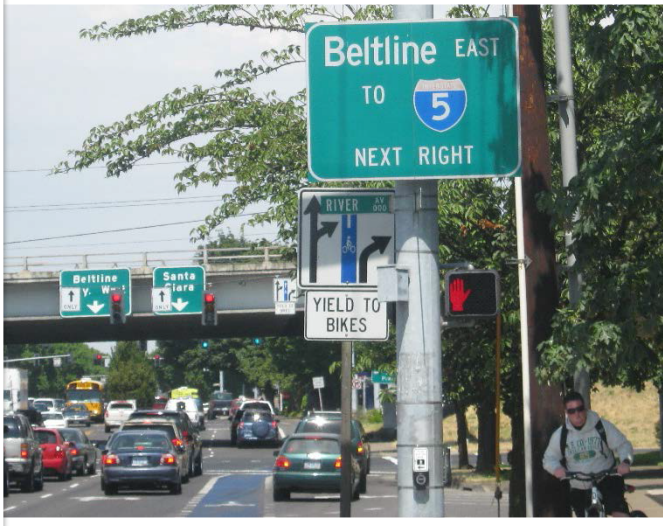
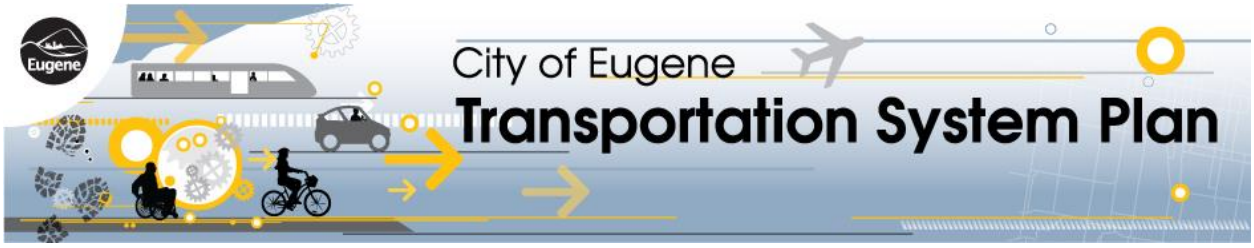
Eugene 2035 Transportation System Plan

Volume 1

February 2017





Acknowledgements

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The City of Eugene wishes to acknowledge and sincerely thank the members of the Transportation Community Resource Group (TCRG), whose guidance was critical to the development of this plan.

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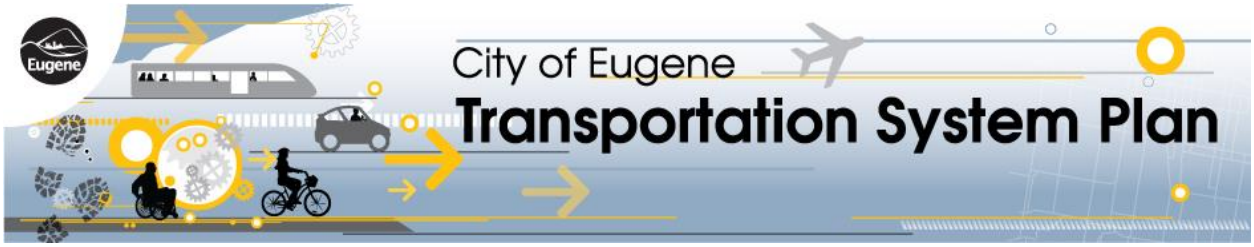

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Acronyms, Abbreviations and Select Definitions

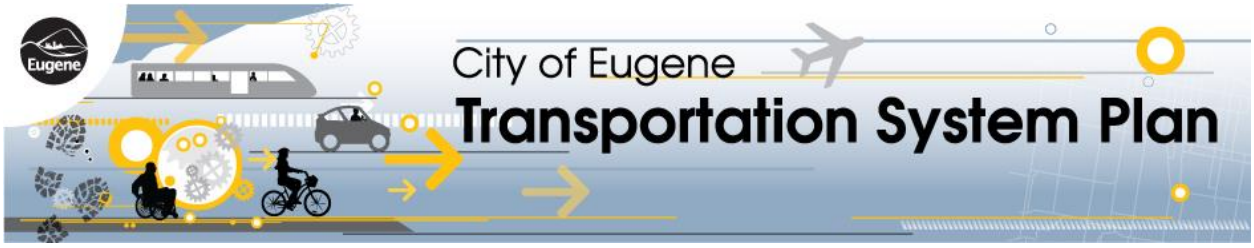
Transportation planning relies on many acronyms, abbreviations and technical terms. A few of these are included below for reference.

2035 TSP	*Eugene 2035 Transportation System Plan*
ACSP	Arterial and Collector Street Plan
ADA	American with Disabilities Act
ADA Transition Plan	The Americans with Disabilities Act Transition Plan for Accessibility in Public Rights-of Way is the City of Eugene's plan to address accessibility specifically within the City's public rights-of-way for persons with disabilities. It was adopted in 2015.
ADT	Average Daily Traffic
APD/APS	Accessible Pedestrian Device/Accessible Pedestrian Signals: pedestrian activated device that communicates information about Walk and Don't Walk phase through non-visual formats (i.e. audible tones).
APM	Analysis and Procedures Manual: ODOT's methods and instructions for how to forecast future transportation conditions.
ARTS	All Roads Transportation Safety Program: program that provides funding for infrastructure and non-infrastructure projects that improve safety on all public roads.
BRT	Bus Rapid Transit (known as EmX in Eugene)
CIP	City of Eugene's Capital Improvement Program
Complete Streets	Streets designed and operated to enable safe access for all users regardless of age, ability or mode of travel.
CTR	Commute Trip Reduction
DLCD	Oregon Department of Land Conservation and Development
EmX	Emerald Express Bus Rapid Transit
Envision Eugene	Envision Eugene (EE) is the City's draft comprehensive plan. When adopted, it will replace MetroPlan.
EWEB	Eugene Water and Electric Board
FTA	Federal Transit Administration
FTN	Frequent Transit Network: Lane Transit District's desired network of frequent bus routes.

HAWK	High intensity Activated Crosswalk beacon: pedestrian-activated signal used to stop traffic midblock or at unsignalized intersections and allow pedestrians to cross safely.
HSIP	Highway Safety Improvement Program
I-5	Interstate 5
IOF	Immediate Opportunity Fund: ODOT fund created to support primary economic development in Oregon through the construction and improvement of streets and roads.
ITS	Intelligent Transportation System: the use of advanced technologies to improve mobility and enable people to make smarter transportation choices. These may include variable message signs, dynamic car sharing programs or other ways of using wired and wireless technology to improve mobility.
Key Corridors	The six corridors – Highway 99, River Road, Coburg Road, South Willamette, Franklin Boulevard, and West 11th Avenue – that are intended to have frequent transit service connecting downtown to numerous core commercial areas.
Lane ACT	Lane Area Commission on Transportation: an advisory body chartered by the Oregon Transportation Commission responsible for addressing all aspects of transportation (surface, marine, air, and transportation safety) in Lane County with primary focus how the regional system will influence the broader state-wide system.
LCDC	Land Conservation and Development Commission: Oregon's governor-appointed commission charged policy-making related to the state's land use goals
LCOG	Lane Council of Governments
LID	Local Improvement District
LOS	Level of Service: represents a classification of the operational conditions experienced by users of a specified roadway. LOS is determined using a volume to capacity ratio (or degree of saturation) for a given roadway or intersection. LOS categories are designated on an A to F scale with A representing free-flow conditions and F representing a breakdown in vehicular flow.
LRTP	Long Range Transit Plan: Lane Transit District's long range policy plan.
LTD	Lane Transit District
MetroPlan	Regional comprehensive plan (Envision Eugene will replace this plan in Eugene)
MOU	Memorandum of Understanding
MovingAhead	Program initiated by City of Eugene and Lane Transit District to plan and prioritize transportation improvements in Key Corridors.
MPO	Metropolitan Planning Organization (*Central Lane MPO*)
MPU	Master Plan Update for the Eugene Airport

MTIP	Metropolitan Transportation Improvement Program
NEPA	National Environmental Policy Act
NHS	National Highway System
Node	A complete, compact, mixed-use community that includes places to live, work, learn, play, shop and access services. These communities act as nodes, or hubs, for both residents living in the center and people in nearby communities.
ODOT	Oregon Department of Transportation
OHP	*Oregon Highway Plan*
ORS	Oregon Revised Statutes
OTIB	Oregon Transportation Infrastructure Bank
OTP	*Oregon Transportation Plan*
PBMP	Eugene's Pedestrian and Bicycle Master Plan (2012)
PMT	Project Management Team
RRFB	Rectangular Rapid Flashing Beacon: pedestrian-activated signal located at unsignalized intersections or midblock crosswalks that alerts drivers to the presence of pedestrians and their intention to cross the roadway.
RTP	*Regional Transportation Plan*
RTSP	*Regional Transportation System Plan*
SDC	Systems Development Charge
Smart*Trips*	Program to reduce congestion by increasing the number of trips made by walking, biking, busing and carpooling.
SOV	Single-occupancy vehicle
SRTS	Safe Routes to School: program that improves walking and biking routes to schools.
SSM	Supplemental Safety Measures
STIP	Statewide Transportation Improvement Program
STIP-U	Statewide Transportation Improvement Program-Urban
STP-U	Surface Transportation Program-Urban
TAC	Technical Advisory Committee
TAP	Transportation Alternatives Program
TBL	Triple Bottom Line: a decision making framework that considers social equity, economic, and environmental factors.

TCRG	Transportation Community Resource Group: a group of local volunteers that advised on the preparation of this Transportation System Plan.
TDM	Transportation Demand Management: strategies and policies created to reduce or redistribute travel demand on transportation systems, specifically single-occupancy vehicles.
TGM	Transportation and Growth Management: Oregon-based grant program to assist in the planning of streets and land use to create more livable and sustainable communities.
TIF	Tax Increment Financing
TOD	Transit Oriented Development
TPR	Transportation Planning Rule: Oregon policy that dictates that all jurisdictions provide safe, convenient and economic transportation system by reducing per capita vehicle miles traveled through the creation of a TSP.
TransPlan	*The Eugene-Springfield Transportation System Plan*, last amended in 2002
TSAP	Oregon Department of Transportation's Transportation Safety Action Plan, last amended in 2015
TSM	Transportation System Management: tools that use technology to increase the efficiency of the transportation system to minimize the effects of vehicle congestion.
TSMO	Transportation System Management and Operations: programs to optimize the performance of multi-modal infrastructure, preserve capacity, and improve the security, safety, and reliability of transportation systems.
TSP	*Transportation System Plan*
UGB	Urban Growth Boundary
UP	Union Pacific Railroad
V/C	Volume to capacity ratio: this ratio represents the sufficiency of an intersection to accommodate vehicular demand where volume is the peak quantity of vehicles and capacity is the maximum rate at which vehicles can pass through a given point in an hour under prevailing conditions.
Vision Zero	Safety policy that aims to achieve a transportation system with no fatalities or serious injuries.



Chapter 1: Introduction

Transportation: the Backbone of a Community

Welcome to the *Eugene 2035 Transportation System Plan*, or "*2035 TSP*." This document establishes a system of transportation facilities and services that will serve the needs of Eugene residents over the next 20 years. The *2035 TSP* is the transportation element of Eugene's comprehensive land use plan and was designed to support the *Envision Eugene* project, the community's evolving plan for how Eugene will grow for the next 20 years. The *2035 TSP's* planned transportation infrastructure, goals, and policies support an economically vital, healthy, and equitable community.

Put simply, transportation is the movement of people and goods from one place to another. Our transportation systems affect nearly every aspect of city life. We import the basic necessities of life – food, clothing, and building materials – to our homes. A constant flow of freight supplies many aspects of our lives. We travel to work and school, and move about to socialize and play. Streets, rail lines, rivers, and airports create the framework around which our cities are built and help define a city's livability. Our personal choices about how we travel affect our daily lives and our physical and mental well-being. Transportation is truly the backbone that supports a community as it grows and evolves.

The Transportation System Plan defines how the transportation system should change **over the next 20 years** to address the needs of residents, businesses, and visitors.

The plan addresses:

- Roadway, bicycle, pedestrian, transit, air and rail networks
- Transportation project lists and funding
- Transportation policies

A long-term plan for transportation improvements serves community needs efficiently and effectively. For decades the Eugene-Springfield metropolitan area had a shared regional comprehensive plan and regional transportation system plan, known as the *Metro Plan* and *TransPlan* (last comprehensively updated in 2010 and 2002, respectively). These plans guided transportation decisions for both Eugene and Springfield inside a shared urban growth boundary. For both cities, *TransPlan* functioned as the Local Transportation System Plan and the Regional Transportation System Plan. In 2007, the Oregon Legislature passed House Bill 3337, which required Eugene and Springfield to develop separate urban growth boundaries. As a result, Eugene began preparation of a local comprehensive land use plan, the *Envision Eugene* project, and this *Eugene 2035 TSP*. These will be the first comprehensive land use and transportation plans adopted unilaterally by Eugene.

By articulating policies, priorities, and providing a list of construction projects and programs, the *2035 TSP* ensures that Eugene's transportation system meets this community's needs, communicates the City's aspirations, and conforms to state and regional policies. The *2035 TSP* must remain relevant and responsive over time. The City will revisit this *TSP* when *Envision Eugene Comprehensive Plan* is adopted and when conditions change, as evidenced through a monitoring program.

TSP Organization

The City of Eugene's 2035 TSP is comprised of two Volumes: Volume 1, the main document with attachments; and, Volume 2, technical reports, data, and related transportation plans that enhance and support Volume 1.

Volume 1 (this document) includes the items that will be of interest to the broadest audience.

Volume 1 includes:

- Chapter 1: A brief overview of the planning context for the *2035 TSP*
- Chapter 2: Goals, policies and actions that express the City's long-range vision for the transportation system
- Chapter 3: Description of the transportation system deficiencies and needs and the process to develop the TSP's list of planned capital improvements and transportation programs
- Chapter 4: An overview of the recommended projects for the multimodal system
- Chapter 5: A list of the multimodal projects and the costs estimated for their construction
- Chapter 6: A summary of transportation funding and implementation, including estimated revenue stream, cost of 20 year needs, and potential funding sources
- Attachment A: TSP Project Maps
- Attachment B: Street Classification Map (amended)
- Attachment C: Beltline Highway: Coburg Road to River Road Facility Plan
- Attachment D: Alternative Performance Measure Benchmarks
- Attachment E: Freight Maps

Volume 2 includes:

- Appendix A: Existing Conditions Inventory and Analysis
- Appendix B: No Build Analysis
- Appendix C: 20-year Needs Analysis
- Appendix D: Alternatives Evaluation Process
- Appendix E: Key Corridors map
- Appendix F: Eugene Pedestrian and Bicycle Master Plan (2012)
- Appendix G: On the Move: Regional Transportation Options Plan (2014)
- Appendix H: Design Standards and Guidelines for Eugene Streets, Sidewalks, Bikeways and Accessways (1999)
- Appendix I: Eugene Transportation System Plan: Public Involvement Plan
- Appendix J: Lane Transit District Long Range Transit Plan (2014)

- Appendix K: Strategies for Transportation System Management and Operations (TSMO)
- Appendix L: Eugene Airport Master Plan Update (2010)

While not all of Volume 2 is adopted as part of the *2035 TSP*, all of the documents provide useful information regarding the basis for the decisions represented in Volume 1.

Purpose

Envision Eugene, A Community Vision for 2032 recognizes that a future in which people must drive cars for most trips – to work, school, errands and recreation – does not support community goals and values.

The purpose of the *Eugene 2035 Transportation System Plan* (*2035 TSP*) is to establish a system of transportation facilities and services that supports both the City's adopted comprehensive land use plan and *Envision Eugene, A Community Vision for 2032,* articulated in 2012*,* by providing a long-term community approach to accommodate new growth while maintaining and improving transportation facilities for all system users over the next 20 years consistent with the comprehensive plan.

The *2035 TSP* is a resource for future transportation decision-making by articulating the preferred vision for Eugene's future multimodal transportation system. In addition to establishing Eugene's transportation infrastructure with 264 projects planned for the next 20 years, the *2035 TSP* helps future decision making by providing:

- Solutions to address existing and future transportation needs for biking, walking, using transit, driving, freight, and rail;
- A blueprint for investments in transportation projects and programs that provide "complete streets" and improved safety and access for all travelers, reduce the community's contribution to climate change, and improve community resilience in the face of unforeseen changes and an unpredictable future;
- A tool for coordination with regional and local agencies and governments;
- Information to ensure prudent land use and transportation choices;
- Order of magnitude cost estimates for improvements needed to support economic development and growth, and possible sources of funding these improvements;
- Function, capacity and location of future streets, sidewalks, bikeways, high-capacity transit, and other transportation facilities; and
- Potential programs to help improve opportunities to travel by walking, bicycling and transit in the future.

What are Complete Streets?

Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. **Complete Streets make it easy to cross the street, walk to shops, and bicycle to work.** They allow buses to run on time and make it safe for people to walk to and from train stations.

The *2035 TSP* satisfies the state's requirements for a local transportation system plan as prescribed by Oregon Statewide Planning Goal 12: Transportation.

Regional Coordination

Because traffic and mobility needs do not stop at a city's borders, several methods of coordinating transportation plans within the Eugene-Springfield Metropolitan area are employed. Staff from Eugene, Springfield, Lane Transit District, and Lane County are advisors on each other's transportation planning committees. Consistency between the transportation system plans of Eugene, Springfield, Coburg, LTD, and Lane County will be assured through the development of an updated *Regional Transportation System Plan* (*RTSP*) to replace the current Eugene-Springfield Transportation System Plan (*TransPlan*). The current *RTSP* considers linkages between the cities', LTD's, and Lane County's transportation systems and will be updated after Eugene adopts its local transportation system plan (Springfield and Coburg having already done so). Among other required elements, in accordance with OAR 660-012-0035, the updated *RTSP* will include new standards to demonstrate how the region is increasing transportation choices and reducing reliance on the automobile.

Sunday Streets is a popular event that invites people to travel without cars.

Source: City of Eugene

In addition to the state-required *RTSP*, the Central Lane Metropolitan Planning Organization (MPO) is responsible for maintaining a federally required *Regional Transportation Plan (RTP).* Central Lane MPO updates the *RTP* every four years. It represents the region's stated transportation investment priorities. Consistency is maintained between Eugene's *2035 TSP* and the *RTP* as each plan is updated periodically.

Public and Agency Involvement

The *2035 TSP* was collaboratively developed by the City and community members, businesses, neighboring cities, ODOT, Central Lane MPO, Lane County, and Lane Transit District. Opportunities for engagement included:

- Project website, www.EugeneTSP.org, that included web-based surveys and all technical reports, draft goals and policies, meeting summaries, a document library stocked by members of the public, and links to other planning activities in the region;
- Twelve Transportation Community Resource Group (TCRG) meetings;
- Public open houses, as well as attending meetings hosted through the *Envision Eugene* process;
- Targeted outreach with local community, neighborhood and social service organizations; and

The TCRG met 12 times to support development of the TSP.

Source: CH2M

- City of Eugene Planning Commission, City Council, and Lane County Board of Commissioners work sessions and public hearings.

Through these public involvement activities, the City provided community members with a variety of forums to identify their priorities for future transportation projects, programs, and policies.

Guiding Principles and Context

The *2035 TSP* provides a flexible, adaptable framework for making transportation decisions in an increasingly unpredictable and financially constrained future. Decisions about the City of Eugene's transportation system will be guided by the goals and policies contained in Chapter 2, but ultimately the decisions will be made within the overall context of the City's land use plans, commitments to address climate recovery, and support for economic vitality. These guiding plans and principles, described in the following sections provide a long-standing foundation for the *2035 TSP's* goals, policies, and potential actions.

Relationship to the *Metro Plan* and *Envision Eugene*

The *2035 TSP* is consistent with the *Metro Plan*, the City's adopted comprehensive land use plan, and supports *Envision Eugene, A Community Vision for 2032,* the 2012 product of a thorough and collaborative planning process that clearly articulates an updated community vision. Both plans promote compact urban development, enhanced neighborhood livability, ample economic opportunities, efficient transportation options, and the means to implement the plans in an adaptable, flexible, and collaborative manner. Like *Envision Eugene, A Community Vision for 2032,* this *2035 TSP* promotes movement toward a sustainable future, one that squarely faces climate change, energy resiliency, and uncertainty.

Envision Eugene, A Community Vision for 2032 provides a framework for the future that promotes new growth along or near Key Corridors and core commercial areas, respects neighborhood character, and increases access to services for all residents. *Envision Eugene, A Community Vision for 2032* provides these seven pillars for future planning:

- Provide ample economic opportunities for all community members;
- Provide housing affordable to all income levels;
- Plan for climate change and energy resiliency;
- Promote compact urban development and efficient transportation options;
- Protect, repair, and enhance neighborhood livability;
- Protect, restore, and enhance natural resources; and
- Provide for adaptable, flexible and collaborative implementation.

What are "Key Corridors"?

Key corridors are defined in the *Envision Eugene, A Community Vision for 2032 (2012)* as "streets that have, or are planned to have, frequent transit service (approximately every 15 minutes or less). This frequent transit service is often accompanied by nearby amenities such as parks, commercial attractions or employment centers, and higher density housing that enable shorter trips and less reliance on the automobile."

Key Corridors identified in *Envision Eugene, A Community Vision* include portions of W 11th Avenue, Highway 99, River Road, 6th and 7th Avenues, Coburg Road, Franklin Boulevard, and South Willamette Street.

The *2035 TSP* updates the City's transportation goals and policies in a manner that is consistent with both its current comprehensive land use plan and with *Envision Eugene, A Community Vision for 2032.*

Triple-Bottom Line Planning

The City of Eugene has a recent history of pursuing sustainable and equitable practices in all its operations. In 2000, the City Council adopted Resolution 4618, which committed the City "to promoting a sustainable future that meets today's needs without compromising the ability of future generations to meet their needs." This resolution states that the "City will ensure that each of its policy decisions and programs are interconnected through the common bond of sustainability as expressed in these principles."

Triple Bottom Line (abbreviated as TBL) is an accounting framework with three parts: social, environmental, and financial. Sometimes called the "three pillars of sustainability," the TBL is a decision-making framework the City of Eugene uses to reach its sustainability goals. This holistic view is grounded in the notion that we must advance social equity, environmental health, and economic prosperity to build a sustainable future for all members of the community. Applying TBL requires that the City explore potential impacts and trade-offs in each of these three areas for a fuller, more complete understanding of how decisions contribute to long-term sustainable development. The *2035 TSP* integrated TBL sustainability principles in every step of its development. The criteria that were used to prioritize potential projects and programs in this plan were broadened to include public health and safety, community context and neighborhood character, climate and energy, and cost effectiveness to ensure that the plan adequately addresses the many aspects of the economy-equity-environment triple bottom line.

Triple Bottom Line planning looks for actions that meet economic, social, and environmental needs.

Source: www.airportsustainability.org

The *2035 TSP*'s expanded view also brought to light other important attributes of the transportation systems, such as perceptions of safety, livability, and compatibility with neighborhood plans.

Equitable Planning and Transportation Services

The *2035 TSP* supports equity and social prosperities in several ways. This plan supports the provision of complete transportation networks that serve all travelers of all ages, abilities, and incomes. Everybody should have safe and efficient access to employment, education, services, and recreation. For example, the ability to afford a car should not be the determining factor in whether a person can be employed. The *2035 TSP* promotes the services and projects that will result in sufficient options to meet these needs. This plan also calls for assurances that costs and benefits of transportation improvements are shared equitably over time, both geographically throughout the City and among populations of different economic strata, races, and ethnicities. The *2035 TSP* empowers community members by encouraging the City to work with local residents, businesses, and other stakeholders to cooperatively develop context sensitive projects that foster the community's active use and sense of ownership of public rights-of-way.

Support for Economic Development

The *2035 TSP* supports the continued growth and vitality of the local and regional economy. Transportation infrastructure investments on key corridors will support the projected employment base and freight movements as well as improve multimodal access to the airport and train station. The *2035 TSP* supports the creation of enhanced transportation corridors by seeing streets as inviting places for people biking, walking, and driving, and as key support for commerce. In this way, "complete streets" will provide integrated transportation networks throughout the City that connect people walking, biking, and taking transit to work, as well as serve cars and the movement of freight.

The *2035 TSP* removes a barrier to planned growth by adjusting Levels of Service for traffic to more realistic levels, levels that reduce reliance on automobile travel and permit levels of development desired by the comprehensive land use plan.

Commitment to Address Climate Change

The City is committed to address climate recovery and reducing fossil fuel consumption. In July 2014, the Eugene City Council adopted a Climate Recovery Ordinance that codified a Council goal of achieving a 50 percent citywide reduction of fossil fuel use by 2030. The goal of reducing fossil fuel use by 50 percent is also a stated goal of the *2035 TSP*.

In addition to the City's adoption of the Climate Recovery Ordinance, from 2013 to mid-2015 the City participated in a scenario planning process led by the Central Lane MPO. The scenario planning process examined how transportation policies might affect equity, public health, economic vitality, and greenhouse gas emissions in the region. The state required the project partners to examine at least one scenario that would achieve a 20 percent reduction (below 2005 emissions levels) in greenhouse gas emissions from light vehicles. Generally, the 20 percent greenhouse gas emission reduction target of the scenario planning study is consistent with the goal of the Climate Recovery Ordinance.

While the preferred scenario selected by the Central Lane MPO is not a statement of regional policy and the strategies are not intended to be directive or regulatory, the *2035 TSP* incorporates and advances many of the strategies identified by the Central Lane MPO as a way of achieving the preferred scenario. Some specific examples of how the *2035 TSP* advances the preferred scenario strategies are as follows:

1. The *2035 TSP* plans for significant investment in active transportation over the next 20 years. (Active transportation strategies #1 & #2.)
    - Of the 264 projects planned in the 2035 TSP to be built over the next 20 years (excluding those to be built upon development), 239 of the projects are entirely pedestrian and bicycle projects; those projects include 89 neighborhood greenways, 22 on-street bike lanes, 18 shared use paths, 12 protected bike lanes, and 85 separated path/sidewalk projects.
    - Six of the 264 projects are transit projects, which include improving frequent transit service and multimodal travel along numerous transit corridors.
    - These 245 bicycle, pedestrian, and transit projects represent 51% of the total transportation dollars that are planned to be spent over the next 20 years.

