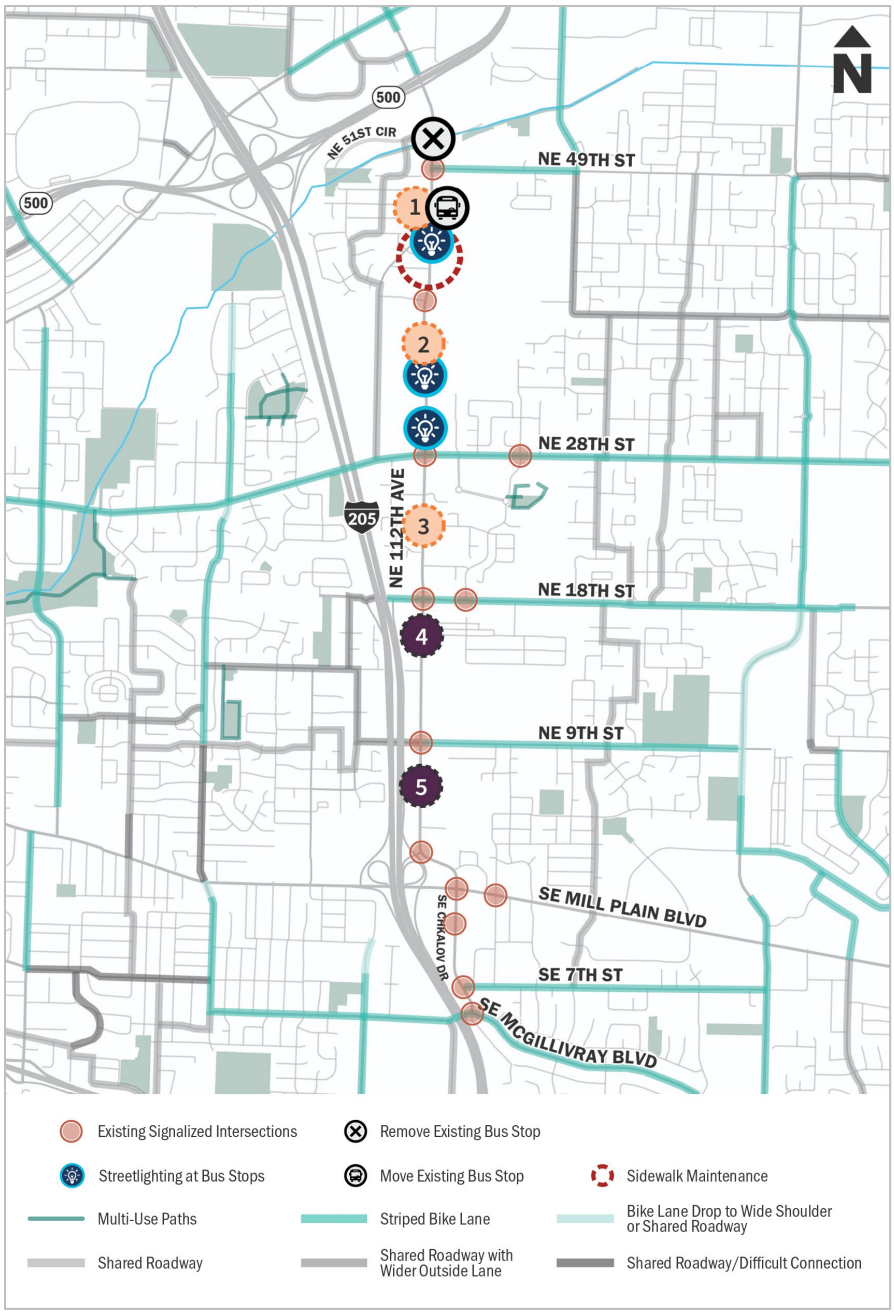


Figure 6. Recommended Additional Pedestrian, and Transit, and Safety Improvements

Table 9. Recommended Safety Improvement Concepts

ID	Recommended Investment Location	Recommended Investment	Benefit	Considerations	Priority
Enhanced Pedestrian Crossings					
1	South of NE 46th St at NE Morrow Rd	Install enhanced bicycle/pedestrian crossing	▪ Direct connection between planned neighborhood greenway and bus stops. ▪ Expand access for people walking, rolling, and using the bus. ▪ Midblock location would minimize conflict points and improve driver visibility of people using crosswalk.	Existing nearby bus stop locations would benefit from being relocated in conjunction with the enhanced crossing location. Driveway on west side of road to be accommodated.	High
2	NE 34th Cir	Install enhanced pedestrian crossing	▪ Enhance pedestrian comfort and mobility. ▪ Expand access for people walking, rolling, and using the bus. ▪ Improve visibility of people using crosswalk to drivers.	Need to avoid fire signal south of NE 34th Circle.	High
3	NE 23rd St	Install enhanced pedestrian crossing	▪ Enhance pedestrian comfort and mobility. ▪ Expand access for people walking, rolling, and using the bus. ▪ Improve visibility of people using crosswalk to drivers.	Potential to be located midblock or at the intersection itself.	High
4	Vicinity of Salvation Army	Install enhanced pedestrian crossing	▪ Enhance pedestrian comfort and mobility. ▪ Expand access for people walking, rolling, and using the bus. ▪ Improve visibility of people using crosswalk to drivers.	Location could be at the intersection of NE 14th St or midblock north of intersection to directly connect to the pedestrian connection serving the Salvation Army.	Medium
5	NE 7th St	Install enhanced pedestrian crossing	▪ Enhance pedestrian comfort and mobility. ▪ Expand access for people walking, rolling, and using the bus. ▪ Improve visibility of people using crosswalk to drivers.	Numerous driveways in the vicinity of NE 7th St, preferred location to be reviewed further.	Medium

ID	Recommended Investment Location	Recommended Investment	Benefit	Considerations	Priority
Bus Stops					
	Burnt Bridge Creek	Remove redundant, low-ridership bus stop at Burnt Bridge Creek.	▪ Improve transit speed and reliability.	N/A	High
	NE 46th St	Relocate existing northbound bus stop to proposed enhanced bicycle/pedestrian crossing, adjust location of southbound bus stop to be clear of the enhanced crossing.	▪ Enhance access and comfort for people alighting from the bus. ▪ Promote use of enhanced bicycle/pedestrian crossing associated with planned neighborhood greenway.	N/A	High
Street Lighting					
	South of NE 46th St at NE Morrow Rd	Install street lighting at bus stops.	▪ Increase sense of personal safety for people using sidewalk and bus stop. ▪ Increase visibility of people waiting to board bus.	N/A	High
	NE 34th Cir	Install street lighting at NB and SB bus stops.	▪ Increase sense of personal safety for people using sidewalk and bus stop. ▪ Increase visibility of people waiting to board bus.	N/A	High
	NE 28th St	Install street lighting at NB bus stop.	▪ Increase sense of personal safety for people using sidewalk and bus stop. ▪ Increase visibility of people waiting to board bus.	N/A	High
Sidewalk Repair / Maintenance					
	West side of NE 112th Ave from approximately NE 41st St to where NE Morrow Rd dead ends adjacent to NE 112th Ave	Install sidewalk.	▪ Close gap in sidewalk network; existing sidewalk is in poor condition. ▪ Increase comfort and ease of navigability for people using sidewalk.	N/A	High
Leading Pedestrian Intervals (LPI)					
	NE 18th St NE 28th St NE 49th St SE McGillivray Blvd	Install LPIs.	Allows for sufficient crossing time for people walking or rolling.	N/A	Medium

ID	Recommended Investment Location	Recommended Investment	Benefit	Considerations	Priority
Review Signal Timings					
	All arterial intersections	Review Signal Timings	Review of clearance times for traffic during some times of day can lead to better driver behavior.	N/A	Medium
Medians and Access Control					
	SE McGillivray Blvd – Mill Plain Blvd at Fred Meyer driveway	Driveway and turning movement analysis	Updating access will reduce conflict points at this intersection leading to less collisions, congestion and backup due to left turns out of driveways.	N/A	High
High Visibility Backing Plates on Signals					
	At all traffic signals that do not have them today		Backing plates increase the visibility of the signal from afar.	N/A	Medium
Red Light and Speed Cameras					
	Entire corridor north of Mill Plain Boulevard	Monitor State policy for future implementation	Lowers drivers failed stops and speeding. State policy (ESHB 2384, 2024) requires jurisdictions to analyze intersections, gather data, and weigh alternative safety interventions to install cameras. State and local policy is not conductive to their installation in the corridor today; however, policy is changing frequently.	N/A	Medium
Speed Feedback Signage					
	NE 9th St – NE 18th St	Install signage	Reduce speeding in the corridor	N/A	Medium
Reduce Speed Limits					
	SE McGillivray Blvd – NE 51st St	Reduction of speed limit along NE 112th Ave	Reduce speeding in the corridor	Add with other interventions for highest benefits	Medium
Refreshed Crosswalk Pavement Markings					
	SE McGillivray Blvd – NE 51st St	Install new pavement markings	Increased crosswalk visibility to drivers	N/A	Medium

Appendix A

Existing and Future Traffic Safety Analysis Technical Memorandum

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
700 NE MULTNOMAH, SUITE 1000 | PORTLAND, OR 97232 | P 503.233.2400, 360.694.5020

TECHNICAL MEMORANDUM

DATE: May 15, 2023
TO: City of Vancouver
FROM: Parametrix
SUBJECT: Appendix D: Safety Analysis (Corridor Details)
CC:
PROJECT NUMBER:
PROJECT NAME: NE 112th Avenue Safety and Mobility Project

Corridor Details

This appendix provides additional details for specific locations from the observed crashes review and the predictive analysis by corridor section. A positive value indicates the location is performing worse than similar sites and has a greater potential to improve safety; while a negative value indicates the location is performing better than similar sites and has a lower potential to improve safety as it is already performing better than predicted.

Section 1: SE McGillivray Boulevard to Mill Plain Boulevard

This section includes two segments, SE McGillivray Boulevard to SE 7th Street and SE 7th Street to Mill Plain Boulevard, and two intersections, SE Chkalov Drive & SE McGillivray Boulevard and SE Chkalov Drive & SE 7th Street.

SE Chkalov Drive & SE McGillivray Boulevard Intersection

Four crashes occurred at this intersection during the study period, two rear end crashes, one fixed object crash, and one pedestrian-related crash, which was a fatal crash. The pedestrian was crossing in a marked crosswalk at the intersection with the signal and was struck by a right turning vehicle. The driver's primary contributing circumstance was losing control due to the icy roadway conditions and snow. This crash also occurred in the dark (with streetlights). All other crashes involved non-severe or no injuries.

The predictive analysis shows that this intersection is performing slightly better than predicted (PSI < 0).

SE McGillivray Boulevard to SE 7th Street Segment

No segment crashes occurred between McGillivray Boulevard and 7th Street during the study period and the predictive analysis shows that this segment is performing better than predicted (PSI < 0).

SE Chkalov Drive & SE 7th Street Intersection

Thirteen total crashes occurred at this intersection during the study period, all with non-severe or no injuries. The most common crash type was angle crashes (62%) with the other crashes being rear end, fixed object, sideswipe-same direction, and other. No crashes involved pedestrians or bicyclists. Over half of the crashes occurred under dark conditions with streetlights. The most common contributing factors included inattention and failure to grant right-of-way.

The predictive analysis shows this intersection is experiencing approximately one additional crash every 2.5 years than predicted.

SE 7th Street to Mill Plain Boulevard Segment

Thirty-nine total crashes occurred on this segment during the study period. Three crashes were severe injury crashes, 14 were non-severe injury crashes, and 22 were no injury crashes. Almost 70% of crashes were angle crashes and over 75% of crashes were driveway related, thirteen of which occurred at the Fred Meyer plaza driveway. Ten crashes were also hit and run crashes.

There were four pedestrian-involved crashes and one bicyclist-involved crash. All four pedestrian crashes occurred in August or September of 2021, occurred at driveways, were non-disabling injury crashes, and involved turning vehicles (three right turns, one left turn). Two of these crashes involved motorized wheelchairs while the other two involved pedestrians under the influence of alcohol. The bicycle crash did not result in any injuries but was a hit and run crash. No other information was available for this crash.

The predictive analysis shows that this segment is performing about as predicted (PSI = 0). But this segment did have the highest crash frequency per mile (21.7 crashes/mile) of any other segment in the corridor.

Section 2: Mill Plain Boulevard to SE 9th Street

SE Chkalov Drive & Mill Plain Boulevard Intersection

Sixty-six total crashes occurred at this intersection during the study period, including one fatal crash, 21 non-severe injury crashes, and 44 no injury crashes. About 55% of crashes were rear end crashes, 15% sideswipe-same direction, and 12% angle. About one-third of crashes were hit and run crashes and four involved alcohol.

There were five pedestrian-involved crashes and one bicyclist-involved crash. The one fatal crash involved a pedestrian on a personal conveyance device who was crossing in a marked crosswalk at the intersection but against the signal. The other pedestrian crashes at this intersection involved pedestrians crossing in a marked crosswalk with the signal, with three of them involving turning vehicles (two right turns, one left turn).

