McGillivray Boulevard Safety & Mobility Project

June 2023

CITY OF Vancouver WASHINGTON

FEHR PEERS

Existing Conditions Report

The **McGillivray Boulevard Safety & Mobility Project** will develop recommendations to improve safety and comfort for everyone who travels on McGillivray Boulevard.

This **existing conditions report** lays the groundwork for understanding the existing opportunities and constraints based on engagement with the people who use it and a technical evaluation of how the corridor functions today.

The following sections of this report present the **findings of the technical analysis** and a summary of **what was shared by community members** throughout the first phase of the Safety & Mobility Project.

The Safety & Mobility Project began in 2022 and is expected to conclude in Fall 2023 ahead of a repaving project on McGillivray Boulevard, planned to occur in **Summer 2024**.

The Safety & Mobility Project includes the following phases:

1. **Analyze the Corridor**: This phase is focused on evaluating how McGillivray Boulevard functions today from the perspective of those who use it and a technical evaluation.

2. **Develop Options**: This phase will begin with the development of project goals and include the development of design options that align with the goals.

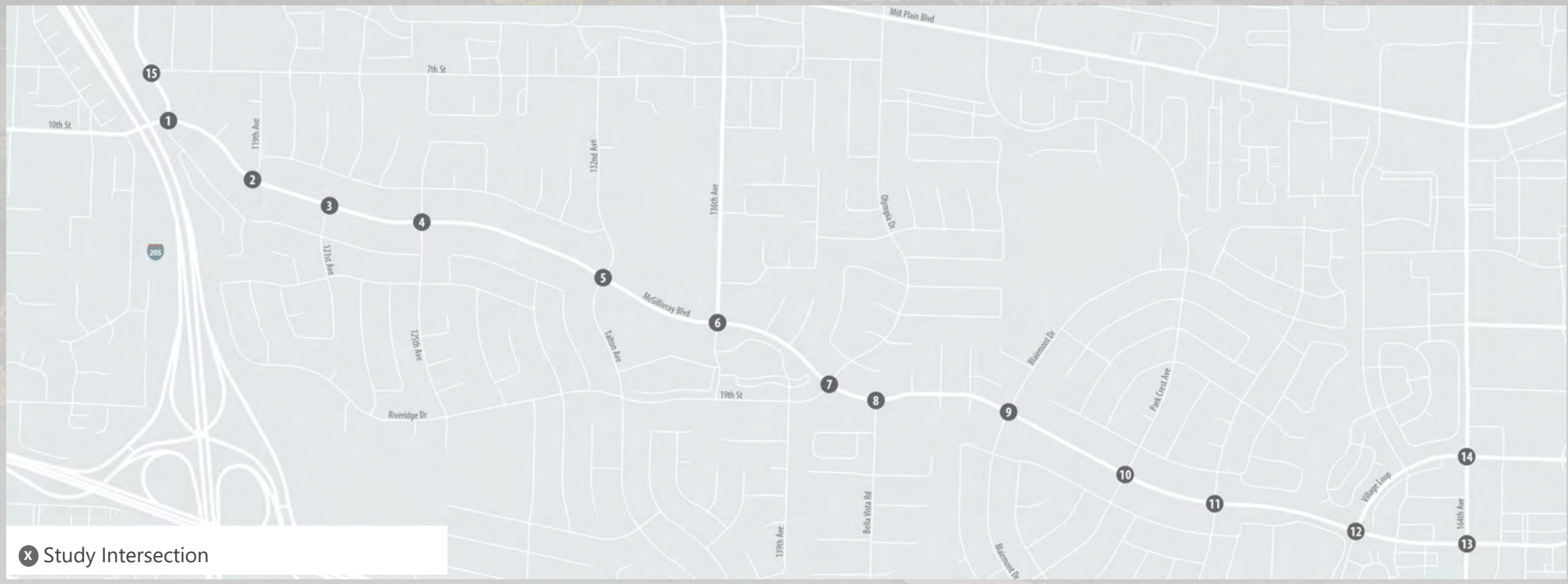
3. **Design Improvements**: During this phase, a preferred design option will be selected and designed based on feedback from the community and technical findings.

The Safety & Mobility Project is evaluating **McGillivray Boulevard from I-205/Chkalov Drive to SE 164th** Avenue and portions of Chkalov Drive and Village Loop Drive. **Major intersections** on McGillivray Boulevard, SE Chkalov Drive, and Village Loop Drive are also being evaluated as part of this project.

McGillivray Boulevard is **predominately surrounded by single-family homes**, except for the segment near SE 136th Avenue where there are several developments with multi-family homes. Retail uses along the corridor are limited to SE Chkalov Drive and SE 164th Street at each end of the corridor.

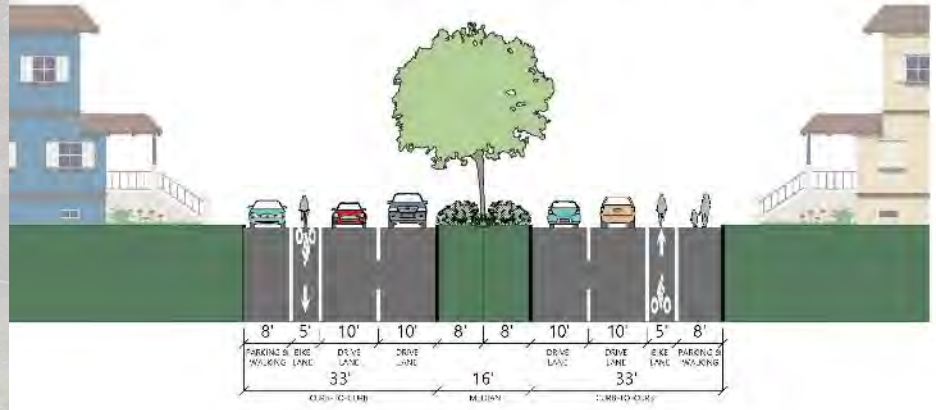
Important destinations along the corridor include:

- Wy'east Park
- Wy'east Middle School
- Mountain View High School
- Bella Vista Park

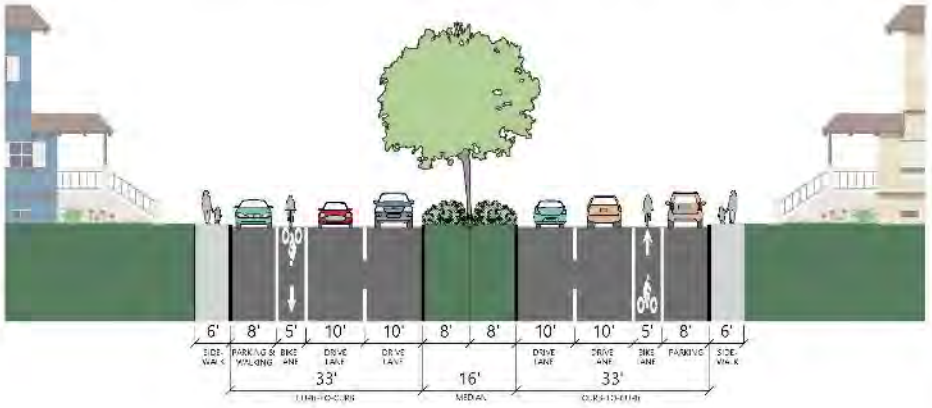


Today, McGillivray Boulevard is a four-lane **minor arterial** between SE Chkalov Drive and SE 164th Avenue. As shown in the image below, there are two vehicle travel lanes in both directions which are separated by a center median. Existing mobility lanes are provided in both direction but are only five feet wide with **no separation from vehicles** in the travel lane or in the parking lane. For people walking, there are no sidewalks west of SE 132nd Avenue. Between SE 132nd Avenue and SE 136th Avenue, there are sidewalks on the south side of the street. East of SE 136th Avenue, sidewalks are provided on both sides of the street.

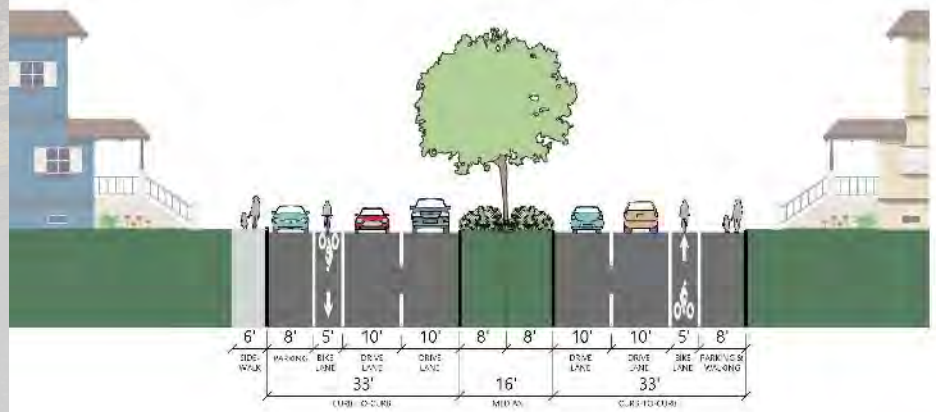
TYPICAL EXISTING:
EAST OF SE CHKALOV DRIVE - WEST OF SE 132ND AVE