According to the Environmental Protection Agency, transportation accounts for **28%** of greenhouse gas (GHG) emissions nationally.

- Of the 19 remaining projects, 6 of the projects are complete street upgrades to existing roadways; all 6 of these projects have a significant bicycle and pedestrian component. These complete street projects represent an additional 10% of the total transportation dollars.
- Not counting the three rail projects (which amount for 6% of the total transportation dollars), only three projects planned for the next 20 years have no explicit bicycle, pedestrian, or transit component contained in their project descriptions. These three projects represent approximately 8% of the total transportation dollars that are planned to be spent over the next 20 years.

2. Establishment of a bike share program is currently underway and is one of the *2035 TSP*'s four bicycle policies. (Active transportation strategy #3.)

3. Identified potential action items for meeting *2035 TSP* policy objectives include providing education and awareness programs, such as *SmartTrips* and school-based transportation options (including Safe Routes to School) to improve safety for all travelers and providing support for Safe Route to School programs and other programs that create safe walking conditions between residences and schools and other neighborhood destinations. (Active transportation strategy #5, Education and marketing strategy #1.)

4. A system-wide policy of the *2035 TSP* is fostering neighborhoods where Eugene residents can meet most of their basic daily needs without an automobile by providing streets, sidewalks, bikeways, and access to transit in an inviting environment where all travelers feel safe and secure. The related potential action item is the creation of a strategy to facilitate 90 percent of Eugene residences to be within 20-minute neighborhoods. (Active transportation strategy #6.)

5. The *2035 TSP* policies promote improved transit services that are integrated through context specific multimodal planning for all Key Corridors. One of the four transit policies in the *2035 TSP* is to collaborate with Lane Transit District to provide a network of high capacity, frequent, and reliable transit services, including consideration of Bus Rapid Transit, to the City's identified Key Corridors and to Frequent Transit Corridors as defined by Lane Transit District's Long Range Transit Plan. Additionally, the *2035 TSP* includes $171.4 million in transit projects that support the transit policies and the identified transit needs. (Transit strategies #3 and #4.)

6. The six multimodal/transit projects planned for the next 20 years include the improvement of frequent transit service and multimodal travel along Coburg Road, River Road, Highway 99, 30th Avenue and Amazon Parkway, new transfer stations, and enhanced pedestrian crossings. Additionally, an identified potential action item is to review City Code and amend it if needed to enable additional opportunities to provide bikeways and improved pedestrian connections between key destinations, transit stops, and residential areas with new development and redevelopment. (Transit strategies #5 and #7.)

7. Identified potential action items include aligning the City's land use and parking regulating to encourage walking, biking, and use of public transit and periodically reviewing parking needs in the downtown, Federal Courthouse, and riverfront districts and balance supply with other objectives, such as economic vitality; support for transit, walking, and biking; reduced consumption of fossil fuels; and human-scaled urban form. Additionally, for more than 10 years the City has had in place *Standards for Transportation Demand Management Programs* that provide a mechanism to vary the number of required off-street parking spaces by providing a

strategy for reducing vehicle use and parking demand and using benchmarks to measure program effectiveness. (Parking management strategy #2.)

8. The 2035 TSP recognizes the Regional Transportation Options Plan (RTOP) adopted by the Central Lane MPO as the regional guidance for programs that reduce reliance on single-occupancy vehicles and identifies seven key programs and services, including: SmartTrips individualized marketing programs to encourage active transportation choices; School-Based Transportation Options: Build off existing Safe Routes to School programs to include coordinated program with ridesharing and transit promotion and expand the program to middle and high schools; Rideshare (carpooling and vanpooling); and, LTD's Group Bus Pass program. (Education and marketing strategies #1, 3, and #6.)

The scenario planning studies indicate that, in addition to the steps being taken by the *2035 TSP* to reduce fossil fuel consumption and advance the achievement of the preferred scenario, a wide variety of additional measures will likely be needed to meet the Climate Recovery Ordinance's 50 percent fossil fuel reduction goal; including, additional investment in active transportation (bicycling, walking, and transit); fleet and fuel changes; changes to the pricing structure of fossil fuels, insurance, and parking; additional management of the parking supply; and additional education and marketing efforts.

At the time of this TSP adoption there is significant uncertainty about the tools that will be available for the City to meet this challenge – State consideration of new taxing mechanisms, emergence of self-driving cars and delivery vehicles, advances in electric vehicle technologies, real time information feeds to drivers about alternate routes and available parking spaces, safer street designs, and intelligent traffic control devices are just some of the trends that may impact travel behaviors, fuel consumption, traffic congestion, and emissions. The City will work with community partners and stakeholders to identify and implement the needed strategies for reducing fossil fuel consumption so the strategies will complement and expand upon those already contained in the *2035 TSP*.

Emphasis on Active Transportation

What is Active Transportation?

Active transportation refers to any form of human-powered transportation – **walking, cycling, using a mobility device, in-line skating or skateboarding.** People engage in active transportation in many ways, whether it is walking to the bus stop, or biking to school or work. For some, driving a car is not possible.

Because transit users begin or end their trips on foot or bike, the *2035 TSP* considers transit an active mode, too.

The City's transportation systems should be designed and operated with the needs and safety of all travelers in mind, including people of all ages and abilities, especially the most vulnerable, who are walking, driving, bicycling, using transit, or traveling with mobility aids, some out of necessity.

Toward this end, the *2035 TSP* includes a "Complete Streets" policy that will affect how all streets will be planned and maintained in the future. By making streets more inviting to pedestrians and bicyclists, especially for short trips, the City will gain more efficient use of limited available space within the street rights-of-way, provide a healthier environment in neighborhoods, and support the higher density, mixed use Key Corridors championed by *Envision Eugene, A Community Vision for 2032*.

Improvements to the sidewalk, bicycle, and transit networks make many more travel options available, providing choices that best fit one's travel needs, financial situation, and

location. In furtherance of the goal to increase the number of people choosing active transportation as their travel option, as noted above, there are 245 bicycle, pedestrian and transit projects planned for the next 20 years; these projects representing over 51% of the total transportation dollars that the City plans to spend over the next 20 years.

By planning for the active transportation infrastructure that will make active modes of travel more safe and convenient, the *2035 TSP* is designed to achieve its goal of greatly increasing the number of trips made by transit, bicycling and walking. With the 245 bicycle, pedestrian and transit projects (as well as the six complete street projects) planned for the next 20 years, the *2035 TSP* hopes to (at least) triple the number of trips made by transit, bicycling or walking by 2035.

Public Health

Transportation affects our individual health in many ways: through exposure to air pollution, by affecting the amount of exercise we get, through traumatic crashes, and, all too often, by adding stress. Cumulatively, poor health conditions and injuries create an economic burden on society. Local studies showed significant health benefits when the community invested more in active transportation, transit, education, and marketing programs designed to help people avoid single occupant auto trips.[1]

Active transportation like walking, biking, and taking transit provide healthy alternatives to driving for many trips.

Source: City of Eugene

In November 2015, the City Council adopted Resolution No. 5143 setting as official policy for the City the Vision Zero goal that no loss of life or serious injury on our transportation system is acceptable. In its resolution, the City Council explicitly gave its support to "efforts by the City of Eugene and our regional partner agencies to prioritize safety improvements for people walking, bicycling, and using mobility devices" and to "efforts by the City of Eugene and our regional partners to eliminate deaths and serious injuries on our transportation system, with an emphasis on the most vulnerable users."

Each of the planned projects advance, in some way, the Vision Zero goal by improving the safety of the subject transportation facility for the users. In addition to the many bicycle and pedestrian projects that will improve the user's safety, such as the grade separated path/sidewalk projects and the protected bike lane projects, proposed improvements to our current roadways will also advance user safety goals. For example, the complete street upgrade projects will improve the roadway for all users and the adoption and construction of the Randy Papé Highway Facility Plan recommendations for improvements to the Randy Papé Beltline Highway and Delta Highway will improve the safety of those facilities, both of which have segments identified by ODOT as having Safety Priority Index System (SPIS) scores in the top 10 percent. (ODOT's SPIS score is based on crash rate, frequency and severity over the prior three years.) In all, implementation of the *2035 TSP* will result in improved safety from crashes, safer sidewalks and bike facilities, slower vehicular speeds, and better pedestrian crossings on busy streets.

[1] Central Lane Scenario Planning, 2015.

Regulatory Framework and Relationship to Other Plans and Policies

Oregon Transportation Planning Rule

The Oregon Transportation Planning Rule (TPR), Oregon Administrative Rule 660-012-0000, implements Statewide Planning Goal 12: Transportation, "To provide and encourage a safe, convenient and economic transportation system." The purpose of the TPR is to direct transportation planning in coordination with land use planning. One requirement of the TPR is that cities adopt local transportation system plans for the lands within a city's planning jurisdiction that establish a coordinated network of transportation facilities and services adequate to meet identified local transportation needs. In establishing that coordinated network of facilities and services, local transportation system plans must include a number of elements such as a road plan for a system of arterial and collector streets and a bicycle and pedestrian plan.

Eugene-Springfield Transportation System Plan (*TransPlan*)

Until now, *TransPlan*, adopted as a functional plan to the Eugene-Springfield Metropolitan Area General Plan (*Metro Plan*), served as the City's regional transportation system plan (RTSP), local transportation system plan, and pedestrian and bicycle master plan. While *TransPlan* will continue to serve as the City's RTSP, the *2035 TSP* will serve as the City's local transportation system plan.[2] As discussed further below, the *2035 TSP* will also serve as the City's pedestrian and bicycle master plan.

In satisfaction of the TPR's requirement to increase transportation choices and reduce reliance on the automobile (OAR 660-012-0035), the *2035 TSP* supports and advances the alternative performance standards approved by LCDC in 2001 and adopted as part of *TransPlan*. In furthering the goals of the 2001 standards, the *2035 TSP* builds upon the lessons learned since 2001, and recognizes that there are new, innovative ways to decrease vehicle miles of travel. To that end, the *2035 TSP* uses terminology that, at times, slightly differs from the terminology adopted in 2001, but nevertheless advances the achievement of the standards approved by LCDC in 2001.[3] For example, the City no longer uses the term "nodal development" in its land use and transportation planning efforts. Instead, the City uses terms such as "key corridors" and "20-minute neighborhoods." Despite a shift in terminology, the underlying concept, goals, and benefits of nodal development remain unchanged; providing land use patterns so that walking, cycling, and use of transit are highly convenient and so that, on balance, people need to and are likely to drive less than they do today. Most importantly, the *2035 TSP* is designed to increase transportation choices and reduce reliance on the automobile.[4]

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[2] The *2035 TSP*, including the project lists set forth in Chapter 5, does not have any legal or regulatory effect on land or transportation facilities that the City does not own. However, in order to adequately evaluate system alternatives, the City's planning process evaluated some facilities that are not under the City's jurisdiction. As such, the *2035 TSP* includes proposed improvements to non-City facilities. Without additional action by the governmental entity that owns the subject facility or land (*e.g.*, Lane County or State of Oregon) any project in this *2035 TSP* that involves a non-City facility or land is merely a recommendation. As in most facility planning efforts, moving towards, and planning for, a well-connected network depends on the cooperation of multiple jurisdictions; the *2035 TSP* is intended to facilitate discussions between the City and its governmental partners as we work together to achieve a well-connected network. The *2035 TSP* does not, however, obligate its governmental partners to take any action or construct any projects.

[3] In accordance with OAR 660-012-0035(7), the *2035 TSP* includes benchmarks to assure that the City is making satisfactory progress toward meeting the standards approved by LCDC in 2001. Those benchmarks are set out in Attachment D.

[4] The *2035 TSP*'s design to increase transportation choices and reduce reliance on the automobile will most likely advance any new regional standards that are adopted as part of the RTSP update, however, if needed, the *2035 TSP* will be amended to address the new regional standards.

Comprehensive Plan

While reflective of Eugene's current planning work, the 2035 TSP is a component of the *Metro Plan* and is being concurrently adopted as part of the *Metro Plan*. Because preparation of the *2035 TSP* was originally a part of the larger planning process that will eventually result in the adoption of Envision Eugene Comprehensive Plan (EECP), it is anticipated that the *2035 TSP* will eventually serve as a component of the EECP and will be adopted, with amendments, as the transportation chapter of the EECP.

Pedestrian and Bicycle Master Plan

On March 12, 2012, the Eugene City Council accepted the 2012 Eugene Pedestrian and Bicycle Master Plan (PBMP) and directed the City Manager to integrate the PBMP into the *2035 TSP*. Consistent with the TPR's requirement that transportation system plans include a bicycle and pedestrian plan for a network of bicycle and pedestrian routes and that transportation system plans be designed to increase transportation choices and reduce reliance on the automobile, the PBMP's goals, key policies, and projects are woven throughout the *2035 TSP* and function as an integral part to making walking and cycling highly convenient. As such, in addition to the *2035 TSP* serving as Eugene's local transportation system plan, the *2035 TSP* also serves as Eugene's bicycle and pedestrian master plan.

Related Plans, Manuals, and Rules

The *2035 TSP* is the City's long-range planning document that establishes a system of transportation and services that will meet the identified needs of the City over the next 20 years. In addition to the *2035 TSP,* the City has adopted a number of plans, manuals, and administrative rules that relate the provision of transportation facilities to the public.[5] The City's current transportation-related plans, manuals, and administrative rules, include (but are not limited to):

- Street Classification Map;
- Street Right-of-Way Map;
- Design Standards and Guidelines for Eugene Streets, Sidewalks, Bikeways & Accessways;
- Public Improvement Design Standards Manual;
- Utility and Right-of-Way Permits, Construction Within and Use of the Public Way, Policies and Procedures Manual;
- 2010 Airport Master Plan;
- Standards for Traffic Impact Analysis Review; and,
- Standards for Transportation Demand Management Program.

[5] Some of the listed documents satisfy specific provisions of the TPR and are explicitly discussed in the *2035 TSP*. For example, the City's Street Classification Map, Street Right-of-Way Map, and *Design Standards and Guidelines for Eugene Streets, Sidewalks, Bikeways & Accessways* collectively satisfy the required road plan setting forth a system of arterials and collectors and standards for the layout of local streets and other important non-collector street connections. *See* OAR 660-012-0020(2)(b) and Appendix H in Volume 2.

The *2035 TSP* recognizes that certain transportation-related regulations need updating. Some of the above-listed documents will be amended concurrently with the adoption of the *2035 TSP* (such as the Street Classification Map); other documents will undergo a longer update process and will be amended after the adoption of the *2035 TSP* (such as the *Design Standards and Guidelines for Eugene Streets, Sidewalks, Bikeways & Accessways*).

There are other City-adopted plans and policies that, while not solely related to the provision of transportation facilities to the public, nevertheless play an important role in the City's long-range transportation planning. Some of those other plans and policies, such as the Climate Recovery Ordinance and the Triple Bottom Line framework, are explicitly discussed in the *2035 TSP.* Also recognized and incorporated into the *2035 TSP* is the City Council's adoption of Resolution No. 5143 which sets as official policy for the City the Vision Zero goal that no loss of life or serious injury on our transportation system is acceptable.

In addition to the multi-jurisdictionally adopted Eugene-Springfield Transportation System Plan (*TransPlan*), there are a number of regional transportation planning documents and planning documents adopted by one of the City's governmental partners that inform, guide, and, in some cases, have regulatory significance to the City's transportation planning efforts. Those other transportation planning documents include (but are not limited to):

- Central Lane MPO Regional Transportation Plan (RTP);
- Lane County Transportation System Plan;
- Springfield 2035 Transportation System Plan;
- Oregon Highway Plan;
- Regional Transportation Options Plan; and,
- LTD Long Range Transit Plan.

Financial Environment

A combination of federal, state, county, city, and private funds have traditionally supported transportation capital improvements. While this remains the case, the funding arrangements at both the state and national levels are less predictable than in the past. The recent national recession, reduction of federal subsidies for timber counties, state-legislated revenue dedicated to discrete projects, the overhaul of the State Transportation Improvement Program (STIP), and Congress' move away from federal earmarks for infrastructure have all combined to make revenue forecasting an uncertain exercise. Today, as in the past, revenue streams are insufficient to address both the backlog of maintenance needs across Oregon and future transportation investments that support the economic growth, health, and wellbeing of its communities. Given these funding uncertainties, it is nearly impossible to forecast accurately how much funding is likely to be available for transportation investments over the 20-year life of this plan.

In this context of future uncertainties, Eugene's *2035 TSP* provides a prudent list of construction projects, emphasis on lower cost methods of improving personal mobility within the City, and increased reliance on technologies that will improve the efficiencies of our streets. The project lists in Chapter 5 allow the City the flexibly to make wise investments and to leverage opportunities as they arise, such as when there are:

- Changes in policy or funding at the federal, state, or local level;
- Different local development priorities;
- Future conditions that differ from predictions in the *Metro Plan*; *Envision Eugene, A Community Vision for 2032*; this *2035 TSP;* or regional plans; or
- New public-private or public-public partnerships.

Chapter 2: Goals, Policies, and Actions

The *2035 TSP* is an internal policy document that provides the City of Eugene with a coordinated guide for changes to its transportation infrastructure and operations over a 20 year period of time. The *2035 TSP* was crafted to conform to the *Metro Plan*'s land use diagram and *Envision Eugene, A Community Vision for 2032* (2012).

A basic assumption in the development of this policy document is that transportation systems do more than meet travel demand: they have a significant effect on the physical, social, and economic characteristics of the areas they serve. Transportation planning must be viewed in terms of regional and community goals and values such as protection of the environment, impact on the regional economy, and maintaining the quality of life that area residents enjoy and expect.

A major component of this policy document is the goals, policies, and lists of possible action items. These terms are defined below.

- **Goals** are broad statements of philosophy that describe the hopes of the people of the community for the future of the community. A goal is aspirational and may not be fully attained within the 20-year planning horizon of this plan.
- **Policies** are statements adopted to provide a consistent course of action and move the community toward attainment of its goals. Policies in the *2035 TSP* guide the work of the City Manager and staff in formulating proposed changes to the Eugene Code and other regulatory documents, to guide other work programs and long range planning projects, and preparation of the budget and capital improvement program. These policies will not be used in determining whether the City shall approve or deny individual land use applications. Each set of policies may be followed by action items that could be employed to help implement one or more of the policies within the set.
- **Potential Actions** offer direction to the City about steps that could implement adopted policies. Not all policies include action items and not all potential actions are listed. Rather, the identified potential actions outline specific projects, standards, or courses of action that the City or its partner agencies could use to implement the *2035 TSP*. These actions can provide guidance for decision-makers and will be updated over time.

Goals

Goal 1: Create an integrated transportation system that is safe and efficient; supports the *Metro Plan*'s land use diagram, *Envision Eugene, A Community Vision for 2032* (2012), the City of Eugene's target for a 50 percent reduction in fossil fuel consumption, and other City land use and economic development goals; reduces reliance on single-occupancy automobiles; and enhances community livability.

Goal 2: Advance regional sustainability by providing a transportation system that improves economic vitality, environmental health, social equity, and overall well-being.

Goal 3: Strengthen community resilience to changes in climate, increases in fossil fuel prices, and economic fluctuations by making the transportation networks diverse, adaptable, and not reliant on any single mode.

Goal 4: Address the transportation needs and safety of all travelers, including people of all ages, abilities, races, ethnicities, and incomes. Through transportation investments, respond to the needs of system users, be context sensitive, and distribute the benefits and impacts of transportation decisions fairly throughout the City.

Goal 5: By the year 2035 triple the percentage of trips made on foot, by bicycle, and by transit from 2014 levels.

System-Wide Policies

LTD buses include bike racks to allow users to combine modes of travel.

Source: Lane Transit District

1. Foster neighborhoods where Eugene residents could meet most of their basic daily needs without an automobile by providing streets, sidewalks, bikeways, and access to transit in an inviting environment where all travelers feel safe and secure.
2. Consider safety first when making transportation decisions. Strive for zero transportation-related fatalities and severe injuries by reducing the number and severity of crashes through design, operations, maintenance, education, and enforcement. In furtherance of the City Council's adopted Vision Zero goal (Resolution No. 5143), prioritize safety improvements for people who walk, bike and use mobility devices because no loss of life or serious injury on our streets is acceptable.
3. Improve community health by designing streets and paths to encourage increased physical activity by the public.
4. Promote connections between modes of transportation to make each mode more efficient, such as by connecting bicycle routes and bus, train, and airport services to each other; and connections to transportation facilities extending outside the City's planning area.
5. The Regional Transportation Options Plan (RTOP) adopted by the Central Lane MPO Metropolitan Policy Committee is recognized as the regional guidance for programs that reduce reliance on single-occupancy vehicles.

Potential Actions for System-Wide Policies

A. Create a transportation work plan that prioritizes implementation and funding for transportation projects and programs within the *2035 TSP* 20-year planning period.

B. Review and amend City codes where needed to enable additional opportunities to provide bikeways and improved pedestrian connections between key destinations, transit stops, and residential areas with new development and redevelopment. Create opportunities for public review of new development and new or redeveloped schools at early stages of site development to improve multimodal access and circulation.

C. Create a strategy to facilitate 90 percent of Eugene residences to be within "20-minute neighborhoods." The strategy might include methods to improve proximity of residences to services and prioritizing projects that improve convenience and safety for walking, biking, and connections to transit stops.

D. Develop local metrics that may be applied when the land use and transportation system characteristics would indicate a tendency for a development or area to generate fewer motorized vehicle trips than would be predicted by using national standards, such as for mixed-use development, areas served by frequent transit, and areas with Transportation Demand Management agreements.

E. With Lane County Public Health Department, identify mutual objectives and opportunities to collaboratively promote bicycle and pedestrian activities, reduce injury crashes and fatalities, integrate health considerations into transportation decisions, and improve emergency medical systems.

F. Develop a Memorandum of Understanding (MOU) with Lane County Public Health Department for sharing data and analysis on traffic-related injuries and traumas.

G. Focus police traffic enforcement efforts on Driving Under the Influence of Intoxicants, failure to stop for red lights and stop signs and obey traffic control devices, violation of posted speed limits, distracted driving (*e.g.*, texting while driving), failure to wear seatbelts, and failure to stop for pedestrians in crosswalks.

H. Work with the Oregon Department of Motor Vehicles (DMV) to revise driver's license tests to be more inclusive of rules pertaining to walking and biking.

I. Implement the *ADA Transition Plan for Public Right of Way* to bring all pedestrian access routes within sidewalks and other pedestrian circulation paths in the right-of-way into compliance with Americans with Disabilities Act (ADA) requirements.

J. Continue to review and amend standard conditions for traffic control, permit approval procedures, and design standards, as necessary, to ensure safe, barrier-free passage through and adjacent to construction zones.

K. Evaluate City streets for opportunities to lower speed limits when doing so will make the street safer for one or more modes of transportation and not make it less safe for any other mode.

L. Strengthen the City's traffic calming program by increasing the annual funding amount. Continue to consider input from the Fire Department regarding acceptable traffic calming treatments.

M. Create and regularly use a robust, systemic method of measuring trips made by walking, biking, and driving.

N. Promote transportation demand management programs along the Key Corridors, in downtown, and near the University of Oregon to coordinate the needs and travel options of multiple businesses and residences for purposes of reducing automobile and freight demand at times of peak congestion. These programs could be staffed by either a public agency, a business association, or by training individuals within the affected businesses and housing to perform this work.

O. Create "Mobility Hubs" near transit stations.
P. Provide education and awareness programs, such as Smart*Trips* and school-based transportation options (like Safe Routes to School), to improve safety for all travelers and encourage use of active transportation.
Q. Align the City's land use and parking regulations to encourage walking, biking, and use of public transit; more efficient use of land; and lower transportation and housing costs while accommodating the growth and economic prosperity espoused by the comprehensive land use plan.
R. Monitor advancement toward achieving the goals of this plan. Coordinate progress reports with scheduled updates to the Regional Transportation Plan made by the Central Lane MPO. Make progress reports available to the public.
S. Collect and report crash data for all travel modes and use the data to inform capital and maintenance projects to enhance safety and engineering changes to existing infrastructure.
T. Support programs recommended in the Regional Transportation Options Plan.
U. Prepare an assessment of the City's current safety efforts, recommendations for actions to take to improve transportation safety, and an implementation plan for those actions. The assessment should include a framework for screening all transportation projects for consistency with adopted policies.
V. Translate educational materials to other languages to broaden their effectiveness.
W. Complete a Vision Zero Action Plan to achieve the goal of zero transportation-related fatalities and severe injuries by a target date to be recommended by the Vision Zero Task Force.

What is a "Mobility Hub"?

Mobility hubs are a concentration of transportation services near transit stations that may include Wi-Fi technologies, pocket maps/brochures, secure bicycle parking, car- and bike-share services, shuttle service, and other assistance for the traveling public.

Transit Policies

1. Promote the use of public transit and the continued development of an integrated, reliable, regional public transportation system.
2. Prioritize improved transit service in Key Corridors and other areas with sufficient employment, activities, or residential density that best support transit service and transit services that connect residents to employment centers. If operational funding is sufficient, extend transit to support higher density housing and employment development planned for other areas.
3. Align transit services with community needs by engaging the broader community in determining the role transit service will play in Eugene's future; creating strategies that leverage capital investment to deliver the desired services and facilities; and identifying and pursuing the most effective, stable, and equitable sources of local funding for transit operations.
4. Collaborate with Lane Transit District to provide a network of high capacity, frequent, and reliable transit services, including consideration of Bus Rapid Transit, to the Key Corridors as identified in *Envision Eugene, A Community Vision for 2032* (2012) and to Frequent Transit Corridors as defined by Lane Transit District's *Long Range Transit Plan*.

