City Council
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www.eugene-or.gov

EUGENE CITY COUNCIL AGENDA

April 20, 2022

12:00 p.m. CITY COUNCIL WORK SESSION

As the state and community recover from the COVID-19 pandemic, City Council meetings will continue to be held remotely using virtual meeting technology. Information about online or other options for access and participation will be available at https://www.eugene-or.gov/3360/Webcasts-and-Meeting-Materials

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Meeting of April 20, 2022;
Her Honor Mayor Lucy Vinis Presiding

Councilors

Claire Syrett, President	Matt Keating, Vice President
Mike Clark	Greg Evans
Randy Groves	Emily Semple
Jennifer Yeh	Alan Zelenka

12:00 p.m. CITY COUNCIL WORK SESSION

1. **WORK SESSION: Review of 2021 Implementation of Bond Measure to Fix Streets and 2022 Pavement Management Report**

2. **WORK SESSION: Electric Micromobility Devices on Shared Use Paths in East Alton Baker Park**

For the hearing impaired, an interpreter can be provided with 48 hours' notice prior to the meeting. Spanish-language interpretation will also be provided with 48 hours' notice. To arrange for these services, contact the receptionist at 541-682-5010. City Council meetings are telecast live on Metro Television, Comcast channel 21, and rebroadcast later in the week.

El consejo de la Ciudad de Eugene agradece su interés en estos asuntos de la agenda. El lugar de la reunión tiene acceso para sillas de ruedas. Se puede proveer a un intérprete para las personas con discapacidad auditiva si avisa con 48 horas de anticipación. También se puede proveer interpretación para español si avisa con 48 horas de anticipación. Para reservar estos servicios llame al 541-682-5010. Las reuniones del consejo de la ciudad se transmiten en vivo por Metro Television, Canal 21 de Comcast y son retransmitidas durante la semana.

For more information, contact the Council Coordinator at 541-682-5010
or visit us online at www.eugene-or.gov.

EUGENE CITY COUNCIL
AGENDA ITEM SUMMARY

Work Session: Review of 2021 Implementation of Bond Measure to Fix Streets and 2022 Pavement Management Report

Meeting Date: April 20, 2022
Department: Public Works
www.eugene-or.gov

Agenda Item Number: 1
Staff Contact: Katie Marwitz
Contact Telephone Number: 541-682-5034

ISSUE STATEMENT

Staff will present the citizen Street Repair Review Panel (SRRP) 2021 Annual Report to the City Council. This report is one of two documents prepared in compliance with the City Council resolution placing Measure 20-275, the 2017 bond measure to fix streets, on the ballot. In addition to the Street Repair Review Panel's annual report, the independent accountant's report by Isler CPA is also included.

Staff will also present the 2022 annual pavement management system report.

BACKGROUND

Following considerable study and discussion, including forming a Council Committee on Transportation Funding and convening an ad hoc citizen Street Maintenance Task Force, Council approved Resolution 4953, calling a city election on a measure authorizing the issuance of $35.9 million of general obligation bonds to fund street preservation projects. In November 2008 Eugene voters approved Measure 20-145, the 2008 bond measure to fix streets. In 2012 Eugene voters approved Measure 20-197 that continued the City's road repair program for another five years with $43 million of general obligation bonds to fund street preservation projects, and bicycle and pedestrian projects. In 2017 Eugene voters, for a third time, approved Measured 20-275 and $51.2 million of general obligation bonds to fund street repairs and safety improvements for people who walk and bike. 2021 was the third year of implementation of the 2017 bond measure.

Beginning in April 2010, Council has received annual reports from the Street Repair Review Panel (SRRP) and the independent accountant regarding implementation of the 2008, 2012, and 2017 bond measures.

The 2017 bond measure to fix streets continues the requirements related to accountability included in the 2008 and 2012 measures. The City Council resolution and the information provided to voters specified:

- In order to promote accountability in the use of bond proceeds, the City Manager will contract with an outside auditor to prepare an annual written report on the use of the bond proceeds. The auditor will ascertain and report on whether the bond proceeds were used for the authorized purposes and in compliance with the restrictions set forth above. The City Manager will provide the report to the Council and make the report publicly available. (Resolution 5204, Section H)
- To further promote accountability and citizen involvement in street preservation projects, the City Manager will convene the citizen street repair review panel. The citizen street repair review panel will prepare an annual report, separate and distinct from the report prepared by the outside auditor, documenting the City's use of the bond proceeds and noting whether the bond proceeds were used in compliance with the terms of this Resolution. The City Manager will provide the SRRP's report to the Council and make the report publicly available. (Resolution 5204, Section I)

UPCOMING RELATED COUNCIL ACTIVITY

At the April 25, 2022 City Council Work Session, staff will present on potential 2022 General Obligation Bonds for Street Repairs

COUNCIL OPTIONS

This work session is informational regarding the SRRP and PMS Reports; no action is requested.

ATTACHMENTS

A. Citizen Street Repair Review Panel 2021 Report, including Auditor's Report
B. Pavement Management Report

FOR MORE INFORMATION

Staff Contact: Katie Marwitz, Principal Civil Engineer, AIC
Telephone: 541-682-5034
Staff E-Mail: kmarwitz@eugene-or.gov

Memorandum

Date: February 1, 2022

To: Sarah Medary, City Manager

From: Street Repair Review Panel

Subject: 2021 Report of the Street Repair Review Panel

It is our pleasure to present the 2021 annual report of the Street Repair Review Panel, focusing on the third year of implementing the 2017 bond measure to fix streets. The body of this memo is largely the same with what has been presented in previous years with an added emphasis on Progress, Current Conditions, and Funding Update.

Background

The Street Repair Review Panel was initially formed in 2009 to review the implementation of the 2008 street repair bond. This year's report responds to the accountability provisions in Measure 20-275, the 2017 bond measure to fix streets. The 11-member panel met three times over a three-month period in preparation of this report. We reviewed and accepted the report prepared by the City's external auditor (Appendix D) with respect to the City's use of the bond proceeds through December 31, 2021.

Based on this limited review and all materials presented to us, we unanimously conclude that the bond proceeds were used for the authorized purposes and in compliance with the limitations and restrictions outlined in Council Resolution 5063. We are also providing a detailed report, prepared at our request and with our approval, from the Public Works staff on the bond projects constructed in 2021.

Highlights from our review of the 2021 street bond projects include the following:

- **Progress** –2021 was the third year of the third 5-year bond measure that will continue to work towards reducing the preservation backlog and remain focused on active transportation and safety. While revenue collection will end in 2023 the completion of the listed projects is scheduled for 2024. There was a dramatic increase in projects completed in 2021 in comparison to the challenges of 2020.
- **Current Conditions -** The projects funded in 2021 by the 2017 voter-approved bond measure resulted in the reconstruction or resurfacing of 21 streets and approximately $10.4 million dollars in expenditures. The total includes projects started in 2020 and completed in 2021, projects completed in 2021, and the design phase for the transformational project along 8th Ave that started in 2020 which is scheduled for 2022 construction. The long awaited $8 million South Willamette Street Improvement project finished construction in 2021. As noted in previous reports, the 2007 Pavement Management Report projected the anticipated backlog for rehabilitation needs would reach more than $282 million in 2016 if steps were not taken to reduce the backlog. The backlog of street repair projects in 2021 was projected at $87.6 million, an increase from $82.7 million in 2020. Since the implementation of the 2008 bond, more than 200 lane miles of street work has been completed using bond funds.
- **Funding Update** – The construction industry faced hurdles with supply chain issues, price fluctuations, and labor shortages that combined to result in higher than expected bid prices. From the projects already awarded for 2022 construction we expect the steep price increase trend to continue. The committee has noted concerns about the impacts of continued high prices on the balance available for the remaining bond measure projects. If prices continue to climb it may be necessary for staff to identify local funds to complete all or part of the 12 projects identified for construction in 2024.
- **Vision Zero –** In recognition of Council's Vision Zero resolution, which calls for eliminating traffic-related deaths or serious injuries on city streets, the improvements funded through the bond enhance safety for all road users. In 2021 enhanced pedestrian crossings were built in numerous locations.

- **Active Transportation -** The 2017 measure allocated funding for bicycle and pedestrian projects guided by the Transportation System Plan (TSP), City staff, and the Active Transportation Committee (ATC). In 2021, significant improvements for people who walk and bike continued, including the installation of sidewalk ramps and improved bicycle lanes. Roughly half of the annual allocation will be used on the off-street path system. The committee encourages increased transparency and consistency with the selection of projects and use of funds for people who walk and bike through implementation of the TSP and coordination with the ATC.
- **Collaborating with Partners and Leveraging Bond Funds –** Eugene's Pavement Preservation Program requires strong coordination with internal and external utility stakeholders to schedule and coordinate the street work with any needed upgrades and repairs to the nearby streets and utility facilities to avoid emergency repairs. The 2021 projects created opportunities to repair underground utilities including the water, wastewater and stormwater systems. We also appreciate the ability to leverage bond funds with other sources of revenue. A 2021 example of this type of fund leveraging includes the rehabilitation of neighboring local street segments using fuel tax funds. We encourage staff to continue to look for these types of opportunities.
- **Communicating with Citizens and Businesses** – Construction, by nature, is disruptive and residents recognize that in a busy construction season it is a challenge to coordinate activities to keep a project on schedule. In the past several projects have been extremely frustrating for neighbors, with streets torn up for extended periods without visible signs of progress. The committee recognizes improvements made in project communication in 2021. We continue to encourage the department to coordinate projects and look for new and better ways to proactively coordinate communications and minimize impact to the public, impacted businesses and residents.
- **Achieving Sustainability Goals** –The City's paving program is designed to extend the life of city streets before they fall into the reconstruct category. This helps to extend the life of the streets, and when combined with recent paving techniques, greatly reduces the City's environmental footprint. Eugene is a leader using reclaimed asphalt materials, reducing the mining and production of virgin rock and asphalt materials. The continued use of warm mix asphalt saves energy, reduces emissions, and is an excellent example of the department's commitment to sustainability efforts, consistent with the City's Climate Recovery Ordinance. The committee encourages staff to continue to be industry leaders in looking for ways to responsibly implement emerging technologies to address climate impacts of construction and help achieve the goals of the Climate Action Plan 2.0. It is important to understand that the real impact on the climate comes not from how we build roads, but how we use them. The amount of active transportation funding in this bond measure has increased, and staff are using these funds strategically to maximize improvement for walking, bicycling, and transit. However, achieving our climate recovery goals will require a far greater commitment of economic and political capital than what staff can achieve through bond measure projects.
- **Understanding the Process for Selecting Projects** – SRRP members often are asked what process is used to select streets for repairs. The streets chosen for bond funding were selected using the criteria listed on page 3 of the attached report. The selection of bicycle and pedestrian projects is guided by the Transportation System Plan, City staff and the Active Transportation Advisory Committee. The memo in Appendix C explains in more detail how these safety improvement projects are selected.
- **Recognizing the Continued Economic Value of Street Bond Projects** – A functioning transportation system is important for the community and economy, including local job creation, and the bond is essential to maintaining the City's infrastructure.
- **Bottom Line** – We believe the community is getting a good return for its investment in street repairs, and the bond funds are being used wisely to meet the objectives of Ballot Measure 20-275. An upfront investment in repairing and maintaining Eugene's streets saves the community significant money.

We feel Public Works staff are doing an excellent job designing and constructing bond measure projects. We appreciate the support they have given us in the course of our review. The committee also continues to express its appreciation to the voters and taxpayers of Eugene for their ongoing support of the bond measures that have made our community a better place to live and do business.

Additional information about the Street Repair Review Panel can be found at www.eugene-or.gov/2110/Street-Repair-Review-Panel. Please feel free to contact any of us for additional information.

SRRP Members

John Barofsky	John Quilter
Jeannine Parisi	Matt Roberts
Allen Hancock	Ollie Snowden
Jim Mender	Gary Wildish
Kirsten London	Sue Wolling
Brian McMurray	

City of Eugene Staff

Sarah Medary	Brian Richardson
Eric Johnson	Lacey Risdal
Katie Marwitz	Matt Rodrigues
Scott Milovich	Jamie Garner
Cathy Mueller	Jenifer Willer
Rachael Love	

Citizen Street Repair Review Panel
2021 Report
Implementation Update for Measure 20-275 Bonds to Fix Streets

2021 Report to the Citizen Street Repair Review Panel

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Acknowledgements

SRRP Members:

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Katie Marwitz
Susan Weixelman
Scott Milovich
Brian Richardson
Lacey Risdal
Matt Rodrigues
Jamie Garner
Jenifer Willer

Cover photo from 2021 projects: Completed paving on Willamette St.

INTRODUCTION

BACKGROUND

This report has been compiled for use by the Street Repair Review Panel (SRRP). It is intended to provide background on projects included in the 2017 voter-approved Bond Measure 20-275, the schedule for construction of these projects, and the details of bond projects constructed in 2021. The street repair measure approved $51.2 million in bonding authority over a five-year period. With this funding, construction of bond-funded projects will be completed in 2024.

KEY TERMS

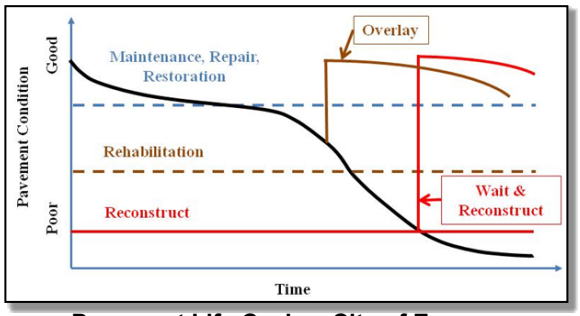
Bond - Bond Measure 20-275, Bonds to Fix Streets, approved by Eugene voters in November 2017.

Inlay – An inlay treatment consisting of removing a specified depth of the existing pavement surface and repaving that same depth with a new pavement surface. This treatment works well where the pavement distress is isolated to the removed portion of the pavement. At times, the inlay treatment needs to be supplemented with an "overlay," which is when an additional thickness of pavement is placed over the inlaid pavement. An overlay is used when engineering analysis shows that the existing structure does not have sufficient strength to accommodate the projected traffic volume. The term "overlay" is commonly used to describe both the inlay and overlay practices.

One of the benefits of performing an inlay treatment is that the new pavement surface will match existing adjacent structures and not increase the street cross grade. Another benefit of an inlay is that in the removal of the existing pavement, contractors grind up the old pavement and stockpile the material to be recycled into new pavement.