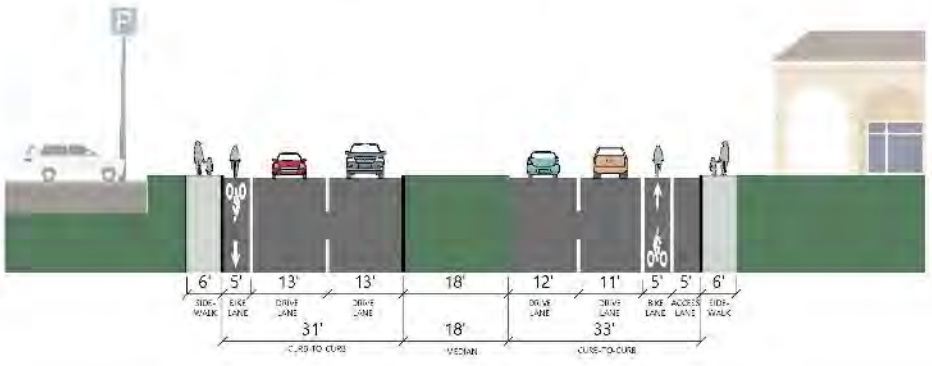
TYPICAL EXISTING:
EAST OF SE 136TH AVE - WEST OF SE VILLAGE LOOP



TYPICAL EXISTING:
WEST OF SE 132ND AVE - SE 136TH AVE

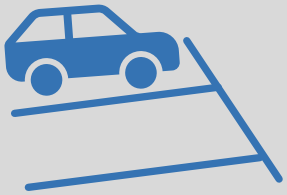


TYPICAL EXISTING:
WEST OF SE VILLAGE LOOP - SE 164TH AVE



As a starting point for developing design options, the project team has evaluated several **topic areas** to document existing conditions, identify existing plans that should be considered as part of this project, and **understand challenges** for everyone that travels on the corridor.

Topic Area	Metrics Evaluated
 **Pedestrians**	• Identification of sidewalk gaps along the corridor • Identification of sidewalk width to evaluate accessibility • Evaluation of existing sidewalk quality • Identifying the number of marked crossings in each segment and where gaps exist
 **Bicycles**	• An inventory of existing bicycle facilities • An evaluation of Bicycle Level of Traffic Stress (LTS)
 **Transit**	• Transit routes and stops along the corridor • Frequency of service • The number of people getting on and off the bus on an average weekday
 **Vehicles**	• Existing roadway configuration • Average Daily Traffic Volume (ADT) and peak hour turning movements at major intersections • Intersection Level of Service (LOS) • Queueing at signalized intersections and key stop-controlled intersections • Travel time • Signal warrants at stop-controlled intersections

Topic Area	Metrics Evaluated
 **Safety**	• Collision rate at study intersections • Collision hot spots • Trends in collision types and contributing factors
 **Illumination**	• Evaluation of light levels along the corridor • Identifying spots where lighting improvements are needed
 **Parking**	• Where parking is allowed along the corridor • How much on-street parking is provided on McGillivray Boulevard • Existing parking occupancy along the corridor
 **Existing Documents**	• Review of planning documents that identify or provide direction for transportation, land use, or other improvements on McGillivray Boulevard

This **Existing Conditions Report** is organized into the following sections:

- **Analysis Approach:** This section provides an overview of the data sources used to develop the Existing Conditions Report and the technical approach for completing the traffic analysis.
- **Technical Evaluation Findings by Topic Area:** This section summarizes the findings of the technical assessment for each topic area.
- **What We Heard**: This section summarizes the results of the community surveys completed during Phase 1 and documents key takeaways from community touchpoints that inform the Project Goals.
- **Opportunities & Constraints:** This section presents the opportunities and constraints identified through Phase 1 of the Project that will inform development of design options.
- **Conclusion & Next Steps:** This section summarizes how the findings documented in this report will inform next steps for the Safety & Mobility Project.

Analysis Approach

Existing Plans
Data Sets
Methodology

There are four documents that include recommendations for McGillivray Boulevard or set policy that the Safety & Mobily project should follow.

Adopted in 2017, the **City's Complete Streets Policy** sets the vision for streets that are safe and comfortable for all users.

The City's **Transportation System Safety Analysis** identifies locations with safety issues and where countermeasures may improve safety.

The City's **Strategic Plan** sets building an urban environment that is safe and environmentally responsible as a key priority for the City.

The ongoing update to the **Transportation System Plan** prioritizes creating safe, comfortable, and accessible corridors as a key focus for transportation improvements.

The first step in documenting the existing conditions was gathering data from a variety of sources, including field observations for all modes of travel and aspects of safety on the corridor.

GIS data for **bicycle** and **pedestrian** infrastructure included:

- Sidewalk width, location, and number of American with Disabilities (ADA) complaint curb ramps
- Sidewalk condition
- Location and type of bicycle facility

Information gathered from field visits included:

- Location of marked crossings
- Presence of obstacles in space where people walk

Transit data provided by the City included:

- Location of transit stops
- Routes that operate on the corridor

Data provided by **C-Tran** included:

- Frequency of service
- Number of people getting on/off the bus
- Duration of stops

Field observations were used to identify stop amenities along the corridor.

Collision data from the City's collision data base from 2017 to 2021 included:

- Collision type
- Severity
- Number of vehicles or other users involved
- Contributing factors reported

Vehicle data collected in October and November 2022 included:

- Intersection turning movement counts
- 24-hour vehicle counts
- Parking occupancy counts on a weeknight
- 24- hour speed data collected on a weekday and weekend day

- **Illumination**, or lighting, data was gathered through nighttime field visits.
- The project team measured the amount of light being emitted by existing streetlights at intersections and crossings along the corridor.

Vehicle operations were analyzed using the 6th Edition Highway Capacity Methodology (HCM). This methodology:

- Assigns a Level of Service (LOS) grade based on delay experienced by drivers.
- Relies on a scale from A (best) to F (worst).
- Assigns a letter grade based on average delay for all approaches at signalized or all-way stop-controlled intersections.
- Assigns a letter grade based on the movement with the highest delay at two-way stop-controlled intersections.

Level of Service	Description	Signalized Intersection Delay (seconds/vehicle)	Unsignalized Intersection Delay (seconds/vehicle)
A	Free-flowing Conditions	≤ 10	0-10
B	Stable Flow (slight delays)	>10-20	>10-15
C	Stable Flow (acceptable delays)	>20-35	>15-25
D	Approaching Unstable Flow (tolerable delay)	>35-55	>25-35
E	Unstable Flow (intolerable delay)	>55-80	>35-50
F	Forced Flow (congested and queues fail to clear)	>80	>50

Bicycle Level of Traffic Stress (BLTS) is a way to evaluate the level of stress people experience while riding their bicycle on a roadway based on the characteristics of the roadway. This analysis can be completed for roadway segments, intersection approaches, and unsignalized crossings.

For roadway segments, considerations include:

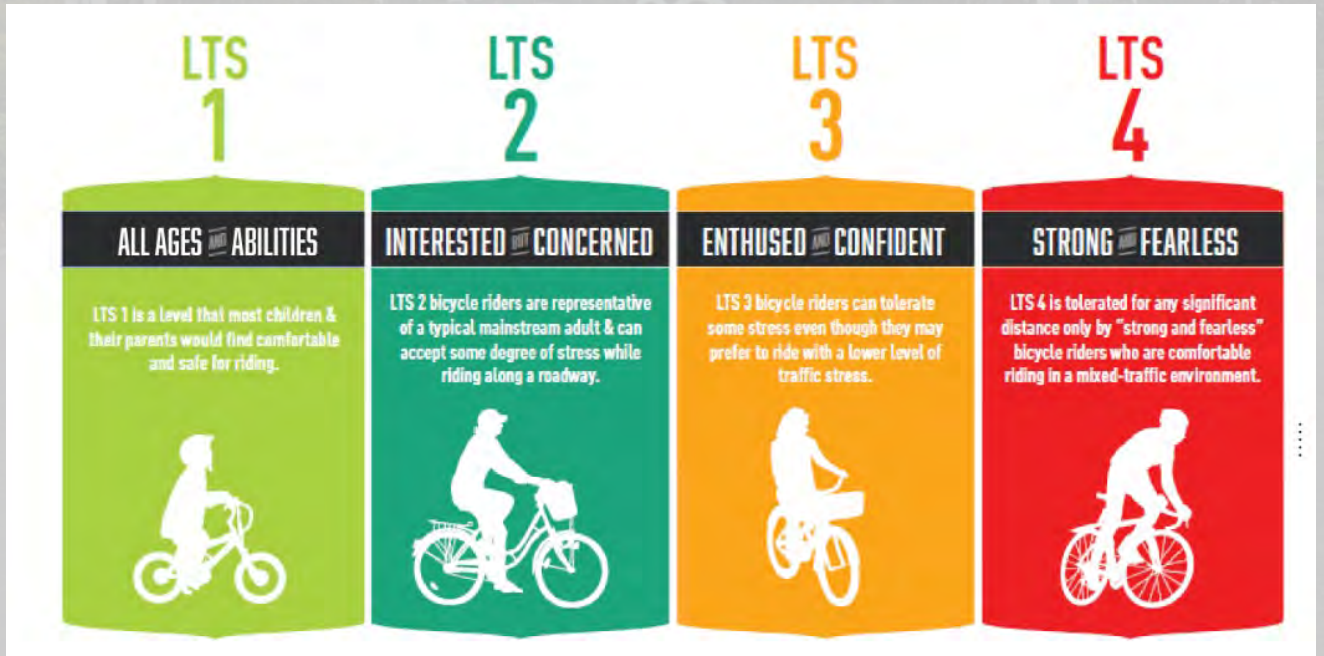
- Number of traffic lanes
- Vehicle speed
- Presence and utilization of on-street parking
- Quality of bicycle facility

At intersections, the LTS score is influenced by:

- Presence of a right-turn lane
- Length of right-turn lanes
- How bicyclists interact with the turn lane

At unsignalized crossings, the score is influenced by:

- Width of the cross street
- Speed of vehicles on the cross street
- Presence or absence of a median refuge



Intersection control was also an important part of the existing conditions analysis.

