



# **PLANNING COMMISSION**

## **WEDNESDAY, OCTOBER 11, 2023**

### **INFORMATIONAL**

5. 2023 Transportation Performance Monitoring Report (Pepper) (30 minutes)



**PLANNING COMMISSION MEETING  
STAFF REPORT**

<b>Meeting Date: October 11, 2023</b>		<b>Subject:</b> 2023 Transportation Performance Monitoring Report	
		<b>Staff Member:</b> Amy Pepper, PE, Development Engineering Manger	
		<b>Department:</b> Community Development	
<b>Action Required</b>		<b>Advisory Board/Commission Recommendation</b>	
<input type="checkbox"/> Motion <input type="checkbox"/> Public Hearing Date: <input type="checkbox"/> Ordinance 1 <sup>st</sup> Reading Date: <input type="checkbox"/> Ordinance 2 <sup>nd</sup> Reading Date: <input type="checkbox"/> Resolution <input type="checkbox"/> Information or Direction <input checked="" type="checkbox"/> Information Only <input type="checkbox"/> Council Direction <input type="checkbox"/> Consent Agenda		<input type="checkbox"/> Approval <input type="checkbox"/> Denial <input type="checkbox"/> None Forwarded <input checked="" type="checkbox"/> Not Applicable	
		<b>Comments:</b> Not applicable	
<b>Staff Recommendation:</b> Not applicable			
<b>Recommended Language for Motion:</b> Not applicable			
<b>Project / Issue Relates To:</b>			
<input checked="" type="checkbox"/> Council Goals/Priorities: 1. Increase mobility of all in Wilsonville	<input checked="" type="checkbox"/> Adopted Master Plan(s): Transportation System Plan	<input type="checkbox"/> Not Applicable	

**ISSUE BEFORE COMMISSION:**

2023 Transportation Performance Monitoring Report information for Planning Commission.

**EXECUTIVE SUMMARY:**

Wilsonville’s Transportation System Plan (TSP) provides policies, standards, projects and programs that are intended to improve the City’s transportation system when implemented. The City monitors and reports on key performance measures that were included in the TSP every three years. The City contracted with the City’s Traffic Consultant, DKS Associates, to provide an update to the 2020 Transportation Performance Report, using data from 2019 to 2023.

There are seven adopted goals for the transportation system: safety; connectivity and accessibility; functionality and reliability, cost effectiveness; compatibility; robust; and promotes livability. The 2023 Performance Report provides a progress report for each measure except cost effectiveness and compatibility.

**EXPECTED RESULTS:**

Tracking the performance measures on a regular basis, through updated performance monitoring reports, allows the City to understand the benefits of private and public investments in our transportation system.

**TIMELINE:**

The Performance Monitoring Report was last updated in 2020. The City updates the Performance Monitoring Report every three years.

**CURRENT YEAR BUDGET IMPACTS:**

The total cost of this report is \$59,550. The cost has been budget for and split between fiscal year (FY) 2022-23 and FY 2023-24.

**COMMUNITY INVOLVEMENT PROCESS:**

The final report will be posted to the City’s website.

**POTENTIAL IMPACTS OR BENEFIT TO THE COMMUNITY:**

Reviewing the progress toward meeting the performance measures adopted in the Transportation System Plan every three years helps to assure private and public improvements are continuing to meet the City’s adopted goals.

**ALTERNATIVES:**

N/A

**CITY MANAGER COMMENT:**

N/A

**ATTACHMENTS:**

1. 2023 Wilsonville Transportation Performance Monitoring Report

# WILSONVILLE PERFORMANCE REPORT UPDATE 2023

SEPTEMBER 2023

UPDATE FOR 2019 - 2023 DATA\*





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## PURPOSE OF THE PERFORMANCE MONITORING REPORTS

The Wilsonville Performance Reports lay the foundation for on-going monitoring of the City's transportation goals. The seven transportation goals are stated in the Transportation System Plan and guide the City in providing and managing a functional transportation system. The seven goals for the transportation system are:

- **SAFE**
- **CONNECTED AND ACCESSIBLE**
- **FUNCTIONAL AND RELIABLE**
- **COST EFFECTIVE**
- **COMPATIBLE**
- **ROBUST**
- **PROMOTES LIVABILITY**

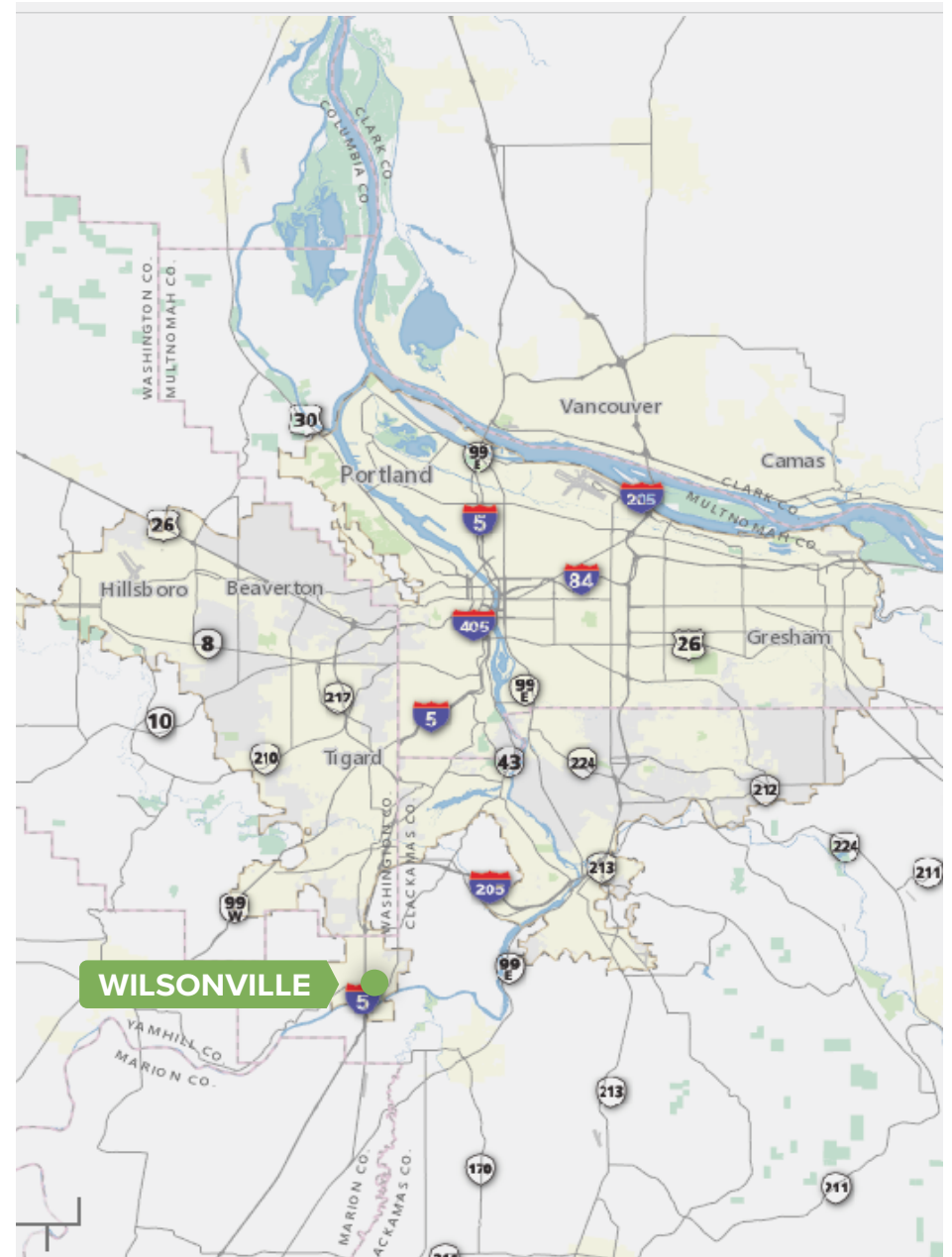
The Performance Reports identify performance measures for each TSP goal and provide progress updates for each measure approximately every three years. Monitoring of the performance measures helps indicate the City's progress towards their transportation goals and also identifies impacts to the City's transportation system as a result of regional transportation projects and growth in neighboring cities.

The 2023 Performance Report provides updates for the performance measures based on 2019 to 2023 data. No updates, however, were provided for the performance measures for Goals 4 and 5. These performance measures will be evaluated during the next round of performance monitoring.

## WILSONVILLE LOCATION AND DEMOGRAPHICS

The performance measures in this report are best understood against the backdrop of Wilsonville's location and demographics. Wilsonville is located on the southern edge of the Portland Metro area along the Interstate-5 (I-5) corridor. Because of the nearby I-5 Boone bridge over the Willamette River, Wilsonville serves as the region's southern gateway and is a strategic connection between the Portland Metro area to the north, the Mid-Willamette Valley to the south, and the I-5 corridor. Due to its strong employment base and central location, it attracts employees from all over the region.

For the past 25 years, Wilsonville has been one of Oregon's fastest growing cities. With over 26,600 residents and over 20,600 full- and part-time jobs, Wilsonville is an attractive place to live and work. However, with growth comes increasing transportation demands for all travel modes, and it is essential to ensure the multimodal transportation system can serve the current and future residents, employees, and visitors who frequent the city. Understanding who these users are and how they like to travel facilitates improved transportation decisions.