Full Depth Reclamation (FDR) – An alternative to a traditional reconstruction treatment that utilizes and reuses existing pavement and/or road base materials. The existing roadway materials are pulverized to a specified depth, mixed with a cement paste for strengthening, and allowed to cure for 18-48 hours. Once cured, the roadway is repaved. Two of the benefits of performing a reclamation treatment are reducing mining and producing new materials by reusing what is on-site and shortening the time the neighborhood is impacted due to lane closures.

Pavement Preservation Program (PPP) - This is the current capital project program to preserve Eugene's improved street system. A priority for this program is to preserve streets that have not yet degraded to a point where reconstruction is required. Preserving a street through inlay or similar treatment is four to five times more cost effective than waiting to repair a street until after it requires reconstruction. This program was initiated in 2003 and, until passage of the 2008, 2012, and 2017 street repair bond measures, was predominately funded with local fuel tax revenue and the reimbursement fee component of transportation system development charges.



Pavement Life Cycle – City of Eugene Transportation Service Profile Presentation

Reclaimed Asphalt Pavement (RAP) - Reclaimed asphalt pavement is the grindings from the existing pavement during the inlay process, described above. The most common and effective use of this material is to supplement virgin materials used to make new asphalt pavement and reduce the use of costly asphalt binder. In Oregon, it is common to specify up to 30 percent of asphalt pavement can be made up of reclaimed asphalt pavement. The City of Eugene has recently increased that percentage to 35 percent for all paving projects and has piloted even higher amounts. Other reclaimed asphalt materials, such as shingles, can also be used to replace virgin asphalt binder in pavements. Reclaimed asphalt pavements can also be used as base rock.

Reconstruction – Once the street has deteriorated to the point that it can no longer be repaired with an inlay or overlay, it is repaired by reconstructing the pavement and underlying base. Traditional reconstruction involves digging up the existing pavement, any existing base rock, and subsurface soils to the depth that will accommodate a new pavement structure. As discussed above, full depth reclamation may sometimes be used as an alternative to traditional reconstruction. Reconstruction may be four to five times more expensive than an inlay treatment, making it the most expensive of the repair options, which is why the City prioritizes preserving streets before they reach the point of needing reconstruction.

Warm Mix Asphalt - Warm mix asphalt pavement is identical to conventional hot mix asphalt pavement, except that through a special mixing process it is produced at a temperature approximately 50 to 100 degrees cooler than conventional hot mix asphalt. In Eugene, all asphalt concrete producers have retrofitted their plants to produce warm mix asphalt using a water-foaming process. The foaming process allows temperature reductions of approximately 50 degrees. This reduction in temperature has several advantages:

Paving on Fairmount Boulevard

1. It reduces energy consumption to produce asphalt concrete, lowering costs and greenhouse gas emissions.
2. It reduces off-gassing (smoke) of asphalt concrete by keeping the temperature under the boiling point of “light oils” in the liquid asphalt, benefiting construction workers and the public.
3. Because the light oils are not boiled off, the liquid asphalt coating the rock particles is slightly thicker, which slows the aging process of the asphalt.
4. It reduces the oxidation caused during high temperature production that causes premature aging of the asphalt, which should provide a longer life product.

The use of warm mix asphalt pavement is specified for all City of Eugene paving projects.

SRRP Mission

Per Resolution No. 5063 the SRRP “will prepare an annual report, separate and distinct from the report prepared by the outside auditor, documenting the City’s use of the bond proceeds and noting whether the bond proceeds were used in compliance with the terms of this Resolution.”

CRITERIA FOR PROJECT SELECTION AND SCHEDULING

STREET PROJECTS

Street projects to be financed by the bond were specifically listed in the Bond (see Appendix A). All street projects were identified by the Public Works Maintenance Pavement Management System as priorities for repair. In addition, the following criteria were used to select streets for the bond measure:

1. Citizen input with respect to prioritizing major streets in need of reconstruction.
2. Scientific information about needed street rehabilitation and reconstruction from the pavement management system.
3. Geographic distribution throughout the community to ensure all areas of the City receive a benefit from the bond proceeds.

The City has a longstanding policy to use capital preservation funds on the improved street system. An improved street has been designed for the type of soils and traffic use of the street and includes a storm drainage system. Curb and gutter is the traditional mark of a storm drainage system, but can include roadside swales and planters. The bond measure street list consisted of improved streets in need of preservation as identified in the pavement management system.

The list of the street bond projects, with their estimated repair cost from the Pavement Management System and the year constructed or planned year of construction, is included in Appendix A of this report. In scheduling the street repair projects, the priorities were preserving streets prior to their needing reconstruction, grouping projects by location for cost savings, and coordinating with utility work. The list includes a comparison of programmed costs to actual costs with any difference noted. Differences in total project costs on individual projects may affect the funding available for future projects.

BICYCLE AND PEDESTRIAN IMPROVEMENT PROJECTS

The 2017 bond measure stated that the City will allocate an annual average of $1,000,000 to support bicycle and pedestrian projects, also known as active transportation projects. These projects were not named in the bond measure; rather, the selection of the projects would be guided by the Pedestrian and Bicycle Master Plan, City staff, the Active Transportation Committee, and the City's goals to increase safety on City streets. In 2021, active transportation and safety improvements were added to several projects. These improvements are further described in the project details, below, and included in Appendix C of this report.

New Concrete Path and Light Poles on the South Bank Path

Complete Streets and Use of Other Funds in Conjunction with Street Bond Funds

The use of street-repair bond funds is limited to the overlay or reconstruction of the driving surface of streets as well as to preserve existing elements of the street such as curbs, gutters, on-street bike lanes, traffic signals, street lights, medians, traffic calming devices, and other integral parts of a street preservation project. In addition, the City will allocate an annual average of $1,000,000 of the bond proceeds over a period of five years to fund bicycle and pedestrian projects.

Stormwater Pipe Work on Primrose Street

However, there is often a need or an opportunity to complete additional work as part of the construction contracts for street preservation. The additional work may be funded by wastewater and stormwater utility funds, state and local gas taxes, transportation system development charges, or state and federal grants.

Wastewater and stormwater utility funds are typically used to repair and rehabilitate the existing wastewater and stormwater systems, respectively, that underlie much of the city's street system. Making these repairs in coordination with the street bond projects is a cost-effective way to accomplish the work and precludes emergency repairs in the future that would require cutting new pavement.

Local gas taxes have been used to include adjacent streets in the street bond project contracts. State gas taxes have been used to pay for signal upgrades and traffic calming.

Transportation system development charges (SDCs) are often used to upgrade existing signal systems during pavement preservation projects. The work typically includes installing new conduit under the pavement to connect the traffic detection loops to the signal controllers and installing audible pedestrian devices for pedestrian crossing signals.

Vision Zero

In November of 2015, the Eugene City Council joined a growing number of cities around the country in adopting a Vision Zero Resolution that states "no loss of life or serious injury on our transportation system is acceptable." Vision Zero is a data-driven approach to educate the community and enable the City to prioritize resources based on evidence of the greatest need and impact.

The City regularly combines Vision Zero principles with ongoing pavement preservation projects. Cost effective intersection enhancements such as countdown pedestrian signals and audible pedestrian signals will continue to be a priority and standard practice on future projects. ODOT has shown that the inclusion of these types of enhancements can significantly reduce fatal and life-changing injury crashes.

ADA Transition Plan

As part of Title II of the Americans with Disabilities Act (ADA) of 1990, the City of Eugene conducted an evaluation of its public rights-of-way and developed a transition plan that outlines in detail how the organization will ensure safe access to all facilities for all individuals. Public Works collected detailed data on over 15,000 ramps and 250 pedestrian signals to develop transition schedules specific to these facilities. The Public Works Director approved an updated supplement to the City's ADA Transition Plan focused on the Public Rights-of-Way by Administrative Order in July 2015. All capital rehabilitation projects are evaluated for access compliance and potential improvements during scoping and preliminary design.

ADA Ramp Under Construction on Laurelhurst Drive

The ADA Transition plan identifies a goal of upgrading 200 ramps annually 2021-2053. In 2021, the City constructed and upgraded 330 sidewalk ramps, 306 through capital improvement projects and 24 through private development construction. The ADA Transition plan and yearly updates can be visited at the following link: https://www.eugene-or.gov/2416/ADA-Transition-Plan

CAP 2.0 & Capital Waste Diversion

Public Works Engineering strives to be a leader in sustainability, focusing on climate change goals and greenhouse gas (GHG) emission tracking as outlined in Eugene's Climate Action Plan (CAP 2.0). GHGs contribute to global warming by trapping heat within the earth's atmosphere through a process known as the greenhouse effect.

Through the Capital Improvement Program process, GHGs from construction were estimated at the concept phase and then calculated post-construction. There were 14 projects in 2021 which contributed approximately 4200 metric tons of CO_2e . While GHGs are an inevitable byproduct of construction, we plan to mitigate our impact on the environment in a number of ways including selecting materials that have lower embodied GHG emissions, especially for the 2 biggest emitters, asphalt and concrete; by planting trees and increasing tree canopy; and by continuing to identify opportunities to reuse and recycle materials as often as possible. In 2021 approximately 17,784 tons of material was reported as diverted from the waste stream yielding a diversion rate of 89%. Concrete and asphalt, depending on the project type, continue to have the greatest potential for additional diversion opportunities.

Funding Status and Forecast

Project cost estimates, used in project selection, were based on the overall surface condition of each street as described in the City's Pavement Management System. A unit cost was assigned to each street based on whether the street rehabilitation treatment was assumed to be a reconstruct or an overlay. Approximately 18 months prior to construction, more detailed pavement testing is conducted to determine specific treatments to each street based on the existing pavement structure, subgrade soil conditions, and traffic loading. Actual rehabilitation treatments may be different than the original assumptions, requiring more, less, or a combination of rehabilitation techniques.

Three projects originally scheduled for 2021 were shifted to 2022 due to higher than average construction bids, and extensive public engagement and resulting community commitments that extended the design phase.

- 8th Avenue, between Lincoln St to Mill St, received federal grant funds to widen sidewalks, provide protected bike lanes, and convert the street from one-way travel to two-way. The project is scheduled to be awarded in the Spring of 2022.
- 4th Avenue and Mill Street Paving included ongoing coordination with the Riverfront Development and the construction contract was awarded in late 2021 with planned Spring 2022 construction.
- 17th Avenue, 19th Avenue and Mill Street Paving was advertised for bidding in 2021 but received only a single high cost bid that was nearly double the engineer's estimate. The project was rebid in the fall of 2021, under a more favorable bid climate and received three competitive bids. The low bidder was nearly $900K lower than previous bids and the contract has been awarded for completion in 2022.

Details on an annual project-by-project basis are provided in the following pages and summarized in Appendix A. Based on costs to date we are currently projecting exhausting the bond total which will require the use of additional local funds to supplement upcoming projects.

The 2017 bond measure also allocated an average of $1,000,000 for pedestrian and bicycle improvements each year. In 2021 the project expenditures on all pedestrian and bicycle improvements funded by the bond were estimated at $1,604,926. After the first three years of construction, the pedestrian and bicycle expenditures are tracking right at the $1 million annual average. Additional details are provided in Appendix C.

2021 Bond Construction Projects & Project Development

The following pages are reports on individual projects completed in 2021. The total costs for each project listed are estimated as not all of the 2021 construction-related costs have been finalized as of January 3, 2022.

Completed Paving on Terry Street

ARROWSMITH ST, BAILEY HILL RD, ROOSEVELT BLVD & TERRY ST PAVING

Project Description: This project consisted of rehabilitation of four streets in the Active Bethel Citizens and West Eugene Community Organization neighborhoods in Council Ward 8.

- Arrowsmith Street from W 11th Avenue to Terry Street
- Bailey Hill Road from W 5th Avenue to W 11th Avenue
- Roosevelt Boulevard from Beltline Road to approximately 800 feet east
- Terry Street from Royal Avenue to Roosevelt Boulevard

Treatment Methodology:

- Arrowsmith Street was rehabilitated by removing 2 inches of surfacing and paving back 4 inches for a total pavement depth of 6 inches. A significant portion of Arrowsmith Street required reconstruction by removing the surface down to a depth of 24 inches and replacing with 18 inches of aggregate and 6 inches of pavement.
- Bailey Hill Road was rehabilitated with a series of different pavement treatments. Between 5th Avenue and 7th Avenue, the existing surfacing was removed to a depth of 8 inches and replaced with 8 inches of pavement. Between 7th Avenue to 11th Avenue, the existing surfacing was removed to a depth of 9 inches and replaced with 9 inches of pavement in the northbound lane only. The southbound lane, center lane, and parking lanes were rehabilitated by removing 1 to 3 inches of existing pavement and replaced with 2 to 4.5 inches of new pavement.
- Roosevelt Boulevard was reconstructed by removing the surfacing to a depth of 18 inches and replaced with 11 inches of cement treated base and 7 inches of pavement. The center lane was over laid with a slurry seal treatment.
- Terry Street was rehabilitated by removing the top 3 inches of pavement and replaced with 3 inches of new pavement.

Costs: Total project costs, from all funding sources, are estimated at $2,172,461.

Preliminary Estimate based on Pavement Management System (PMS) Surface Evaluation =	$1,314,400
Total Projected/Actual Paving Bond Funds Used =	$2,037,879
Difference =	($723,479)

Additional Sources of Funding: Local Gas Tax, Active Transportation Bond, EWEB, Stormwater Utility, Wastewater Utility, and Parks and Open Space funds.

Active transportation Bond funds were used for the addition of a bike ramp and buffered bike lanes on Bailey Hill Road.

Project Photo:

Completed Paving on Bailey Hill Road

LINCOLN STREET PAVING

Project Description: This project consisted of rehabilitation of a street in the Jefferson Westside Neighbors and Friendly Area Neighbors neighborhoods in Council Ward 1.

- Lincoln Street from 13th Avenue to 22nd Avenue.

Treatment Methodology:

- Lincoln Street from 13th Avenue to 19th Avenue was reconstructed by removing the existing surfacing down to a depth of 9.5 inches and replaced with a two inch aggregate base and 7.5 inches of concrete pavement.
- Lincoln Street from 19th Avenue to 22nd Avenue was reconstructed by removing the existing surfacing down to a depth of 18 inches and replaced with 12 inches of aggregate and 6 inches of asphalt pavement. Some sections were over excavated with an additional 12 inches of aggregate due to the quality of the subgrade.

Reconstruction of the street between 13th Ave and 19th Ave is still ongoing and expected to be complete in late January 2022.

Costs: Total project costs, from all funding sources, are estimated at $3,323,650.

Preliminary Estimate based on Pavement Management System (PMS) Surface Evaluation =	$1,590,000
Total Projected/Actual Paving Bond Funds Used =	$2,183,404
Difference =	($593,404)

Additional Sources of Funding: Stormwater utility funds, Wastewater utility funds, Road Fund (Traffic Calming), Active Transportation Bond, and EWEB funds.