Today, there are only four signalized intersections on the corridor:

- SE 7th Street & Chakalov Drive
- McGillivray Boulevard & Chakalov Drive
- McGillivray Boulevard & SE 164th Street
- Village Loop Drive & SE 164th Street

As part of the existing conditions analysis, all stop-controlled intersections were analyzed to determine if a traffic signal might be an appropriate form of intersection control.

This analysis was completed using the traffic signal warrants documented in the Manual on Uniform Traffic Control (MUTCD). The MUTCD includes nine different warrants that can be applied to determine if a traffic signal should be considered at an intersection.

For the purpose of this study, three warrants which are based on the number of vehicles using an intersection over a one-hour, four-hour, and eight-hour time period were evaluated.

While these warrants can be used to determine if a traffic signal might be the appropriate form of intersection control, a more detailed engineering study is needed prior to installation of a traffic signal.

Roadway illumination is an important part of transportation safety for all roadway users by making other users or elements in the roadway more visible, allowing drivers to react more quickly and helping to reduce the number of collisions that occur when it is dark due to low visibility.

To measure how well the current lighting on McGillivray Boulevard meets the City's illumination standards, the project team took photometric readings at all intersections and crossings with illumination in the study area.

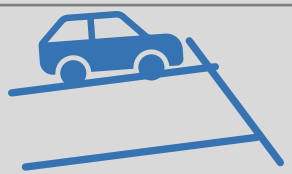
These readings were then compared to the City's standard for luminance on McGillivray Boulevard and at intersections.

Collision data was also used to determine locations where a high number of collisions have occurred, who was involved (vehicles, pedestrians, or people riding a bicycle), and the type of collisions that have occurred.

This analysis of historical collisions was completed using collision data for the five-year period from 2017 to 2021.

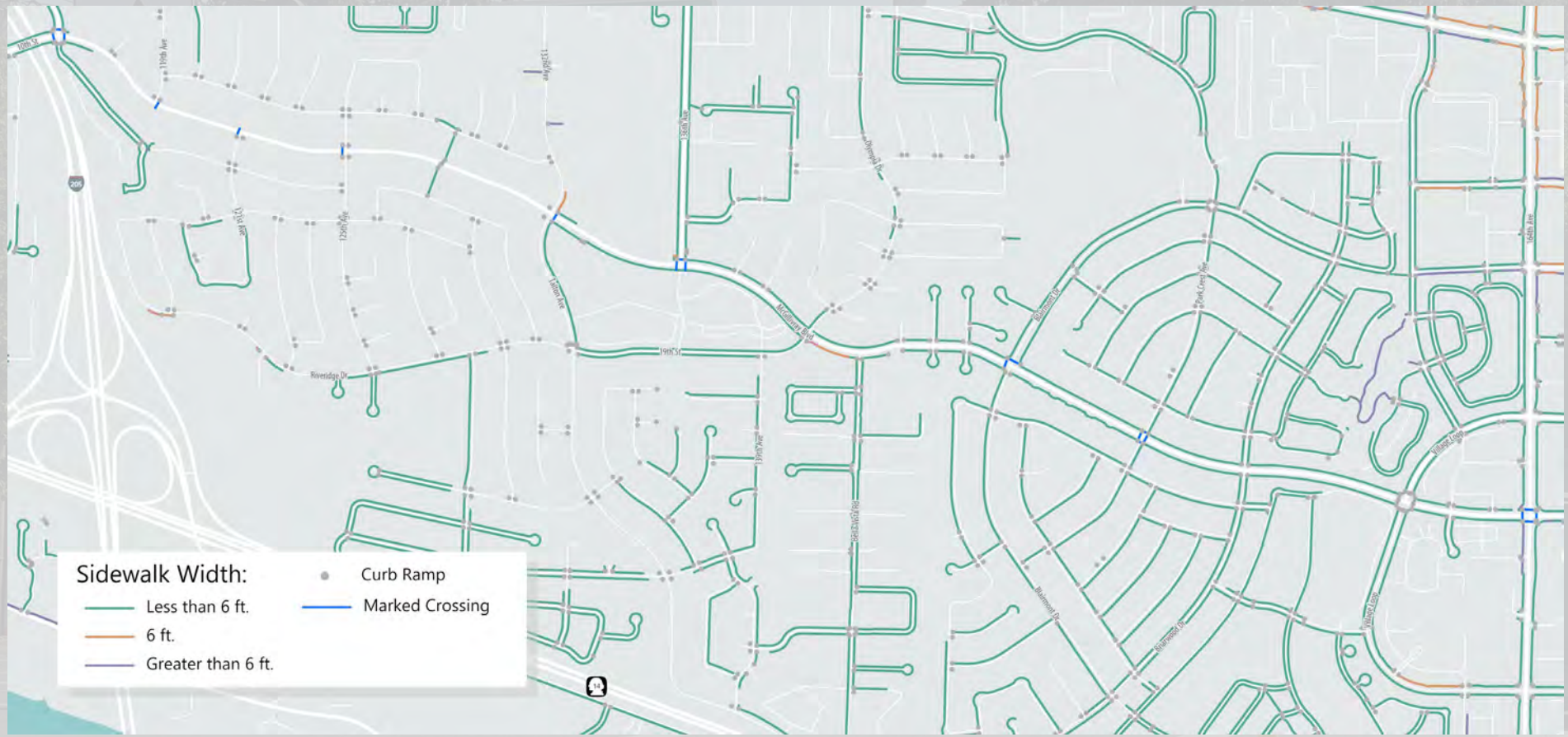
Technical Evaluation

Key Findings
Pedestrian Environment
Bicycle Environment
Vehicle Environment
Safety
Illumination
Parking

Topic Area	Key Takeaways
	• At the west end of the study area, the lack of sidewalks results in people walking in the mobility lane or parking lane. • From SE 136th Avenue to the east, there are two gaps in marked crossings that make it challenging for people to safely and comfortably cross McGillivray Boulevard.
	• The on-street mobility lanes vary from five to seven feet in width on McGillivray Boulevard. • Based on the number of lanes, vehicle speed, and space allocated to people bicycling or using small mobility devices, McGillivray Boulevard has a BLTS score of 3, meaning only "enthused and confident" riders are likely to feel comfortable.
	• Transit service on this corridor is provided by C-Tran's Route 37 between SE 136th Avenue and Village Loop Drive. • There are a total of seven stops on the corridor, with the stop at SE 136th Avenue being the most used stop with an average of 23 people getting on or off the bus.
	• There is little to no congestion on McGillivray Boulevard and the number of vehicles traveling on McGillivray Boulevard is well below the capacity of the street. • Only the SE 136th Avenue intersection was found to meet warrants to install a traffic signal, indicating that changes to intersection control should be evaluated as additional funding is available.
	• Three collisions involving someone walking or riding a bicycle occurred between 2017 and 2021. • The most common type of collisions on the corridor resulted from a vehicle entering at an angle or a vehicle hitting a fixed object. • Nearly all drivers exceed the posted speed limit, with nearly 50 percent of drivers traveling more than six miles per hour (mph) over the 25-mph speed limit.
	• Illumination improvements are needed at several major intersections and crossings along the corridor, including the existing mid-block crossing. This has been identified as a long-term need for the corridor.
	• On-street parking on McGillivray Boulevard is not heavily utilized. Only 77 vehicles were parked overnight on McGillivray Boulevard, with 95 percent of those vehicles parked between SE 132nd Avenue and SE 136th Avenue.
	• The portion of SE Chkalov Drive in the study area was previously identified as a roadway segment with potential for safety improvements. • McGillivray Boulevard has several locations previously identified as hot-spots for lane departure