# WILSONVILLE LOCATION AND DEMOGRAPHICS

## EMPLOYMENT STATISTICS

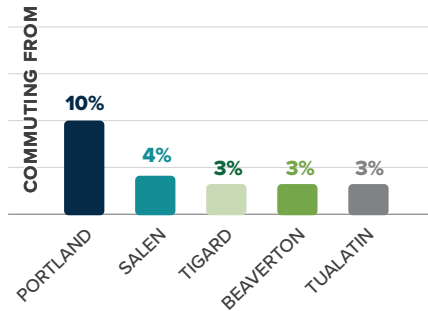
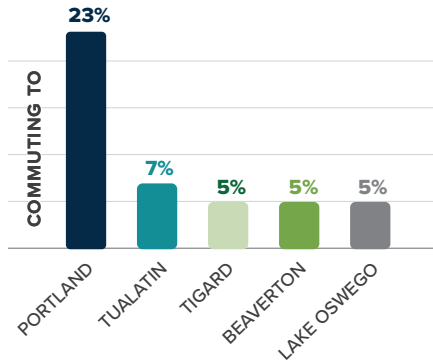
### COMMUTE PATTERNS

Percent of working residents who commute **out** of Wilsonville  
**85%**  
 10,006 OUT OF 11,792

Percent of workers in Wilsonville who commute **into** Wilsonville  
**91%**  
 18,875 OUT OF 20,661



AVERAGE TRAVEL TIME TO WORK (WORKERS AGE 16+)  
**26.3 MIN**

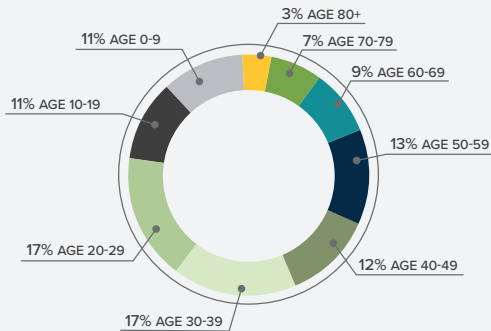


### TOP 5 WILSONVILLE JOB SECTORS

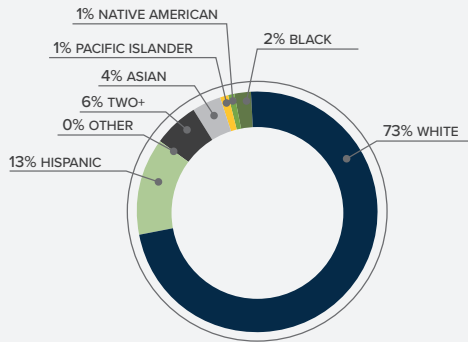
- 19%** MANUFACTURING
- 15%** WHOLESALE TRADE
- 10%** RETAIL TRADE
- 9%** ADMINISTRATIVE SUPPORT, WASTE MANAGEMENT, AND REMEDIATION
- 9%** PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES

## RESIDENTIAL STATISTICS

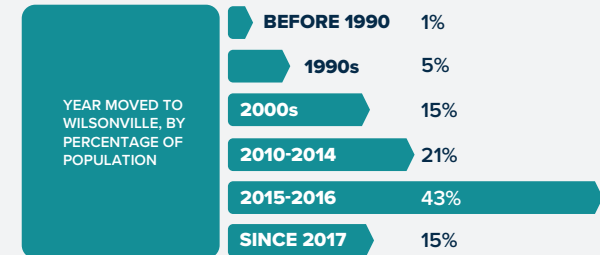
### POPULATION AGE



### RACE AND ETHNICITY



### POPULATION TENURE



**4.5%** AVERAGE POPULATION GROWTH PER YEAR (2000-2020)

Compare population growth per year (2000-2020): 1.1% in Tualatin and West Linn, and 1.2% in Clackamas County.

NUMBER OF HOUSEHOLDS  
**10,261**

AVERAGE NUMBER OF PEOPLE PER HOUSEHOLD  
**2.4**

MEDIAN HOUSEHOLD INCOME (2014-2018)  
**\$78,508**



## PROJECTS BUILT



The City of Wilsonville has constructed numerous transportation projects since the previous Performance Report (2020) was completed. This page provides a list of those transportation projects and the year of completion.

- Buffer added to Bike Lanes on Wilsonville Road between Willamette Way West and Kinsman Road (2019)
- Two new RRFBs on Wilsonville Road at Grahams Oak Entrance and Orchard Drive (2019)
- New bike lanes on the west side of Boones Ferry Road from Barber Street to Wilsonville Road (2019)
- Garden Acres Road upgrades (cycle track, sidewalk, etc) and realignment of Clutter/Ridder Road (2020)
- Green bicycle paint on bike lanes at Elligsen Rd/Parkway Ave/Argyle Ave (2020)
- Green bicycle paint and striping at Parkway Center Drive/Burns Way (2020)
- Pedestrian and Bike Lane Improvements along Parkway Ave/Main St (2020)
- Lane Conversion to Buffered Bike Lanes on Town Center Loop West (2021)
- RRFB at Town Center Loop West/Park Place (2021)

### CURRENT PROJECTS

THE FOLLOWING PROJECTS ARE CURRENTLY UNDER CONSTRUCTION WITHIN THE CITY OF WILSONVILLE.

- Kinsman Road Extension from Wilsonville Road to 5th Street
- Street Improvements on Boeckman Road at the Boeckman Dip
- Installation of a Traffic Signal or Roundabout at Canyon Creek Road/Boeckman Road
- Clackamas County Freight ITS Improvements on multiple corridors in Wilsonville (see list below). Improvements include upgraded traffic signal controllers and installation of radar detection, wireless interconnect, and cameras.
  - 95th Ave between Boones Ferry Road and Boeckman Road
  - Boones Ferry Road between Day Road and 95th Ave
  - Elligsen Road between I-5 and Parkway Center Drive
  - Wilsonville Road between Willamette Way East and Town Center Loop East



# FATALITIES AND INJURY “A” COLLISIONS

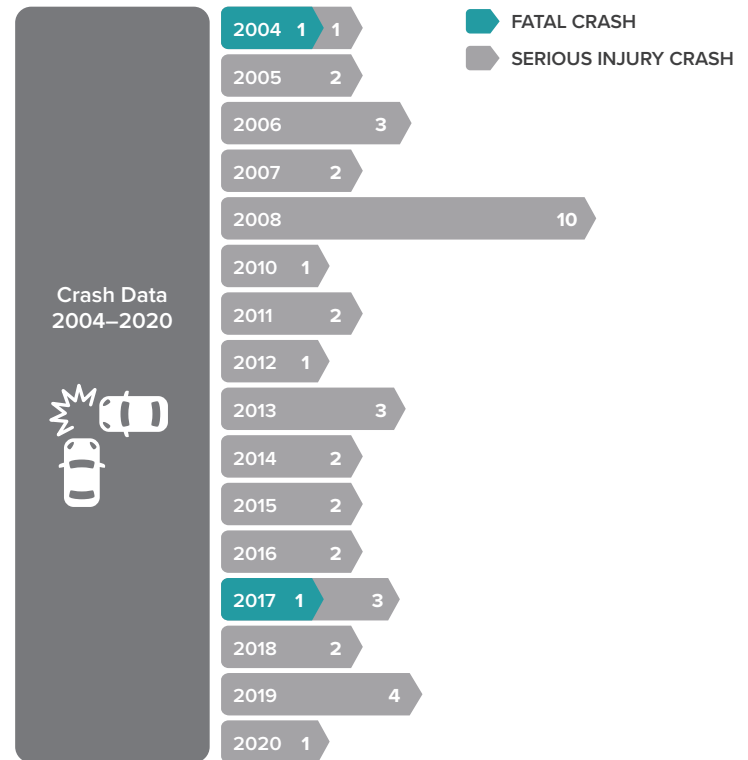
Eliminate traffic fatalities and serious injuries (Injury “A”) on City roadways.

Safety is Wilsonville’s first transportation system goal and is also an important goal statewide. In 2021, Oregon developed a Transportation Safety Action Plan (TSAP), which states its vision is to eliminate deaths and life-changing injuries (Injury A) on Oregon’s transportation system by 2035.

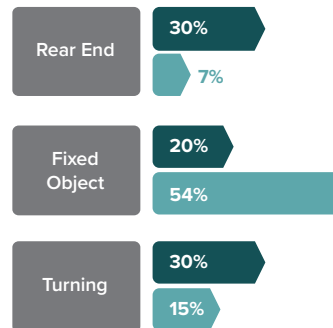
**Serious Injury (or Injury “A”) is defined by ODOT as an incapacitating injury that “prevents the injured person from walking, driving, or normally continuing the activities the person was capable of performing before the injury occurred.”**

The previous Wilsonville Performance Report contained crash data from 2004 to 2018. For this Performance Report Update, crash data from 2019 to 2020 was added and evaluated, which reflects the most recently finalized crash data by ODOT. As shown in the graph, the number of fatal and serious injury crashes in Wilsonville increased in 2019 but decreased in quantity in 2020.

It should be noted that the crashes shown in the graph only represent crashes that occurred on City streets or at I-5 ramp intersections (no crashes were included on ODOT or County roadways in this data).