The Road Fund was used to install traffic calming on Jefferson Street between 13th Ave and 28th Ave. Stormwater funds were used to improve the stormwater system along Lincoln Street. Wastewater funds were used to improve the sewer system along High Street. Active Transportation Bond funds were used to cover the costs of building curb extensions at select intersections.

Project Photo:

Completed Paving on Lincoln Street

FAIRMOUNT BLVD & 19TH AVE PAVING

Project Description: This project consisted of rehabilitation of two streets in Fairmount Neighbors neighborhood in Council Ward 3.

- Fairmount Boulevard from 15th Avenue to Columbia Street
- 19th Avenue from Agate Street to Fairmount Boulevard

Treatment Methodology:

- Fairmount Boulevard reconstructed the travel lanes with the removal of surfacing down to 16 inches and replaced with 10 inches of aggregate and 6 inches of asphalt pavement. The existing 4.5-foot-wide on street parking concrete panels were left in place.
- 19th Avenue was reconstructed with the removal of surfacing down to 11.5 inches and replaced with 2 inches of aggregate and 9.5 inches of Portland Cement Concrete panels.

Costs: Total project costs, from all funding sources, are estimated at $3,550,000.

Preliminary Estimate based on Pavement Management System (PMS) Surface Evaluation =	$1,898,000
Total Projected/Actual Paving Bond Funds Used =	$2,300,000
Difference =	($402,000)

Additional Sources of Funding: Local Gas Tax, EWEB, Stormwater Utility, Wastewater Utility, Parks and Open Space SDCs, and Road Fund (Neighborhood Livability)

Curb extensions were added on both Fairmount Boulevard and 19th Avenue. Wastewater funds were used to remove community sewers throughout the project limits. Additionally, Parks and Open Space funds were used to make pedestrian improvements at Pre's Rock to include a new sidewalk and a viewing platform.

Project Photo:

Completed Paving on Fairmount Boulevard

OAK ST & 20TH AVE PAVING

Project Description: This project consisted of rehabilitation of three streets in Friendly Area Neighbors neighborhood in Council Ward 1.

- Oak Street from 17th Avenue to 20th Avenue
- 20th Avenue from Willamette Street to Oak Street

Treatment Methodology:

- Oak Street was reconstructed from 19th Avenue to 20th Avenue removing the surfacing down to 27.5 inches and replaced with 18 inches of aggregate and 9.5 inches of pavement. Between 17th Avenue and 19th Avenue, concrete panels were replaced with 18 inches of aggregate and 9 inches of Portland Cement Concrete.
- 20th Avenue was rehabilitated with removal of the top 3 inches of asphalt and replaced with 3 inches of new pavement.

Costs: Total project costs, from all funding sources, are estimated at $1,350,000.

Preliminary Estimate based on Pavement Management System (PMS) Surface Evaluation =	$825,000
Total Projected/Actual Paving Bond Funds Used =	$765,090
Difference =	$59,910

Additional Sources of Funding: Local Gas Tax, Active Transportation Bond, EWEB, Wastewater Utility, and Road Fund (Neighborhood Livability)

Local Gas Tax funds were used to rehabilitate Willamette Street between 18th and 19th Avenues and restripe the two-way conversion between 18th and 20th Avenues. Active Transportation Bond funds were used for bike lane striping. The Road fund was used to replace the traffic signal at 18th and Willamette to accommodate the two-way conversion.

Additionally, 19th Avenue between Willamette Street and Oak Street was originally listed as a Bond street but was identified as a good candidate for a slurry seal treatment and was added to the annual slurry seal project funded by Local Gas Tax funds.

Project Photo:

Completed Paving on 19th Avenue

WINDSOR CIRCLE PAVING

Project Description: This project consisted of rehabilitation of a street in Churchill Area Neighbors neighborhood in Council Ward 8.

- Windsor Circle from Wilshire Lane looped back to Wilshire Lane

Treatment Methodology:

- Windsor Circle was fully reconstructed with the removal of surfacing down to 18 to 32 inches and replaced with 12 to 24 inches of aggregate and 6 to 8 inches of asphalt pavement. The existing asphalt was reused onsite for the aggregate base to the fullest extent.

Costs: Total project costs, from all funding sources, are estimated at $933,128.

Preliminary Estimate based on Pavement Management System (PMS) Surface Evaluation =	$776,000
Total Projected/Actual Paving Bond Funds Used =	$820,706
Difference =	($44,706)

Additional Sources of Funding: Stormwater Utility, Wastewater Utility, and Maintenance funds

Project Photo:

Completed Paving on Windsor Circle

PRIMROSE ST, LAURELHURST DR & LAVETA LN PAVING

Project Description: This project consisted of rehabilitation of three streets in the Active Bethel Citizens neighborhood in Council Ward 6.

- Primrose Street from Barger Drive to approximate 100 feet north of Parker Place
- Laurelhurst Drive from Melrose Loop to Barger Drive
- Laveta Lane from Barger Drive to the end

Treatment Methodology:

- Primrose Street, Laurelhurst Drive, and Laveta Lane were rehabilitated by removing one to four inches of pavement and replaced with two to four inches of pavement for a total depth of 4 to 7 inches of pavement.

Costs: Total project costs, from all funding sources, are estimated at $1,179,000.

Preliminary Estimate based on Pavement Management System (PMS) Surface Evaluation =	$629,000
Total Projected/Actual Paving Bond Funds Used =	$1,102,000
Difference =	($473,000)

Additional Sources of Funding: Local Gas Tax, EWEB, Wastewater Utility, and Stormwater Utility

Local Gas Tax funds were used to slurry seal adjacent cul-de-sacs. Bond funds were also used to build curb extensions on select intersections throughout the project.

Project Photo:

Completed Paving on Laurelhurst Drive

5-Year Street Bond Project List - Costs and Forecast

Project Map #	GJB	Street name	From	To	Ward(s)	Proposed Treatment	Programmed Cost (2017) plus inflation	*Projected / Actual Cost*	Difference
Construction Year 2019									
9	900049	11th Ave (A)	Tyinn St	Bertelsen St	8	Overlay	$ 1,874,000	$ 761,039	1,112,961
12	900044	19th Avenue (C) ***(incl 2019 Construction)***	Hilyard St	Agate St	1	Reconstruction	$ 1,146,000	$ 1,457,568	(311,568)
1	900051	3rd Avenue (L)	High St	Pearl St	7	PCC panel replacement	$ 118,000	$ 1,801,438	$ 95,562
65		Mill Street (L)	2nd Ave	3rd Ave		Reconstruction/Overlay	$ 60,000		
3		5th Avenue (L)	Chambers St	Grant St		Reconstruction/Overlay	$ 250,000		
36		Charnelton Street (L)	4th Ave	6th Ave		Reconstruction/Overlay	$ 360,000		
70		Olive Street (L)	5th Ave	6th Ave		Pavement Removal and Replacement	$ 131,000		
60		Lawrence Street (L)	NS Dwy 36	6th Ave		Reconstruction	$ 978,000		
27	900047	Brookside Drive (L) ***(incl 2019 Construction)***	Brae Burn Dr (North)	Address 999	2	Reconstruction	$ -	$ 722,240	$ 84,760
28		Brookside Drive (L)	Brae Burn Dr (South)	Montara Way		Reconstruction	$ 437,000		
83		Sundance Street (L)	Sundial Rd	East End		Pavement Removal and	$ 270,000		
84		Sundance Street CDS (L)	North End	Sundance St		Pavement Removal and Replacement	$ 100,000		
18	900045	Alder Street (L)	24th Ave	27th Ave	3	Reconstruction/Pavement Removal and Replacement	$ 309,000	$ 702,061	$ (393,061)
44	900048	Fair Oaks Drive (L)	Oakway Rd	Fairway Lp	4	Reconstruction	$ 253,000	$ 1,675,831	$ (401,831)
24		Bedford Way (L)	Oakway Rd	Fair Oaks Dr		Reconstruction	$ 200,000		
54		Lariat Drive (L)	Oakway Rd	Lariat Dr		Reconstruction	$ 392,000		
55		Lariat Meadows Drive (L)	Lariat Dr	East End		Pavement Removal and Replacement	$ 300,000		
56		Lariat Mesa (L)	Lariat Dr	East End		Reconstruction/Pavement Removal and Replacement	$ 129,000		
23	900046	Balfour Street (L)	Terresa Ave	North End	5	Reconstruction	$ 150,000	$ 1,237,457	$ (77,457)
29		Calgary Street (L)	Holly Ave	Elanco Ave		Reconstruction	$ 254,000		
43		Elanco Ave + CDS (L)	Norkenzie Rd	North End		Reconstruction	$ 137,000		
87		Terresa Avenue (L)	Montreal Ave	Gilham Rd		Reconstruction	$ 237,000		
76		Quebec Street (L)	Calgary St	Elanco Ave		Reconstruction	$ 224,000		
67		Montreal Avenue (L)	Calgary St	Balfour St		Reconstruction	$ 158,000		
						Projected Construction Year 2019 Totals =	**$ 8,467,000**	**$ 8,357,634**	**$ 109,366**
Construction Year 2020									
73	900135	Polk Street (L)	6th Ave	7th Ave	7	Overlay	$ 124,800	$ 162,253	87,867
34		Chambers Street (C) ***(incl 2020 Construction)***	11th Ave	13th Ave		Pavement Removal and Replacement	$ 125,320		
12	900044	19th Avenue (C) ***(incl 2020 Construction)***	Hilyard St	Agate St	1	Reconstruction	$ 397,300	$ 242,000	$ 155,300
27	900047	Brookside Drive (L) ***(incl 2020 Construction)***	Brae Burn Dr (North)	Address 999	2	Reconstruction	$ 238,100	$ 664,000	$ (425,900)
49	900133	Garden Avenue (L)	Moss St	Walnut St	3	Pavement Removal and Replacement	$ 411,800	$ 516,000	$ 20,600
89		Walnut Street (L)	Garden Ave	Frankling Blvd		Pavement Removal and Replacement	$ 124,800		
5	900070	8th Avenue (L) ***(Design & Permitting)***	Willamette St	Mill St	1	Pavement Removal and Replacement	$ 533,500	$ 513,010	$ 20,490
13	900253	20th Avenue (A) ***(Design & Permitting)***	Willamette St	Oak St	1	Overlay	$ 104,000	$ 244,580	$ 171,420
69		Oak Street (A) ***Design & Permitting)***	18th Ave	20th Ave		Overlay	$ 312,000		
						Projected Construction Year 2020 Totals =	**$ 2,371,620**	**$ 2,341,843**	**$ 29,777**
Construction Year 2021									
20	900244	Arrowsmith Street (L)	Terry St	11th Ave	8	Overlay	$ 228,200	*$ 2,082,064*	$ (870,264)
21		Bailey Hill Rd (A)	5th Ave	11th Ave	8	Overlay	$ 630,600		
79		Roosevelt Blvd (A)	Beltline	800' East	8	Overlay	$ 223,200		
88		Terry Street (C)	Royal Ave	Roosvelt Blvd	8	Overlay	$ 129,800		
62	900257	Lincoln Street (C)	13th Ave	22nd Ave	1	Reconstruct	$ 1,719,700	*$ 2,095,383*	$ (375,683)
10	900151	17th Avenue (L)	Oak Street	Hilyard St	3	Reconstruct	$ 823,000	*$ 1,754,956*	$ (477,656)
11		19th Avenue (C)	Oak Street	High St	1	Overlay	$ 324,500		
64		Mill Street (L)	16th Ave	18th Ave	3	Overlay	$ 129,800		
45	900104	Fairmount Blvd (L)	15th Ave	Columbia St	3	Reconstruct	$ 1,094,600	*$ 2,676,136*	$ (623,236)
12		19th Avenue (C)	Agate St	Fairmount Blvd	3	Overlay	$ 958,300		
52	900242	Jessen Drive (L)	Elizabeth St	Hwy 99	6	Overlay	$ 252,000	*$ 1,078,211*	$ 198,089
57		Laurelhurst Drive + 5 CDS (L)	Melrose Lp	Barger Dr	6	Overlay	$ 395,900		
59		Laveta Lane (L)	Barger Dr	South End	6	Overlay	$ 129,800		
75		Primrose Street + 1 CDS (L)	Barger Dr	100' N of Parker Pl	6	Overlay	$ 154,700		
38		Clarey Street (L)	Bean St	1071' South	6	Overlay	$ 162,200		
78		Robin Avenue (L)	200' E of Ruskin St	396' E of Taney St	6	Overlay	$ 181,700		
5	900070	8th Avenue (L) ***(incl 2021 Construction)***	Willamette St	Mill St	1	Pavement Removal and Replacement	$ 671,600	*$ 620,990*	$ 50,610
13	900253	20th Avenue (A) ***(incl 2021 Construction)***	Willamette St	Oak St	1	Overlay	$ 108,100	*$ 802,199*	$ (342,599)
69		Oak Street (A) ***(incl 2021 Construction)***	18th Ave	20th Ave		Overlay	$ 351,500		
34	900135	Chambers Street (C) ***(incl 2021 Construction)***	11th Ave	13th Ave	7	Pavement Removal and Replacement	$ 130,300	*$ 444,510*	$ (314,210)
91	900240	Windsor Circle East/West (L)	Wilshire Ln	Wilshire Ln	8	Reconstruct	$ 1,249,200	*$ 822,063*	$ 427,137
						Projected Construction Year 2021 Totals =	**$ 10,048,700**	**$ 12,376,512**	**$ (2,327,812)**