The predictive analysis shows that this intersection is performing worse than predicted, experiencing up to 5 crashes per year more than similar sites (PSI > 0). This intersection is the worst-performing intersection on the corridor compared to similar sites since it had the highest PSI (4.6 crashes/year). Additionally, as previously discussed, this intersection was included in the top ten intersections identified in the 2022 LRSP (#4) with the greatest number and severity of injury crashes than any other intersection in Vancouver during the LRSP analysis period.

Mill Plain Boulevard to I-205 NB Off-Ramp Segment

Seventeen total crashes occurred on this segment during the study period, including eight non-severe injury crashes and nine no injury crashes. About 65% of crashes (11 crashes) were driveway-related, which were all angle crashes (seven crashes) or rear end crashes (four crashes). No pedestrian- or bicyclist-involved crashes occurred on this segment during the study period.

The predictive analysis shows that this segment is performing slightly worse than predicted, experiencing up to one crash more every two years than similar sites (PSI > 0). This site also had the second highest crash frequency per mile on the corridor and a portion of this segment was ranked as the top segment by crash weight in the 2022 LRSP.

NE 112th Avenue & I-205 NB Off-Ramp Intersection

Sixteen total crashes occurred at this intersection during the study period, including one fatal crash, two severe injury crashes, one non-severe injury crash, and 12 no injury crashes. Fixed object crashes were the most common crash type (81%), including all three fatal and severe injury crashes. Six crashes involved alcohol or

drugs, including both severe injury crashes (alcohol). The driver in the fatal crash was noted as ill. No pedestrian- or bicyclist-involved crashes occurred at this intersection during the study period.

The predictive analysis shows that this segment is performing about as predicted (PSI = 0).

I-205 NB Off-Ramp to NE 9th Street Segment

Nine total crashes occurred on this segment during the study period, all with non-severe or no injuries. There was little variation of crash type, but five of the crashes were hit and runs, including one attributed to racing and another attributed to fleeing a lawful pursuit. The other crashes were attributed to inattention.

One bicyclist-involved crash occurred on this segment with no pedestrian-involved crashes. The bicyclist was struck in a driveway, in the dark with no streetlights while raining.

The predictive analysis shows that this segment is performing better than predicted (PSI < 0), with up to 1 fewer crash every two years than predicted.

Section 3: NE 9th Street to NE 18th Street

NE 112th Avenue & NE 9th Street Intersection

Twelve total crashes occurred at this intersection during the study period, all with non-severe or no injuries. Angle and rear end crashes were the most common crash types, and there were a range of contributing factors.

There were two pedestrian-involved crashes and one bicyclist-involved crash. Both pedestrian crashes occurred while the pedestrian was crossing in a marked crosswalk with the signal and the driver failed to yield. One involved a right-turning vehicle, the other a left-turning vehicle. The bicycle crash involved a distracted driver making a left-turn.

The predictive analysis shows that this segment is performing about as predicted (PSI ≈ 0).

NE 9th Street to NE 14th Street Segment

No segment crashes occurred between 9th Street and 14th Street during the study period and the predictive analysis shows that this segment is performing better than predicted (PSI < 0), with up to 1 fewer crash every two years than predicted.

NE 112th Avenue & NE 14th Street Intersection

No intersection crashes occurred at this intersection during the study period and the predictive analysis shows that this segment is performing about as predicted (PSI = 0).

NE 14th Street to NE 18th Street Segment

One crash occurred on this segment during the study period. It was an angle crash with no injuries due to an improper left turn at a driveway. No pedestrians or bicyclists were involved.

The predictive analysis shows that this segment is performing better than predicted (PSI < 0), with up to 1 fewer crash every two years than predicted.

Section 4: NE 18th Street to NE 28th Street

NE 112th Avenue & NE 18th Street Intersection

Twenty-four total crashes occurred at this intersection during the study period, all with non-severe or no injuries. The majority of crashes (54%) were angle crashes, three of which involved speeding, four involved inattention or distractions, and three disregarded the signal. No pedestrian- or bicyclist-involved crashes occurred at this intersection during the study period.

The predictive analysis shows that this intersection is performing worse than predicted, experiencing up to about 1 crash more per year than similar sites (PSI > 0).

NE 18th Street to NE 20th Street Segment

Four total crashes occurred on this segment during the study period, all with non-severe or no injuries. Two crashes were sideswipe same-direction crashes, one was a rear end, and one was a fixed object crash. No pedestrian- or bicyclist-involved crashes occurred on this segment during the study period.

The predictive analysis shows that this segment is performing slightly better than predicted (PSI < 0), with up to 1 fewer crash every four years than predicted.

NE 112th Avenue & NE 20th Street Intersection

No intersection crashes occurred at this intersection during the study period and the predictive analysis shows that this intersection is performing slightly better than predicted (PSI < 0), with up to 1 fewer crash every four years than predicted.

NE 20th Street to NE 23rd Street Segment

Nine total crashes occurred on this segment during the study period, including one fatal crash, two non-severe injury crashes, and six no injury crashes. The fatal crash involved a pedestrian crossing at a non-intersection with no crosswalk under dark (with streetlights) conditions. The majority of the other crashes were fixed object crashes and included a variety of contributing factors.

The predictive analysis shows that this segment is performing slightly better than predicted (PSI < 0), with up to 1 fewer crash every five years than predicted.

NE 112th Avenue & NE 23rd Street Intersection

No intersection crashes occurred at this intersection during the study period and the predictive analysis shows that this intersection is performing slightly better than predicted (PSI < 0), with up to 1 fewer crash every three years than predicted.

NE 23rd Street to NE 28th Street Segment

Seven total crashes occurred on this segment during the study period, all included no injuries except for one non-severe crash. The non-severe injury crash was a pedestrian-involved crash where a left-turning distracted driver struck a pedestrian crossing in a marked crosswalk. Two of the other crashes involved alcohol and one involved speeding.

The predictive analysis shows that this segment is performing better than predicted (PSI < 0), with up to 1 fewer crash every year than predicted.

Section 5: NE 28th Street to NE 39th Street

NE 112th Avenue & NE 28th Street Intersection

Thirty-seven total crashes occurred at this intersection during the study period, all with non-severe or no injuries. The majority of crashes were either rear end (49%) or angle crashes (32%), seven of which were hit and runs and three involved alcohol. No pedestrian- or bicyclist-involved crashes occurred at this intersection during the study period.

The predictive analysis shows that this intersection is performing worse than predicted, experiencing up to about 2 crashes more per year than similar sites (PSI > 0).

NE 28th Street to NE 39th Street Segment

Sixteen total crashes occurred on this segment during the study period, including two severe injury crashes, 6 non-severe injury crashes, and 8 no injury crashes. One severe injury crash was an angle crash and the other was an opposite direction crash that involved alcohol. Six total crashes on this segment involved alcohol. No pedestrian- or bicyclist-involved crashes occurred at this intersection during the study period.

The predictive analysis shows that this segment is performing better than predicted (PSI < 0), with up to 3 fewer crashes every year than predicted. However, this segment was identified in the 2022 LRSP as number 7 on the top ten list of segments by crash weight.

Section 6: NE 39th Street to NE 51st Street

NE 112th Avenue & NE 39th Street Intersection

Fourteen total crashes occurred at this intersection during the study period, including five non-severe injury crashes and 9 no injury crashes. The majority of crashes were angle or rear end crashes (71%), but there was one pedestrian crash that involved a left-turning driver striking a pedestrian crossing in a marked crosswalk with the signal. No bicyclist-involved crashes occurred at this intersection during the study period.

The predictive analysis shows that this intersection is performing slightly better than predicted (PSI < 0), with up to 1 fewer crash every three years than predicted.

NE 39th Street to NE 49th Street Segment

Fourteen total crashes occurred on this segment during the study period, including two severe injury crashes, five non-severe injury crashes and seven no injury crashes. The majority of crashes were either rear end (43%) or angle crashes (29%), in addition to one pedestrian-involved crash. The pedestrian was not crossing at an intersection or in a marked crosswalk with dark (streetlight on) conditions. Two crashes involved alcohol including the other severe injury crash. No bicyclist-involved crashes occurred at this intersection during the study period.

The predictive analysis shows that this segment is performing better than predicted (PSI < 0), with up to five fewer crashes every two years than predicted.

NE 112th Avenue & NE 49th Street Intersection

Thirty-nine total crashes occurred at this intersection during the study period, including one severe injury crash, 12 non-severe injury crashes, and 26 no injury crashes. The majority of crashes (46%) were rear end crashes, five crashes (13%) involved alcohol or drugs, and two involved a pedestrian. One of the pedestrian crashes was a severe injury crash that was a hit and run where the pedestrian was struck in a marked crosswalk at an intersection, crossing with the signal, in the dark (with streetlights), and while snowing. The other pedestrian cross occurred at a driveway and did not involve any injuries. No bicyclist-involved crashes occurred at this intersection during the study period.

The predictive analysis shows that this intersection is performing worse than predicted, experiencing up to about two crashes more per year than similar sites (PSI > 0).

NE 49th Street to NE 51st Street Segment

Six total crashes occurred on this segment during the study period, including one severe injury crash, two non-severe injury crashes, and three no injury crashes. The majority of crashes (67%) were rear end crashes. The one severe injury crash was a fixed object crash where the driver was exceeding a reasonable safe speed and lost control during rainy and wet conditions, running off the road into a utility pole. No pedestrian- or bicyclist-involved crashes occurred at this intersection during the study period.

The predictive analysis shows that this intersection is performing slightly better than predicted (PSI < 0).

NE 112th Avenue & NE 51st Street Intersection

Fifty-two total crashes occurred at this intersection during the study period, all with non-severe or no injuries. The majority of crashes were angle crashes (65%), which were often attributed to a failure to yield and/or disregarding the traffic control. About one-third of crashes were attributed to some form of inattention or distraction and four involved alcohol. No pedestrian- or bicyclist-involved crashes occurred at this intersection during the study period.

The predictive analysis shows that this intersection is performing worse than predicted, experiencing up to about seven crashes more every two years than similar sites (PSI > 0). This was the second worst performing intersection according to the predictive analysis.

Appendix B

Corridor Design Details

Appendix C

Engagement Summaries
Milestones 1 and 2

MEMORANDUM

DATE: November 28, 2023

TO: Kate Drennan, Principal Transportation Planner, City of Vancouver

FROM: Monica Santos-Pinacho, Jennifer Lutman, PointNorth
Kirsten Pennington, KLP Consulting
Ryan Farncomb, Shelley Miller, Parametrix

SUBJECT: Milestone 1 Community Engagement Summary

PROJECT NAME: 112th Avenue Safety and Mobility Project

Overview

The 112th Avenue Safety and Mobility Project is studying opportunities to make travel safer and more comfortable for all users on 112th Avenue between SE McGillivray Blvd and NE 51st Street, in coordination with upcoming pavement work slated for 2025 and 2026. The 3.3-mile project corridor is an important north-south connector to several neighborhoods, businesses, schools, and other community destinations.

Through robust community engagement and technical analysis of existing conditions, the project team will recommend design options that address identified safety and mobility challenges and align with the community's priorities for this corridor.

Community engagement efforts for this project occur throughout the project and include two focused milestones:

- **Milestone 1** (Summer-Fall 2023): Gather community feedback on existing conditions, needs/challenges, and vision for the corridor.
- **Milestone 2** (Winter-Spring 2024): Share draft corridor design options based on data, identified needs, and priorities/values heard; and seek community feedback on the designs.

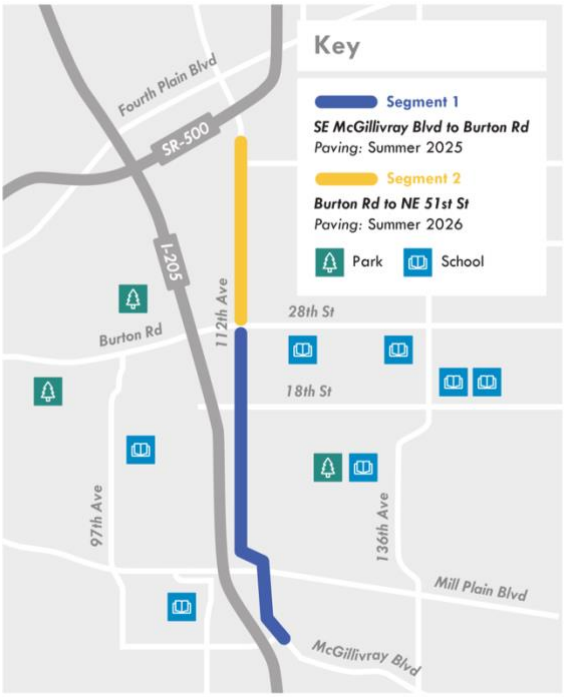


Figure 1: Project area map

This summary details Milestone 1 community engagement activities and results. Feedback presented in this summary will inform draft design options for the corridor.

Engagement Objectives & Approach

Milestone 1 engagement objectives include:

- Increase awareness of the project among project area residents and businesses, and the broader Vancouver community.
- Inform key stakeholders of the characteristics, values, and benefits of Complete Streets.
- Seek input from a wide range of key stakeholders while decreasing barriers to engagement for all.