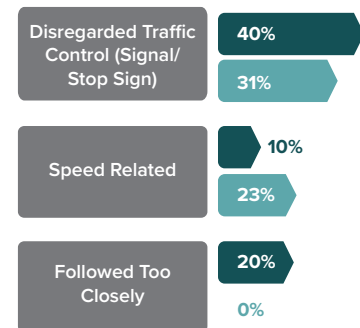


TOP 3 CRASH TYPES



2011-2015  
2016-2020

TOP 3 CRASH CAUSES



2011-2015  
2016-2020

**PERFORMANCE MEASURES**

**GOAL 1: SAFE**

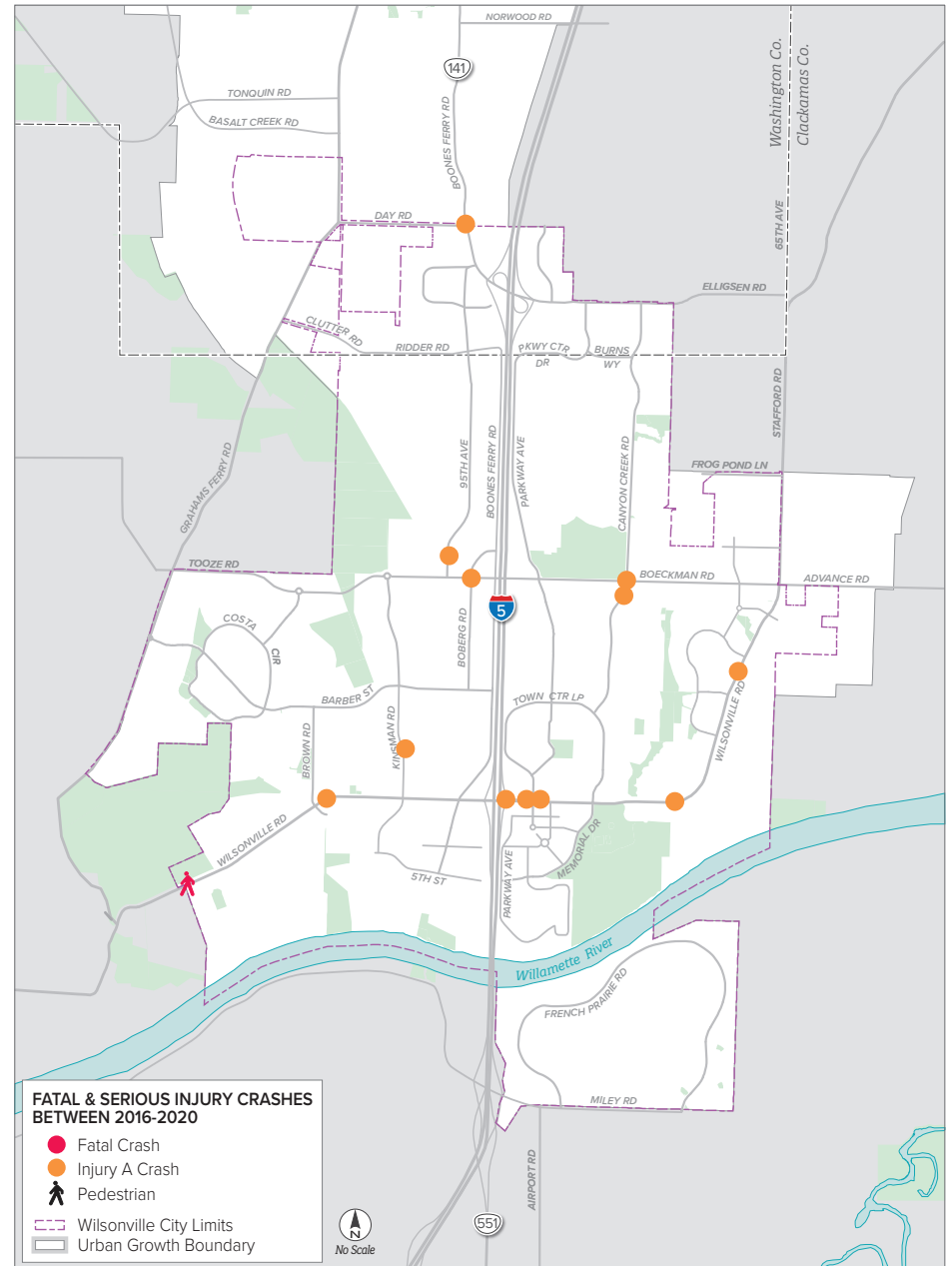
The location of the fatal and serious injury crashes over the last five years of reported data (2016-2020) are shown in the figure below. The average number of crashes over the last five years is the typical range for tracking changes in crash frequency.

In 2019 and 2020, three of the five serious injury crashes involved fixed object crashes in which a vehicle struck an obstruction (tree or curb) adjacent to the street. All three crashes occurred in the early morning between 4AM - 6AM.

As shown on the previous page, fixed object crashes and turning crashes have increased over the last few years. Crashes caused by disregarding traffic controls or failing to yield have increased, but speeding and following too closely as a cause has decreased over the last few years.

Based on this data, the city should consider identifying safety improvements that improve lighting conditions and design treatments that increase awareness and traffic control compliance at intersections.

Looking at the map, a cluster of serious injury crashes are located near the Wilsonville Road & Town Center Loop West intersection. Due to the high number of serious injury crashes, this location could be competitive for safety improvements through Oregon’s All Roads Transportation Safety (ARTS) funding program.



# MULTIMODAL CONNECTIVITY

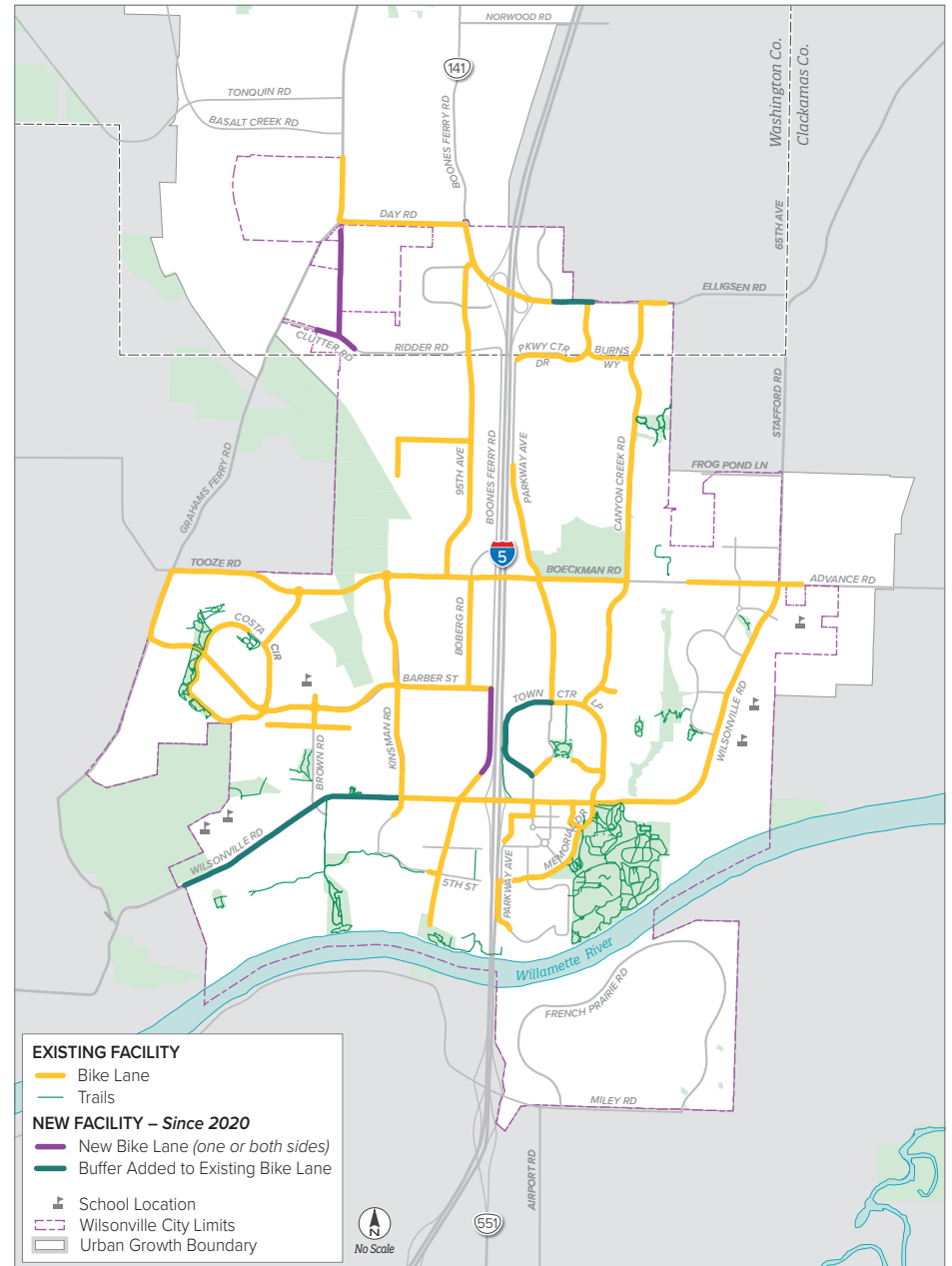
Provide residents with multimodal access to parks, schools, employment centers, retail areas, and the surrounding region.

Network connectivity is a critical component of Wilsonville’s transportation system and is one of the City’s stated transportation goals. Wilsonville’s elected officials and staff have stated how important it is to create a comprehensive network of safe, attractive, and direct travel options to provide residents with multimodal access to parks, schools, employment centers, and retail areas.

In the previous Transportation Performance Monitoring update, a map showing bicycle and pedestrian network changes between 2016 and 2018 was presented. This map highlighted new bicycle lanes and sidewalks on City streets and also noted locations where existing bicycle lanes were improved with buffers. This map has been updated and expanded to two figures to show pedestrian and bicycle network changes in the City’s multimodal transportation network between the years 2019 and 2022. The bicycle facility figure is presented to the right, and the pedestrian facility figure is presented on the following page.

Changes are fairly minor and mainly consist of the addition of new bike lanes and/or bike lane buffers. Some sidewalk infill occurred in the Frog Pond West and Villebois residential areas as new housing construction continues. There were three locations throughout the city where Rectangular Rapid Flashing Beacons (RRFBs) were installed, two along Wilsonville Road and one on Town Center Loop West.

The upcoming Kinsman Road extension project and Boeckman Road street improvements will fill major multimodal gaps in the system for pedestrians, bicycles, and transit.