5-Year Street Bond Project List - Costs and Forecast

Project Map #	GJB	Street name	From	To	Ward(s)	Proposed Treatment	Programmed Cost (2017) plus inflation	*Projected / Actual Cost*	Difference
Construction Year 2022									
39	900103	Coburg Road (A)	Oakway Rd	Ferry Street Bridge	4	Overlay	$ 2,524,200	*$ 2,524,200*	
33		Catalina Street (L)	Juhl St	Willhi St	6	Overlay	$ 168,700		
37		Chase Street + CDS (L)	500' N of Marshall St	North End	6	Overlay	$ 168,700		
40	900246	Concord Street (L)	Berntzen Rd	Jacobs Dr	6	Overlay	$ 252,000	*$ 1,090,000*	
42		Echo Hollow CDS (L)	West End	Echo Hollow Rd	6	Reconstruct	$ 168,700		
48		Fuller Avenue (L)	Echo Hollow Rd	Jay St	6	Overlay	$ 135,000		
50		Hawthorne Avenue (L)	West End	Fairfield Ave	7	Overlay	$ 196,900		
30		Candlelight Drive (L)	Avalon	Royal Ave	6	Overlay	$ 366,700		
82		Stagecoach Road (L)	Candlelight Dr	Surrey Ln	6	Overlay	$ 112,500		
85		Surry Lane (L)	Stagecoach Rd	Welcome Wy	6	Overlay	$ 135,000		
90	900245	Welcome Way (L)	Candlelight Dr	Royal Ave	6	Overlay	$ 163,100	*$ 1,033,800*	
80		Royal Ave CDS (L)	Royal Ave	End	6	Overlay	$ 112,500		
58		Laurelhurst Drive + Sheffield Ct CDS (L)	Harriet Ave	Royal Ave	6	Overlay	$ 144,000		
72	900302	Polk Street (C)	W 18th Ave	28th Ave	1	Overlay	$ 751,400	*$ 751,400*	
81	900304	Spyglass Drive (L)	Cal Young Rd	Spyglass Dr	5	Overlay	$ 723,300	*$ 723,300*	
53	900294	Lakevie Drive (C)	207' E of Sarah Ln	Gilham Rd	5	Reconstruct	$ 258,700	*$ 539,900*	
41		Crescent Avenue (A)	Norkenzie Rd	Address 1670	5	Overlay	$ 281,200		
2	900043	4th Avenue (C)	Pearl St	Coburg Rd	7	Overlay	$ 262,800	*$ 554,683*	(162,083)
65		Mill Street (L)	3rd Ave	4th Ave	7	Overlay	$ 129,800		
						Projected Construction Year 2022 Totals =	**$ 7,055,200**	***$ 7,217,283***	**$ (162,083)**
Construction Year 2023									
15	TBD	46th Avenue (C)	Fox Hollow Rd	Donald St	2	TBD	$ 516,000	*$ 516,000*	
16	TBD	Agate Street (C)	163 Black Oak Rd	Firland St	2	TBD	$ 689,000	*$ 689,000*	
19	TBD	Amazon Parkway (A)	19th Ave	2693 S of E 24th	2	TBD	$ 1,661,200	*$ 1,661,200*	
35	TBD	Chambers Street (C)	18th Ave	24th Ave	1	TBD	$ 1,062,200	*$ 1,062,200*	
69	TBD	Oak Street (A)	7th Ave	13th Ave	1	TBD	$ 698,400	*$ 698,400*	
74	TBD	Portland Street (L)	29th Ave	31st Ave	2	TBD	$ 485,500	*$ 485,500*	
77	TBD	River Road (A)	Maxwell Rd	Beltline Rd	7	TBD	$ 792,000	*$ 792,000*	
6	TBD	8th Avenue (C)	Monroe St	Garfield St	1	TBD	$ 2,264,800	*$ 2,264,800*	
26	TBD	Broadway (A)	Mill St	11th Ave	3	TBD	$ 1,033,000	*$ 1,033,000*	
69	TBD	Pearl Street (A)	Broadway	17th Ave (Amazon Bridge)	3	TBD	$ 726,500	*$ 726,500*	
						Projected Construction Year 2023 Totals =	**$ 9,928,600**	***$ 9,928,600***	**$ -**
Construction Year 2024									
69	TBD	Oak Street (A)	13th Ave	17th Ave	1	TBD	$ 146,000	*$ 146,000*	
63	TBD	Linnea Avenue + 1 CDS (L)	Norkenzie Rd	Tarpon St	5	TBD	$ 216,600	*$ 216,600*	
25	TBD	Brewer Avenue (L)	Brewer Ave	South End	5	TBD	$ 1,014,700	*$ 1,014,700*	
31	TBD	Carmel Avenue (L)	Diane St	Norwood St	4,5	TBD	$ 547,500	*$ 547,500*	
66	TBD	Monterey Avenue (L)	Norkenzie Rd	Larkspur Ave	5	TBD	$ 216,600	*$ 216,600*	
68	TBD	Norwood Street (L)	Monterey St	Marlow St	4	TBD	$ 373,500	*$ 373,500*	
22	TBD	Bailey Lane (C)	Bogart Ln	Luella St	4	TBD	$ 496,400	*$ 496,400*	
14	TBD	24th Avenue (A)	Harris St	Agate St	3	TBD	$ 439,200	*$ 439,200*	
17	TBD	Alder Street (L)	30th Ave	32nd Ave	2	TBD	$ 522,000	*$ 522,000*	
5	TBD	Hilyard Street (C)	W Amazon	40th Ave	2	TBD	$ 883,300	*$ 883,300*	
8	TBD	11th Ave (A)	Charnelton St	Grant St	1	TBD	$ 1,546,400	*$ 1,546,400*	
46	TBD	Franklin Blvd (A)	Walnut	11th Ave	3	TBD	$ 1,666,680	*$ 1,666,680*	
						Projected Construction Year 2024 Totals =	**$ 8,068,880**	***$ 8,068,880***	**$ -**
						Total Programmed Costs =	***$ 45,940,000***	***$ 48,290,752***	***$ (2,350,752)***

(x) Street Classification Key: (L) = Local; (C) = Collector; (A) = Arterial

Pedestrian and Bicycle Improvements Project List

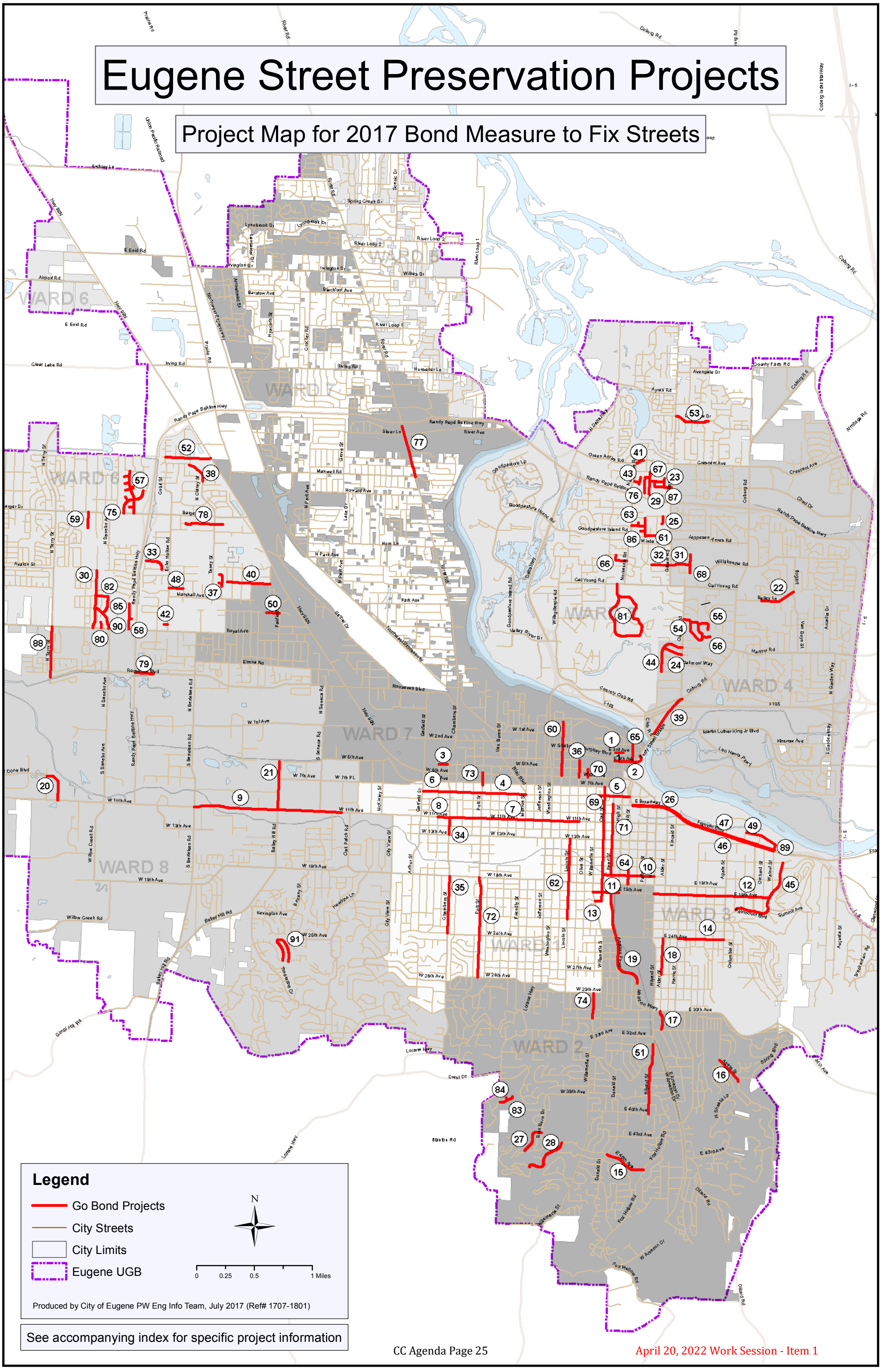
Projects			Average Annual Allocation $1,000,000	*Projected / Actual Cost*	Difference
Construction Year 2019					
Alder Street				$ 140,124	
Lawrence Street				$ 3,988	
W 11th Avenue				$ 4,578	
E 19th Avenue				$ 58,796	
			Construction Year 2019 Pedestrian & Bicycle Repairs Total =	$ 207,486	**$ 792,514**
Construction Year 2020					
Garden Avenue, Walnut Street, Villard St & Moss St Paving				$ 72,854	
Roosevelt Path				$ 158,056	
Safe Routes to School: Crosswalk Enhancements & Speed Monitoring (2020 Local Match)				$ 71,000	
Alder Street Neighborhood Greenway				$ 116,471	
19th Avenue Diversion at Alder Street				$ 58,796	
5th, Olive, and Charnelton Street				$ 8,100	
			Construction Year 2020 Pedestrian & Bicycle Repairs Total =	**$ 485,277**	**$ 514,723**
Construction Year 2021					
South Bank Shared Use Path Repair & Realignment				$ 83,427	
Downtown Riverfront Park				$ 500,000	
West Bank Path Lighting & Resurfacing				$ 631,180	
NE Livable				$ 322,566	
Safe Routes to School: Crosswalk Enhancements & Speed Monitoring (Construction Complete in 2021)				$ 67,753	
				$ 1,604,926	**$ (604,926)**
			Total Pedestrian and Bicycle Improvement Project Costs =	**$ 5,000,000**	**$ 2,297,689**	**$ 2,702,311**

Summary of Bond Costs

Total Street Projects in 2017 Dollars with inflation = $ 45,940,000
Total Pedestrian & Bicyclist Improvements = $ 5,000,000
Bond Issuance Costs = $ 260,000
Total Bond Costs = $ 51,200,000

Eugene Street Preservation Projects

Project Map for 2017 Bond Measure to Fix Streets



See accompanying index for specific project information

Project List for 2017 Bond Measure to Fix Streets

Exhibit A

MAP NUMBER	STREET NAME	FROM	TO
1	**03RD AVENUE**	HIGH ST	PEARL ST
2	**04TH AVENUE**	COBURG RD	PEARL ST
3	**05TH AVENUE**	CHAMBERS ST	GRANT ST
4	**08TH AVENUE**	CHAMBERS ST	MONROE ST
5	**08TH AVENUE**	WILLAMETTE ST	MILL ST
6	**08TH AVENUE**	GARFIELD ST	CHAMBERS ST
7	**11TH AVENUE**	CHARNELTON ST	CHAMBERS ST
8	**11TH AVENUE**	CHAMBERS ST	GRANT ST
9	**11TH AVENUE**	TYINN ST	BERTELSEN RD
10	**17TH AVENUE**	HILYARD ST	OAK ST
11	**19TH AVENUE**	WILLAMETTE ST	HIGH ST
12	**19TH AVENUE**	HILYARD ST	FAIRMOUNT BLVD
13	**20TH AVENUE**	WILLAMETTE ST	OAK ST
14	**24TH AVENUE**	HARRIS ST	AGATE ST
15	**46TH AVENUE**	FOX HOLLOW RD	DONALD ST
16	**AGATE STREET**	N 163 BLACK OAK RD	FIRLAND ST
17	**ALDER STREET**	30TH AVE	32ND AVE
18	**ALDER STREET**	24TH AVE	27TH AVE
19	**AMAZON PARKWAY**	19TH AVE	2693 S OF E 24TH
20	**ARROWSMITH STREET**	TERRY ST	11TH AVE
21	**BAILEY HILL ROAD**	5TH AVE	11TH AVE
22	**BAILEY LANE**	BOGART LN	LUELLA ST
23	**BALFOUR STREET**	TERRA AVE	NORTH END
24	**BEDFORD WAY**	OAKWAY RD	FAIR OAKS DR
25	**BREWER AVENUE**	BREWER AVENUE	SOUTH END
26	**BROADWAY**	MILL ST	11TH AVE
27	**BROOKSIDE DRIVE**	BRAE BURN DR (NORTH)	ADDR 999
28	**BROOKSIDE DRIVE**	BRAE BURN DR (SOUTH)	MONTARA WAY
29	**CALGARY STREET**	HOLLY AVE	ELANCO AVE
30	**CANDLELIGHT DRIVE**	AVALON	ROYAL
31	**CARMEL AVENUE**	GILHAM RD	NORWOOD ST
32	**CARMEL AVENUE**	DIANE ST	GILHAM RD
33	**CATALINA STREET**	JUHL ST	WILLHI ST
34	**CHAMBERS STREET**	11TH AVE	13TH AVE
35	**CHAMBERS STREET**	18TH AVE	24TH AVE
36	**CHARNELTON STREET**	4TH AVE	6TH AVE
37	**CHASE STREET + CDS**	500' NORTH OF MARSHALL	NORTH END
38	**CLAREY STREET**	BEAN ST	1071' S OF BEAN ST
39	**COBURG ROAD**	FERRY STREET BRIDGE	OAKWAY RD
40	**CONCORD STREET**	BERNTZEN RD	JACOBS DR
41	**CRESCENT AVENUE**	NORKENZIE RD	ADDRS 1670
42	**ECHO HOLLOW CDS**	WEST END (CDS) (880-960)	ECHO HOLLOW RD
43	**ELANCO AVENUE + 1 CDS (NORTH)**	NORKENZIE RD	END OF NORTHERLY CDS
44	**FAIR OAKS DRIVE**	OAKWAY RD	FAIRWAY LP
45	**FAIRMOUNT BOULEVARD**	15TH AVE	COLUMBIA ST
46	**FRANKLIN BOULEVARD EB**	WALNUT ST	11TH AVE
47	**FRANKLIN BOULEVARD WB**	WALNUT ST	11TH AVE