Potential Actions for Transit Policies

A. The actions anticipated to implement Key Corridors and regional Frequent Transit Networks include the following:

- Describe a comprehensive process to be used for planning Key Corridors.
- Analyze Key Corridors and Frequent Transit Network routes, as identified in *Envision Eugene, A Community Vision for 2032* (2012) and *Long-Range Transit Plan*, for their potential to provide frequent transit service and identify transit's role in supporting development within each corridor.[6] In each Key Corridor, bus rapid transit (*e.g.*, "EmX"-style of transit service) should be considered as an option.
- Engage members of the community in establishing neighborhood travel needs and priorities within each corridor, leading to proposed context sensitive solutions that meet these needs.
- Conduct coordinated land use and transportation studies for each Key Corridor to determine the appropriate balance of transportation access for each mode of travel, location and density of new development, location of activity centers, right-of-way needs, building setbacks, and locations of major transit stops.

Review and amend parking standards, as necessary, for each corridor to reflect the presence of frequent transit service and reduced demand for automobile trips.

- Design standards should be created for the pedestrian zone and for properties adjacent to the corridor to encourage pedestrian- and transit-oriented development and to provide safe and convenient pedestrian and bicycle access to transit stops.

What is Bus Rapid Transit?

Bus Rapid Transit (BRT) is the highest level of service available within Lane Transit District's Frequent Transit Network. **Locally BRT service is known as "EmX."**

BRT is a permanent, integrated system that uses buses on roadways or in dedicated lanes to efficiently transport passengers. BRT system elements include bus only lanes, stations, vehicles, fare collection, intelligent transportation systems, and branding elements that can be easily customized to community needs, and result in higher ridership and less delay.

EmX Stations include amenities to make taking transit more comfortable and convenient.

Source: Lane Transit District

[6] In 2015, the MovingAhead program was initiated by the City of Eugene and the Lane Transit District to plan and prioritize transportation improvements in the Key Corridors. Each corridor will be examined individually to understand what types of investments are needed for people using transit, biking, and walking to meet their transportation needs and support vibrant places.

B. Coordinate with Lane Transit District (LTD) to expand the park-and-ride system within Eugene's commute shed with an emphasis on developing partnerships to share existing parking facilities.

C. Consider transit-preferential measures at intersections to improve travel time reliability and reduce delays. These include transit signal priority, queue jump lanes, curb extensions for loading, and other such practices. These options should be balanced against the potential interference with bike lanes, delays to pedestrian crossings, and safety for all travelers. Work with LTD to provide safe and convenient pedestrian and bicycle access and amenities by transit stops, including bike share stations and secure bike parking.

D. Work with LTD to evaluate opportunities to use SDCs and other local funding sources to support transit improvements.

What is the Frequent Transit Network?

Lane Transit District's Long Range Transit Plan (2014) describes the Frequent Transit Network (FTN), as a **regional initiative to better connect areas of more active development to transit.** The FTN will have the following characteristics:

- A well-connected network that provides regional circulation.
- Compatible with and supportive of adjacent urban design goals.
- Operates seven days a week in select corridors.
- Service hours are appropriate for the economic and social context of the area served.
- Coverage consists of at least 16 hours a day and most area riders' trip origins or destinations are within ¼ of a mile straight line distance.
- Average frequency of 15 minutes or better.
- Transit stops and stations are of high quality with amenities, including bicycle and pedestrian connections to stations and end-of-trip facilities, such as bike parking.

Roadway and Parking Policies

1. ["Complete Streets Policy"] Design, construct, maintain, and operate all streets to provide comprehensive and integrated transportation networks that serve people of all ages and abilities, promote commerce, and support the comprehensive land use plan's vision for growth and development in a responsible and efficient manner. A "complete street" allows safe travel for automobiles and emergency responders, bicycles, walking, transit, and freight. In addition to fulfilling a street's basic transportation functions and providing access to properties, streets and sidewalks should be designed to be attractive, safe, accessible, sustainable, and healthy components of the City's environment.
2. Improve connectivity and address deficiencies in the street network, both inside the Urban Growth Boundary and connecting to neighboring cities, with the understanding that connectivity needs may differ based on an area's planned land uses (*e.g.*, large lot industrial areas may have different needs than residential areas).
3. Improve travel time reliability between key origins and destinations for transit, regional freight movement, and other trips for which on-time arrivals are important.

4. Facilitate prompt emergency responses. Ensure that fire and emergency response routes remain passable by design.
5. Plan for, design and construct or reconstruct streets to achieve consistency between motorists' speeds and target speed limits. Use motor vehicle Level of Service (LOS) standards to evaluate acceptable and reliable vehicular performance on the City's and County's local, collector and arterial streets. Recognize ODOT's mobility targets (based on volume to capacity or V/C) for state facilities. Because mobility targets from the Oregon Highway Plan (OHP) are applied on state facilities, the City will seek Oregon Transportation Commission (OTC) amendment of the OHP to include alternative mobility targets at the locations identified in the local standards.
6. Continually optimize the efficiency of the transportation system through transportation system management (TSM) improvements, connectivity improvements, multimodal improvements, parking management and supply, and Transportation Demand Management (TDM) strategies, in combination with the projects identified in this TSP.
7. Facilitate efficient access for goods, employees, and customers to and from employment, commercial, and industrial lands, including freight access to designated freight routes, highways, rail yard, and the Eugene Airport. Increase multimodal access for employees to employment centers.
8. Support ODOT's efforts to improve Randy Papé Beltline Highway for transportation system efficiency, improved safety, and improved connections for people travelling by foot, bike, and bus. The *Beltline Highway: Coburg Road to River Road Facility Plan* is incorporated into this TSP, contained in Volume 1. The City of Eugene supports completion of the NEPA review, and implementation of the resultant recommended improvements.
9. Prior to moving forward with a capital project including Complete Street Upgrades of Existing Streets and in addition to conducting public engagement activities, staff will also consider a neighborhood's character (the built and natural environment) and other elements of community context when designing the project.

What is "travel time reliability"?

Travel time reliability is a consistency or dependability in travel times as measured from day to day or across different times of day. Travelers want to know that a trip will take a half-hour today, a half-hour tomorrow, and so on.

Actions for Roadway Policies

A. Amend the City's adopted Traffic Impact Analysis code and administrative rule provisions to expand the measurement of a proposed development's traffic impacts beyond the level of service measurement and, correspondingly, expand potential mitigation measures beyond measures that address only vehicular delay.
B. Amend the Traffic Impact Analysis provisions to require a review of safety at intersections through a comparison of the actual crash rate experienced during the past 3-5 years versus the expected crash rate for similar facilities to determine whether improvements may be needed.
C. Require all developments and employers of a certain size and type to prepare, implement and monitor Transportation Demand Management (TDM) plans.

Potential Actions for Roadway and Parking Policies

A. Consider roundabouts for new development in any situation where capacity, congestion, delay, crash history, or turning conflicts would otherwise support traffic signal installation. Roundabouts should be actively considered for retrofit at existing signal locations when major reconstruction is planned.

B. Preserve rail corridors, alleys, accessways, and pedestrian and bicycle easements that can provide desired connections within the transportation network or have potential to serve transportation purposes in the future.

C. Continue to maintain and implement the Street Classification Map, the Right of Way Map and the *Design Standards and Guidelines for Eugene Streets, Sidewalks, Bikeways and Accessways*.

D. Update City design standards, as necessary, to address emergency vehicle passage on officially recognized emergency response routes and consider accommodations for Fire Department Ladder Operations where tall buildings exist or are planned. Involve emergency responders in changes to street designs.

E. Articulate a process for implementing the complete streets policy, including responsibilities for decision making, public review, opportunities for appeals of decisions, the means of documenting and justifying decisions, and the collection and reporting of data that allows monitoring the effects of street design changes over time.

F. Update the Eugene *Design Standards and Guidelines for Eugene Streets, Sidewalks, Bikeways and Accessways* to implement the "complete streets policy" by:

- Recognizing these attributes as integral parts of the planning, design, and programming for public streets and rights-of-way:
  - The safety for those traveling in the public right-of-way, including the most vulnerable people of all ages and abilities.
  - The convenience of all users of the transportation system.
  - The importance of making walking and biking the most efficient, convenient, safe, and comfortable method of travel for trips of up to half a mile and up to 2 miles, respectively.
  - Adopted plans that state a preference for a mode of travel in a specific location, such as transit in Frequent Transit Corridors, emergency services on Emergency and Fire Response routes, trucks on designated freight routes, and bicycles on facilities described in Chapter 5.
  - Balancing traffic flow with the street experience, safety, and needs of other users within the streetscape.
- Articulating circumstances that may require that the complete streets policy be achieved incrementally through a sequential series of smaller improvements rather than by incorporating all elements into a single construction project.
- Articulating a process for determining when conditions inherent to a specific project may make application of the complete streets policy difficult or superfluous, such as when all

modes of travel are adequately served in an area by separate, complementary networks, or where a mode of travel is prohibited.

G. Work with developers to complete the major street network as shown in the Arterial and Collector Street Map. The City will fund its share of these improvements through System Development Charges and other funding sources.

H. Expand methods of providing real-time traveler information to the public, such as by:
   - A smartphone application to alert drivers of travel time delays and alternate routes.
   - Informational reader board signs along freight routes.
   - Increased awareness of existing programs and services (*e.g.,* through rideshare campaigns, Sunday Streets events, transportation fairs, and community events).
   - Enhanced online rideshare platforms for multiple networks, including closed rideshare networks to serve targeted groups (*e.g.*, Kidsports and special events) and dynamic ridesharing options that serve the general public.
   - Centralized data pool for emerging technologies that require public transportation data (*e.g.,* transit real-time information) and infrastructure data (*e.g.,* street and parking data) that is available for use by public and private sectors.
   - An app that directs drivers to open parking spaces.

Shared roadways are one type of facility that serve both cyclists and drivers.

Source: City of Eugene

I. Implement Intelligent Transportation Systems (ITS) and other technologies to improve traffic safety, such as:
   - Upgraded signal coordination and abilities for signals to adjust to real-time traffic conditions.
   - Upgraded traffic signals to include accessible pedestrian devices (APD).
   - Ramp metering (by ODOT).
   - Variable speed limits that respond to increasing congestion.

J. Review and update procedures for incident/crash detection and clearing roads to reduce traffic delay while maintaining a safe environment for incident responders.

K. Review and update as necessary the Eugene Code and policies for access management and street connectivity standards to enhance safety and operational efficiency for all modes of travel on streets and sidewalks.

L. Periodically review and update the City Code and administrative rules in the downtown area, neighborhoods near the University of Oregon, mixed-use centers, and in areas experiencing changing conditions, such as where a transit corridor study has been completed, transit routes

changed, or major bicycle facilities completed. Examples of possible changes to the code and policies may include:

- Requiring or allowing fewer parking spaces where conditions would allow less driving.
- Disconnecting the price of a residential parking space from a unit's rent.
- Aligning metered parking prices with demand.
- Facilitating conversion of on-street automobile parking spaces to bicycle lanes, bike parking, or expanded pedestrian and ground-level business amenities.
- Aligning land use and design standards at major transit stops to support transit ridership.
- Requiring ongoing transportation demand management (TDM) for large attractions and employment centers at times and locations where such measures are necessary to reduce congestion or optimize limited parking.

M. Change the configuration of some streets to encourage slower vehicle speeds.

N. Work with ODOT to provide sufficient access along Highway 99 to facilitate redevelopment of adjacent properties as a Key Corridor.

O. Collaborate with ODOT on the implementation of the Beltline Facility Plan and NEPA project. Amend the *2035 TSP* to reflect the recommended policies and projects of these efforts.

P. Explore methods of describing multimodal levels of service that address the City's desire for a safe and convenient multimodal transportation system.

Q. Work with ODOT to seek alternative mobility targets that align with City policies.

R. Consider converting to two-way traffic Charnelton Street between 11th and 13th Avenues, Lincoln Street from 5th Avenue to 11th Avenue, and Lawrence Street from 6th Avenue to 13th Avenue.

S. Periodically review parking needs in the downtown, Federal Courthouse, and riverfront districts and balance supply with other objectives, such as economic vitality; support for transit, walking, and biking; reduced consumption of fossil fuels; and human-scaled urban form.
Expand the definition of LOS to include volume-to-capacity ratio, queuing, and traffic control changes.

Pedestrian Policies

1. Encourage walking as the most attractive mode of transportation for short trips (*e.g.*, within one half miles) within and to activity centers, downtown, key corridors, and major destinations, and as a means of accessing transit.
2. Ensure that there are safe, accessible, comfortable, and direct sidewalk connections between residential areas, major destinations, and transit stops. Continually improve walking comfort, safety,

and accessibility through design, operations, retrofits, and maintenance. Provide landscaped setback sidewalks of ample width and safe street crossings to encourage people to walk.

3. Coordinate improvements to complement and improve the systems proposed in the Eugene Trails Plan and connections to regional trails.

Midblock crossing assist pedestrian in safely crossing roads. All intersections contain crosswalks, whether they are marked or not.

Source: City of Eugene

Potential Actions for Pedestrian Policies

A. Maintain a map and project list for desired improvements to the pedestrian network within the life of this plan. Provide priorities among these projects, yet provide flexibility among priorities to respond to unforeseen opportunities and development.

B. Provide street crossing enhancements and expanded crosswalk education and enforcement programs.

C. Provide support for Safe Routes to School programs and other programs that create safe walking conditions between residences and schools and other neighborhood destinations.

D. Review the Eugene Code for additional opportunities to require sidewalk connections between new development and redevelopment and existing sidewalks and transit.

E. Amend the Eugene Code (*e.g.*, EC 9.6505) and policies to consistently require sidewalk installation throughout newly divided and developed lands, such as by requiring sidewalk construction concurrent with street improvements or by bonding for completion of the sidewalks if development on individual lots does not fill in the system in a reasonable amount of time.

F. Maintain a sidewalk infill and improvement program that considers new funding sources, credits and loans, and expanded development requirements to complete missing sidewalk segments, to avoid creating gaps in sidewalk networks in new development areas and to upgrade existing sidewalks in high traffic areas to provide needed width, landscaping, and removal of barriers, and to implement the City's Americans with Disability Act program.

G. Continue to ensure that Systems Development Charges (SDCs) consider walking and pedestrian improvements as important components of the overall, integrated transportation system.

H. Update Eugene's Traffic Impact Analysis review regulations for new development to include review of walking and biking improvements and connections to nearby networks.

Bicycle Policies

Eugene aims to accommodate bicyclists of all riding abilities and levels of comfort on city streets and facilities.

Source: City of Eugene

1. Create conditions that make bicycling more attractive than driving for most trips of two miles or less.
2. Develop a well-connected and comfortable bikeway network. Ensure that there are safe, comfortable, and direct bikeway connections between residential areas, major destinations, and transit stops and provide secure bicycle parking facilities at these destinations.
3. Continually improve the comfort and safety of bicycling through design, operations, retrofits, and maintenance. Identify and develop "low stress" bikeways to attract new cyclists.
4. Support a Eugene bike share system.

Potential Actions for Bicycle Policies

What are "Low-stress" bikeways?

Low-stress bikeways are facilities that **feel safe and inviting to many people, including children and the elderly,** who may choose to bike. Low stress bikeways are generally separated from heavy vehicular traffic or share the road with motorists only on very low-volume residential streets, are well signed, and connected to popular destinations.

A. Maintain a map and project list for desired improvements to the bicycle network within the life of this plan. Provide priorities among these projects, yet provide flexibility among priorities to respond to unforeseen opportunities and development.

B. Support Safe Routes to School programs and other programs that create safe bicycling conditions between residences and schools and other neighborhood destinations.

C. Ensure that Systems Development Charges (SDCs) consider biking and bicycle improvements as important components of the overall, integrated transportation system.

D. Evaluate and adjust traffic control systems to balance bicycle travel with other modes along strategically chosen bicycle routes.

E. Provide high quality, flexible and secure bicycle parking, and ensure through project design and standards that bicycle parking is considered when parks, schools, and other public facilities are planned.

F. Review Eugene Code parking and redevelopment standards for opportunities to improve requirements for support facilities for employees who are commuting by bike, such as by providing showers, lockers, and secure covered bike parking.

G. Provide incentives for businesses and other entities to add or upgrade bicycle parking facilities and amenities beyond minimum code requirement requirements (or to bring them up to code in cases where properties were developed under previous standards) or to provide bike share facilities.

H. On a case-by-case basis reallocate space within street rights-of-way to enhance bikeways and pedestrian environments (*e.g.*, converting parking or travel lanes). Priority areas for bikeway improvements include areas near the University of Oregon, downtown Eugene, streets connecting residential areas to schools and commercial hubs, and streets. It is expected that ODOT facilities and Key Corridors will be analyzed under separate comprehensive planning processes than other streets.

Rail, Freight, and Pipeline Policies

1. Promote the efficiency with which freight and deliveries are transported without worsening impacts to the environment, social and neighborhood context, promotion of "Complete Streets," or safety.
2. Encourage public and private partnerships with the freight transport industry to develop mutually beneficial strategies and initiatives.
3. Encourage the use of rail for movement of freight and long distance passenger trips.
4. Support higher-speed and higher-frequency passenger rail service and use of the historic Eugene Depot in downtown Eugene as a passenger rail station.
5. Reduce conflicts between rail and street traffic.
6. Create a railroad quiet zone throughout the City. Prioritize implementation of a quiet zone in the downtown and Whiteaker areas.
7. Support projects and regulations that reduce transportation inefficiencies or risk to local populations from the transportation of hazardous materials.

Eugene Station

Source: City of Eugene

Potential Actions for Rail, Freight, and Pipeline Policies

A. Promote truck loading facilities at the train yard.

B. Monitor travel time reliability on state and federal freight routes and prioritize improvements to these corridors when chronic delays are projected to become a detriment to regional economic development strategies.

C. Improve the safety and efficiency of trucking through information technological means such as telematics, signing, urban freight information and maps.

D. Implement the Eugene Depot Master Plan.

E. Construct a passenger platform and rail spur at the Eugene Depot to enhance passenger rail service and separate passenger rail from freight rail.
F. Implement the recommendations of the Oregon Passenger Rail Study (pending at the time the *2035 TSP* was adopted).
G. Coordinate with rail providers to upgrade at-grade rail crossings to improve traffic safety and manage conflict points while maintaining access for non-rail travel where possible.
H. Install supplemental safety measures (SSMs), such as quad gates and medians, at railroad crossings, as necessary, starting in the downtown and Whiteaker areas, to implement a railroad quiet zone.
I. Support rail-related infrastructure improvements that help retain and improve passenger and freight rail services in Eugene.
J. Support projects that reduce the number of times materials are transferred between pipes, trains, planes or trucks.
K. Reduce environmental impacts and the risk of accidents involving trucking through infrastructure improvements, road design and layout, and promoting the use of environmentally-friendly vehicles.
L. Work with Lane County to investigate creating a railroad quiet zone that addresses the rail crossings of Irving Road and Irvington Drive.

Air Transportation Policy

1. Support the Eugene Airport as a regional transportation facility.
2. Recognize the *Eugene Airport Master Plan* as the guiding policy document for airport property development, services, and support infrastructure.

Potential Actions for Air Transportation Policy

A. Periodically review and update the *Airport Master Plan*.
B. Review and update land use designations and zoning, as needed, to support development recommended by the *Airport Master Plan*.
C. Promote freight transfer facilities at the airport.
D. Expand alternatives to private automobile trips for airport patrons.

Eugene Airport

Source: City of Eugene

Greenhouse Gas, Climate Change, and Natural Environment Policies

1. Support the use of more highly fuel efficient vehicles including electric, hydrogen fuel cell, and non-motorized vehicles.
2. Create a strategy that advances the goal of having an integrated transportation system that reduces fossil fuel consumption by 50 percent and reduces reliance on single-occupancy automobiles.

3. Prioritize capital projects and programs that will facilitate the achievement of the *2035 TSP's* pedestrian, bicycle and transit policies.
4. Continue work to identify possible transportation infrastructure improvements that will make walking, bicycling and the use of transit safe and highly convenient.
5. Protect, and enhance habitat in transportation projects where possible. Minimize and mitigate impacts of transportation projects when needed.
6. Provide leadership in regional and State coordination efforts that support Eugene's environmental policies.

Potential Actions for Greenhouse Gas, Climate Change, and Natural Environment Policies:

A. Support programs aimed at reducing reliance on single occupancy vehicle travel.
B. Enhance the tree canopy along streets.
C. Reduce stormwater pollution and minimize runoff from streets and multi-use paths in a manner prescribed by Eugene's *Comprehensive Stormwater Management Plan*.
D. Increase supply of charging stations for electric vehicles.
E. Support legislation that updates the State building code to require basic electric vehicle charging infrastructure in new development.
F. Provide priority parking and reduced parking fees for non-gasoline powered vehicles.
G. Create a program that encourages properties adjacent to streets and alleys to replace paved areas with usable open space, permeable surfaces, plantings, stormwater retention areas, and other amenities for the public benefit (*e.g.*, a "green alleys" program).
H. Provide stormwater facilities within street construction projects by incorporating low impact development and green infrastructure practices.
I. Identify City Code amendments that will facilitate the achievement of the *2035 TSP's* pedestrian, bicycle and transit policies.

Stormwater treatment can be an attractive part of the streetscape.

Source: CH2M

Cost Effectiveness and Finance Policies

1. Establish, improve, and maintain transportation facilities in ways that cost-effectively provide desired levels of service, consider facilities' lifecycle costs, and maintain the City's long-term financial sustainability. Favor transportation systems that move people and goods at lesser total life-cycle cost to the City and its residents.
2. Maintain transportation performance and improve safety by improving system efficiency and management before adding capacity for automobiles to the transportation system by using the

following priorities for developing the Eugene Capital Improvement Program (CIP) and Eugene projects in the Metropolitan Transportation Improvement Program (MTIP):

- Protect the existing system. The highest priority is to preserve or improve the functionality of the existing transportation system by means such as access management, transportation demand management, improved traffic operations, use of technologies, accommodating "active transportation" options not previously present, and keeping roads well maintained to avoid reconstruction.
- Improve the efficiency and safety of existing facilities. The second priority is to make minor improvements to existing streets, such as adding turning lanes at intersections, providing and enhancing pedestrian, bicycle and transit facilities, and extending or connecting streets pursuant to existing plans.
- Add capacity to the existing system. The third priority is to make major improvements to existing transportation facilities such as adding general purpose lanes and making alignment corrections to accommodate legal-sized vehicles.
- Add new facilities to the system. The lowest priority is to add new transportation facilities for motorized vehicles, such as new roadways. New streets that are needed and planned for connectivity are a higher priority, as noted in (b), above.

Implement higher priority measures first unless a lower priority measure is demonstrated to be more cost-effective or better supports safety, growth management, or other livability and economic considerations. Provide justification for using lower priority measures before higher priority measures.

3. In collaboration with ODOT and Lane County, develop criteria that trigger logical phased jurisdictional transfer of streets and highways.
4. Operate and maintain transportation facilities in a manner that reduces the need for more expensive future repair, to the extent practical and affordable. Consider the City's ability to fund both implementation and ongoing maintenance before initiating or requiring new transportation capital projects. Explore opportunities to upgrade all utilities during street reconstruction.

Potential Actions for Cost Effectiveness and Finance Policies

A. Seek new, stable sources for funding street renovation and ongoing maintenance, including landscaping and other amenities in the public rights-of-way.
B. Develop a mechanism for calculating life cycle costs, including maintenance costs, of transportation projects.
C. Discuss with the public the potential cost savings for household transportation choices, such as savings in health care, fuel and auto insurance, etc., for choosing not to drive for some trips.
D. Continue and expand efforts to quantify and explain the total life-cycle costs of transportation options.
E. Regularly adjust Systems Development Charges to remain fair, legal, and aligned with adopted goals and policies.

F. Update and maintain Transportation System Development Charges to support the construction of pedestrian, bicycle and transit facilities in addition to roadway projects that meet the above policies.
G. Approve memoranda of understanding (MOU) with Lane County and ODOT that establish the circumstances under which streets would be transferred to City jurisdiction.
H. Engage the community in exploring new potential funding sources for on-going pavement preservation needs.

Equity, Economy, and Community Engagement Policies

1. Be fair and equitable: ensure that transportation facilities are provided for people of all ages, races, ethnicities, abilities, incomes, and in all neighborhoods.
2. Reduce or eliminate disparities between neighborhoods in safety and access to essential destinations. Ensure that the costs and benefits of transportation improvements are equitably shared over time. Favor historically underserved communities if equitable solutions are not possible within a single project or action.
3. Build and maintain public support for the *2035 TSP* through open information, public participation, public discussion of the plan's effects on the community, and periodic reassessment of the plan's goals and policies.
4. Encourage local residents, businesses, City staff, and other stakeholders to cooperatively develop context sensitive projects that foster the community's active use and sense of ownership of public rights-of-way over time.
5. Use transportation investments to support industries and employment sectors targeted by City and regional adopted economic development strategies.

Potential Actions for Operational Policies

A. Identify and collaborate with potentially impacted populations during and after project scoping, with special attention to disadvantaged or traditionally underserved populations (*e.g.*, lower income, minority, English language learners, and people with disabilities).
B. Target public outreach before transportation spending priorities are established so that people who may be most affected by proposed projects will be involved in the discussion.
C. Create procedures that support parklets (*i.e.*, commercial uses, greenery, or seating in converted on-street parking spaces), bike corrals, intersection repair (*i.e.*, citizen-led conversion of an intersection into a public square), and similar projects that are responsive to the needs of neighborhood stakeholders.
D. Regularly consult with industry stakeholders to determine industry and employment transportation needs and trends. Update the *2035 TSP* project list, as appropriate, to reflect changing needs and trends.
E. Periodically review and collaboratively update as necessary the Regional Prosperity Economic Plan (or successor) and the *2035 TSP* to keep the two plans aligned.
F. Prioritize transportation investments that facilitate job growth in commercial or industrial areas.

Chapter 3: Needs Assessment and Evaluation

The *2035 TSP* goals, policies, projects, and potential implementing actions are based on analysis by, and input received from, the community, City of Eugene staff, partner agency staff, and City policy-makers. Their review included analysis of existing transportation conditions for all modes of travel, forecasted deficiencies in the transportation system, a multi-step evaluation of the "triple bottom line" (economy, social equity, and natural environment) that included considerations of how possible system improvements will meet the transportation needs for all modes, address the needs of the transportation disadvantaged, and address the need for movement of goods and services to support industrial and commercial development. The *2035 TSP* list of recommended projects and programs was identified based on an analysis of the City's transportation needs, potential transportation system alternatives, and a detailed review of relevant state, regional, and local plans, policies, and funding opportunities. The following sections outline the key findings from the existing and future needs analyses that helped shape the recommendations.