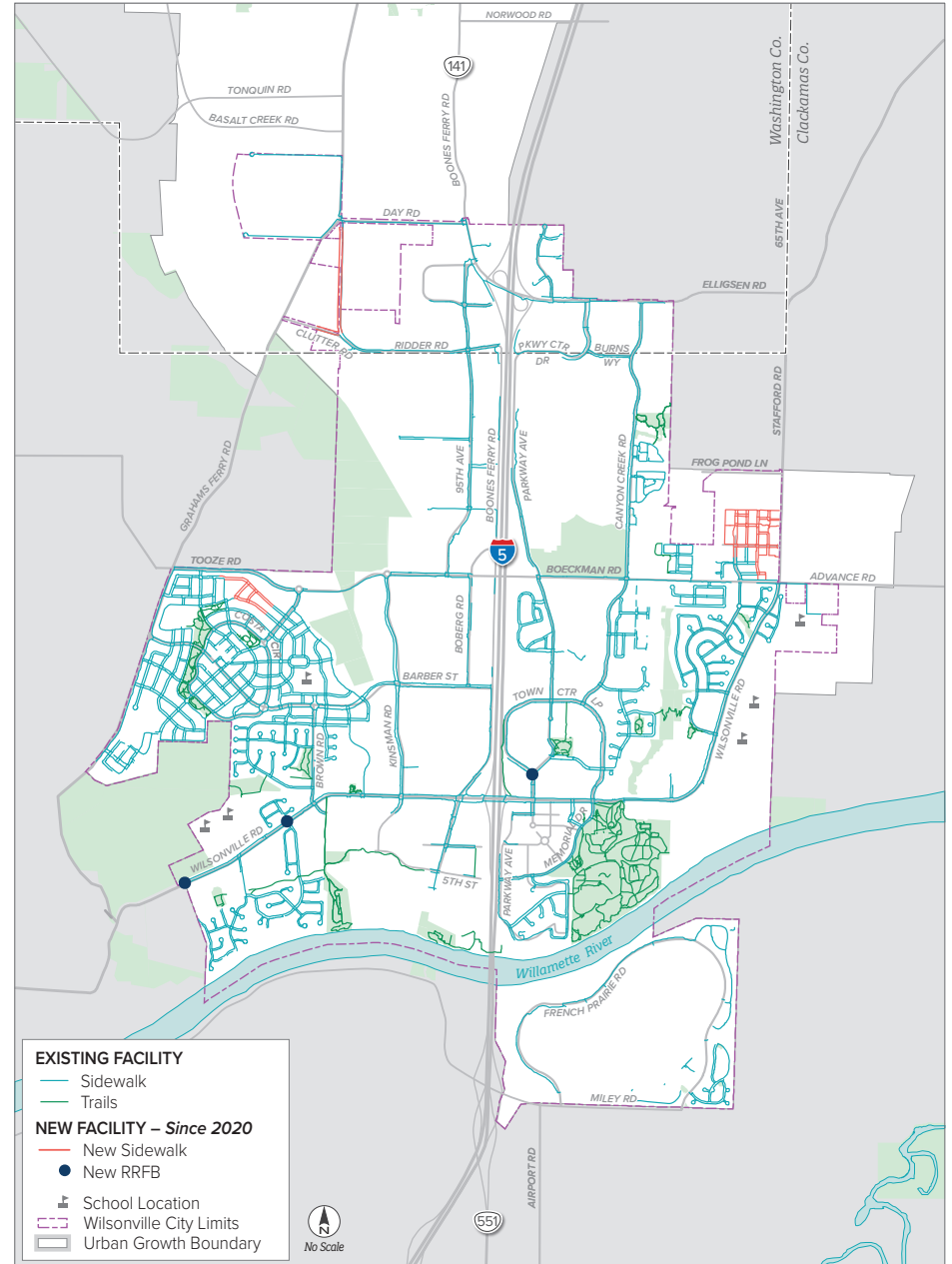


PERFORMANCE MEASURES

GOAL 2: CONNECTED & ACCESSIBLE



From top: Memorial Park, Old Town Wilsonville on Boones Ferry Road





## INTERSECTION DELAY AND TRAFFIC GROWTH

Maintain an acceptable level of delay (less than 55 seconds average per vehicle at traffic signals and 35 seconds at unsignalized intersections) at key intersections during the PM peak traffic hour.

The primary culprit of congestion within the transportation network is found at the intersection, as vehicles from all approaches enter and exit the intersection, creating conflict points and necessitating traffic control devices to help vehicles safely and efficiently navigate the intersection. Due to intersections being the primary area of delay within the transportation network, municipalities measure the intersection congestion and have standards for the maximum level of congestion that is acceptable. The City of Wilsonville has a standard for average delay, which establishes the acceptable average delay that a vehicle experiences at an intersection. Delay is calculated using Highway Capacity Manual, 6th Edition (HCM 6th) procedures, and the City defines the maximum acceptable level of delay to be 55 average seconds per vehicle at signalized intersections and 35 average seconds per vehicle at unsignalized intersections.

Ultimately, while delay is the experienced level of congestion by a driver, intersection delay is related to the volume of traffic present within the intersection and surrounding area. Therefore, to understand how congestion levels have changed around Wilsonville since the previous Transportation System Plan (2013), vehicular volume and intersection delay is tracked in this report. All locations were carried over from previous reporting.



*Stafford Road-Wilsonville Road and Boeckman Road-Advance Road*

PERFORMANCE MEASURES

GOAL 3: FUNCTIONAL & RELIABLE

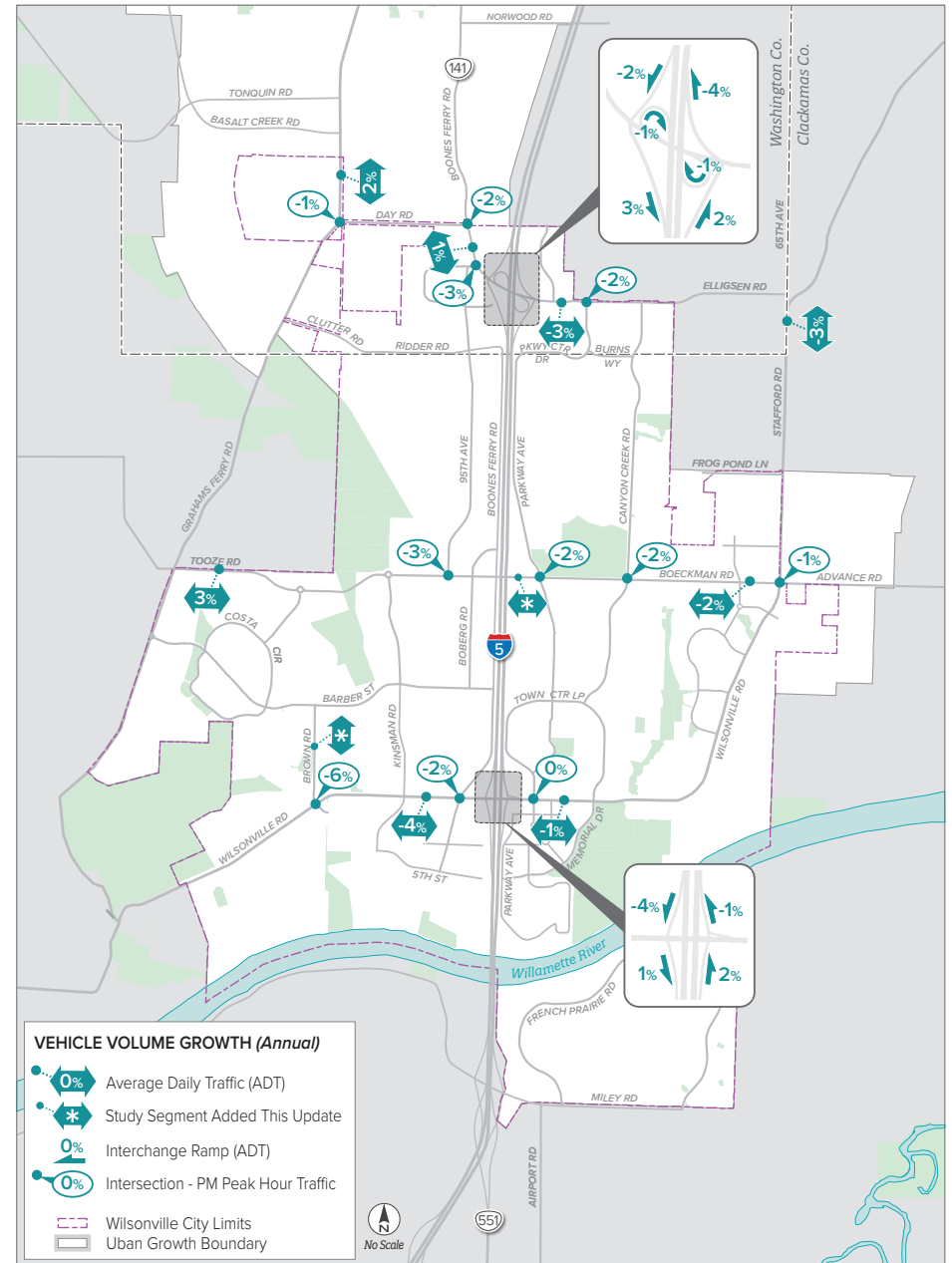
The map to the right shows motor vehicle volume growth from 2019 to 2023 as an average annual percentage. Percent growth is shown at key intersections (PM peak, total entering vehicle volume), key roadway segments (24-hr average daily bidirectional volumes), and all I-5 interchange ramps (24-hr average daily unidirectional volumes).

Traffic volumes in Wilsonville generally decreased over the four-year period, which is largely attributed to COVID-19 restrictions and its impacts to commuting patterns, resulting in more residents working remotely part-time or full-time.

As a whole, the I-5 interchange areas and high-volume corridors of Boones Ferry Road-Elligsen Road and Wilsonville Road decreased in traffic volumes between 2019 and 2023. Elligsen Road saw a relatively consistent decrease of approximately 2% per year in traffic volumes, while the western end of the Wilsonville corridor saw larger decreases including a 6% decrease in PM peak traffic volumes at the Brown Road intersection, which is a gateway to a large residential area in the city. While the interchange volumes as a whole decreased, the southbound on-ramps and northbound off-ramps did increase; this increase could indicate a higher number of vehicles traveling between Wilsonville and Woodburn, Salem, etc. over the Willamette River.

The overall negative growth at both I-5 interchange locations is a trend that has been shared in previous traffic monitoring reports and is expected to continue or remain steady as is shown in the Metro Regional Travel Demand model. In the past, Wilsonville has had a large disparity between the number of local jobs and residential units. But now with the construction of many local residential developments (approximate average of 100 housing units per year) and supporting residential land uses, the reliance on I-5 for employment-based trips has been decreasing.