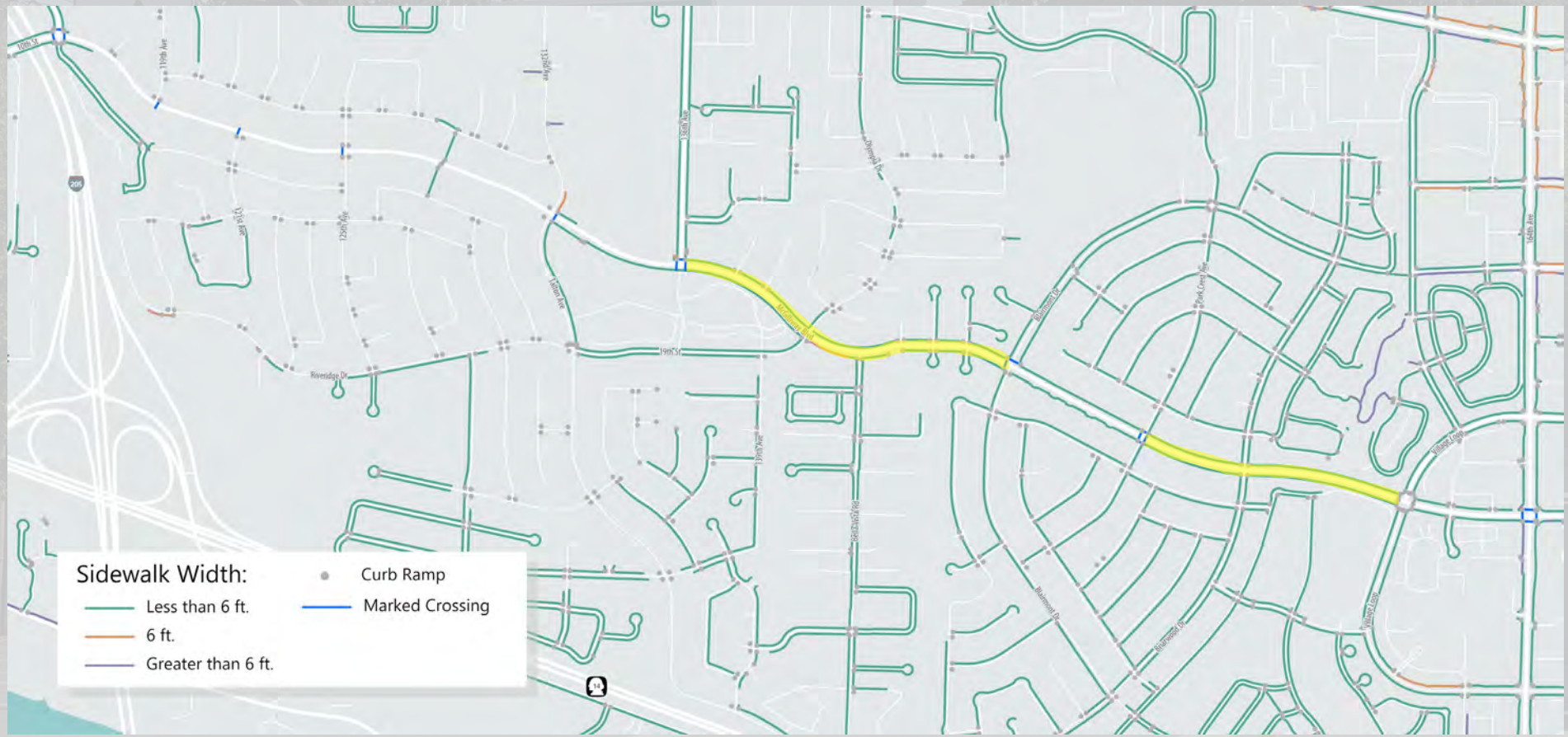
Today, the portion of McGillivray Boulevard west of SE 136th Avenue is challenging for people walking on the corridor, as sidewalks are **no sidewalks** except for a small segment on the south side of the corridor between SE 132nd Avenue and SE 136th Avenue. In this area, people must walk in the street, sharing space with parked cars, people riding bicycles and other small mobility devices.

East of SE 136th Avenue, sidewalks are provided on both sides of McGillivray Boulevard, though sidewalks are less than six feet wide and in poor condition.



The location of curb ramps and the distance between crossings were also considered as part of this technical evaluation. As shown in the image below, all intersections have curb ramps on at least one side of McGillivray Boulevard. One critical intersections where curb ramps are missing on the south side of the intersection is SE 136th Avenue.

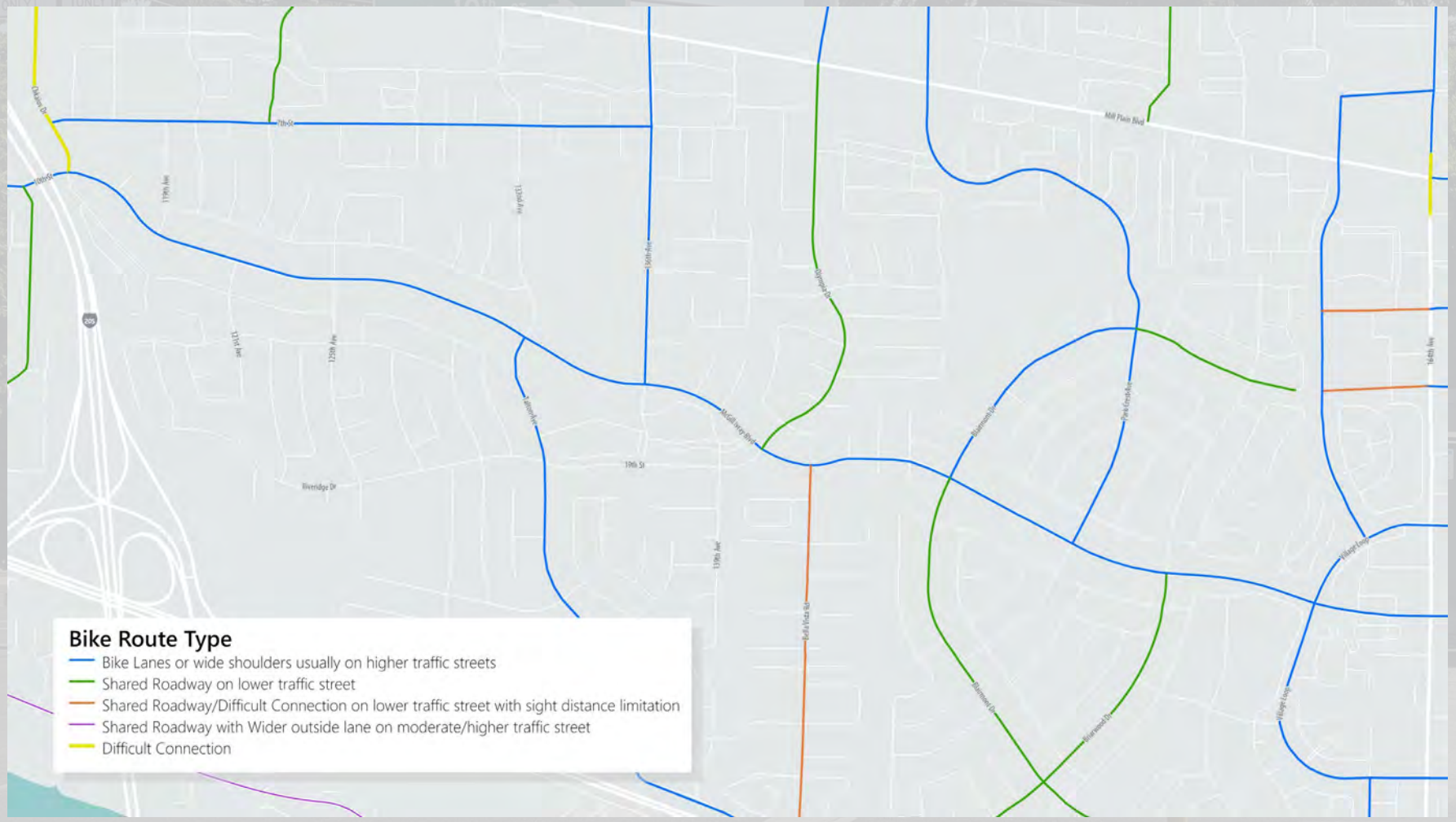
There are two gaps in marked crossings, highlighted on the image below. Those include the gap in crossings between SE 136th Avenue and Blairmont Drive (0.57 miles) and between SE Park Crest and Village Loop Drive (0.42 miles).



On-street bicycle lanes, also referred to as mobility lanes, are **provided in both directions** on McGillivray Boulevard and vary in width from five to seven feet between I-205/SE Chkalov Drive and SE 164th Avenue.