Existing Transportation System Conditions

Existing local transportation needs, opportunities, and constraints reflect an inventory of the multimodal transportation system characteristics conducted in 2010. This inventory included all major transportation-related facilities and services within the Urban Growth Boundary (UGB) at that time. Key roadway features, traffic conditions, safety performance, bicycle and pedestrian facilities, and transit service, among other topics, were analyzed. Detailed findings of the technical analysis are summarized in Volume 2, Appendix A: Existing conditions inventory and analysis. Key findings of this review are outlined below.

- Downtown Eugene and adjacent neighborhoods are well-served by sidewalks. In other areas of the City, sidewalks are frequently missing on one or both sides of the roadway. Some sidewalks are located adjacent to curbs on high traffic streets, without a buffer of landscaping or parked cars next to traffic, which can discourage walking. The citywide pedestrian system is also interrupted by a lack of street lighting, lack of pedestrian crossing treatments at some intersections, and long distances between protected crossings on busy streets. Walking can be improved by filling gaps in the sidewalk network, improving buffers from traffic, and providing improved crossings and other safety measures.
- A number of arterial roadway corridors and key intersections could benefit from strategic capital improvements to the existing system. These may include:
  - Better connectivity;
  - Improved safety measures, especially where walking and bicycling are introduced within the street rights-of-way; and

- Implementation of Transportation System Management and Operations (TSMO) strategies that increase the efficiency of the arterial system. TSMO strategies (more fully described in Appendix K in Volume 2) might include ramp meters along highways, coordinated and more responsive traffic signals, and educational programs that encourage travel without single-occupant automobiles and at less congested times of day.

Using technology to improve transportation

Transportation System Management and Operations (TSMO) strategies provide **money-saving, multi-modal solutions that relieve congestion, optimize infrastructure investments, promote travel options, and reduce greenhouse gas emissions.** They can include intelligent transportation system solutions such as traffic responsive signals, real-time traveler information, and services that respond quickly to traffic incidents or help people make informed travel choices.

- Eugene enjoys a substantial pedestrian-bicycle shared-use path system, especially parallel to the Willamette River and Amazon Creek. Although the pathway system is extensive, the existing needs are related to the width of pathways (the busier sections are too narrow to comfortably accommodate all of the users), lack of connections to some adjacent neighborhoods, and the lack of consistent and regular pathway lighting. There are also some locations where the lack of wayfinding signs and pathway markings provide challenges to some users unfamiliar with the path system.
- The City's on-street bikeway system is extensive. The existing deficiencies relate to:
  - Lack of connections between existing routes;
  - Lack of consistent pavement markings;
  - Need for better separation from motorized vehicular traffic;
  - Integration of bicycle movements into signal phases;
  - Additional street lighting;
  - Additional wayfinding signage; and
  - Poor quality of some existing street surfaces.

Basis of Needs Assessment

The following sections describe the assumptions used to develop the assessment of needs for the *2035 TSP*.

Planning Area and Land Use Assumptions

The *2035 TSP* addresses the projects, programs, and policies needed to support growth in population and jobs within the Eugene UGB as well as the travel associated with regional and state economic growth between now and the year 2035. The *2035 TSP* defines the transportation facilities needs within Eugene's adopted UGB, as defined in the *Mero Plan*, Eugene's adopted comprehensive plan. Over time, the City, Lane County, and ODOT will monitor the multimodal transportation needs and can update the *2035 TSP* to respond to changing conditions.

The *2035 TSP* also supports the land use strategies defined in *Envision Eugene, A Community Vision for 2032* (2012) and prioritizes recommendations that mitigate the strain on roadways by supporting transit service and making walking and bicycling trips more practical for working, shopping, and other daily

activities; managing congestion; and improving safety. One primary focus of both the *Metro Plan* and *Envision Eugene* is on more compact development. As such, significant future residential development is likely to occur in the Downtown and "Key Corridors" (see Volume 2, Appendix E), including:

- Willamette Street;
- W 11th Avenue;
- Highway 99;
- River Road;
- Coburg Road;
- Franklin Boulevard.

The *2035 TSP* includes projects and programs, and identifies financial resources, that support the growth anticipated over the next 20 years along these Key Corridors.

The needs assessment and resulting projects (set forth in Chapter 4) that establish a transportation system adequate to meet the identified local transportation needs are based upon the land use designations established by the *Metro Plan.* Because the *2035 TSP* is based on the *Metro Plan* land use designations, any zone allowed within the land use designation is consistent with both the *Metro Plan* and this *2035 TSP*.[7] The *2035 TSP* reflects Eugene policy makers' and community members' priority to maintain existing facilities and provide multiple transportation options for local and regional travel. These priorities are based on the premise that the City can reduce congestion, save money, and provide health benefits for the entire community by providing alternatives to single occupancy vehicle travel and by making existing streets safer and more efficient without costly increases to automobile-oriented infrastructure.

2035 Population and Employment Forecasts

Forecast of year 2035 traffic volumes informed the identification of future transportation needs. The 2035 traffic volumes reflect estimates of household and job growth within the adopted UGBs of Springfield, Eugene, and Coburg as well as in Lane County and the overall region. These population and employment forecasts were "coordinated" for compliance with Oregon transportation and land use planning requirements.

The Eugene UGB shown in Attachment A, Figure 1, was used as the basis for the 2035 land use forecasts. Table 1 shows household and job growth forecasts within this UGB. This growth was allocated to developable areas within the current UGB consistent with the land use designations shown in the adopted *Metro Plan*.

Table 3.1: City of Eugene Land Use Estimates

	Year 2010	Year 2035	Growth
Population Forecast	177,332	219,060	41,728 (23%)
Households	74,950	92,580	17,630 (23%)
Employees	80,900	114,460	33,560 (42%)

[7] Looking ahead, when the City adopts a new comprehensive plan, unless the new comprehensive plan changes the current *Metro Plan* land use designations, a zone allowed within the land use designation will be consistent with both the new comprehensive plan and this *2035 TSP*. If adoption of the new comprehensive plan includes an expansion of the UGB, any amendments to the *2035 TSP* that are necessary to address the expansion area will be adopted currently with the UGB amendment.

Traffic Volume Development

Based on the geographic allocations of future job and household growth within the UGB, Lane Council of Governments (LCOG) developed traffic volume forecasts for the City's collector and arterial street system using an "emme" travel demand model. This model is calibrated to traffic volumes measured on streets and highways within the City. In addition to land use and street network inputs, the model also relies on information about existing traveler behavior and trip-making characteristics derived from surveys, and from research that forecasts how people might use the transportation system in the future.

Based on information obtained from LCOG, coupled with measured traffic counts at 50 intersections within the City, year 2035 intersection and roadway volumes were analyzed using a procedure consistent with guidance from ODOT's Analysis and Procedures Manual (APM). This analysis provided one method of identifying future transportation needs within the City's UGB.

Baseline Analysis

Previously adopted City of Eugene plans, *TransPlan,* and the *Regional Transportation Plan* (*RTP*) all identified a variety of street, pedestrian, bicycle, and transit projects that could be implemented in the future. A Baseline Analysis (also known as a "no build alternative") was performed for the *2035 TSP* to help identify multimodal projects and programs needed to support growth through the year 2035. This analysis informs the development of the 2035 project list reflected in Chapter 4.

The Baseline Analysis assumes the 2035 population and employment forecast and that the existing street, pedestrian, bicycle, and transit system will not change by 2035 except for the construction of transportation improvements that have already been started or for which funding is already allocated. At the time the analysis was prepared, there were no guaranteed funding sources for any major projects that will materially affect traveler behaviors and traffic volumes on the City's street network in the future, with the exception of the extension of EmX transit service to west Eugene.

With this baseline estimate of future travel conditions founded on the current transportation system, different transportation improvement strategies under consideration could be compared to each other and to the baseline. In this way the *2035 TSP* project list was constructed anew by reassessing unbuilt projects contained in previous plans and comparing these to new ideas for meeting our transportation needs.

Identified Transportation Needs

The results of the year 2035 Baseline Analyses are summarized in Volume 2, Appendix B: No Build analysis. Per this analysis, key corridors that could experience vehicular congestion and long queues at traffic signals include:

- The W 11th Avenue corridor from the UGB into downtown (even with the implementation of the EmX project).
- The Highway 99 corridor, particularly south of the Randy Papé Beltline and towards downtown.
- The River Road/Chambers Street corridor within the vicinity of the Randy Papé Beltline and south of the Northwest Expressway. River Road at Randy Papé Beltline Highway is a critical link in the regional and emergency response network since, without it, there would be 2.5 miles between other grade-separated crossings.

- The 6th Avenue/7th Avenue corridor, west of I-105, which provides a key vehicular and freight connections from points west of downtown to the Ferry Street Bridge and Coburg Road.
- Franklin Boulevard corridor between I-5 and downtown.
- Randy Papé Beltline Highway between Coburg Road and River Road. ODOT, Lane County, and the City of Eugene will participate in a project to identify future solutions for this segment of the corridor. *2035 TSP* will be updated to reflect these ongoing efforts, as appropriate.
- Randy Papé Beltline Highway between Roosevelt Boulevard and W 11th Avenue.
- Coburg Road between downtown and the bridge over the McKenzie River near I-5.
- The East 30th Avenue/Amazon Parkway corridor between E 18th and 27th Avenues and between Hilyard and Agate Streets.
- All four Willamette River motor vehicle bridge crossings.

In addition to the roadway needs identified by the traffic model and by the analysis of existing transportation system conditions, the Transportation Community Resource Group (TCRG), participants at community workshops, Technical Advisory Committee (TAC), and agency staff identified these following needs to be addressed by the TSP:

- Improved range of transportation choices, especially for the transportation disadvantaged and connections between residents and employment.
- Improved safety for all travelers.
- Reliable freight movement, which is important to the national, state, and local economy, especially on designated freight routes.
- From the *2012 Bicycle and Pedestrian Master Plan*: filling gaps in the sidewalk system, gaps in the designated bikeway system, and need for improved pedestrian and bicycle facilities that will encourage greater use.

A word about "capacity"

One way to measure the performance of the transportation system is to compare the demand for travel on the system with the system's capacity to accommodate that demand. The demand for travel comes in many different forms, including motorized vehicles (autos, trucks), transit riders, and pedestrians and bicycles. The capacity of the system to accommodate these different forms of travel is expressed in similar terms.

Another way to measure the performance of the transportation system is to assess how well it is performing from a traveler's perspective. This is referred to as the quality of service or "level of service" (LOS) that is provided and it is typically summarized in a scale from A (representing the best quality of service) to F (representing the worst quality of service). A variety of factors affect the quality of service traveler's experience, and each of the different forms of travel is affected by different factors.

As an example, the quality of service for a bicyclist can be influenced by the volume and speed of vehicular traffic, the number of heavy vehicles, the potential for conflicts with pedestrians, and the pavement condition. On the other hand, the quality of service for vehicles is influenced by the delay experienced at intersections and the speed of travel along a roadway.

- From the *Long Range Transit Plan* and *Envision Eugene, A Community Vision for 2032 (*2012): a need for frequent, reliable transit services along Key Corridors.
- From the *Climate and Energy Action Plan* and Climate Recovery Ordinance: a desire to reduce community-wide greenhouse gas emissions 10 percent below 1990 levels by 2020, reduce community-wide fossil fuel use 50 percent by 2030, and adapt to a changing climate and increasing fossil fuel prices.
- Equitable distribution of improvements geographically and for economical and other social strata.

Evaluation of Transportation System Alternatives to Address Identified Needs

The Transportation Community Resource Group (TCRG), participants at community workshops, Technical Advisory Committee (TAC), and agency staff identified a number of transportation system alternatives that had the potential to address existing and future transportation needs. These alternatives address all modes of travel and also include programs that would reduce vehicular travel demand. Further, these potential system alternatives avoid principal reliance on any one mode of transportation and increase transportation choices, and reflect Eugene's commitment to the sustainability triple bottom line (environment, equity, and economy). City staff developed these ideas into a potential project list that was screened by the TCRG and Project Management Team (PMT) against a set of evaluation criteria established by the TCRG. This multistep process is described below.

Evaluation Framework

Early in the TSP process, the PMT, TCRG, and TAC developed an evaluation framework for screening potential projects. This framework referenced the Sustainable Transportation Analysis and Rating System (STARS)[8] and is reflective of the City's commitment to the Triple Bottom Line. Table 3.2 presents the evaluation criteria applied to the potential project list. Some criteria, noted as "key criteria," proved most useful and effective in comparing project and program ideas. While the "key criteria" often served as differentiators between potential projects, all criteria listed below were used to perform a preliminary screen of potential projects that address existing and future needs. All of the criteria were also used for a more detailed review of those ultimately identified for the 20 year list of projects reflected in Chapter 5.

[8] www.transportationcouncil.org

Table 3.2: Evaluation Criteria

Evaluation Criteria	Key criteria
1. Safety and Health	
Double the percentage of pedestrian, bicycle, and transit trips by the year 2035.	
Improve community health by increasing physical activity as part of the transportation system.	
Support the reduction in quantities of harmful airborne pollutants associated with transportation.	
Improve safety and security for all users, especially for the most vulnerable; strive for zero fatalities.	x
2. Social Equity	
Use future transportation investments to reduce or eliminate disparities between neighborhoods in access, economic benefits, safety, and health.	x
3. Access and Mobility for All Modes	
Foster neighborhoods where 90 percent of Eugene residents can meet most daily needs without relying heavily on an automobile.	x
Improve the comfort and convenience of travel, especially for walking, bicycling, carpooling, and riding transit.	
Maintain a network of Emergency Response Streets to facilitate prompt emergency response.	
Complete safe, comfortable, and direct sidewalk and bikeway networks between key destinations, transit stops, and residential areas.	
Support Lane Transit District's efforts to provide high-capacity, frequent transit service, on the Frequent Transit Network.	
4. Community Context	
Ensure consistency between transportation investments and all relevant adopted and accepted local plans.	
5. Economic Benefit	
Support redevelopment priorities by promoting compatible transportation investments along key corridors and in core commercial areas, including downtown.	x
Encourage infrastructure and programs that allow residents to reduce expenditures on fuel and vehicle use.	
Support predictable travel times between key origins and destinations for high priority trips such as transit and regional freight movement.	
Increase access to employment centers via foot, bike, and transit, while improving the quality of the traveling experience.	x
Support access and visibility of businesses that rely on drive-by traffic by balancing congestion with economic development goals.	
6. Cost Effectiveness	
Optimize benefits relative to public, private, and social costs over the plan's time horizon.	x
Maximize the efficiency and life of the current transportation system.	
Favor transportation investments that have potential funding for both implementation and ongoing maintenance.	

Evaluation Criteria	Key criteria
7. Climate and Energy	
Focus on transportation programs and projects that help to: • reduce total community-wide fossil fuel use by 50% by 2030 • reduce vehicle miles traveled per capita by 10% by the year 2020 • reduce community-wide greenhouse gas emissions 10% below 1990 levels by 2020	x
8. Ecological Function	
Improve water quality and lower the rate of stormwater runoff from transportation infrastructure.	
Reduce the urban heat island caused by paving that absorbs and re-radiates heat.	
Foster transportation investments that avoid damaging and improve habitat areas, where possible.	x

Initially, the potential project ideas identified to serve existing and future multimodal needs were presented to the TCRG, PMT, and TAC as conceptual "fat lines" on maps to denote areas of concern. These maps grouped potential ideas by geographic areas of the City to ensure that every neighborhood's needs were addressed.

Based on feedback on the conceptual idea maps, the PMT culled the list of potential project ideas against the following questions:

1. Does the project address an identified transportation problem or opportunity?
2. Is the project within the City of Eugene's Urban Growth Boundary or planning area? Is it within the City's control, or the control of its partnering agencies, to implement?
3. Is it technically feasible to build this project?
4. Could the project be funded?
5. Could the project receive necessary environmental permits?

If the answer to any question was "no," the project idea was not considered further. Those remaining ideas were identified as projects and evaluated by City staff against the criteria shown in Table 3.2. The staff evaluation was then presented to the PMT and TCRG for further review.

The TCRG and PMT reviewed and refined this evaluation to define a 20-year project list that could address the identified transportation needs, and meet the draft *2035 TSP* goals and criteria contained on ORS 660-012-0035. In addition, City staff, working with the PMT, TCRG, and public input, identified additional projects that would be needed to support a specific residential or employment development area, those that would require more study prior to being added to the 20-year list, and those that were not needed to support the identified needs but could be considered if changes occurred in the future. City staff also identified operational projects, such as intersection modifications and signal system improvements that are critical to the successful implementation of City transportation goals and policies.

The screened projects were advanced for inclusion in this TSP as the "20-year list," "Study Projects", "Projects to Complete Upon Development", and "Operational Projects", respectively. The PMT performed a qualitative and quantitative evaluation of these projects relying on the key criteria shown in Table 3.2. The draft project lists and a map of the project locations were posted to the project's public website for three years prior to adoption. The project lists are provided in Chapter 5.

Chapter 4: Creating Multimodal Systems

The *2035 TSP* is fundamentally a set of policies, programs, and projects that address the transportation needs within Eugene's UGB over the next 20 years with a coordinated multimodal transportation system. This chapter provides an overview of these programs and projects. Policies and potential programs are provided in Chapter 2, whereas the detailed project list is shown in Chapter 5. Planning for a network of "Complete Streets" that can serve the City's identified transportation needs is an integral part of the *2035 TSP.* Although automobiles will continue to be a primary mode of travel, and preservation and improvement of the existing street system remains important, the *2035 TSP*'s projects, policies, and programs highlight improvements that are designed to increase transportation choices, reduce reliance on the automobile by better accommodating and encouraging travel by foot and bike for short trips, improve safety for all street users, and provide for more reliable transit service on Key Corridors. It is this focus of the *2035 TSP*, together with the City's adopted land use plans and regulations, that will ultimately result in land use patterns and transportation systems that make walking, cycling, and use of transit highly convenient so that, on balance, people need to and are likely to drive less than they do today.

It is a goal of this plan to triple the percentage of trips made on foot, by bicycle, and by transit from 2014 levels. Through a combination of transportation system improvements and land use measures, walking and biking could become the preferred methods of travel for trips under 0.5 miles and 2 miles, respectively.

Achieving Complete Streets

Achieving a network of "Complete Streets" and helping more Eugene residents and visitors **shift their travel towards walking, bicycling, and transit** will provide many benefits to individuals and the community at large, including:

- Reduced traffic congestion and exposure to crashes and injury;
- Higher levels of individual health and wellness;
- Healthy business districts and more dollars staying in the local economy;
- Better air quality and lower levels of greenhouse gases and noxious emissions;
- Available options for lower cost travel;
- Lower costs for roadway maintenance;
- More equitable access to community resources; and
- More options for all people, and especially youth and seniors, to travel independently throughout the community.

Pedestrian System

The *2035 TSP's* pedestrian-oriented projects and programs are aimed at serving different types of walking trips for people of all ages and abilities. To ensure that walking will constitute most of the trips of less than half a mile within Eugene, pedestrians must feel safe and comfortable, and have convenient access to their desired destinations. The pedestrian capital projects and operational programs in the *2035 TSP* focus on components of transportation system alternatives that address the following needs identified through analysis of the existing and future system deficiencies:

- Filling gaps in the sidewalk network between neighborhoods, schools, parks, recreational areas, activity centers, and major transit stops, and to regional facilities;
- Arterial and collector street crossings and safety enhancements;
- Widening the shared use pathway system in the busiest sections; and
- Education about walking safety and access to key routes.

The *2035 TSP* also calls for an update in the City's street design standards, development of a sidewalk infill program, and improved enforcement of laws that improve pedestrian safety.

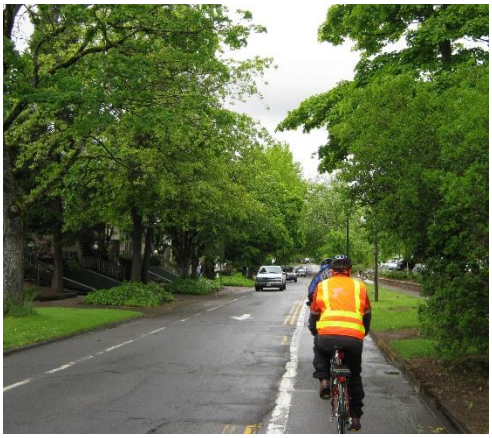
The City has updated its *2015 Americans with Disabilities Act Transition Plan for Accessibility in Public Rights-of-Way*[9] to better identify existing transportation facility deficiencies, such as curb ramps and accessible pedestrian devices, and develop a phased plan to eliminate these deficiencies.

The list of pedestrian projects in support of the policies and the identified needs are shown in Chapter 5. These were largely pulled from a 2012 pedestrian and bicycle master planning effort. Appendix F of Volume 2 provides the outcome of that March 2012 Pedestrian and Bicycle Master Plan. While the map of all potential pedestrian system improvements include some on local streets, only improvements on collector and arterial streets were considered for the *2035 TSP* project list and cost estimations.

Bicycle System

To encourage increased travel by bicycle, the *2035 TSP* provides a list of projects and programs that will improve safety, convenience, and direct connections for people traveling by bike. Bicycling promotes the health of individuals, has a low impact on the environment, and allows people to move independently throughout the community without motorized vehicles, including many who cannot or choose not to drive. The bicycle-oriented capital projects and operational programs in the *2035 TSP* focus on components of transportation system alternatives that address the following needs identified through the analysis of existing and future system deficiencies:

- Completing the bicycle route network throughout the City;
- Street designs that slow speeds on neighborhood greenways;
- Increasing the quantity of bike lanes that are separated or buffered from motorized traffic or parked cars;
- A convenient bike share system;
- Better wayfinding signage;
- Educational programs;



Separate bike facilities can be useful in busy locations.

Source: CH2M

[9] In 2015, the City of Eugene conducted an evaluation of its public rights-of-way, and developed a transition plan that outlines in detail how the city will ensure safe access to all of its facilities for all individuals. As part of this new draft companion transition plan, Public Works collected detailed data on over 15,000 sidewalk ramps and 250 pedestrian signals to develop transition schedules specific to these facilities. In addition to the inventory of ramps and pedestrian signals and schedules, the transition plan for the public rights of way also includes a system of barrier removal prioritization, information on how to request barrier removals from right-of-way facilities, and an appeals process.

- Expanded bike storage on buses and at transit stops and stations; and
- Improved bicycle connections to transit hubs.

The list of bicycle projects in support of the policies and the identified needs are shown in Chapter 5. The *2035 TSP* is the City's bicycle and pedestrian plan, providing projects and policies that will create a network of bicycle and pedestrian-friendly routes throughout the planning area. The identified bicycle needs, as well as the bicycle policies and projects set forth in the *2035 TSP*, were largely pulled from a March 2012 pedestrian and bicycle master planning effort, the outcomes of which are provided in Appendix F of Volume 2. While the map of all potential bicycle system improvements may include some on local streets, only improvements on collector and arterial streets were considered for the *2035 TSP* project list and cost estimates.

Transit System

The City's comprehensive land use plan and *Envision Eugene, A Community Vision for 2032* vision articulated in 2012, rely on frequent, reliable transit service to serve major streets, known as "Key Corridors," where higher density and mixed-use development is encouraged. The *2035 TSP* policies promote improved transit services that are integrated through context specific multimodal planning for all Key Corridors. The provision of high-quality, available, and reliable transit service fundamentally supports the environment, economic development, and equity for all travelers.

Based on the needs analysis, the *2035 TSP* focuses on collaboration with LTD to provide service enhancements, capital improvements, and policies that support:

- Changes to streets and intersections to facilitate bus movement;
- Frequent and reliable transit service, including bus rapid transit (*e.g.*, "EmX"-style of transit service) along Key Corridors;
- Amenities that also serve pedestrians and people on bikes, and intermodal connections to transit;
- Car share and bike share programs that can extend the first and last mile of transit trips; and
- Refinements to transit routes and schedules.

The *2035 TSP* supports Lane Transit District's Frequent Transit Network (FTN), as defined in the Lane Transit District *Long Range Transit Plan*, as a regional initiative to better connect areas of more active development to transit.

The list of transit projects in support of the policies and the identified needs are shown in Chapter 5. Appendix J of Volume 2 of the *2035 TSP* provides LTD's Long Range Transit Plan from which the TSP's transit-related needs, policies, and projects were in large part identified.

Street-related Projects and Programs

The needs analysis identified arterial and collector streets that experience or are projected to experience traffic congestion and delay, lack of pedestrian and bicycle facilities that comfortably serve a broad range of prospective users, and conditions that hinder implementation of frequent, reliable transit services in a cost effective manner. The following corridors were identified as strategic areas of focus: West 11th Avenue, Highway 99, River Road/Chambers Street, 6th and 7th Avenues, Franklin Boulevard, Randy Papé Beltline, Coburg Road, East 30th Avenue/Amazon Parkway, and each of the

Willamette River bridges. In addition, the following streets are also defined as Key Corridors by *Envision Eugene, A Community Vision for 2032,* articulated in 2012, where higher density and mixed-use development is encouraged: Willamette Street, West 11th Avenue, Highway 99, River Road, Coburg Road, and Franklin Boulevard.

To meet the identified street system needs, the *2035 TSP* focuses strategies that improve connections between existing neighborhoods, employment, and commercial areas; provide connections to newly developed areas; improve safety for all travelers, and increase the use of Transportation Demand Management (TDM) and Transportation System Management and Operations (TSMO) programs that increase the efficiency of the existing system. The policies and potential actions contained in Chapter 2 promote the preparation of comprehensive multimodal and land use plans for each Key Corridor, which will help identify context-appropriate design solutions and a prioritized list of improvements for each corridor.

The list of street-related projects and programs are provided in Chapter 5. Appendices B and D of Volume 2 detail the existing and future needs and deficiencies from which these projects, policies, and programs are based.

