Ashland Waste Characterization

June 2025

Overview

Recology will facilitate a general waste characterization of the City of Ashland's municipal solid waste (MSW) stream. The survey will result in more insightful and actionable data that should help inform future waste-related policies and targets as they apply to Ashland's Climate and Energy Action Plan (CEAP).

Date(s)

June 16-20, 2025

Location

Valley View Transfer Station (3000 N. Valley View Rd)

Contact

Eric Ahnmark, 415-290-5426, eahnmark@recology.com

Sampling Type

To achieve the greatest number of samplings, a blended commercial and residential assessment will be performed. The result will be assessments of ~4 commercial and ~4 residential samplings.

Assessment Process

Each day during the week of 6/16, characterizations will be conducted on a minimum of one, but potentially two MSW samples. An ~150-200lb sample will be extracted in a randomized manner from the identified route(s). Material will be spread out and hand-sorted into numerous identified categories. Materials will be classified, weighed, and

photographed with data recorded on a datasheet. A summary report with sampling results will be produced by Recology and provided to CEPAC.

Scope

This will be considered a “light” waste characterization, with the primary goal being the identification of recoverable materials (e.g. recyclable and compostable materials) found in the MSW stream. As time and conditions allow, additional details of the MSW stream may be assessed, including categorization of various MSW material types.

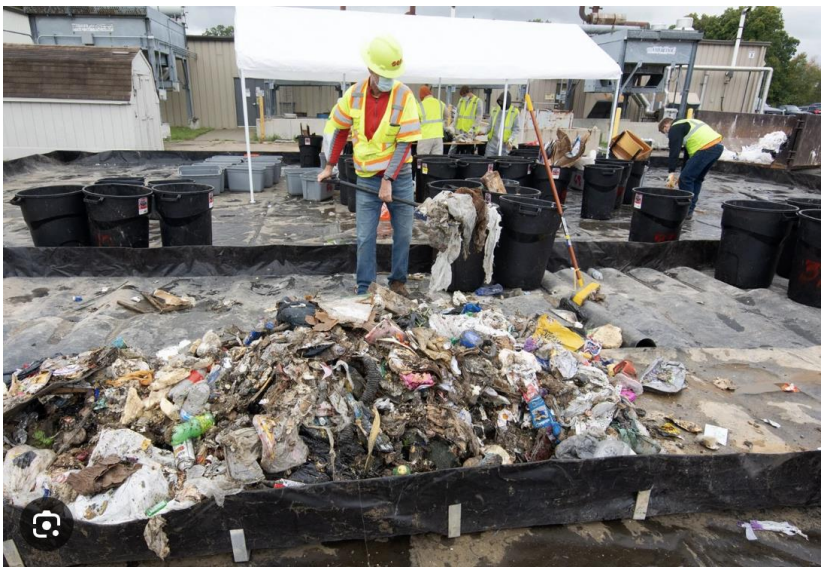
Expectations

Each sampling will span ~2 hours depending on the number of personnel involved. Conditions will be typical of MSW samplings. Odors, particulates, and other trash-related realities will be present. Samplings will take place under a large 1,000 sq.ft shaded cover.

Participants should be able to endure odors, sitting/standing for periods, crouching, lifting, and other environmental conditions typical of waste handling. All participants will be required to sign a standard Recology liability release.

Masks, gloves, coveralls, booties, and eye protection will be provided. Participants should wear sturdy closed-toed shoes and clothing that can get dirty.

Photos of a standard waste characterization



Routes

[COM] FEL (500): MTThF, 2 loads daily

[COM] REL (220/210): M-F, 1 load daily

[RES] ASL (200): M-F, 1 load daily

[RES] ASL (230): M-F, 1 load daily

[RES] MSL (250): M-F, 2 loads daily 4x weekly, 1 load 1x weekly

Assessment Structure

Mon: 500/250/220 (AM), 200/230 (PM)

Tues: 200/250/500/220 (AM), 200/230 (PM)

Wed: OFF – 220 (midday) as alternate

Thur: 500/220 (AM), 200/230/250 (PM)

Fri: 220 (AM), 200/230 (PM)

Schedule

It is difficult to ascertain when exactly the samplings will occur since timing is based upon arrival of the collection vehicle. In general, the “AM” samplings will begin in the ~9-11 AM timeframe, and the “PM” samplings will begin in the ~2-3:30pm timeframe. Each assessment will take approximately 2 hours depending on the size of the team and the degree of detail with each assessment. It is requested that any participants remain for the duration of each session.

Map

Valley View Transfer station (3000 N Valley View Rd)

Enter at first entrance, bear right toward large white canopy. Parking is limited.

Ashland Climate Energy Action Plan

Urban, Land Use + Transportation (ULUT) Implementation Plan

Accelerating Ashland's Net-Zero Future Through Sustainable Land Use and Transportation

Abstract

Improving land use patterns and the transportation system are fundamental to sustainability. The Ashland City Council is empowered to make these changes and this document details what is needed.

Prepared for the Ashland Climate and Environment Policy Advisory Committee

By Gary Shaff, CEPAC member

June 7, 2025

TABLE OF CONTENTS

Introduction

Ashland residents' transportation choices account for 27 percent of Ashland's 300 metric tons per year of greenhouse gas emissions (GHG) emissions (17% in on-road travel and another 10 percent attributable to vehicle manufacturing). It will be impossible for the city to achieve the Climate and Energy Action Plan's (CEAP) net-zero 2050 target without dramatic changes in the transportation system and residents' use thereof.

There are four basic barriers to achieving significant GHG emission reductions from the transportation sector. These include:

- Ashland's largely homogeneous, auto-centric land use pattern (Section 1)
- Limited effectiveness of public transit services due to the preponderance of low-density residential development (Section 2)
- Residents' almost exclusive reliance on fossil fuel powered vehicles (Section 3)
- Auto-centered (mono-modal) transportation system design of streets and highways (Section 4)

Each of these are fixed, capital investments that will require time and considerable investment to change. Only the transportation system can be modified in the short-term and, in contrast to the others, is owned and controlled exclusively by State and local governments.

Redesigning the transportation system to make streets safe for people walking and bicycling (as safe as they currently are for motor vehicle drivers) can dramatically reduce dependence upon motor vehicles. Shifts in mode choice among Ashland residents--choosing to walk or bicycle rather than drive--can reduce transportation emissions by up to 40 percent.

Each of the challenges are addressed in greater detail in the first four sections of this report. This is followed by a fifth section that details possible transportation and land use changes to implement the CEAP. Section 6 includes a discussion of transportation funding and, more particularly, dedicated funding for bicycle and pedestrian improvements.

Section 1. Land Use

The existing land use pattern had its start when the first non-native American settlers arrived in 1852. With the invention of the automobile more than a century ago, land use patterns in Ashland (and throughout the west) have been aligned with auto use. That outcome can be slowly changed given enough time and adherence to the City's Comprehensive Land Use Plan.

The city's resent adoption of Climate Friendly Areas (CFA) in response to State land use planning regulation (OAR 660-012-0315) should serve to shift the historic land use pattern to one that is both more diverse, and land use and transportation efficient. That coupled with the 2019 Oregon legislature's passage of HB2001, requiring cities Ashland's size to allow duplexes in single family zoning districts will help to diversify and, hopefully, boost affordability of housing within Ashland (and throughout the State). However, the requirements for cities with a population greater than 25,000 (requiring duplexes, triplexes, fourplexes, cottage clusters and townhouse) would be even more effective.

Figure 1 Railroad Climate Friendly Area

Figure 2 Transit Triangle Climate Friendly Area

Source: [City Council 5/06 Business Meeting – CFA Staff Report]

Additionally the Council adopted liberalized zoning for the downtown that allows for development, much like that allowed in the designated CFA's and as shown in the figure below with some limitations.

Figure 3 CFA Uses and Dimensions

USES

- Allow attached single-family dwellings, maintain access standards
- Allow multifamily dwellings as mixed-use (except affordable housing, commercial-ready)
- Allow retail, restaurants, office
- Maintain drive-ups, auto-oriented uses w/existing limitations
- Maintain employment uses, address off-site impacts as needed
- Allow schools, parks, child care, government offices
- Limit storage uses

DIMENSIONS

- New minimum density:
  - 15 du/ac in R-2
  - 20 du/ac in E-1
  - 25 du/ac in C-1
- No maximum density
- Minimum 0.5 FAR
- No setbacks, apply solar setbacks to buildings within 100 ft of residential zone
- 10-ft step-backs for upper stories abutting residential
- Increase max height to 50 ft, 60 ft for affordable housing
- Max block length of 350 ft

Conclusion:
It's critical to create a transportation-efficient development pattern with high-density residential housing adjacent to or within convenient walking distance of commercial development. These areas must also be served by frequent fixed-route public transit services, high quality/safe bicycle facilities, and sidewalks.

It is important to note that Ashland's slow population growth rate, at less than one percent per year, will limit changes in the city's existing pattern (see Table 1). Consequently, it is unlikely that the changes described earlier, taken in the context of the City as whole, will have an appreciable impact on existing citywide GHG emissions between now and 2050.

Table 1

Population Allocation and Projected Growth Rates for Ashland, 2005 - 2040

				Change 2005 to 2026			Change 2005 to 2040		
	2005 Pop.	2026 Pop.	2040 Pop.	Difference	Percent change	AAGR	Difference	Percent change	AAGR
Ashland	20,880	22,319	23,056	1,439	7%	0.32%	2,176	10%	0.28%

Source: Jackson County Comprehensive Plan, Population Element, p. 18-14

However, such designs and land use patterns can ensure that Ashland GHG emissions are not made worse by future growth.

Section 2. Public Transit

Rogue Valley Transit District's (RVTD) 2040 Transit Plan provides many insights into the potential for public transit services to help reduce the transportation sector's GHG emissions in the future. Table 2 provides an overview of the current system and as it forecast to be in 2042, as well as the preferred system of services in 2027, 2037, and 2042.

Table 2 RVTD System Performance Characteristics

Criteria	Current System		Preferred System		
	2018	2042	2027 (Short-term projects)	2037 (Mid-term projects)	2042 (Long-term projects)
Ridership for System[1]	1,240,876[4]	1,519,603	1,922,567	4,586,512	6,268,443
MPO Population[1]	175,493	230,429	192,865	216,511	230,429
Rides per Capita[1]	7.1	6.6	10.0	21.2	27.2
Transit Mode Share[2]	0.5%	-	0.9%	-	1.5%
Operating Revenue	$14,263,734[5]	-	16,949,214[6]	25,765,192[7]	29,256,579[8]

1 Data from TBEST
2 Data from JEMnR. No model output available for the 2037 mid-term preferred system.
4 Reported ridership data for 2018
5 2019 – 2020 budget year
6 2026 – 2027 budget year
7 2034 – 2035 budget year
8 2039 – 2040 budget year

On a system-wide basis, RVTD's transit mode share is estimated at 0.5% and would logically change little from the current one-half of one-percent mode share in 2042 (although that is not shown in the above table). In contrast, the preferred system's transit mode share would triple between now and 2042 and account for 1.5% of all travel.

The Transit Plan reveals the potential for more significant impacts within the Highway 99 corridor. The Plan forecasts that ridership in 2040 on Highway 99, north of Jackson Road could capture 12.8% transit mode share at that location, compared to just five percent on the existing routes in 2018. Underlying the forecast is the assumption that the preferred "high-capacity transit" route will include 10-minute headways with ¼ mile stop frequencies every day of the week along the 31.5-mile route between Medford and Ashland while maintaining 126-minute round trip travel time (RVTD Transit Plan, p. 109). Actualizing the route would require capital (bus) purchases of about $9.4 million with annual operation/maintenance totaling $4.9 million. The Plan also notes that the "high-capacity transit" route, in order to achieve the round-trip travel time, would require "significant capital and infrastructure improvements" on Highway 99. The Plan doesn't identify these improvements or estimate their cost. It should be noted that current travel times between RVTD's Front Street Station and Bi-mart, in Ashland, on RVTD's route 10, which also uses Highway 99 and Interstate 5, is 58 minutes with the return trip running 51 minutes.

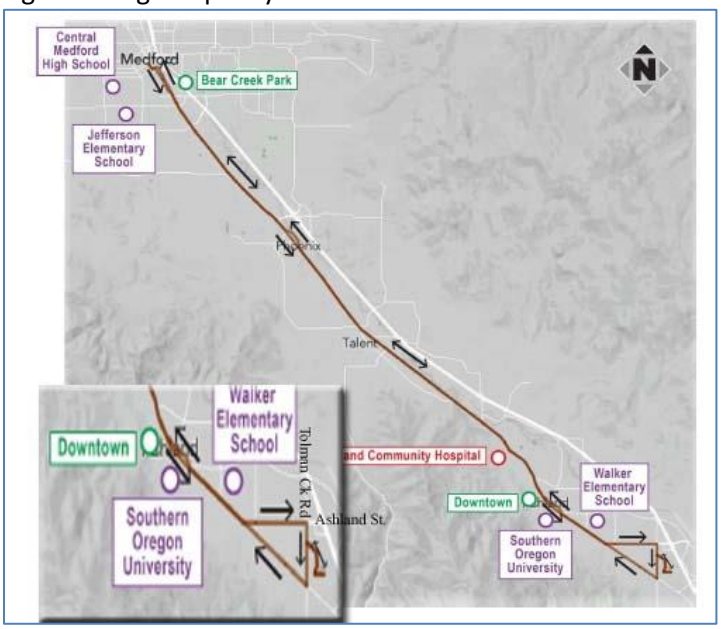
The 2040 Plan summarizes changes to routes serving Ashland:

- The long-term plan would discontinue the existing express and standard routes in (to) Ashland (Route 10X and Route 10) from Medford with a "high-capacity transit" route along Highway 99 (as described earlier).
- The Plan proposes to add a community circulator route connecting the YMCA area to downtown using E. Main and Hershey with 20- to 40-minute headways.

In 2019 RVTD initiated the Ashland Connector, an on-demand, micro-transit, ride-sharing service that operates within the city limits. Vehicle routing is dynamic and reflects each passenger's unique travel needs. Rides are booked through the Rogue Valley Connector app.

Figure 3 illustrates how the proposed RVTD High-Capacity Transit (HCT) route is aligned to serve Ashland's transit-oriented developments. The 2040 Plan identifies the HCT route in the preferred long-term plan but does not establish a start date.

Figure 3. High-Capacity Transit Route



Conclusion:
High frequency, high-capacity transit services compliment the city's planned transportation efficient land use plans. RVTD's HCT route would serve almost all the major destinations in the city. Serving the balance of the city could be achieved by a complimentary small fleet of autonomous, electric vehicles which would shuttle passengers between their homes and destinations within the City, as well as serving as feeder service for the "high-capacity transit" route (similar to the what the Ashland Connector does now).

Section 3. Fossil-Fueled Fleet

An estimated 70 percent of Ashland residents drive a car/truck and largely rely upon fossil-fueled cars for all their transportation needs. [Note: the other 30 percent can't or don't drive; people too young to secure a driver's license, people with a disability that prevents them from driving, people who can't afford the approximate $1,025 monthly cost to own, operate, insure, maintain and fuel a motor vehicle, and those who choose not to drive].

A motor vehicle has an average useful life of 200,000 miles or 20 years if driven 10,000 miles per year. It is likely internal combustion engines (ICE) powered automobiles will account for a significant portion (perhaps 30 to 40 percent) of the vehicles on the roads in 2050. Looked at from a more positive perspective, 60 to 70 percent of all light duty motor vehicles may be powered by electricity, compared to roughly one and one-half percent today. The proportion of EV's in Ashland may be higher.

The U.S. Energy Information Administration forecasts that "electric vehicles (EVs), including both battery-electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs), will account for between 13% and 29% of new light-duty vehicle sales in the United States in 2050 and between 11% and 26% of on-road light-duty vehicle stocks."

There are numerous challenges to electrifying the existing ICE fleet owned by the city's residents. Some of the major barriers include:

- Lack of confidence in EV's technology

- Range anxiety and the limited extent of the EV charging network
- High cost of EV's
- Consumer anxiety about the training and knowledge of EV repair personnel
- Limitations of existing EV model choices

These among many others are outlined in Pacific Power and Light's Transportation Electrification Plan.

As of January 2025, Ashland residents owned 380 PHEV's and 667 BEV up from 700 total in at the end of 2020 - which represented approximately 3.4 percent of all vehicles registered in Ashland.

A "study by engineers at the University of Toronto concludes that 90% of light-duty cars on American roads would need to be electric by 2050 to keep the transportation sector in line with Paris Agreement climate mitigation targets. If California's 2035 prohibition on the sale of ICE vehicles were "adopted and implemented nationally, 350 million electric cars would ply the roads in 2050. Those would fuel up using the equivalent of 41% of the nation's total power demand in 2018, creating challenges for the grid, in addition to requiring 'excessive amounts' of critical minerals like lithium and cobalt." Source: https://www.scientificamerican.com/article/ninety-percent-of-u-s-cars-must-be-electric-by-2050-to-meet-climate-goals/

"We need to deploy electric vehicles. But we also need to be realistic that they're probably not sufficient on their own," said lead author Alexandre Milovanoff, an energy and sustainability researcher at the University of Toronto.

"Instead of focusing exclusively on switching from gas cars to battery-electrics or fuel-cell vehicles, he said, policymakers should simultaneously aim to reduce the public's dependence on personal cars." (Ibid).

Shifting Ashland residents' dependence from autos to human powered modes of travel is integral to reducing emissions from the transportation sector. It is clear from a review of the emissions by kilometer for various vehicles, as illustrated in Figure 4, by choosing to walk or bicycle, residents can dramatically reduce CO_2 emissions.

Figure 4.