The exception to the negative growth trend was on Tooze Road and Grahams Ferry Road, which saw over a 2% increase per year on average between 2019 and 2023. This positive rate of growth on Tooze Road is likely related to



PERFORMANCE MEASURES

GOAL 3: FUNCTIONAL & RELIABLE

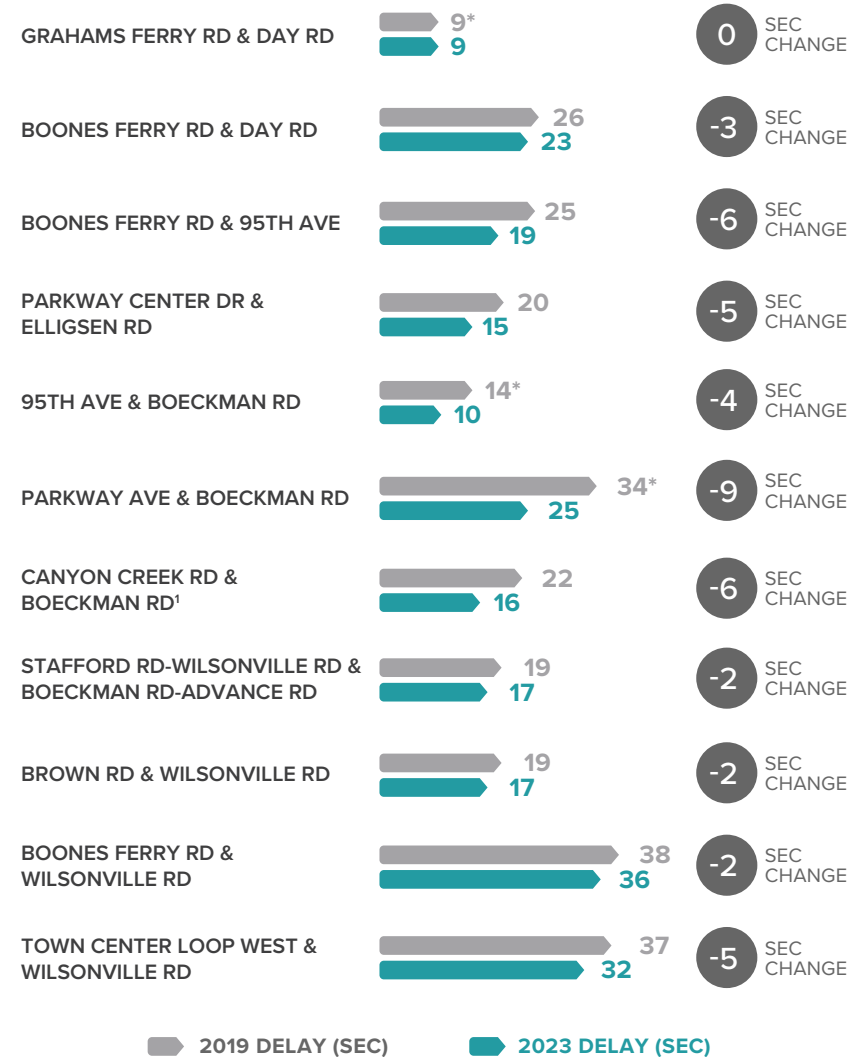
the continued construction of new housing in north Villebois since 2019. The increase on Grahams Ferry Road could be attributed to increasing daily traffic volume on the I-5 mainline between Wilsonville and the other Metro cities. Grahams Ferry Road (and the 124th Ave extension) is an alternative route of I-5 if a driver's destination or origin is Tualatin, Tigard, or even Beaverton.

While traffic volume is one factor to be considered in determining a functional and reliable transportation system, an assessment of the average vehicle delay at intersections was also conducted. Average delay per vehicle for the typical weekday evening PM peak period was calculated at the 11 study intersections using Highway Capacity Manual (HCM) 6th Edition procedures. The City has a designated level of service (LOS) D standard, which means that the typical vehicle, on average, should not experience a delay of more than 55 seconds at a signalized intersection or 35 seconds at an unsignalized intersection.

The 2023 delays results along with a comparison to the 2019 delay results can be seen in the graphic to the right. As a general notion, any differences of five seconds or less between 2023 and 2019 can be considered negligible and may be due to seasonal variations of collected traffic volume data, randomness in the data, or updated evaluation methods. However, not only did delay decrease at all study intersections between the two time periods, but none of the analyzed intersections are close to surpassing the City's standard maximum average delay of 55 seconds.

Most intersections saw a decrease in delay of 10 seconds or less, which aligns with the decrease in traffic volume data between 2019 and 2023 during the PM peak hour. When comparing these delay results to recent land development transportation studies, the results are consistent with what has been observed and presented in recent traffic impact studies.

INTERSECTION DELAY



<sup>1</sup> Intersection is stop-controlled, delay standard is 35 seconds (LOS D)

\*Delay calculations were revised based on updated HCM methodology



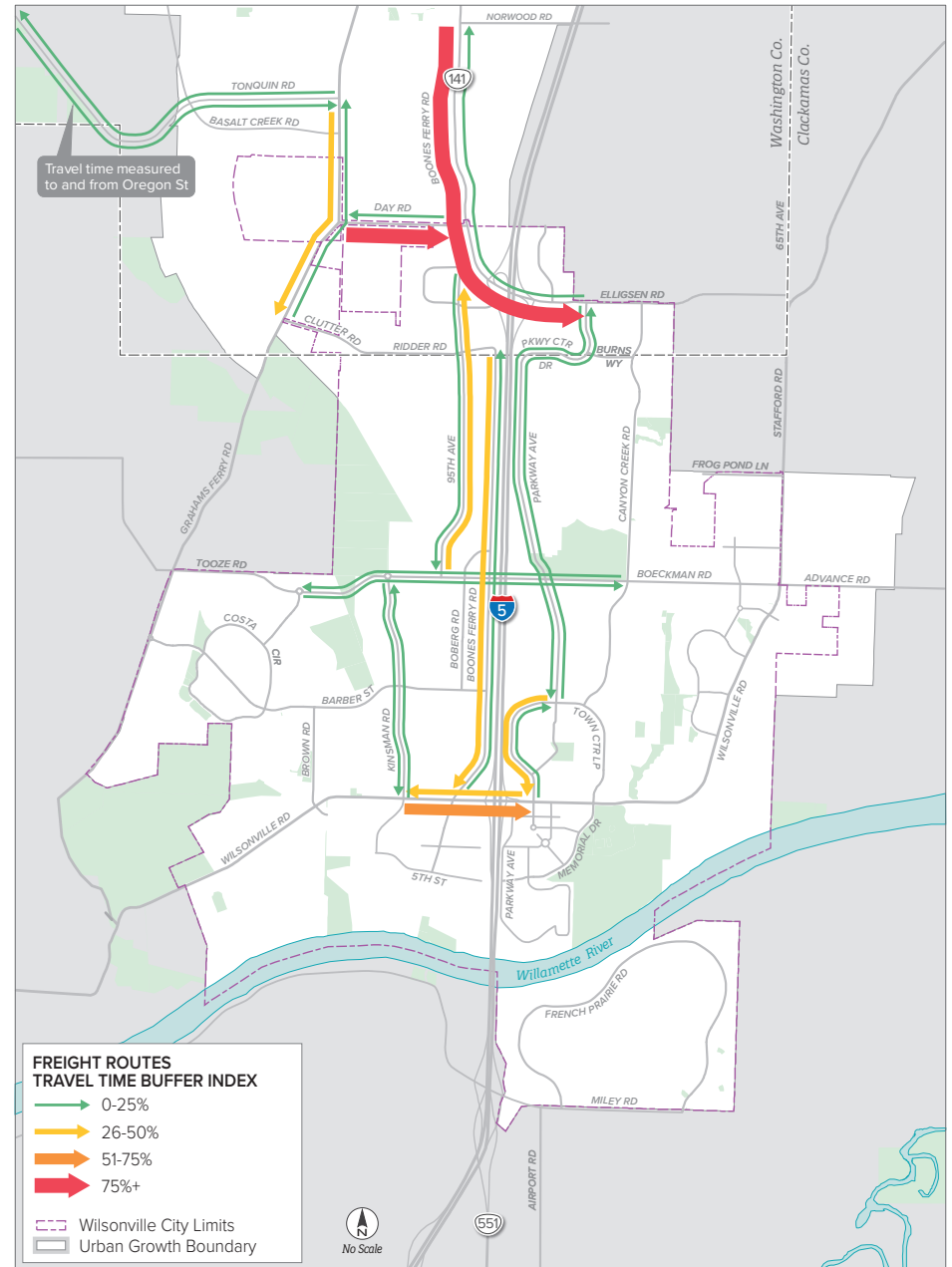


PERFORMANCE MEASURES

GOAL 3: FUNCTIONAL & RELIABLE

Travel time and travel time reliability are tracked for key arterial routes and freight routes around the City of Wilsonville. The key arterials and freight routes are areas of top concern within the transportation system. In general, the key arterials are the primary routes that deliver traffic between collector roads and freeways. Freight routes are designated roads that are designed to accommodate heavy vehicles and freight traffic and provide connectivity to industrial areas and dense-commercial areas. Freight performance is an important consideration in Wilsonville due to the significant number of large manufacturing and distribution companies located in the city, so these corridors are intended to represent the primary network that freight would use to travel through the City and are therefore representative of the delay that freight might experience.

The travel time buffer index figures and tables show the 2022 PM<sup>1</sup> peak period travel time and buffer index for the identified segments, along with the change in value compared to the previous 2019 data. Based on some minor changes in methodology, new data for both 2019 and 2022 was collected to perform a more direct comparison between analysis years. Travel times with buffer indexes over 25% are typically not preferred, but buffer indexes over 50% are usually considered unacceptable from drivers.



<sup>1</sup> For each segment, the hour with the highest travel time between 3:00 pm and 7:00 pm was chosen.

## PERFORMANCE MEASURES

## GOAL 3: FUNCTIONAL &amp; RELIABLE

As displayed in the tables and figures, segments surrounding the I-5 interchanges and the Boones Ferry Road-Elligsen Road and Wilsonville Road corridors have the higher buffer indexes and require travelers to plan for more travel time than the average conditions usually warrant. The routes with higher buffer indexes are prone to have more variable travel times and drivers experience more unanticipated delays. This is especially true on segments near and around the intersections of Day Road and 95th Avenue on Boones Ferry Road.

While there are areas with lower than desired reliability, the transportation system overall saw significant decreases in travel time and increases in travel time reliability. Almost every segment between both the key arterials and freight routes saw a decrease or net zero change in travel times, and every segment saw an increase in travel time reliability. For the segments surrounding the I-5 interchanges and the Boones Ferry Road-Elligsen Road and Wilsonville Road corridors, in particular, the buffer indexes were significantly lower (meaning less variability).