Functional Classification of Streets

Most of the City is served by an established network of streets. It is expected that automobiles will continue to be the primary method of personal travel for the next 20 years. The street system is also important for the conveyance of freight, public transit, and for emergency responses. The *2035 TSP* focuses on projects that improve safety and increase the efficiency of the existing street system as well as the provision of new streets to serve newly developing areas within the UGB.

The City of Eugene street functional classification system organizes the roadway network as a balanced hierarchy of mobility and access to, through and between different types of land uses. Some factors that are considered in setting a roadway's functional classification are average daily traffic (ADT) volumes, street connectivity, spacing of streets, the mix and amounts of different travel modes on a typical segment (*e.g.*, bikes and cars), etc. Over time, as the community continues to grow and mature, functional classifications are periodically revisited to insure that particular street classifications are still appropriate.

Functional classifications are defined below.

- **Major arterials** continue through cities and towns, and become the primary "arteries" for intra-urban movement within larger cities, as well as providing for through traffic and for travel from the city to outside destinations. One of the key characteristics of urban major arterials is therefore the high degree of connectivity they provide within cities. These streets and highways typically connect various parts of the region with one another and with the "outside world" beyond the city, and serve as major access routes to regional destinations such as downtowns, universities, airports, regional shopping centers, and similar major focal points within the urban area. In Eugene, major arterials typically have four or more vehicular travel lanes and, with the exception of freeways and expressways, typically have (or are designed to have in the future) sidewalks and planting strips, striped bicycle lanes, and raised median islands or two-way left turn lanes.
- **Minor arterials** function as conduits for a large proportion of intra-urban trips. These streets provide the next level of urban connectivity below major arterials. Minor arterials sometimes provide a fairly high degree of intraregional connectivity. In Eugene, a typical minor arterial contains two vehicular

lanes plus a center turn lane, bike lanes, planting strips (in some cases), and sidewalks. A few minor arterials are wider and contain up to 4 vehicular travel lanes plus left-turn lanes or median islands.

- **Collector streets** connect vehicles, pedestrians, and bikes from the interior of a neighborhood or employment area and deliver it to the nearest arterial street. Collectors are also designed to provide access to properties. They usually serve shorter trip lengths and have lower traffic volumes than arterial streets. Collector streets are important emergency response routes and are frequently transit routes. While the function of major and neighborhood collectors is essentially the same, the neighborhood collector classification is applied only in residential neighborhoods and on rural streets. Standards for neighborhood collectors provide additional design flexibility to preserve the livability and character of residential areas.

    - **Major collectors** can be found in residential, commercial and industrial areas. Typically, major collectors have greater right-of-way and paving widths, and wider traffic lanes than neighborhood collectors. Major collectors frequently have continuous left turn lanes and normally include sidewalks, planting strips, and striped bike lanes whereas provision for on-street parking varies by location. Major collectors may be designed with raised medians to reduce conflicts, provide a pedestrian refuge, restrict turning movements, limit land access, or to furnish an aesthetic separation between traffic lanes.

    - **Neighborhood collectors** are found only in residential neighborhoods and provide a high degree of access to individual properties. This street type does not apply to commercial and industrial areas, or to most areas with a concentration of multifamily residential buildings. As a rule, both right-of-way and paving widths are narrower than for major collectors. Left turn lanes are infrequently used on neighborhood collectors, and then only at intersections with higher volume streets. Neighborhood collector design provides for a great deal of flexibility for on-street parking. On most neighborhood collectors, bicycles share the travel lane with motor vehicles, eliminating the need for striped bicycle lanes. Exceptions to this can occur in situations where traffic volumes or speeds, roadway geometry, or other factors suggest that striped lanes will provide a safer design.

As part of the needs analysis, *Eugene's Street Classification Map* was reviewed in light of the classifications shown in the *Regional Transportation Plan* (*RTP*), the *Oregon Highway Plan* (OHP), and the criteria set forth in the *Eugene Arterial and Collector Street Plan* (*ACSP*). This review identified a number of streets that needed a change in classification to ensure consistency between the various plans governing and providing guidance to the operation and construction of streets and roads within the City's UGB. All streets within the UGB need to be classified under the City's criteria. Attachment B is the 2016 Street Classification Map that updates the street classification map adopted by the City Council in 1999.

Street Design Standards

Street design standards provide information on how streets within each of the functional classifications "look and feel." The City's adopted *Design Standards and Guidelines For Eugene Streets, Sidewalks, Bikeways and Accessways* (1999) set forth how existing streets can be modified and new streets can be constructed to accommodate the needs of people with disabilities, riding bicycles, using transit, walking, driving automobiles and moving freight. See Appendix H in Volume 2 for further details on the design standards.

In the past, most street design standards were primarily oriented toward moving vehicular traffic, providing rudimentary bike lanes and sidewalks for pedestrians. The *1999 Design Standards and Guidelines for Eugene Street, Sidewalks, Bikeways and Accessways* serves as the City's current mandatory design standards and advisory guidelines for arterial, collector, and local streets, and provide for safe and convenient bike and pedestrian circulation. These *Design Standards and Guidelines* will need to be updated to incorporate the *2035 TSP's* newer guidance on best practices for bicycle and pedestrian facilities. The policies and action items in *2035 TSP* provide guidance for future updates to street standards. For example, application of the *2035 TSP's* Complete Streets policy will advance the provision of streets that are designed and constructed to provide comprehensive and integrated transportation networks that serve all modes of transportation and create quality facilities that invite people of all ages and abilities to pursue active transportation. It is through the provision of these comprehensive and integrated networks that the City will make walking, bicycling and use of transit highly convenient for those who choose not to drive as well as serving the needs of the transportation disadvantaged.

Bicycle and Pedestrian Facility Types

The following bicycle and pedestrian facility types are used in the City of Eugene.

Sidewalks	
	Sidewalks are paved walkways adjacent to roadways. Sidewalks are particularly important for basic mobility of people with disabilities. Setback sidewalks (featuring a planted barrier between the sidewalk and travel way) can create more comfort and safety for people walking.
Accessways	
	An accessway is a connector that provides a direct route between residential areas, retail and office areas, institutional facilities, industrial parks, transit streets, and neighborhood activity centers. An accessway will often provide connection between a shared use path and adjacent neighborhood streets.

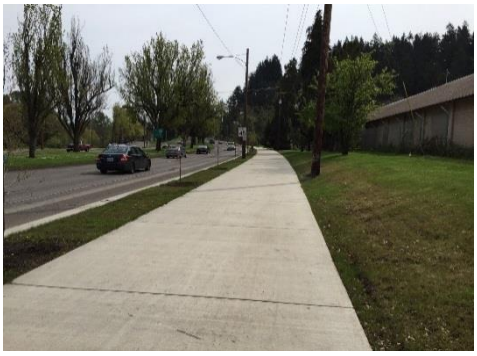
Neighborhood Greenway

A neighborhood greenway is a bike route on a low-volume, low-speed street that has been optimized for bicycle travel. Neighborhood greenways contain different features depending on adjacent land uses, however all neighborhood greenways in Eugene will contain wayfinding signs, pavement markings, and intersection treatments. Neighborhood greenways may also feature diversion to reduce automobile volumes and traffic calming to slow motor vehicle speeds.

Shared Use Paths

Shared-use paths are paved paths separate from the roadway network that are designed for both walking and bicycling. Where space allows, high use corridors may be developed with redundant paths to separate people walking from people biking. The paths for people walking or running may be unpaved depending on intended use.

Sidewalk Paths



A sidewalk path, sometimes called a “sidepath”, is a separated facility for walking and bicycling adjacent to a roadway. Sidewalk paths most closely resemble a wide sidewalk. Due to user conflicts at intersections this type of facility is used sparingly in locations with few driveway entrances. Sidewalk paths are primarily used to connect segments of the bicycle network.

Bike Lane

A bike lane is a marked space along a length of roadway that is designated for use by people bicycling. Wheelchair users and some motorized scooters are allowed in bike lanes.

Some bike lanes will feature a buffer strip to provide space between the bike lane and the auto lane or parked cars.

Bike lanes may also use green colorant where an auto lane crosses the bike lane.

Protected Bike Lane	
	A protected bike lane, sometimes called a "cycle track", is an exclusive bicycle facility adjacent to, but separated from, the roadway. Separation is generally achieved using planters, parked cars, curbs, or posts to separate people biking from people driving. They are best on roads with few cross streets and driveways, particularly on roadways with high auto volumes and speeds. A protected bike lane provides a logical extension of a shared use path because it provides the sensation of riding on a path due to the separation from motorized traffic.
Grade Separated Crossings	
	A grade separated crossing occurs where an at-grade crossing is unsafe, such as crossing an interstate highway, or not practical. Grade separation in an urban context generally means that a facility for walking or bicycling is constructed below or above and existing roadway. Bridges across waterways are also considered grade separated crossings in Eugene.

Vehicular Performance Measurement

The City uses motor vehicle level of service (LOS) standards to evaluate acceptable vehicular performance on the City's local, collector and arterial streets. LOS standards are presented as grades A (free flow traffic conditions) to F (congested traffic conditions). ODOT uses mobility targets based on volume to capacity (V/C) ratios to evaluate acceptable vehicular performance on state facilities. As V/C ratios approach 1.0, traffic congestion increases.

These standards and targets are used to:

- Identify vehicular capacity deficiencies on the roadway system;
- Evaluate the effects of amendments to transportation plans, acknowledged comprehensive plans and land-use regulations pursuant to the Transportation Planning Rule (TPR; Oregon Administrative Rules [OAR] 660-12-0060) on the city and state roadways;
- Evaluate the traffic impacts of development applications for consistency with the land-use regulations.

In some cases, it may not be possible or desirable to meet the designated mobility target or LOS standard. In those cases, an alternative mix of strategies such as land use, transportation demand management, safety improvements or increased use of active modes may be applied.

The use of mobility standards for roadways identifies the maximum amount of congestion that an agency has deemed to be acceptable. Such standards are commonly used to assess the impacts of proposed land use actions on vehicular operating conditions and are one measure staff uses to determine transportation improvement needs for project planning. Mobility standards are typically expressed as Volume-to-Capacity (V/C) Ratios and/or Level of Service (LOS), which are defined below.

- **V/C** represents a facility's level of saturation (i.e., what proportion of capacity is being used), with values ranging from 0.01 to 1.00. A lower ratio indicates smooth vehicular operations and minimal delays. As the ratio approaches 1.00, congestion and vehicular delays increase. At a ratio of 1.00, the intersection, travel lane, or automotive movement is saturated resulting in longer queues and delays.

- **LOS** is a performance measure that is similar to a "report card" rating based on average vehicle delay. LOS A, B, and C indicate conditions where traffic moves without significant delays. LOS D and E indicate progressively worse operating conditions and more delay. LOS F represents conditions where average vehicle delay has become excessive and demand is near capacity. This condition is typically evident by long queues and delays, with intersection delays that may be difficult to measure because congestion may extend into and be affected by adjacent intersections. The table shows the average delay value (in seconds) corresponding to each LOS designation.

LOS	Signalized Intersections	Unsignalized Intersections
A	≤10 sec	≤10 sec
B	10–20 sec	10–15 sec
C	20–35 sec	15–25 sec
D	35–55 sec	25–35 sec
E	55–80 sec	35–50 sec
F	>80 sec	>50 sec

Table 4.1 presents mobility targets and LOS standards to be applied in the City of Eugene. Because mobility targets from the Oregon Highway Plan (OHP) are applied on state facilities, the City will seek ODOT amendment of the OHP to include alternative mobility on the identified ODOT facilities. ODOT performance standards are reflected in Table 4.1 for city streets near highway interchanges; this interchange influence area is generally defined as one-quarter mile from a ramp terminal or as the area between the ramp terminal and the first public street intersection.

Table 4.1: City of Eugene Vehicular Performance Measures

Jurisdiction	Roadway	Standard (peak hour, unless noted)
City	Citywide (unless otherwise specified)	LOS E
City	Eugene Downtown Traffic Impact Analysis Exempt Area	LOS F
ODOT	Randy Papé Beltline/Highway 99 ramp termini	1.0 V/C
ODOT	Randy Papé Beltline/Roosevelt Boulevard intersection	1.0 V/C
ODOT	Highway 99/Roosevelt Boulevard intersection	1.0 V/C
ODOT	Highway 99 from Roosevelt Boulevard to 5th Avenue; 6th and 7th Avenues to Garfield Street	1.0 V/C
ODOT	6th Avenue/Garfield Street intersection	1.0 V/C
ODOT	6th Avenue/Madison Street intersection	1.0 V/C

Jurisdiction	Roadway	Standard (peak hour, unless noted)
ODOT	6th Avenue/Chambers Street intersection	1.0 V/C (2 hour)
ODOT	7th Avenue/Chambers Street intersection	1.0 V/C
ODOT	6th and 7th Avenues from Madison Street to Lincoln Street	1.0 V/C
ODOT	Randy Papé Beltline/W 11th Avenue intersection	1.0 V/C (2 hour)
ODOT	River Road from Irving Road to River Avenue (Randy Papé Beltline Highway interchange influence area)	1.0 V/C
ODOT	Delta Highway from Green Acres Road to Goodpasture Island Road	1.0 V/C
ODOT	Coburg Road from Chad Drive to Elysium Avenue (Randy Papé Beltline Highway interchange influence area)	1.0 V/C
ODOT	Franklin Boulevard from Walnut Street to I-5	1.0 V/C

Some of the intersection and corridor locations listed in Table 4.1 are part of ODOT's Beltline Facility Plan and the related National Environmental Policy Act (NEPA) project. At the time the *2035 TSP* was drafted, the Facility Plan was complete but the NEPA project had not commenced. The recommended target threshold for the affected intersections/corridors will be refined to reflect NEPA findings. The *2035 TSP* recognizes the need to coordinate with these efforts and will be updated accordingly.

Truck Routes

Both the *2035 TSP* and the *Oregon Transportation Plan* (OTP, 2006) recognize the important role that an efficient and reliable transportation system plays in supporting the region's economy, growth, and quality of life. Within the Eugene-Springfield area, highways, city streets, airports, pipelines, and railways provide freight mobility. Trucks, rail, and air service must function together to ensure the efficient and timely movement of freight to, within, and through the community.

Discussions with the TCRG, TAC, Lane Area Commission on Transportation (Lane ACT), and other public stakeholders, identified a concern that freight movement would be hindered by delays in traffic congestion.

As part of the needs analysis, changes to the existing freight and truck routes were identified to ensure consistency with state and federal designations and guidance. One way in which this need is being address is an amendment to the Street Classification Map to change the classification of the Northwest Expressway (from the northern UGB to River Road) from a Minor Arterial to a Major Arterial. The *2035 TSP* policies support technological and information systems that will make freight delivery times more reliable.

A map of the state highway freight system from the 1999 Oregon Highway Plan is provided as Attachment E, Figure 1, State Highway Freight System.

Transportation System Management and Operations (TSMO) and Transportation Demand Management (TDM)

The *2035 TSP* Goals and Policies rely on providing cost effective, multimodal solutions that increase the safety and efficiency of the existing street system, promote travel options for all users, support the economy, and support the Climate Recovery Ordinance. Transportation System Management and Operations (TSMO) and Transportation Demand Management (TDM) strategies are a key part of achieving these goals.

Transportation Demand Management (TDM) are strategies and policies to reduce travel demand (specifically that of private single-occupancy vehicles), or to redistribute this demand in space or in time.

TSMO and TDM strategies enhance people's choices to bike, walk, take transit, share rides, and telecommute. Expansion of these strategies provides individuals with flexible options regarding how, when, where, and how often they travel. TSMO and TDM strategies do not encourage one mode of travel over another, but rather offer greater travel choices to enhance mobility and accessibility and to maximize transportation investments. Appendix K in Volume 2 contains a range of potential TSMO strategies that could be used by the City in the future.

TDM and TSMO strategies encompass commute and school-based trips, as well as casual trips to the grocery store, shopping mall, recreational sites, and special events.

In 2005, the City adopted *Standards for Transportation Demand Management Programs*. These standards provide a mechanism to vary the number of required off-street parking spaces by providing a strategy for reducing vehicle use and parking demand and using benchmarks to measure program effectiveness. The *2035 TSP* proposes to expand the use of TDM and TSMO practices beyond parking to help address traffic congestion, fossil fuel reduction goals, safety, and the financial burden of travel on individuals.

Eugene, in collaboration with the Central Lane MPO, LTD/ Point2point, and the City of Springfield identified the following key programs and services through the *Regional Transportation Options Plan*:

- Traveler Information and Coordination Tools: Continued outreach and education, "Sunday Streets," transportation fairs, community wide commute challenges etc.;
- Smart*Trips* individualized marketing programs to encourage active transportation choices;
- School-Based Transportation Options: Build off existing Safe Routes to School programs to include coordinated program with ridesharing and transit promotion. Expand program to middle and high schools;
- Rideshare (carpooling and vanpooling);
- Transportation Options Resource Program: Transportation Options Development Workshops and Training;
- Mobility Hubs: provide Wi-Fi technologies, pocket maps/brochures, secure bicycle parking, car- and bike-share services, shuttle service, and other assistance near several transit stations;
- LTD's Group Bus Pass program.

In addition to supporting these programs, the *2035 TSP* recommends intersection and corridor-based improvements that improve the efficiency of the existing traffic signal system (Intelligent Transportation

Systems, or ITS) and improvements to travel efficiencies, safety, and reliability with coordinated and responsive signal timing, bus and freight priority treatments, ramp metering, incident management, traffic monitoring, improved street lighting, and other safety-based measures.

Further details of TSMO and TDM strategies that support the *2035 TSP* are provided in the *Regional Transportation Options Plan* in Appendix G of Volume 2 and in the City's *Standards for Transportation Demand Management Programs*.

Parking

For people traveling by bike and by car, parking is an essential feature needed at the beginning and end of each trip. While the presence of adequate parking is an important factor in ensuring a city's economic vitality, especially in the downtown, retail and employment areas, surface parking lots are typically associated with significant areas of impervious surfaces dedicated solely for car storage and maneuvering room. The use of surface parking lots can conflict with providing desired urban form and densities. Multi-level parking garages, which use land more efficiently, are expensive to build.

The Eugene Code contains key parking provisions as:

- Minimum and maximum parking requirements for cars and bikes;
- Reduction of minimum parking requirements with an approved strategy according to the *Standards for Transportation Demand Management Program (2005)*;
- Parking exemptions in the downtown, West University Neighborhood, and Blair Boulevard Historic commercial area;
- Provisions for the shared use of parking spaces;
- Inclusion of on-street parking toward meeting off-site parking needs in some circumstances.

These code provisions can be further supported by enforcement and permitting practices, management of future parking supply in key employment areas, enhanced public information, improving multimodal access into the downtown and to the University of Oregon, regular revision of the City's *Bicycle Parking and Motor Vehicle Parking and Loading Standards* to reflect current needs and circumstances, and other operational strategies promoted by the *2035 TSP* policies and potential actions.

Rail

The needs analysis identified rail as an important, energy efficient mode of freight transportation. The *2035 TSP* supports the continued use of freight rail tracks and service provided in Eugene by Burlington-Northern Santa Fe (BNSF), Central Oregon and Pacific (COPR), Union Pacific (UP), and Portland and Western (P&W).

The needs analysis also identified passenger rail as an important strategy for providing energy efficient passenger travel between Eugene and other regional destinations. ODOT is currently studying improvements to allow higher speed, more frequent, and reliable passenger rail between Eugene-Springfield and Vancouver, Washington. The *2035 TSP* supports continued, regional passenger service by Amtrak to the Eugene Amtrak Station in downtown, the construction of two rail sidings and a new passenger platform that will enhance passenger rail service and separate passenger rail from freight at the Eugene Depot. These projects are shown in Chapter 5.

Federal law requires trains to sound their horns prior to entering at-grade crossings to warn motorists, bicyclists, and pedestrians that the train is approaching. Since February 2008, the Eugene City Council has supported establishing a "railroad quiet zone" to reduce friction between rail activity and the areas' residential and commercial activities. In downtown Eugene and the Whiteaker neighborhood, the neighborhoods closest to the station and where trains blow horns most frequently, the use of train horns would be reduced through the use of supplemental safety measures at street crossings of the UP railroad tracks. While a citywide railroad quiet zone is a long term objective, the Downtown-Whiteaker project is identified as a 20 year priority in this TSP.

Eugene Airport

The Eugene-Springfield region is served by the City of Eugene's Airport at Mahlon Sweet Field (EUG). This airport is located north of the Eugene UGB. The *2035 TSP* supports continued use of the airport for freight and passenger travel as well as for military use, Civil Air Patrol, the Lane Community College Aviation Academy, and as a base of operations for the aerial suppression of large-scale fires by specially-modified aircraft. Typically, such aircraft are contracted by the Oregon Department of Forestry or the U.S. Forest Service.

Eugene Airport Terminal

Source: City of Eugene

The roadway improvements proximate to the airport included in Chapter 5 will enhance opportunities for industrial development and employment opportunities that support airport activity. Further, to provide transportation options for the transportation disadvantaged, the *2035 TSP* encourages improved transit connections to the airport.

The Federal Aviation Administration (FAA) requires the creation of an Airport Master Plan to assist airports with expansion and improvement plans over a 20-year planning period. The 2010 Airport Master Plan Update for the Eugene Airport, adopted by the City and Lane County as a refinement to the *Metro Plan*, provides a development and expansion framework for the 20-year planning period starting from base year 2006. The *2035 TSP* recognizes the 2010 Airport Master Plan Update and incorporates its findings and goal by reference. The Master Plan Update is included in Appendix L of Volume 2. A master plan update process is underway and will be completed by the end of 2017.

Waterways

Over time, waterways have significantly shaped the evolution of Eugene's transportation and land uses. However, their influence as an active component of the transportation network is limited today.

Although the Willamette River is considered a navigable waterway for the purposes of determining public ownership, it is too shallow to be navigable for commercial purposes. Today, there are no ports or navigational facilities within Eugene, nor are any planned.

The Willamette River is a designated water trail that extends from Portland to south of Eugene. Water trail improvements that may be proposed for recreational purposes would be reviewed by policies contained in the Eugene *Parks, Recreation and Open Space Comprehensive Plan*, *Metro Plan*, *Envision Eugene Comprehensive Plan* (future), and other applicable City policy documents and codes.

Pipeline Facilities

Pipelines provide transportation opportunities in Eugene by moving liquids and gases throughout the community. Connections to trains or trucks for local distribution are required. Maintenance and operations of the major pipelines are outside the jurisdiction of the City; therefore no policies or projects directly related to the pipelines are proposed. The *2035 TSP* includes policies that support projects and regulations that reduce transportation inefficiencies and risks from the transportation of hazardous materials, such as when natural gas or oil is transferred between pipelines, trucks, and trains for local distribution.

Chapter 5: Transportation Priorities and Project Categories

The *2035 TSP* recommends transportation programs and infrastructure improvements to fulfill the plan's goals and policies. These are organized into the following five categories that suggest timeframes for implementation based on complexity, likely available funding (including potential funding sources), and assessment of need:

- Projects to be completed within 20 years;
- Operational projects (on-going);
- Projects to complete upon development;
- Projects to be completed beyond 20 years;
- Study projects.

Inclusion of a project in the next 20-years or beyond 20 years does not represent commitment to complete the project during that timeframe. It is expected that some projects may be accelerated and others postponed due to changing conditions, funding availability, public input, or more detailed study performed during programming and budgeting processes. Also, the projects described in these lists represent the best estimation for appropriate design available at time of TSP adoption. Since the TSP was drafted at a high-level citywide scale, project design may change before construction commences as public input, available funding, and unique site conditions are taken into consideration.

Achieving *2035 TSP* goals and the City's commitment to creating a transportation plan that supports the **Triple Bottom Line** were assessed using eight evaluation criteria:

1. Safety and health
2. Social equity
3. Access and mobility for all modes
4. Community context
5. Economic benefit
6. Cost effectiveness
7. Climate and energy
8. Ecological function

Prior to commencing a capital transportation project, the City staff does their best to reach out to and engage the community. In determining the appropriate amount of public involvement for a particular project, the City considers the scale, scope and potential impacts of the project.

Project Costs

Costs for each 20-year priority project and projects to complete upon development are provided in the subsequent tables. These costs are order-of-magnitude or planning-level estimates that include an estimate of right-of-way, design engineering and construction; these costs generally include a 30 percent contingency. All costs are rounded and provided in 2014 dollars.

Costs for individual transit corridors are not provided. Given that a community process will be required to determine the types of improvements necessary to support transit in identified multimodal corridors, transit corridor capital costs were consolidated, assuming a mix of bus rapid transit (EmX), enhanced bus corridors, and frequent bus service. Transit projects are estimated to cost a total of $171.4 million for all corridor improvements.

Projects within 20 Years

The projects shown in Tables 5.1 and 5.2 represent the City's current priorities for implementation in the next 20 years (up to the year 2035). Projects in this category may be funded through a variety of sources including federal, state, or local transportation funds, system development charges (SDCs), through partnerships with private developers, or a combination of these sources. Roadway, multimodal, transit, and rail projects to be completed within 20 years can be seen on a project map in Attachment A, Figure 2. Pedestrian project can be seen on Attachment A, Figure 3 and bicycle projects can be seen on Attachment A, Figure 4.

Table 5.1: Roadway, Multimodal, Transit, and Rail Projects to be Completed Within 20 Years[10]

Project No.	Name/Location	Extent	Length (miles)	2014 Cost Estimate
River Road				
MM-1	Improve frequent transit service and multimodal travel along River Road	Hunsaker Lane to West 11th Avenue	Included in transit/multimodal corridor bundle[11]	
MM-2	Future Santa Clara Community Transit Center: new transfer station at River Road and Hunsaker Lane to facilitate bus transfers, park and ride, bike parking	River Road and Hunsaker Lane	Included in transit/multimodal corridor bundle	
Randy Papé Beltline Highway Facility Plan Recommendations				
MM-3	Construct multimodal local arterial bridge over the Willamette River to the north of the Beltline Highway, connecting Division Avenue to Green Acres Road; construct operational improvements to existing Randy Papé Beltline Highway/Delta Highway ramps consistent with the Beltline Highway Facility Plan	River Road to Coburg Road	0.95	$83M
I-5/Beltline				
MM-4	Improve I-5/Randy Papé Beltline Highway interchange (project is currently funded and underway)	I-5/Randy Papé Beltline Highway interchange	Funded and under construction[12]	
Highway 99				
MM-5	Improve frequent transit service and multimodal travel along Highway 99	Downtown to Barger Drive	Included in transit/multimodal corridor bundle	

[10] The cost estimates for all Key Corridor projects shown in Table 5.1 are based on previous corridor improvements completed in the City of Eugene. Average improvement costs were used based on past local transit corridor improvement costs and assumptions about the level of transit improvements that may be appropriate for each corridor within a 20 year period. These costs will be refined as individual corridor studies provide more accurate estimates.