According to the City of Vancouver's Equity Index Map, neighborhoods in the north and south ends of the project area contain high equity index scores. Equity index scores consider the following variables:

- People of color (non-white and/or Hispanic/Latinx);
- Median Family Income;
- Renters;
- Adults without a 4-year college degree;
- Households with limited English proficiency;
- Persons with disabilities;
- Households with children (below 18 years of age); and
- People 65 and over.

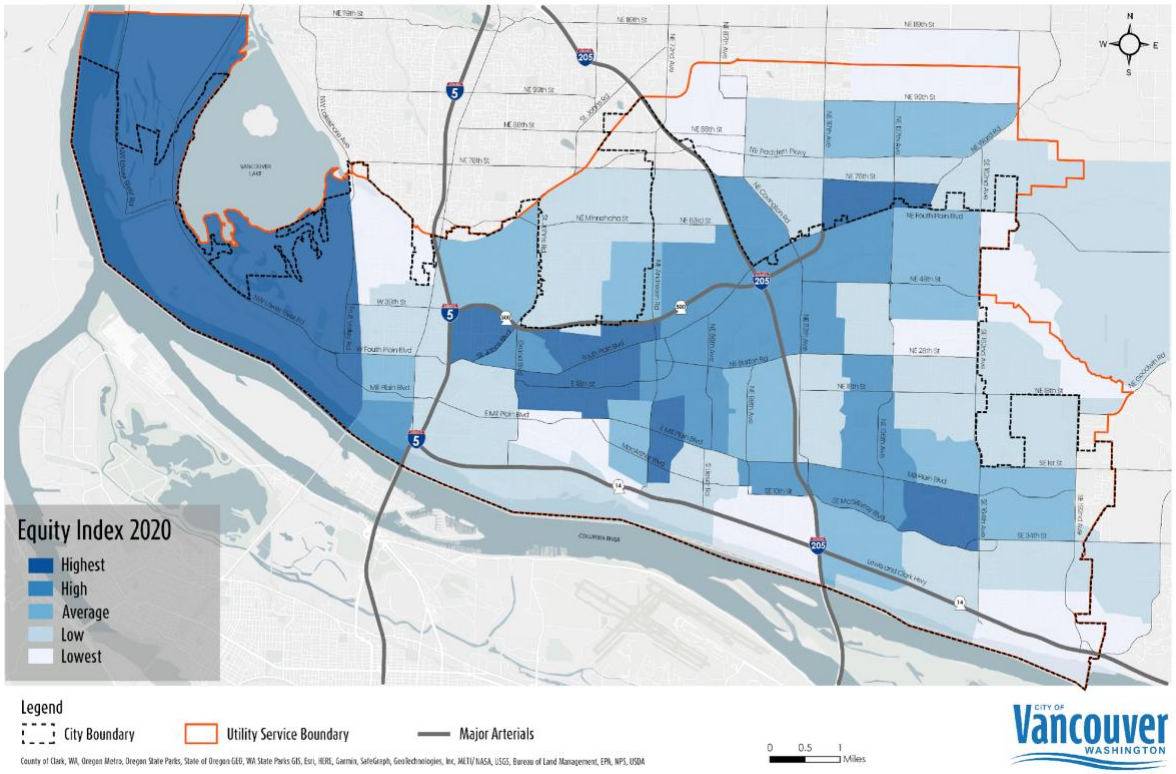


Figure 2: City of Vancouver Equity Index Map.

Tactics used by the project team to meet the needs of equity-priority populations and decrease participation barriers include:

- Proactive translation and interpretation of project materials into Spanish and Russian; translations into other languages available by request.
- Use of bilingual staff during outreach activities.
- Reaching people where they are through a mix of virtual and in-person opportunities, including tabling, canvassing, and meeting attendance.
- Coordination with public schools to facilitate student engagement by leveraging existing programming.

112th Avenue
SAFETY & MOBILITY PROJECT

City of Vancouver Washington

Milestone 1
Community Engagement Snapshot

Reached 23,000+ community members

564	315	1,500	21k+
surveys completed	in-person conversations	project webpage views	digital engagements

Feedback Themes

- Strong support for **improving road surfaces** and **widening lanes** to improve comfort and safety.
- General support for improving safety, accessibility, and comfort for **pedestrians**.
- Mixed support for **mobilty/bike lanes** – while some would like to see safe bike lanes, others oppose bike lanes due to concerns about removing space for cars and/or believe the corridor is unfit for bike use.
- Desire to address **vehicles speeding** and **traffic congestion** throughout the corridor.

	Widen lanes	Improve road surface	Don't remove car lanes	Add or improve mobility/ bike lanes	Concerns regarding adding or improving mobility/bike lanes	Add / improve sidewalks
Fircrest Neighborhood Association	●	●	●	●	●	●
Latino Student Union, Evergreen High School	●	●				●
Survey	●	●	●	●	●	●
Social media	●	●	●	●	●	●
Tabling	●	●		●	●	●
Phone canvassing	●	●				
In-person canvassing	●	●	●	●	●	●

This table summarizes key fedback themes heard during each engagement activity.

Engagement Activities & Results

A variety of digital and in-person engagement strategies were used to accomplish Milestone 1 engagement objectives.

Digital Engagement

Digital tools allowed the project team to reach many people who may be interested in or potentially impacted by this project, providing the latest project information available at their fingertips when they need it 24/7. The following digital engagement tools were used to spread awareness and drive people to the project website and/or survey.

- **BeHeard Project Webpage** – The project's webpage serves as a public information hub and provides a direct link for the community to connect with the project team. Project information is available in English, Spanish, and Russian including fact sheets, timeline, project area maps, and survey links. A section of the webpage is dedicated to answering Frequently Asked Questions, which includes information about Complete Streets, and a widget allows community members to sign up to receive project updates directly to their email. **From June 1 – October 20, 2023, the webpage received 1,500 visitors.**

- **Social Media** – Two rounds of social media content were distributed to followers of City of Vancouver social media channels including Facebook, Instagram, Twitter, and Nextdoor, **generating over 21,000 engagements.** Social media content asked what improvements people would like to see along the 112th Avenue corridor and drove users to the project's online survey.

- **E-newsletters** – On September 27, the **project's first e-newsletter was sent and opened by 67 subscribers**, encouraging people to complete the project survey. This information was also emailed directly to neighborhood associations, schools and faith-based organizations located within the project area, plus local community-based organizations. On October 13, **information about the project's survey was sent to subscribers of the Office of Neighborhoods Weekly Update and opened by 417 subscribers.**

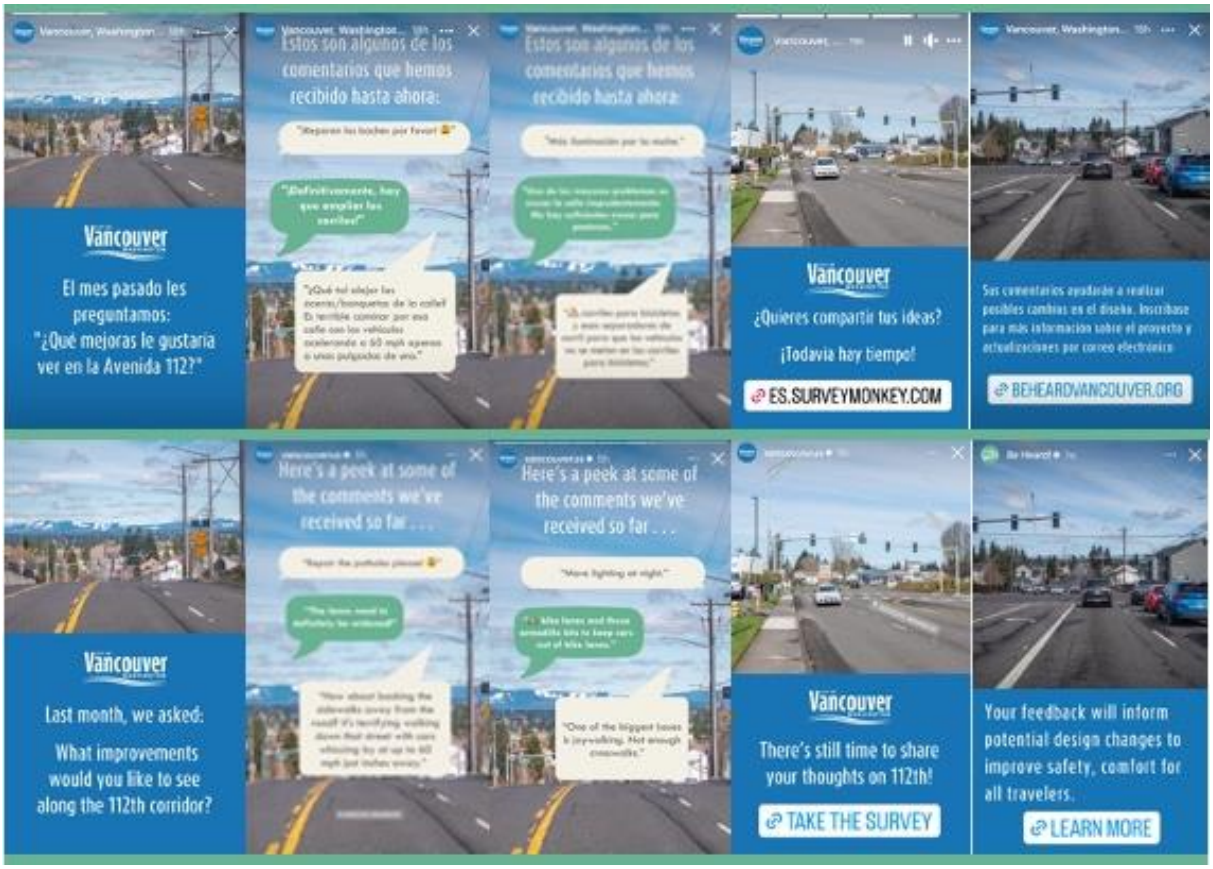


Figure 3: Project survey opportunity amplified via City of Vancouver social media channels in English and Spanish.

Tabling Sessions

The project team staffed an informational table at six locations/community events throughout the months of August and September:

- National Night Out Event at LeRoy Haagen Memorial Community Park
- East Vancouver Business Association Networking Event near Columbia Tech Center
- Downtown Vancouver Farmers Market
- East Vancouver Farmers Market
- Fred Meyer (11325 SE Mill Plain Blvd)
- McKenzie Stadium during Evergreen High School football game

Figure 4: Project team members tabling at community events near 112th Avenue.

At least **145 people** were engaged in one-on-one conversations during Milestone 1 tabling outreach efforts. Community members received information about the project and were invited to share their experience traveling 112th Avenue. Most people engaged were familiar with 112th Avenue and used the roadway frequently or semi-frequently. Feedback themes heard during tabling sessions include, in no particular order:

- **Paving improvements welcomed.** Road surface needs repair, including potholes.
  - "I think the street needs to be resurfaced. The right lane is full of dips and valleys."
  - "The paving is the #1 thing 112th needs; the cut across from ARCO to Safeway needs to go - it's not safe."
  - "Potholes near Burton; it's too narrow, people are moving over because of potholes."
  - "People will hit curbs to avoid bumps."
- **Lanes are too narrow.**
  - "Widen lanes - you can't take a trailer through; lanes are too narrow, 112th turning onto 9th - it's scary."
  - "Road is too narrow, no wiggle room on side."
- **Experience traffic congestion.**
  - "Entrance into Safeway is always backed up."
  - "Too many red lights; need to sync traffic lights to maintain traffic flow."
  - "Build roads before you build houses."
- **Can feel unsafe to walk, bike or use a mobility device.** The majority of engaged community members support pedestrian improvements. The team heard mixed support for mobility/bike lanes. Some expressed support for finding parallel mobility/bike routes to 112th Avenue.
  - "Not enough sidewalks or bike lanes – safety is #1."
  - "It is hard to push a stroller when walking due to curb ramps and narrow sidewalks."
  - "Not safe for bikes as cars have no line of sight coming out of business park north of 28th Street."
  - "Don't add bike lanes to 112th or main roads. It's not safe, they will get hit. A lot of people don't wear helmets/are unaware of surroundings."

- "Need more lighting at night."
- "The connection is not safe on Burton Road."

- **Suggestions for infrastructure improvements.**
  - "Add a right turn lane and bike/ADA box, improve street-level enforcement, and demark with cones and bollards."
  - "Widen bike lanes to share with mobility scooters."
  - "Improve sidewalk material to make it easier to travel."
  - "More yellow bump strips and orange delineators."
  - "Ensure height visibility when traveling along the corridor."

Small Group Briefings

Two stakeholder meetings occurred during Milestone 1 engagement. On October 3, the project team attended a Fircrest Neighborhood Association meeting to share information about the project, collect feedback from neighbors and answer questions.