## KEY WILSONVILLE ARTERIAL ROUTES - 2022 TRAVEL TIME &amp; BUFFER INDEX

NAME OF ROADWAY	EXTENT	DIRECTION	AVERAGE TRAVEL TIME	3-YEAR PERCENT CHANGE	BUFFER INDEX <sup>1</sup>	3-YEAR DIFFERENCE
Boones Ferry Rd	Norwood Rd - Day Rd	NB	1:25	-5%	10%	-20%
		SB	2:10	-10%	120%	20%
Elligsen Rd	Day Rd - 65th Ave	EB	4:20	-20%	40%	-40%
		WB	3:35	-5%	25%	-45%
95th Ave	Elligsen Rd - Boeckman Rd	NB	3:45	0%	45%	-15%
		SB	3:10	5%	20%	-20%
Stafford Rd	65th Ave - Boeckman Rd	NB	1:50	0%	15%	-5%
		SB	2:00	0%	20%	-20%
Boeckman Rd	Grahams Ferry Rd - I-5 Overpass	EB	3:20	0%	20%	-30%
		WB	3:35	10%	20%	-10%*
Boeckman Rd	I-5 Overpass - Stafford Rd	EB	3:00	-5%	20%	-25%
		WB	2:55	-5%	15%	-25%
Wilsonville Rd	Brown Rd - Town Center Loop East	EB	4:05	-5%	40%	-30%
		WB	4:15	-15%	45%	-45%
Wilsonville Rd	Bell Rd - Boeckman Rd	EB	9:20	-5%	30%	-20%
		WB	9:35	-5%	35%	-20%

\* Increase is mainly within roundabout at Villebois Dr

<sup>1</sup> Buffer index = the extra time travelers should add to the average travel time when planning trips to ensure a 95% on time arrival rate, considering daily variability in travel times.

## PERFORMANCE MEASURES

## GOAL 3: FUNCTIONAL &amp; RELIABLE

## KEY WILSONVILLE FREIGHT ROUTES - 2022 TRAVEL TIME &amp; BUFFER INDEX

NAME OF ROADWAY	EXTENT	DIRECTION	AVERAGE TRAVEL TIME	3-YEAR PERCENT CHANGE	BUFFER INDEX <sup>1</sup>	3-YEAR DIFFERENCE
Tonquin Rd	Oregon St - Grahams Ferry Rd	EB	3:55	-15%	15%	-35%
		WB	4:00	-20%	20%	-35%
Grahams Ferry Rd	Tonquin Rd - Clutter Rd	NB	2:05	-5%	20%	-20%
		SB	2:25	-5%	30%	-50%
Day Rd	Grahams Ferry Rd - Boones Ferry Rd	EB	2:40	5%	110%	-10%
		WB	1:15	-5%	25%	-30%
Boones Ferry Rd	Norwood Rd - Parkway Center Dr	NB	3:20	-10%	25%	-40%
		SB	4:40	-15%	80%	-10%
95th Ave	Elligsen Rd - Boeckman Rd	NB	3:45	0%	45%	-15%
		SB	3:10	5%	20%	-20%
Boones Ferry Rd	Ridder Rd - Wilsonville Rd	NB	3:25	0%	20%	-10%
		SB	3:45	-15%	45%	-55%
Parkway Ave	Elligsen Rd - Town Center Loop West	NB	4:10	0%	15%	-15%
		SB	4:10	-5%	15%	-25%
Boeckman Rd	Villebois Dr - Canyon Creek Rd	EB	3:50	0%	25%	-30%
		WB	3:40	0%	20%	-25%
Kinsman Rd	Boeckman Rd - Wilsonville Rd	NB	2:00	-10%	20%	-5%
		SB	2:15	-5%	25%	-25%
Town Center Loop West	Wilsonville Rd - Parkway Ave	NB	1:35	-10%	25%	-20%
		SB	1:45	-15%	30%	-45%
Wilsonville Rd	Kinsman Rd - Town Center Loop West	EB	2:15	-10%	55%	-25%
		WB	2:15	-20%	40%	-55%

<sup>1</sup> Buffer index = the extra time travelers should add to the average travel time when planning trips to ensure a 95% on time arrival rate, considering daily variability in travel times.

## VEHICLE MILES TRAVELED

Reduce vehicle miles traveled (VMT) per capita by providing robust travel mode choices.

Vehicle miles traveled is a common measurement of roadway use which is calculated by multiplying miles traveled per vehicle by the total number of vehicles for a specified time period. In this report, the definition of “vehicles” include automobiles, light trucks, heavy trucks, and other passenger vehicles used for the movement of people or goods.

Decreasing VMT per capita can directly improve air quality and the overall health of a population. Reducing VMT also eases congestion and improves travel time reliability. VMT levels are lower in communities that are more walkable and compact and in communities that have strong public transportation systems.

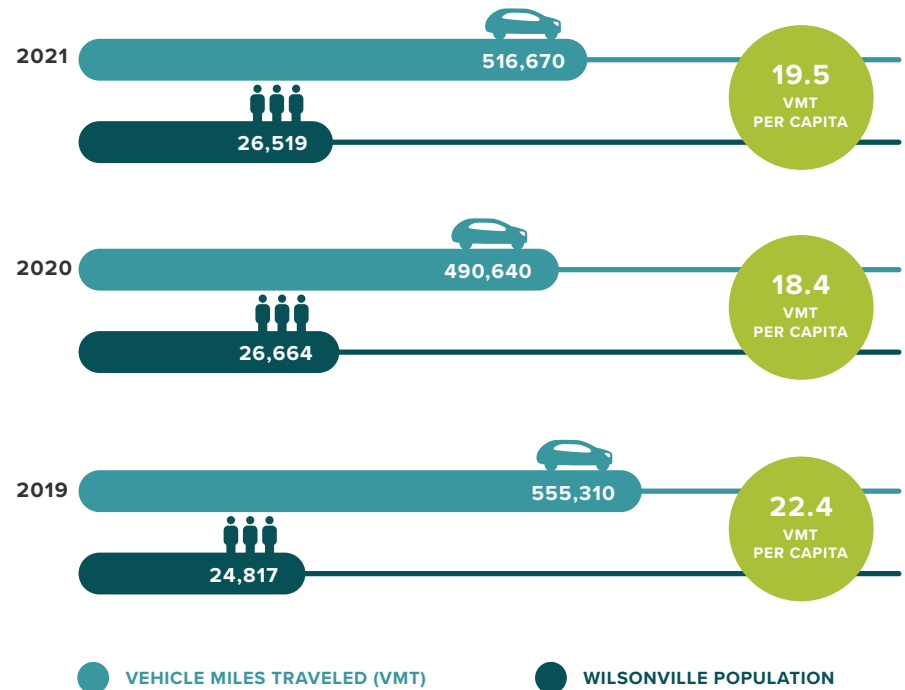
Metro has identified performance targets for VMT, which is to reduce VMT per capita by 10% by 2040 compared to 2015.<sup>1</sup>

The figure to the right shows the vehicle miles traveled in Wilsonville for an average weekday. The VMT per capita was 19.5 in 2021, which is a decrease of 13% compared to the VMT in 2019. The VMT in 2020 was even lower at 18.4 vehicle-miles.

The VMT data was acquired from [Replica](#), which is an activity-based travel demand model that simulates the complete activities and movements of residents, visitors, and commercial vehicles on a typical day.

It should be noted that the VMT shown here represents vehicle miles traveled (VMT) by all trips that use the Wilsonville street network. This includes residents and nonresidents as well as trips that may not start or end in Wilsonville.

### VEHICLE MILES TRAVELED IN WILSONVILLE (AVERAGE WEEKDAY)



*Published population statistics for 2021 were estimated based on the 2020 census.*

Based on data from the Oregon Department of Transportation (ODOT), the number of vehicle miles traveled in Oregon in 2021 was 36.8 billion vehicle-miles. The population estimate for Oregon in 2021 was 2.64 million people, resulting in a daily VMT per capita of 23.8 for Oregon public roads.<sup>2</sup> Clackamas County has a daily VMT per capita of 11.7 vehicle-miles in 2021 based on the same ODOT data.

<sup>1</sup> Chapter 7 - Measuring Outcomes, Regional Transportation Plan, Metro, December 2018.

<sup>2</sup> <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx#VMT>



## PAVEMENT CONDITION

Updated data was not included in this Performance Monitoring Report, but will be provided in future reports. However, Recommended Action(s) from the previous report are carried over to this update.

## CROSS-SECTION COMPLIANCE

Updated data was not included in this Performance Monitoring Report, but will be provided in future reports. However, Recommended Action(s) from the previous report are carried over to this update.

# TRANSPORTATION MODE SHARE

Accommodate transportation choices for drivers, pedestrians, bicyclists, and transit riders.

Transportation mode share measures the relative use of transportation options in the City. These options principally include motor vehicle use, walking, biking, and public transit; though travel modes also can include skateboards and wheelchairs. Additional micro-mobility trends such as E-scooters are growing in popularity. E-scooters are not currently available in Wilsonville, but have been available to the public via pilot programs in Tualatin and Tigard.

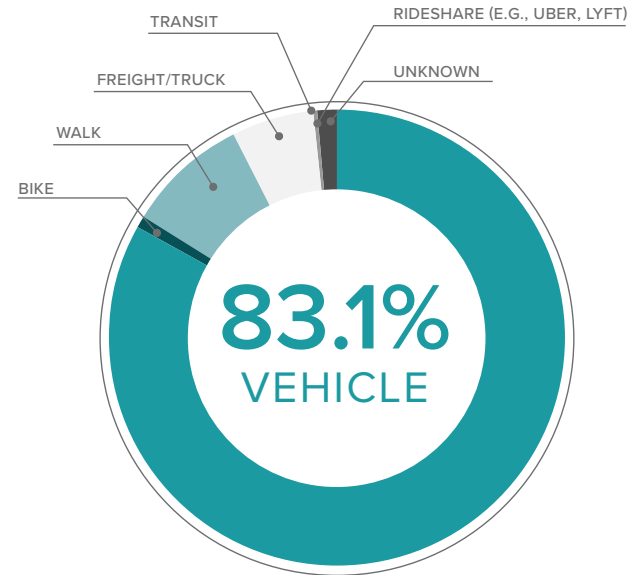
The graphic to the right shows the mode share breakdown for transportation trips in Wilsonville. While automobile use is the predominant travel mode in Wilsonville and provides an important means for the majority of users to access local and regional destinations, it is important for Wilsonville to make other transportation options available to residents, employees, and visitors due to health, equity, and economic benefits. The mode share trips were acquired from [Replica](#), which is an activity-based travel demand model that simulates the complete activities and movements of residents, visitors, and commercial vehicles on a typical day.