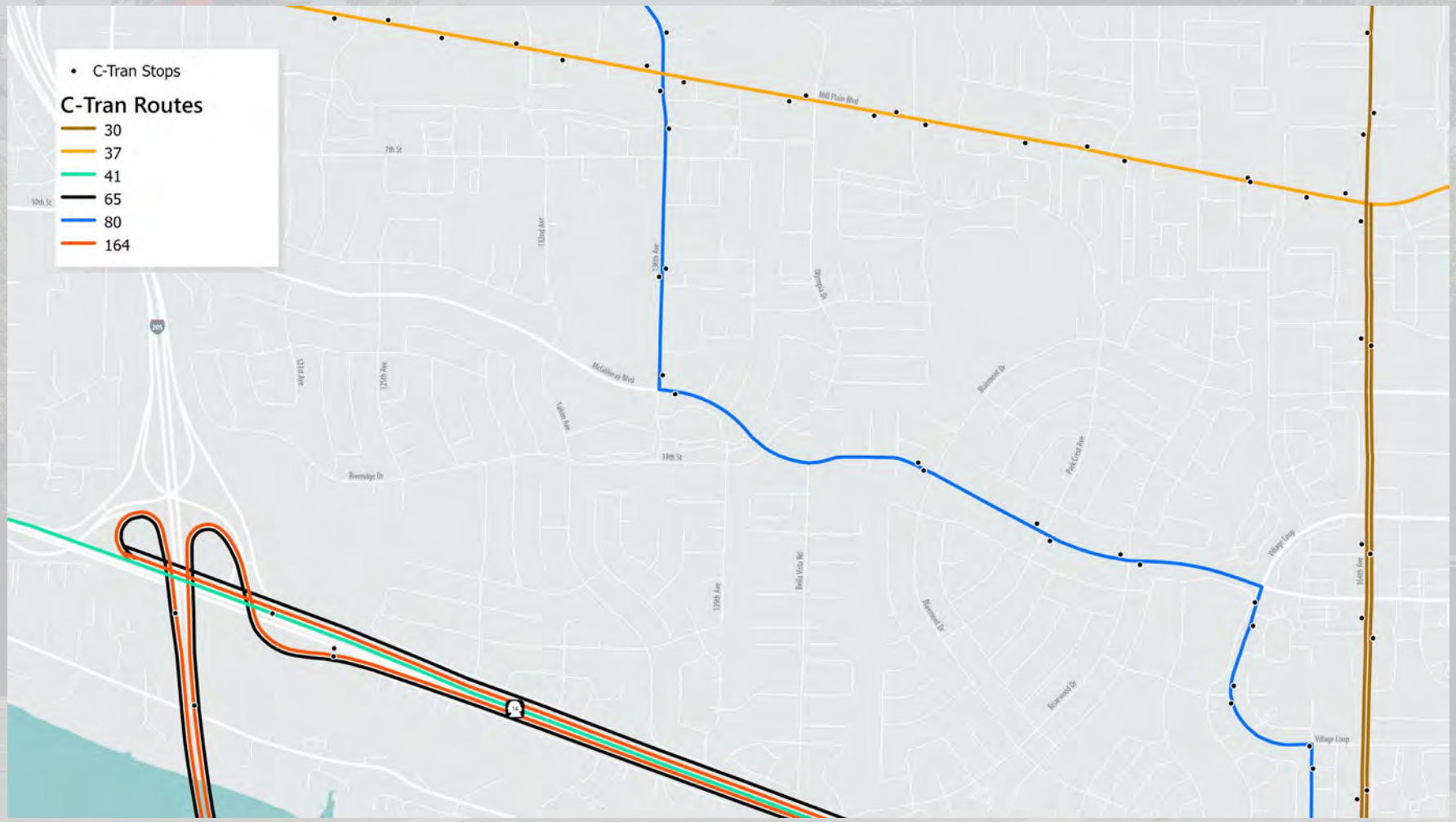
Because there are two travel lanes in each direction, less than 14.5 feet dedicated to the on-street mobility lanes and the parking lane, and prevailing speeds are between 30 and 40 miles per hour (mph), this segment has a **BLTS score of 3**. This means that **only "enthused and confident" riders** are likely to feel comfortable on this segment.

At the SE 164th Street intersection, the presence of right-turn lanes and the interaction between the turn lanes and mobility lane **increases the BLTS score to 4**, meaning **only "strong and fearless" riders** are likely to utilize this crossing.



Between SE 136th Avenue and Village Loop Drive, transit service is provided along McGillivray Boulevard by **C-Tran's Route #80** which connects riders between Fisher's Landing Transit Center and the Van Mall Transit Center.

There are a total of **seven stops on McGillivray Boulevard**, which are served with 30-minute headways between 6AM and 9PM on weekdays and between 7AM and 8PM on weekends.



The table below shows the number of boardings (people getting on the bus) and the number of alightings (people getting of the bus) at the seven stops on McGillivray Boulevard on an average weekday in October 2022. As shown, the eastbound stop at **SE 136th Avenue was the highest used stop**, with an average of 23 people getting on or off the bus per day.

The table also shows the average dwell time (how long the bus is stopped) and the number of ramp deployments, which indicates the number of times the ramp was deployed to allow someone using a mobility device to get on or off the bus. On McGillivray Boulevard, the longest dwell time occurred at the **eastbound stop at Blairmont Drive**, average 32 seconds per stop.

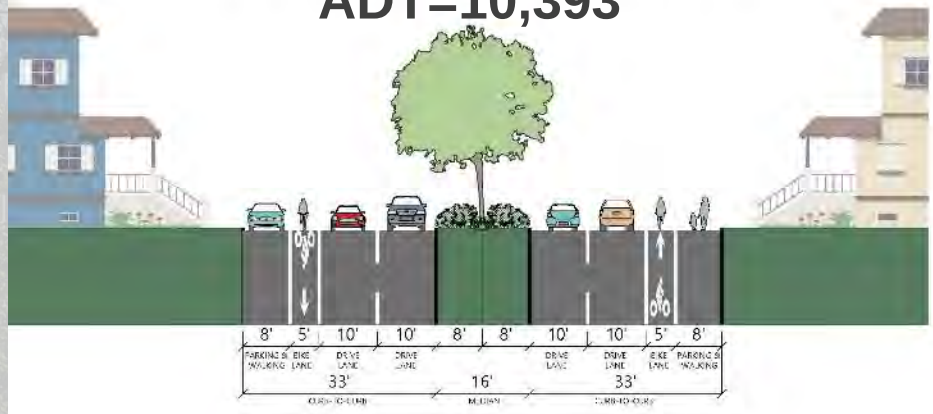
Stop ID	Stop Name/Location	Average Daily Boardings	Average Daily Alightings	Average Dwell Time	Ramp Deployments
1278	Eastbound McGillivray & Park Crest Avenue	1.05	1.14	17.1	0
1279	Eastbound McGillivray & Briarwood Drive	0	0.71	13.5	0
1282	Westbound McGillivray & Briarwood Drive	1.14	0.05	18.1	0
1283	Westbound McGillivray & Park Crest Avenue	1.14	0.05	19.2	0
6126	Eastbound McGillivray & 136th Avenue	7.29	15.71	19	3
6127	Eastbound McGillivray & Blairmont	2.1	6.57	32	0
6128	Westbound McGillivray & Blairmont Drive	10.57	1.76	27.1	0

Source: C-Tran, December 2022

McGillivray Boulevard currently has four lanes (two in each direction) for vehicles, as shown in the image below. To understand how many vehicles currently travel on McGillivray Boulevard, 24-hour vehicle counts were collected to determine the Average Daily Traffic (ADT) at key locations along the corridor. ADT on McGillivray Boulevard ranges from 10,800 vehicles per day to just over 9,000 vehicles. This is well below the capacity for a four-lane road, indicating that there is **excess capacity for vehicles**.

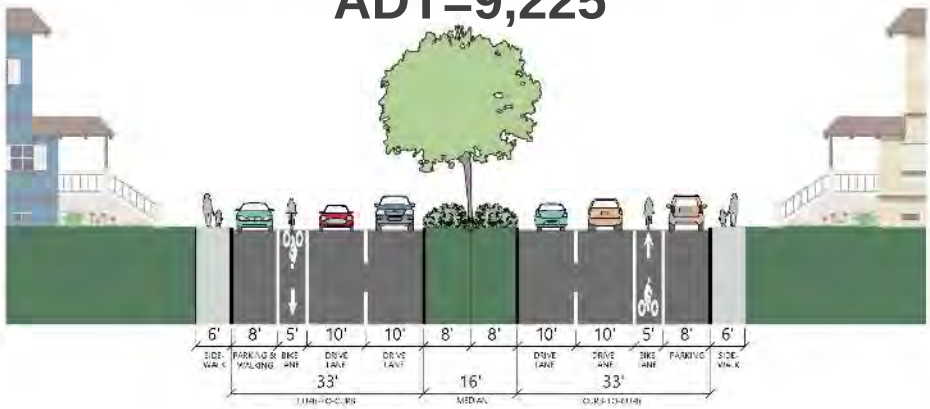
TYPICAL EXISTING:
EAST OF SE CHKALOV DRIVE - WEST OF SE 132ND AVE

ADT=10,393



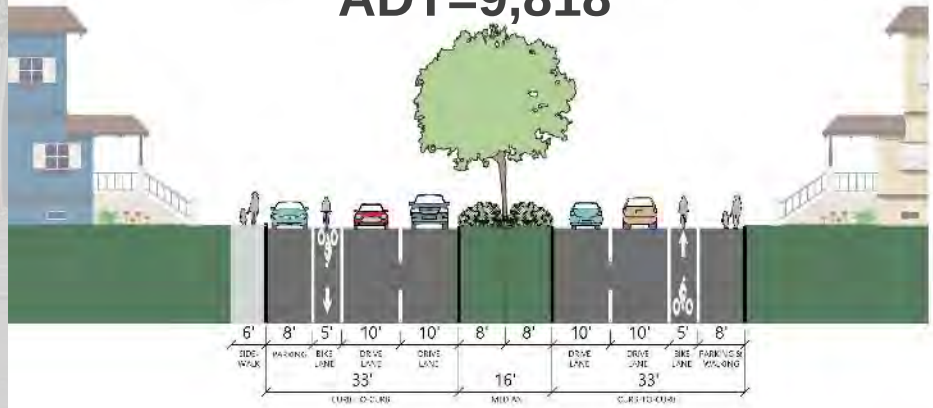
TYPICAL EXISTING:
EAST OF SE 136TH AVE - WEST OF SE VILLAGE LOOP