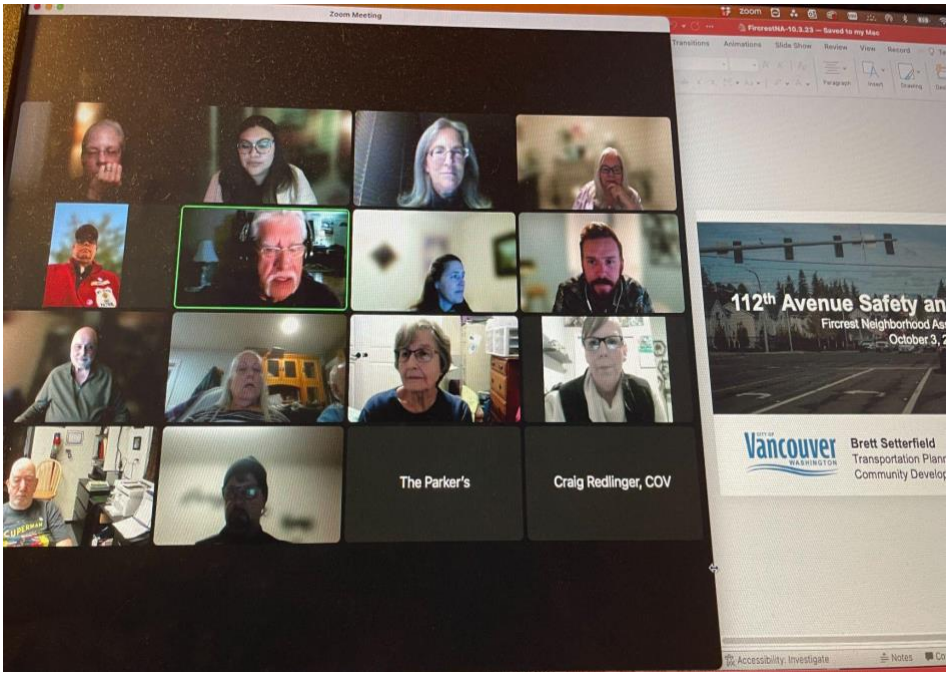


Figure 5: Project briefing at Fircrest Neighborhood Association virtual meeting

Sixteen Fircrest neighborhood residents were in attendance. Overall, most neighbors expressed support for improving the road conditions of the project area. One neighbor vocalized strong concern for the possibility of removing a lane in the corridor. Comments and questions shared included:

- "Biking is a death trap. There is no good route on the west side of 112th Avenue."
- "I watched a truck go up over the curb. It is so tight!"
- "Very important that 112th [intersections] have sensors."
- "I don't want sidewalks to take away from the respect that area should have. Keep area respected and protected (referring to Memorial Gardens)."

- "People [currently] walk in the area even now that there are no sidewalks. I feel there should be a sidewalk there (referring to Memorial Gardens)."
- "Thank you for finally doing this project. Thank you. I am overjoyed this is happening."
- "I am looking forward to improved biking conditions. What about between now and then [when the project happens]?"
- "How many lanes are you taking away? Are you going to do the same thing that's happening on McGillivray? That is a freaking nightmare!"

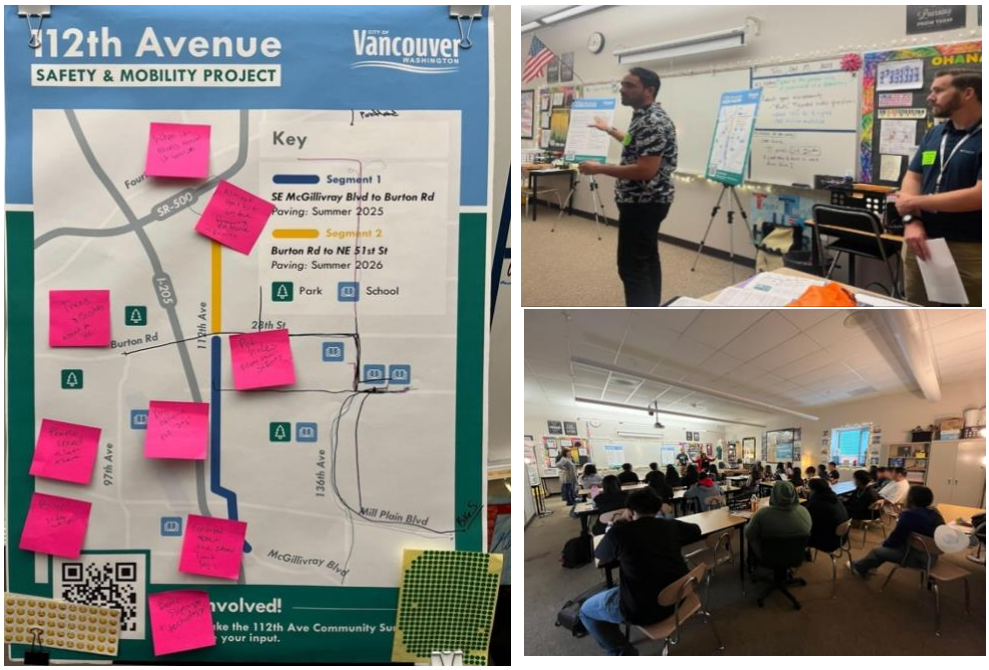


Figure 6: Engagement session with the Latino Student Union at Evergreen High School.

On October 17, the project team met with 30 members of the Latino Student Union at Evergreen High School. Students shared that they experience poor road conditions and narrow lanes along 112th Avenue, safety concerns related to vehicles speeding, crime and presence of people experiencing houselessness, and a desire for wider sidewalks. Specific feedback included:

- "People speed a lot there [referring to 112th Ave]."
- "I am confused by the speed limit in Segment 1[1]." (new driver)
- "The lanes are very narrow…especially Segment 1 [of the project area]."
- "There are a lot of potholes."
- "I almost got hit [by another driver] near SR500 [Segment 2[2] of the project area]."
- "I've nearly been hit [while walking]."
- "I feel unsafe standing outside waiting for the bus. Someone pointed a gun at me." (student lives in Segment 2 of the project area)

[1] Segment 1 refers to the section of 112th Ave between SE McGillivray Blvd and NE Burton Rd

[2] Segment 2 refers to the section of 112th Ave between NE Burton Rd and NE 51st St

- "I don't walk or bike but take the bus a lot. It's easy to use [referring to public transportation]."
- "Safety concerns with the homeless." (general comment)
- "Curbs feel too close to the road."
- "Need bigger sidewalks."
- "Need better signage. Use more and better technology. Technology with real-time updates."
- "I want to see more trees and bushes."

Canvassing

Both in-person and phone canvassing occurred during Milestone 1 engagement. The team used canvassing to increase awareness of the project, share engagement opportunities, and gather feedback from businesses and residents located within the project area.

The project team reached out to **55 stakeholders via phone** including businesses, faith-based organizations, schools, apartment complexes, and assisted living centers. Feedback themes heard during phone canvassing included:

- Lanes are too narrow. Some people mentioned having to swerve into turn lanes to get around larger cars or trucks.
- Road surface needs repair. This includes potholes and speed bumps.
- Tight corners and curves in the road negatively impact travel experiences.
- Poor lighting at night.
- Lots of dangerous jaywalking.
- Intersections identified as needing improvements: Mill Plain Blvd. & Chkalov Dr., NE 18th St., NE 28th St.

In-person and multilingual canvassing occurred over four days in September. The project team **directly engaged 140 businesses and apartment complexes** throughout the project area through canvassing. Overall, people were pleased to hear about the upcoming road surface improvements. Feedback themes heard during in-person canvassing included, in no particular order:

- **Road surface needs repair, including potholes.**
    - **"**[There are] tons of potholes at the Mill Plain intersection (particularly after ice storms)."
    - "Entering onto SR 500, there's some big potholes. At Burton, there's a lot of potholes in the intersection. Heavy freight brings a lot of wear and tear on the road."
    - "There is a flooding issue on 39th and 112th. There is a fairly deep depression around SEH and the water can come into the parking lot."
- **Narrow lanes.**
    - "The right-hand lane on 112th is very narrow and rough. The center turn lane that the city put in created some very narrow thru- lanes."
    - "Lanes feel narrow, especially the middle turn lane. It is more narrow on the north side compared to south."
- **Traffic congestion.**
    - "It is difficult to get in and out of the shopping centers during peak traffic times."

- "I've noticed traffic can get bad when there are badly timed signals on the freeway ramps."
- "It is hard to get on the side roads and apartment complexes when there's traffic on 112th."
- "The intersection of Mill Plain/Chkalov gets people confused and it gets backed up. Signal timing should be longer."

- **Concerns related to speeding, crashes, and pedestrian and bicyclist safety.**
  - "There is a lot of speeding where the freeway exits onto Mill Plain."
  - "9th and 112th has many accidents."
  - "There have been street racing and car accidents around 39th."
  - "Trees should be removed, can act as blind spot. Suggested street lighting when days get shorter. Trees could block potential street lighting."
  - "I know I'm supposed to ride in the bike lane but I'm terrified. People in general don't see bicyclists. Trimming bushes next to the bike lane will make it so I don't have to ride out in the road to avoid encroaching shrubbery."
  - "Houseless population on the sidewalk makes it difficult to walk."
  - "Crosswalks are very unsafe and dangerous. People have been hit. Lack of driver awareness. Flashing lights and striping will be most helpful. The 10 seconds to cross at intersections is not enough time to get to the other side of the street. We need better street and crosswalk striping."

Figure 7: Project team members canvassing along 112th Avenue.

- **The majority of people engaged desire improved infrastructure for pedestrians and bicyclists, while some prefer to prioritize improvements for vehicles.**
  - "Bike lanes or more sidewalks would be good. Crosswalks or a footbridge would be helpful for crossing 112th."
  - "I think widening the road and adding bike paths would be a good idea."
  - "It'd be nice to have bike lanes. One person here commutes to work by bike."
  - "We need to add more signage, so drivers know to stop, and that people are walking."
  - "Please do not use our money to create more sidewalks and bike lanes. We need more room for cars."
  - "I'm for bike lanes, but not in such a busy area."
- **Desire to improve public transportation reliability**
  - "I know people who take transit. There are problems with the transit being on time (referencing the C-Van paratransit)."
  - "The buses sometimes run late and cause issues."

Survey

The project's digital survey launched on August 1 in English. A Spanish version of the survey launched on August 15 and a Russian version launched on September 28. All surveys closed on October 20. On August 31, a postcard was mailed to **14,996 residents and/or businesses within the project area**, including 38 low-income and senior housing apartments. The postcard shared information about the project and encouraged survey participation. In total, the Milestone 1 survey received **564 responses**, including 558 English responses, six Spanish responses and no Russian responses.

Survey Respondent Demographics

The majority of survey respondents shared the following voluntary demographic information:

- 62% live, go to school, work, or own a business within the project area.
- 73% identify as white; 13% identify as a BIPOC (Black, Indigenous and People of Color); 16% prefer not to answer.
    - BIPOC demographics include Hispanic or Latino/a/e (5%), Asian (4%), Black/African American (2%), American Indian or Alaska Native (1%) and Native Hawaiian or Pacific Islander (1%).
- 75% own their home; 22% rent and 2% live with someone but don't pay rent.
- 25% are 65 years old or older; 4% are between 16-24 years old.

As displayed in Figure 8, project survey respondents underrepresent BIPOC individuals and renters who live within the project area, and overrepresent older adults (people 65 years old and older). Demographic information for project area residents is sourced from City of Vancouver Equity Index data.

Demographic variable	Survey Respondents	Project Area Residents
Identify as a person of color (BIPOC)	13%	18-49%
Renter	22%	56-73%
65 or older	25%	11-18%

Figure 8: Comparison of survey respondent demographics and project area demographics.

To address the limitations of survey reach, the project prioritized in-person engagement. In-person engagement specifically targeted people who live in the project area, including renters, youth and Spanish speakers which is the second most prominent language spoken within the project area.

Survey Respondent Travel Habits

Survey respondents primarily drive alone through the 112th corridor. Thirty-nine percent of respondents drive alone through the corridor every day or almost every day. Most respondents never use a small mobility device (96%), take public transit (85%), bike (73%) or walk, use a wheelchair or assistive device (51%) to travel through the corridor.

When asked about the level of comfort when traveling on 112th Avenue, **most survey respondents feel uncomfortable regardless of transportation mode**. As shown in Figure 9, respondents are most likely to feel comfortable driving and least likely to feel comfortable biking.