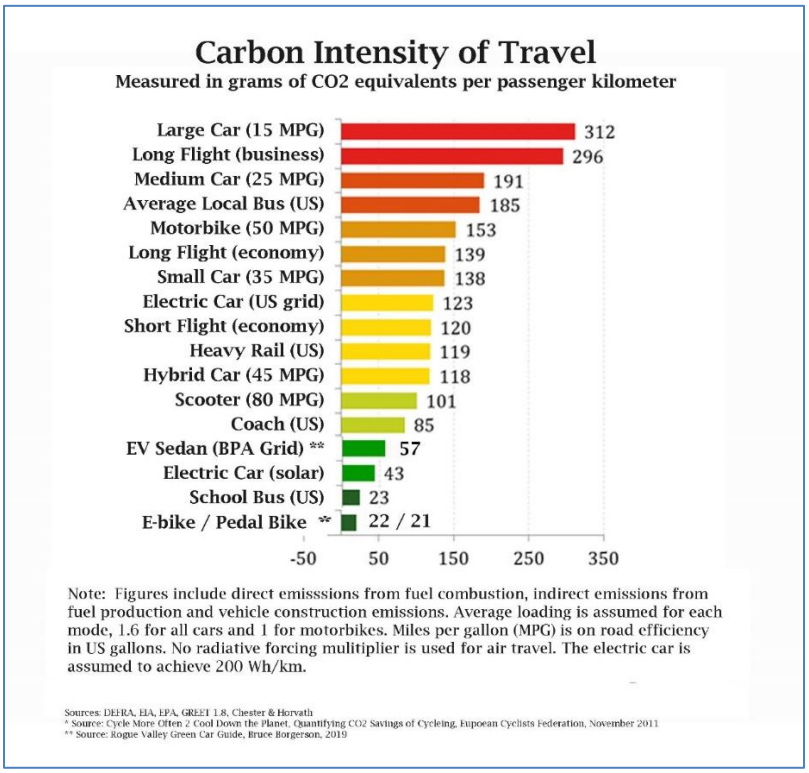


Figure 4 accounts for both direct and indirect emissions. The chart takes that to the extreme by including the hypothetical additional calories that are consumed by people riding bicycles.

Embedded CO_2e emissions, (associated emissions with manufacturing vehicles), accounts for between 23 and 46 percent of lifecycle emissions depending upon the vehicle power train. The embedded emissions in the manufacture of one electric vehicle is equivalent to driving an EV Sedan 92,000 miles. Table 3 illustrates the significance of the indirect CO_2 emissions associated with the production of motor vehicles.

Table 3
Indirect Transportation Emissions (vehicle production only)

	Est. Lifecycle emissions (tonnes CO2e)	Proportion of emissions in production	Estimated emissions in production (tonnes (CO2e)
Standard gasoline vehicle	24	23%	5.6
Hybrid vehicle	21	31%	6.5
Plug-in hybrid vehicle	19	35%	6.7
Battery Electric Vehicle	19	46%	8.8

Source: Lifetime Emissions from Cars - https://www.zemo.org.uk/assets/workingdocuments/MC-P-11-15a%20Lifecycle%20emissions%20report.pdf

Using data from Table 4 allows an estimate of embedded emissions from the manufacture of the existing fleet of vehicles in Ashland. Table 5 shows these estimated emissions. It should be noted that the distribution of vehicles by type is not known at the city level. Table 4 relies upon estimates of the number of gasoline, hybrid, and plug-in hybrid vehicles in the City.

Table 4
Production Emissions from Ashland Fleet (estimated)

	Registered (2020)	Est. Lifecycle emissions (tonnes CO2e)	Estimated emissions in production (tonnes CO2e)
All vehicles	20,602		
Gasoline	Estimated 14,902	357,648	83,451
Hybrids	Estimated 3,000	63,000	19,500
Plug-in hybrid	Estimated 2,000	38,000	13,400
Battery Electric	700	13,300	6,160
TOTAL		471,948	122,511

Roughly 25 percent of lifecycle emissions from Ashland motor vehicles are associated with their production. Reducing the number of vehicles per household or facilitating the choice to own no vehicles could significantly reduce residents' carbon footprint. Regrettably, the number of households with no car, or just one car, fell at a compound annual rate of almost 15 percent per year between 2013 and 2018, illustrating the increasing dependence of Ashland households on the automobile. Table 5 shows the change in auto ownership between 2013 and 2018. More recent data is not available.

Table 5
Household Auto Ownership

Number of Vehicles Owned	Percentage of Households 2013	Percentage of Households 2018	Annual Compound Rate of Change
0	3.15	2.06	-8.1
1	36.4	26.3	-6.3
2	33.9	44.4	5.5
3	18.9	16.3	-2.9
4	4.79	7.19	8.5
5 plus	2.87	3.76	5.6

Source: https://datausa.io/profile/geo/ashland-or#housing (car ownership)

It was estimated, in 2020, that Ashland's single person households spent approximately $10,305 a year, or 20 percent of the median household income on transportation. This expenditure, as a percent of household income, is second only to the cost of housing. Source: Economic Policy Institute, https://247wallst.com/city/cost-of-living-in-ashland-oregon/

Compounding this trend of higher auto ownership, is the increasing share of large trucks and SUV's in the local fleet. Again, while there isn't local data, it is probable that trucks are increasingly

purchased as a family "sedan" as opposed to their historic function as a farm or work vehicle. "In May 2020, Americans bought more pickup trucks than cars for the first time. Five of the 10 top-selling vehicles in the U.S. last year were pickup trucks." (What Happened to Pickup Trucks, A. Smith, May 2021)

From a safety standpoint, the size of these vehicles is disconcerting. Take for example the Ford 150, "among the increasingly popular heavy-duty models, the height of the truck's front end may reach a grown man's shoulders or neck. When you involve children…it starts to become really disturbing." (Ibid) As the bumper height increases, potential injuries suffered by a pedestrian are more likely to be fatal. As the point of contact moves higher on the body instead of being thrown up and over the vehicle, a pedestrian is struck and then runover.

Additionally, SUV's and pickup trucks "have a voracious appetite for space, one that's increasingly irreconcilable with the way cities (and garages, and parking lots) are built." (Ibid)

Conclusion:
Owning an automobile is almost a pre-requisite to living in Ashland. It shouldn't be but helps to explain why many people find it difficult to afford to live here. Reducing residents' dependence on automobiles is key to achieving the CEAP net-zero 2050 goal. The city must, in the near future provide safe, reliable, affordable and environmentally benign alternatives.

Section 4. Street Design
(Make walking and bicycling viable modes of transportation)

> "We can and must do more to reduce the number of people [nationally] who die while walking every day on our roadways. For too long we have disregarded this problem by prioritizing moving cars at high speeds over safety for everyone. It's past time for that to change. Protecting the safety of all people who use the street—especially the people most vulnerable to being struck and killed—needs to be a higher priority for policymakers, and this priority must be reflected in the decisions we make about how to fund, design, operate, maintain, and measure the success of our roads."
> https://smartgrowthamerica.org/dangerous-by-design/

Increasing bicycle and walking mode share will have a substantial reduction in vehicle miles of travel (VMT). This has the effect of reducing GHG emissions from the transportation sector. Given that information, it is unfortunate that the City's transportation system has been designed, to a large degree, to serve only motor vehicles.

Many streets in Ashland do not include sidewalks. That is especially true on streets above the Boulevard and N. Main. Pedestrians must share the roadway with motor vehicles that are traveling at speeds which can result in death or serious injury if a pedestrian were struck by an inattentive, careless, or impaired auto driver. Streets with higher volumes and speeds usually have sidewalks but that is not universally the case (see https://ashlandgis.maps.arcgis.com/apps/instant/minimalist/index.html?appid=e783f5980abb4e74a9d771c868a29b4a)

The adage 'speed kills' is particularly pertinent when discussing pedestrian and bicycle deaths. The likelihood of death roughly doubles for every five miles per hour over 20 MPH. Table 6 details the seriousness of pedestrian injuries by travel speed. These same statistics are probably relevant to other vulnerable road users (i.e., people riding bicycles).

Table 6

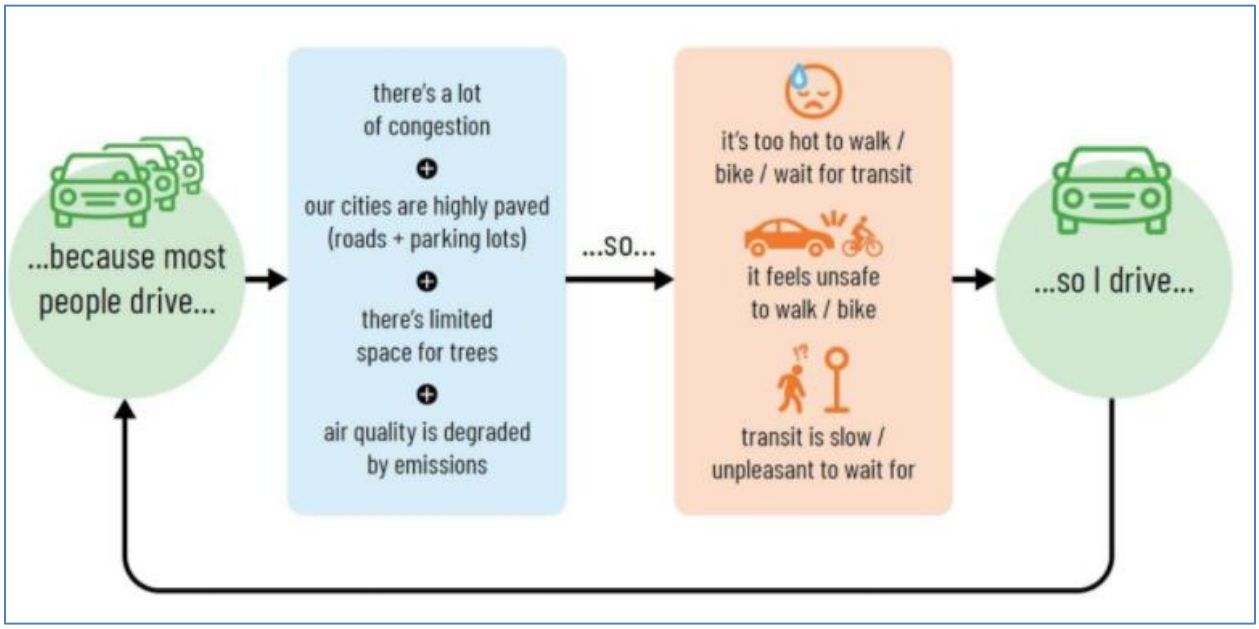
Vehicle travel speed and pedestrian injury severity.
(Florida, 1993-1996; pedestrians in single-vehicle crashes)

Injury Severity	Travel Speed (Officer Estimates)						Total
	1-20 mph	21-25 mph	26-30 mph	31-35 mph	36-45 mph	46+ mph	
Fatal (K) injury	1.1%	3.7%	6.1%	12.5%	22.4%	36.1%	6.5%
Incapacitating (A)	19.4%	32.0%	35.9%	39.3%	40.2%	33.7%	27.0%
Nonincapacitating (B)	43.8%	41.2%	36.8%	31.6%	24.7%	20.5%	38.8%
Possible inj (C) or none	35.6%	23.0%	21.2%	16.6%	12.7%	9.7%	27.7%
Total frequency	13,368	1,925	2,873	2,188	2,493	906	23,753

There isn't a street in Ashland that is suitable for people of all ages and abilities to ride a bicycle (with the possible exception of Ashland Street where it is under the city's jurisdiction). Traffic speeds on minor streets are too fast (see above regarding the risks associated with vehicle speed). Most critically, the bicycle facility design on major streets (i.e., bike lanes) do not provide adequate protection for people riding bicycles due to both the high speed of the adjacent traffic and high traffic volumes. (see Contextual Guidance for the Selection of Bicycle Facilities, National Association of City Transportation Officials, 2017 and Appendix A).

Mode choice is not a choice when the choice is between a safe mode of travel (driving a car) and an unsafe one (riding a bicycle). (see Figure 5)

Figure 5 – Why people drive



Source: Alta Planning https://altago.com/urbancooling/

As the graphic above demonstrates, the majority of people living in Ashland choose to drive. That is, in part, a function of unsafe street design. One factor is the City's hilly terrain. The hills do discourage some but without safe streets, Ashland could be as flat as a pancake and people still wouldn't bicycle in significant numbers.

According to the City's 2020 collisions statistics, 18 percent of all reported accidents involved a person walking or riding a bicycle. Bicycling and walking, given the real and predicable risk of injury or death, isn't considered for many residents despite its environmental, health, and economic benefits. Ashland needs to prevent deaths and serious injuries for children and adults riding bicycles or walking. The streets must be made safe for everyone, to everywhere, for all modes.

More resent Ashland collision data shows that 80 percent of all collisions are with a fixed object (sign, tree, another car, etc). That figure matches data from the National Traffic Safety Administration and the Virginia Tech Transportation Institute that found that 80 percent of collisions and 65 percent of near collisions involve some form of distracted driving.

Collisions, whether property damage or bodily injury or death, are costly. The table below, from a report entitled Evidence Demonstrating the Efficiency, Safety and Economic Benefits of Reduced Maximum Speed Limits - In Ashland, Oregon, suggests that the collisions represent an annual cost of more than $350,000 per year (total column "D" divided by 5 years – measured in 2020 dollars).

Table 1.
Ashland Estimated Collision Savings with 20 MPH Speed Limits

	Baseline 1 (A) [27]	20 MPH Estimate (2) (B)	Reduction (C) (A - B)	$ Loss per Collision (D)	Estimated Annual Savings (C) X (D) / 5
Fatal Injury Collisions	2	1.1	0.9	$1,659,000	$298,620
Class A Injury Collisions	11	7.7	3.5	$96,000	$63,492
Class B Injury Collisions	95	74.1	20.9	$27,800	$105,640
Minor Injury Collisions	255	204.0	51.0	$22,800	$232,560
Property Damage	355	284.0	71.0	$4,500	$63,900
TOTAL	718	570.9			$764,212

Notes:
(1) Baseline values reflect 5-year totals 2015 through 2019
(2) Column (B) calculated as (Column (A) x (1 – 0.45)) for Fatal Injury Collisions; (Column (A) X (1 – 0.3) for level A injury Collisions; and (Column (A) X (1 – 0.2) for all other injury types

Given the design of the transportation network, it is not surprising that travel by bicycle and walking is low relative to motorized travel. Table 7 summarizes mode share, by age of traveler in the Rogue Valley. (Note: Ashland specific data is not available and the 2023/24 travel mode data is not yet available).

Table 7.
Mode Share by Age Group in the Rogue Valley – 2009 - 2011

Age	Travel Mode					
	Auto	Walk	Bike	Transit	School Bus	Total
0-17	76%	9%	3%	1%	12%	100%
18-34	90%	5%	3%	1%	0%	100%
35-54	88%	7%	3%	1%	0%	100%
55-64	94%	4%	1%	1%	0%	100%
65-74	92%	6%	0%	1%	0%	100%
All Ages	88%	7%	2%	1%	3%	100%

Source: Oregon Household Survey, August 2009 – 2011

An updated report in 2018 found the mode share had changed but had shifted to even more auto-centric travel.

Table 8.
Mode Share 2018

Percent of total travel by mode			
Auto	Transit	Walk	Bike
92.2%	0.5%	5.7%	1.6%

Source: Rogue Valley Metropolitan Organization, unpublished data 2018

Rogue Valley bicycle mode share significantly lags behind other cities in the State that have made a commitment to **safe** active transportation. Table 9, center column, includes current bicycle mode share by the cities listed. Note the "current date" varies by reporting city. Ultimately, the focus should not be on the current low rate of bicycle mode share but rather on establishing and achieving a much higher rate in the future. Table 8, right column, includes adopted or defined bicycle mode share for selected cities.

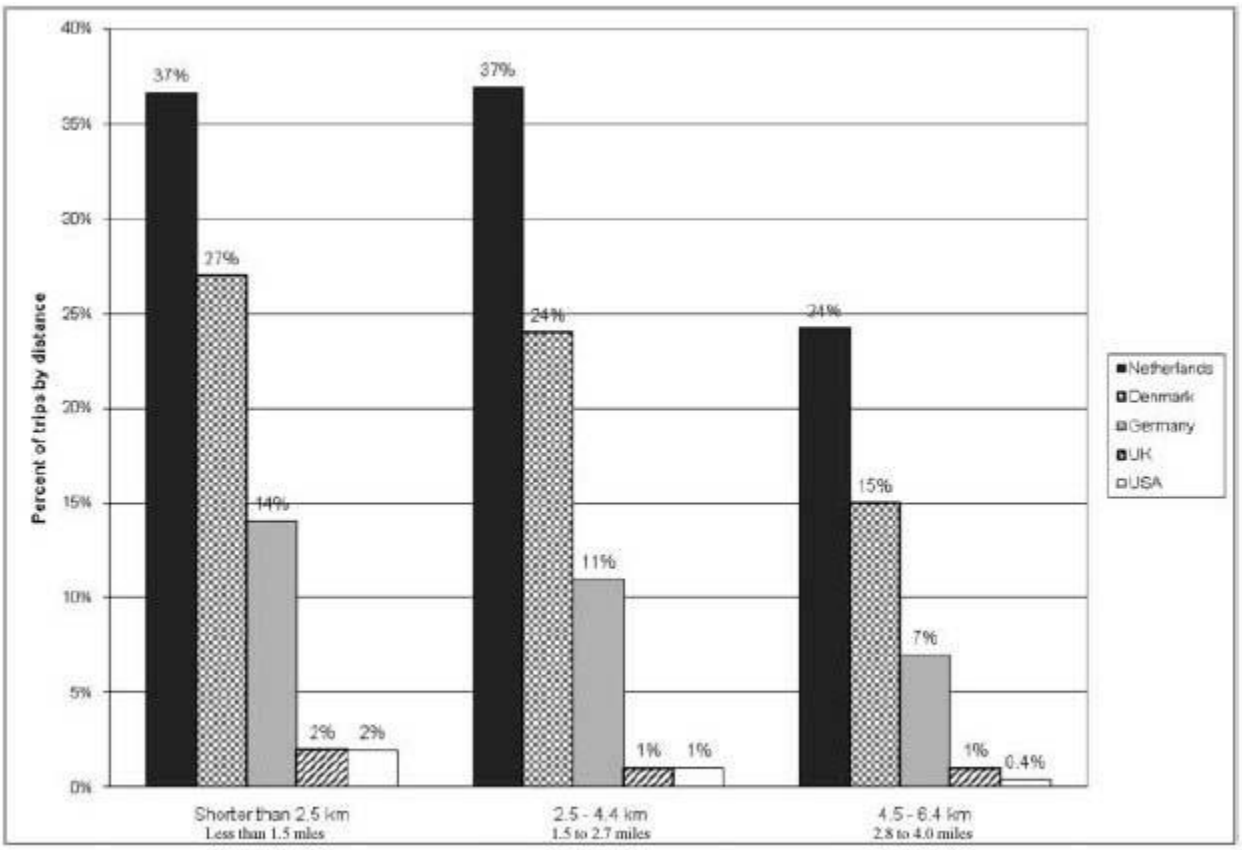
Table 8.
Bicycle Mode Share and Future Year Target

City or region	Current bike mode share	Adopted or defined bike mode share target
Portland, OR	6% (2009 ACS) 7% (2010 Auditor report work trips)	30% of work trips (Draft Portland Plan) 2035
Corvallis, OR	9.4% (2000 Census)	*None*
Davis, CA	14% (2000 census)	25% of all trips by 2012 (adopted in 2009 bike plan)
Boulder, CO	12.3% (2009 ACS) 7% (2000 census) 15.9% (2009 travel diary survey - includes all trips, not just commute)	Increasing bicycle mode share (all trips) at least 4% between 1994 (11.3%) and 2020 (1996 bicycle system plan). (Goal has been met according to travel diary survey results.) Other related targets are: 75% non-SOV mode share by 2020 (2008 Transportation plan) zero growth in VMT from 1994 levels.
Eugene, OR	10.8% (2009 ACS)	Approximately 22% (Draft bike/ped plan has defined a target of doubling bike mode share by 2020)

Source: RVMPO Strategic Assessment Final Report, February 2016

The future bicycle mode share goals set by these cities are comparable to those in some European cities where a safe, efficient, and equitable network of bicycle facilities exist. Figure 6 illustrates this fact.