ADT=9,225



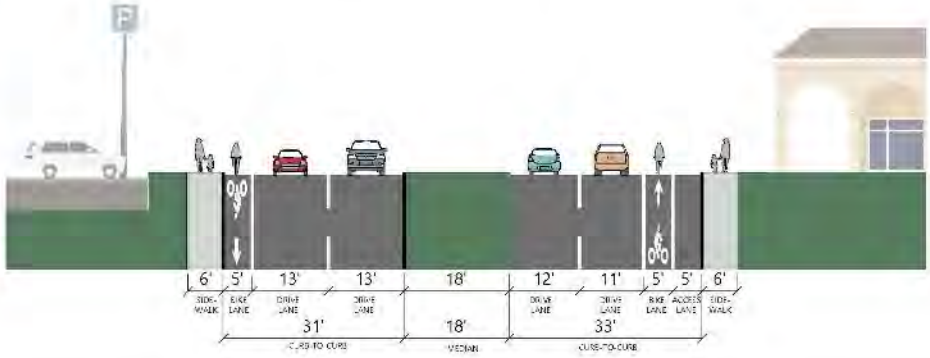
TYPICAL EXISTING:
WEST OF SE 132ND AVE - SE 136TH AVE

ADT=9,818



TYPICAL EXISTING:
WEST OF SE VILLAGE LOOP - SE 164TH AVE

ADT=10,836



Intersection LOS was evaluated during the morning and evening peak hours at the study intersections. The analysis indicates that all intersections operate at **LOS C or better**, except for the SE 164th Avenue intersection with McGillivray Boulevard, which operates at LOS D during the evening peak hour. This is primarily due to delay experienced by northbound and eastbound drivers making left-turns.

Travel time between SE 164th Avenue and SE Chkalov Drive was also evaluated. Travel time was found to between approximately eight minutes in each direction during both peak hours. The consistent travel time, along with intersection LOS results, indicates that **congestion is minimal on the corridor**, even during peak hours.

Vehicle queueing, **the length of vehicles waiting to proceed through an intersection or make a turn**, was evaluated and compared to the amount of storage provided, either between intersections or in turn-pockets, to determine where storage is exceeded. When vehicle queues exceed available storage, this can result in congestion or create spillback that impacts traffic flow upstream of an intersection. For this project, queueing was evaluated at major intersections along the corridor.

At the SE McGillivray Boulevard and SE Chkalov Drive intersection. During the AM peak hour, only the eastbound left-turn was found to exceed available storage. During the PM peak hour, the eastbound through, southbound left-turn, and westbound right-turn also exceed available storage.

Study Intersection	Approach	Movement	Storage (ft)	Maximum Queue (feet)	
				AM Peak Hour	PM Peak Hour
SE McGillivray Boulevard & SE Chkalov Drive	Eastbound	L	100	**200**	**200**
		T	350	200	**375**
		TR	350	75	250
	Northbound	LTR	380	75	75
	Southbound	L	100	75	**150**
		LT	400	100	175
		R	400	100	325
	Westbound	L	125	50	50
		T	425	175	250
		R	125	125	**150**

L=Left
T=Through
R= Right
Bold text indicates movement exceeds available storage.

The SE McGillivray Boulevard and SE 136th Street intersection is an all-way stop-controlled intersection, meaning all vehicles must stop and has relatively high turning movements as SE 136th Avenue connects to Wy'east Middle School and Mill Plain Boulevard. Despite the number of left turns at this intersection, **no movements were found to exceed available storage** during the morning or even peak hours.

Study Intersection	Approach	Movement	Storage (ft)	Maximum Queue (feet)	
				AM Peak Hour	PM Peak Hour
SE McGillivray Boulevard & SE 136th Avenue	Eastbound	L	120	100	100
		T	1,135	75	75
		TR	1,135	75	75
	Northbound	LTR	300	75	100
	Southbound	L	150	100	150
		T	275	50	75
		R	275	10	100
	Westbound	L	155	50	50
		T	1,215	100	100
		R	50	25	25

L=Left
T=Through
R= Right
Bold text indicates movement exceeds available storage.

Queueing was also evaluated at the SE McGillivray Boulevard and SE 164th Avenue intersection. During the AM peak hour, no movements were found to exceed available storage. During the PM peak hour, the **northbound, eastbound, and southbound left-turns** exceed available storage.

Study Intersection	Approach	Movement	Storage (ft)	Maximum Queue (feet)	
				AM Peak Hour	PM Peak Hour
SE McGillivray Boulevard & SE 164th Avenue	Eastbound	L	200	125	**225**
		T	530	150	250
		R	530	75	110
	Northbound	L	400	175	**425**
		T	900	300	525
		TR	900	225	350
	Southbound	L	225	150	**250**
		T	700	225	350
		TR	700	200	350
	Westbound	L	200	175	225
		T	470	150	275
		R	470	150	300

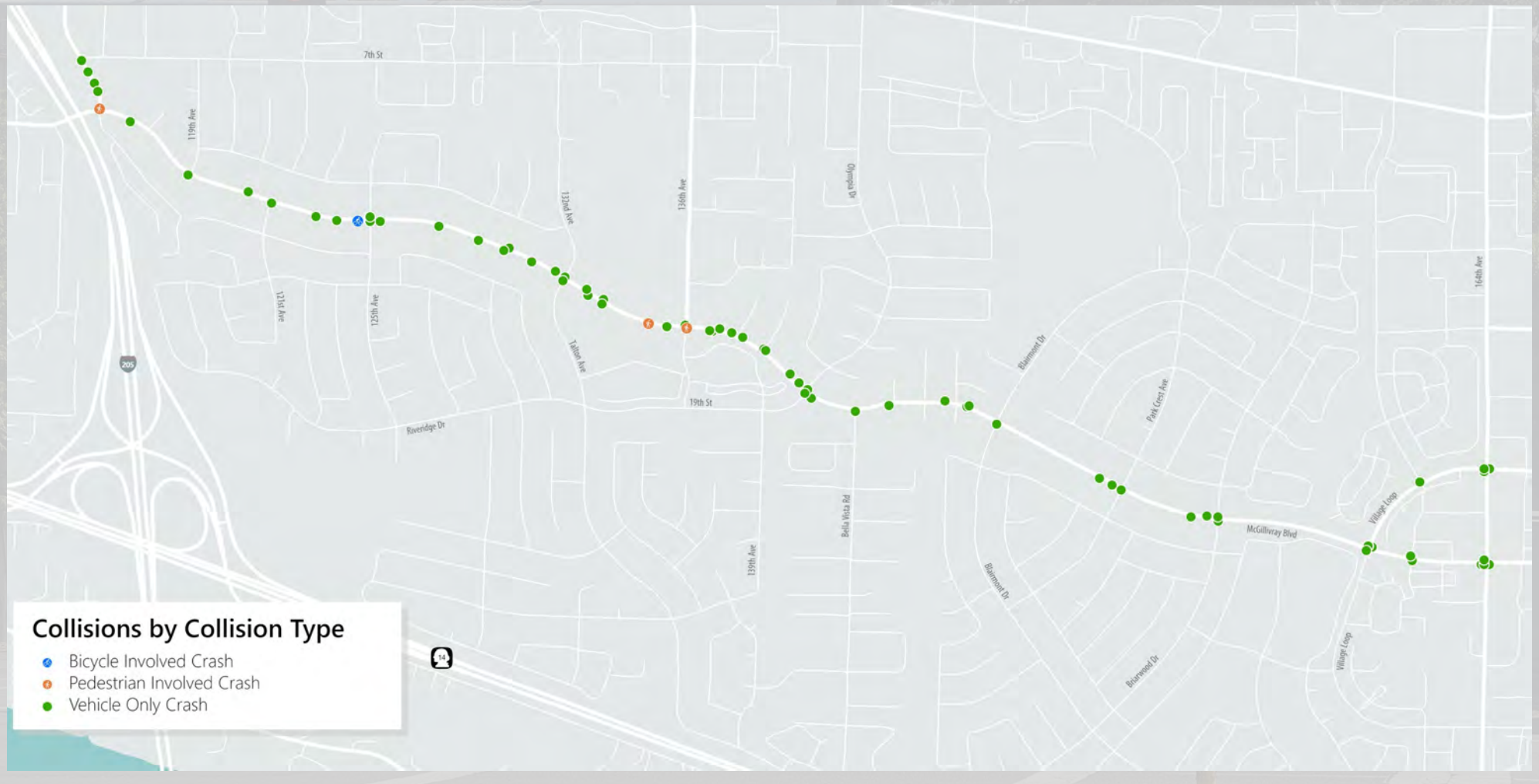
L=Left
T=Through
R= Right
Bold text indicates movement exceeds available storage.

To evaluate potential changes to intersection control, all unsignalized study intersections were evaluated using the one-hour, four-hour, and eight-hour traffic signal warrants in the MUTCD. As shown below, based on the traffic volumes collected in Fall 2022, the **only the SE 136th Avenue intersection** met any of the warrants evaluated. As installation of a traffic signal is outside the scope of the Safety & Mobility Project, a detailed engineering assessment to determine the appropriate intersection control is identified as a future need for this location.