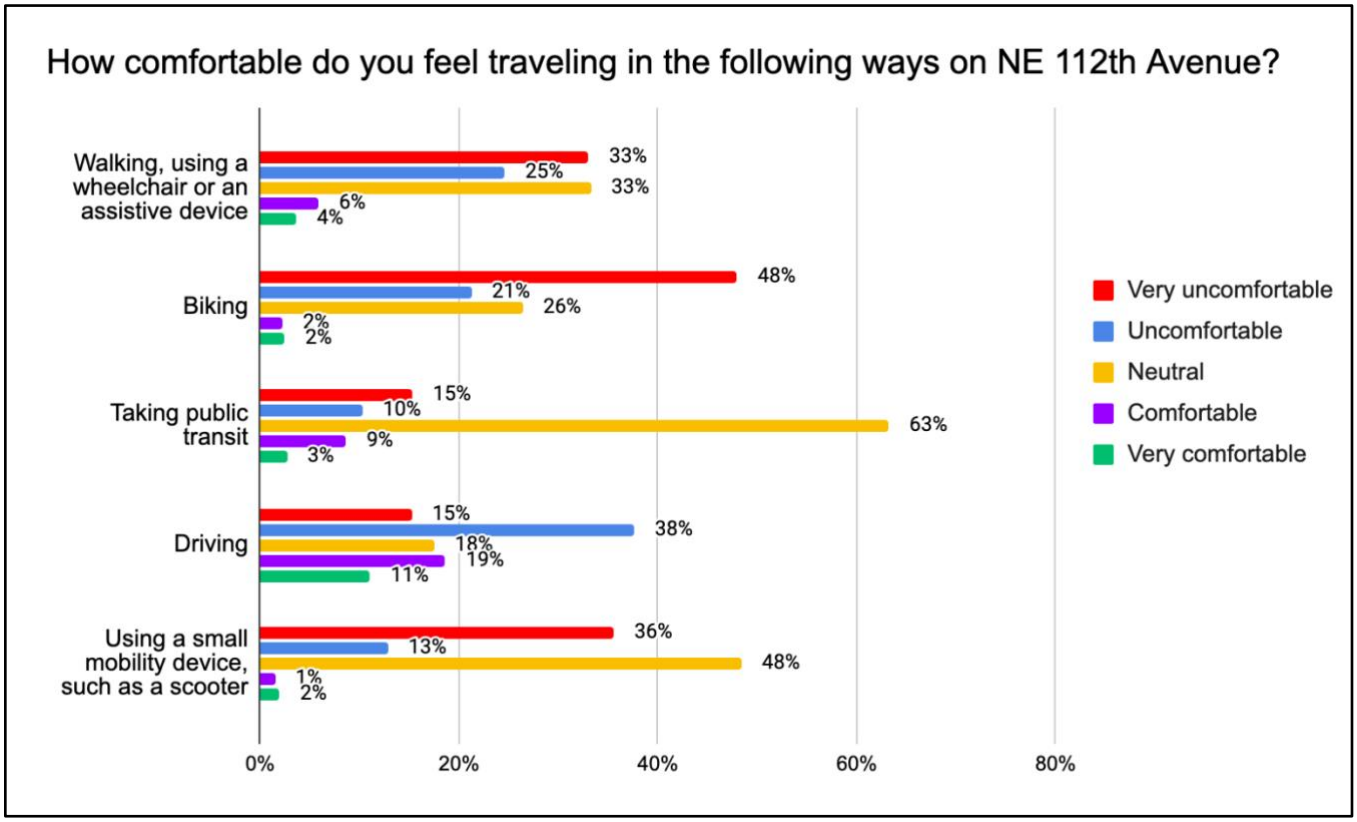


Figure 9: How comfortable survey respondents feel traveling on 112th Avenue.

Survey Respondent Challenges

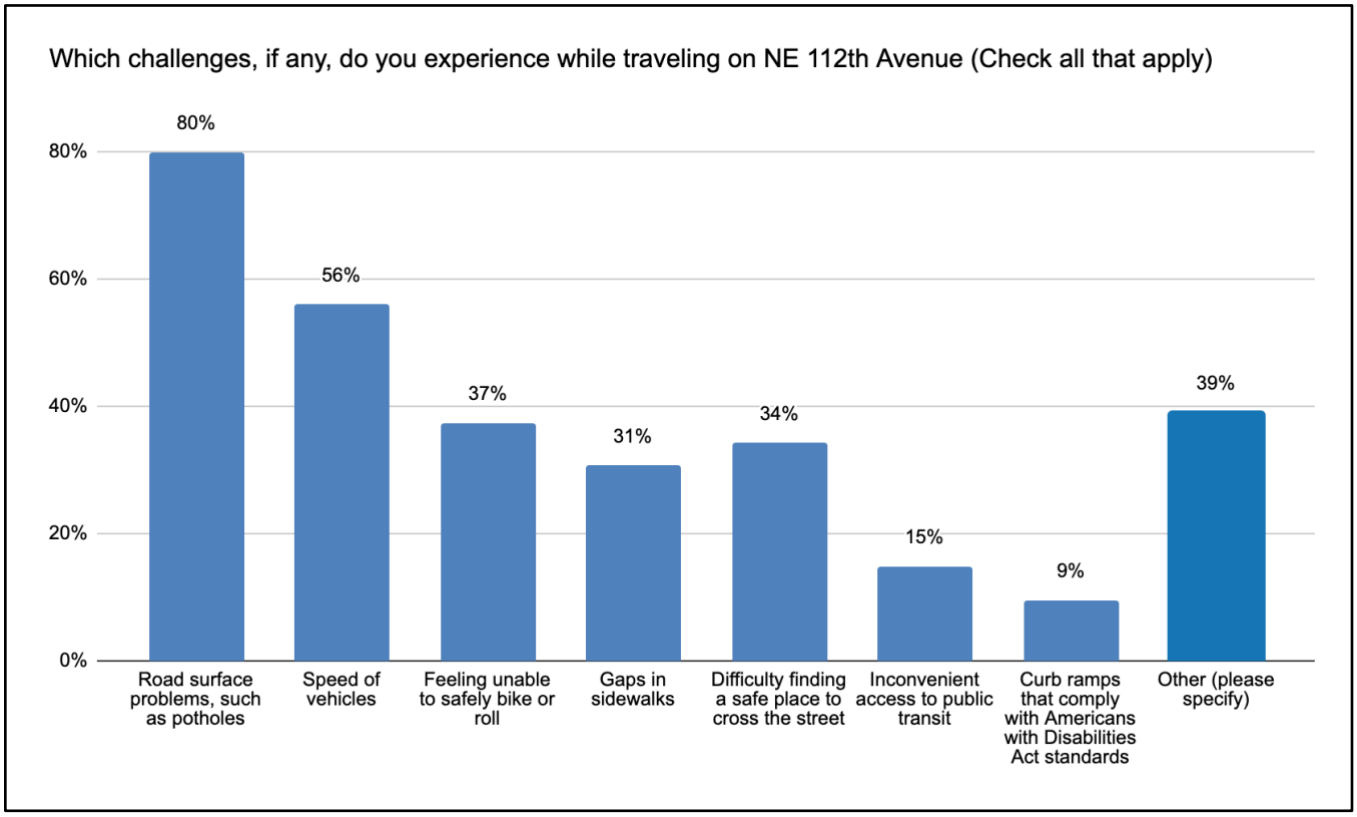


Figure 10: Challenges survey respondents experience while traveling on 112th Avenue.

As shown in Figure 10, the top three challenges survey respondents experience while traveling on 112th Avenue include **road surface problems such as potholes, speed of vehicles, and feeling unable to safely bike or roll.** Challenges listed by survey respondents in the "Other" category include:

- **Narrow lanes – 65% of comments mention challenges related to narrow lanes.**
  - "Most of this road is much too narrow for oversized vehicles, forcing them to drive partially in center lane."
  - "The lanes of 112th are VERY narrow between 18th street and Chkalov. Sometimes 2 vehicles won't even fit, so it's like having one lane."
  - "Inadequate lane width (no shoulder in some places)."
- **Congestion and traffic signals.**
  - "Very heavy traffic that the road is not built to handle."
  - "Uncoordinated traffic lights cause stop and go traffic, waste gas, pollute… should STOP truck parking in center lane immediately - huge safety hazard because of narrow lanes, bad sight lines."
  - "Waiting at red left turn arrows when there is no opposing traffic; uncontrolled southbound traffic turning left into Mannahouse Christian Academy."
  - "Trees/branches blocking traffic light."
- **Road surface and design**.
  - "Striping & curb highlighting is worn & not very visible at night or in rain."

- "Drainage catch basin are too deep and are very dangerous."
- "Lack of turns around Starbucks and Shari's make people do illegal U-turns and weird parking lot cut through at higher than acceptable speeds."

- **Safety and infrastructure for people who walk, bike and use mobility devices**.
  - "There are ZERO sidewalks at certain points."
  - "Disappearing bike lanes and sidewalks that make 90-degree angle turns. Very hard to take a wheelchair or bike."
  - "I feel anxious when I pass pedestrians or bicyclists. They are too close."
  - "Crossing at NE 9th street the light is not triggered by bicycles and the crosswalk is just not very visible for cars turning."
  - "It'd be suicide to try riding a bike on that, no bike lanes and the sidewalk is terrible."
  - "Sidewalk obstructions & uneven surface (see SE corner at 9th St. where the pavers are for an example.)"

Survey Respondent Priorities

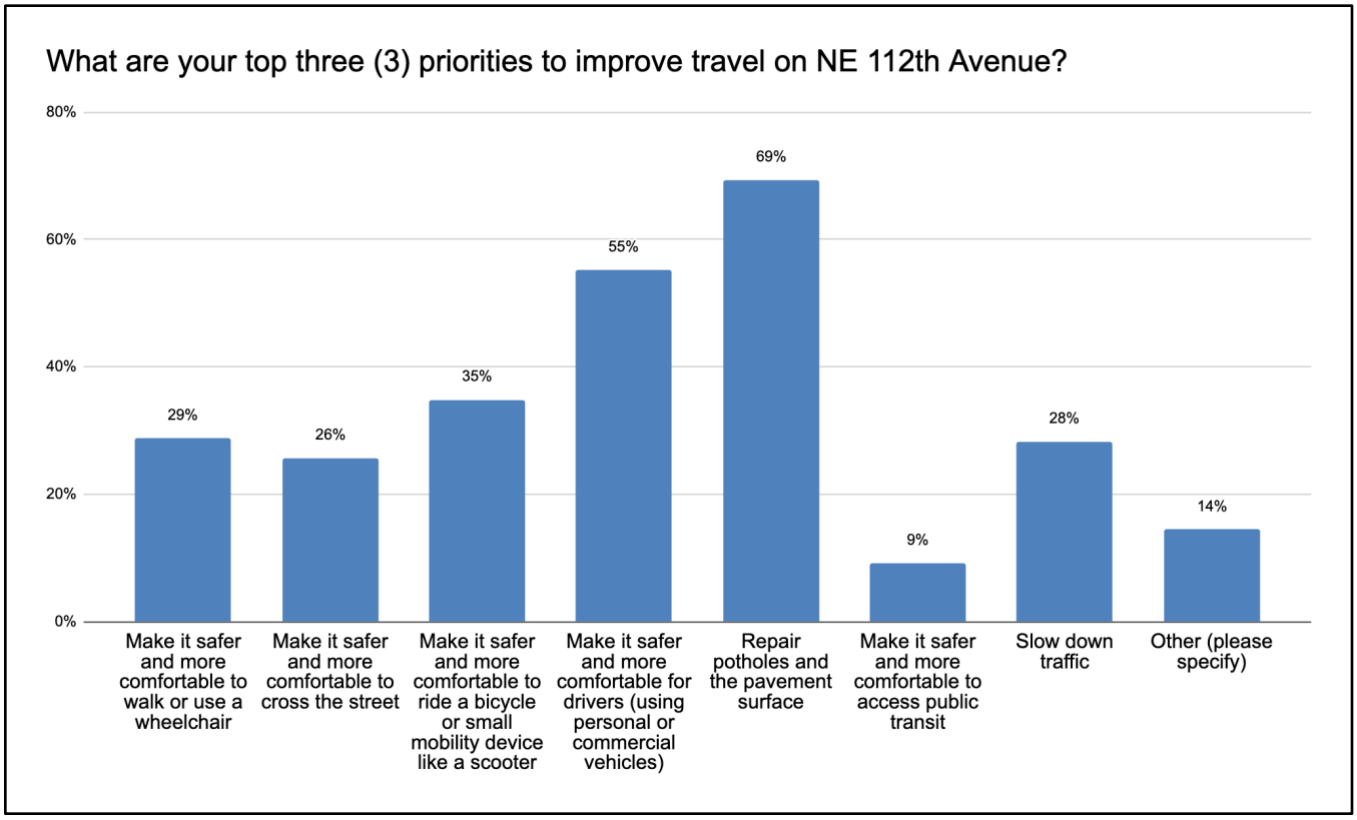


Figure 11: Survey respondent priorities to improve travel on 112th Avenue

As shown in Figure 11, the top three priorities for improving travel on 112th Avenue for survey respondents include:

1. **Repair potholes and the pavement surface.**
2. **Make it safer and more comfortable for drivers.**
3. **Make it safer and more comfortable to ride a bicycle or small mobility device.**

Priorities listed by survey respondents in the "Other" category include:

- **Lane width** – 40% of comments list widening lanes as a priority. Lanes south of NE 18th Street, especially lanes between NE 18th Street and NE 28th Street, are most often listed by survey respondents.
    - "Make both lanes in each direction wider, along with a wider center lane and shoulders the entire way. Dedicated turn lanes at the 49th intersection."
    - "Most of this road must be "drivers" 1st! It's not safe to drive in areas, let alone worry about bikes or walking! The lanes need to be widened & NO!!! Dividers, which are unsafe!"
    - "Between the exit from the freeway and 18th the street is too narrow to accommodate bike lanes. The street must be widened or reduced to one lane to have room for bike lanes."
- **Road safety and design** – several comments provide suggestions for how to improve safety for drivers and improve road design or configuration.
    - "A lot of the traffic is headed toward (SR)500 and I-205. A northbound access at 18th St would make a big difference, especially as many more apartments/condos are opening up in the area."
    - "ENFORCE TRAFFIC LAWS! Red lights are ignored daily!"
    - "Make a way to get from 112th to ?107th (Walmart street) without having to cut through neighbors. It would help reduce congestion at Mill Plain and 112th."
    - "Remove the curve and add long wide turn lanes so access to the fuel station and the business can be better."