Project List for 2017 Bond Measure to Fix Streets

Exhibit A

MAP NUMBER	STREET NAME	FROM	TO
48	**FULLER AVENUE**	ECHO HOLLOW RD	JAY ST
49	**GARDEN AVENUE**	MOSS ST	WALNUT ST
50	**HAWTHORNE AVENUE**	WEST END	FAIRFIELD AVE
51	**HILYARD STREET**	W AMAZON DR	40TH AVE
52	**JESSEN DRIVE**	ELIZABETH ST	HWY 99
53	**LAKEVIEW DRIVE**	207' E OF SARAH LN	GILHAM RD
54	**LARIAT DRIVE**	OAKWAY RD	LARIAT DR
55	**LARIAT MEADOWS DRIVE**	LARIAT DR	EAST END
56	**LARIAT MESA**	LARIAT DR	EAST END
57	**LAURELHURST DRIVE + 5 CDS**	MELROSE LP	BARGER DR
58	**LAURELHURST DRIVE + SHEFFIELD CT**	HARRIET AVE	ROYAL AVE
59	**LAVETA LANE**	BARGER DR	SOUTH END
60	**LAWRENCE STREET**	DRWY 36	6TH AVE
61	**LEMMING AVENUE**	TARPON ST	SHILO ST
62	**LINCOLN STREET**	13TH AVE	22ND AVE
63	**LINNEA AVENUE + 1 CDS**	NORKENZIE RD	TARPON ST
64	**MILL STREET**	16TH AVE	18TH AVE
65	**MILL STREET**	2ND AVE	4TH AVE
66	**MONTEREY AVENUE**	NORKENZIE RD	LARKSPUR AVE
67	**MONTREAL AVENUE**	CALGARY ST	BALFOUR ST
68	**NORWOOD STREET**	MONTEREY ST	MARLOW ST
69	**OAK STREET**	7TH AVE	20TH AVE
70	**OLIVE STREET**	5TH AVE	6TH AVE
71	**PEARL STREET**	BROADWAY	17TH AVE (AMAZON BRIDGE)
72	**POLK STREET**	18TH AVE	28TH AVE
73	**POLK STREET**	67' N OF 6TH AVE	72' S OF 7TH AVE
74	**PORTLAND ST**	29TH AVE	31ST AVE
75	**PRIMROSE STREET + 1 CDS**	BARGER RD	100' N OF PARKER PL (S)
76	**QUEBEC STREET**	CALGARY ST	ELANCO ST
77	**RIVER ROAD**	MAXWELL RD	BELTLINE RD
78	**ROBIN AVENUE**	200' EAST OF RUSKIN ST	396' EAST OF TANEY ST
79	**ROOSEVELT BLVD**	BELTLINE	APPROX 800' EAST OF BELTLINE
80	**ROYAL AVENUE CUL DE SAC**	ROYAL AVE	N END CDS
81	**SPYGLASS DRIVE**	CAL YOUNG RD	LOOP AROUND BACK TO SPYGLASS DR
82	**STAGECOACH ROAD**	CANDLELIGHT DR	SURREY LN
83	**SUNDANCE STREET**	SUNDIAL RD	EAST END
84	**SUNDANCE STREET CDS**	NORTH END	SUNDANCE ST
85	**SURRY LANE**	STAGECOACH	WELCOME WY
86	**TARPON STREET + CUL-DE-SAC**	BREWER AVE	LEMMING AVE
87	**TERRESA AVENUE**	MONTREAL AVE	GILHAM RD
88	**TERRY STREET**	ROYAL AVE	ROOSEVELT BLVD
89	**WALNUT STREET**	FRANKLIN BLVD	GARDEN AVE
90	**WELCOME WAY**	CANDLELIGHT DR	ROYAL AVE
91	**WINDSOR CIRCLE EAST/WT**	WILSHIRE LN	WILSHIRE LN

Eugene Public Works
Engineering

December 2021

Street Repair Review Panel,

This memo summarizes walking and bicycling projects built in 2021 using Pavement Bond Measure (PBM) funds and offers a look ahead to projects anticipated for construction in 2022.

Background

The 2017 Pavement Bond Measure stipulates that the city identify and complete an average of $1 million in safety improvements for people who bike and walk each year of the bond (2019-2023). Transportation Planning staff works with the Active Transportation Committee (ATC) to develop a list of walking and bicycling projects for review, based on guidance provided by the Transportation System Plan, maintenance needs, and community requests, including partners at LTD and Safe Routes to School. The projects include additions to scheduled pavement projects as well as stand-alone projects.

Where do the Walking and Biking Projects Come From?

Staff uses the Transportation System Plan (TSP) to identify network improvements for walking and bicycling. The TSP is the city's transportation policy document and long-term vision for transportation improvements.

For pavement preservation projects city staff consult the TSP to determine what network improvements should be made based on system connectivity needs. Pavement projects present an opportunity to implement some TSP project types, such as bike lane striping, because striping will be entirely replaced as part of the pavement project.

There are also projects developed based on community input (ATC, etc.), coordination with 4j and Bethel Safe Routes to School programs, and through site investigations by city staff. The Vision Zero Action Plan is also used to evaluate project locations to improve safety outcomes for people walking and bicycling.

Through discussions with staff and the Active Transportation Committee, it has been decided that about half of the money should be spent on shared use path maintenance with the other half used for discretionary walking and bicycling projects throughout Eugene.

How Were PBM Walking/Biking Funds Spent in 2021?

Some of the walking and bicycling projects occur on streets where there is a pavement project while others do not. Projects developed in 2021 are listed below.

Projects Occurring with Pavement Projects

- Bailey Hill Road at 7th Avenue. When 7th Avenue was repaved a few years ago, bike lanes were added in each direction to connect to bike lanes on Bailey Hill Road. As a result of the curvature of the southeast corner of the intersection from Bailey Hill Road at 7th Avenue, encroachment into the bike lanes is common. The Bailey Hill Road pavement project included curb separation for people bicycling north on Bailey Hill Road who turn east onto 7th Avenue. Encroachment was eliminated by physically separating the two transportation modes.

Discretionary Projects

- Safe Routes to School. A $750,000 grant was received from ODOT to add school speed zone flashers and enhanced crossings to several school zones in both 4j and Bethel School Districts in 2020. Approximately $68,000 of bond money was used in 2021 in addition to the $72,000 used in 2020 to pay the grant match

required by ODOT. While this project was awarded in 2020, construction was complete in 2021 and additional funds were utilized to help fund final construction costs.

- South Bank Path and Downtown Riverfront Park. A $850,000 grant was received from ODOT to replace and repair the South Bank Path from the Frohnmayer Bridge to the Hilyard Street entrance at the former EWEB property. Approximately $83,000 of the bond was used to pay the grant match required by ODOT for the path replacement.
- Northeast Livable Streets. A $755,000 grant was received from ODOT to add enhanced crossings and improved pedestrian connections in the northeastern neighborhoods of Harlow, Northeast, and Cal Young. Approximately $280,000 from the bond measure was used with the ODOT funds to complete the projects and improve walking and bicycling safety across busy streets, and to improve pedestrian safety at intersections.

What Projects are you Exploring for 2022?

There are many additional walking and bicycling projects planned for 2022. Some are large grant-funded projects and others are smaller improvements that will improve active transportation conditions for folks traveling on our local street network. (Funding source identified in parentheses.)

- High Street Protected Bike Lanes (ODOT). Install 2-way protected bike lane on west side of High Street from 19th Avenue to 6th Avenue.
- 8th Avenue Protected Bike Lanes (ODOT). Install protected bike lanes on 8th Avenue from Mill Street to Lincoln Street.
- 17th Avenue/19th Avenue/Mill Street. Project will include creating a better connection between the Amazon Path and High Street on 19th Avenue.
- 4th Avenue and Mill Street. Project will include installation of a 2-way protected bikeway on the south side of 4th Avenue from the DeFazio Bridge entrance to Mill Street.
- Riverbank Path Wayfinding. Adding bicycle wayfinding signs to the Riverbank Path system.
- SRTS Howard Avenue (ODOT). Pay grant match for a protected active transportation space on Howard Avenue from River Road to Howard Elementary.
- SRTS Bethel (ODOT). Pay grant match for enhanced pedestrian crossings of Royal Avenue and North Danebo Avenue.
- Fern Ridge Path Rehab and Lighting. This project would include spot repairs on the Fern Ridge Path and add lighting to an unlighted segment of the path from City View Street to Acorn Park Street.

If you have any questions about planning for walking and bicycling projects, or use of PBM funds to deliver these projects, please contact me: RDunbar@eugene-or.gov, (541) 682-5727.

Sincerely,
Reed Dunbar, AICP
Senior Transportation Planner (Bicycle and Pedestrian Planner)

MOSSADAMS

Report of Independent Accountants

To City of Eugene, Oregon

We have performed the procedures enumerated below on the 2017 General Obligation Bond funded expenditures of the City of Eugene, Oregon (the "City") for the year ended December 31, 2021 (the "Reporting Period"). The City is responsible for the 2017 General Obligation Bond funded expenditures (the "expenditures").

The City has agreed to and acknowledged that the procedures performed are appropriate to meet the intended purpose of evaluating the City's compliance with the requirements of voter approved Ballot Measure 20-275 and City Council Resolution No. 5204 for the Reporting Period. This report may not be suitable for any other purpose. The procedures performed may not address all the items of interest to a user of this report and may not meet the needs of all users of this report and, as such, users are responsible for determining whether the procedures performed are appropriate for their purposes.

The procedures we performed and our findings are as follows:

1) We obtained from the City a listing of the expenditures for the Reporting Period. The total amount of expenditures was $10,199,153.

2) We sorted the expenditures by dollar amount, and in descending order by dollar amount, we selected the largest expenditure amounts until 33.3% or more of the total expenditures were selected. This resulted in selecting 8 expenditures totaling $3,612,625, or 35.4% of total expenditures. We agreed each selected expenditure's reported account and fund number, and reported accounting period date to a vendor invoice, certification of payment, or signed contract provided by the City. We noted no variances between expenditures and supporting documentation.

3) For expenditures selected in the previous step, we noted each expenditure was for an eligible cost as described in voter approved Ballot Measure 20-275 and City Council Resolution No. 5204.

4) We obtained from the City a listing of new construction projects awarded during the Reporting Period, which were funded by 2017 General Obligation Bond proceeds. We haphazardly selected one new construction project awarded and obtained the procurement file from the City. We compared the procurement file to the procurement requirements contained in the City's Public Contracting Rules and noted no differences.

5) We obtained from the City an accounting of the $29,201,212 in unspent 2017 General Obligation Bond proceeds as of December 31, 2021. We compared that amount to the $39,300,365 in unspent bond proceeds as of December 31, 2020, as reported in the prior year independent accountant's report on applying agreed upon procedures dated January 27, 2021, less the $10,199,153 of expenditures for the year ended December 31, 2021 provided by the City. We found the City's accounting and the calculated amount of unspent 2017 General Obligation Bond proceeds as of December 31, 2021 to be in agreement.

We were engaged by the City to perform this agreed-upon procedures engagement and conducted our engagement in accordance with attestation standards established by the American Institute of Certified Public Accountants. An agreed-upon procedures engagement involves performing specific procedures that the engaging party has agreed to and acknowledged to be appropriate for the intended purpose of the engagement and reporting on findings based on the procedures performed. We were not engaged to and did not conduct an examination or review engagement, the objective of which would be the expression of an opinion or conclusion, respectively, on the expenditures of the City for the Reporting Period. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures other matters might have come to our attention that would have been reported to you.

We are required to be independent of the City and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements related to our agreed-upon procedures engagement.

This report is intended solely for the information and use of the City, and is not intended to be, and should not be, used by anyone other than this specified party.

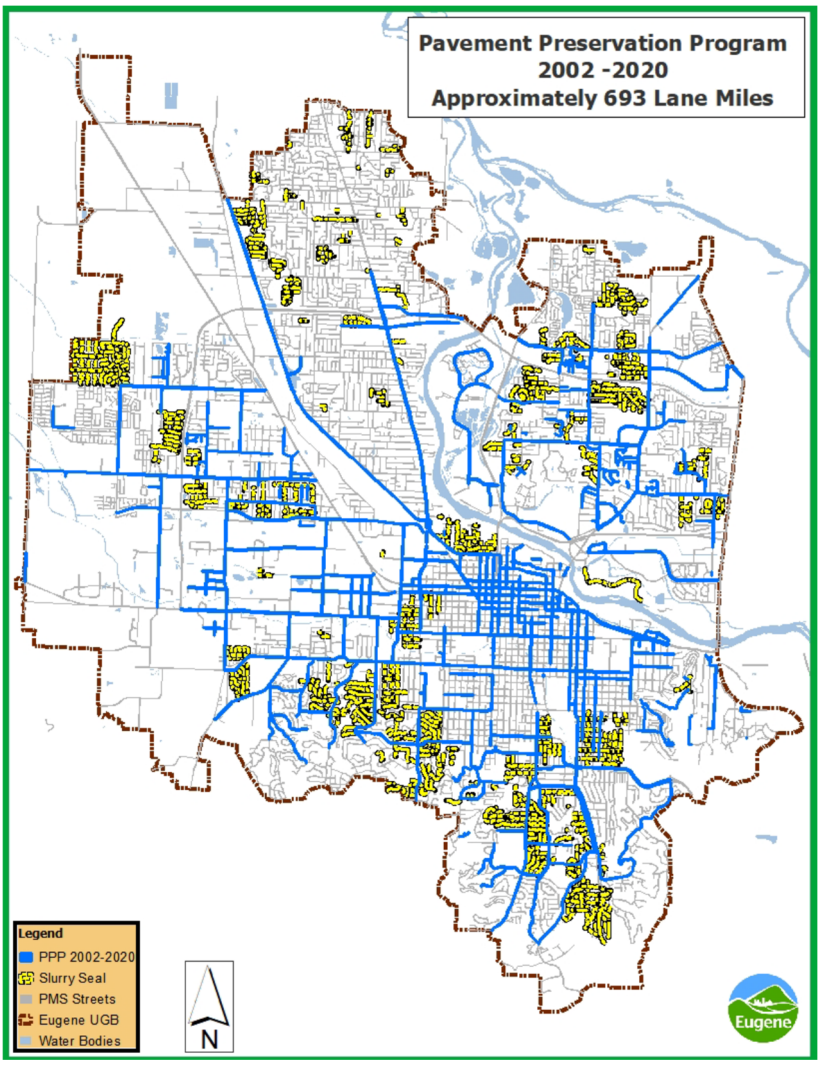
Moss Adams LLP

Eugene, Oregon
January 31, 2022

2022 PAVEMENT MANAGEMENT REPORT

An Update on Asphalt Pavement Conditions and Programs

(2020 Rating & Inventory Data)



Prepared by:

Public Works Engineering Staff with information and data prepared in coordination with Public Works Maintenance Staff

Overview

This annual Pavement Management Report is generated to provide updated information and data regarding the City of Eugene's transportation system with data from the Pavement Management System (PMS) . The transportation system is a significant public asset which requires continued maintenance and management. The asset is described in lane miles and/or centerline miles. Currently, Public Works manages 1408 lane miles (563 centerline miles) of streets and approximately 46 centerline miles of off-street shared-use paths within the City limits.