Figure 6. Bicycling Share Trips in Netherlands, Denmark, Germany, the UK and the USA (2000 - 2005) by Trip Distance



Sources: German Federal Ministry of Transport (2003); U.S. Department of Transportation (2003); Department for Transport (2005); Netherlands Ministry of Transport (2006); Danish Ministry of Transport (2007)

> "Some readers might assume that bicycling levels in Europe have been consistently high. In fact, cycling fell sharply during the 1950's and 1960's, when car ownership surged and cities started spreading out. From 1950 to 1975, the bike share of trips fell by roughly two-thirds in a sample of Dutch, Danish and German cities, from 50%-85% of trips in 1950 to only 14-35% of trips in 1975 (Dutch Bicycling Council, 2006). Similarly, a study by the City of Berlin (2003) found that the number of bike trips there fell by 78% from 1950 to 1975. During that 25-year period, cities throughout the Netherlands, Denmark and Germany focused on accommodating and facilitating increased car by vastly expanding roadway capacity and parking supply, while largely ignoring the needs of pedestrians and cyclists (Hass-Klau, 1990)
>
> "In the mid-1970's, transport and land-use policies in all three countries shifted dramatically to favor walking, cycling and public transport over the private car. The policy reform was a reaction to the increasingly harmful environmental, energy and safety impacts of rising car use (Hass-Klau, 1990; Pucher, 1997; European Conference of the Ministers of Transport, 2004: Dutch Bicycling Council, 2006).

Most cities improved their bicycling infrastructure while imposing restrictions on car use and making it more expensive. That policy reversal led to turnarounds in the previous decline of bike use. From 1975 to 1995, the bicycling share of trips in the same, previously cited sample of Dutch, Danish and

German cities rose by roughly one-fourth resulting in 1995 bike share of 20 to 43%." Making Cycling Irresistible J. Pucher, 2008

Anyone who is skeptical about the potential for dramatically increasing bicycle use in Ashland is encouraged to read Making Cycling Irresistible in its entirety. People are people regardless of which continent they live on and largely respond to their environment in a similar way. Consider the safety and extent of the bicycle network in the Netherlands, Denmark and Germany (if you've visited there) compared to that in Ashland or the Rogue Valley. There is no comparison.

A publication by University of Berkley entitled A Global High Shift Scenario states that "a country [and cities] committed to major shifts [in GHG emissions] can achieve ten percentage point or higher [bicycle] mode share increases in a ten-year period." (A Global High Shift Scenario, p. 21).

> "Political leaders have strong incentives to choose this path, as it leads to a dramatic reduction in societal investments and operating and energy costs, and it provides improved economic well-being, enhanced social equity and stability, and strong reductions in environmental damage over the current trajectory. (ibid, p. 34)
>
> "Over the long term, it may be possible for many cities to replicate the success of cycling in cities such as Groningen, Assen, and Amsterdam in the Netherlands, where cycling exceeds 40 percent of all trips, and in Copenhagen in Denmark, which grew from low levels of cycling after World War II to more than 45 percent of trips today. Such cities have succeeded by providing seamless infrastructure and a host of supportive policies to make cycling a safe, comfortable, and efficient option for a large number of trips. But in the short term, most efforts should be modeled after cities that have succeeded in rapidly growing cycling from very low levels, in some cases from near zero to more than 5 percent mode share in just a few years. Seville, Spain, is particularly relevant, as it grew cycling mode share from 0.5 percent to nearly 7 percent of trips in six years (2006–2012), with the number of cycling trips increasing from five thousand to seventy-two thousand per day. Seville achieved this by installing a backbone network of nearly 130 kilometers of protected cycle lanes (cycle tracks) throughout the city and implementing a bike share program with 2,500 bicycles and 258 stations in a dense bike share network across the city. Paris, Buenos Aires, and Montreal have also experienced similarly rapid increases in cycling through investments in low-stress networks of cycling infrastructure and large-scale bike sharing schemes. (IBID, p 34)
>
> "Substantial restraint on motor vehicle speed and volumes is the other widespread policy implementation that complements cycling infrastructure. (ibid, p 34)
>
> "Prioritizing cycling, walking, and public transport while restricting motor vehicle use, can achieve a 50 percent reduction in urban transport CO_2. To do so, cycling targets for things such as cycling mode share, cycling infrastructure investment, and the introduction of e-bikes as part of national [Ashland] mobility strategies could be set at the country [city] level to define goals and measure progress toward them. Countries [Ashland] can make commitments to these targets as well as toward other supportive investment in walking and public transportation necessary to achieve a future based on more sustainable transportation." (ibid p. 38)

Conclusion:
Making the city safe, convenient, and efficient for walking and bicycling will lead to an increase in their use; and, at the same time, help to achieve the CEAP net-zero 2050 goal. Building modern cycling infrastructure is a sound and cost-effective investment in the city's future, especially relative to the cost of building more streets and widening existing roadways to accommodate an ever-growing number of motor vehicles. Without this change, the transportation system will be a large and continuing source of CO_2 emissions and traffic congestion will become unbearable.

Section 5. Implementing the CEAP - Urban, Land Use and Transportation

Attaining net zero emissions from the transportation sector by 2050 will be challenging. That's true even if the State or Federal government were to prohibit the sale or registration of fossil fueled vehicles after 2035 [which the Senate just revoked California's authority to do so]. Beyond climate change, imagine living in Ashland 30 years from now with 90 percent of all travel within the City relying upon an automobile; as we do now (see Table 7). Traffic congestion would be unbearable even if all the cars were self-driving.

The CEAP included goals for "Urban, Land Use + Transportation Goals. They are:

- **Reduce community and City employee vehicle miles traveled and greenhouse gas emissions.**
- **Improve vehicle efficiency and expand low-carbon transport, including within the City's fleet.**
- **Support local and regional sustainable growth.**
- **Protect transportation infrastructure from climate impacts.**

Table 9 includes a listing related CEAP strategies.

Table 9.

URBAN FORM, LAND USE + TRANSPORTATION

Strategy ULT-1. Support better public transit and ridesharing.		
ULT-1-1. Coordinate with neighboring local governments to promote use of transit, carpooling, and car-sharing.	C	Mi
ULT-1-2. Work with RVTD to implement climate-friendly transit.	C	Mi
ULT-1-3. Establish policies to support development near transit hubs without displacing disadvantaged populations.	C	Mi
ULT-1-4. Evaluate feasibility of expanded local transit options.	C	Mi
Strategy ULT-2. Make Ashland more bike- and pedestrian-friendly.		
ULT-2-1. Implement bicycle- and pedestrian-friendly actions in the Transportation System Plan and Downtown Parking Management Plan.	C	Mi
ULT-2-2. Explore opportunities to convert to shared streets where appropriate to provide multimodal connectivity.	C	Mi
Strategy ULT-3. Support more-efficient vehicles.		
ULT-3-1. Implement a local fuel-related tax.	C	Mi
ULT-3-2. Revise land use codes to require EV charging infrastructure at multifamily and commercial developments.	C	Mi
ULT-3-3. Develop and provide information about electric and hybrid vehicles on the City website.	C	Mi
Strategy ULT-4. Support more climate-ready development and land use.		
ULT-4-1. Regulate new development in the Wildfire Lands Overlay part of the urban growth boundary.	C	Ad
ULT-4-2. Revise community development plans to favor walkable neighborhoods and infill density.	C	Mi
ULT-4-3. Modify the WUI code to include construction techniques appropriate for wildfire-prone areas.	C	Ad
Strategy ULT-5. Increase the efficiency of City fleet vehicles and employee commuting.		
ULT-5-1. Provide carpool and vanpool parking, charging stations, and parking for EVs for City employees.	M	Mi
ULT-5-2. Conduct a city fleet audit and use it to set policy and targets.	M	Mi
ULT-5-3. Purchase verified carbon offsets to offset City staff travel.	M	Mi

Regrettably, most of the CEAP's strategies lack the detail needed to bring about the degree of change that is needed to achieve the CEAP goals. In some cases they are vague and, in others, lack specifics – i.e. what are "bicycle and pedestrian friendly actions." In an effort to "fill in the blanks" the CEPAC, Urban, Land Use and Transportation Subgroup reviewed and ranked the following actions which serve as a detailed CEAP implementation guide.

Members' ranking, from zero to five, is summarized and includes the range and mode (the most common ranking) for each strategy. These strategies can be utilized by the CEPAC to help inform other planning processes and the city's land use and transportation investments, and policies. The update of the city's Transportation System Plan is a prime example of how CEPAC can utilize these strategies to achieve the goals established in the CEAP.

Table 10 lists land use strategies and Table 11 includes transportation related strategies.

Table 10. CEAP - Urban, Land Use and Transportation Implementation Plan: Land Use

CEAP - Urban, Land Use and Transportation Implementation Plan - Land Use	**Range**		**Mode**
-	Minimum	Maximum	
Include incentives in the City's Development Code for redevelopment/development on lands within ¼ mile of RVTD's high-capacity transit route with an emphasis on providing high-density workforce housing.	1	5	4
Double the minimum bicycle parking, as specified in the City's Development Code, for all uses except single family dwellings. Require all such parking to be covered, secure, and include 120 volt outlet(s) for charging.	4	5	5
Review and reduce the City's **free** parking supply for lands within ¼ mile of RVTD's high-capacity transit route.	0	5	5
Double the walking mode share in the areas bordering RVTD's high-capacity transit route.	2	5	5
Convert existing City public parking lots to high-density housing with provision for commercial use on the lower floor.	0	5	0
Establish a business license surcharge for businesses within ¼ mile of RVTD's high-capacity transit route to be dedicated to offering transit, bicycle and walking incentives to employees within the corridor.	0	5	1
Redesign the downtown Plaza to create a tree covered pedestrian plaza (see Appendix A) suitable for outdoor dining, Saturday Market, small and large community gatherings, etc.	4	5	5
Change Ashland's zoning code to prohibit single-family detached housing in the High Density Residential Plan Designation (R-3 zone). *	0	5	5
Increase the maximum allowed densities in the MultiFamily Residential (R-2), High Density Residential (R-3). *	3	5	5
Increase allowed height in the R-2 and R-3 multifamily residential zones.*	2	5	5

Table 10 (continued) **CEAP - Urban, Land Use and Transportation Implementation Plan - Land Use**	**Range**		**Mode**
-	Minimum	Maximum	
Increase allowances for residential uses on the ground floor of buildings within commercial and employment zones.*	0	5	5
Increase lot coverage allowances slightly in the R-2 and R-3 zones. *	3	5	5
Modify the development code, to allow duplexes, triplexes, fourplexes, cottage clusters and townhouses in the city's single family zoning district (per the requirement of HB2001 for cities larger than 25,000 population).	2	5	5
Increase residential development in the area between Lithia Way and A Street using high density residential development incentives.	3	5	5
Provide development flexibility within the city's Historic District (Figure 18.4.2.050 of the Ashland Municipal Code**)** between Lithia Way and A Street by allowing both residential and commercial uses and establishing a maximum building height of no less than 60 feet (subject to the city's Municipal Code 18.4.2.050, Historic District Development Standards).	4	5	5
Require unbundling of parking for new multi-family dwellings (see unbundled parking as defined by OAR 660-12-0005(62))	2	5	5
Require unbundling of parking for existing multi-family dwellings	0	5	5
Require unbundling of parking for existing and new commercial developments.	0	5	5
* Housing Production Strategy - as edited			

Table 11. CEAP - Urban, Land Use and Transportation Implementation Plan: Transportation

CEAP - Urban, Land Use and Transportation Implementation Plan - Transportation	Range		Mode
Make bicycling and walking practical, safe and convenient for people of all ages and abilities from anywhere to everywhere in the city.	Minimum	Maximum	
Convert existing traditional or buffered bike lanes on major streets to protected bike lanes including on Highway 99 between Ashland and Talent	3	5	5
Modify streets with sharrows to include protected bike lanes (excluding Orange Street, a low speed/traffic volume street and designated bicycle boulevard).	2	5	5
Eliminate free right-turn lanes	0	5	5
Modify signalized intersection design and timing to prioritize and ensure the safety of pedestrians	4	5	5
Create bike boxes at signal controlled intersections	2	5	3
Construct sidewalk access ramps where absent within the areas currently serviced with sidewalks	3	5	5
Construct sidewalks where missing within the existing pedestrian network	1	5	3
Implement traffic calming on streets within residential neighborhoods	4	5	5
Reduce speeds on all streets by five MPH, but no lower than 20 MPH, through a combination of street design modification, education, passage of enabling legislation through the Oregon legislature, and enforcement.	1	5	5
Utilize the National Association of City Transportation Officials (NACTO) Designing for All Ages and Abilities to establish bicycle facility design standards	4	5	5
Accelerate the installation of bicycle and pedestrian way-finding signage	3	5	3
Extend and widen the Central Biking and Walking Path to run between Talent Avenue and Crowson Road.	2	5	5
Construct multi-use paths within the city's urban growth boundary where identified in Ashland Trails Master Plan	3	5	5
Establish stop sign control for motor vehicles where the street system intersects with the Central Biking & Walking Path and at future multi-use paths.	4	5	5

Table 11 - continued CEAP - Urban, Land Use and Transportation Implementation Plan - Transportation	Range		Mode
Request the transfer of roadway jurisdiction to the city of Ashland if the Oregon Department of Transportation or Jackson County are unwilling to construct protected bicycle lanes, prior to 2030, conforming to NACTO's All Ages and Abilities, on major streets/highways under their jurisdiction (within Ashland).	4	5	4
Convert Pioneer Street to a "pedestrian-first" street with limited auto/truck traffic access and speeds less than 10 MPH. Bicycle traffic would continue to be two-way.	1	5	5
Convert Water Street to a "pedestrian-first" street.	1	5	5
Convert Glenview Drive and Granite Street, above Winburn Way to a "pedestrian-first" street.	1	4	3
Reduce the impact of the transportation system on the environment and increasing community resilience to climate change	Minimum	Maximum	
Increase bike/walk mode share to 15% of all travel within the city by 2030, 30% by 2040, and 45% by 2050.	3	5	5
Complete improvements to the bicycle and pedestrian system, as specified in Section 1, by 2030. This will require that the identified bicycle and pedestrian improvements occur coincident with pavement management/rehabilitation projects (i.e. maintenance) and as stand-alone projects	3	5	5
Reallocate the existing roadway network's paved and unpaved space to meet the needs of all road users while reducing the impact of the transportation system on the environment.	2	5	3
Provide incentives for residents to purchase a traditional pedal bicycle or an e-bike (class I or II) from local bike shops.	3	5	5
Advocate for the substitution of electric powered vehicles for gasoline/diesel powered ones by Ashland residents who can afford to do so.	1	5	3
Construct 7.5 foot-wide protected bike lanes on a) North Main Street north of Helman, and b) Siskiyou Boulevard south of Walker. In that way, these facilities can serve as a second travel lane for people driving automobiles during an evacuation.	2	5	5
Minimize traffic noise in downtown and limit the noise impact of Interstate 5 on the city.	0	5	0

Table 11 - continued			
	Range		Mode
Create more equitable parking management	Minimum	Maximum	
Convert existing public parking lots into workforce housing.	0	5	5
Designate truck loading / unloading parking spaces in downtown with a maximum length of 40 feet and be limited in duration and time of day.	2	5	5
Dramatically increase secure, covered bicycle parking in commercial areas.	4	5	4
Establish on-street parking fees in downtown and in city-owned lots and use the revenue to finance bike/ped improvements	3	5	5
Decouple the cost of rental housing from parking space rent in new and existing multi-unit residential developments.	2	5	5
Decouple the lease/rent of commercial/industrial properties from the rental/lease of parking spaces in new commercial/industrial developments.	2	5	2
Require secure, covered, e-bike charging for future residential and business developments at rates equal to those for electric car/truck charging.	3	5	3
Require secure and covered bike parking at rates equal to those provided for cars/trucks in new developments excluding those for single family dwellings.	4	5	4
Redesign the Plaza to serve people not cars.	3	5	5
Convert B Street to oneway (east bound) between 1st and 5th Street with diagonal back-in parking on the south side of the street.	3	5	3
	Range		Mode
Reduce excessive speeds and running of red lights	Minimum	Maximum	
Implement electronic speed enforcement on an ongoing basis on all streets where speeding occurs,	0	5	3
Implement red light traffic cameras coupled with “speed on green” enforcement at signalized intersections.	2	5	3
Establish a maximum 10-foot travel-lane width for both major and minor streets except where truck traffic accounts for more than 15 percent of total volume.	4	5	5

Table 11 - continued CEAP - Urban, Land Use and Transportation Implementation Plan - Transportation	Range		Mode
Eliminate auto/truck lane separation pavement markings (i.e striping) on all streets except N. Main, Siskiyou, and Ashland Street (between Siskiyou and Tolman Creek Road) except at intersections with left-turn lanes.	0	4	4
Create roundabouts/traffic circles at signalized intersections, at unsignalized intersections at key entry points into residential areas, and along key roads within residential neighborhoods.	3	5	3
	Range		**Mode**
<u>Support RVTD in their efforts to increase transit frequencies and to provide citywide demand-responsive services.</u>	Minimum	Maximum	
Support implementation of the "long-term preferred system alternative" as described in RVTD's 2040 Plan. The preferred alternative would, among many other things, replace the existing Route 10 (Medford to Ashland) with an Express Route serving roughly the same corridor at an estimated annual cost of $4,870,300 (in 2019 dollars), excluding capital costs. Ten minute headways are planned for the route.	3	5	3
Recreate the Ashland Connector (a demand-responsive service and fixed-route feeder) using an autonomous vehicle by 2035.	0	5	4
Electrify all transit, ride hailing, taxis, and shuttle vehicles operated within the city by 2035.	0	5	5
	Range		**Mode**
<u>Additional Items for Followup</u>	Minimum	Maximum	
Prohibit the placement of solid waste containers in bike lanes.	4	5	5

Section 6.