Conclusion & Next Steps

During Milestone 1 engagement efforts, the project team reached more than **23,000 Vancouver community members** and **received feedback from 950 people**. Prevalent feedback heard across all engagement efforts included:

- **Strong support for improving road surfaces and widening lanes to improve comfort and safety for drivers.**
- **General support for improving safety, accessibility, and comfort for pedestrians.**
- **Mixed support for mobility/bike lanes – community members opposed to mobility/bike lanes are concerned about removing space for cars and/or believe the corridor is unfit for bicycle/ small mobility use.**
- **Desire to address vehicles speeding and traffic congestion throughout the corridor.**

In the coming months, the project team will share draft design options with the community and seek continued feedback. Planned engagement efforts during Milestone 2 include:

- Updated survey to gather feedback regarding draft design options.
- Additional small group briefings with businesses and/or community-based organizations.
- Open house event within the project area.
- Amplification of feedback opportunities via e-newsletters, social media and traditional media outreach.

CITY OF Vancouver WASHINGTON

MEMORANDUM

DATE: June 24, 2024

TO: Kate Drennan, Principal Transportation Planner, City of Vancouver

FROM: Monica Santos-Pinacho, Bryan Stebbins, PointNorth
Ryan Farncomb, Shelley Miller, Parametrix

SUBJECT: Milestone 2 Community Engagement Summary

PROJECT NAME: 112th Avenue Safety and Mobility Project

Overview

The 112th Avenue Safety and Mobility Project is studying opportunities to make travel safer and more comfortable for all users on 112th Avenue between SE McGillivray Boulevard and NE 51st Street, in coordination with upcoming pavement work slated for 2026 and 2028.

As shown in Figure 1, the 3.3-mile project corridor is an important north-south connector to several neighborhoods, businesses, schools and other community destinations.

Community engagement for this project was conducted over two milestones. Milestone 1 focused on gathering community feedback on project area existing conditions, needs and challenges. Feedback gathered during Milestone 1 informed the development of proposed design recommendations for the corridor.

This summary details Milestone 2 community engagement activities and results.

Figure 1: Project Area Map

Milestone 2 Engagement Objectives & Approach

Milestone 2 engagement objectives:

- Increase awareness of the project among project area residents and businesses and the broader Vancouver community.
- Collect community feedback on proposed near-, mid- and long-term proposed improvements.

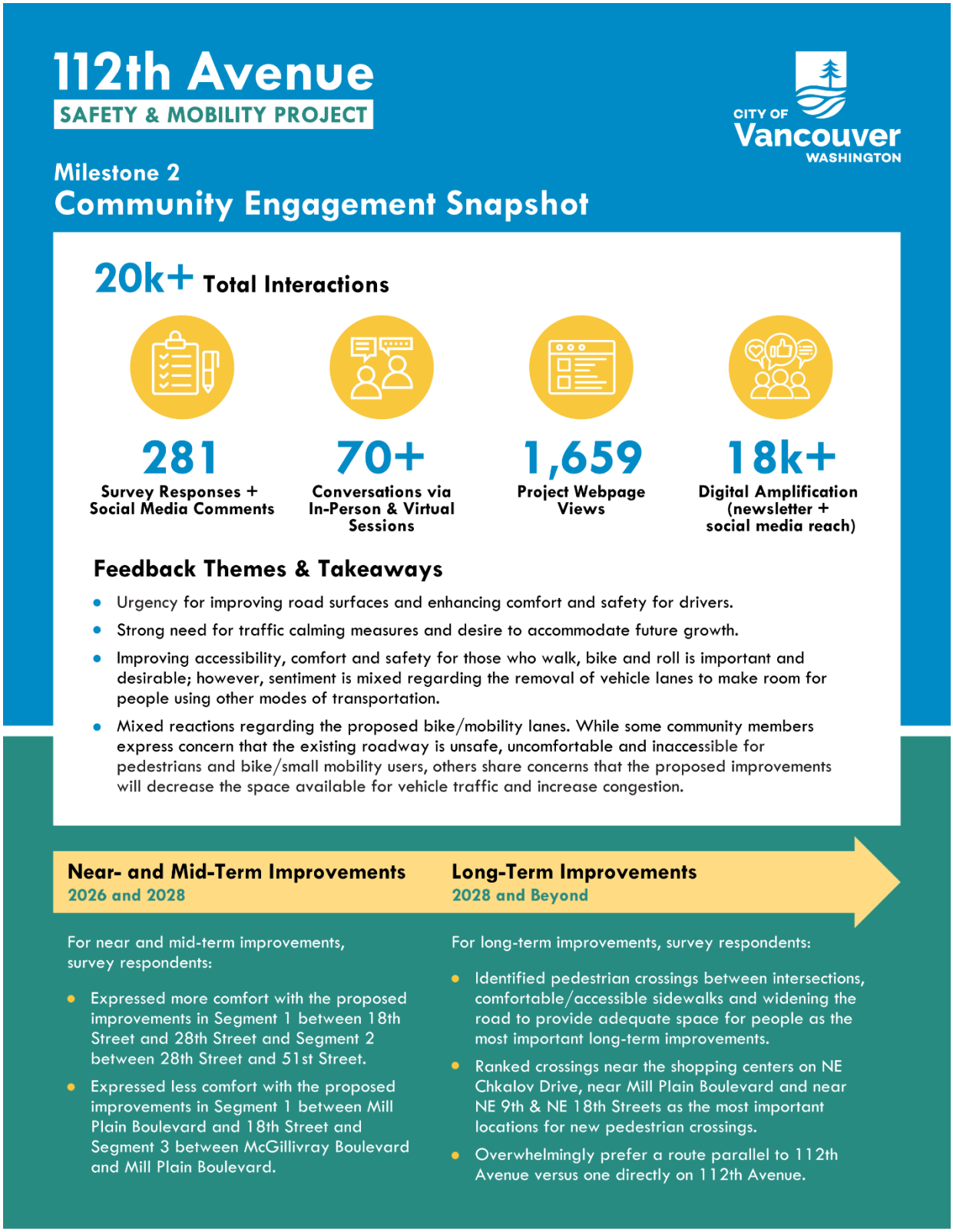
Tactics used by the project team to reach and engage with equity priority communities and decrease participation barriers included:

- Proactive translation and interpretation of project materials into Spanish and Russian; translations into other languages available by request.
- Prioritizing in-person engagement activities in areas or events with stronger opportunities to reach equity priority community members.
- Use of bilingual staff during all in-person and virtual outreach activities.
- Reaching people where they are through a mix of virtual and in-person engagement opportunities.
- Coordination with Evergreen Public Schools to encourage student engagement.

Engagement Activities & Results

A variety of digital and in-person engagement strategies were used to accomplish Milestone 2 engagement objectives.

Figure 2: Milestone 2 Community Engagement Snapshot



Digital Engagement

Digital tools allowed the project team to reach the Vancouver community at-large as well as people interested in or potentially impacted by the project. The project team shared project updates with strong calls to action for the community to review proposed corridor improvements that would be built in the near-term (2 years), mid-term (4 years) and long-term (5 years and beyond). The following digital engagement tools were used to spread awareness and drive people to the project website and/or the survey to share their feedback.

- **BeHeard Project Webpage** – The project's webpage serves as a 24/7 public information hub and provides a direct link for the community to connect with the project team. On March 22, the project website was updated with proposed designs that would be implemented in 2026 and 2028 as part of the scheduled pavement work and potential long-term improvements that would be implemented as funding is secured. The second community survey was also launched for the community to share comments and feedback on the proposed designs and improvements. **During March 22 - June 6, 2024, the project webpage received 1,659 views and 981 visits.**

- **Social Media** – Two rounds of social media content were distributed to followers of City of Vancouver Facebook, Instagram, Twitter and NextDoor channels, **generating over 18,135 views and 833 engagements.** Social media content previewed proposed designs and drove users to the project's survey. With **more than 120 comments** on Instagram and Facebook, the social posts drove strong response from the community. Comments called for the proposed improvements to happen sooner, sentiments were divided regarding the need for bike lanes and many shared concerns regarding the proposed lane removal in some areas of the corridor. Overall, reactions on Instagram drove higher than typical engagement activity for the City's social channels, with the project posts receiving the highest views and engagements across all channels during both digital engagement efforts.

Figure 3: Social Media Post Round 1

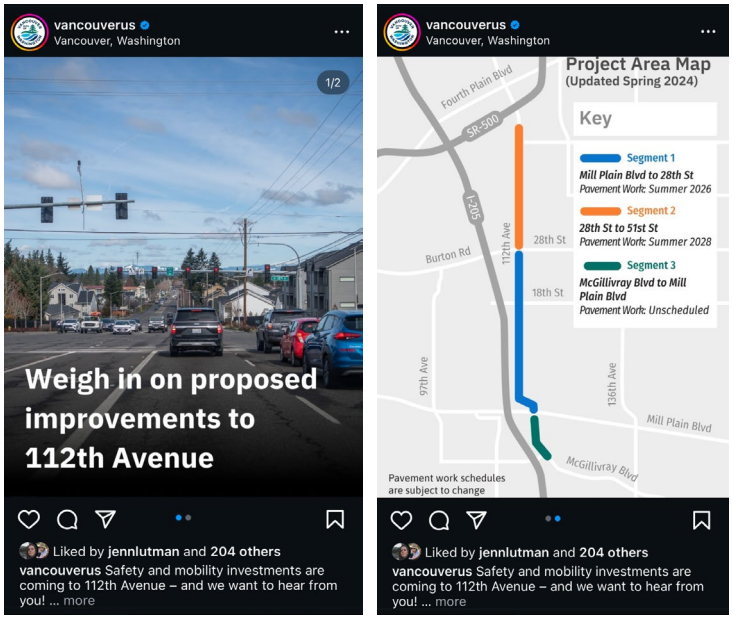
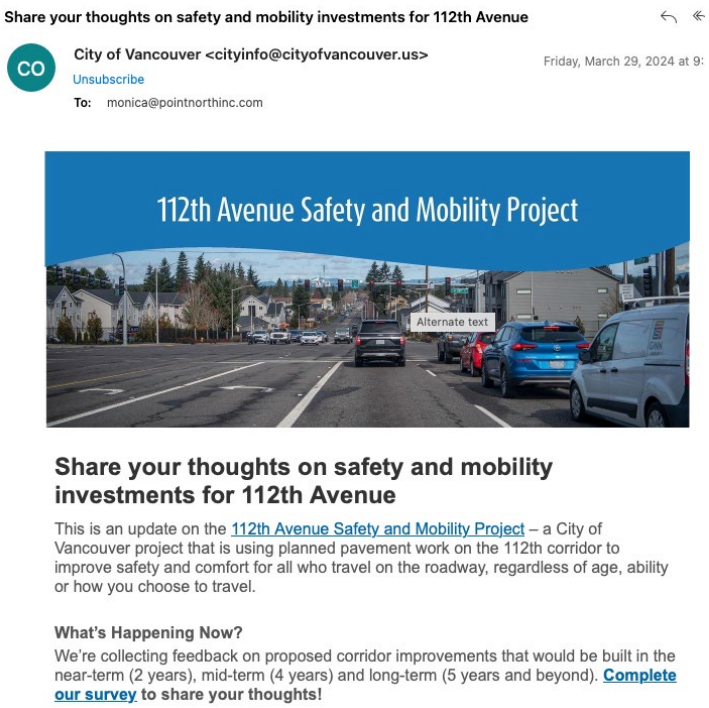


Figure 4: Social Media Post Round 2

- **E-newsletters** – On March 29 and April 16, project updates were distributed to **97 email newsletter subscribers.** The project team further amplified these updates by distributing the newsletter to **64 interested parties**, including neighborhood associations, schools, churches and community-based organizations. The e-newsletter encouraged community members to review the proposed designs and share their feedback via the survey.

Figure 5: Snapshot of March 29 Project Newsletter



Share your thoughts on safety and mobility investments for 112th Avenue

CO City of Vancouver <cityinfo@cityofvancouver.us> Friday, March 29, 2024 at 9:

Unsubscribe

To: monica@pointnorthinc.com

112th Avenue Safety and Mobility Project

Alternate text

Share your thoughts on safety and mobility investments for 112th Avenue

This is an update on the 112th Avenue Safety and Mobility Project – a City of Vancouver project that is using planned pavement work on the 112th corridor to improve safety and comfort for all who travel on the roadway, regardless of age, ability or how you choose to travel.

What's Happening Now?

We're collecting feedback on proposed corridor improvements that would be built in the near-term (2 years), mid-term (4 years) and long-term (5 years and beyond). **Complete our survey to share your thoughts!**

In-Person Engagement

From March through May, the project team and City partners staffed an informational table at three locations/community events and conducted a small group briefing:

- **Tabling Session at the 2024 State of the City and Council Community Forum** – On March 18, the project team promoted the upcoming community survey and handed out factsheets in English and Spanish to more than 30 community members. The factsheets contain updated project information and direct people to the website for more information and to participate in the survey.