[11] Costs for multimodal corridors are not provided for each corridor because additional work must be done prior to determining the appropriate transit, bike and pedestrian treatments. A combination of bus rapid transit (EmX) and enhanced bus service was assumed in developing the multimodal corridor project bundle cost provided below.

[12] Costs and mileage for projects under construction are not included as funding has already been programmed.

Project No.	Name/Location	Extent	Length (miles)	2014 Cost Estimate
Coburg Road				
MM-6	Improve frequent transit service and multimodal travel along Coburg Road and transit connections to Springfield	Eugene Station to I-5/Crescent Avenue	Included in transit/multimodal corridor bundle	
Martin Luther King Jr. Boulevard				
MM-7	Improve frequent transit service and multimodal travel along Martin Luther King Jr. Boulevard to Centennial Boulevard in Springfield	Coburg Road to I-5	Included in transit/multimodal corridor bundle	
MM-8	Add center turn lane on Martin Luther King Jr. Boulevard	Leo Harris Parkway West and Centennial Loop West	0.21	$6.7M
West Eugene EmX				
MM-9	West Eugene EmX extension along W 6th, 7th, and 11th Avenues, Garfield and Charnelton Streets (project is currently funded and under construction)	Commerce Street to Eugene Station	Funded; under construction	
30th Avenue/Amazon Parkway				
MM-10	Achieve frequent transit service and improved multimodal travel along the 30th Avenue and Amazon Parkway corridor; enhance pedestrian crossings and provide protected bikeways in the corridor (note: only the portion of the project within Eugene's UGB is included in the TSP)	Downtown to Lane Community College	Included in transit/multimodal corridor bundle	
Complete Street Upgrades of Existing Streets				
MM-11	Upgrade Hunsaker Lane/Beaver Street consistent with major collector/urban collector standards	River Road to Division Avenue	1.1	$9.3M
MM-12	Upgrade the north/south section of County Farm Road consistent with major collector standards	Wildish Lane/County Farm Road to Coburg Road	0.7	$4.4M
MM-13	Upgrade Bethel Drive consistent with neighborhood collector standards	Highway 99 to Roosevelt Boulevard	1.7	11.8M
MM-14	Upgrade W 11th Avenue consistent with major arterial standards	Terry Street to Green Hill Road	1	$12.3M
MM-15	Upgrade Jeppesen Acres Road consistent with its designation as a bike boulevard and neighborhood collector	Gilham Road to Providence Street	0.7	$3.9M
MM-16	Upgrade Bertelsen Road consistent with minor arterial standards.	18th Avenue to Bailey Hill Road	0.57	$3.9M

Project No.	Name/Location	Extent	Length (miles)	2014 Cost Estimate
Other Projects				
MM-19	Reconstruct Franklin Boulevard pursuant to the Walnut Station Plan (for purposes of cost estimating a multiway boulevard design from this plan was used); make streetscape improvements including new sidewalks on the south side and a shared use path on the north side between Onyx and Alder Streets	Walnut Street to Onyx Street	0.6	$27.7M
MM-20	Add lanes on the Randy Papé Beltline Highway and provide intersection improvements at the Randy Papé Beltline Highway/W 11th Avenue and Randy Papé Beltline Highway/Roosevelt Boulevard intersections	Roosevelt Boulevard to W 11th Avenue	1.1	$28.1M
MM-21	Widen Barger Drive to provide a second through lane in each direction	West of Primrose Street to where the street widens to two lanes in each direction west of Randy Papé Beltline Highway	0.14	$1.9M
MM-22	Convert 8th Avenue to two-way street	High Street to Jefferson Street	0.7	$3.9M
MM-26	Neighborhood traffic calming to address speeding problems on residential streets including collector streets	Various locations	N/A	$2.0M
MM-27	Upgrade North Gilham Road consistent with neighborhood collector standards	Ayres Road to Ashbury Drive	0.3	$1.5M
MM-28	Extend Shadowview to Coburg Road (or beyond to Park View Drive) via Spectrum Avenue to serve future development consistent with neighborhood collector standards	Shadowview Road to Coburg Road (may extend to Park View Drive)	0.3	$3.2M
Rail Improvements				
MM-23	Improve passenger platform and construct new rail sidings to enhance passenger rail service and separate passenger rail from freight rail at the Eugene Depot	Eugene Depot	N/A	$20.3M
MM-24	Establish Railroad Quiet Zone; assumes 10 crossings	Downtown and Whiteaker neighborhoods	N/A	$5M

Project No.	Name/Location	Extent	Length (miles)	2014 Cost Estimate
MM-25	Relocate highway-railroad crossing in alignment with the existing 8th Avenue improvements including track panels, lights, relocated signal, gates, audible warning devices, upgraded railroad track detection as required by ODOT Rail and/or Union Pacific Railroad, and an accessway to establish a walking and bicycling connection to the South Bank Path	Near 8th Avenue with connection to South Bank Path	0.03	$3.1M
Transit/Multimodal Corridor Bundle (Projects MM-1, 2, 5, 6, 7 and 10)			15.2	$171.4M
20-year total for all projects			**25.9**	**$406.6M**

Table 5.2: Pedestrian and Bicycle Projects to be Completed Within 20 Years

Project No	Name/Location	Extent	Length (miles)	2014 Cost Estimate
Accessways				
PB-196	Avalon Street Accessway	Candlelight Dr to N Danebo Ave	0.10	$87,000
PB-197	Lane County Fairgrounds Accessway	W 13th Ave to W 16th Ave	0.27	$186,000
PB-218	Hansen Lane Accessway	River Rd to West Bank Path	0.12	$98,000
PB-220	McClure Lane Accessway	McClure Ln to West Bank Path	0.05	$45,000
PB-221	Arbor Drive Accessway	Denis Dr to West Bank Path	0.06	$46,000
PB-230	Murin Street Accessway	Murin St to Fern Ridge Path	0.02	$16,000
PB-250	W 11th Avenue Accessway	W 11th Ave to Fern Ridge Path at Quaker	0.06	$53,000
PB-255	W 27th Avenue Accessway	Madison St to Jefferson St	0.07	$61,000
PB-256	Lincoln Street Accessway	W 30th Ave to W 31st Ave	0.08	$66,000
PB-258	Spyglass Accessway	Spyglass Dr to Greenview St	0.08	$64,000
PB-259	Holly Avenue Accessway	Delta Oaks Dr to Holly Ave	0.04	$31,000
PB-472	E 25th Avenue Accessway	University St to E 25th Ave	0.01	$9,000
PB-560	Wallis Street Path	W 13th Avenue to Peppertree Accessway	0.06	$48,000
		20-Year Total	**1.02**	**$810,000**
Neighborhood Greenways				
PB-53	Grove Street	Silver Ln to Howard Ave	0.53	$66,000
PB-60	W Amazon Drive	Snell Dr to N of Martin St	0.38	$47,000
PB-73	N Danebo Avenue	Barger Dr to Avalon St	0.50	$63,000
PB-74	Devos Street	Jessen Dr to Barger Dr	0.50	$62,000
PB-75	Avalon Street	N Danebo Ave to Haven St	0.21	$32,000
PB-77	Spyglass Drive	Cal Young Rd to Greenview St Accessway	0.69	$87,000
PB-85	Honeywood Street	Gilham Rd to Honeywood St	0.23	$34,000

Project No	Name/Location	Extent	Length (miles)	2014 Cost Estimate
PB-86	Honeywood Street	Honeywood St to Honeywood St Accessway	0.05	$7,200
PB-95	Monroe Street	Clark St to W 13th Ave	0.99	$124,000
PB-105	University Street	E 13th Ave to E 24th Ave	0.83	$104,000
PB-107	W 15th Ave	Jefferson Alley to Kincaid St	1.16	$117,000
PB-109	Willamette Street	Amtrak Station to W 6th Ave	0.12	$18,000
PB-110	W Broadway	McKinley St to Charnelton St	1.70	$170,000
PB-111	Broadway	Charnelton St to High St	0.38	$47,000
PB-114	Lawrence Street	Cheshire Ave to W 19th Ave	1.49	$151,000
PB-124	Greenview Street	Spyglass Accessway to Fair Oaks Dr	0.15	$23,000
PB-125	Fairoaks Drive	Bedford Way to Greenview St	0.07	$10,000
PB-126	Lariat Drive	Oakway Rd to Lariat Meadows Dr	0.24	$34,000
PB-127	Tandy Turn	Accessway to Coburg Rd	0.23	$35,000
PB-128	Tandy Turn	Coburg Rd to Firwood Way	0.26	$33,000
PB-129	Firwood Way	Tandy Turn to Ascot Dr	0.07	$11,000
PB-130	Palomino Drive	Harlow Rd to Sorrel Way	0.37	$45,000
PB-131	Bailey Lane	Harlow Rd to Willakenzie Rd	0.85	$106,000
PB-134	Delta Oaks Drive	Green Acres Rd to Holly Ave Accessway	0.08	$12,000
PB-135	Holly Avenue	Tabor St to Gilham Rd	0.53	$66,000
PB-136	Snelling Drive	Cal Young Sports Park to Erin Way	0.37	$46,400
PB-137	Erin Way	Snelling Dr to Chad Dr	0.06	$8,200
PB-138	Chad Drive	Erin Way to Coburg Rd	0.14	$21,000
PB-139	Jeppesen Acres Road	Gilham Rd to Coburg Rd	0.69	$86,000
PB-141	Bond Ln	Fir Acres Dr to Norkenzie Rd	0.41	$52,000
PB-146	Copping Street	Owosso Dr to E Howard Ave	0.28	$35,000
PB-153	Ruby Avenue	Canterbury St to River Rd	0.89	$111,000
PB-155	N Park Avenue	Skipper Ave to Maxwell Rd	0.49	$61,000
PB-157	N Park Avenue	Howard Ave to Northwest Expressway	1.14	$134,000
PB-159	Lake Drive	Howard Ave to Horn Ln	0.43	$54,000
PB-161	Horn Lane	Maclay Dr to River Rd	0.93	$115,000
PB-162	Arbor Drive	River Rd to Denis Dr	0.18	$27,000
PB-163	Hillard Lane	N Park Ave to Eastern Terminus	1.07	$131,000
PB-167	Berntzen Road	Royal Ave to Elmira Rd	0.25	$32,000
PB-168	Waite Street	Elmira Rd to Roosevelt Path	0.18	$27,000
PB-374	Robin Hood Ave	Accessway to Willagillespie Rd	0.22	$32,000
PB-381	E 13th Avenue	Agate St to Franklin Blvd	0.17	$26,000
PB-386	Adkins Street	Coburg Rd to Willakenzie Rd	0.37	$52,000
PB-387	N Clarey Street	Barger Dr to Cubit St	0.75	$93,000
PB-388	Gay Street	Crescent Ave to Snelling Dr	0.13	$16,000
PB-389	Sarah Lane	Lakeview Dr to Crescent Ave	0.37	$46,000

Project No	Name/Location	Extent	Length (miles)	2014 Cost Estimate
PB-397	Portland Street	W 24th Ave to W 27th Ave	0.31	$38,000
PB-398	W 24th Avenue	Portland St to Willamette St	0.06	$9,000
PB-446	W 12th Ave	Fern Ridge Path Accessway to Hilyard Street	1.17	$115,000
PB-449	Ascot Drive	Ascot Park to Harlow Rd	0.23	$35,000
PB-451	Fair Oaks Drive	Bedford Way to Southwood Ln	0.55	$70,000
PB-452	Dapple Way	Sorrel Way to Dapple Accessway	0.84	$105,000
PB-453	Westward Ho Ave/Sunshine Acres	Harlow Rd to N Garden Way	0.75	$98,000
PB-458	E 27th/28th/29th Ave/High St	Willamette St to E 29th	0.43	$60,000
PB-458	South Pearl Street	Willamette St across 29th to Amazon Pkwy	0.47	$59,000
PB-460	Alder Street	E 24th Ave to E 30th Ave	0.64	$80,000
PB-461	Park Avenue	Northwest Expressway to River Rd	0.78	$98,000
PB-486	Willamette Street	7th Ave to 13th Ave	0.46	$58,000
PB-488	Mill Street/E 10th Ave	High St to E 19th Ave	0.76	$91,000
PB-492	W 22nd Avenue	Polk St to Friendly St	0.34	$42,000
PB-503	High Street	Cheshire St to E 6th Ave	0.34	$42,000
PB-505	Stephens Drive	Stephens Dr Accessway to West Bank Path	0.08	$11,000
PB-528	W 27th Pl	Washington Street to Lincoln Street	0.19	$24,000
PB-542	Fair Oaks Drive	Greenview St to Oakway Rd	0.11	$18,000
PB-544	Calvin Street	Western Dr to Harlow Rd	0.16	$25,000
PB-545	Monterey Lane	Larkspur Lp to Long Island Dr	0.06	$9,000
PB-546	Monterey Lane	Norkenzie Rd to Larkspur Lp	0.07	$10,000
PB-547	Long Island Drive	Minda Dr to Monterey Ln	0.23	$35,000
PB-548	Shadow View Dr	Crescent Ave to Chad Dr	0.18	$27,000
PB-576	Westleigh Street	Bailey Hill Rd to Private Road	0.12	$14,000
PB-577	Jay Street	Willhi Street to southern terminus	0.31	$39,000
PB-578	Cubit Street	Jessen Dr to Wagner St	0.37	$46,000
PB-579	Western Drive	Van Duyn St/Satre St to Calvin St	0.25	$31,000
PB-587	Rio Glen Drive	Wilagillespie Rd to Debrick Rd	0.19	$29,000
PB-588	17th Avenue	Alder St to Jefferson St	1.04	$104,000
PB-591	Garden Avenue	Millrace Dr to E 15th Ave	0.41	$52,000
PB-593	Alder Street	E 30th Ave to E 39th Ave	0.87	$108,000
PB-595	Grant Street	W 5th Ave to W 15th Ave	0.80	$100,000
PB-597	Grant Street	W 17th Ave to W 22nd Ave	0.40	$49,000
PB-598	W 22nd Avenue	Grant St to Chambers St	0.12	$18,000
PB-599	W 22nd Ave	Grant St to City View St	0.41	$52,000
PB-600	City View St	W 22nd Ave to W 21st Ave	0.07	$10,000
PB-601	W 21st Ave	City View St to Hawkins Ln	0.34	$42,000

Project No	Name/Location	Extent	Length (miles)	2014 Cost Estimate
PB-605	Hyacinth Street	Irvington Rd to River Rd	0.90	$135,000
PB-606	Spring Creek Drive	River Rd to Scenic Dr	0.54	$68,000
PB-607	Scenic Drive	Eugene City Limits to Spring Creek Rd	0.43	$55,000
PB-608	Scenic Drive	Spring Creek Dr to Wilkes Dr	0.71	$89,000
PB-609	Throne Drive	Royal Ave to Avalon St	0.60	$75,000
PB-614	Hyacinth Street	Irvington Rd to Irving Rd	0.91	$113,000
		20-Year Total	**41.13**	**$5,097,800**
Protected Bike Lanes				
Project No	**Name/Location**	**Extent**	**Length (miles)**	**2014 Cost Estimate**
PB-18	High Street	E 6th Ave to E 19th Ave	0.99	$2,267,000
PB-46	E Amazon Drive	Hilyard St to Snell St	1.21	$2,209,000
PB-391	Oakway Road	Cal Young Rd to Coburg Rd	0.96	$2,184,000
PB-392	Cal Young Road	Willakenzie Rd to Oakway Rd	0.22	$508,000
PB-393	Willakenzie Road	I-5 Path to Cal Young Rd	1.38	$3,141,000
PB-526	River Road	Division Ave to Northwest Expressway	2.49	$4,441,000
PB-556	13th Avenue Cycle Track	Kincaid St to Lincoln St	0.93	$3,280,000
PB-571	Lincoln Street	W 5th Ave to W 13th Ave	0.61	$1,419,000
PB-580	Hilyard Street	E 8th Ave to E Broadway	0.12	$330,000
PB-582	E Broadway	Hilyard St to Alder St	0.10	$265,000
PB-583	8th Ave	Lincoln St to E Broadway	0.53	$1,221,000
PB-589	E 24th Avenue	Willamette St to Alder St	0.52	$1,189,000
		20-Year Total	**10.06**	**$22,454,000**
Bike Lane (On-Street)				
Project No	**Name/Location**	**Extent**	**Length (miles)**	**2014 Cost Estimate**
PB-31	Willamette Street	23rd Ave to 32nd Ave	0.85	$115,000
PB-38	Fox Hollow Rd	Donald St to UGB	0.85	Urban*
PB-39	W 11th Avenue	Green Hill Rd to Terry St	1.05	Urban*
PB-41	Garfield Street	Roosevelt Blvd to W 6th Ave	0.68	$93,000
PB-42	Beaver Street	Lone Oak Dr to Division Ave	0.23	Urban*
PB-43	Hunsaker Lane	River Rd to Lone Oak Ave	0.91	Urban*
PB-44	Wilkes Drive	River Rd to River Loop 1	0.93	$126,000
PB-45	S Bertelsen Rd	W 18th Ave to Bailey Hill Rd	0.57	Urban*
PB-54	W 7th Place	Bailey Hill Rd to Garfield St	1.26	$136,000
PB-59	Prairie Rd	Maxwell Rd to Hwy 99	0.11	$19,000
PB-61	Bethel Drive	Hwy 99N to Roosevelt Blvd	1.66	Urban*
PB-63	Highway 99	5th Ave to Garfield St	0.67	$72,000
PB-66	Dillard Road	E Amazon Dr to Skyhawk Way	2.22	Urban*
PB-71	Bailey Hill Road	W 11th Ave to 7th Ave (northbound)	0.19	$20,000
PB-158	N Park Ave	Maxwell Rd to Howard Ave	0.16	$26,000

Project No	Name/Location	Extent	Length (miles)	2014 Cost Estimate
PB-226	W 13th Avenue	Washington Street to Lincoln Street	0.15	$24,747
PB-229	County Farm Road (north-south section)	Wildish Ln to Coburg Rd	0.66	$107,235
PB-400	Royal Avenue	Green Hill Rd to Patriot Way	0.82	Urban*
PB-445	City View Street	W 11th Ave to W 18th Ave	0.50	$68,000
PB-447	Highway 99	Prairie Rd to Barger Dr	0.33	$44,000
PB-455	Oak Patch Road	W 11th Ave to W 18th Ave	0.46	$63,000
PB-482	Gilham Road	Northern Terminus to Ayres Rd	0.61	Urban*
PB-523	Polk Street	W 5th Ave to W 24th Ave	1.14	$200,000
PB-554	W 2nd Avenue	Garfield St to Chambers St	0.27	$36,000
PB-561	W 13th Avenue	Commerce St to Dani Street	0.99	$133,000
PB-564	Commerce Street	W 11th Ave to W 13th Ave	0.22	$36,000
PB-568	Roosevelt Boulevard	Hwy 99 to Railroad Tracks	0.12	$20,000
PB-572	W 5th Avenue	W 6th Ave to W 7th Ave	0.08	$8,000
PB-574	High Street	6th Ave to 4th Ave	0.15	$16,500
PB-575	County Farm Road (east-west section)	Coburg Rd west to Wildish Ln	0.54	$59,000
PB-592	E 40th Ave	Willamette St to Donald St	0.26	$36,000
		20-Year Total	**19.64**	**$1,458,482**
Shared Use Path				
Project No	**Name/Location**	**Extent**	**Length (miles)**	**2014 Cost Estimate**
PB-21	E 30th Ave	Hilyard St to Agate	1.16	$2,749,000
PB-211	Spring Boulevard Accessway	Central Blvd to E 30th Ave	0.23	$554,000
PB-222	W 7th Ave	W 5th Ave to Garfield St	0.40	$951,000
PB-223	Jessen Path	Ohio St to Beltline Path	1.41	$3,350,000
PB-231	Berkeley Park Path	Fern Ridge Path to Wilson St	0.13	$298,000
PB-243	Beltline Path	Roosevelt Blvd to W 11th Ave	1.02	$2,016,000
PB-376	Franklin Boulevard Path	South Bank Path to Riverview St	0.32	$639,000
PB-394	Amazon Roosevelt Connector	Hilyard Community Center Path to Amazon Path	0.16	$261,000
PB-395	Fern Ridge West Connector	Royal Street to Fern Ridge Path	0.08	$125,000
PB-459	Hilyard Street	E 34th Ave to Dillard Rd	0.44	$866,000
PB-462	I-5 Path	Old Coburg Rd to 1-5 Path	0.21	$412,000
PB-464	I-5 Path	Harlow Rd to I-5 Path	0.17	$334,000
PB-465	I-5 Path	I-5 Path to Westward Ho Ave	0.52	$1,030,000
PB-475	W Amazon Drive	Martin St to southern section of W. Amazon Drive	0.36	$709,000
PB-494	Amazon Park East-West Path	27th Avenue/Amazon Parkway to the Amazon Path	0.16	$816,000
PB-552	UGB Path	Wilkes Dr to Division Ave	1.62	$3,209,000

Project No	Name/Location	Extent	Length (miles)	2014 Cost Estimate
PB-555	Kincaid St Path	E 39th Ave to Potter St	0.13	$209,000
PB-610	Roosevelt Boulevard	Maple St to Hwy 99	0.28	$805,000
		20-Year Total	**8.64**	**$19,333,000**
Sidewalk Path				
Project No	**Name/Location**	**Extent**	**Length (miles)**	**2014 Cost Estimates**
PB-481	Division Avenue sidewalk path	Lone Oak Ave to Beaver St	0.54	$701,000
PB-508	Franklin Boulevard sidewalk path	Alder St to Millrace Park Path	0.18	$273,000
PB-565	Commerce Street	Commerce St to W 11th Ave	0.1	$157,000
PB-615	W 7th Ave	Garfield St to Grant St	0.13	$207,000
PB-495	W 5th Avenue sidewalk path	Highway 99 to McKinley Street	0.04	$74,000
		20-Year Total	**0.99**	**$1,412,000**
Grade Separated Path or Sidewalk				
Project No	**Name/Location**	**Extent**	**Length (miles)**	**2014 Cost Estimates**
PB-12	Park Avenue Overpass	Ruby Ave to Skipper Ave	0.18	$4,110,000
PB-216	Buck Street Bridge	Fern Ridge Path to Buck St	0.02	$2,145,000
PB-245	Commerce Street Bridge	Fern Ridge Path to Commerce Street, including .22 miles of accessway	0.04	$1,550,000
PB-249	Amazon Drive Footbridge	W Amazon Drive to E Amazon Drive	0.01	$75,000
PB-390	Jay Street bridge	Marshall Street to Marshall Path	0.01	$125,000
PB-463	I-5 Path Crossing	Beltline crossing West of I-5	0.29	$1,000,000
PB-559	Wallis Street Bridge	Fern Ridge Path to W 12th Ave	0.02	$2,145,000
PB-596	Grant Street bridge	Grant Street to Grant Street over Amazon Creek	0.02	$900,000
PB-612	Amazon and 36th Drive Footbridge	W Amazon to E Amazon Drives	0.01	$75,000
PB-613	Amazon and Dillard Footbridge	W Amazon to E Amazon Drives	0.01	$75,000
		20-Year Total	**0.61**	**$12,200,000**

Sidewalks					
Project No	**Name/Location**	**Extent**	**Street Side**	**Length (miles)**	**2014 Cost Estimate**
PB-217	Grant Street	W 15th Ave to Fern Ridge Path	West side	0.03	$15,000
PB-267	Spring Creek Drive	River Road to Scenic Drive	South side	0.39	Urban*
PB-33	Spring Creek Drive	River Road to Scenic Drive	North side	0.51	Urban*
PB-268	W 24th Street	Gap at Adams Street	South side	0.07	$44,000

Sidewalks					
Project No	**Name/Location**	**Extent**	**Street Side**	**Length (miles)**	**2014 Cost Estimate**
PB-269	W 2nd Avenue	Gap west of Chambers Street	South side	0.05	$30,000
PB-271	W 24th Avenue	Friendly Street to Madison Street	North side	0.13	$81,000
PB-272	Hunsaker Lane/Beaver Street	River Road to Division Avenue	South side	1.05	Urban*
PB-275	Maxwell Road	Gap over NW Expressway to Prairie Road	South side	0.16	$100,000
PB-276	Maxwell Road	Labona Drive to Prairie Road	North side	0.50	$263,000
PB-277	Prairie Road	Maxwell Road to Highway 99	West side	0.04	$23,000
PB-278	Howard Avenue	N Park Avenue to River Road	South side	0.89	$471,000
PB-279	Howard Avenue	N Park Avenue to River Road	North side	0.85	$452,000
PB-280	Gilham Road	Mirror Pond Way to Ayres Road	West side	0.53	$272,000
PB-284	Crescent Avenue	Coburg Road to midblock gap	North side	0.27	$144,000
PB-285	Bertelsen Road	W 18th Avenue to city limits	West side	1.27	Urban*
PB-286	Bertelsen Road	W 18th Avenue to city limits	East side	1.26	Urban*
PB-287	W 18th Avenue	Bertelsen Road to Wester Drive	South side	1.00	$424,000
PB-288	Fox Hollow Road	Donald Street to UGB	East side	0.83	Urban*
PB-292	Bertelsen Road	W 1st Avenue to Henry Court	West side	1.11	$470,000
PB-293	Bertelsen Road	W 1st Avenue to W 13th Avenue	East side	0.84	$445,000
PB-294	N Bertelsen Road	Cross Street to Roosevelt Boulevard	West side	0.14	$92,000
PB-297	N Danebo Avenue	Gap south of Roosevelt Boulevard	West side	0.02	$12,000
PB-298	N Danebo Avenue	Gap south of Roosevelt Boulevard	East side	0.16	$99,000
PB-299	N Danebo Avenue	Railroad tracks to Fern Ridge Path	East side	0.69	$366,000
PB-300	N Danebo Avenue	Pacific Avenue to Fern Ridge Path	West side	0.42	$223,000
PB-301	W 29th Avenue	Washington Street to Lincoln Street	North side	0.06	$36,000
PB-302	W 29th Avenue	Washington Street to Lincoln Street	South side	0.08	$47,000