Eugene's Street Inventory

The City of Eugene has jurisdictional responsibility for many types and classifications of transportation facilities. Many factors such as age, development type, traffic loads, use, and future transportation needs affect the maintenance and rehabilitation planning for the system. The section inventory component of the PMS allows a reporting of both centerline miles (intersection to intersection) and lane miles of each section of the system. While commonly used in reporting distance, centerline miles do not relate equally across streets of different widths or number of lanes. For this report, comparisons typically are shown both in centerline and 12-foot-wide lane miles unless otherwise noted.

For purposes of establishing budget allocations and rehabilitation priorities, and performing maintenance activities based on established maintenance policies, the City of Eugene divides the street inventory into two distinct categories:

Improved Streets are streets that are engineered for structural adequacy, have storm drainage facilities which typically include curbs and gutters, and have either an asphalt concrete (AC) or a Portland cement concrete (PCC) surface. Improved streets are either fully improved at the time of development, at the developer's expense or were improved through a local improvement district (LID) and paid for in part by the abutting property owners. In some cases, a street may have been fully improved while under state or county jurisdiction and then surrendered to the City. Improved streets receive the highest level of ongoing maintenance and are eligible for rehabilitation funding through Eugene's Capital Improvement Program (CIP) and Pavement Preservation Program.

Unimproved Streets are streets with soil, gravel, or asphalt mat surfaces, have not been structurally designed, and have no curbs or gutters. Typically, an unimproved street must be fully improved through a LID and funded in part by the abutting property owners before a higher level of service will be provided (see "City of Eugene Street Maintenance Policy and Procedure Manual" for levels of maintenance service). These streets receive a low level of ongoing maintenance, limited primarily to emergency pothole patching (three inches or greater in depth), and minimal roadside ditch maintenance. To address the deterioration of these streets, Public Works is currently allocating more than $200,000 annually from the Road Fund for the Enhanced Street Repair Program. Since 2008, 136 unimproved streets, totaling 55 lane miles, have been resurfaced as a temporary treatment. In addition, several unimproved streets have been upgraded to engineered street standards through assessment projects.

The following table (Table 1) categorizes Eugene's Improved and Unimproved Street System in centerline miles and 12-foot lane-miles by pavement type and by functional class.

IMPROVED SYSTEM	Asphalt (ACP)		Asphalt over Concrete (APC)		Concrete (PCC)		Gravel		Undeveloped		Total	
	Miles	12' Lane Miles	Miles	12' Lane Miles	Miles	12' Lane Miles	Miles	12' Lane Miles	Miles	12' Lane Miles	Miles	12' Lane Miles
Major Arterial	21.26	98.48	0.14	0.43	6.68	7.86	0.00	0.00	0.00	0.00	28.07	106.77
Minor Arterial	64.26	216.31	2.25	7.49	3.60	12.35	0.00	0.00	0.00	0.00	70.11	236.14
Major Collector	31.19	94.60	1.48	3.59	2.36	6.63	0.00	0.00	0.00	0.00	35.03	104.82
Neighborhood Collector	24.63	64.00	0.57	1.58	2.12	6.04	0.00	0.00	0.00	0.00	27.32	71.62
Residential	313.70	722.22	1.93	4.98	21.28	54.32	0.00	0.00	0.00	0.00	336.92	781.52
Total	455.03	1195.60	6.37	18.07	36.05	87.20	0.00	0.00	0.00	0.00	497.45	1300.87

UNIMPROVED SYSTEM	Asphalt (ACP)		Bituminous Surface-Oil Mats (BST)		Concrete (PCC)		Gravel		Undeveloped		Total	
	Miles	12' Lane Miles	Miles	12' Lane Miles	Miles	12' Lane Miles	Miles	12' Lane Miles	Miles	12' Lane Miles	Miles	12' Lane Miles
Major Arterial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minor Arterial	1.37	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	2.49
Major Collector	2.44	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.44	5.30
Neighborhood Collector	4.44	8.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.44	8.86
Residential	43.21	71.16	1.36	1.85	0.03	0.03	8.60	12.61	4.16	4.34	57.37	89.99
Total	51.46	87.80	1.36	1.85	0.03	0.03	8.60	12.61	4.16	4.34	65.62	106.63

Table 1 *Miles and Lane Miles of Street System by Classification and Pavement Type*

Concrete Streets (Improved)

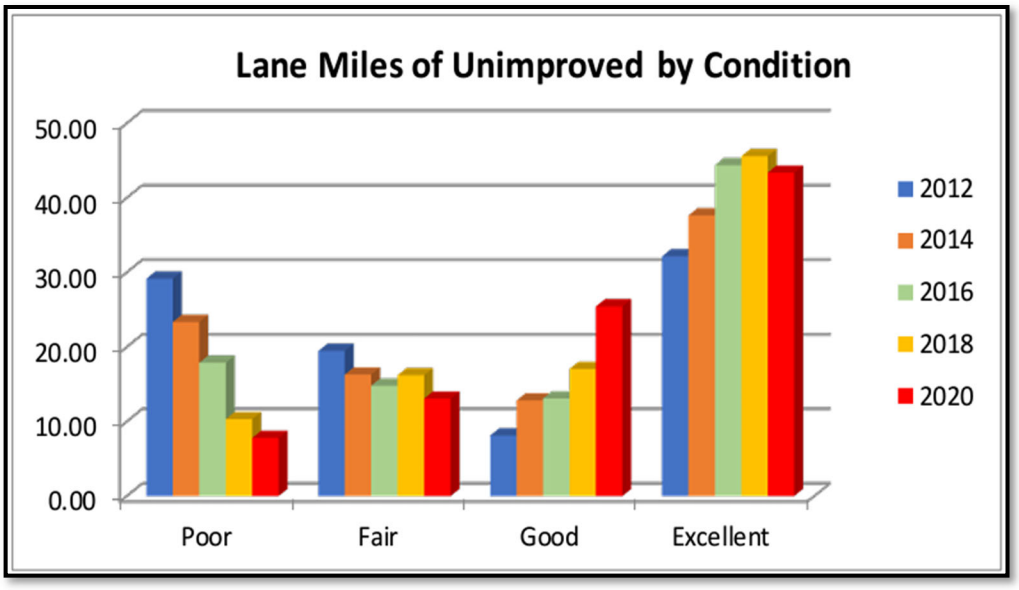
Of the 563 centerline miles of streets 37 centerline miles (90 lane miles) are concrete. Concrete streets, like bike paths, are built for a life of 50 or more years before requiring complete reconstruction. Deterioration of concrete streets initially occurs within individual panels, with many panels not requiring repair. Due to these unique factors for concrete streets, analyses which predict future needs of this system tend to be less accurate than asphalt surfaces. However, like unimproved streets and bike paths, we collect data and provide a current condition of the system.

Past repair of these streets was provided primarily by City maintenance crews which consisted of individual panel replacements for the most deteriorated panels. Historical construction data indicates that 60 percent of concrete streets in Eugene are over 70 years in age. Based on past maintenance repairs some of these streets over time may have had a majority of panels replaced. By the end of the current Bond Measure approximately 17 lane miles (six centerline miles) of concrete streets will have been rehabilitated from past and current funding sources.

Unimproved Street System

The City's transportation system consists of 563 centerline miles of improved and unimproved streets. The unimproved portion of this total includes 53 centerline miles (91 lane miles) of asphalt and bituminous surface streets. The intent of this section is to describe the overall condition of unimproved asphalt streets, highlight potential treatment needs, display associated rehabilitation costs, and indicate the projected backlog repair cost for addressing the street classification. It is important to note that any treatment short of being brought up to full urban street standards should be considered temporary.

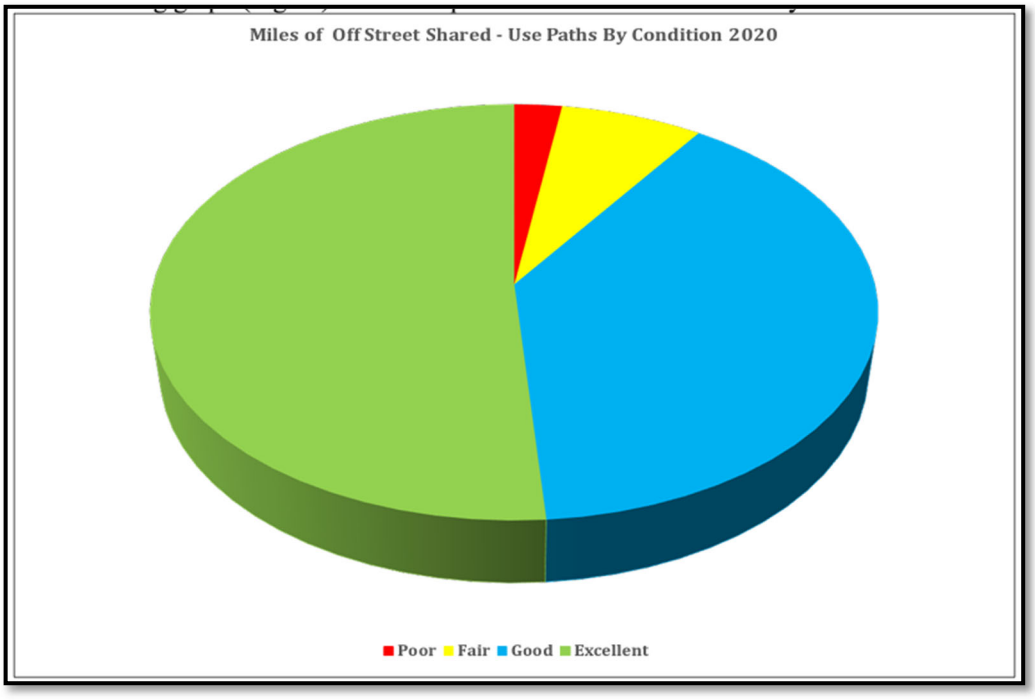
The estimated cost to improve this classification to meet the current urban street standards is approximately $60 million. Approximately 136 unimproved streets have benefited from full or partial treatment since 2008. Public Works Maintenance intends to continue to spend more than $200,000 annually to address a portion of these streets when funding allows. Based on 2020 rating data of the unimproved street system, there is a backlog of temporary repair projects, totaling an estimated $3.2 million, the same as reported in 2020.



Off-Street Shared Use Paths

There are approximately 46 miles of shared-use paths in Eugene. In 2020 approximately 24 miles of shared-use paths were in a PCI condition of 90 or better. The City standards for shared-use paths require a concrete structure no less than six inches thick and 12 feet wide. Paths designed, constructed or reconstructed to current standards are expected to have a 50-year life.

Shared-use path projects have been historically funded by state and federal grants and more recently by voter-approved bond measures. There is currently no long-term funding identified specifically for shared-use paths. Of the $51.2 million 2017 bond, $5 million is dedicated for project for people who walk and bike.



Pavement Management System

Public Works has used Paver since 2013 as its pavement management system. Pavement Management System (PMS) programs analyze collected rating data to provide reports on the current and projected conditions of the street system. In addition, the program is used to evaluate the effectiveness of planning and funding priorities and provides guidance in the decision-making process. Two predominant work efforts required to maintain the PMS are updating the street inventory and performing the annual inspection of surface conditions.

The primary purpose of maintaining a PMS is to collect and analyze information relating to street system condition and deterioration trends. With this information, Public Works managers ensure the most cost-effective maintenance or rehabilitation strategies are identified and performed at the optimum time. Each year the PMS is used to generate several reports requested by other agencies as well as statistical data requested within our own agency. The following is a sample of reports produced with PMS data:

- Pavement Preservation Project List
- Crack Seal Program
- Five-Year Surface List – five-year moratorium for street cutting
- ODOT Oregon Mileage Report
- City of Eugene Public Infrastructure Table
- Annual Insurance Marketing Report
- Transportation Service Profile
- HB2017 - Keep Oregon Moving

Treatment Types

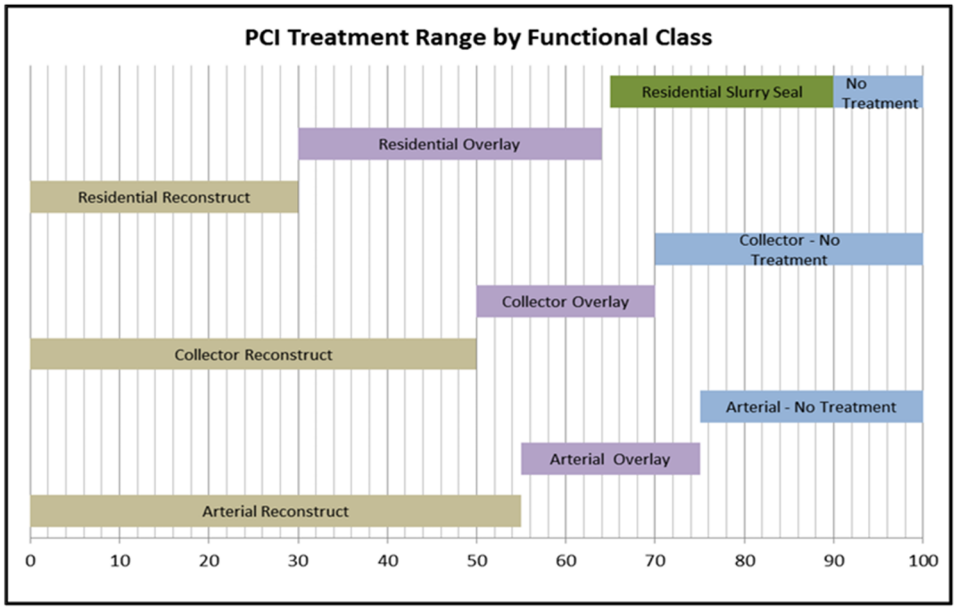
Treatments reflected in the backlog analysis are limited to three types: slurry seal, overlay, and reconstruct.

Slurry Seal: The slurry seal option allows for a cost-effective treatment to seal the surface and restore the skid resistance of local streets, which do not carry high traffic loads. This treatment is not used on streets which require strengthening or reconstruction. Typical slurry seal costs include street cleaning, removal of vegetation, minor base repairs (dig-outs), sealing of cracks, and application of an emulsified asphalt-aggregate mixture to the entire paved surface. Associated costs include replacement of striping and pavement markings, and other work needed to return the street to normal operation.