Intersection	Control Type	1-Hour Peak	4-Hour Peak	8-Hour Peak
SE McGillivray Boulevard & SE 119th Avenue	Side-Street Stop-Control	Not Met	Not Met	Not Met
SE McGillivray Boulevard & SE 121st Avenue	Side-Street Stop-Control	Not Met	Not Met	Not Met
SE McGillivray Boulevard & SE 125th Avenue	Side-Street Stop-Control	Not Met	Not Met	Not Met
SE McGillivray Boulevard & SE 132nd Avenue	Side-Street Stop-Control	Not Met	Not Met	Not Met
SE McGillivray Boulevard & SE 136th Avenue	All-Way Stop-Control	**Met**	**Met**	**Not Met**
SE McGillivray Boulevard& SE 19th Street	Side-Street Stop-Control	Not Met	Not Met	Not Met
SE McGillivray Boulevard & SE Bella Vista Road	Side-Street Stop-Control	Not Met	Not Met	Not Met
SE McGillivray Boulevard & SE Blairmont Drive	Side-Street Stop-Control	Not Met	Not Met	Not Met
SE McGillivray Boulevard & SE Park Crest Avenue	Side-Street Stop-Control	Not Met	Not Met	Not Met
SE McGillivray Boulevard & SE Briarwood Drive	Side-Street Stop-Control	Not Met	Not Met	Not Met
SE McGillivray Boulevard & SE Village Loop	Side-Street Stop-Control	Not Met	Not Met	Not Met

Evaluation of historical collision data, collisions that occurred between 2017 and 2021, on the corridor began by identifying who was involved in collisions.

As shown in the image below, there were **three collisions involving pedestrians** that occurred of the time period analyzed and **one collision involving a person riding a bicycle**. All other collisions only involved vehicles. There was one fatality, the pedestrian involved in the collision at SE Chkalov Drive, which occurred during inclement weather (ice and snow).



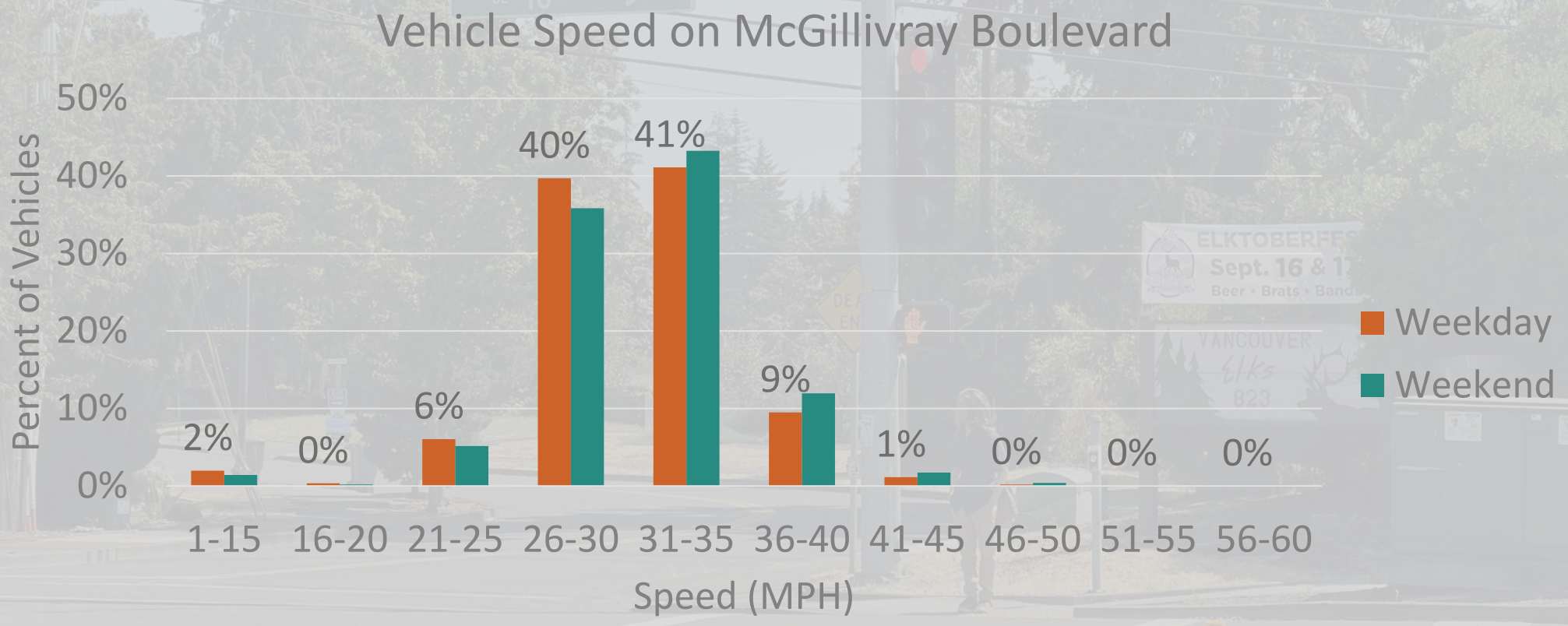
Between 2017 and 2021, **67 percent of collisions that occurred did not involve an injury or fatality**, nearly 32 percent involved injuries, while the one fatality equates to 0.32 percent of collisions.

The table below shows the number of collisions that occurred by collision type. As shown, collisions resulting from **a vehicle entering at an angle and a vehicle hitting a fixed object account for 50 percent of collisions**. Improvements recommended by the Safety & Mobility Project will help to lower the frequency of these types of collisions and improve safety for all who travel on the corridor.

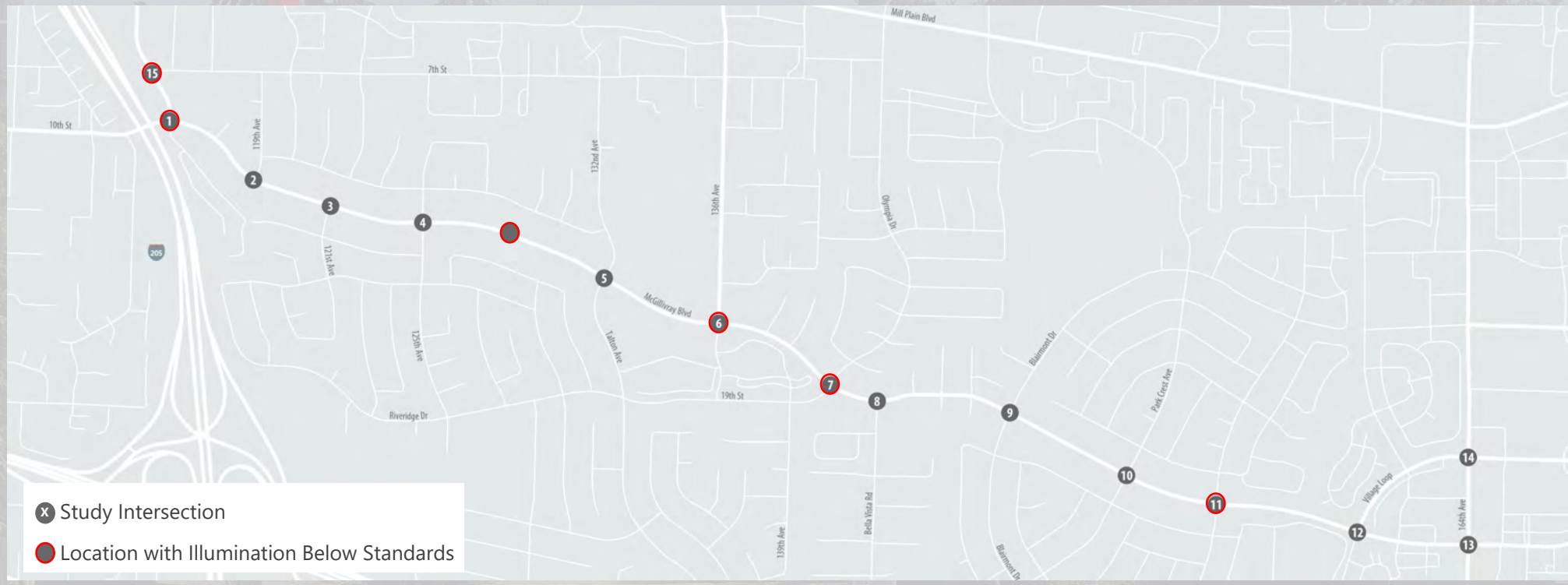
Collision Type	Number of Collisions	Percent of Total Collisions
Entering at Angle	44	25%
Fixed Object	44	25%
From Opposite Direction - All Others	2	1%
From Opposite Direction - Both Moving - Head On	1	1%
From Opposite Direction - One Left Turn - One Straight	17	10%
From Same Direction - All Others	7	4%
From Same Direction - Both Going Straight - Both Moving - Rear End	13	7%
From Same Direction - Both Going Straight - One Stopped - Rear End	19	11%
From Same Direction - One Left Turn - One Straight	1	1%
From Same Direction - One Right Turn - One Straight	1	1%
From Same Direction -Both Going Straight-Both Moving- Sideswipe	9	5%
From Same Direction -Both Going Straight-One Stopped- Sideswipe	1	1%
One Parked - One Moving	13	7%
Other Object	1	1%
Vehicle Going Straight Hits Pedestrian	2	1%
Vehicle Overturned	1	1%
Vehicle Strikes Pedalcylist (2018 forward)	1	1%
Vehicle Turning Right Hits Pedestrian	1	1%

Speed data was also collected on McGillivray Boulevard during a 24-hour period on a typical weekday and over the weekend. As shown on the chart below, **nearly all drivers exceed the 25 mph posted speed limit**, with more than 50 percent or drivers driving more than six miles per hour over the speed limit.