Sidewalks					
Project No	**Name/Location**	**Extent**	**Street Side**	**Length (miles)**	**2014 Cost Estimate**
PB-305	Goodpasture Island Road	East side of overpass to Happy Lane	North side	0.31	$300,000
PB-306	W 11th Avenue	West of Obie Street	South side	0.03	$20,000
PB-307	W 11th Avenue	West of Obie Street	North side	0.24	$156,000
PB-308	W 11th Avenue	Near Bertelsen Road	North side	0.18	$117,000
PB-309	W 11th Avenue	Gap between Commerce Street and Bertelsen Road	South side	0.15	$95,000
PB-310	W 11th Avenue	Green Hill Road to Terry Street	North side	1.01	Urban*
PB-311	W 11th Avenue	Green Hill Road to Terry Street	South side	1.03	Urban*
PB-314	Bethel Drive	Highway 99 to Roosevelt Boulevard	South side	1.60	Urban*
PB-315	Bethel Drive	Highway 99 to Roosevelt Boulevard	North side	1.01	Urban*
PB-322	Chambers Street	North of Em Ray Drive	East side	0.02	$12,000
PB-327	W 11th Avenue	Gap west of Bailey Hill Road	North side	0.03	$21,000
PB-334	Seneca Road	Gap south of 5th Avenue	East side	0.31	$165,000
PB-335	Seneca Road	North of W 7th Place	West side	0.06	$36,000
PB-336	N Terry Street	Trevon Street to Trevon Street	East side	0.20	$126,000
PB-337	Prairie Road	Irving Road to Highway 99	East side	0.92	$485,000
PB-338	Prairie Road	Kaiser Avenue to Federal Lane	East side	0.30	$158,000
PB-339	Valley River Drive	Valley River Way to Goodpasture Island Road	South side	0.23	$146,000
PB-340	Goodpasture Island Road	Happy Lane to Stonecrest Drive	North side	0.18	$117,000
PB-341	Norkenzie Road	Linda Avenue to Donovan Drive	West side	0.04	$23,000
PB-342	Amazon Parkway	E 20th Avenue to E 26th Avenue	West side	0.47	$248,000
PB-344	Amazon Parkway	E 27th Avenue to sidewalk north of E 29th Avenue	South side	0.21	$134,000
PB-347	E Amazon Drive	Snell Street gap	East side	0.08	$52,000
PB-348	W Amazon Drive	Snell Street to Martin Street	West side	0.33	$176,000
PB-349	W Amazon Drive	Snell Street to Larch Street	West side	0.09	$55,000

Sidewalks					
Project No	**Name/Location**	**Extent**	**Street Side**	**Length (miles)**	**2014 Cost Estimate**
PB-351	Hilyard Street	E 36th Place to Dillard Road	East side	0.17	$106,000
PB-352	Donald Street	Gap at E 34th Avenue	West side	0.05	$32,000
PB-353	Donald Street	Gap south of E 34th Place	West side	0.03	$19,000
PB-354	Donald Street	E 35th Avenue to E 39th Avenue	West side	0.32	$167,000
PB-355	Jefferson Street	North of W 28th Avenue	West side	0.03	$19,000
PB-356	Jefferson Street	W 25th Place to W 26th Place	East side	0.05	$30,000
PB-357	Jefferson Street	North of W 25th Place	West side	0.02	$12,000
PB-358	Jefferson Street	North of W 25th Avenue	East side	0.07	$47,000
PB-359	Jefferson Street	South of W 24th Avenue	West side	0.03	$16,000
PB-360	Jefferson Street	North of train tracks to 1st Avenue	East side	0.11	$69,000
PB-362	Polk Street	South of W 2nd Avenue	East side	0.03	$20,000
PB-427	Hyacinth Street	Irvington Drive to Irving Road	West side	0.22	$117,000
PB-428	Holly Avenue	Tabor Street to Gilham Road	South side	0.35	$186,000
PB-429	E Tandy Turn/Firwood Way	East side of Tandy Turn, north side of Firwood	East side/ north side	0.13	$86,000
PB-432	Hilliard Lane	Lund Drive to River Road	South side	0.25	$131,000
PB-434	Park Avenue	Howard Avenue to Northwest Expressway	East side	0.49	$261,000
PB-436	N Danebo Avenue	Gap north of Souza Street	East side	0.11	$70,000
PB-437	N Danebo Avenue	Gap south of Barger Drive	East side	0.08	$53,000
PB-438	N Danebo Avenue	Barger Drive to Souza Street	West side	0.16	$99,000
PB-440	W 15th Avenue	Chambers Alley to Chambers Street	North side	0.03	$20,000
PB-441	Friendly Street	W 17th Avenue to W 18th Avenue	West side	0.05	$30,000
PB-442	Friendly Street	Gap north of W 17th Avenue	West side	0.02	$13,000
PB-515	Augusta Street	Gap south of 16th Avenue	East side	0.05	$34,000

Sidewalks					
Project No	**Name/Location**	**Extent**	**Street Side**	**Length (miles)**	**2014 Cost Estimate**
PB-516	16th Avenue	Riverview Street to Augusta Street	North side	0.05	$30,000
PB-519	16th Avenue	Riverview Street to Augusta Street	South side	0.05	$30,000
PB-532	Acorn Park Street	Acorn Park to Buck Street	West side	0.13	$81,000
PB-535	Queens Way	Cal Young Road to Buena Vista Elem.	East side	0.06	$36,000
PB-541	N Garden Way	Various locations south of Harlow	West site	0.15	$95,000
PB-493	W 1st Avenue	Seneca Road to Bertelson Road	North side	0.69	$311,000
MM-11	Hunsaker Lane/Beaver Street	River Road to Division Avenue	North side	1.10	Urban*
MM-12	County Farm Road	Wildish Ln to Coburg Rd (north-south section)	East side	0.70	Urban*
MM-12	County Farm Road	Wildish Ln to Coburg Rd (north-south section)	West side	0.70	Urban*
MM-13	Bethel Drive	Highway 99 to Roosevelt Boulevard	East side	1.70	Urban*
MM-13	Bethel Drive	Highway 99 to Roosevelt Boulevard	West side	1.70	Urban*
PB-23	Jeppesen Acres Road	Gilham Rd to Providence Street	North side	0.32	Urban*
PB-22	Jeppesen Acres Road	Gilham Rd to Providence Street	South side	0.25	Urban*
PB-25	Awbrey Lane	Prairie Rd to Highway 99	North side	1.31	Upon Development*
PB-24	Awbrey Lane	Prairie Rd to Highway 99	South side	1.31	Upon Development*
PB-26	Beacon Drive East	River Road to Scenic Drive	North side	0.74	Upon Development*
PB-27	Beacon Drive East	River Road to Scenic Drive	South side	0.66	Upon Development*
PB-29	Scenic Drive	River Loop #2 to East Beacon Drive	East side	0.76	Upon Development*
PB-32	Scenic Drive	River Loop #2 to East Beacon Drive	West side	.76	Upon Development*
PB-34	River Loop #2	River Road to Burlwood Street	North side	0.98	Upon Development*
PB-35	River Loop #2	River Road to Burlwood Street	South side	0.93	Upon Development*
PB-37	Wilkes Drive	River Road to River Loop #1	North side	0.17	Upon Development*

Sidewalks					
Project No	**Name/Location**	**Extent**	**Street Side**	**Length (miles)**	**2014 Cost Estimate**
PB-36	Wilkes Drive	River Road to River Loop #1	South side	0.87	Upon Development*
PB-40	River Loop #1	River Road to Dalewood Street	North side	0.23	Upon Development*
PB-47	River Loop #1	River Road to Dalewood Street	South side	0.23	Upon Development*
PB-48	County Farm Road	Wildish Ln to Coburg Rd (east-west section)	North side	0.51	Upon Development*
PB-49	County Farm Road	Wildish Ln to Coburg Rd (east-west section)	South side	0.51	Upon Development*
PB-57	Royal Avenue	Terry Street to Greenhill Road	North side	0.82	Upon Development*
PB-56	Royal Avenue	Terry Street to Greenhill Road	South side	0.99	Upon Development*
PB-62	Willow Creek Road	W 18th Avenue to UGB	South/east side	1.05	Upon Development*
PB-64	Willow Creek Road	W 18th Avenue to UGB	North/eest side	1.06	Upon Development*
PB-65	Dillard Road	43rd Avenue to UGB	East side	1.45	Upon Development*
PB-78	Hunsaker Lane	Ross Lane to River Road	North side	0.51	Upon Development*
			20-Year Total	**47.99**	**$8,971,000**
			20-Year Total for Pedestrian and Bicycle Projects	**130.08**	**$71,736,282**

Notes: *Urban indicates that costs are incorporated into other projects along the same roadway in the Table 5.1. *Upon development indicates that costs are incorporated into other projects along the same roadway in the Table 5.3.

Traffic Signal System Improvements

Traffic signal system improvements (sometimes categorized as "operational projects") are typically related to modifications to intersections that are lower in cost than a typical roadway project and are ones that generally do not require right-of-way acquisition. The *2035 TSP* is not inclusive of all of the traffic signal projects or intersection projects that the City will pursue over the life of the *TSP*. Rather, the projects highlighted are those that the City can pursue to strategically improve the operational efficiency of specific intersections and important roadways. These projects can enhance system operations and can be completed as opportunities arise. These projects may be funded by City maintenance and operations funds, SDCs, and other local, regional and state funding sources.

Below are the list of operational projects for inclusion in the TSP.

- **New Traffic Signals** – Installation of new traffic signals at intersections meeting one or more signal warrant(s). There are currently 25 intersections that have been identified as meeting warrants today. All of these intersections are on arterial and collector streets. The estimated cost to install a new traffic signal system is $350,000 per intersection.

- **Strain Pole/Span Wire Replacement** – Citywide, 24 traffic signals today are constructed using strain poles/span wires. Over time, the City will need to modify these intersections with mast arms and traffic signal equipment that conforms to current standards. Retrofitting all of the intersections will cost approximately $3,000,000. Of the 24 locations, 21 are at arterial and collector intersections.
- **Accessible Pedestrian Signals (APS)** – There are 228 signalized intersections within the UGB that do not have accessible pedestrian signal devices. Of these, 131 are located in Priority 1 areas and 83 are located in Priority 2 areas as identified in the ADA Transition Plan for Public Right of Way. The estimated cost of installation of APS devices ranges from $20,000 to $50,000 per intersection depending on the existing signal system being retrofitted.
- **Master Traffic Communications Plan** – Implementing a master plan will upgrade the existing communications infrastructure to increase the overall efficiency of the transportation system. This plan will support future improvements (*e.g.* new traffic signals, cameras, dynamic message boards and weather stations) and provide infrastructure to ensure that all traffic signals are coordinated on the same communication system. Today, 15 percent of the traffic signals are not part of an overall system. The communications project list includes nine phases of fiber trunk lines with a total estimated cost of $9,500,000 (2008 dollars).

Upon Development Projects

As properties develop or redevelop, the following projects would be completed to serve new development. The timing of these projects is uncertain and they are unlikely to be advanced by the City in the absence of specific private development activities. Typically, these projects address only localized transportation needs associated with newly developing or redeveloping areas.

The list of projects to be completed upon development reflects the City's current understanding of likely priorities in these areas. At the time that development or land use applications are submitted, additional or different provisions may be required as conditions of approval based on the specifics of the actual development application and the applicable land use regulations. The projects in this category may also be funded through a variety of sources, such as urban renewal, private funds, SDCs, or proportionate sharing (based on level of anticipated impact of a specific development). Table 5.3 shows the projects to be completed upon development.

Projects to be completed upon development can be seen on a project map in Attachment A, Figure 5.

The Complete Street Upgrades of Existing Streets section of Table 5.3 (Projects to be Completed Upon Development) also includes streets that are primarily lined with single family residential development. In the absence of redevelopment, Complete Street projects on these streets could be implemented as capital projects and are considered secondary in priority to the Complete Street Upgrade of Existing Streets projects in Table 5.1 (Roadway, Multimodal, Transit and Rail Projects to be Completed Within 20 Years).

Table 5.3: Projects to be Completed Upon Development

Project No.	Name/Location	Extent	Length (miles)	Cost
Local Connectivity				
UD-1	Provide connection with major collector standards	Enid Road to Awbrey Lane	0.8	$7.4M
UD-2	Connect Hyacinth Street consistent with neighborhood collector standards	Irvington Drive to Lynnbrook Drive	0.1	$700,000
UD-3	Provide connection between Gilham Road and County Farm Road consistent with neighborhood collector standards	Gilham Road to County Farm Road	0.4	$2.8M
UD-5	Extend Legacy Street south past Royal Avenue to connect to Roosevelt Boulevard (Roosevelt extension)	Adelman Loop to Roosevelt Boulevard	1.4	$17.5M
UD-6	Extend Colton Way south past Royal Avenue to connect with the future extension of Legacy Street consistent with neighborhood collector standards	Royal Avenue to future extension of Legacy Street	0.6	$3.7M
UD-7	Construct collectors and other facilities within Crow Road/West 11th Avenue/Pitchford area needed to serve future development	Crow Road/West 11th/Pitchford	1.3	$21.3M
UD-8	Extend W 13th Avenue consistent with major collector standards	Bertelsen Road to Dani Street	0.3	$3.6M
Urbanization of Existing Streets				
UD-9	Upgrade Awbrey Lane consistent with major collector standards	Prairie Road to Highway 99	1.3	$8.7M
UD-10	Upgrade Beacon Drive East consistent with neighborhood collector standards	River Road to Scenic Drive	0.7	$3.5M
UD-11	Upgrade Scenic Drive consistent with neighborhood collector standards	River Loop #2 to East Beacon Drive	0.8	$4.3M
UD-12	Upgrade Spring Creek Drive consistent with neighborhood collector standards	River Road to Scenic Drive	0.5	$2.6M
UD-13	Upgrade River Loop #2 consistent with neighborhood collector standards	River Road to Burlwood Street	1	$6.4M
UD-14	Upgrade Wilkes Drive consistent with major collector standards	River Road to River Loop #1	1	$7M
UD-15	Upgrade River Loop #1 consistent with neighborhood collector standards	River Road to Dalewood Street	0.3	$1.5M
UD-19	Upgrade County Farm Road, west to east section	Wildish Lane to Coburg Road	0.5	$3.2M
UD-20	Upgrade Royal Avenue consistent with minor arterial standards	Terry Street to Green Hill Road	1	$11.2M
UD-21	Upgrade Willow Creek Road south consistent with neighborhood collector standards	W 18th Avenue to the UGB	1	$5.1M
UD-22	Upgrade Bailey Hill Road south consistent with minor arterial standards	Warren Street to the UGB	1.6	$9.9M
UD-23	Upgrade Dillard Road consistent with major collector standards	43rd Avenue to the UGB	1.4	$8.1M
UD-24	Upgrade Fox Hollow Road consistent with major collector standards	Donald Street to the UGB	0.9	$5.7M
		20-Year Total	**16.9**	**$134.2M**

Projects Beyond 20 Years

Projects that would be implemented after 20 years are still important to consider because they could be needed to address future transportation issues, or are simply not able to be funded within the 20 year planning horizon of the *2035 TSP*. Inclusion of projects in the beyond 20 year category provides the City flexibility to re-evaluate priorities and to pursue a variety of funding opportunities that may arise over the life of the *2035 TSP*. Table 5.4 shows the projects expected to be completed beyond the 20 year planning horizon. The City has not identified cost estimates for these long term projects.

Projects to be completed beyond 20 years can be seen on a project map in Attachment A, Figure 6. Pedestrian projects to be completed beyond 20 years are shown on a project map in Attachment A, Figure 7 and bicycle projects to be completed beyond 20 years are shown in Attachment A, Figure 8.

Table 5.4: Projects to be Completed Beyond 20 Years

Project No.	Project Description
Northwest Expressway	
B-2	Provide improvements to facilitate vehicle movement along the Northwest Expressway corridor
Randy Papé Beltline Corridor	
B-3	Improve frequent transit service along the Randy Papé Beltline Highway corridor with a possible Crescent Avenue route
B-4	Improve Randy Papé Beltline Highway from River Road to Coburg Road consistent with the Beltline Highway Facility Plan (arterial bridge and some improvements to Delta Highway/Beltline Highway interchange are included in 20 year project list)
Intersection Projects	
B-5	Provide improvements to address safety and delay at the Highway 99/Roosevelt Boulevard intersection
Complete Street Upgrades of Existing Streets	
B-6	Upgrade Summit Avenue from Fairmont Boulevard to Floral Hill Drive consistent with neighborhood collector standards
B-7	Upgrade Van Duyn Street from Western Drive to Harlow Road consistent with neighborhood collector standards
I-5 from I-105 to South Urban Growth Boundary	
B-8	Improve I-5 to six lanes; improve ramps and upgrade bridges

Table 5.5: Pedestrian and Bicycle Projects to be Completed Beyond 20 Years

Project No	Name/Location	Extent	Length (miles)
Accessways			
PB-522	Augusta Street Accessway	Sylvan St to Augusta St	0.15
PB-225	Avalon Street Accessway	Fern Ridge Path Extension to Legacy St	0.16
PB-261	Awbrey Park Elementary School Accessway	Lynnbrook Dr to Spring Creek Dr	0.32
PB-553	Dibblee Ln Accessway	Dibblee Ln to UGB Path	0.14
PB-585	E 8th Ave Accessway	Hilyard St to Ruth Bascom South Bank Path	0.07
PB-477	Hendricks Park Accessway	Elk Ave to Hendricks Park	0.03
PB-537	Hilyard Sidewalk Path Accessway	High St to Hilyard Sidewalk Path along Railroad	0.07
PB-611	Maynard Accessway	Maynard to Formac	0.21
PB-227	Valley River Way Accessway	Valley River Way to North Bank Path	0.01
PB-448	W 16th Avenue Accessway	Fern Ridge Path to W 16th Ave	0.06
PB-536	W 28th Avenue Accessway	Lincoln St to McMillan St Accessway	0.15
PB-573	W 35th Accessway	W 35th Pl to Accessway	0.02
Project No	**Name/Location**	**Extent**	**Length (miles)**
Neighborhood Greenways			
PB-5	Crocker Road	Irvington Dr to Irving Rd	1.55
PB-80	Dale Avenue	Downing St to County Farm Rd	0.20
PB-81	Dale Avenue	Riverbend Ave to Downing St	0.17
PB-104	E 15th Avenue	University St to E 15th Ave Accessway	0.82
PB-145	Owosso Drive	River Rd to Copping St	0.38
PB-151	Ferndale Drive	Crocker Rd to River Rd	0.57
PB-152	Donegal Street	Irving Rd to Ruby Ave	0.39
PB-156	Kourt Drive	Grove St to River Rd	0.58
PB-166	Avalon Street	Juhl St to Malabon Elem.	0.50
PB-169	Stewart Road	S Bertelsen Rd to Bailey Hill Rd	0.72
PB-407	Ferry Street	E 30th Ave to E 33rd Ave	0.22
PB-476	W Amazon Drive	Ridgeline Trail to Fox Hollow Rd	0.41
PB-483	Silver Lane	N Park Ave to Grove St	0.28
PB-485	Scout Access Road	Northern Terminus to Martin Luther King Jr Blvd	0.10
PB-510	Orchard Street	E 15th Ave to E 19th Ave	0.30
PB-539	Howard Avenue	N Park Ave to River Rd	0.96
PB-590	Emerald St	E 18th Ave to E 24th Ave	0.44
PB-602	Broadview Street	Hawkins Ln to Ellen Ave	0.14
PB-603	Ellen Avenue	Broadview St to Brittany St	0.35

Project No	Name/Location	Extent	Length (miles)
Protected Bicycle Lanes			
PB-484	Coburg Road	Oakway Rd to Oakmont Way	0.29
PB-584	E 8th Ave	E Broadway to Hilyard St	0.17
Project No	**Name/Location**	**Extent**	**Length (miles)**
Bike Lanes			
PB-4	W 24th Avenue	Friendly St to Jefferson St	0.21
PB-28	Bailey Hill Rd	S Bertelsen Rd to UGB	0.85
PB-30	Chambers Street	Graham Dr to Crest Dr	0.66
PB-50	Washington Street	W 5th Ave to W 13th Ave	0.61
PB-51	Jefferson Street	W 5th Ave to W 28th Ave	1.87
PB-58	Green Hill Road/Airport Rd	Airport Rd to Crow Rd	4.48
PB-164	Avalon Street	Legacy St to N Terry St	0.75
PB-594	Garfield Street	W 6th Ave to W 14th Ave	0.62
Project No	**Name/Location**	**Extent**	**Length (miles)**
Shared Use Path			
PB-17	E 30th Avenue	Agate St to Gonyea Rd	1.63
PB-199	Fern Ridge Path Extension	West of Green Hill Rd to Green Hill Rd	0.95
PB-213	Ruth Bascom West Bank Path	Owosso Bridge to West Bank Path	0.38
PB-224	Jessen Path	Green Hill Rd to Ohio St	0.48
PB-232	Fern Ridge Path Extension	Green Hill Rd to Royal Ave	0.28
PB-233	Fern Ridge Path Extension	Green Hill Rd to Royal Ave	0.70
PB-242	Moon Mountain Path	Moon Mountain Dr to E 30th Ave	0.77
PB-265	Central Boulevard Accessway	Central Blvd to Central Blvd	0.05
PB-454	Scout Access Path	Oakmont Way to I-105 Crossing	0.12
PB-513	Ruth Bascom West Bank Path	Stults Gap	0.13
PB-549	Hwy 99 Path	Roosevelt Blvd to W 5th Ave	0.69
PB-557	Green Hill Road Path	Fern Ridge Path to W 11th Ave	0.84
Project No	**Name/Location**	**Extent**	**Length (miles)**
Sidewalk Path			
PB-55	Valley River Way	Valley River Dr to Southern Terminus	0.36
Project No	**Name/Location**	**Extent**	**Length (miles)**
Grade Separated Path			
PB-8	Alder Street Rail Crossing	South Bank Path to Alder St	0.11
PB-14	Avalon Street Bridge	Haven St to Juhl St over Beltline Rd	0.16
PB-15	I-105 crossing at Sorrel Way	I-105 Crossing to Scout Access Rd (Sorrel Park)	0.24

Project No	Name/Location	Extent	Street Side	Length (miles)
Sidewalks				
PB-228	Arrowhead Street	Irvington Drive to Barstow Avenue	East side	0.20
PB-281	Gilham Road	Mirror Pond Way to Honeywood Street	East side	0.58
PB-282	County Farm Road	Wildish Lane to Coburg Road	West side	0.73
PB-283	County Farm Road	Wildish Lane to Coburg Road	East side	0.64
PB-289	Dillard Road	Amazon Drive to Hidden Meadows Drive	North side	1.43
PB-295	Bertelsen Road	Roosevelt Boulevard to W 1st Avenue	East side	0.31
PB-313	Highway 99	Roosevelt Boulevard to Garfield Street	North/East side	0.99
PB-324	Bailey Hill Road	Bertelsen Road to east of S Louis Lane	South side	0.63
PB-325	Bailey Hill Road	W 5th Avenue to W 7th Avenue	West side	0.15
PB-328	Roosevelt Boulevard	N Danebo Avenue to N Bertelsen Road	South side	0.72
PB-331	Seneca Road	Roosevelt Boulevard to railroad	East side	0.19
PB-332	Seneca Road	W 1st Avenue to gap south of W 5th Avenue	West side	0.36
PB-333	Seneca Road	W 1st Avenue to railroad	East side	0.07
PB-346	Agate Street/Kimberly Drive	E 31st Avenue to Dogwood Drive	North side	0.21
PB-367	Hawkins Lane	S Lambert Street to W 18th Avenue	West side	0.36
PB-435	Avalon Street	Echo Hollow Road to eastern terminus	South side	0.23
PB-530	Warren Street	Timberline Drive to Summit Terrace Drive	East side	0.31

Study Projects

The *2035 TSP* has identified a number of potential projects that need more study before the community considers specific recommendations. This *TSP* cannot cover the issues and level of detail that would be needed to create project recommendations for these concepts. Therefore, the City would need to create individual neighborhood-scaled refinement or design plans for each project as timing allows and funding becomes available. These plans can identify specific recommendations, cost estimates, potential funding sources, and the timing for implementation. These projects are not included on the City's SDC list and would only be added if the *2035 TSP* were amended to reclassify one or more of these projects as those to be completed within 20 years. Study projects are shown in Table 5.6.