Overlay: Typical overlay rehabilitation costs include milling of existing pavement to a moderate depth to remove existing cracking and increase the strength of the structural section. Isolated areas of severely distressed pavement are removed and replaced including a new aggregate base. Associated costs include replacement of striping and pavement markings, adjustment of manholes, and other work needed to return the street to normal operation.

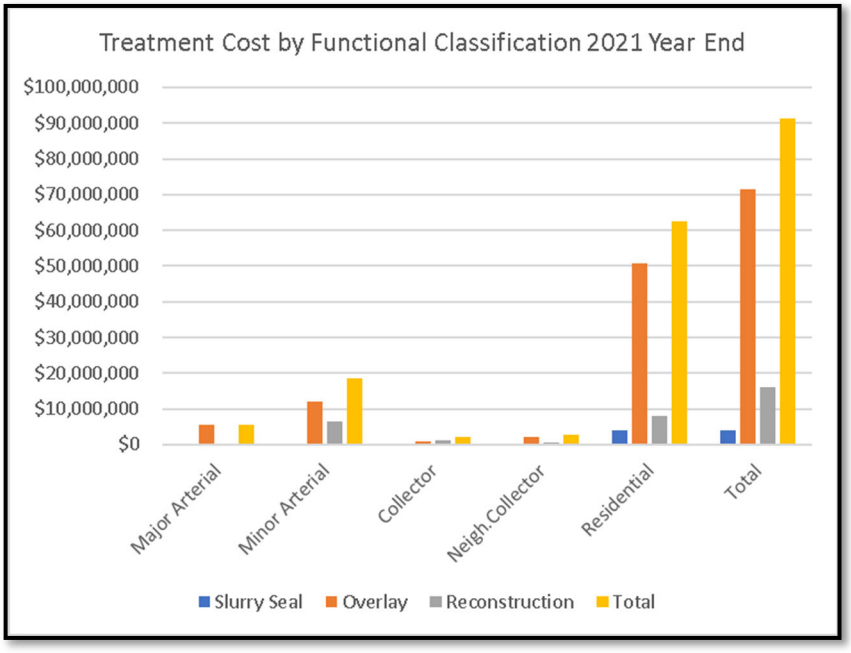
Reconstruct: Typical street reconstruction costs include removal of the existing pavement and base structural section and replacement with a new structural section which will meet a 20-year design life. Isolated areas of curb and gutter are replaced where they would not be suitable to contain new paving or have severe drainage problems.

The following graph identifies the trigger points (PCI) for each treatment based on Functional Class.

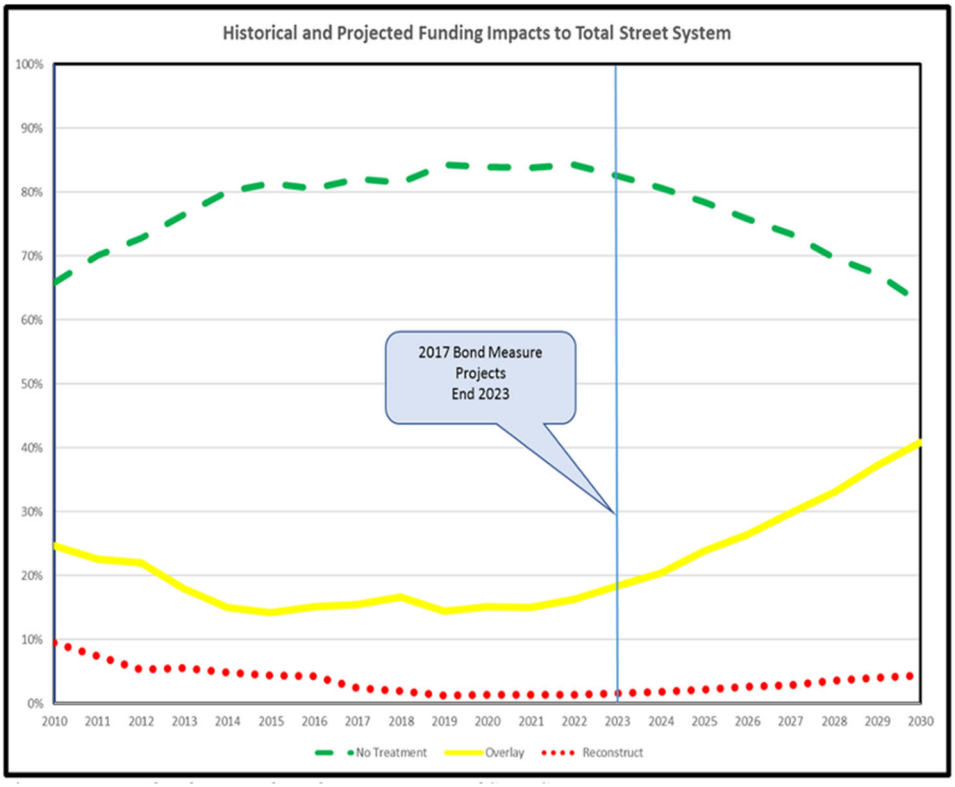


Treatment Trends and Cost by Functional Classification

Arterial streets have been a major focus of the PPP since 2002; as a result, the percentage of arterial streets within the reconstruct treatment range has steadily declined. When collection of funds from the current Bond Measure ends in 2023, we will see an increase in the overlay range due to streets beginning to deteriorate beyond regular maintenance activities. The projected funding of $3.3 million is inadequate to prevent overlays at the bottom end of the range from falling into the reconstruct category. The increased cost for reconstruct treatments as well as a decrease in projected funding furthers the potential for overlays falling into the reconstruct category.



Based on current funding, a ten-year analysis (2021-2031) has been performed using Paver, the current PMS software program. The program evaluates the deterioration of each section based on individual PCI ratings. It then projects when to apply the necessary treatment at the appropriate time. The following graph indicates the percentage of streets that fall within a specific treatment range (reconstruct, overlay and no treatment) across the entire network.



Funding Forecast

A local gas tax was established in 2003 for a Pavement Preservation Program (PPP) because street repair funding was not adequate to keep pace with rehabilitation needs. Even with the local gas tax in place, it was reported in 2007, the anticipated backlog for rehabilitation needs would reach more than $282 million by 2016 (2007 Pavement Management Report). In 2008, a $35.9 million five-year bond measure was approved by voters, and an additional five-year bond for $43 million was approved by voters in 2012. The 2017 Bond measure ($51.2 M) addresses 91 street projects with 5 million going toward pedestrian and bicycle infrastructure improvements. With these funding sources, more than 204 streets in Eugene have been or are identified to be repaired by 2023.

In addition to funding from the current bond, which ends in 2023 and rising construction costs, other factors contribute to current and future backlogs:

- Since the beginning of the Pavement Preservation Program (PPP) in 2002 the primary focus for preservation has been arterial and collector streets. These previously rehabilitated streets are starting to show signs of deterioration beyond what can be addressed using standard maintenance practices and require rehabilitation again.
- Residential streets account for the majority of the street backlog (approximately 70%) while receiving minimal preservation funds.
- The construction industry has faced hurdles with supply chain issues, price fluctuations, and labor shortages that combined to result in higher than expected bid prices.
- Changes in costs for construction materials and labor will affect long-term backlog estimates.

The current estimated backlog for repairs on improved asphalt streets at the end of 2021 is estimated to be $87.6 million up from $82.7 million in 2020. The backlog estimate does not take into account the repair needed for concrete streets, unimproved streets, sidewalks, off-street shared-used paths, or other elements of the transportation system.

At the conclusion of the current bond measure the annual pavement preservation funding will drop to $3.3 million annually. Based on current and projected funding, an additional $10.4 million will be needed annually to prevent arterials and collector streets from falling into the reconstruct category and to eliminate the reconstruct backlog for arterial and collector streets in 10 years. In addition, $1.7 million is also needed to prevent residential streets from falling into the reconstruct category and to eliminate the residential reconstruct backlog is 10 years.

The long-term budget scenario of $3.3 million annually results in an estimated backlog in 10 years of just under $297,000,000.

Date	Total Funded	Total Unfunded
2024	$3,298,533	$115,943,264
2025	$3,298,823	$136,850,527
2026	$3,299,719	$159,403,444
2027	$3,299,069	$186,487,416
2028	$3,298,232	$214,618,992
2029	$3,297,824	$237,095,825
2030	$3,296,527	$267,033,937
2031	$3,298,256	**$296,857,113**

If you have any questions about data from the pavement management system please contact Eric Johnson, Surface Operations Manager, ejohnson@eugene-or.gov or Katie Marwitz, Principal Engineer AIC, kmarwitz@eugene-or.gov .

EUGENE CITY COUNCIL
AGENDA ITEM SUMMARY

Work Session: Electric Micromobility Devices on Shared Use Paths in East Alton Baker Park

Meeting Date: April 20, 2022
Department: Public Works Engineering
www.eugene-or.gov

Agenda Item Number: 2
Staff Contact: Rob Inerfeld
Contact Telephone Number: 541-682-5343

ISSUE STATEMENT
The Eugene City Council will consider action on amending the East Alton Baker Park Plan to allow electric micromobility devices on shared use paths in East Alton Baker Park, also known as the Whilamut Natural Area.

BACKGROUND
Over the last few years electric micromobility devices such as electric bicycles, electric scooters, and electric skateboards have become popular ways for people to travel to and around Eugene. They are a low cost and energy efficient transportation option, with low-to-no emissions, that have the potential to reduce trips made by motor vehicle. Encouraging use of these devices in Eugene supports the City's Climate Action Goals and the Eugene 2035 Transportation System Plan (TSP) goal of tripling the percentage of trips made by active transportation. The use of electric micromobility devices on Eugene's shared use path system increases access and safety by making it possible for people to avoid busy streets where there are more conflicts with motor vehicles.

At its July 13, 2020 meeting, City Council voted to adopt Ordinance No. 20635, "An Ordinance Concerning the Use of Micromobility Devices and Amending Sections 5.010 and 5.160 of Eugene Code, 1971" The amendment allows electric micromobility devices on shared-use paths, with the exception of paths located in East Alton Baker Park.

At the July 13, 2020 meeting where City Council adopted Ordinance No. 20635, Council also directed staff to seek input from the Citizens Planning Committee (CPC) of the Whilamut Natural Area of Alton Baker Park regarding whether electric micromobility devices should be allowed on all or a limited number of shared use paths in East Alton Baker Park. To allow e-micromobility devices on shared use paths in East Alton Baker Park would require both a Plan amendment (amending the East Alton Baker Park Plan to allow micromobility devices in some or all areas) and a code amendment.

Subsequent to direction from City Council, transportation planning staff participated in two CPC meetings and several informal conversations with CPC members. Staff presented a proposal to allow e-micromobility devices on a subset of shared use paths in East Alton Baker Park and to

limit shared e-scooters to a lower top-speed on several of the paths in East Alton Baker Park where there is more potential for conflict with other path users due to path width and curves. The proposal is shown in Attachment A. The CPC was not supportive of this proposal and passed a motion that supports maintaining the ban on all motorized devices in the Whilamut Natural Area. In conversations that staff had with CPC members, the CPC members expressed concerns that there are already safety conflicts people using bikes and scooters and other people who walk on the shared use paths in the Whilamut Natural Area and that the city isn't doing enough to address these safety issues. Last summer, the city launched a Path Etiquette Campaign to promote courtesy and safety among all shared-use path users and included community outreach, education, media and temporary signage; the campaign will continue in 2022.

Staff also met with the city's Active Transportation Committee which wrote a letter that supports the staff proposal to allow e-micromobility devices on a limited number of paths within East Alton Baker Park and to moderate speeds of shared e-devices. A summary of outreach to the CPC and Active Transportation Committee including communications from the committees are provided in Attachment B.

PREVIOUS COUNCIL DIRECTION

On February 26, 2020, the City Council held a work session on E-Scooters and Micromobility. City Council provided direction to staff to bring back for council consideration an ordinance amending the code to allow e-scooters and other electric micromobility devices (e.g. e-skateboards) on shared use paths (outside of East Alton Baker Park).

On June 15, 2020, the Eugene City Council held a public hearing where they heard comment on an ordinance to ordinance to allow electric micromobility devices on shared use paths in Eugene outside of East Alton Baker Park.

On July 13, 2020, during a City Council meeting, Council voted to adopt an ordinance that allows electric micromobility devices on shared use paths in Eugene outside of East Alton Baker Park. Councilor Zelenka put forth a motion, approved by City Council, to "direct the City Manager to seek input from the Whilamut Citizen Planning Committee about the allowance of electric powered micromobility devices on all, or a limited number, of shared-use paths within East Alton Baker Park, then to schedule a City Council work session to discuss the possibility."

COUNCIL OPTIONS

A. Direct the City Manager to bring back for Council consideration an ordinance to amend the East Alton Baker Park Plan and city code to allow electric micromobility devices on all shared use paths within the plan boundaries.
B. Direct the City Manager to bring back for Council consideration an ordinance to amend the East Alton Baker Park Plan and city code to allow electric micromobility devices on select shared use paths within East Alton Baker Park as indicated in Attachment A.
C. Direct the City Manager to bring back for Council consideration an ordinance to amend the East Alton Baker Park Plan and city code to allow electric micromobility devices on select shared use paths within East Alton Baker Park as determined by City Council.

D. Take no further action.

CITY MANAGER'S RECOMMENDATION
None.

SUGGESTED MOTIONS
A. Move to direct the City Manager to bring back for Council consideration an ordinance amending the East Alton Baker Park Plan and city code to allow electric micromobility devices on all shared use paths within the plan boundaries.
B. Move to direct the City Manager to bring back for Council consideration an ordinance amending the East Alton Baker Park Plan and city code to allow electric micromobility devices on select shared use paths within the park as indicated in Attachment A.
C. Move to direct the City Manager to bring back for Council consideration an ordinance amending the East Alton Baker Park Plan and city code to allow electric micromobility devices on select shared use paths within the park as determined by City Council.

ATTACHMENTS
A. Staff Proposal for allowing e-micromobility devices on certain shared use paths in the Whilamut Natural Area.
B. A summary of staff engagement with advisory committees regarding electric micromobility devices in the Whilamut Natural Area.