LOCAL FUNDING STRATEGIES FOR BICYCLE / PEDESTRIAN NETWORK IMPROVEMENTS

The existing stream of transportation funding is inadequate to address the current pavement management and operational needs of the transportation system, AND improve the system to make bicycling and walking practical, efficient and safe ways for people of all ages and abilities

Approximately 70 percent of residents are served well by the current approach; they use a car. But for an estimated 30 percent of the city's residents, driving is not an option:

- they are too young to drive,
- elders may have aged out of driving,
- disabilities prevent some from driving,
- others can't afford to own a car (now estimated to be $1,025 per month), and
- some, prefer not to drive.

Meeting the transportation needs of everyone in Ashland is complicated by a bias, for the past 100 or so years, toward auto-centric roadway investments and Euclidian zoning. Combined they serve to make auto travel convenient, often necessary, and make alternatives difficult and dangerous.

While some may say that Ashland is bicycle and pedestrian friendly (which it is compared to our city peers), the reality is that only people who are "strong and fearless" bicycle (accounting for roughly 10 percent of the population). They are willing to risk life-altering injury of death by riding in proximity to autos and trucks. In contrast, upwards of 60 percent of the population would use a bicycle for some of their in-town trips if Ashland improved the network and had a complete, all ages and all abilities bicycle network,

Oregon's land use planning laws require cities in Oregon to improve the extent, function, and design of bicycle facilities to reflect the needs of "all ages and abilities" (OAR 660-12-0610). That includes everyone, not just those brave enough to share the streets with cars. Similarly, the Rule requires cities to plan for a complete pedestrian network (OAR 660-12-0510).

But a great plan is worthless if not implemented. That's where the challenge lies. Virtually all the city's transportation funding is dedicated to maintaining and operating the existing streets: filling pot holes, sealing cracks, adding chip seals, replacing or reconstructing the asphalt, painting crosswalks, replacing signs, sweeping and plowing snow. There is too little money left over to create the bicycle and pedestrian networks that are needed to make these modes of travel practical, safe and efficient.

Local Transportation Revenue Sources and Expenditures

Ongoing maintenance and repair of the city's transportation system is expensive. Based upon Ashland's draft FY 2025 - 2027 Budget it costs approximately $13,500,000 per year.

Transportation	
Street Fund	$26,309,648
Transportation System Development Charge -	$730,261
TOTAL	$27,039,709

The budget includes a brief description of these revenue streams.

"The **Street Fund** is a special revenue fund that accounts for the resources and operating expenditures related to the maintenance, operation and construction of the City's streets and storm water collection infrastructure. While a substantial portion of revenues come from user fees, the primary source is state-shared highway funds."

"The **SDC Street Fund** receives funding from one-time System Development Charges (SDC) imposed on new development. These charges are restricted in use for transportation capital projects that expand infrastructure capacity for new residents or customers." Source: City of Ashland, Draft 2025 - 2027 Budget

"Infrastructure capacity" includes improvements to the motor vehicle, bicycle and pedestrian networks provided they are listed in the city's system development system methodology document.

The table below, from the FY24-FY26 Capital Improvement Program (CIP) serves to illustrate how these funds are allocated.

Table 12 – FY26/27 Capital Improvement Program

Project/Activity/Mode	FY26	FY27	Source	Status
Roadway				
Hardestry Site Development	$1,007,052	$1,007,052	Local	secured
Clay Street	$1,711,211	$1,205,000	Federal	secured
Street Overlay/Reconstruction				
N. Mountain Ave.	$1,500,000	$3,500,000	Local	secured
Oak St.	$1,000,000	$3,500,000	Local	secured
Sidewalk/Pedestrian				
Beaver Slide		$ 350,000	Local	secured
Bicycle				
B Street	$ 75,000	$	Local	secured
8th St.		$ 44,000	Local	secured
Hersey Street unsecured		$1,000,000	State	

Excluding Clay Street, which is largely funded through federal sources, the CIP includes $11,983,104 of locally funded projects, of which less than one percent ($119,000) is dedicated to bicycle and pedestrian improvements. However, the generalized accounting, in the table above, does not detail the cost associated with improving North Mountain Avenue to include bollard protected bike lanes. The same may also be said about Oak Street although the cross-section design and, whether to add protected bike lanes, has not be determined, as of the date of this report, but will be decided later in 2025 year.

The integration of needed bicycle and pedestrian improvements into the city's overlay/reconstruction projects is a recent change. Historically, pavement management (i.e. street overlay/reconstruction/chip seal) projects were focused exclusively on pavement life and no consideration was given to whether other improvements could be made simultaneously, at low marginal costs, to meet the needs of pedestrians and people riding bicycles. The 2024 improvement to Ashland Street was the first to reflect a multi-modal approach and added bollard- protected bike lanes, whereas previously it only included striped (i.e. painted) bike lanes (which were rarely used).

It bears noting that the cost to improve Hersey Street to include protected bike lanes is not included in the $11,983,104 total. This project is highly speculative because it relies upon grant funding. It also bears noting that bicycle improvements on Hersey were included in the FY24/25 CIP and, during that time, grants for its construction were not developed nor submitted.

Bicycle and Pedestrian Funding Needs

The updated Transportation System Plan will provide planning level cost estimates for all "needed" improvements. An order of magnitude cost estimate for bicycle infrastructure improvements is in the neighborhood of $20 million for on-street improvements (roughly 19 lane miles of protected bike lanes at $1 million per mile). At the current rate of approximately one mile of improvements per year, it will take approximately 20 years to have a complete on-street network. There isn't an estimated cost for the off-street multi-use trails as identified in Ashland Trails Master Plan nor are their current estimates for pedestrian improvements (i.e. sidewalks). In that light, the author has

utilized a baseline revenue need of $20 million in new revenue in the following sections of this report.

It is crucial to recognize that the improvement and financing of bicycle and pedestrian networks must be front loaded. That is, the completion of a safe and functional network must be done in the short-term whereas the financing the improvements can be extended over a much longer term (20 to 30 years). Given this fact, the city will need to either secure a revenue bond or utilize the Oregon Infrastructure Bank in order to provide near-term construction, while allowing subsequent repayment over the course of 20 or 30 years. In the following sections, it is assumed that the city will finance a $20 million loan with a 30-year term, which at current interest rates, would require revenues of roughly $130,000 month or about $1.5 million per year.

Revenue Options

Below is a list of possible local funding sources. The listing may not be complete and, clearly, hasn't been vetted for political feasibility.

1) Local option gas tax [1]
2) Paid parking [2]
3) Local bond measure [3]
4) Food and Beverage Tax [4]
5) Utility fees [5]
6) Sales tax / meals tax
7) Jurisdictional exchange (N. Main/Lithia & Siskiyou south of Walker to the south city limits)

Included in the table below are estimates of the potential revenue generation of the various funding methods. The table is followed by a description of the methodology used to develop the estimate.

Table 13. Summary of Rates/Fees sufficient to finance $20 million loan

Revenue Option	Rate	Measure	Multiplier	Estimated Revenue
Local Option Gas Tax	$0.14	gallons	10,685,372 *	$1,500,000
Paid Parking				
Business District	$1	hours	627,000	$627,000
Citywide	$100	Annual parking fee per vehicle space	8,000	$800,000
Total				$1,427,000
Utility Fee	$12	households	10,416	$1,499,904
Food and Beverage Tax	5%	Food & beverage	NA	$2 - $3 million
Bond Measure	$0.4615	$1,000 assessed value	$3,248,157,858	$1,500,000
Jurisdictional Exchange	NA	ODOT one-time payment	NA	
North Main/Lithia				$12,000,000 **
Siskiyou (Walker to S. City Limits				$ 8,000,000 **
Total				$20,000,000

* 2024 – ODOT Fuels Tax Group

** Order of magnitude estimates

Methodology

Parking Fees

Parking fees are assumed to apply to all on-street parking throughout the city and city owned parking lots. Below is a discussion of assumptions that were made to produce the numbers shown in Table 2.

1) It is assumed that downtown parking revenue will be proportional to that of Bend which has an approximate one square mile parking district compared to Ashland's one-third acre Downtown Historic District. On that basis, parking fees in downtown relying upon the same $1 per hour fee in Bend, would total approximately $627,000 per year.
2) Residential parking permits are even more difficult to estimate because residents often use a curbside space as a convenience even though they have off-street parking available (i.e. in a garage, driveway or parking lot). Ashland has somewhere around 100 miles of roads (excluding state highways and county roads). [source:

https://www.oregon.gov/odot/Data/Documents/OMR_2023.pdf] For example, a nearby residential street with only single family dwellings, near where I live, is about 475 feet long and typically has eight cars parked along its length. This would imply that cars are parked on city streets, on average, every 60 feet. If the same rate existed throughout town, it might mean that more 8,800 vehicles are parked on city streets. If the city required an on-street residential parking permit and charged $100 per year for the privilege, it would produce revenues around $875,000 annually.

3) The combined total parking fees would be approximately $1.5 million per year.

It bears noting that the city has discussed requiring unbundling of parking for multi-family and commercial parking lots (i.e. requiring the parking fees be distinct and separate from payments for rental space). This idea is based upon the concept of fairness and an attempt to mitigate the high cost of housing. It is not economically justified, nor fair, to charge a person that does not own a car for parking as a part of their housing rent. Unbundling would rationalize the cost of vehicle parking (i.e. storage). Yet, without city residential parking permit fees, it would be likely that many cars that had historically been parked in off-street lots would simply be parked on-street location and avoid the off-street parking fee.

It is notable that Portland's transportation revenues are split 60% gas tax (including both State and local gas tax revenues) and 40% parking fees. See also Bend's approach https://parkingtoday.com/segments/municipal/bends-blueprint/

Local Option Gas Tax

Thirty-three communities in Oregon have a local option gas tax..

ODOT Fuels Tax Group reported that Ashland fuel stations pumped a total of 10,685,372 gallons of fuel in 2024 (includes E10, unblended gasoline and all biodiesel and diesel fules). That compares to an October 1, 2007 City Council study session estimate that estimated Ashland gas stations pumped 1.2 million gallons each month (or 14,400,000 gallons per year). Based upon ODOT's reported gallons, a $0.14 cents per gallon gas tax would be needed to yield $1.5 million per year. That's higher than Portland's $0.10 per gallon tax which is the highest in the state. It is notable that Senate Bill 687, currently under consideration in the Oregon Senate, would allow cities and counties to raise gas taxes without asking voters for permission.

Utility Fee
Based upon recent Ashland budget discussions, a $5.00 per month bicycle/pedestrian utility fee would generate $625,000 annually. To generate revenues at $1.5 million per year would require the fee be set at $12 per month or $144 per year.

Food and Beverage Tax
The city of Ashland's Food and Beverage Tax generates between $2-3 million annually. This tax, a 5% fee on prepared food and beverages served in restaurants and delis (excluding alcohol), was originally approved in 1993 and will expire, unless extended, in 2030. To generate the required $1.5 million per year would require that approximately half to two-thirds of the revenue be allocated to bicycle and pedestrian improvements, which would severely constrain the city's ability to maintain existing street pavements, in so far as 75% of these funds are currently dedicated to this function. The other 25% of the revenues are allocated to the Parks and Recreation Department.

Local Option Taxes / Local Bonds - ORS 280.060 - Levy of local option taxes outside constitutional limitation

Ashland's 2023/24 assessed value totaled $3,248,157,858. A rate of $0.4615 per $1,000 would generate $1.5 million per year. Under ORS 280.969 the maximum tenure of the local option tax (i.e. bond) cannot exceed ten years and the bonds must match the same duration. To construct the needed improvements would require three successive 10-year ballot measures. These measures are not subject to the limits of sections 11 and 11b, Article XI of the Oregon Constitution (i.e. Ballot measure 5 and 50).

Bend (47 cents per $1,000 of assessed value) and Eugene (63 cents per $1000 of assessed value) utilize a local property tax measures (for both pavement management and ped/bike improvements).

Jurisdictional Exchange
ODOT payments to the city to accept responsibility for the maintenance and operation of North Main and Lithia, and Siskiyou Boulevard from Walker Avenue to the south city limits could total as much as $20 million. ODOT's payments are meant to off-set the cost of the pavement management over the course of the next 20 years. These funds could, none the less, be utilized to complete the needed improvements to the pedestrian and bicycle network, which coincidentally, are estimated to cost approximately $20 million.

Dedication of these funds for pedestrian and bicycle improvements would mean that other sources of revenue to maintain these streets would, in all likelihood, require an increase in the transportation utility fee.

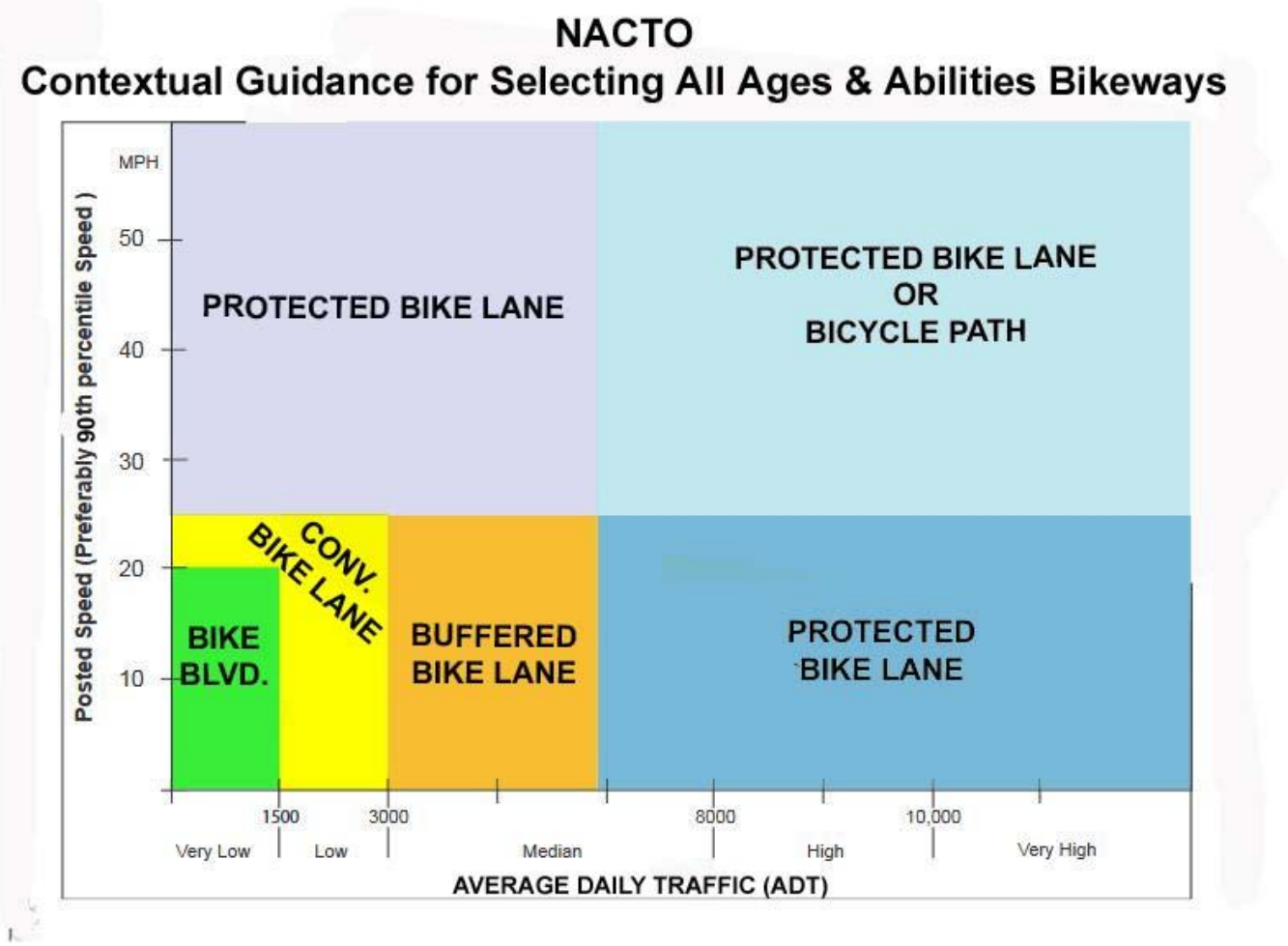
Section 7. Conclusion

These strategies, when combined, will substantially reduce CO_2 emissions arising from residents' transportation choices. Ashland residents' and out-of-town visitors' will be less reliant upon automobiles for travel within the City leading to an estimated 95 percent (76.9 metric tons) reduction in GHG emissions compared to existing levels.