- **Small Group Briefing with Fircrest Neighborhood Association** – On April 2, the project team met with the Fircrest Neighborhood Association to share proposed plans and gather feedback. Fifteen neighborhood residents attended. Overall, neighbors appreciated the work happening but expressed disappointment that the near/mid-term improvements are not happening sooner and that long-term improvements are not yet funded. Several neighbors expressed strong concerns about proposed designs that remove existing vehicle lanes, citing concerns that the change will increase congestion in the area.

- **Follow up with Evergreen High School Latino Student Union** – On April 9, the project team followed up with the Evergreen High School Latino Student Union leadership to provide a project update and encourage students to participate in the survey.

- **Cascadia Technical Academy Career Fair** – On April 23, City partners attended the Cascadia Technical Academy Career Fair to engage students and helped amplify the call-to-action to participate in the survey. More than 150 students and families attended the event.

- **Tabling Session at Muchas Gracias Mexican Restaurant** – On May 8, the project team conducted a two-hour tabling session at the Muchas Gracias located between Segment 1 and Segment 2 of the project area. Meeting people where they are, the team shared project information with more than 25 community members inside the restaurant and in the plaza parking lot. The need to slow traffic down and improve roadway conditions/fix potholes were among the most common reactions during the tabling session. Questions around traffic impacts during construction also came up, and the team shared that more details will be available after designs are finalized and as construction nears.

Figure 6: Project tabling sessions at Muchas Gracias (left) and State of the City (right)

Community Survey

The project's second digital survey launched on March 22 in English. A Spanish version of the survey launched on April 4. All surveys closed on May 10. To increase project awareness and encourage participation in the survey, 20 signs were posted throughout the project area. In total, the Milestone 2 survey received **161 responses**.

Survey Respondent Demographics

The majority of survey respondents shared the following voluntary demographic information:

- About 67% identify as White/Caucasian; 10% identify as BIPOC (Black, Indigenous and People of Color); about 3% identify as Other; and about 20% preferred not to answer.
    - BIPOC demographics include American Indian or Alaska Native (2.17%), Asian (2.9%), Black/African American (2.17%), Hispanic or Latino/a/e (5.8%), and Middle Eastern or North African (1.45%).

    - Some individuals who selected "Other" and provided additional comments, noted "Irish" and "Mixed Asian."
- About 76% own their home; 23% rent; and less than 1% live with someone but don't pay rent.
- Approximately 28% of survey respondents identify as living in or near the project area; 72% of survey respondents identify as living in zip codes outside the project area; and about 12% of survey respondents skipped the question.

As displayed in Table 1, BIPOC individuals and renters who live within the project area are underrepresented among project survey respondents. Demographic information for project area residents is sourced from City of Vancouver Equity Index data.

Table 1: Comparison of survey respondent demographics and project area demographics.

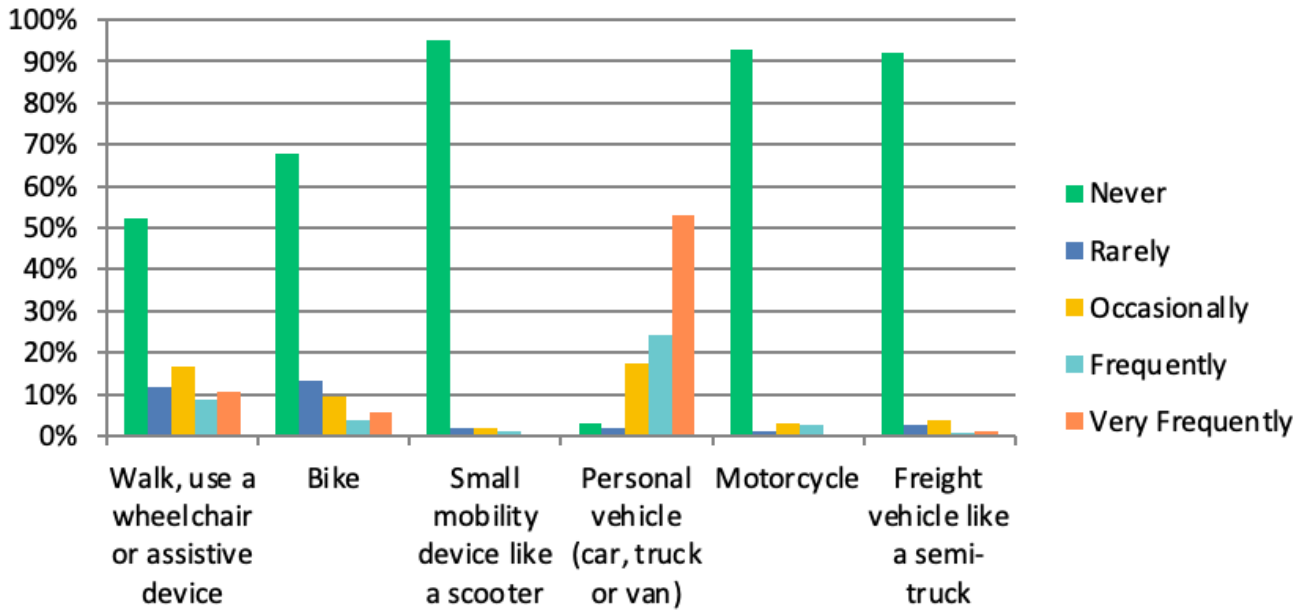
Demographic Variable	Survey Respondents	Project Area Residents
Identify as a person of color (BIPOC)	10%	18 - 49%
Renter	23%	56 - 73%

Anticipating this, the project prioritized in-person engagement with equity priority community members as well as students and residents within the project area, ensuring diverse perspectives were captured. In-person engagement specifically targeted locations frequented by equity priority community members, in particular Spanish-speakers who account for the second most prominent language within the project area.

Survey Respondent Travel Habits

As shown in Figure 6, survey respondents primarily drive through the 112th corridor. 53% of respondents use a personal vehicle to travel through the corridor every day. Most respondents said they never use a small mobility device (95%), motorcycle (93%), freight vehicle (92%), bicycle (68%), or walk, use a wheelchair or assistive device (52%) to travel through the corridor. However, about 11% of respondents walk, use a wheelchair or assistive device and about 6% use a bicycle to travel through the corridor every day. Overall, 48% of respondents will walk, use a wheelchair or assistive device or 32% of respondents will use a bicycle to travel through the corridor rarely, occasionally, frequently, or every day.

Figure 7: Survey responses showing the frequency and ways people travel on 112th Avenue



Response to Proposed Improvements

When asked to share about their level of comfort when traveling through the 112th Avenue corridor if the proposed improvements are completed in each segment of the project area, **survey respondents expressed more comfort with the proposed improvements in Segment 1 between 18th Street and 28th Street and Segment 2 between 28th Street and 51st Street**. Respondents' comfort level with the proposed improvements in Segment 1 between Mill Plain Boulevard and 18th Street and in Segment 3 between McGillivray Boulevard and Mill Plain Boulevard leaned more towards uncomfortable or very uncomfortable. All survey respondents answered this question, yielding the following results:

- **Segment 1 between Mill Plain Boulevard and 18th Street** – Nearly 48% chose uncomfortable or very uncomfortable, nearly 10% neutral and 42% comfortable or very comfortable.
- **Segment 1 between 18th Street and 28th Street** – About 34% chose uncomfortable or very uncomfortable, about 17% neutral and nearly 49% comfortable or very comfortable.
- **Segment 2 between 28th Street and 51st Street** – 36% chose uncomfortable or very uncomfortable, 17% neutral and 47% comfortable or very comfortable.
- **Segment 3 between McGillivray Boulevard and Mill Plain Boulevard** – 47% chose uncomfortable or very uncomfortable, 8% neutral and 45% comfortable or very comfortable.

When asked to share their general comments about the proposed near- and mid-term improvements along the 112th Avenue corridor, survey respondents provided 129 additional comments that included the following key themes:

- **Road safety, biking facilities and traffic speeds** - About a third of the comments explicitly highlighted thoughts on the proposed improvements and additional ideas for how to improve their level of comfort traveling through the corridor. Calls for traffic calming, better/more protected biking facilities and improved sidewalks were among the most common. Sample comments include:

- *"Love this idea of working within existing footprint so that trees will be preserved hopefully. It should help slow things down, too. Room for bikes and walkers is awesome. I can walk to work more often! Thanks."*
- *"The only reason I don't ride my bike and walk more on this Corridor is because when I've tried it, it has been so difficult and so unpleasant, particularly at the segment two, which is the northern most part where there are no sidewalks. That is the area that I most need to see Improvements. Improving that northern section would make a big difference in my life if I could be a pedestrian and a bright bike rider through that area."*
- *"There are parts between Mill Plain and 18th that don't have sidewalk but have overgrowth. Someone walking almost fell in my lane so I try to avoid 112th or drive in the left lane. Even before that incident I wasn't very comfortable driving on that street due to lots of potholes and careless drivers."*
- *"Traffic calming measures are desperately needed between Mill Plain and 18th. There are a lot of new apartment complexes and as someone who lives in one, I can attest that almost no one abides by the speed limit. It can be scary trying to pull out into traffic, especially during rush hour."*
- *"My biggest concern is reducing traffic speeds through this area. As someone who lives in the Bryan's Place apartment complex west of 112th and just north of 18th street, my biggest complaint is the late night drag racing that is a nightly occurrence."*
- *"Would love some protected left turning lanes out of some of the neighborhoods. I live on 25th and trying to turn left without the ability to at least get into the middle yellow lane to then get over is really hard to do during high traffic times. I've seen some neighbors almost get in accidents trying to turn left."*
- *"112th from Mill Plain to 28th street is un-bikeable due to the narrow roadway from Mill Plain to 18th and high traffic volume and speed from 18th to 28th. Bus stops are located on 28th and Mill Plain and are currently entirely inaccessible via bike from the area around 18th St."*
- *"Please add SOME form of physical separation for the bicycle lanes between 28th and 51st. Concrete or flex posts at a minimum. Paint is not infrastructure, and will not protect micro mobility users, nor will it encourage people to use it."*
- *"In segment 1 between 18th and 28th streets, perhaps reducing to just 2 motor vehicle lanes to allow for bike/scooter lanes? In Segment 2, please add a thin barrier lane with concrete protections; 1 foot to 2 feet on each side between cars and bikes/scooters."*
- *"The 18th street to 28th street segment should match the others as it is one of the more heavily populated areas with an incredibly large interaction between all the transportation modes."*

- **Lane width** - Other comments call out that lanes are currently "very narrow" and ask for lanes to be widened to increase comfort and safety in the corridor. Lanes south of NE 18th Street, especially lanes between NE 18th Street and NE 29th Street, are most often called out by survey respondents. Sample comments include:
  - *"I dislike the current narrow lane widths between 18th and 28th St with no way to dodge the potholes so I risk damaging my tires and alignment. I am not happy that the current narrow lane widths will be maintained."*

- *"Widening lanes and smoothing the road is the greatest necessity on 112th from mill plain to 28th."*
- *"I really think you need to look for some solution for 18th to 28th street. It is incredibly uncomfortable to even drive down - the travel lanes are very narrow. Is it possible to remove the seldom used turn lane?"*
- *"We have too much traffic to be taking away lanes. And making lanes more narrow would make it more uncomfortable. It's already uncomfortable driving down 112th."*
- *"Please do not reduce or narrow the amount of lanes through any part of this project."*
- *"The vehicle lanes need to be widened. They're way too tight."*
- *"Widen the streets. Most of these proposals restrict traffic in already heavy traffic areas. Don't make a bad situation worse."*