Travel options are particularly important to those who may have physical or economic

Metro has identified performance targets for non-driving mode share percentages, which is to triple the walking, biking, and transit mode shares by 2040 compared to 2015.<sup>1</sup>

limitations that prevent them from driving their own personal vehicle. In addition, active options such as walking and biking support healthy lifestyles, are economic, and can help reduce traffic congestion and greenhouse gasses – particularly around schools and in areas with higher residential and commercial density.

TRIPS IN WILSONVILLE BY TRANSPORTATION MODE<sup>2</sup>



PERCENT	TRIPS	TRANSPORTATION MODE
<b>83.1%</b>	<b>209,400</b>	<b>VEHICLE</b>
<b>0.9%</b>	<b>2,264</b>	<b>BIKE</b>
<b>8.8%</b>	<b>22,082</b>	<b>WALK</b>
<b>5.6%</b>	<b>14,132</b>	<b>FREIGHT / TRUCK</b>
<b>0.1%</b>	<b>166</b>	<b>TRANSIT</b>
<b>0.3%</b>	<b>768</b>	<b>RIDESHARE (E.G., LYFT, UBER)</b>
<b>1.3%</b>	<b>3,200</b>	<b>UNKNOWN</b>

<sup>1</sup> Chapter 7 - Measuring Outcomes, Regional Transportation Plan, Metro, December 2018.

<sup>2</sup> Mode Share in Wilsonville (Data Source: Replica, 2021)

The graphic to the right depicts trends in survey results from the Wilsonville Nation Citizens Surveys (NCS) from 2014 to 2022, as well as transit ridership data from SMART (South Metro Area Regional Transit). The NCS is a bi-annual survey that gathers residents’ opinions about community livability, infrastructure, and government services. The questions related to walking, biking, transit, and driving were reported for the surveys between 2014–2022. The percentages shown indicate the percent of residents that would rate the ease of using the particular transportation mode as “Excellent” or “Good”. A summary of the trends in Wilsonville transportation modes is as follows:

- Residents’ perception of ease of biking in Wilsonville showed a declining trend between 2014 and 2020, but showed a significant increase in approval in 2020 and 2022. The increase in ease of bicycle use may be due to the construction of new bicycle lanes and addition of buffers to existing bike lanes in key areas of the City between 2020 and 2022. See Page 8 for those locations.
- Residents’ perception of ease of driving increased in 2020 and 2022, this may be due to the negative growth in vehicle volumes due to the COVID-19 pandemic and increase in telecommuting options for Wilsonville residents and employees.
- Ease of transit use also increased in 2020 and 2022. Around 2020, SMART implemented real-time bus tracking for the transit system that alerts riders to route changes and gives them a better idea of when buses will arrive.
- Annual bicycle and pedestrian counts were overseen by SMART, collected by volunteers at key locations, and supported by Metro and The National Bicycle and Pedestrian Project. The program was discontinued after 2019.
- SMART transit ridership was trending downward between 2014 and 2019 and took a steep decline in numbers in fiscal year 2020/2021. This is due to the COVID-19 pandemic, which resulted in a sudden increase in telecommuting and reduced demand for transit services. The ridership numbers slightly increased the following year (2021/2022) and are expected to continue to increase over the next few years as users gain comfort with transit options.





## CHANGE IN BIKING AND WALKING TRIPS

Using Replica data<sup>1</sup>, the change in biking and walking trips over the last few years in Wilsonville are reported below. The trips changes are further broken down into the following neighborhoods:

NORTHEAST	EAST	SOUTHEAST
East of I-5 and north of Boeckman Road	East of I-5 and between Boeckman Road and Wilsonville Road	East of I-5 and south of Wilsonville Road
VILLEBOIS + WEST	SOUTHWEST	
West of I-5 and between Boeckman Road and Wilsonville Road	West of I-5 and south of Wilsonville Road	

The trip data shown in the data table are biking and walking trips that originated in the neighborhood listed.

For biking trips, there was an average 60% decrease in trips in Wilsonville between 2019 and 2021. However, the biking trip numbers increased by two-fold (approximately 100%) on average between 2021 and 2022, meaning that the current number of biking trips are almost back to what they were in 2019.

For walking trips, there was an average 25% increase in trips in Wilsonville between 2019 and 2021. Between 2021 and 2022, the increase in walking trips was lower at an average of 1% - 5%.

NEIGHBORHOODS	BIKING TRIPS		WALKING TRIPS	
	2019-2021	2021-2022	2019-2021	2021-2022
NORTHEAST	-60%	150%	15%	1%
EAST	-65%	95%	35%	1%
SOUTHEAST	-60%	55%	25%	-5%
VILLEBOIS + WEST	-60%	110%	30%	-5%
SOUTHWEST	-55%	50%	15%	15%

It is reasonable to assume that biking and walking trips could continue to increase through the next few years, especially in the East and Northeast Neighborhoods as more planned residential and commercial-retail development is expected to occur.

<sup>1</sup> *Replica* is an activity-based travel demand model that simulates the complete activities and movements of residents, visitors, and commercial vehicles on a typical day.

## PUBLIC SATISFACTION OF FACILITIES

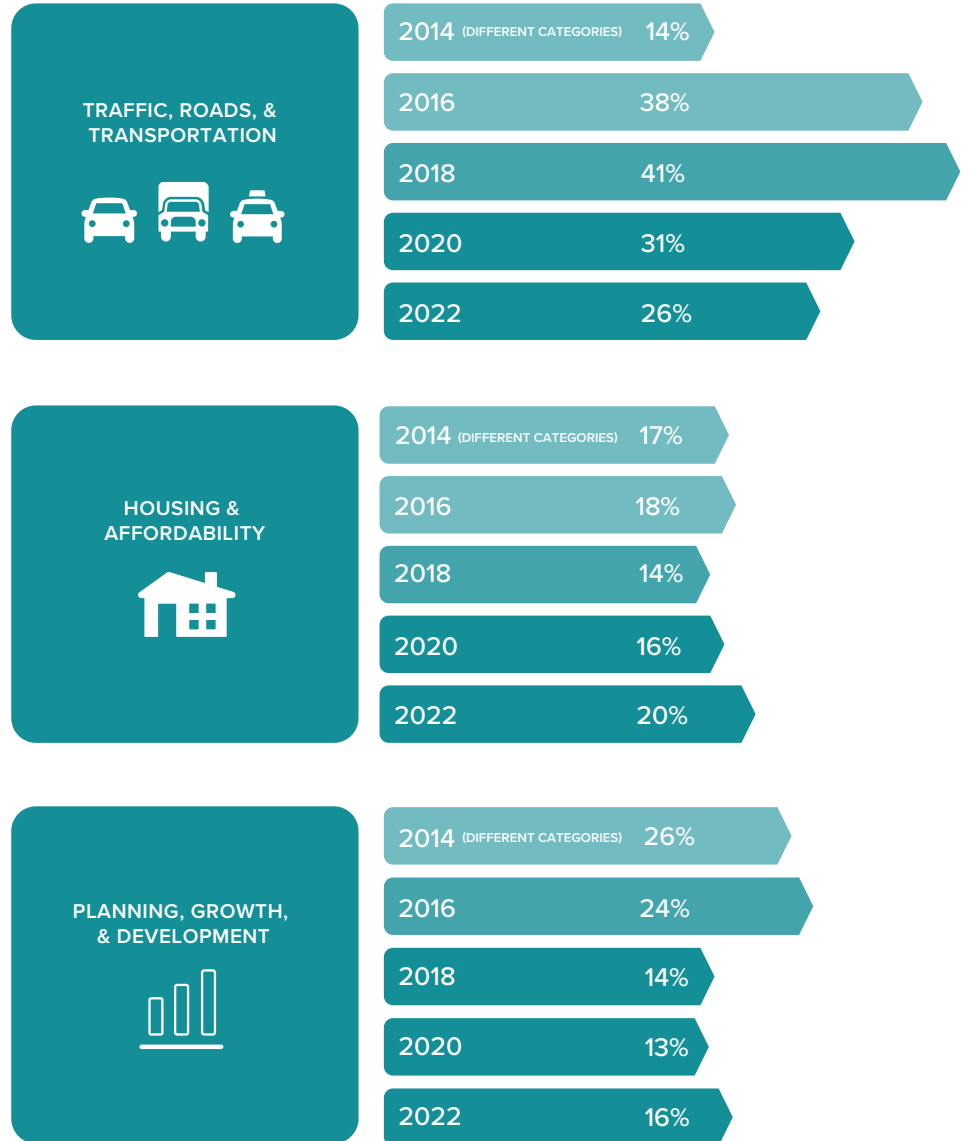
Maintain positive citizen satisfaction with the City’s transportation facilities and services.

Citizen surveys are a helpful way to gauge public perception regarding the effectiveness of Wilsonville’s transportation system. The purpose of the transportation system is to connect residents, employees, and visitors with their desired destinations, and to do so in a safe and convenient manner. By understanding a wide range of user perspectives, the City can identify areas where improvements can be made and are likely to be most appreciated by the public.

The National Citizens Survey (NCS) captures residents’ opinions within three pillars of a community (Community Characteristics, Governance, and Participation) across eight central facets of community (Safety, Mobility, Natural Environment, Built Environment, Economy, Recreation and Wellness, Education and Enrichment, and Community Engagement).

Based on the survey results, Wilsonville residents have continued to identify Traffic and Infrastructure as the biggest priority facing the City (26% of total responses in 2022) over Housing & Affordability and Planning, Growth, & Development.