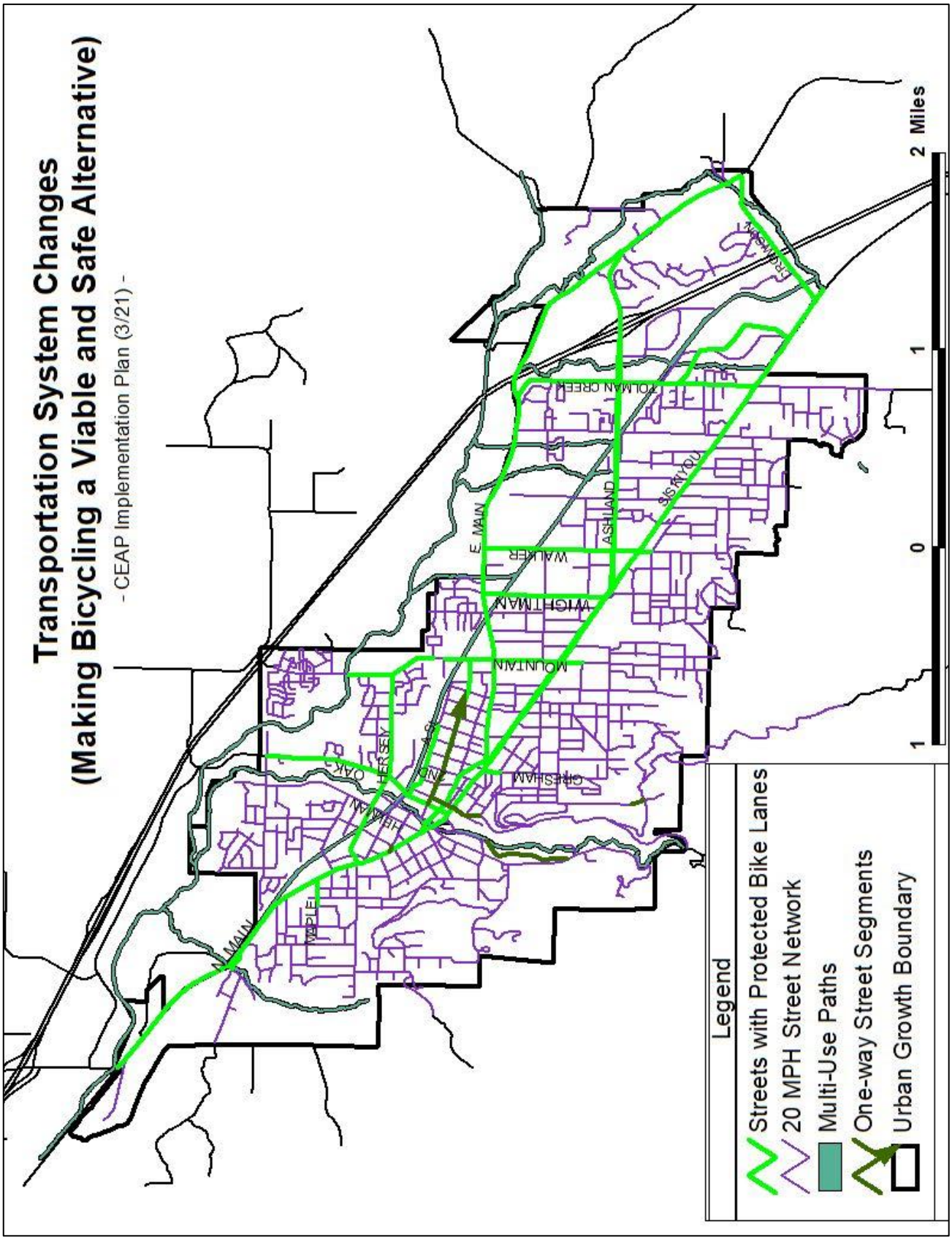
Reducing the auto-centric character of the City will have a profound effect upon the livability and enjoyment of living in or visiting Ashland. Residents will spend significantly less on transportation and thus be able to spend an increasing share of disposable income on other household expenditures.

The unique qualities of the city's modern transportation system will serve to attract out-door recreation enthusiasts including mountain bikers and people who ride bicycles on the road for pleasure. The region's system of hiking and mountain bikes trails and the beauty of nearby rural landscapes will serve as magnets to out-of-town visitors. Additionally, the predominance of non-auto travel will have the effect of making Ashland more interesting (and tranquil) as a destination, boosting its potential to attract west coast, national, and international visitors

These changes will have a profound impact on the City's overall livability. Coupled with our small-town character and Ashland Fiber Network's high speeds and reliability, the City will become the "spot" for remote workers. It is estimated that 29 to 39 percent of the workforce will work remotely in the future. Attracting these workers to Ashland can serve as a "new" economic base. This population is likely to be a highly educated and well-paid. (source: McKinsey, November 2020; https://www.mckinsey.com/featured-insights/future-of-work/whats-next-for-remote-work-an-analysis-of-2000-tasks-800-jobs-and-nine-countries#) These new residents will help to support local businesses, pay state and local taxes, and contribute to the cultural fabric of the community.


NACTO
Contextual Guidance for Selecting All Ages & Abilities Bikeways
Posted Speed (Preferably 90th percentile Speed)
MPH
50
40
30
20
10
PROTECTED BIKE LANE
PROTECTED BIKE LANE
OR
BICYCLE PATH
CONV.
BIKE LANE
BIKE
BLVD.
BUFFERED
BIKE LANE
PROTECTED
BIKE LANE
1500
3000
8000
10,000
Very Low
Low
Median
High
Very High
AVERAGE DAILY TRAFFIC (ADT)

Conceptual Pedestrian Oriented Plaza
Design


Transportation System Changes
(Making Bicycling a Viable and Safe Alternative)
- CEAP Implementation Plan (3/21) -
Legend
Streets with Protected Bike Lanes
20 MPH Street Network
Multi-Use Paths
One-way Street Segments
Urban Growth Boundary
2 Miles
1
0
1
E. MAIN
WALKER
WIGHTMAN
MOUNTAIN
ASHLAND
OAK
MAIN
MAPLE
CRESHAM
TOLMAN CREEK

Appendix D

General Characteristics of Enhanced Bus Services

Transit Technology	Residential & Employment Density Ranges*						Station Characteristics		
	Core		Centers		Corridors		Typical Spacing Range	Ideal Spacing	Sphere of Influence
	Res.	Emp.	Res.	Emp.	Res.	Emp.			
Enhanced Bus	20+	200	10-20	2-5	5-10	2–5	500 feet –½ mi	¼ mi	Adjacent parcel

Corridor Form**	Operational Characteristics						Example Cities
	ROW/ Guideway	Peak Service Headways (mins)	Route Length (mi)	Capacity (persons per car)	Operating Speed (mph)		
					Max.	Typical	
Various urban centers and industrial corridors	Mixed-traffic or dedicated ROW	10–15	5–10	44 (40 foot bus); 62 (articulated bus)	65	8–60	Albuquerque, Baltimore, Boulder (CO), Los Angeles, Montreal, Reno, Salt Lake City, San Diego

* Residential densities expressed in dwelling units per acre (du/ac); employment densities expressed in number of employees per acre (em/ac), presented as minimum suggested densities. Actual densities around transit stations vary based on CBD size, distance from CBD to other centers, and metro area size. Densities based on FDOT TOD Guidelines (www.floridatod.com), from Dittmar and Ohland (New Transit Towns, 2004) and Zupan (Where Transit Works in 2006, December 2005) and from the Charlotte multi-corridor planning effort.

**Cores pertain to high-intensity urban cores, i.e., CBDs. Centers are urban neighborhoods, historic urban centers, and suburban centers, and corridors are links between Core and Centers that include industrial corridors and new suburban corridors.

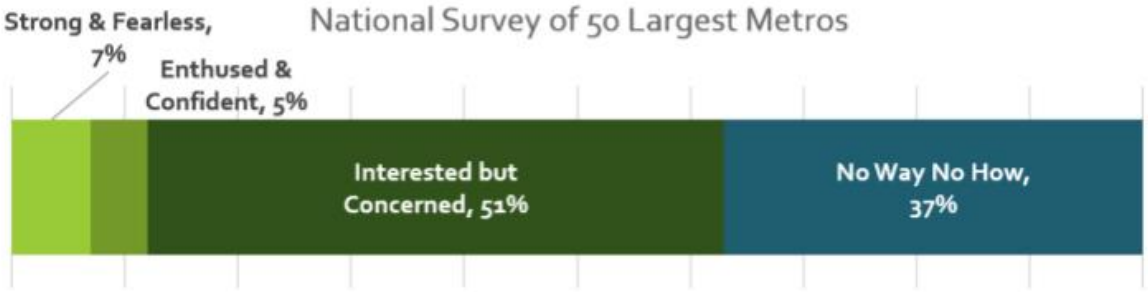
Source: https://www.transit.dot.gov/sites/fta.dot.gov/files/FTA_Report_No._0056.pdf

Commonly Asked Questions

1. **How can we be sure that Ashland residents will actually bicycle if the roads are made safe for cycling?**

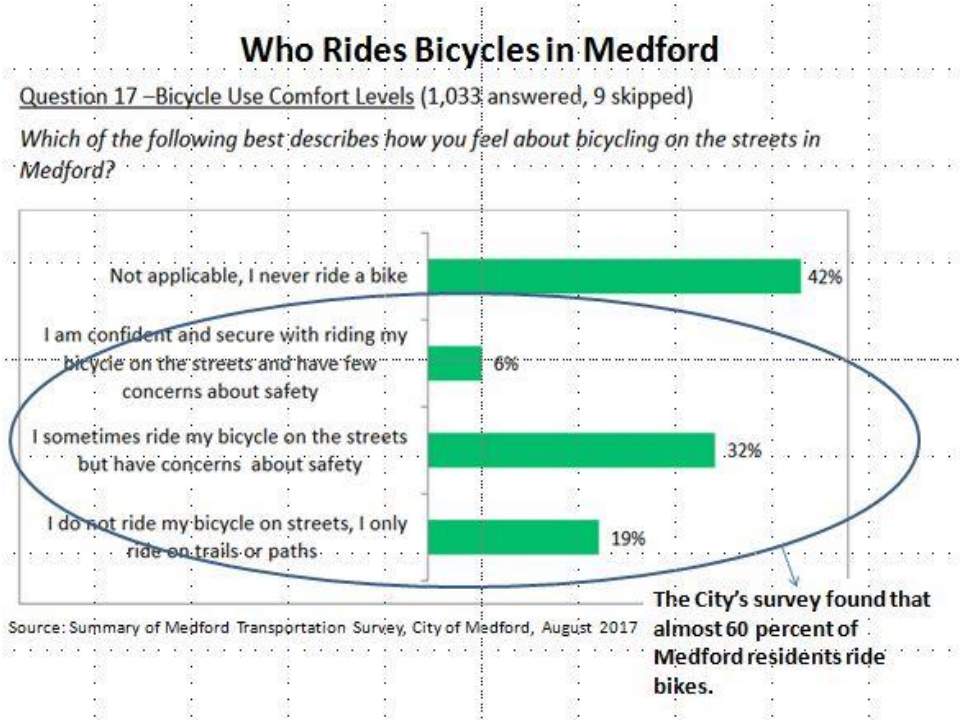
   Survey, after survey, after survey has shown that the majority of residents in an urban area (51%) are interested in bicycling but concerned for their safety. The majority of residents are afraid to share the road with motor vehicles. The distribution of residents by interest in cycling, as shown below, is probably applicable to every urban area in the nation including Ashland.

   Figure 1.



   A community survey in Medford, echoing the national survey, found that residents there had similar attitudes toward cycling.

   Figure 2.



   As with the national survey of metropolitan areas (Figure 1), 51 percent of Medford residents have safety concerns when riding a bicycle on a street or only ride on trails (Figure 2).

Presumably, those who ride only on trails or paths do so to avoid safety concerns associated with bicycling on streets.

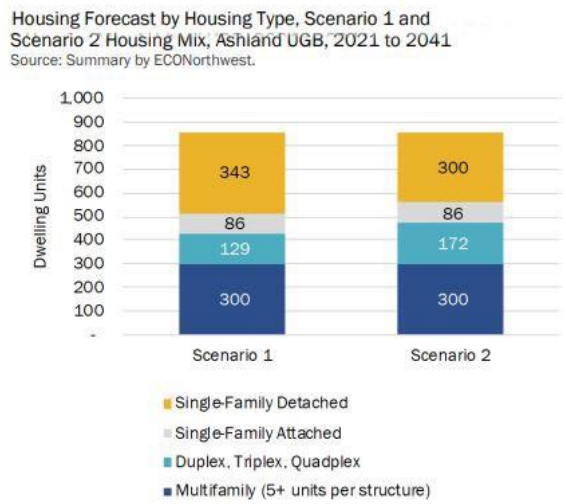
It is likely that residents in Ashland hold similar views. Two key finding of the national survey illustrate the critical importance of creating bicycle infrastructure that is suitable for all ages and abilities. These include:

- "The Interested but Concerned adults do represent the largest potential market for increasing cycling for transportation. Bicycle infrastructure that increases their physical separation from motor vehicles, such as cycle tracks, increases their reported level of comfort significantly. This would seem a necessary condition to increasing their levels of cycling for transportation.

- "There is a correlation between cycling to school as a child and levels of comfort cycling as an adult. The Enthused and Confident adults were most likely to have cycled frequently to school as a child, while the majority of No Way No How adults said that they never rode to school as a child. Cycling to school does not appear to affect whether an adult within one of the categories is currently cycling for transportation or recreation, however. Because cycling frequency does vary by category, these findings do lend support to the hypothesis that increasing cycling to school could have longer lasting effects on overall rates of cycling." Four Types of Cyclists? Examining a Typology to Better Understand Bicycling Behavior and Potential, Jennifer Dill, page 18.

2. **With Ashland's population increase at only 2-3k in the next 30 years is that the amount of high-density housing you think we need to add?**

   Ashland's Preliminary Residential Land Needs Analysis, includes a housing needs analysis and found the following:



   The analysis estimates that between 429 to 472 duplex, triplex, quadraplex, and multifamily (5+ units) dwelling units will be needed between 2021 and 2040. Assuming these needs continue through 2050, they would suggest that between 650 to 700 duplex, triplex, quadraplex, and multifamily (5+ units) dwelling will be needed between now and 2050.

"The housing strategy primarily addresses the needs of households with middle, low, very low, or extremely low income. It distinguishes between two types of affordable housing: (1) housing affordable to very low-income and extremely low-income households and (2) housing affordable to low-income and middle-income households. The following describes these households, based on information from the Ashland Housing Capacity Analysis.

"Very low-income and extremely low-income households are those who have an income of 50% or less of Jackson County Median Family Income (MFI) which is an annual household income of $32,600. About 34% of Ashland's households fit into this category. They can afford a monthly housing cost of $820 or less. Development of housing affordable to households at this income level is generally accomplished through development of government-subsidized income-restricted housing.

"Low-income and middle-income households are those who have income of 50% to 120% of Jackson County's MFI or income between $32,600 to $78,100. About 31% of Ashland's households fit into this category. They can afford a monthly housing cost of $820 to $1,630. The private housing market may develop housing affordable to households in this group, especially for the higher income households in the group." (Draft Ashland Housing Strategy, page 2)

From the above, it is probable that more than half of Ashland households currently need or would benefit from some form of subsidized, public or affordable housing. It is logical to project that the housing needs projected from now to 2050 should include a similar mix of market rate and affordable housing.

3. **Looking at your numbers on transit mode share, I have a hard time envisioning RVTD participation increasing in Ashland up to and beyond the 1.5% goal.**

   RVTD's 2040 Plan's 1.5 percent mode share estimate is based upon the ridership of its entire system. Route 10, based upon 2018 ridership figures, carried 45 percent of RVTD's approximate 1 million passengers in that year. It is also important to note that not all RVTD routes, as a part of the "preferred system" will operate at 10-minute headways. Those that do, will enjoy a higher overall share of RVTD's passengers.

   The increasing transit frequencies (from 30-minute headways to 10-minute headways) have been shown to have a profound impact on ridership. Ridership can grow 700 percent. (https://nacto.org/publication/transit-street-design-guide/introduction/service-context/transit-frequency-volume/). Achieving 1.5 percent mode share on Ashland's Route 10 (with 10-minute headways with its historically high productivity) should be easily achieved.

4. **I seem to think reduction in vehicle ownership may be more driven by autonomous self-driving vehicles with a service like the Ashland Connector. Along with increased private EV purchases this will reduce GHG emissions and increase safety for pedestrians and bicyclists by reducing collisions.**

   All those things may turn out to be true. But ultimately, those changes alone will not achieve net zero by 2050 from the transportation sector. Without significant mode shift, around 50 percent of vehicle miles of travel in 2050 will be by vehicles with internal combustion engines. Not to

mention the traffic congestion. An article in the New York Times entitled [There is One Big Problem with Electric Cars] provides some additional context for understanding the bigger issue.

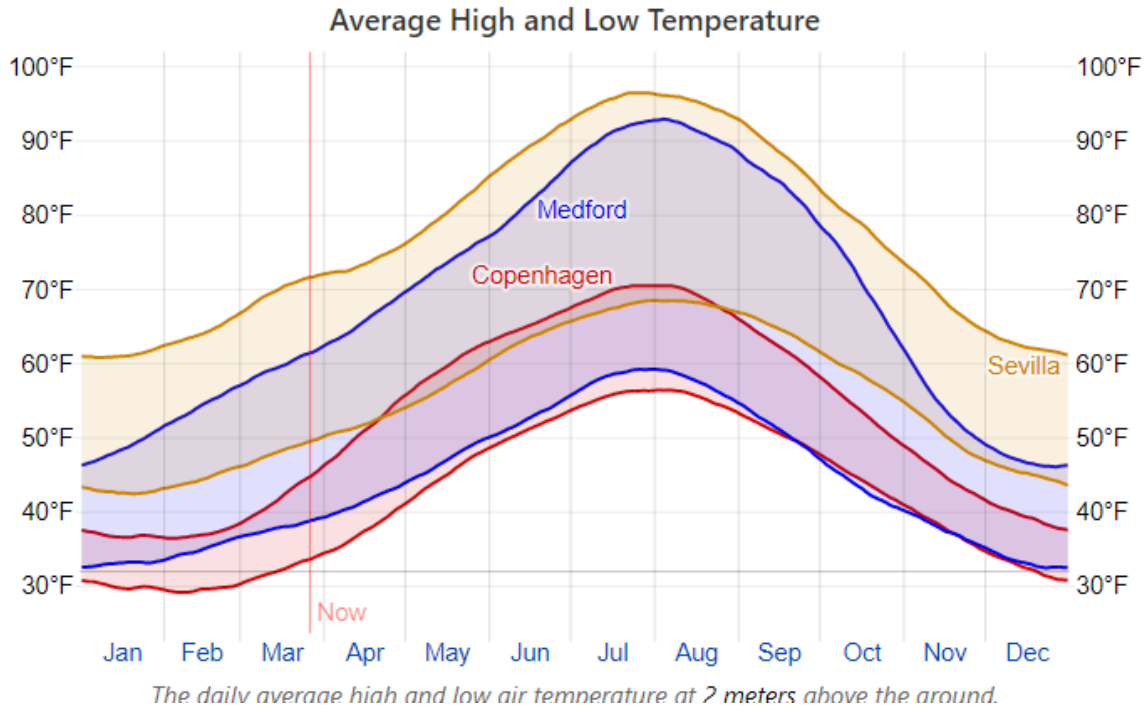
Providing viable and safe bicycling and walking infrastructure is critical to achieving a more equitable transportation system. Not everyone can afford to own their own EV or summon an Uber like vehicle when they want to visit a friend across town.