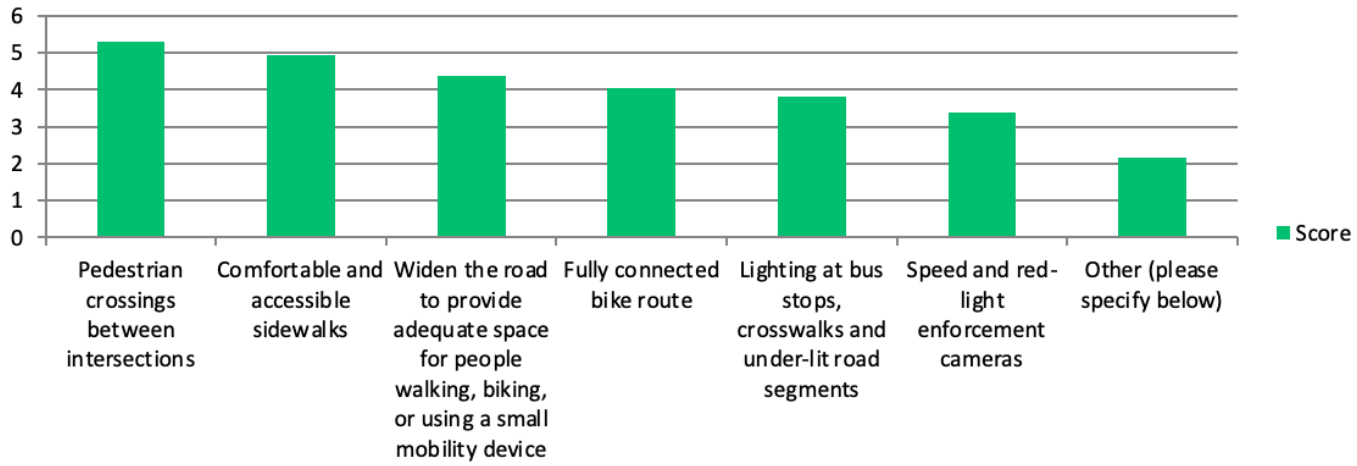
- **Lane reductions** - About another third of the comments list lane reductions as undesirable due to concerns related to congestion and anticipated urban growth and development. Several commenters point out the growing volume of vehicles on the road outweighs the need for bike lanes, calling the move "unacceptable" and "inadvisable." Sample comments include:
  - *"The volume of cars on these streets are very high. Decreasing the number of vehicle travel lanes on this street is inadvisable. Instead, you should find an alternate bike route that does not include these streets."*
  - *"Southbound on 112th from 18th to Mill Plain will be extremely congested trying to get through the intersection. It is freeway access and needs to have adequate vehicle traffic lanes to avoid congestion. Traffic on Mill Plain that wants to go north on 112th will cause the intersection at Mill Plain to be severely congested. Westbound traffic will back up on Mill Plain east of 112th. This congestion WILL cause delays in emergency responses. This is the direct way to PeaceHealth and heavily used by first responders. Eastbound traffic on Mill Plain will also be congested and will likely back up on the exit ramp from 205 southbound to Mill Plain and from the northbound off ramp from 205 to Mill Plain eastbound."*
  - *"Do NOT take away lanes on a major road when we have more and more cars moving into our town and using these roads. The amount of traffic has increased exponentially in the past 10-15 years. I see hardly any bikes on the road in order to justify bike lanes on these major arteries throughout the city."*
  - *"Please please please do not take away car lanes. Our neighbors in Portland have shown us how ineffective that is in practice at relieving congestion."*
  - *"concerned about the reduction to one lane each direction and the bottleneck that will create backing up vehicles, traffic coming in and out of the high-density housing and back up behind buses."*
  - *"Taking away vehicle lanes for bike lanes on these major streets is unacceptable."*
  - *"Please don't reduce the travel lanes on 112th between mill plain and 18th street (or the area near Fred Meyers) …this area is already very busy as it is now and with so many new housing developments going in around the area near 18th st it is only going to make traffic worse. There is plenty of space to widen the road on both sides in that area to accommodate a bike lane."*

- *"Reducing vehicle lanes is never a good option. Only adds to the congestion and increases commute times. Vehicles sitting in congestion increase fuel consumption which is bad for the environment. The above are bad options."*
- *"There is too much traffic on this road. How will reducing lanes in turn reduce traffic and wait times at stop lights?"*
- *"Vancouver is getting more congested because of all the new apartment builds. Less streets due to bicycle lanes is going to make everything much worse. These proposed plans are going to benefit the minority while hurting the majority."*

Rankings of Potential Long-Term Improvements

When asked to rank the potential long-term improvements in order of importance, responses showed **pedestrian crossings between intersections** and **comfortable/accessible sidewalks** were most important, coming very closely at number one and number two respectively. **Widening the road** to provide adequate space for people walking, biking or using a small mobility device was ranked as the next most important potential long-term improvement followed by a **fully connected bike route**. The two least important potential long-term improvements were **lighting at bus stops, crosswalks and under-lit road segments** and **speed and red-light enforcement cameras**. 146 survey respondents answered this question and 15 skipped.

Figure 8: Survey responses showing the most important potential long-term improvements



Survey respondents provided additional commentary on "other" potential long-term improvements. Overall, 45 comments were submitted, expressing a need to slow traffic down and a focus on increasing safety and accessibility for people walking and biking. While sentiment is mixed regarding the reduction of the number of vehicle lanes, many call out the need to create a more pronounced physical separation between drivers and people walking or biking. Sample comments include:

- *"Fully connected bike route that is ACTUALLY safe for the entire length of the road."*
- *"Designs that optimize pedestrian/mobility access on a separate sidewalk without reducing the number of traffic lanes. Narrowing lanes is fine."*
- *"Make the sidewalks actually usable and handicapped accessible. Put in more working crosswalks (have the lights stay on long enough for someone to actually cross the road safely).*

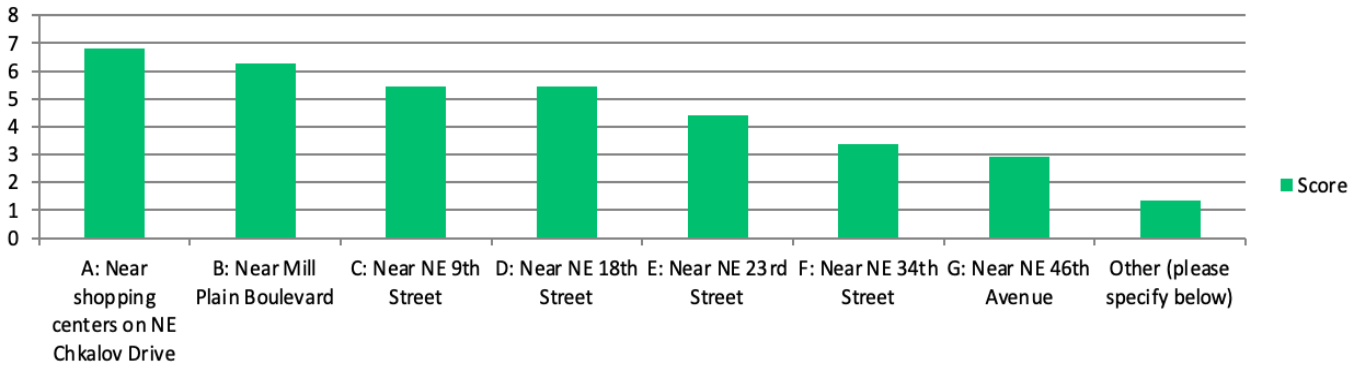
New brighter street lights are necessary to not just be a safer pedestrian, but to light the road for drivers at night."

- *"Roads do not need to be widened. Vehicle lanes should be reduced. Bike and mobility lanes should be completely separated from roadways as either part of the sidewalk or separated by Jersey barriers."*
- *"A physical barrier (curb, landscape strip) between vehicles and bicyclists. Not only would this protect existing bicyclists but would encourage others to bike more because they will feel more safe to bike."*
- *"Lowering speeds around the 18th and 112th intersection and enforcing all of it, including noise ordinances. If physical police presence is not possible, then cameras please."*
- *"Keep the existing vehicle lanes in each direction with a center turn lane. Add width for sidewalks, small mobility."*
- *"It is incredibly unsafe to travel on these roads without a car. Even then, I feel unsafe while driving. Please reduce car lanes, calm traffic, widen sidewalks, and add protected bike lanes."*
- *"The lanes between mill plain and 18th are too narrow and need to be widened."*
- *"Most important are vehicle flow and lane count. Accommodating the increasing number of vehicles on the road."*

Rankings of Enhanced Pedestrian Crossings

When asked to rank the importance of where to locate enhanced pedestrian crossings, survey respondents said enhanced pedestrian crossings **near the shopping centers on NE Chkalov Drive were the most important**. The second most important location was **near Mill Plain Boulevard** followed by pedestrian crossings **near NE 9th Street** and NE **18th Street**. The least important locations for enhanced pedestrian crossings were near NE 23rd Street, NE 34th Street and NE 46th Avenue. 146 survey respondents answered this question and 15 skipped.

Figure 9: Survey responses ranking the most important locations for new enhanced pedestrian crossings



Survey respondents provided additional commentary on "other" potential locations for enhanced pedestrian crossings. Overall, 14 comments were submitted, showing general support for additional pedestrian crossings in the project area. Sample comments include:

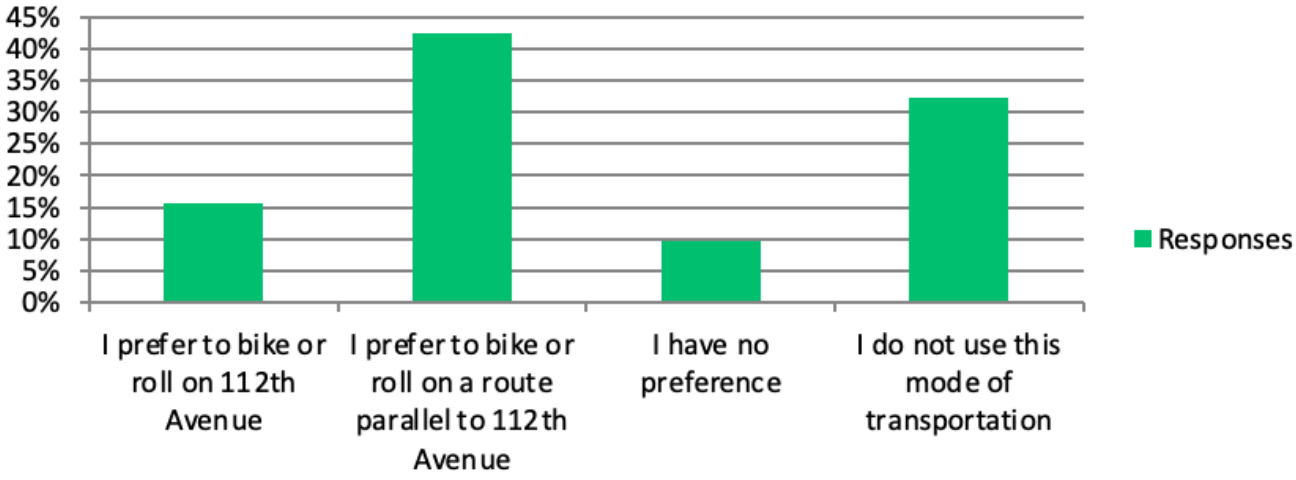
- *"ALL OF THEM"*
- *"Between mill plain and McGillvary there are 4 stop lights with crosswalks. No need for more"*

- *"Not sure why you don't have another option below… if all of 112th was a specific bike lane, then I'd stay on it but when you have to fall into traffic for a period of time, then the other way might be better until it changes."*
- *"I see people standing in the middle of the road by E very frequently, waiting to cross the other half of the road. There's a very unreasonable distance between the 2 crosswalks in that area, and a lot of housing on both sides. There needs to be a pedestrian crosswalk in the middle between Burton and 18th and 112th."*
- *"Do add any additional pedestrian crosswalks."*
- *"A concern with proposed crossing B is that cars would be stuck in the intersection of Chkalov and Mill Plain when heading northbound."*
- *"It is hard to pick one of these as I do not think one is more important than others. Need to evaluate land uses, current use, as well as proximity to housing, services, and recreation"*
- *"I feel there is already an adequate number of crosswalks in the area"*
- *"Please make sure that there is less time so that traffic doesn't stop."*
- *"Vancouver has the most sinister built environment for pedestrians ever. Signalize all these and divert traffic and it's possible this project could be one with no net casualties."*

Biking/Rolling on 112th Avenue vs a Parallel Route

Survey respondents were asked to share their preference for traveling on 112th Avenue directly versus on a route parallel to 112th Avenue when biking or using a small mobility device. Of those who shared a preference, **respondents overwhelmingly prefer a route parallel to 112th Avenue**.

Figure 10: Survey responses showing preference to bike/roll on 112th Avenue versus a parallel route



Conclusion & Next Steps

During Milestone 2 engagement efforts, the project team **received direct feedback from 351 Vancouver community members** through the survey, in-person/virtual conversations and comments on the City's social channels. The team amplified the project further through broad digital communications efforts**, generating more than more than 19,955 interactions** across the project

webpage, newsletter and social views and engagements. Prevalent feedback heard across all engagement efforts included:

- Urgency for improving road surfaces and enhancing comfort and safety for drivers.
- Strong need for traffic calming measures and desire to accommodate future growth.
- Improving accessibility, comfort and safety for those who walk, bike and roll is important and desirable; however, sentiment is mixed regarding the removal of vehicle lanes to make room for people using other modes of transportation.
- Mixed reactions regarding the proposed bike/mobility lanes. While some community members express concern that the existing roadway is unsafe, uncomfortable and inaccessible for pedestrians and bike/small mobility users, others share concerns that the proposed improvements will decrease the space available for vehicle traffic and increase congestion.
- For near- and mid-term improvements, survey respondents:
    - Expressed more comfort with the proposed improvements in Segment 1 between 18th Street and 28th Street and Segment 2 between 28th Street and 51st Street.
    - Expressed less comfort with the proposed improvements in Segment 1 between Mill Plain Boulevard and 18th Street and Segment 3 between McGillivray Boulevard and Mill Plain Boulevard.
- For long-term improvements, survey respondents:
    - Identified pedestrian crossings between intersections, comfortable/accessible sidewalks and widening the road to provide adequate space for people walking, biking or using a small mobility device as the most important long-term improvements.
    - Ranked crossings near the shopping centers on NE Chkalov Drive, near Mill Plain Boulevard and near NE 9th & NE 18th Streets as the most important locations for new pedestrian crossings.
    - Overwhelmingly prefer a route parallel to 112th Avenue versus one directly on 112th Avenue.

The project used the feedback heard during Milestone 2 engagement efforts to finalize restriping designs and long-term improvement recommendations that will be presented to the Transportation Mobility Commission on July 2, 2024. If approved, Segment 1 and Segment 2 final designs will be implemented as pavement work is scheduled to occur in 2026 and 2028 respectively.