Table 5.6: Study Projects

Project No.	Project Description
11th and 13th Avenues	
S-1	Study the need for enhanced transit service along 11th and 13th Avenues between downtown and Garfield Street
Local Connectivity	
S-2	Extend Beaver Street north to Wilkes Drive (which is outside the UGB) as a joint project with Lane County either as a major collector or a pedestrian and bicycle connection; street extension would require obtaining a "Goal Exception" to Oregon's Statewide Planning Goals
Improvements to North-South Travel/Circulation South of Downtown	
S-3	Evaluate north/south circulation options on the Oak/Pearl Streets and Hilyard/Patterson Streets couplets
River Crossings	
S-4	Study ways to increase capacity over the Willamette River to address bridge crossing congestion issues
S-5	Address an aging Ferry Street Bridge structure
S-6	Investigate transit route options for access into downtown via or around the Ferry Street Bridge in conjunction with either Martin Luther King Jr. Boulevard or Coburg Road transit improvements
University of Oregon	
S-7	Explore ways to provide better multimodal connections between the University of Oregon/Franklin Boulevard area and the Autzen Stadium/Duck Village/Chase Gardens area
I-105 Ramps	
S-8	Analyze options to address weaving, operational and safety considerations at the I-105 southbound off-ramp onto W 6th Avenue
NW Expressway	
S-9	Study opportunities to improve the safety and functionality of Northwest Expressway as a major arterial street including by making intersection improvements at the Randy Pape Beltline Highway ramp termini and other locations, by improving signage, and by making other changes to the street
Alton Baker Park	
S-10	Develop lighting and width standards for shared use paths in East Alton Baker Park, particularly east-west routes and connections to the pedestrian and bicycle bridges.
Randy Papé Beltine Highway	
S-11	Study options to address congestion and local connectivity needs in the vicinity of the Coburg Road/Beltline Highway interchange
Coburg Road	
S-12	Connect Eugene to the planned Coburg Loop Trail by providing a walking and bicycling facility on Coburg Road. The study must be coordinated with Lane County and the City of Coburg.
Franklin Boulevard	
S-13	Examine options for improving bicycle and pedestrian access along Franklin Boulevard from the city limits to Alder Street and will be accomplished through planning and development of a multiway boulevard on Franklin as called for in the Walnut Station Mixed Use Center Plan.
Morse Family Farm Path	

S-14	Create recommendations for bicycle and pedestrian circulation through the Morse Family Farm to existing and planned routes that connect to the perimeter of the site
Rail Alignment Westbound	
S-15	Examine the feasibility of a rails-with-trails project for the Union Pacific (UPRR) rail line within the city limits. The study must be coordinated with UPRR and take into consideration plans for continued and expanded rail service to area businesses. The study should examine existing right-of-way, path alignment options, track crossing issues, connections to adjacent sidewalks and bikeways, and next steps for negotiating with UPRR.
West Bank Path	
S-16	Examine the feasibility of extending the West Bank Path north to Hileman Landing. Right-of-way ownership and environmental concerns should be addressed in the final recommendation.
Willamette McKenzie Path	
S-17	Examine options for creating a path north along the east side of the Willamette River and east along the McKenzie River as called for in the Regional Transportation Plan. The study should build on the work done by the Willamette River Open Space Vision and Action Plan and look at land ownership, alignment alternatives, environmental issues, and recreational and scenic value.
South Bank Gap	
S-18	Examine options and develop a recommended facility for completing the South Bank Path gap between the Frohnmayer and Knickerbocker Pedestrian and Bicycle Bridges. The plan must consider the existing railroad line.
Westmoreland Park Paths	
S-19	Examine options to create paths through Westmoreland Park to connect to existing on-street walking and bicycling routes that connect to the park.

Randy Papé Beltline Facility Plan

The Randy Papé Beltline Facility Plan is adopted as part of the *2035 TSP* (Attachment C). The Facility Plan includes recommended improvements to the Randy Papé Beltline Highway, Delta Highway and the adjacent arterial street system to improve safety and the long-term operations of the highway between River Road and Coburg Road. This Facility Plan is a precursor to the National Environmental Policy Act (NEPA) process for the implementation of future Randy Papé Beltline Highway projects. The NEPA analysis will include more detailed and rigorous analysis of project impacts and result in a determination as to whether or not one or more of the improvements options can be constructed and, potentially, result in a project that is eligible for federal funding.[13]

[13] If the outcome of the NEPA analysis is that one or more of the improvement options can be constructed, the project description and costs estimates for Project MM-3 will be updated to reflect the improvement option ultimately selected. The City recognizes that construction outside of the urban growth boundary may require a goal exception or UGB amendment. Those land use issues will be resolved together with Lane County.

The Randy Papé Beltline Facility Plan identifies concerns regarding safety, operation, and capacity of Beltline Highway and its interchanges at Delta Highway, River Avenue/Division Avenue, and River Road in both objective and subjective ways. The Facility Plan describes four potential improvement options: No Build, Improve Existing, Auxiliary Lane, and Collector Distributor.

Both the Improve Existing and Auxiliary Lane options provide auxiliary lanes and improved, safer access to the existing Beltline mainline, and provide a local arterial street connection parallel (to the north) to the existing bridge. Both options meet the project objectives and can provide better facilities for walking, biking, and transit. The Collector Distributor option, however, was found to be inconsistent with the direction espoused by the TSP. Compared to the Improve Existing and Auxiliary Lane options, the Collector Distributor option has significantly higher costs with only a marginal improvement to corridor operational performance, inability for phased construction, likelihood of greater impacts to the surrounding community, and would be less hospitable for walking, biking, and transit. Thus, based on City Council direction provided on September 30, 2015, adoption of the Randy Papé Beltline Facility Plan as part of this TSP does not include the Collector Distributor option. Only the No Build, Improve Existing, and Auxiliary Lane options will be subject to NEPA review.

What is NEPA?

The **National Environmental Policy Act (NEPA)** is a United States environmental law (enacted in 1970) that promotes the enhancement of the environment and establishes the broad national framework for protecting our environment. NEPA requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions.

Traffic on Beltline Highway at River Avenue during evening rush hour.

Source: City of Eugene

Chapter 6: Transportation Funding and Implementation

The *2035 TSP* includes projects under the jurisdiction and ownership of ODOT, Lane County, the City of Eugene, and Lane Transit District (LTD), as well as projects that will be implemented by private developers. Individual TSP projects will be funded through a different combination of federal, state, City, county, SDC revenue, and or private sources. This chapter discusses current and possible new funding mechanisms that may be available to implement projects during the life of the *2035 TSP.* A complete list of the multimodal projects included in the *2035 TSP* is provided in Chapter 5 (Tables 5.1-5.6). Chapter 5 also provides planning-level cost estimates for each of the projects.

Today's fiscal environment is beset by uncertainty about future federal, state and local funding for transportation projects. This uncertainty provides challenges to accurately forecast the amount of funding available for transportation investments, and what projects or programs will receive funding. In this context, the *2035 TSP* provides a prudent and conservative list of capital construction projects, an emphasis on lower cost methods of improving personal mobility within the City, and an increased reliance on technologies that can improve the efficiencies of our streets.

The *2035 TSP* articulates policies and actions that explicitly prioritize facilities and improvements that support mixed-use, pedestrian-friendly neighborhoods, increase use of active modes of transportation, and reduce reliance on travel by single-occupant automobile. These priorities include improved convenience and safety for walking, biking, and connections to transit stops; improved transit service in Key Corridors; bikeway improvements near the University of Oregon, downtown Eugene, and on streets connecting residential areas to schools and commercial hubs; a railroad quiet zone in the downtown and Whiteaker areas; investments that facilitate job growth in commercial or industrial areas; and priority parking and reduced parking fees for non-gasoline powered vehicles.

The highest priority projects in the *2035 TSP*, the Eugene Capital Improvement Program (CIP) and Eugene projects in the Metropolitan Transportation Improvement Program (MTIP) are those that (1) protect the existing system and (2) improve the efficiency and safety of existing facilities. These projects are to be implemented first unless a lower priority measure is demonstrated to be more cost-effective or is one that better supports safety, growth management, or other livability and economic considerations.

The *2035 TSP* promotes a series of projects that make streets safer and more efficient with use of emerging technologies. These actions increase the capacity and safety of the streets without adding general purpose lanes. Examples of technological improvements could include: traffic signal upgrades and communications, traffic monitoring cameras, dynamic message boards, and weather stations.

While the *2035 TSP* prioritizes projects for implementation, the City may advance projects in a different manner than anticipated in the TSP to take advantage of unforeseen opportunities. These opportunities could include changes in policy or funding at the federal, state, or local level; changes in local development priorities; or the formation of public-private or public-public partnerships. The prioritization of projects identified as within 20 years are intended to be interpreted flexibly with those that are identified as "beyond 20 years" to allow the City to make wise investment decisions consistent with the overall vision contained in the *2035 TSP*.

Transportation Revenue

Revenue forecasts from the Central Lane Metropolitan Planning Organization Regional Transportation Plan (RTP) (December 2011 and reviewed by Central Lane Metropolitan Planning Organization and ODOT staff in 2015) provided a basis for extrapolating an estimate of revenues that might be available for transportation projects in the City of Eugene over the next twenty years. The RTP, per federal guidance, includes sources of funds that can be reasonably expected, rather than just those sources currently available to the region and/or used for capital projects. These RTP funding projections are coordinated with ODOT and other Metropolitan Planning Organization in the state. Because the funding picture in the region is constantly evolving and some indications from state forecasts suggest that funding levels might decline, this chapter also outlines a potential scenario where funding is more constrained than the RTP forecast might suggest.

Safe Routes to School events encourage parents and children to use active modes to reach schools.

Source: Scott Woods-Fehr, Flickr

Regional Transportation Plan Forecasts

The 2035 Central Lane MPO RTP (2011) forecasts constrained costs and revenues for the transportation system in the Central Lane MPO through Fiscal Year 2035. These forecasts include the following capital revenue and cost categories:

- Local system improvements;
- Pedestrian and bicycle system improvements;
- Lane Transit District system improvements;
- ODOT system improvements.

The RTP forecasts assume a variety of sources for each category. For the City of Eugene, a variety of federal, state and local revenue sources contribute to each category, as shown in Table 6.1 below.

Approximate Transportation Revenues for the City of Eugene

Setting aside expected revenues for operations, maintenance, and preservation and transit system improvements, the RTP estimates approximately $650 million (in 2014 dollars) in funding for roadway system, bike, and pedestrian capital improvements through Fiscal Year 2035. Assuming that approximately 65 percent[14] of all transportation investments (including ODOT funding) are spent on city, county or state projects within Eugene, the RTP forecasts that between $398 and $415 million (in 2014 dollars)[15] in transportation revenues will be available for City of Eugene roadway system, bike, and pedestrian improvement projects through Fiscal Year 2035.

[14] Approximately 65 percent of the population within the Central Lane Metropolitan Planning Organization boundary is within the City of Eugene.

[15] Approximately $385 to $400 million in 2011 dollars. Assumed 3.1 percent annual inflation to determine 2014 dollars.

The state and federal funding picture is changing rapidly. In this light, ODOT may have less revenue to invest in major roadway projects in the future. In a reduced revenue scenario, ODOT may have only $60-80 million (in 2014 dollars) available for projects on ODOT facilities in Eugene. This change would minimally impact revenues for local system improvements. If this is the case, Eugene could expect $260-$280 million in revenues for transportation projects identified in the *2035 TSP*. Both revenue scenarios are shown in Table 6.1.

Table 6.1: Forecast revenue and potential sources for capital projects in Eugene

Project category	RTP forecast (2014$, millions)	Potential reduced funding scenario (2014$, millions)
Local system improvements (roadway, on and off-street pedestrian and bike)	$200	$200
Sources include: System development charges Federal highway trust fund (MPO allocation: STIP-U and Transportation Alternatives) State Transportation Enhancement program General Obligation Bonds Developer contributions Special federal programs or earmarks		
ODOT discretionary improvements (range)	$198-214	$60-80
Sources include: State Transportation Enhancement program Federal highway trust fund (not sub-allocated to MPOs, counties or cities) State gas tax (not sub-allocated to MPOs, counties or cities) State legislative actions Special federal programs or earmarks		
Total revenue	$398-414	$260-280

Note: under state law, state gas tax revenues can only be used for projects within a road right-of-way (including pedestrian and bike projects).

Project Costs

Chapter 5 includes order-of-magnitude costs for projects anticipated in the next 20 years, including:

- Projects within 20 years (transit, roadway and multimodal);
- Pedestrian and bicycle projects;
- Those projects anticipated upon development/redevelopment;
- Traffic signal system improvements.

The costs are in 2014 dollars and include right-of-way, design engineering, and construction costs. A summary of costs for the 20 year system is shown in Table 6.2.

Capital funding for transit is not included in the cost and funding analysis. Given that a community process will be required to determine the types of improvements necessary to support transit in identified multimodal corridors, the transit corridor capital costs were consolidated, assuming a mix of bus rapid transit (EmX), enhanced corridor, and frequent bus service. Transit projects are estimated to cost a total of $171.4 million for all corridor improvements.

Table 6.2: 20 year system cost

Project category	Cost ($2014)
Projects within 20 Years	
Roadway and multimodal projects	$161,200,000
Complete streets upgrades to existing streets	$45,600,000
Rail projects	$28,400,000
Pedestrian and bicycle projects	$72,000,000
Transit projects in multimodal corridors (multimodal corridor bundle)	$171,400,000
Upon Development Projects	$134,200,000 (total) / $67,100,000 (city-funded)
Traffic Signal System Improvements	$21,200,000
Total 20 Year System Cost	**$634,000,000**
Total ODOT and City-Funded Cost (excluding transit and 50% of upon development projects)	**$395,500,000**

Note: (1) City-funded share of 'upon development' project costs is an estimate for use in comparing costs to forecast revenues. Assessments for development will be developed separately. (2) Often, operational projects are not included in system plans. Some are included in this funding estimate, however, due to the reliance on operational improvements to address system performance needs.

Funding Gap

Forecasts of the likely funding gap looks at street, pedestrian, bicycle and traffic signal system improvements expected to be completed in 20 years. Traditionally only about half of the cost of projects anticipated upon development are borne by private developers; the remaining portion is often City funded. Transit projects are not included in this gap analysis as they are expected to be constructed by the Lane Transit District with a mix of local contributions and Federal Transit Administration (FTA) grants. Depending on the funding plan for individual transit projects, the City may be asked to contribute.

With transit and a half of upon development projects set aside, the total cost of projects to be completed in 20 years is $395.5 million while forecast revenues are $398-$415 million (RTP forecast) or $260-280 million (reduced forecast). With the RTP scenario, Eugene can reasonably expect the forecasted revenues needed to construct its 20 year system of projects. With the more conservative scenario, the City would need new sources of funds to construct its 20 year priority system. Some options for new funds could include increased system development charges, one or more local bond measures, or a local option vehicle registration fee (only available at the county level). The City could also increase the local option gas tax or choose to spend local option gas tax or state gas tax revenues on these projects instead of directing those revenues to preservation, operations, and maintenance. Finally, the state legislature could identify additional funding for transportation projects.

Potential Funding Sources

While highway user taxes and fees, including Oregon State fuel taxes, licensing, and registration fees, as well as local fuel taxes, are available to fund transportation-related projects in the City, per local policy these sources have increasingly been devoted to operations, maintenance, and preservation. This practice diverts funds away from capacity development or expansion projects. The City will need to develop a strategy to fund the improvements listed in the *2035 TSP*. Possible elements of this strategy are outlined below.

Local Funding Mechanisms

At the local level, the City can draw on a number of potential funding mechanisms. Table 6.3 outlines potential funding sources at the local level that either can currently be used to fund future projects or that the City Council may want to consider adopting as a new funding source. The City has used some of these funding mechanisms in the past; others would be new. Inclusion of Table 6.3 in the *2035 TSP* does not create a new funding source but rather is intended to the various funding sources that local governments throughout Oregon utilized. In general, local funding sources are more flexible than funding obtained from state or federal grant sources.

Table 6.3: Potential Local Funding Mechanisms

Funding Source	Description	Potential Application in Eugene
Street Utility Fees (also called road maintenance fees)	A fee based on the number of automobile trips a particular land use generates; usually collected through a regular utility bill. Fees can also be tied to the annual registration of a vehicle to pay for improvements, expansion, and maintenance of the street system.	System-wide transportation facilities including streets, sidewalks, bike lanes, and shared use paths.
Transportation Systems Development Charge (SDC)	SDCs are impact fees assessed to development for the capacity demand it creates on public infrastructure systems. SDCs may be an improvement fee, a reimbursement fee, or a combination thereof. Reimbursement fee revenues are dedicated to capital projects that increase capacity to meet the needs of growth. SDC credits are provided to developers for public improvements they construct which add capacity to the system beyond that required to serve their development. SDC credits may also be given for development provisions that reduce vehicular capacity demand on the transportation system, such as providing end-of-trip bike facilities within the new development.	The City is updating its Transportation System Development Charge to reflect eligible components of the *2035 TSP* project list.
Stormwater SDCs, grants, and loans	SDCs, grants, loans, and stormwater improvement fees can be obtained for improving stormwater management facilities constructed as part of transportation system improvements.	SDCs may only be used for that portion of transportation improvements which generate additional stormwater management capacity related to growth.
Local gas tax	A local tax can be assessed on the purchase of gas within the City. This tax is added to the cost of gasoline at the pump, along with the state and federal gas taxes.	System-wide transportation facilities including streets, sidewalks, and bike lanes.

Funding Source	Description	Potential Application in Eugene
Parking in-lieu fees	Parking in-lieu fees are developer fees paid if they cannot or do not want to provide on-site parking for the development. The idea behind these fees is to decrease the amount of off-street, private parking and consolidating parking supplies on-street or in parking garages as a way to decrease parking demand on the development site. In-lieu fees may benefit developers by reducing costs and allowing more intensive development on a site.	System-wide transportation facilities including streets, sidewalks, bike lanes, shared use paths, and transit.
Incentives	The City provides an enticements such as bonus densities and flexibility in design in exchange for a public benefit. Examples might include a commute trip reduction (CTR) program or transit facilities in exchange for bonus densities. Incentives may be used with SDC methods to reduce transportation impacts from new development.	System-wide transportation facilities including streets, sidewalks, bike lanes, shared use paths, and transit.
Public/private partnerships	Public/private partnerships have been used around the country to provide public transportation amenities within the public right-of-way in exchange for operational revenue from the facilities. These partnerships could be used to provide services such as vehicle charging stations, public parking lots, bicycle lockers, or car share facilities.	System-wide transportation facilities including streets, sidewalks, bike lanes, shared use paths, and transit.
Tax Increment Financing (TIF)	TIF is a tool that cities may use to create special districts (tax increment areas) where public improvements are made in order to generate private-sector development. During a defined period, the City freezes the tax base at the pre-development level. Property taxes for that period can be waived or paid, but taxes derived from increases in assessed values (the tax increment) resulting from new development can go into a special fund created to retire bonds issued to originate the development or leverage future improvements. A number of small-to-medium sized communities in Oregon have implemented, or are considering implementing, urban renewal districts that will result in a TIF revenue stream.	System-wide transportation facilities including streets, sidewalks, bike lanes, shared use paths, and transit.
Streets District	Oregon state law (Oregon Revised Statute [ORS] 371) allows for the formation of special streets taxing districts for purposes of constructing and maintaining streets within the taxing district boundaries. A Streets District would be a separate entity from the City of Eugene, with its own property tax levy rate and an elected board of commissioners. Those within the potential district boundaries must vote on the creation of a Streets District.	Roadway improvement projects.

Funding Source	Description	Potential Application in Eugene
Revenue and general obligation bonds	Bonding allows municipal and county government to finance construction projects by borrowing money and paying it back over time, with interest. Financing requires smaller regular payments over time compared to paying the full cost at once, but financing increases the total cost of the project by adding interest. General obligation bonds are often used to pay for construction of large capital improvements and must be approved by a public vote. These bonds add the cost of the improvement to property taxes over time.	Construction of major capital improvement projects within the city, street maintenance and incidental improvements.
Reimbursement Districts	Also called Zones of Benefit or Advance Financed Districts, a city determines the boundary of the district. Property owners of new development or large redevelopment permits pay a fee for the installation of public improvements. They then recover some portion of the cost over a period of years (often 15).	Construction of major capital improvement projects within the city (possibly in Study Areas). A local code amendment is needed to permit Reimbursement Districts in Eugene.

State and Federal Grants

In addition to local funding sources, the City of Eugene can seek to leverage opportunities for funding from grants at the state and federal levels for specific projects. Table 6.4 outlines state and federal sources and their potential applications.

Potential state funding sources are extremely limited, with some having significant competition. Any future improvements that rely on state funding may require City and regional consensus that these improvements are more important than transportation needs elsewhere in the region and the state. It will likely be necessary to combine multiple funding sources to pay for a single improvement project (*e.g.*, combining state, regional, or City bicycle and pedestrian funds to pay for new bike lanes and sidewalks).

Table 6.4: Potential State and Federal Grants

Funding Source	Description	Potential Application in Eugene
Statewide Transportation Improvement Program (STIP)	STIP is the State of Oregon's four-year transportation capital improvement program. ODOT's system for distributing these funds has varied over recent years. Generally, local agencies apply in advance for projects to be funded in each four-year cycle.	Projects on any facility that meet the benefit categories of the STIP.
Statewide Transportation Improvement Program-Urban (STIP-U)	STIP-U is the State of Oregon's four-year transportation capital improvement program for urban areas. ODOT's system for distributing these funds has varied over recent years. Generally, local agencies apply in advance for projects to be funded in each four-year cycle.	Projects on any facility that meet the benefit categories of the STIP-U.
Transportation and Growth Management (TGM) Grants	TGM Grants are planning grants administered by ODOT and awarded on an annual basis. The TGM grants are generally awarded to projects that will lead to more livable, economically vital, transportation efficient, sustainable, and pedestrian-friendly communities. The grants are awarded in two categories: transportation system planning and integrated land use/transportation planning.	Refinement of any identified study projects.

Funding Source	Description	Potential Application in Eugene
Transportation Alternatives Program (TAP)	TAP is a federal program that provides funding for pedestrian and bicycle facilities, projects for improving public transit access, safe routes to schools, and recreational trails. Local governments, regional transportation authorities, transit agencies, school districts or schools, natural resource or public land agencies, and tribal governments are all eligible to receive TAP funds. TAP funds are programmed both by ODOT and the Central Lane MPO.	Bicycle and pedestrian facilities, shared use paths.
All Roads Transportation Safety Program (ARTS)	The federal Highway Safety Improvement Program is administered as ARTS in Oregon. ARTS provides funding to infrastructure and non-infrastructure projects that improve safety on all public roads. ARTS requires a data-driven approach and prioritizes projects in demonstrated problem areas.	Areas of safety concerns within the city, consistent with Oregon's Transportation Safety Action Plan.
Immediate Opportunity Fund (IOF)	This fund is discretionary and provides funding for transportation projects essential for supporting site-specific economic development projects. These funds are distributed on a case-by-case basis in cooperation with the Oregon Economic and Community Development Department. These funds can only be used when other sources of financial support are insufficient or unavailable. These funds are reserved for projects where a documented transportation problem exists or where private firm location decisions hinge on the immediate commitment of road construction. A minimum 50 percent match is required from project applications.	Any identified projects that would improve economic development in Eugene and where there are documented transportation problems.
Connect Oregon	Lottery-backed bonds distributed to air, marine, rail, transit, and pedestrian and bicycle projects statewide. No less than 10 percent of Connect Oregon IV funds must be distributed to each of the five regions of the state, if there are qualified projects in the region. The objective is to improve the connections between the highway system and other modes of transportation.	System-wide transportation facilities including, shared use paths, and transit.
Oregon Parks and Recreation Local Government Grants	Oregon Parks and Recreation Department administers this program using Oregon Lottery revenues. These grants can fund acquisition, development, and major rehabilitation of public outdoor parks and recreation facilities. A match of at least 20 percent is required.	Trails and other recreational facility development or rehabilitation.
Oregon Transportation Infrastructure Bank (OTIB)	A statewide revolving loan fund is available to local governments for many transportation infrastructure improvements, including highway, transit, and non-motorized projects. Most funds made available through this program are federal; streets must be functionally classified as a major collector or higher to be eligible for loan funding.	Infrastructure improvements to major collectors or higher classified roads for vehicle, transit, and non-motorized travel.
State highway gas tax increase or user fee	ODOT is currently researching a state user fee for drivers to address steady or declining state gas tax revenues. An increase in the state gas tax or a user fee would need to pass through state legislation and would increase the state's transportation funds.	System-wide transportation facilities including streets, sidewalks, bike lanes, and transit.

Relationship of the TSP and the Capital Improvement Program, City Code, and Design Standards

The *Eugene 2035 TSP* is implemented through coordinated actions with the Capital Improvement Program (finance), City Code (land use regulations), and street design standards.

The Capital Improvement Program (CIP) forecasts the City's capital funding needs over a six-year period based on various adopted long-range plans, goals and policies. The CIP plans for land acquisition, construction, and major preservation of public facilities necessary for the safe and efficient provision of municipal services identified from adopted master plans. The major transportation-related projects contained in the CIP are derived from the projects and needs identified in the *2035 TSP*. All transportation projects contained in the CIP must be consistent with the goals, objectives, policies, and needs identified in the Eugene Transportation System Plan.

In addition to the CIP funding mechanism, the tenets of the *2035 TSP* are implemented through various transportation- and land use-related sections of the Eugene City Code. The code dictates the process and standards by which development and street improvements are proposed, reviewed, and approved. The City Code also sets the standards for new development locations, bulk, and appearance; car and bike parking availability; pedestrian amenities; street connectivity; location of transit improvements; and the appearance of street rights-of-way.[16]

Street design standards are the basis for the design of all capital construction projects. Pursuant to policies contained in this TSP, street design standards will be updated to reflect best practices for expanding safety and convenience of the community's pedestrian, bicycle, and transit systems.

Monitoring and Reporting

Through its goals, policies, potential action items and projects, the 2035 TSP is designed to increase transportation choices and reduce reliance on the automobile. While the benchmarks set out in Attachment D will assure the City is making satisfactory progress toward meeting the standards approved by LCDC in 2001 for the entire Eugene-Springfield metro area, the City will also undertake Eugene-specific monitoring and reporting. Specifically, the City will periodically compile information that will be analyzed to measure the performance of the City's transportation system, including safety and congestion, and to evaluate the effectiveness of the 2035 TSP's goals, policies and programs. Further, transportation-specific monitoring is included in the policies for growth management monitoring that are being prepared as part of the Envision Eugene Comprehensive Plan.

[16] As discussed at the beginning of Chapter 2, the *2035 TSP* is an internally-directed document that provides a coordinated guide for City's changes to its transportation infrastructure and operations over the next 20 years. The *2035 TSP* is not an externally-applicable document, *i.e.*, no part of the *2035 TSP* serves as a "requirement" to which land use (or other) applicants must demonstrate compliance and the City will not use the policies of the *2035 TSP* in determining whether to approve or deny individual land use applications.