FOR MORE INFORMATION
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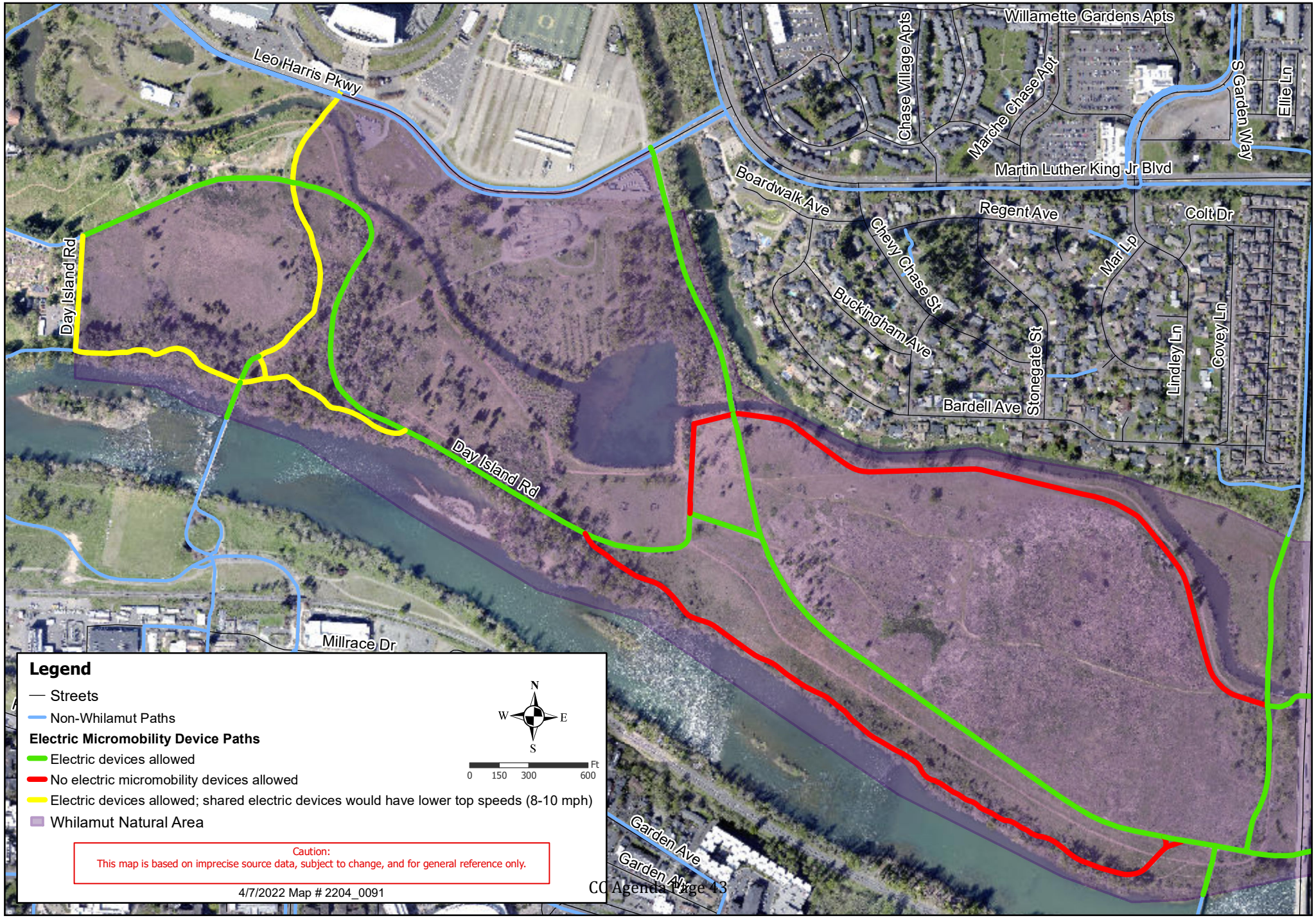
Telephone: 541-556-6124
Staff E-Mail: rinerfeld@eugene-or.gov

Proposal for Electric Micromobility Devices in Whilamut Natural Area



Electric Micromobility in the Whilamut Natural Area – Outreach Summary

This document is a high-level overview of electric micromobility in the Whilamut Natural Area (WNA) including direction received from City Council and engagement with advisory committees.

Electric Micromobility

Electric micromobility refers to small transportation devices that are propelled either partially or entirely by electricity, usually in the form of a battery. According to city code, a "micromobility device" is defined as a lightweight, human or electric-powered vehicle that is no more than 3-feet wide and that, when operating with electric propulsion, is capable of traveling at no more than 20 miles per hour, including but not limited to bicycles, electric bicycles, scooters, e-scooters, skateboards, and e-skateboards.

City Council Meeting: July 13, 2020. Following adoption of Ordinance No. 20635, "An Ordinance Concerning the Use of Micromobility Devices and Amending Sections 5.010 and 5.160 of the Eugene Code, 1971," to allow electric micromobility devices on shared-use paths in Eugene, Councilor Zelenka put forth a motion to "direct the City Manager to seek input from the Whilamut Citizen Planning Committee about the allowance of electric powered micromobility devices on all, or a limited number, of shared-use paths within East Alton Baker Park, then to schedule a City Council work session to discuss the possibility." The motion passed 7 to 1.

Staff Engagement with Advisory Committees

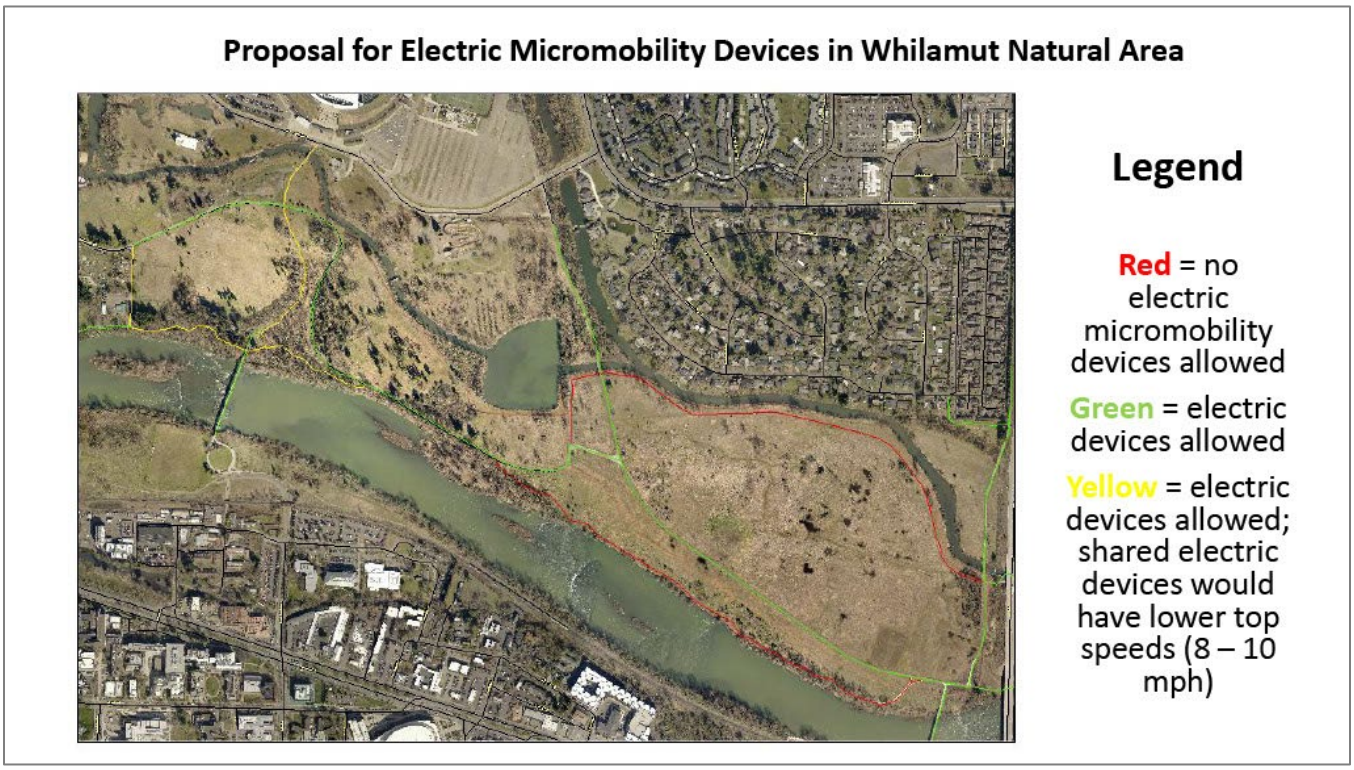
Whilamut Citizen Planning Committee (CPC) Meeting: October 22, 2020. Transportation Planning staff met with the CPC to seek their input on the topic of amending the East Alton Baker Park Plan to allow electric micromobility devices on all, or some, of the shared-use paths located within the WNA. No consensus or direction on the part of the CPC was reached at the meeting. Members of the Government Relations and Outreach sub-committees stated that they would need further discussion, so it was agreed that city staff would return to a future meeting.

CPC: January 27, 2021. Staff returned to the CPC to continue the discussion started during the committee's October 2020 general meeting. Prior to the meeting, staff sent a proposal regarding where e-micromobility might be allowed to operate within the WNA in the form of a memo (**Exhibit A**) and visual aid (**Figure 1**). The proposal included where e-micromobility (a) would not be allowed, (b) would be allowed, and (c) would be allowed, but at a reduced top speed for shared devices. In relation to an electric scooter share pilot, staff explained that while Oregon state law governs electric scooters to a maximum speed of 15 MPH, the city can require scooter share service providers to use geofencing to reduce maximum speeds on shared use paths. The CPC passed a motion opposing the allowance of e-micromobility devices on paths within the Whilamut Natural Area:

> *"The Citizen Planning Committee for the Whilamut Natural Area of Alton Baker Park reaffirms its commitment to the East Alton Baker Park Plan's limitations on motorized vehicle use in the Whilamut Natural Area of Alton Baker Park. While the CPC recognizes increasing local availability of individual and fleet-based motorized scooters, this acknowledgement is no reason to weaken or reject the aspirations of the park plan. The majority of CPC members still support a ban on motorized vehicles in the Whilamut Natural Area."*

The motion passed with eight committee members voting in favor, and three opposed.

Figure 1. Proposal for Electric Micromobility Devices in the Whilamut Natural Area



Active Transportation Committee (ATC), February 11, 2021. Staff presented the proposal shared with the CPC and the CPC's motion to the ATC. ATC members did not agree with the CPC's decision for reasons including:

- The East Alton Baker Park Plan was written 25 years ago, before e-micromobility devices were a transportation option, and that they should not be categorized with "motorized transportation" as they do not use combustion engines.
- The importance of the east-west corridor through the WNA in creating a safe, complete, off-street network for community members to use when traveling between Eugene and Springfield, as it is the only off-street connection between the two cities.

Members of the ATC voted unanimously to develop a letter in support of allowing e-micromobility to operate in the WNA according to the staff presented proposal (**Exhibit B**).

Additional Considerations

Path Etiquette Campaign. In 2021 staff launched a new Path Etiquette Campaign that included community outreach events along the path network, social media posts, advertising, and direct marketing outreach with lawn signs and posters throughout the summer. The campaign will be relaunched in 2022 with some of the same tools and the addition of direct education to those violating rules and more outreach efforts including a new video, social media outreach, and community events along the path network. The main objective of the campaign is to raise awareness of important safety messages on the shared-use path network, including: Use Safe Speeds, Don't Block the Path, Look & Listen (Pay Attention), Keep Right Pass Left, Give Warning When Passing, and Use Lights at Night. The campaign will also include physical improvements through signage and pavement striping.

Exhibit A. Memo from staff to CPC

Eugene Public Works
Engineering

Memorandum

Date: January 20, 2021

To: Citizen Planning Committee for the Whilamut Natural Area

From: Rob Inerfeld, Transportation Planning Manager

Subject: Use of electric micromobility devices in the Whilamut Natural Area

I am touching base regarding electric micromobility devices in the Whilamut Natural Area in advance of your meeting on January 27, 2021.

On July 13, 2020, the Eugene City Council passed an ordinance to allow electric micromobility devices (e-scooters, e-skateboards, one wheels, etc…) on shared use paths in Eugene. As part of this item, the City Council also passed the following motion that was offered by Councilor Zelenka:

> I move to direct the City Manager to seek input from the Whilamut Citizen Planning Committee about the allowance of electric powered micromobility devices on all, or a limited number, of shared use paths within East Alton Baker Park, then to schedule a City Council work session to discuss the possibility.

I attended the October 22, 2020 CPC meeting to discuss electric micromobility devices in the Whilamut Natural Area. At that meeting the CPC did not come to a decision regarding what input the committee would like to provide to the City Council and it was requested that I come back to a future CPC meeting.

The City Council motion asks whether electric micromobility devices could be allowed on a limited number of shared use paths within the Whilamut Natural Area. Attached is a proposal for how this could work. Some paths are identified as not allowing electric micromobility devices at all. Other paths are identified for allowing them and some show a lower speed for shared electric devices that can be controlled through technology called geofencing.

If CPC is unable to come to agreement on a recommendation regarding allowing electric micromobility devices on shared use paths in the Whilamut Natural Area, perhaps staff can share comments from individual CPC members with the City Council.

City staff are currently working on developing administrative rules for a shared electric scooter pilot program with a goal of launching the program by spring or early summer.

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Exhibit B. Letter from Active Transportation Committee to City Council

To: City Council
From: Active Transportation Committee
Subject: Whilamut micro-mobility
Date: 2/17/2021

The Active Transportation Committee urges the City Council to allow electric bicycles and micro-mobility devices to be used to travel on paths through the Whilamut Natural Area. In tandem with this change in policy, we support the implementation of guidelines to limit possible impact on habitat, such as restricting electric-powered devices to wider designated through paths, using signage or markings to direct users to designated paths and appropriate speeds, and using geofencing technology to limit the speed and route selection of public electric-powered devices.

While we respect and appreciate the City's commitment to maintain the Park as a natural area designed for habitat preservation and passive recreation, we also recognize that the paths through Whilamut and the Eastgate Woodlands are an important transportation corridor; indeed, the only off-street passage between Eugene and Springfield. Further, today's e-bikes and e-scooters are quieter and cleaner than the noisy, polluting devices that were banned in 1996. We believe their use is consistent with the original goals of the Park Plan.

Adopted Council plans, including the Transportation System Plan and Climate Action Plan 2.0, call for tripling the percentage of trips made by walking, bicycling and transit. Electric bicycles and micro mobility devices promise to make active transportation a more viable and attractive option for large numbers of people. Achieving active transportation goals depends on convenient, safe routes for active transportation, including those through the Whilamut Natural Area. Moreover, the use of off-street paths supports Council's adopted Vision Zero resolution to eliminate transportation-related deaths and serious injuries.

In view of the importance of Whilamut Natural Area as both a natural area and a safe and attractive transportation corridor, we support the plan to allow electric bicycles and micro mobility devices throughout Alton Baker Park, restricting their use in the Whilamut Natural Area to designated higher-traffic routes and moderate speeds as determined by Transportation Planning Staff.

Thank you for your attention, and for your service to the citizens of Eugene.