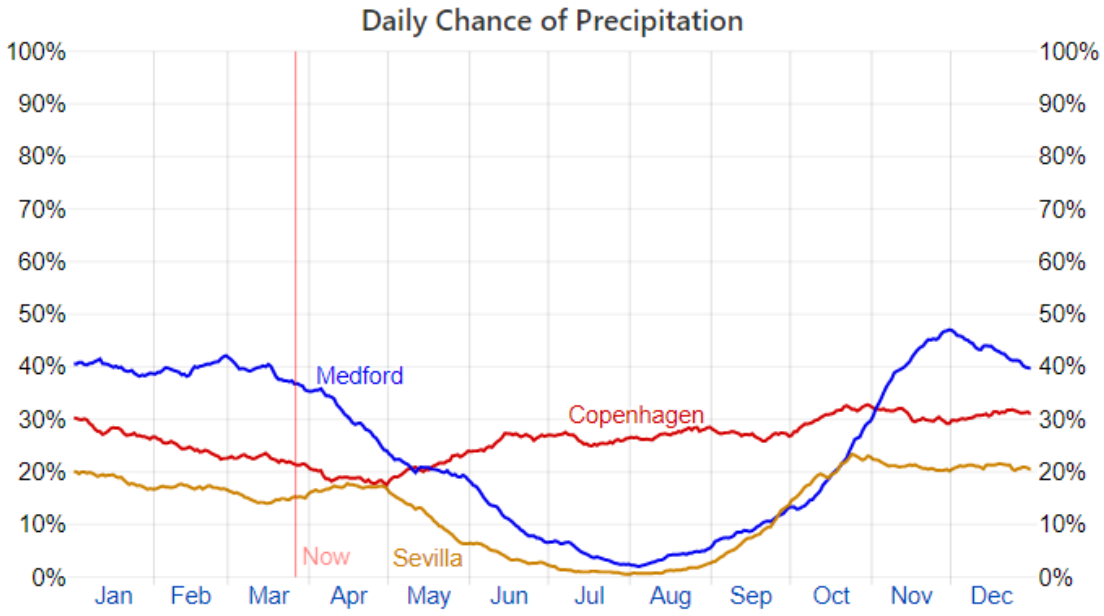
5. **I like your policies that encourage EV charging.**

   EV charging is an integral infrastructure for a transportation system powered by electricity. Conditioning public parking for the use of EV's is a simple but effective way to communicate that "EV's" are the norm and ICE's are a part of the problem.

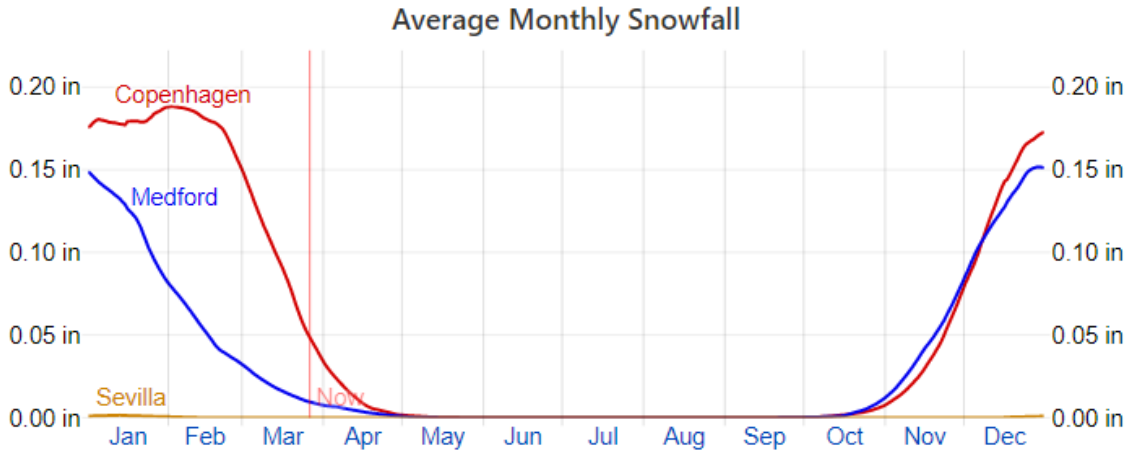
6. **For bicycling I would love to see participation increase from 2% to 42%, but given our climate and cost to increase bicycle corridors not sure that can happen.**

   The climate in the Rogue Valley is unique. But to characterize it as inhospitable to bicycle use fails to consider other cities where bicycling is the mode of choice for families, workers, students, shoppers, and everyone else. Below are comparisons of temperature, rainfall, and snowfall in Medford, Copenhagen and Seville. In Copenhagen, [62% of all citizens commute to work, school or university by bicycle]. While [Seville, Spain cut car use 27% in ten years as bike modal share hit 9%],





The percentage of days in which precipitation is observed, excluding trace quantities.



The average liquid-equivalent snowfall accumulated over the course of a sliding 31-day period centered on the day in question.

Copenhagen's winter temperatures are colder and snowier than here in the Rogue Valley. Yet, "Copenhageners continue to cycle throughout the winter; the volume of bicycle traffic in the winter is roughly 2/3rds that of the summer." (source: City of Cyclists Reduces Approximately 90,000 tons of CO_2 per Year and has Over 50 percent of the City's Population Cycling to Work Everyday.

An eleven-minute long video entitled Cycling in Copenhagen through North American Eyes is, in fact, an eye opener. Please take a moment to view it. It'll open your eyes.

Funding public improvements is never easy. The FY 2020 to FY 2025 Ashland Transportation Capital Improvement Program (CIP) totals $40.6 million with $1.6 million slated for pedestrian improvements and $0.25 million for bicycles.

According to a 2013 report, out of Portland, the cost of at-grade, and raised cycle tracts runs around $25 and $68 per foot, respectively. In order to add cycle tracts to Main, Siskiyou, Lithia, Mountain, Oak, Ashland, Tolman Creek and Hersey over the course of 10 years would cost approximately $5.25 million to $14.3 million, depending upon design and using the 2013 cost estimates. Adjusting these figures to account for cost inflation, using the Federal Highway Administration's highway construction index, yields an estimated range of $6.25 to $17.0 million in today's dollars This estimate does not include the cost of right-of-way, if required.

When it comes time to design and build bicycle infrastructure, the city should do it once and do it right, and build raised cycle tracts. The improvements can be funded through the city's share of state gas taxes, system development charge fees (once the bicycle improvements are included in the CIP), state and federal grants, and a local gas tax (if one were to be approved).

Federal funding may be infinitely more readily available under HR2, Moving Forward Act, the pending reauthorization of the federal transportation act. The Act:

- Adds shared micromobility, including bikeshare and shared scooters, as an eligible expense in the Congestion Mitigation and Air Quality (CMAQ) program.
- Defines bikeshare as an "associated transit improvement" in US Code 5302 of Title 49.
- Provides for a 60% increase for the Transportation Alternatives Program (TAP), the largest federal funding source for bike infrastructure. TAP will allow for more streamlined, expedited construction of bike lanes.
- $250 million for the Active Transportation Connectivity Grant, which would fund regionally connected mobility networks.
- $250 million for the Community Climate Innovation Grant, which can be used for shared micromobility projects that contribute to reducing greenhouse gas emissions.
- Places a focus on Vision Zero.

7. Do we have any data on how much bicycling safety can be improved with EVs with collision avoidance using existing roadways?

A quick review of Google search results suggests that collision avoidance technologies work best for avoiding crashes with other motor vehicles.

"Autonomous emergency braking (AEB) is an advanced technology designed for collision prevention and crash severity reduction and is a promising intervention to improve cyclist safety. AEB technology uses optical sensors, cameras, and radar, or a combination of these, to detect obstacles. This technology was designed to prevent crashes between vehicles, but vehicle manufacturers are beginning to add the capability for vehicles to recognize cyclists as well. The addition of cyclist detection systems is anticipated to prevent crashes, injuries and fatal crashes. The limitations of AEB systems include the variability of effectiveness due to daylight and weather conditions, the difficulties in optimizing these systems for relatively low speeds, and the inability to predict dangerous or distracted human behavior." Cyclist Safety, An Information Source for Decision-Makers and Practitioners.

The real and ever-current risk of severe injury to a bicyclist when struck by an automobile will not substantially change in the foreseeable future. Consequently, high-speed, high

volume roadways without cycle tracts (protected bike lanes) will not be utilized by most prospective bicyclists (the 51 percent of Ashland residents – as noted in question 1). It just isn't worth the risk.

8. I really like the idea of converting the Plaza to a pedestrian only area.

A pedestrian oriented plaza is a logical step in reducing the auto-centric design of Ashland. If only one space in the city were to be changed, the Plaza should top the list. The Plaza as a "pedestrian space" is the way many residents like to conceive of the area but the reality is that it largely serves as a place to park automobiles (providing more than 65 spaces roughly equal to the city's off-street lot at Pioneer and Lithia). The ring of parking at the Plaza creates a relatively small pedestrian only island. Additionally, the current configuration squanders the opportunity of nearby shop-keepers and restaurants to "spill-out" of their doors to create a more engaging and lively public space for both residents and visitors.

9. Why is electronic speed enforcement listed among the strategies to reduce the transportation system's auto-centric design?

Traffic speed enforcement is one among few police department tasks that can be automated. Using radar enforcement provides an opportunity for traffic enforcement officers to be reassigned to other high priority issues.

Table 6 clearly demonstrates the fallacy of the widely held belief that driving 5 MPH over the speed limit poses little risk of harm.

Yet, driving faster than the speed limit by 5 MPH rarely results in a ticket even though in a 25 MPH speed zone, 5 MPH is 20 percent faster than the legal limit. ORS 810.434 establishes an official upper limit for excessive speed. The statute specifies that only drivers who violate the speed limit by 11 miles per hour or greater can be cited when evidence of violation is documented using an electronic means. That statute, also, explicitly limits which Oregon cities can even employ electronic speed enforcement.

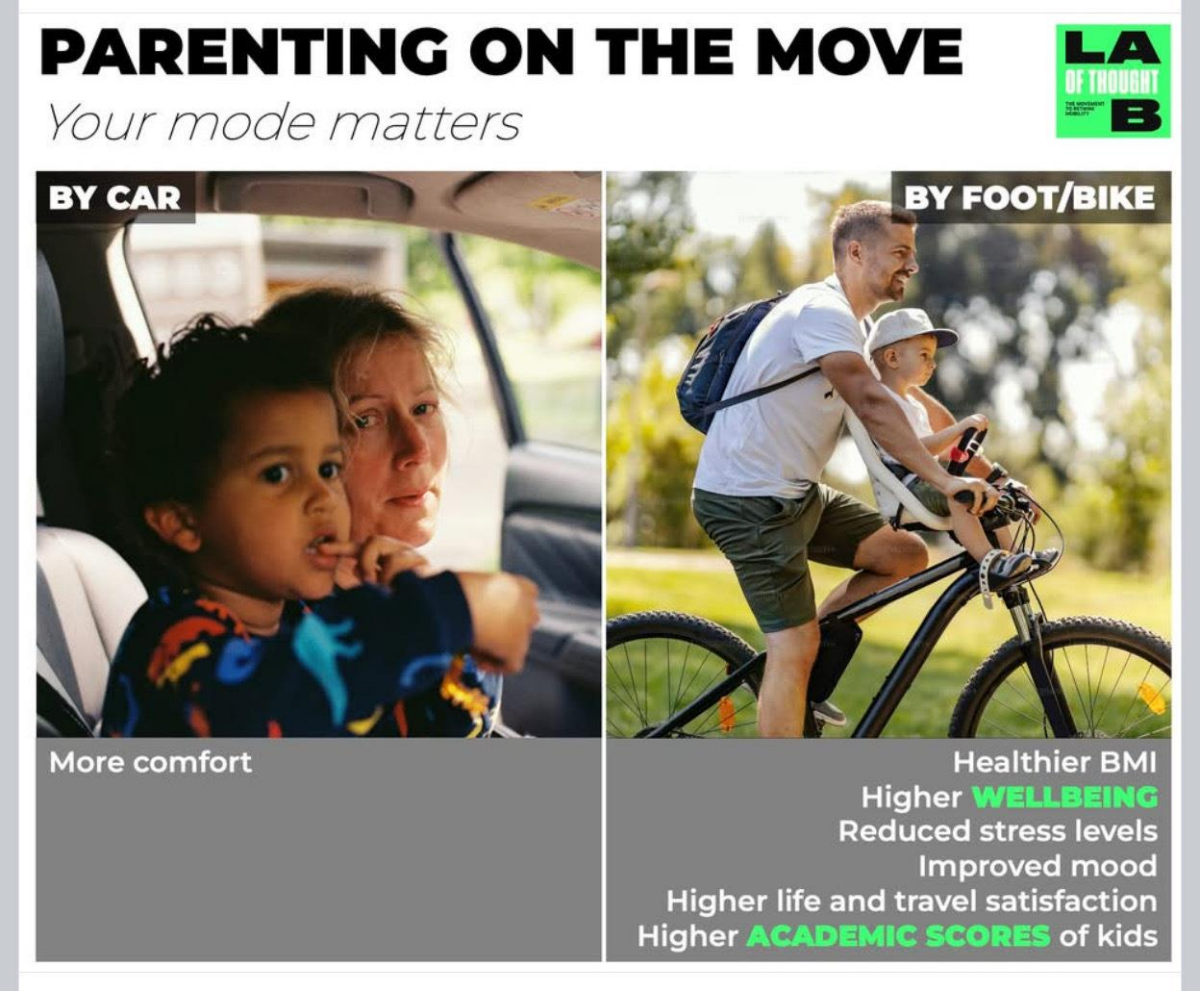
The official permissiveness illustrates just how completely the automobile, as the dominate, if not the exclusive mode of transportation in most communities, has undermined the law and subverted basic engineering and safety standards.

Finally, data suggests that a traffic stop or "'catch and release' program in which certain members of the community are stopped pretextually, investigated disproportionately for potential criminality, and then, should no evidence of wrongdoing appear, allowed to go free without any formal sanction" are disproportionately experienced by minorities." (source: Traffic Enforcement Through the Lens of Race: A Sequential Analysis of Post-Stop Outcomes in San Diego, California) While there is no evidence to suggest it happens locally using electronic speed enforcement will ensure that it never does.

Amending the ORS 810.434 to allow Ashland to use electronic speed and red-light enforcement, and changing the law to authorize citations when drivers exceed (by any amount) the posted speed limit are essential to wresting away the preeminent position that motor vehicles have over our community and protecting the lives of people who chose to walk or ride a bicycle. It is a part of Vision Zero.

Appendix F

Beneftis of Bicycling and Walking



Source: https://www.sciencedirect.com/science/article/pii/S2666558125000375

Separated Bike Lanes Means Safer Streets – for all road users
Separated Bike Lanes Means Safer Streets, Study Says — Streetsblog USA

To: CEPAC

From: Gary Shaff, CEPAC member

Date: June 7, 2025

RE: Local Funding Strategies for Bicycle/Pedestrian Network Improvements

At the April CEPAC meeting, the Committee asked that I formulate a recommendation for CEPAC's consideration regarding dedicated bicycle and pedestrian funding. This memo and the accompanying documents are in response to that request.

Dedicated funding for bicycle and pedestrian improvements must be considered in the boarder broader context of the CEAP and, more particularly the Urban, Land Use + Transportation chapter of the CEAP. In an effort to inform the CEPAC (and potentially the Council) of the boarder context, I've prepared a CEAP, Urban, Land Use + Transportation Implementation Plan (and associated executive summary) – attached.

The ULUT Implementation Plan and its recommendations will be considered at upcoming CEPAC meetings on:

June 12th – dedicated bicycle and pedestrian funding (Section 6)
July 10th – Transportation System Plan (Table 11) – CEPAC recommendations
October 9th – Land Use (Table 10) – CEPAC Recommendations

I would encourage members to read, in advance of the June 12th meeting, the first five pages of the Executive Summary (or alternatively pages 1 through 24 of the ULUT Implementation Plan) and then Section 6 (pages 25 – 31). In this way members will have an understanding of both the needed changes in land use and transportation as well as transportation funding. The funding section describes possible funding sources, the estimated cost per unit (household, gallon, assessed value, etc.) and the expected annual or total revenue.

Securing a dedicated source of bicycle and pedestrian funding will require multiple steps and, by necessity, include the community. It is for that reason, that my recommendation does not include selecting a specific funding source or multiple funding sources. Instead, I recommend that the CEPAC recommend to the City Council that the Council initiate a planning process by appointing a Transportation Financing Task Force; made up of members of the city's standing committees and citizens at large. It is anticipated that the Task Force would review and analyze the funding alternatives based upon myriad criteria (including ease of administration, equity, etc.), and formulate a recommendation to the City Council regarding dedicated funding for bicycle and pedestrian improvements.

Recommended Motion: I move that CEPAC recommend to the City Council the appoint of a <u>Transportation Financing Task Force</u> to:

1) **investigate and analyze dedicated bicycling and pedestrian improvement funding sources, and,**

2) **to task such committee with finalizing their recommendation to the Council no later than July 2026.**

This timing would allow consideration of the new funding as a part of the city's development of an updated Transportation System Plan (TSP). The twenty-year plan will include a financially constrained, prioritized list of transportation improvements consistent with the outcomes specified in OAR 660-012-0155 of the Climate Friendly and Equitable Communities Rule. It will also compliment the timeline for development of Ashland's 2027/29 biennial budget.

Background

Ashland's existing transportation funding stream is inadequate to address the current pavement management and operational needs of the transportation system, AND improve the system to make bicycling and walking practical, efficient and safe ways for people of all ages and abilities to get around Ashland.

Approximately 70 percent of residents are served well by the city's current transportation system; they use a car. But for an estimated 30 percent of the city's residents, driving is not an option:

- they are too young to drive,
- elders may have aged out of driving,
- disabilities prevent some from driving,
- others can't afford to own a car (now estimated to be $1,025 per month), and
- some, prefer not to drive.

Meeting the transportation needs of everyone in Ashland is complicated by a bias, for the past 100 or so years, toward auto-centric roadway investments and Euclidian zoning. Combined they serve to make auto travel convenient, often necessary, and make alternatives difficult and dangerous.

While some may say that Ashland is bicycle and pedestrian friendly (which it is compared to our city peers), the reality is that most people who bicycle in Ashland are "strong and fearless" bicycle (accounting for roughly seven percent of the population). They are willing to risk life-altering injury of death by riding in proximity to autos and trucks. In contrast, upwards of 50 percent of the population would use a bicycle for some of their in-town trips if we had a complete, all ages and all abilities bicycle network. They are afraid to share the street with cars/trucks.

Oregon's land use planning laws require cities in Oregon to improve the extent, function, and design of bicycle facilities to reflect the needs of "all ages and abilities" (OAR 660-12-0610). That includes everyone, not just those brave enough to share the streets with cars. Similarly, the Rule requires cities to plan for a complete pedestrian network (OAR 660-12-0510). Clearly, the city's existing bicycle and pedestrian networks fail to meet the state standard.