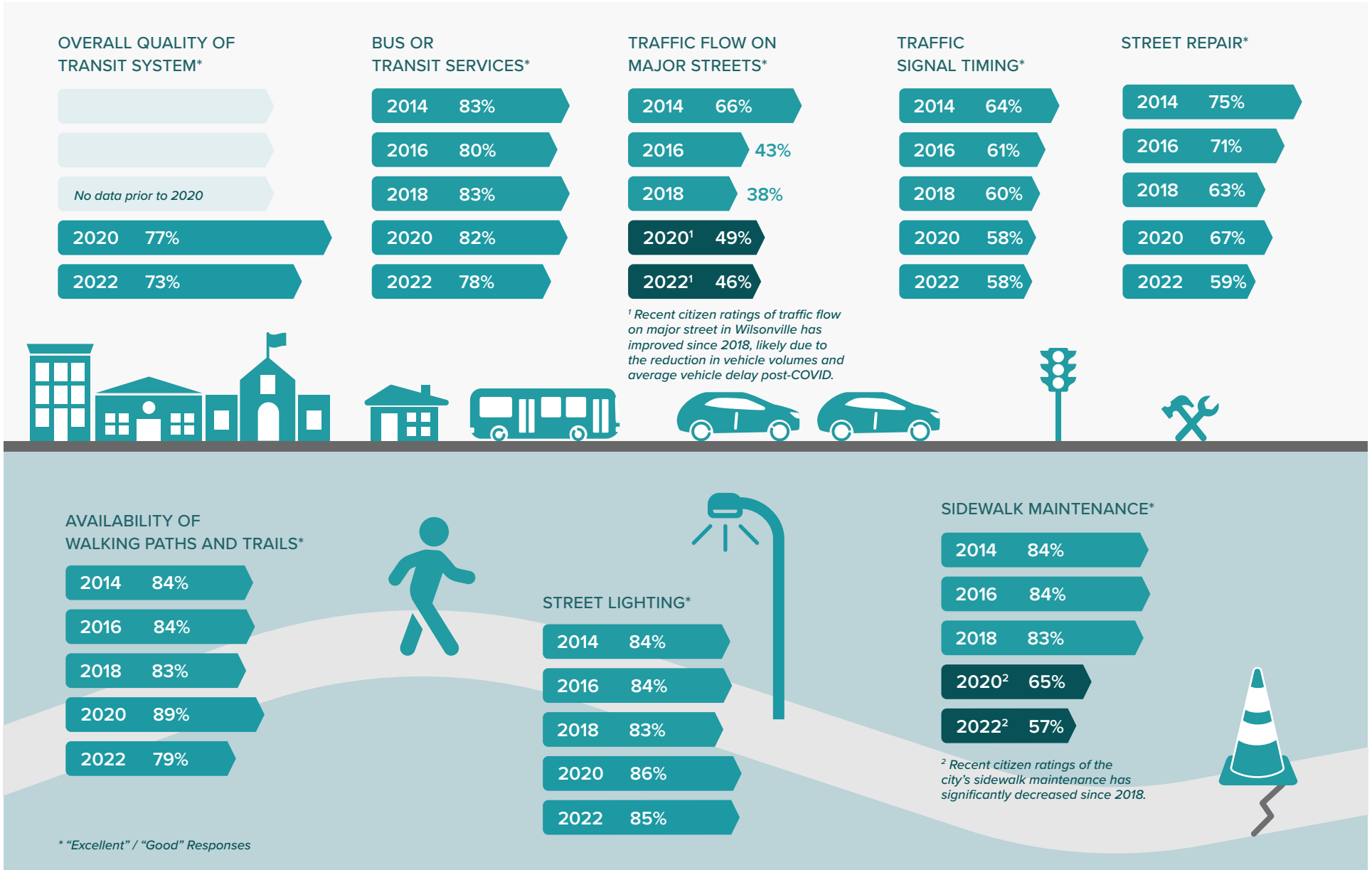
### BIGGEST PRIORITY FACING THE CITY, ACCORDING TO RESIDENTS



PERFORMANCE MEASURES

GOAL 7: PROMOTES LIVABILITY

PERCEPTION OF CONDITIONS (BASED ON NCS RESULTS)



# HEALTHY CONDITIONS AND LIFESTYLE OPTIONS

Provide transportation facilities that support improved health of residents.

Health conditions and healthy lifestyle choices are an essential contributor to livability and are enhanced by an individual’s built environment, including the transportation system. Families, employees, and others benefit from convenient and attractive paths and trails that support outdoor recreation, activity, and travel.

The City of Wilsonville can encourage and support resident’s healthy lifestyles by making active transportation options available. Over the years, the National Citizen Survey results indicate that there is not much change in how many residents have a positive perception (i.e., rating as excellent or good) of the fitness opportunities in Wilsonville, which include exercise classes, paths or trails, etc. The City should continue to encourage active transportation as a healthy option for citizens as they enhance the multimodal network described in Goal 2.



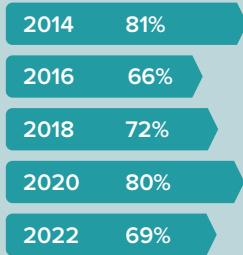
## HEALTH AND WELLNESS



### FITNESS OPPORTUNITIES

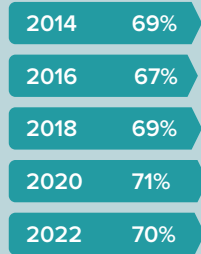
“Excellent” / “Good” Responses

(INCLUDING EXERCISE CLASSES AND PATHS OR TRAILS, ETC)



### GENERAL PERCEPTION OF PERSONAL HEALTH

“Excellent” / “Very Good” Responses





## RECOMMENDED ACTIONS

This performance report update continues to support Wilsonville's effort towards improved performance management of its transportation system. The Transportation System Performance Monitoring and Reporting Program tracks system-wide performance measures which align with the City's transportation

goals. Tracking the performance measures on a regular basis, through updated bi-yearly future reports, will allow the benefits of public investments and private development to be better understood and directed more effectively.

TSP GOAL	MEASURE	RECOMMENDED ACTION(S)
1 SAFE	Fatal and Serious Injury Collisions	<p>Identify funding for TSP projects that improve multimodal safety.</p> <p>Identify corridors and intersections where, based on safety data, the visibility of vehicles, pedestrians, and bicycles could be improved with lighting.</p> <p>Implement intersection design treatments to increase awareness and improve compliance at traffic control locations.</p> <p>Identify eligible locations within the City that would be competitive for ARTS safety funding (e.g., Wilsonville Road and Town Center Loop West).</p> <p>Prioritize and implement safety-oriented projects in the Town Center Master Plan.</p>
2 CONNECTED AND ACCESSIBLE	Multimodal Connectivity	<p>Continue to require streets, sidewalks, and bicycle and pedestrian connectivity through developments, connecting planning and city capital improvement projects.</p> <p>Identify funding for projects that provide sidewalk infill, improve key pedestrian crossings, make new bike lane connections, and install bike lane buffers.</p> <p>Consider adding bike lanes on Ridder Road, Parkway Avenue (Holly Lane to Memorial Drive), and Elligsen Road (Parkway Center to Canyon Creek) to fill gaps in bicycle connectivity. All would require roadway widening with varying levels of right-of-way and geographical constraints.</p>

Goals and Recommended Action(s) continue on following page.

## RECOMMENDED ACTIONS

TSP GOAL	MEASURE	RECOMMENDED ACTION(S)
<b>3</b> FUNCTIONAL AND RELIABLE	Intersection PM Peak Hour Delay	Continue upgrading traffic signal controllers to allow for the collection of automated transportation performance data. Review intersection performance measures and work with Clackamas County to evaluate corridors (Wilsonville Road, Boones Ferry Road, and Elligsen Road) that would benefit from optimized signal timing and/or coordination.
	Vehicle Miles Traveled	Implement or improve bicycle and pedestrian programs, carpooling and rideshare programs, complete streets, and transit-oriented development to reduce VMT. Continue building pedestrian, bicycle, and transit facilities for all ages and abilities to encourage mode shift and reduce VMT.
	Travel Time Reliability on Key Arterial Routes	Identify acceptable travel times and buffer indexes for key arterial corridors in Wilsonville. Coordinate with regional partners to share performance data and continue evaluation efforts on local and regional roadways.
	Travel Time Reliability on Freight Routes	Maintain acceptable travel time reliability for key freight route corridors in Wilsonville. Consider implementing recommendations from the Clackamas County ITS Plan to other facilities within the City such as travel time monitoring systems, transit signal priority (TSP), and adaptive signal timing.
<b>4</b> COST EFFECTIVE	Pavement Condition	Continue to regularly inventory the PCI of City Streets via in-house staff. Create an action plan for the public's high priority roadways that target areas of public concern and best prioritize the City's Pavement Management budget. <sup>1</sup> Partner with private developments to cost effectively fund full street pavement repairs as part of development construction. <sup>1</sup>
<b>5</b> COMPATIBLE	Cross-section Compliance	Continue to implement the City's TSP Urban Upgrades (UU) projects that bring streets up to City cross section standards. <sup>1</sup>

Goals and Recommended Action(s) continue on following page.

<sup>1</sup>Recommended Action(s) taken from previous Performance Report

## RECOMMENDED ACTIONS

TSP GOAL	MEASURE	RECOMMENDED ACTION(S)
6 ROBUST	Transportation Mode Share	<p>Continue to support SMART in the investment of capital projects identified in the recently approved Transit Master Plan that focus on increasing transit frequency and expanding transit service to areas like Frog Pond and Town Center to encourage transit use.</p> <p>Coordinate with Clackamas County to attain bike and pedestrian data at traffic signals to monitor annual walking and biking usage in Wilsonville.</p> <p>Explore bicycle detection with upgraded signals to enhance safety and bikeability throughout the City while collecting modal data that can be used in the performance monitoring process.</p> <p>Continue building pedestrian, bicycle, and transit facilities for all ages and abilities to encourage mode shift.</p>
	Public Satisfaction of Facilities	<p>Continue to use citizen surveys, such as the National Citizen Survey (NCS), on a bi-yearly basis to track and monitor citizen's opinions on the City's transportation system.</p> <p>Use responses to guide funding decisions and promote programs and projects that matter to citizens. Specifically, traffic flow, street repair, sidewalk maintenance, and transit service.</p>
7 PROMOTES LIVEABILITY	Health Conditions & Lifestyle Options	<p>Identify new data sources or metrics to analyze the relationship between Wilsonville's transportation system and the health of its residents.</p> <p>Implement complete streets policies that require or encourage a safe, comfortable, integrated transportation network for all users, regardless of age, ability, income, ethnicity, or mode of transportation.</p> <p>Implement social media and news campaigns to promote active transportation and improve citizen awareness of existing walking and biking infrastructure as well as campaigns of future walking and biking projects built by the City.</p>