While the number of drivers averaging between 31 and 35 mph was found to be slightly higher on the weekend, there is little variation in speeds between weekday and weekend travel.



The project team took photometric readings at major crossings and intersections to determine where the existing illumination does not meet illumination standards. Study intersections and crossings where illumination was identified as not meeting the City's standards are circle in red on the image below. As shown, illumination improvements are also needed at the existing mid-block crossing. While this project will not specifically address illumination, this is identified as a **long-term need for the corridor**.



Today, on-street parking is permitted on McGillivray Boulevard from just east of SE Chakalov Drive to just west of Village Loop Drive on both sides of the corridor.

Based on the length of the corridor, accounting for driveways and intersections, there is space for approximately 420 vehicles to park on both the north and south sides of McGillivray Boulevard.

To understand how much on-street parking is used, parking occupancy counts were conducted on a weeknight when most people are home. Occupancy counts found that there were a total of 77 vehicles parked on McGillivray Boulevard (33 on the south side and 44 on the north side). Nearly all of the 77 vehicles were parked between SE 132nd Avenue and SE 136th Avenue near the multi-family housing on the corridor.

These findings indicate that outside of the segment between SE 132nd Avenue and SE 136th Avenue, **on-street parking is not heavily utilized on McGillivray Boulevard**.

While the City's Complete Streets Policy and Transportation System Plan, set overarching goals and priorities that this project should advance, the primary document that informed the existing conditions evaluation was the City's Transportation System Safety Analysis. This report identified several hot-spots on McGillivray Boulevard based on specific types of collisions that occurred between 2012 and 2016.

Key takeaways from the Transportation System Safety Analysis that should inform development of design options for this Project include:

- SE Chkalov Drive between Mill Plain Boulevard and McGillivray Boulevard is identified as a minor arterial with potential for safety improvements.
- Multiple locations along McGillivray Boulevard that were identified as hot-spots for lane departure crashes.
- Hot-spots for collisions involving bicyclists near SE 136th Avenue.
- Several collisions involving a pedestrian occurred at the SE Village Loop intersection between 2012 and 2016.

Opportunities & Constraints

Opportunities
Constraints

A key objective of Phase 1 of this project was to identify opportunities to improve safety and mobility along McGillivray Boulevard based on how the corridor functions today. Following the technical findings and community engagement described above, three primary opportunities have been identified for this project:

- **There is excess vehicle capacity.** The number of vehicles using McGillivray Boulevard averages 10,000 per day along the corridor. In comparison, the typical capacity for a two-lane roadway (one lane in each direction) is approximately 16,000 vehicles per day. This indicates that one travel lane in each direction could be repurposed on McGillivray Boulevard and there would still be adequate capacity to accommodate future growth.

- **The Safety & Mobility Project will address contributing factors to the two most common types of collisions.** Collisions resulting from vehicles entering at an angle are often a result of poor channelization (striping that indicates where vehicles should go) and driver confusion at intersections while speed is a primary contributor to vehicles hitting fixed objects. This project will include improvements that enhance striping and channelization at the intersection and help to lower speeds on the corridor, improving safety for everyone who uses McGillivray Boulevard.

- **On-street parking utilization is highest in locations without residential driveways.** The concentration of most on-street parking between SE 132nd Avenue and SE 136th Avenue where there are no residential driveways presents an opportunity to use cars parked on the street to create a continues buffer to separate vehicles in the travel lane from the mobility lanes without the potential conflict between cars pulling into driveways and people using the mobility lane.

Understanding the constraints that this project must consider based on the scope of the Safety & Mobility Project and how the corridor functions today is also an important component of the existing conditions assessment. There are three constraints that should be considered as design options are developed:

- **Some needed improvements are outside the scope of the Safety & Mobility Project.** These needs include constructing sidewalks where there are none today, adding new curb ramps, improving illumination, and changes to intersection control. These needs have been identified and will be addressed through future projects such as sidewalk infill or other appropriate programs, when funding is available.

- **Under-utilized space may reduce the effectiveness of traditional traffic calming measures.** While on-street parking can often be utilized to both narrow the perceived width of the roadway for drivers, which helps to lower vehicle speeds, and to create a buffer between vehicles and people walking, bicycling, or using small mobility devices, when it is under-utilized the effectiveness of those strategies is reduced. Special consideration should be given to how on-street parking can best be utilized to narrow the roadway and provide separation as design options are developed.

- **Residential Driveways create potential conflict points.** Residential driveways provide direct access to McGillivray Boulevard for much of the corridor between SE Chkalov Drive and SE Village Loop. Driveways create potential conflict points between vehicles turning into driveways and people using the on-street mobility lanes. As design options are developed, opportunities to reduce the number of potential conflict points should be considered along with the need to maintain proper sight distance such that people using the mobility lanes are visible to drivers turning into driveways along the corridor.

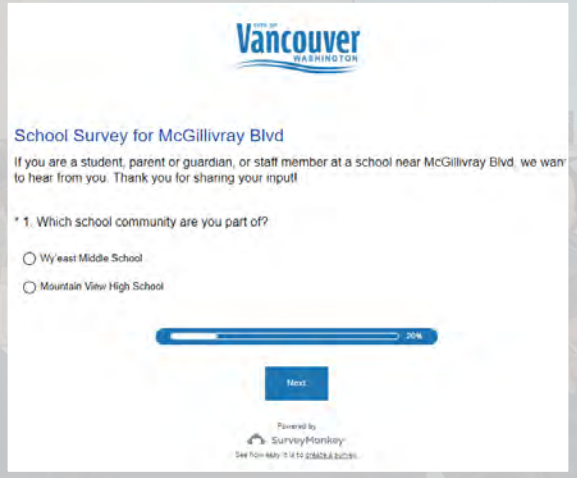
What We Heard: Phase 1 Community Engagement

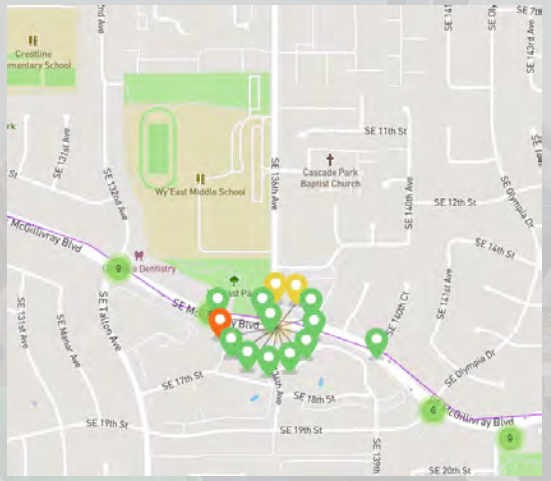
Opportunities to Participate
Feedback Gathered
Key Takeaways

During Phase 1 of the Safety & Mobility Project, community members were asked to share how they travel today, how they would like to travel, barriers to traveling, locations where improvements are needed, and concerns with changes to the corridor. Community members could participate by attending one of the events hosted by the project team or using the Be Heard website for the Safety & Mobility Project.

Opportunities to participate included:

- An online survey, which received over 1,000 responses, and online interactive map.
- An in-person open-house hosted at Wy'east Middle School.
- A survey distributed to Mountain View High School and Wy'east Middle School.
- Walk and bike audits which provided an opportunity for community members to walk and bike the corridor with the project team.





There were three key takeaways from community engagement completed during Phase 1, summarized in the table below, that will inform the development of design options. For more detail on the findings from Phase 1 community engagement, see the Phase 1 Community Engagement Report.

Takeaway #1: Vehicle speeding is impacting all users.	• McGillivray is a residential road that feels like an interstate. • People feel unsafe walking, biking, and driving on McGillivray. • Crashes resulting from speeding have damaged property along the corridor. • Desire for more enforcement to address speeding.
Takeaway #2: Intersection improvements are needed.	• People walking and biking feel unsafe crossing at intersections. • Existing intersections are confusing for drivers. • Some drivers do not comply with stop signs. • There are several intersections where changes to intersection control are desired.
Takeaway #3: People walk and bike today, but McGillivray is not inclusive.	• Crossing improvements are needed to improve safety for everyone but especially children and older residents. • Existing mobility lanes do not feel safe and comfortable for people of all ages and all abilities. • Some people don't feel comfortable walking due to high vehicle speeds and proximity to vehicles.

Conclusions & Next Steps

Conclusion
Next Steps

This existing conditions report is the **culmination of Phase 1 of the project**, which focused on establishing a baseline for how the corridor operates today; identifying needs, opportunities, and constraints; and hearing from the community about the issues the Safety & Mobility Project should address.

As the Safety & Mobility Project moves into Phase 2: Develop Options, findings from this phase will inform:

- Development of the Project Goals which will be used to ensure that project outcomes address the issues and challenges outlined in this report.
- Development of Project Evaluation Criteria which will be used to measure alignment of design options with the Project Goals.
- What design options are feasible based on how the corridor operates today.
- How community members are engaged throughout the development of design options and ultimately, selection of a preferred alternative.