But a great plan is worthless if not implemented. That's where the challenge lies. Virtually all the city's existing transportation funding is dedicated to maintaining and operating the existing streets: filling pot

holes, sealing cracks, adding chip seals, replacing or reconstructing the asphalt, overlays, painting crosswalks, replacing signs, sweeping and plowing snow. There is too little money left over to create the bicycle and pedestrian networks that are needed to make these modes of travel practical, safe and efficient.

Following a Historic Precedent

History has an odd way of repeating itself. Below is an excerpt from an October 1, 2007 City Council Study Session – Transportation Financing Task Force Recommendations. It should be noted that many of the Task Force's recommendation have been implemented.

The Transportation Financing Task Force recommends implementing all or some portion of each of the following funding options:

1. Adjust SDCs with revised TSP and CIP; include both reimbursement and improvement rates
2. Implement other charges / fees as acceptable to Council
    a. Partial food and beverage allocation to Street Fund (existing or with the increased base)
    b. Regional gas tax (with Jackson County)
    c. Local or regional vehicle registration
    d. Increase business license fees for those with heavy vehicle/truck activities
    e. Bicycle registration
3. Look at the option to use Transient Occupancy Tax fees to supplement tourism impacts for boulevard and downtown landscape maintenance costs
4. Increase transportation utility fee to meet all or a portion of the debt service gaps
5. Challenge staff and citizens to identify behavior changes or incentives that will reduce the use of automobiles and provide financial incentives to broaden alternative transportation strategies.
6. Explore offsets or the sale of "carbon credits."

In addition to looking strictly at funding objectives, the Task Force felt strongly in the importance of the overall transportation system and helping to reduce the reliability in the traditional automobile use. Some of the funding mechanisms that were recommended above allow focus and exploration on the behavior changes and re-emphasize the Transportation Element: *"...The focus must be on people being able to move easily through the city in all modes of travel. Modal equity then is more than just a phase. It is a planning concept that does not necessarily imply equal financial commitment or equal percentage use of each mode, but rather ensures that we will have the opportunity to conveniently and safely use the transportation mode of our choice, and allow us to move toward a less auto-dependent community."*

source: 2007-1001 Study Session Packet

Executive Summary

Ashland Climate Energy Action Plan

Urban, Land Use + Transportation (ULUT) Implementation Plan

Accelerating Ashland's Net-Zero Future Through Sustainable Land Use and Transportation

June 7,2025

Gary Shaff

Ashland is committed to achieving net-zero greenhouse gas (GHG) emissions by 2050, an ambitious target that necessitates fundamental and dramatic changes in the city's land use and transportation system. Transportation choices currently represent a substantial 27 percent of Ashland's total GHG emissions, with 17 percent attributable to on-road travel and an additional 10 percent from vehicle manufacturing. This makes the transportation sector a critical area for focused climate action.

The path to emission reduction is impeded by four fundamental, interconnected barriers. First, Ashland's land use pattern is largely homogeneous and auto-centric, a characteristic that began with early non-native American settlers in 1852 and solidified with the advent of the automobile. This historical alignment with car use has created a deeply ingrained dependence on personal vehicles.

Second, public transit services face limited effectiveness due to the predominance of low-density residential development, which makes efficient service delivery challenging. Third, an estimated 70 percent of Ashland residents rely almost exclusively on fossil fuel-powered vehicles for their transportation needs.

Finally, the design of streets and highways is overwhelmingly auto-centered, or mono-modal, prioritizing motor vehicles over other forms of transport.

These barriers represent fixed, capital investments that will require considerable time and financial commitment to alter. While land use patterns evolve slowly, the transportation system itself offers a unique opportunity for short-term modification, as it is exclusively owned and controlled by State and local governments. The interconnected nature of these challenges means that addressing one in isolation will yield limited results; a comprehensive approach is essential to break the cycle of auto-dependence.

A Multi-Faceted Strategy for Transformation

The ULUT Implementation Plan proposes an integrated approach spanning land use, public transit, vehicle electrification, and street design to achieve its climate goals. This comprehensive strategy recognizes the systemic interdependence of these elements, where changes in one area can reinforce positive outcomes in others.

Reimagining Land Use for Walkability and Density

The existing land use pattern, rooted in the city's history, presents a significant challenge. Ashland's slow population growth rate, at less than one percent annually, suggests that citywide land use changes alone may have a limited appreciable impact on existing GHG emissions by 2050. However, strategic land use planning is crucial to ensure that future growth does not exacerbate current emissions and instead promotes sustainable transportation choices.

Key strategies for land use transformation include the city's recent adoption of Climate Friendly Areas (CFA) and liberalized zoning for downtown allowing for mixed-use development, similar to that permitted in designated CFAs. The city has also complied with HB2001 which require cities of Ashland's size to allow duplexes in single-family zoning districts, aim to diversify land use patterns and potentially boost housing affordability.

The ULUT Implementation Plan suggests that broader requirements, such as those for cities with populations over 25,000 (mandating duplexes, triplexes, fourplexes, cottage clusters, and townhouses), would be even more effective in fostering diverse and efficient land use.

A critical objective is to foster a transportation-efficient development pattern, characterized by high-density residential housing located adjacent to or within convenient walking distance of commercial development. These areas must be well-served by frequent fixed-route public transit services, high-quality and safe bicycle facilities, and sidewalks. The emphasis on density and mixed-use development, particularly near transit, is a deliberate policy choice designed to fundamentally alter future travel behavior. By making non-auto modes more convenient and necessary for new residents and developments, these land use policies aim to prevent an increase in auto-dependence and lay the groundwork for long-term emission reductions.

Specific, highly-ranked implementation actions from the CEPAC ULUT Subgroup include:

- Incentivizing high-density workforce housing within a half-mile of RVTD's high-capacity transit route.
- Doubling the minimum secure, covered bicycle parking, including 120-volt charging outlets, for all uses except single-family dwellings.
- Redesigning the downtown Plaza into a tree-covered pedestrian plaza, suitable for various community gatherings and outdoor dining.
- Modifying the development code to allow diverse housing types, such as duplexes, triplexes, and townhouses, in single-family zones.
- Requiring the unbundling of parking for new and existing multi-family and commercial developments. This policy, which separates parking costs from rental payments, aims to rationalize expenses and explicitly account for the cost of car ownership; making car-free living more financially attractive.

Strengthening Public Transit Networks

The Rogue Valley Transit District's (RVTD) 2040 Transit Plan offers significant potential for reducing transportation GHG emissions. The preferred system forecasts a substantial tripling of transit mode share, from 0.5 percent in 2018 to 1.5 percent by 2042 across the entire system. A cornerstone of this transformation is the proposed "high-capacity transit" (HCT) route along Highway 99 between Medford and Ashland.

This route is envisioned with 10-minute headways and half-mile stop frequencies every day of the week, a significant improvement in service quality compared to today. Such high-frequency service is projected to capture a notable 12.8 percent transit mode share in the corridor by 2040, a substantial increase from the 5 percent on existing routes in 2018. Implementing this HCT route would require an estimated $9.4 million in capital for bus purchases and $4.9 million annually for operations and maintenance, in addition to unspecified but "significant capital and infrastructure improvements" along Highway 99. The long-term plan would discontinue existing express and standard intercity routes, replacing them with this HCT service.

The plan also includes a proposed community circulator route connecting the YMCA area to downtown and highlights the existing Ashland Connector, an on-demand micro-transit service, as a model for future integration with autonomous vehicles. The dramatic increase in projected

ridership and rides per capita under the "Preferred System" is largely attributed to the planned 10-minute headways for the HCT route.

Research indicates that increasing transit frequencies from 30-minute to 10-minute headways can lead to a 700 percent ridership increase. This underscores that the quality and convenience of transit service—specifically frequency, reliability, and integration with land use—are far more critical drivers of mode shift than simply having a transit system. Investing in high-frequency, well-connected transit, especially in conjunction with denser, mixed-use development, creates a powerful feedback loop that dramatically increases transit utility and ridership, making it a truly viable alternative to private vehicles. High-frequency, high-capacity transit services are explicitly stated to complement the city's transportation-efficient land use plans, serving major destinations and potentially being fed by autonomous electric shuttles for city-wide coverage.

Table 1: RVTD System Performance Characteristics (Preferred System)

	Current System		Preferred System		
Criteria	2018	2042	2027 (Short-term projects)	2037 (Mid-term projects)	2042 (Long-term projects)
Ridership for System[1]	1,240,876[4]	1,519,603	1,922,567	4,586,512	6,268,443
MPO Population[1]	175,493	230,429	192,865	216,511	230,429
Rides per Capita[1]	7.1	6.6	10.0	21.2	27.2
Transit Mode Share[2]	0.5%	-	0.9%	-	1.5%

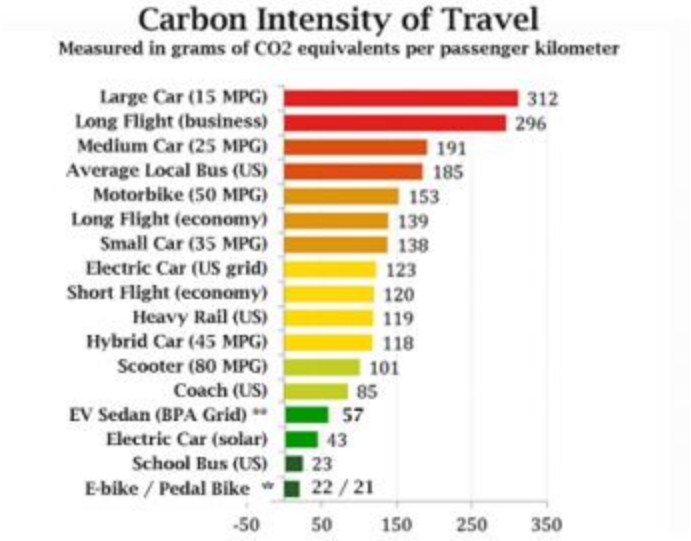
Source: , Table 2, p4

Beyond Electrification: Fostering Active Transportation

While the adoption of electric vehicles (EVs) is growing in Ashland—with 380 Plug-in Hybrid Electric Vehicles (PHEVs) and 667 Battery Electric Vehicles (BEVs) as of January 2025, representing approximately 3.4 percent of all registered vehicles—relying solely on EV adoption will not be sufficient to achieve net-zero emissions by 2050. National forecasts suggest EVs may account for 11-26 percent of on-road light-duty vehicle stocks by 2050. However, studies indicate that 90 percent of U.S. cars would need to be electric by 2050 to meet Paris Agreement climate targets, which would place immense strain on the electricity grid and demand excessive amounts of critical minerals like lithium and cobalt. This highlights that simply improving vehicle technology is not enough; the overall volume of vehicles and vehicle miles traveled must also decrease.

Shifting dependence from automobiles to human-powered modes, such as walking and bicycling, is integral to significantly reducing emissions from the transportation sector. The carbon intensity of travel clearly demonstrates the environmental superiority of active transportation.

Figure 1: Carbon Intensity of Travel (g CO2e per passenger kilometer)



Source: , Figure 4, p8

As Figure 1 illustrates, walking and bicycling have dramatically lower carbon intensities (21-22 g CO2e/passenger km) compared to any car, including electric vehicles (57-123 g CO2e/passenger km). This powerfully argues that active transportation is the most environmentally benign option, reinforcing the need to avoid and shift away from car dependence.

Furthermore, vehicle manufacturing contributes significantly to lifecycle emissions, accounting for 23 to 46 percent depending on the vehicle powertrain. Electric vehicles, due to battery production, have higher embedded emissions (8.8 tonnes CO2e for a Battery Electric Vehicle compared to 5.6 tonnes CO2e for a standard gasoline vehicle). Therefore, reducing the number of vehicles per household or facilitating the choice to own no vehicles is crucial for overall carbon footprint reduction.

Auto ownership is costly. Ashland households spent approximately $10,305 annually on transportation in 2020, representing 20 percent of the median household income. Auto ownership increased between 2013 and 2018. This is compounded by a concerning rise in larger trucks and SUVs which pose higher risks of serious injury and death to people outside of the vehicle as compared to historically sized vehicles.

A truly sustainable transportation future for Ashland requires a fundamental reduction in car dependence, not just a change in vehicle propulsion. Policies must actively encourage fewer car trips and fewer cars per household, making active and public transport the default choice.

Designing Streets for All Users

Ashland's current transportation system is largely designed to serve motor vehicles, leading to significant safety challenges for pedestrians and people riding bicycles. Many streets lack sidewalks, forcing pedestrians to share roadways with traffic, and existing bicycle facilities often do not provide adequate protection due to high traffic volumes and speeds. The likelihood of death in a pedestrian crash roughly doubles for every five miles per hour over 20 MPH.

The design of the transportation system in Ashland transforms mode choice from a genuine option into a forced decision between a perceived safe mode (driving) and an unsafe one (bicycling). Surveys confirm this, with 51 percent of urban residents identifying as "interested but concerned" about bicycling but unwilling to do so due to safety fears - indicating a large untapped potential for mode shift if safety concerns are addressed.

Increasing bicycle and walking mode share can lead to a substantial reduction in vehicle miles traveled (VMT) and, consequently, a corresponding reduction in GHG emissions. International examples, such as Seville, Spain, which increased cycling mode share from 0.5 percent to nearly 7 percent in six years through dedicated protected cycling infrastructure and traffic calming, demonstrate the feasibility of significant mode shifts.

While Ashland is often perceived as bicycle and pedestrian friendly compared to some peers, the reality is that current infrastructure is fundamentally inadequate for achieving widespread mode shift, as it primarily serves only the "strong and fearless" cyclists. Policy must prioritize investments in infrastructure that addresses the perceived and actual safety concerns of the majority, moving beyond basic bike lanes to truly protected facilities and pedestrian-first environments. This requires a shift in design philosophy from merely accommodating pedestrians and people riding bicycles to actively prioritizing vulnerable road users safety.

Highly-ranked implementation actions for street design from the CEPAC subgroup include:

- Converting existing traditional or buffered bike lanes on major streets to protected bike lanes, including on Highway 99 between Ashland and Talent.
- Modifying signalized intersections to prioritize pedestrian safety.
- Implementing traffic calming measures in residential neighborhoods and reducing speeds on all streets by five MPH (but no lower than 20 MPH) through a combination of design, education, legislation, and enforcement.
- Utilizing the National Association of City Transportation Officials (NACTO) "Designing for All Ages and Abilities" standards for bicycle facility design to ensure high safety and usability.
- Extending and widening the Central Biking and Walking Path and constructing multi-use paths within the city's urban growth boundary.
- Establishing ambitious mode share targets for walking and bicycling: 15 percent by 2030, 30 percent by 2040, and 45 percent by 2050.
- Dramatically increasing secure, covered bicycle parking in commercial areas.
- Redesigning the Plaza to serve people rather than cars.
- Establishing a maximum 10-foot travel-lane width for most streets.

Summary of Land Use and Transportation Implementation Actions

The Urban, Land Use and Transportation Implementation Plan provides a granular roadmap. These actions center on aggressive land use changes to promote density and mixed-use near transit, comprehensive redesign of streets to prioritize active transportation, transformative changes to parking management to discourage auto-dependence, and ambitious mode share targets for walking and bicycling.

Financing the Vision: Sustainable Funding Solutions

Achieving these ambitious goals requires substantial investment. An estimated $20 million is needed for on-street bicycle infrastructure improvements alone, necessitating approximately $1.5 million in new annual revenue.

Current transportation funding streams are inadequate to meet Ashland's ongoing pavement management and operational needs, as well as the required system improvements for active transportation. Less than one percent of locally funded capital projects in the FY26/27 Capital Improvement Program (excluding federal sources) are dedicated to bicycle and pedestrian improvements.

It is crucial to front-load the completion of a safe and functional active transportation network in the short-term, even if financing extends over 20-30 years, potentially via revenue bonds or the Oregon Infrastructure Bank.

Below are numerous potential local funding sources, though their political feasibility has not yet been vetted.

Table 3: Summary of Potential Local Funding Options for $1.5M Annual Revenue

Revenue Option	Rate	Measure	Multiplier	Estimated Revenue
Local Option Gas Tax	$0.14	gallons	10,685,372 *	$1,500,000
Paid Parking				
Business District	$1	hours	627,000	$627,000
Citywide	$100	Annual parking fee per vehicle space	8,000	$800,000
Total				$1,427,000
Utility Fee	$12	households	10,416	$1,499,904
Food and Beverage Tax	5%	Food & beverage	NA	$2 - $3 million
Bond Measure	$0.4615	$1,000 assessed value	$3,248,157,858	$1,500,000
Jurisdictional Exchange	NA	ODOT one-time payment	NA	
North Main/Lithia				$12,000,000 **
Siskiyou (Walker to S. City Limits				$ 8,000,000 **
Total				$20,000,000

Source: , Table 13, p29

Each option presents different considerations. A $0.14/gallon local option gas tax would be higher than any current municipal or county government's local option tax. Paid parking, combining downtown hourly fees and citywide residential permits, could generate approximately $1.4 million annually, also supporting the unbundling of parking costs from rent to rationalize expenses. A $12/month per household utility fee could generate nearly $1.5 million annually. Reallocating roughly half to two-thirds of the existing 5 percent Food and Beverage Tax could meet the need, but would significantly impact current street maintenance and Parks & Recreation funding. A local bond measure, at a property tax rate of $0.4615 per $1,000 assessed value, would generate $1.5 million annually but require three successive 10-year ballot measures. Finally, a one-time payment from ODOT (up to $20 million) for the city taking over maintenance of North Main/Lithia and Siskiyou Boulevard could fully fund the active transportation network, though it would likely necessitate an increase in the transportation utility fee for ongoing street maintenance.

The political economy of sustainable transportation is complex. The fact that approximately 70 percent of residents are currently served well by the auto-centric system suggests that a significant portion of the population may not immediately perceive the direct benefit of these investments or may resist new taxes/fees if they primarily benefit non-car users. Successful implementation requires not only identifying viable revenue sources but also building broad public and political consensus for these investments, potentially through public education on the long-term economic, health, and environmental benefits for all residents.

A More Livable and Prosperous Ashland: Anticipated Outcomes

The combined implementation of these strategies promises transformative benefits for Ashland, extending far beyond climate action. The strategies are projected to yield an estimated 95 percent (76.9 metric tons) reduction in GHG emissions from residents' transportation choices, dramatically reducing reliance on automobiles for intra-city travel.

Reducing the city's auto-centric character will profoundly enhance livability, making Ashland more enjoyable for residents and visitors. Residents are projected to experience significant savings on transportation costs, which currently consume approximately 20 percent of the median household income, thereby freeing up disposable income for other household expenditures and improving overall economic well-being.

The unique qualities of the city's modern transportation system, with its emphasis on non-auto travel, are expected to attract outdoor recreation enthusiasts, including mountain bikers and road cyclists. This will leverage the region's existing hiking and mountain biking trails and natural beauty, boosting Ashland's appeal as a tranquil and interesting destination for regional, national, and international visitors. Furthermore, coupled with the Ashland Fiber Network's high-speed internet, the city's enhanced livability and sustainable transport system will position it as a prime location for remote workers, estimated to comprise 29 to 39 percent of the future workforce. This influx of educated, well-paid residents can establish a new economic base for Ashland, supporting local businesses, contributing to state and local taxes, and enriching the community's cultural fabric. These extensive co-benefits, which include improved public health, reduced household expenses, enhanced urban environment, and a diversified economy, are

tangible and often more broadly appealing than abstract climate goals alone. Framing the plan's implementation around these benefits can significantly strengthen public support and political will.

Conclusion

Achieving Ashland's net-zero 2050 goal requires a bold, integrated, and sustained commitment to transforming urban planning and transportation. By strategically reimagining land use to promote density and walkability, strengthening public transit networks with high-frequency services, prioritizing active transportation through comprehensive street design modifications, and securing dedicated, long-term funding, Ashland can dramatically reduce its carbon footprint. This path will simultaneously foster a more livable, equitable, and economically resilient community, where sustainable choices are the most convenient, safe, and affordable. The success of this vision hinges on a collective commitment to innovative policy and a fundamental shift in how the city moves and grows.

Climate Incentives Evaluation by Staff and CEPAC

June 12, 2025

Task at hand:

- City Council Meeting December 2024:
  - Council directed staff to review with CEPAC how incentives may be expanded.

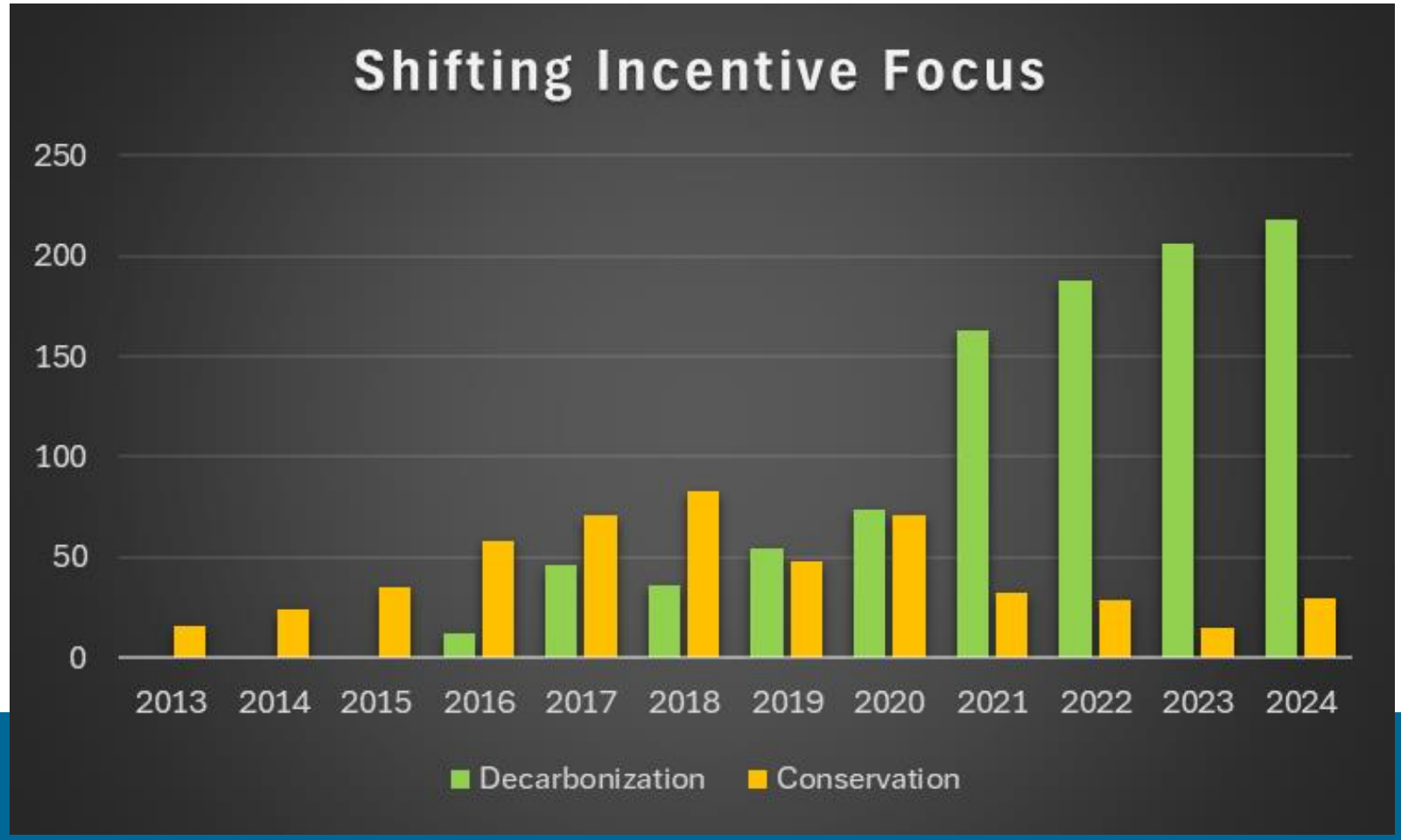
Parameters:

- Maximize CEAP GHG reductions
- Ensure equity considerations are factored in
- Proposed program budget for 2025/26-2026/27:

2026	City Cons	$250,000
2026	Loan	$140,000
2026	Solar	$75,000
2026	Total	$465,000
2027	City Cons	$250,000
2027	Loan	$140,000
2027	Solar	$75,000
2027	Total	$465,000

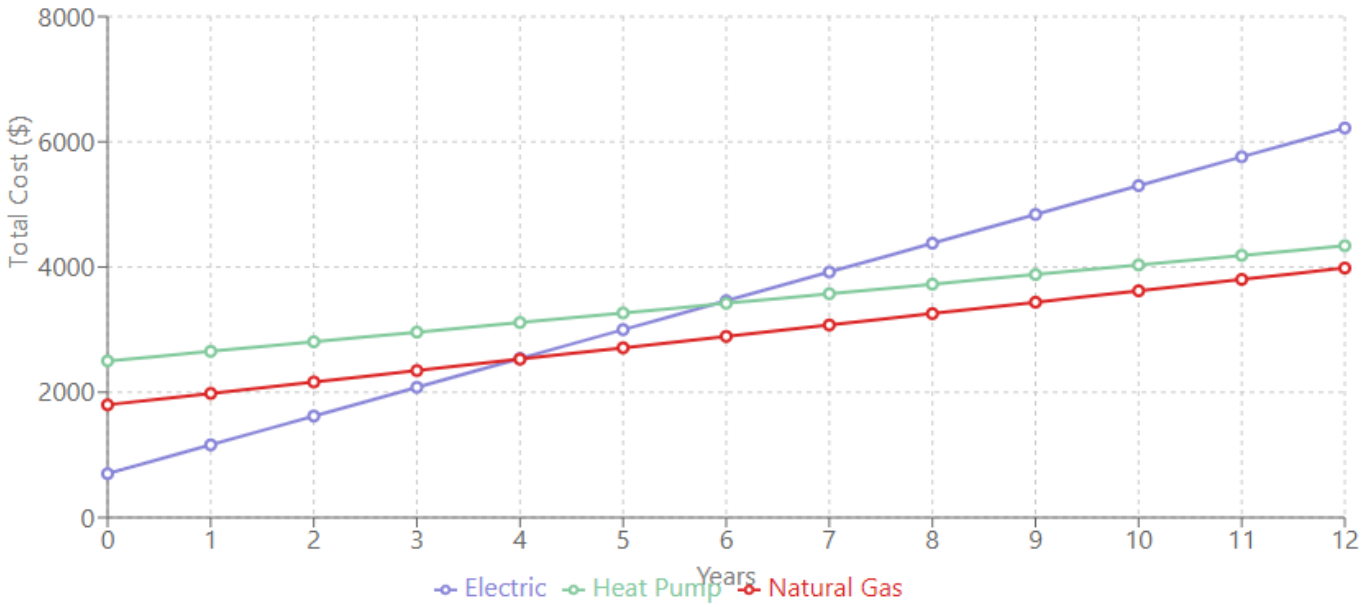
12 Year History of Incentives:

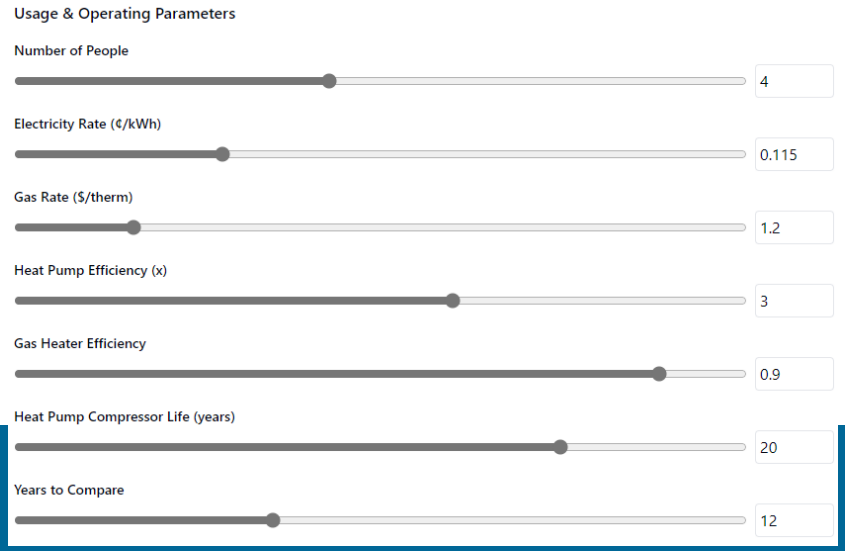
Year	2013	2017	2024
Incentive Type	Calendar Year		
Ebikes	0	0	68
EV Charger	0	0	1
Elec to Ind	0	0	5
Gas to Ind	0	0	27
Commercial (Gas to Electric)	0	0	2
Electric Vehicle	0	0	49
Elec. to Hot Water HP	0	8	2
Gas to Hot Water HP	0	0	9
Elec. to Mini-split	7	56	11
Gas to Mini-split	0	42	26
Elec. to Heat Pump	9	7	12
Gas to Heat Pump	0	4	36
Decarbonization	0	46	218
Conservation	16	71	30



Methodology: Gap Analysis

(determination of what is needed to offset cost difference and from that, what areas to focus on)





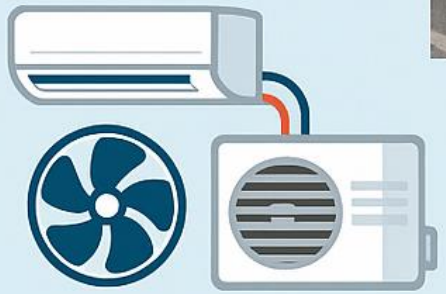
Methodology: Emissions Reductions, Cost/Ton of Emissions Reduction, Total Net Cost

Lifetime CO2 rank	Net Cost Rank	Lifetime CO2 Cost Rank	Cumulative Rank	Incentive	Current or Calculated Amount
2	1	2	1	Ductless Heat Pump (mini split)	800
1	3	3	2	Electric Vehicle	1000
2	2	4	3	Heat Pump	1560
4	6	1	4	Attic Insulation	286
5	4	9	5	Hot Water Heat Pump	1400
7	7	5	6	Ebike	300
9	5	6	7	Small Engines - Residential Gas Lawn & Garden Equipment	58.76
6	8	6	8	Small Engines - Commerical Gas Lawn & Garden Equipment	361.6
7	9	8	9	Ebike (cargo)	600

Leading Candidates for Incentive Expansion

- Based on practicalities (CO_2 reduction) and constraints (use, age, ability, need)
  - Electric Vehicles
  - Heat Pumps
  - Hot Water Heat Pumps

Electric Vehicles



Heat Pumps

Hot Water Heat Pumps

Better Together

Incentive expansion proposal:

1. **Adjust incentives** to BPA's October 2025 numbers and make similar for targeted fuel switching measures.
2. **2x Incentive Multiplier** Low and Moderate Income (LMI) (double standard incentive amount)
    - Only for Hot Water Heat Pumps, Electric Vehicles, Ductless Heat Pumps
3. **New Electric Ready Incentive**
    - $600 for a circuit upgrade or $1000 for a panel upgrade
    - Standard rebate = 50% of cost up to limit
    - LMI rebate = 100% of cost up to limit

How this looks in the budget:

2026	City Cons	$250,000
2026	Loan	$140,000
2026	Solar	$75,000
2026	Total	$465,000
2027	City Cons	$250,000
2027	Loan	$140,000
2027	Solar	$75,000
2027	Total	$465,000

1. We ran multiple scenarios of both LMI uptake % and program growth %.

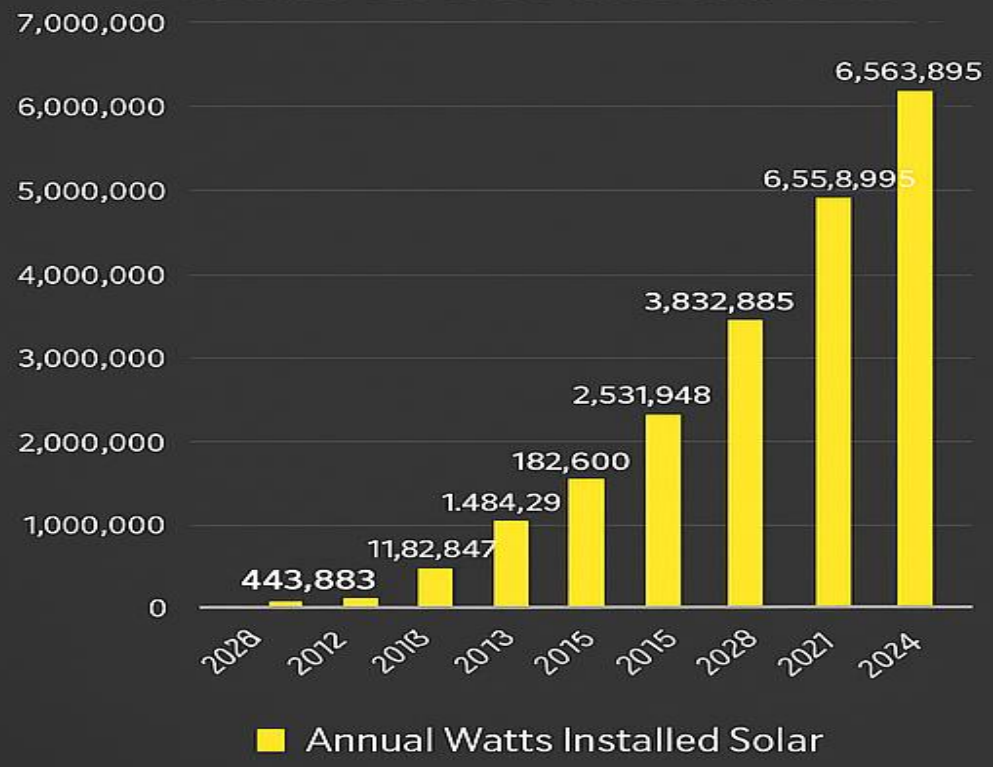
2. All scenarios exceed the base budget and will need to pull from other conservation city program funds (loan or solar), which have historically been underutilized.

3. If we exceed all three funds, we will need to suspend incentives or obtain additional funding.

Better Together

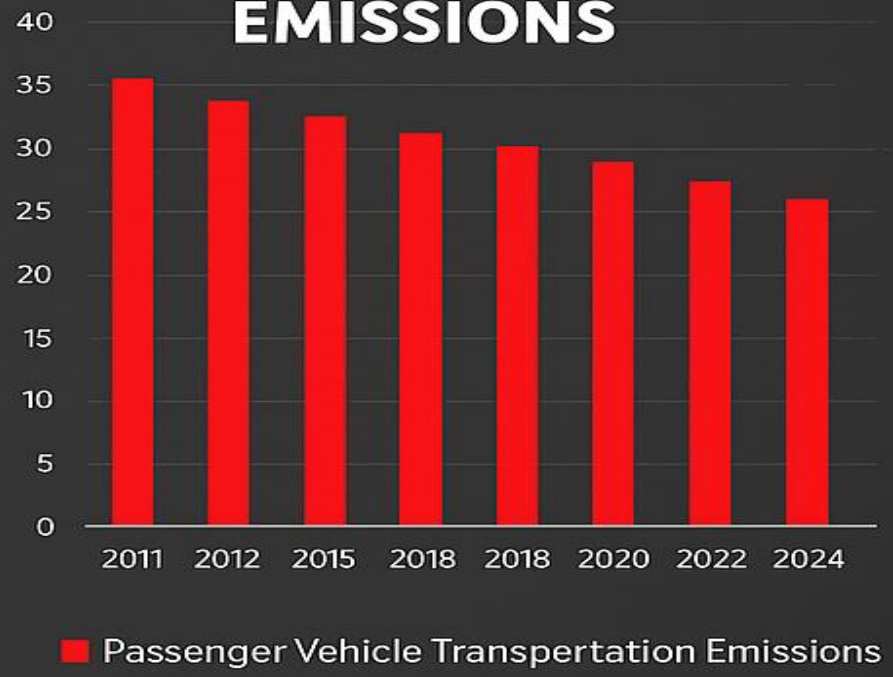
WE ARE MOVING IN THE RIGHT DIRECTION!

SOLAR WATTS INSTALLED



↓ -17%

TRANSPORTATION EMISSIONS



Better Together

CEPAC Input:

- Possible Motion:
  - CEPAC to endorse the proposed incentive expansion for the next biennium; staff to report details to Council.

Waste Characterization Datasheet

Project Name:	
Date:	
Time:	
Material Stream:	
Route/Sector:	
Gross Weight:	

Recyclables					Compostables			Misc.		
OCC	Mixed Paper	Rigid Plastics	Metal	Glass	Food	Green Debris	Other	HHW / Universal	Packaged Food	Other
Trash Detail										
Plastics - rigid (non recyclable)	Plastics - film (non recyclable)	Paper - soiled (non recyclable)	Metal (non recyclable)	Foam	Textiles	Diapers	Electronics	Pet waste	Multi-layer Packaging	Misc

Notes: