



City of Tualatin

www.tualatinoregon.gov

August 26, 2016

Dan Kaempff
Principal Transportation Planner
Metro
600 NE Grand Avenue
Portland, OR

RE: Regional Flexible Fund Allocation Request

Mr. Kaempff:

The City of Tualatin is submitting the attached application package for RFFA Active Transportation & Complete Streets Project funding for the design development phase of the *Herman Road Active Transportation Corridor Project*. The City is requesting \$625,000 for the Project Development phase of the project.

We are excited about this opportunity to move forward with an active transportation project that is locally and regionally significant. Our application includes 12 letters of support from regional leaders and local businesses. This project will provide active transportation options for 6,500 jobs within one quarter mile of the project location.

The attached application package includes the following: RFFA Application, Appendix A - Environmental Justice Certification, Appendix B - GIS Shape Files, Appendix C - Active transportation checklist, Appendix E - Cost Estimator, and Appendix F - Letters of Support.

Thank you for considering this request. If you have questions about this project or our request, please contact me at (503) 691-3034 or jfuchs@ci.tualatin.or.us.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jeff Fuchs", with a long horizontal stroke extending to the right.

Jeff Fuchs, PE
City Engineer

RESOLUTION NO. 5293-16

A RESOLUTION AUTHORIZING THE CITY MANAGER TO APPLY FOR AND ACCEPT REGIONAL FLEXIBLE FUND ALLOCATION (RFFA) GRANT FUNDS TO COMPLETE PROJECT DESIGN FOR THE HERMAN ROAD ACTIVE TRANSPORTATION PROJECT.

WHEREAS, Metro is accepting proposals for the Regional Flexible Fund Allocation (RFFA) Grant Program; and

WHEREAS, the City of Tualatin desires to participate in this funding program for project development of the Herman Road Active Transportation Project; and

WHEREAS, there are over 6,500 jobs within a quarter mile of the project area; and

WHEREAS, this project will improve active transportation options for employees and residents along Herman Road between Tualatin Road to Teton Avenue; and

WHEREAS, receiving the RFFA Grant funds would provide funding for project development of the Herman Road Active Transportation Project.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF TUALATIN, OREGON that:

Section 1. The City Manager is authorized to apply for, and if awarded, accept RFFA Grant funding from Metro for project development of the Herman Road Active Transportation Project.

Section 2. The City Manager is authorized to execute any and all documents related to the grant application and to effectuate the award.

Section 3. This Resolution is effective upon adoption.

INTRODUCED AND ADOPTED this 22nd day of August, 2016.

CITY OF TUALATIN OREGON

BY 
Mayor

APPROVED AS TO LEGAL FORM

BY 
City Attorney

ATTEST

BY 
City Recorder



City of Tualatin

www.tualatinoregon.gov

August 22, 2016

Regional Flexible Fund
Allocation
Metro
600 NE Grand Avenue
Portland, OR

RE: Letter of support for the City of Tualatin's Herman Road Active Transportation Project

To Whom It May Concern:

I am writing to express my support for the City of Tualatin's application for a 2019-21 Regional Flexible Funds Allocation Grant to complete project development for a critical active transportation improvement on Herman Road between Tualatin Road and 124th Avenue.

Herman Road is an essential corridor in the City of Tualatin that provides an alternative connection to congested Tualatin – Sherwood Road and direct access to one of Tualatin's largest employment areas. The section of Herman Road this project focuses on combines trucks, cars, buses, bikes, and pedestrians onto two 12 - foot wide vehicle travel lanes. There are no sidewalks or bike lanes to provide safe separation for vulnerable road users. This is an area in our city that is sorely in need of infrastructure improvements to provide safe passage for people traveling to and from work.

Improvements to Herman Road have been needed for a very long time. Roadway improvements were included in the 2014 Transportation Systems Plan to improve safety in this corridor. This project will provide a regional active transportation route alternative to Tualatin – Sherwood Road which will make travel by bike or on foot much safer. This project will help move us one step closer to serving residents and employees in this area by providing them with the needed infrastructure to safely bike, walk or take transit to their destination.

On behalf of the City of Tualatin Mayor and City Council, the City of Tualatin strongly supports this application for project development funding consideration.

Respectfully,

A handwritten signature in blue ink that reads 'Sherilyn Lombos'.

Sherilyn Lombos
City Manager



Active Transportation & Complete Streets Projects

Name of Project **HERMAN ROAD ACTIVE TRANSPORTATION CORRIDOR
PRELIMINARY ENGINEERING**

(project name will be adjusted to comply with ODOT naming convention if necessary)

Project application

The project application provides in depth process, location and project definition details and serves as the nomination form for project funding consideration. **Project applications should be kept to 12 pages total per project.** The application form is available electronically at: <http://www.oregonmetro.gov/rffa>. Please complete the following:

Project Definition

Project Description

- **Facility or area:** SW Herman Road in Tualatin
- **Beginning facility or milepost.** SW 124th Avenue
- **Ending facility or milepost.** SW Tualatin Road
- **Provide a brief description of the project elements.**

Improve bike lanes, sidewalks, and transit stops along Herman Road between the employment district, neighborhoods, and downtown. Improve safety and mobility for all roadway users along Herman Road where currently, bicycles, pedestrians, automobiles, transit, and trucks share two 12-foot vehicle travel lanes because there are no bike lanes or sidewalks. Add buffered bike lanes and other Active Transportation components where there are existing sidewalks and bike lanes.

- **City (ies).** Tualatin
- **County(ies).** Washington County

Base project information

- **Corresponding RTP project number(s) for the nominated project.** 10715 (Herman Road from Teton to Tualatin, upgrade to standard two lane road.)
- **Attach a completed Public Engagement and Non-discrimination checklist (Appendix A).**
 Attached as Appendix A
- **Purpose and need statement (The purpose and need statement should address the criteria as they apply to the project, for example: increase non-auto trip access to essential services in the X town center, particularly for the high concentration of Y and Z populations in the project area).**

This project will complete a gap in the active transportation corridor to provide a safe connection between residential areas including lower income multifamily residential areas and the industrial/manufacturing employment areas in northwest Tualatin. The project will also improve

freight mobility by separating active transportation users from automobiles and freight along this important corridor. The project will provide bike lanes and sidewalks along a ½ mile stretch of Herman Road where currently, pedestrian and bicycle commuters must walk or ride on the roadway with the cars and trucks. Herman Road is a central part of the two Ride Connection last-mile bus routes within Tualatin. This project will evaluate locations along Herman Road where transit stops can be added in an area where no transit stops currently exist. Completing this gap in the pedestrian, bicycle, and transit transportation system will enable more users to move from cars to active transportation. When complete, the project will provide low income communities with a safer route to travel between home and work, providing improved active transportation facilities for 6,500 businesses, 6,000 nearby residents, and 2,000 monthly last-mile transit riders.

- **Attach a completed Active Transportation Design checklist (Appendix C).** Attached as Appendix C
- **Description of post implementation measurement of project effectiveness (Metro staff is available to help design measurement methodologies for post-construction project criteria performance).** This project will be considered successful if:
 1. *Public feels engaged in design process and solutions* – will use continuous public outreach and surveys to validate effectiveness of public involvement process during Preliminary Engineering and construction
 2. *Conflicts between bicycles/pedestrians and vehicles are eliminated or greatly reduced* – will measure with crash data, user surveys and police observations
 3. *We see increased bicycle, pedestrian, and transit travel to the employment center* – will use employer and user surveys to measure effectiveness
 4. *Vulnerable road users feel safer and more comfortable commuting to work by bike, transit, or on foot* - will use employer and user surveys to measure effectiveness
 5. *Automobile speeds are reduced to the speed limit* – will use a Jamar Technologies Radar Recorder <http://www.jamartech.com/radarrecorder.html> to measure speeds, number of vehicles, and length (type) of vehicle before and after the improvements along Herman Road .
 6. *Transit ridership increases through this corridor and additional businesses are served by Ride Share's last mile system* - will work with Ride Connection to obtain ridership counts before and after project. Will work with businesses to determine modal shift of employees.

During the Preliminary Engineering Phase of the project, the City will work with the community to identify other performance measures that will help everyone understand the success of the project.

Project Cost and Funding Request Summary

- **Attach a completed Cost Methodology workbook (Appendix E) or alternative cost methodology. Describe how the project cost estimate was determined, including details on project readiness and ability for project funding to be obligated within the 2019-21 timeframe. Reference**

availability of local match funds, status of project development relative to the requirements of federal-aid projects, and indicators of political and community support.

The Cost Methodology workbook attached as Appendix E was prepared for the entire project including construction. This grant application is only for Preliminary Engineering, which will occur during the 2019-21 timeframe. Local matching funds are available from the City’s Road Operations Fund and Washington County MSTIP Opportunity Funds, which were approved by WCCC on August 15th. \$100,000 in total local matching funds are available for Preliminary Engineering phase. This project is incredibly popular among the business and transportation communities in Tualatin and regionally as demonstrated by the 12 letters of support included with this application.

- **Total project cost**
(Include and describe any cost elements beyond those funded by the request + match):

Total project cost including Project Development, Engineering, Environmental, Right of Way, and construction is estimated to be \$5,327,000 (midyear of expenditure). This Funding Request is for only the Preliminary Engineering Phase (Project Development, P.E., and Environmental), \$625,000. The following table shows the total project amount, the RRFA request, and the local match amounts for each phase of the project through construction.

	Total Project Cost	RFFA Request	Local Match
Preliminary Engineering	\$ 725,000	\$ 625,000 ←	\$ 100,000 (13.8%)
↓ FUTURE PHASES (RFFA, MSTIP, OTHER, and Local Match) ↓			
Right-of-Way	\$ 1,152,000		
Construction	\$ 3,451,000		
Total	\$ 5,327,000		

All costs inflated to midyear of expenditure.

- **RFFA funding request by project phase:**
(e.g. Project Development, P.E., Environmental, ROW acquisition, Construction)

This Funding Request is for the **Preliminary Engineering Phase** only. Project costs for Construction and Right of Way will be refined during the Preliminary Engineering phase prior to requesting funding for construction.

Preliminary Engineering (including Environmental Assessment) \$625,000

- **Local match or other funds (for Preliminary Engineering phase)**
(Minimum match = 10.27% of funds requested + match): \$100,000 (13.8%)

Map of project area

- Provide a map of the project consistent with GIS shapefile standards found in Appendix B

The City has included a GIS Shapefile consistent with the standards found in Appendix B. The following map provides a closer view of the project vicinity.



Project sponsor agency – City of Tualatin

- **Contact information (phone # & email) for:**
- **Application lead staff:** Zoe Monahan | (503) 691-3020 | zmonahan@ci.tualatin.or.us
- **Project Manager:** Jeff Fuchs, PE | (503) 691-3034 | jfuchs@ci.tualatin.or.us
- **Project Engineer :** Dominique Huffman, PE (WA) | (503) 691-336 | dhuffman@ci.tualatin.or.us
- **Describe the agency's record in delivering federal aid transportation projects on time and budget or whether the lead agency has failed to deliver a federal aid transportation project and if so, why.**

The City of Tualatin was awarded a \$1,585,000 ConnectOregon V grant in 2014 for the Tualatin River Greenway Trail, a ¾ mile long bicycle and pedestrian facility that promotes active, healthy living while

connecting people with nature. The City successfully delivered this project on-time and within budget in 2016, including complying with prevailing wage contracting regulations. City staff submitted monthly progress reports to multiple representatives of ODOT throughout the project, as well as reporting on the project to the U.S. Census and the Bureau of Labor and Industries (BOLI). In addition to the successful completion of this latest project, the City has managed several other grant and bond measure funded park, library and facility projects in recent years.

- **Describe how the agency currently has the technical, administrative and budget capacity to deliver the project, with an emphasis on accounting for the process and requirements of federal aid transportation projects.**

The City of Tualatin has a strong reputation for administering similar types of projects. City staff has direct experience in establishing timelines, developing requests for proposals, reviewing plans and specifications, preparing bid documents and contracts, negotiating contracts and change orders, and approving requests for payment.

The City of Tualatin has a history of successfully managing capital projects, including those with sources of federal aid and previously with the State of Oregon. The City utilizes its financial reporting software to track and report on expenditures by project. Additionally, the City’s accounting staff has sufficient technical expertise, which is led by the City’s Finance Director who has over 13 years of experience in Local Government at the Finance Director level and the City’s Assistant Finance Director who’s experience includes over five years of A-133 audits as an auditor with a Certified Public Accounting Firm. The ending fund balance for the City’s Road Operating fund is anticipated to exceed \$2.5 million as of June 30, 2016 and has an anticipated ending fund balance in excess of approximately \$1.1 million for FY16-17.

The City also funds both contingency and reserves as a part of its annual budget because it is prudent to maintain a level of financial resources to protect against the need to reduce service levels due to temporary revenue shortfalls or unpredicted one-time expenditures. The Government Finance Officers Association recommends that governments establish a formal policy on the level of contingencies and reserves and the City has done that.

The City is proud to have been awarded the Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting for its Comprehensive Annual Financial Report for the last twenty-three years.

For many years the City has received an unqualified opinion from auditors, meaning that the financial statements presented fairly, in all material respects, the financial position of the activities of the City, in accordance with Generally Accepted Accounting Principles. The auditors noted no material misstatements or material weaknesses in internal controls during their audit.

Highest priority criteria

1. What communities will the proposed project serve? What are the estimated totals of low-income, low-English proficiency, non-white, elderly and young, and persons with disabilities populations that will benefit from this project, and how will they benefit?

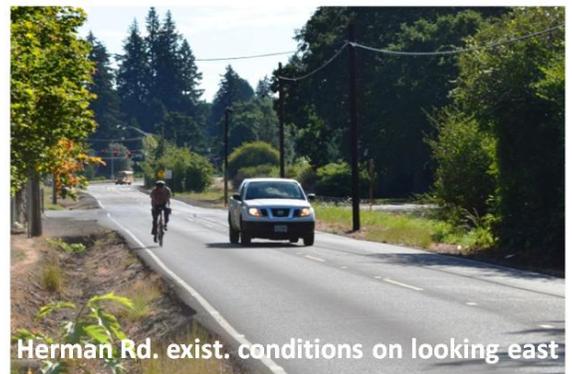
The completed project will serve employers and residents in three or more community categories in three census block groups directly surrounding the project area – 1) low-income residents, 2) people of color, and 3) elderly residents. The 6,197 people living and working within the three adjacent census block groups of the project include:

- 1,181 (19%) **low-income** residents compared to the low income population for all of the census block groups in the City (14%).
- 28% (1,743) of the people living in the adjacent census block groups are **people of color** compared to the people of color in the entire census block groups in the City (26%).
- 12% of the population in the census block groups adjacent to the project is **elderly** compared to 10% in the entire city.

Locally and regionally, this project will provide underserved people with additional options and safer options for getting to their places of employment completing the active transportation corridor. People currently bike and walk in the vehicle lanes along this corridor.

2. What safety problem does the proposed project address in an area(s) with higher-than-average levels of fatal and severe crashes? How does the proposed project make people feel safer in an area with high walking and bicycling demand by removing vehicle conflicts?

The Herman Road active transportation project will significantly improve safety in a transportation corridor that experienced 35 crashes between spring of 2012 and fall of 2015. The project will result in a higher quality transportation facility and safer user experience by providing separation between active transportation users and automobile traffic. Today, bicyclists are forced to share two 12-foot wide vehicle travel lanes with cars, buses, and trucks. Our Police Officers have also observed pedestrians sharing those same congested automobile lanes. This project will fix that.

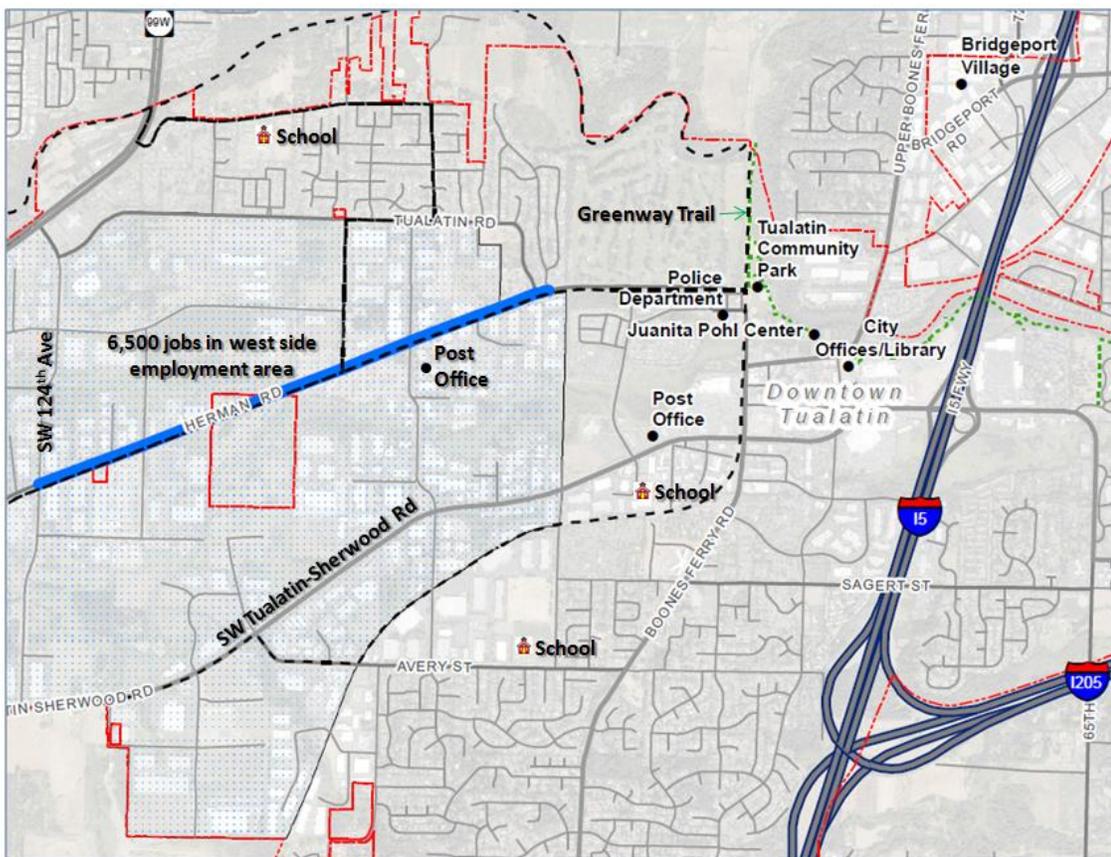


This project will enable pedestrians and bicyclist to travel in a safer environment than they currently do when sharing two 12-foot travel lanes with cars, trucks, and buses. Adding sidewalks and bike lanes where they do not currently exist and providing buffered bikes lanes along the rest of the corridor will provide a safer more comfortable environment.

3. What priority destinations will the proposed project will serve? How will the proposed project improve access to these destinations?

The following map shows the multiple high-priority destinations that this project will serve. When complete, the project will provide a final link in the transportation network for local and regional travelers, including underserved communities, including low-income, people of color, and elderly residents. The project will complete a much needed link in the transportation system to specifically serve the following priority destinations:

- **Mixed use centers** – Bridgeport Village and Downtown Tualatin
- **Large employment areas** – 6,500 employees within one quarter mile of the project
- **Essential services** – two Post Offices, two hospitals, Police Department, Community Park, Juanita Pohl Center, Public Library, the regional trail network via the Tualatin River Trail and City Offices
- **Under-served populations** – low-income, people of color, and elderly in three census block groups adjacent to the project
- **Schools** – Pedestrian, bicycle, and transit access to three schools within one mile from the project site



The project will provide a much needed bicycle and pedestrian alternative to the currently designated regional corridor along Tualatin-Sherwood Road. It will allow bicyclists and pedestrians to avoid the very heavily travelled Tualatin-Sherwood Road corridor and provide a critical connection between

residential neighborhoods, the employment center to the west of the City, Downtown Tualatin, the US Post Office, the Police Department, Community Park, Juanita Pohl Center, Library, City Offices as well as access to TriMet bus line 76 and 96, and surrounding regional trails. The project will also provide a connection through downtown Tualatin and ultimately to Bridgeport Village, which is expected to be the terminus of the Southwest Corridor light rail alignment.

The project will greatly improve access for last-mile transit riders, bicyclists, and pedestrians providing people with new facilities where none currently exist and by providing additional connections for bikes, pedestrians, and transit riders.

4. How will the proposed project support the existing and planned housing/employment densities in the project area?

The project is located within one of Tualatin’s major employment areas. There are more than 6,500 jobs within a quarter mile of the proposed project area and there is vacant industrial land that is projected for high employment growth in the future as the amount of available land dwindles. The existing businesses are growing and anticipate adding additional employees as the businesses grow in response to our vibrant regional economy. This project will provide thousands of employees with safe active transportation alternatives to commuting by car.

There are also over 6,000 residents in the three adjacent census block groups. The project will provide safe commuting options. People walk and bike in the project area today; this project will increase safety for people who must walk on Herman Road to get to employment and residential areas. People living in this area have a higher than average low income households than the City as a whole (19% in the project area and 14% in the City as a whole).

Higher priority criteria

5. How does the proposed project complete a gap or improve a deficiency in the Regional Active Transportation network? (See Appendix 1 of the Regional ATP: Network Completion, Gaps and Deficiencies).

Herman Road is an essential link in the active transportation network in Tualatin. The project fills a critical gap in the regional active transportation network for bikes, pedestrians, and transit riders. This project removes a major barrier to active transportation between a large employment area (6,500 jobs) and a large residential area (6,000 residents).

The Active Transportation facilities (bike lanes, sidewalks, and transit stops) proposed for this project will provide a much needed and safer alternative to the route along Tualatin-Sherwood Road that is currently identified on the Regional Active Transportation Plan. Tualatin - Sherwood Road does not function well as an active transportation corridor for transit riders, bicyclists, or pedestrians due to the very high volume of automobile traffic. On a bike, it is very difficult or impossible to make a left turn anywhere along the alignment. Merging from a right-hand bike lane across heavily trafficked vehicle lanes to reach the left turn lane is difficult at best. Pedestrian crossings along Tualatin -

Sherwood Road are few and far between and transit riders must wait through traffic when travelling along the corridor.

Herman Road is significant to the Region's employers, serving more than 6,500 jobs within a quarter mile of the project and thousands more throughout the Region. Once completed, Herman Road will provide an excellent alternative to Tualatin- Sherwood Road and will complete a gap within the city's active transportation network to connect employers with employees.

6. What design elements of the proposed project will lead to increased use of Active Transportation modes by providing a good user experience/increasing user comfort?

Currently, travelling along this stretch of Herman Road as a bicyclist or pedestrian is certainly an uncomfortable and often frightening experience (see photo in response to Question 2). This project will directly address the safety and comfort issues for active transportation users by including the following ten design elements for evaluation during the Preliminary Engineering phase:

- Sidewalk and curb where there currently none exists
- Landscape buffer where none currently exists
- Six foot wide buffered bike lanes
- ADA accessible curb ramps
- Narrowed travel lanes
- Improved signing
- Ride Connection stops for last-mile service
- Bike priority treatments at intersections and crossings
- Street trees in the landscape buffer
- Signal timing possible tied to existing SCATS system

What barriers will be eliminated or mitigated? The project will eliminate or mitigate the following ten barriers:

- Eliminate sidewalk gaps and complete the pedestrian corridor
- Mitigate pedestrian safety concerns by adding landscaped buffers and raised curbs
- Eliminate bike lanes gaps and complete the bike route
- Mitigate safety hazards inherently present when automobiles share the roadway with bicyclists or pedestrians
- Mitigate safety hazards associated with limited separation between bikes and automobiles by providing buffered bike lanes
- Mitigate higher vehicle speeds by reducing lane widths
- Eliminate ADA accessibility barriers by adding curb ramps and ADA facilities where none exist today
- Mitigate distance between last-mile transit stops by providing safe transit facilities

- Mitigate impacts on freight travel by providing separate facilities for pedestrians and bicyclists and
- Eliminate barriers between employers and employees by providing safe alternative modes of travel for those who don't own a car or choose not to drive.

7. How does the proposed project complete a so-called 'last-mile' connection between a transit stop/station and an employment area(s)?

This project will complete a last mile transit connection for more than 6,500 employees located within one quarter mile from the project along Herman Road. There are over 25,000 jobs in Tualatin and the number of jobs available continues to increase. The number of jobs in Tualatin grew 19% between the years 2010 – 2014 which is the largest amount of job growth in the region. By widening the corridor to include sidewalks, bike lanes, buffers, landscaping and transit stops, this project will greatly improve safety, comfort and convenience for transit customers who use or want to use Ride Connection's last mile bus routes to reach employment, commercial, municipal, and residential centers. This small project will have a huge impact on Ride Connection's ability to serve employers along the corridor, including Kai USA, Precision Graphics, Pacific Foods, LAM, and Airefco. The location of transit stops along the corridor will be determined during Preliminary Engineering phase of the project, but a likely location for new last-mile stop would be just east of Teton Road on Herman Road.

There are a number of popular destinations near the intersection of Herman Road and Teton Road for commuters on the Shuttle including QBF, IMC, Kershaw, Precision Wire and California Closets. These riders currently use an existing stop and walk or they will use a "flag stop" which allows riders to get on or off along the route when it is safe.

Priority criteria

8. How will the public be engaged relative to the proposed project? Include description of engagement during project development and construction, as well as demand management efforts to increase public awareness and utilization of the project post-construction. (Metro Regional Travel Options staff is available to help design an effective and appropriate level of education and marketing for your project nomination).

There will be a robust public engagement process as a part of this project. This will include an ongoing process which is integrated into the design development of this project. A listening phase will be incorporated to determine community design feedback, goals, and desires for the project area. Schematic Preliminary Engineering and outreach will occur. This phase will include conceptual level design work based on the input received during the public outreach phase. An onsite walking tour will be available to stakeholders, residents, and businesses to discuss the possibilities and constraints with the public before the starting the public outreach process.

Alternative design solutions will be developed and refined based on community desires that are consistent with acceptable engineering standards. The public outreach will include community

stakeholder briefings, small group meetings, online surveys, and community workshops. The public engagement will not only seek community wide input, it will focus on the people who live and work near the project area. There public outreach will also specifically seek the input of elderly, young, low income, and Spanish speaking populations.

The feedback received as a result of the public engagement process will help inform the appropriate types of infrastructure improvements to ensure that they are safe and useful to the populations who will be served.

9. What additional sources of funding, and the amounts, will be leveraged by an investment of regional flexible funds in the proposed project?

On August 15th, the WCCC confirmed Washington County’s commitment to provide \$70,000 of MSTIP Opportunity Funds to help provide local match for this important regional project. On August 22nd, the Tualatin City Council voted to approve Resolution 5293-16 authorizing City staff to submit this application and demonstrating their commitment to moving forward with this active transportation project. The City of Tualatin will contribute \$30,000 from the Road Operations Fund for the Preliminary Engineering Phase of the project.

The future construction phase of the project will likely include funding from the City’s Road Operating Fund, potentially funding from future MSTIP Opportunity Funding, and likely funding from the City’s Stormwater Fund to pay for associated stormwater work necessary to widen the corridor. The City will also pursue regional, state, and federal funding opportunities such as future Statewide Transportation Improvement Program (STIP), Connect Oregon and Regional Flexible Fund Allocation (RFFA).

In addition, the City will provide a staff Project Manager to make sure the project goes smoothly and federal and state requirements are met. The City will also dedicate staff time to actively manage payments to consultants and contractors for the life of the project.

10. How will the proposed project provide people with improved options to driving in a congested corridor?

Based on the huge amount of support expressed by the many letters (Appendix F) we received from employers and regional transportation leaders, we believe this project will encourage people to change their transportation patterns and remove cars from the surrounding congested roadways.

The Herman Road corridor is vital to providing options to driving on crowded east-west corridors in Tualatin. The project runs parallel to Tualatin-Sherwood Road and is easily accessible from that roadway on SW 124th Avenue and Teton Avenue making Herman Road an essential alternative to heavily travelled and highly congested Tualatin – Sherwood Road. Completing the link for pedestrians, bicyclists, and transit riders along Herman Road between SW 124th Avenue and Tualatin Road will open the door to many trip options that do not include driving.

The sidewalks and bike lanes proposed in this project will provide safer and more comfortable alternatives to driving to work. Completing bicycle, pedestrian, and transit facilities will connect residential neighborhoods with more than 6,500 jobs in a major employment area. The project will also improve Herman Road to allow for transit stops on the existing last-mile transit shuttle, served by Ride Connection. The Ride Connection shuttle connects Tualatin's employment areas with Tualatin's WES transit station and TriMet's 96 express bus to downtown Portland. Currently the roadway consists of two 12-ft travel lanes with no bike lanes, sidewalks, or transit stops.

Process

- **Describe the planning process that led to the identification of this project and the process used to identify the project to be put forward for funding consideration. (Answer should demonstrate that the process met minimum public involvement requirements for project applications per Appendix A)** Attached as Appendix A

The Herman Road project was identified in the 2014 Transportation System Plan (TSP) update. The TSP update included extensive public engagement. As a part of the TSP process the city actively engaged the community. Residents, businesses, employees, and partner agencies were encouraged to participate. The City provided a variety of ways for the community to participate in the process. There were 14 task force meetings and two online open houses in addition to community briefings and outreach events. The outreach process was designed for fun and easy participation. The public engagement process provided meaningful ways for people to influence outcomes. The City also used existing communication resources to reach as many community members as possible. The City reached out to the Spanish speaking segment of the population by attending the Bridgeport Elementary School Parent – Teacher Association and attempted to meet with Churches which provide services in Spanish. We also distributed 500 Spanish postcards.

Moving forward, the Herman Road Active Transportation project will include a robust public engagement process. We will engage the public to help identify the best project elements to increase safety and meet the needs of the community. The City will specifically reach out to low income populations, people of color, Spanish speakers, elderly, youth and disabled populations.

- **Describe how you coordinated with regional or other transportation agencies (e.g. Transit, Port, ODOT, Metro, Freight Rail operators, ODOT Region 1, Regional Safety Workgroup, and Utilities if critical to use of right-of-way) and how it impacted the project location and design.**

The City of Tualatin has strong working relationships with partner agencies locally and regionally including; TriMet, Ride Connection, ODOT, Washington County and Metro. We will engage these agencies during the design development phase of the project. These agencies will be engaged as a part of a technical review committee during the preliminary engineering process. As a part of the committee, these partner agencies will provide valuable input regarding the design elements, public engagement process, as well as technical support regarding best practices and specific active transportation treatments to consider. The expertise of our partners will help the city design the most appropriate active transportation corridor for our community.

Appendix A –
Environmental Justice
Certification

APPENDIX A – ENVIRONMENTAL JUSTICE COMPLIANCE

Public engagement and non-discrimination certification

Regional flexible funds 2019-21

Background and purpose

Use of this checklist is intended to ensure project applicants have offered an adequate opportunity or public engagement, including identifying and engaging historically underrepresented populations. Applications for project implementation are expected to have analyzed the distribution of benefits and burdens for people of color, people with limited English proficiency and people with low income compared to those for other residents.

The completed checklist will aid Metro in its review and evaluation of projects.

Instructions

Applicants must complete this certification, including a summary of non-discriminatory engagement (see Section B), for projects submitted to Metro for consideration for 2019-21 regional flexible funding.

Project sponsors should keep referenced records on file in case of a dispute. Retained records do not have to be submitted unless requested by Metro.

Please forward questions regarding the public involvement checklist to regional flexible funds allocation project manager Dan Kaempff at daniel.kaempff@oregonmetro.gov or 503-813-7559.

1. Checklist

Transportation or service plan development

At the beginning of the agency's transportation or service plan, a public engagement plan was developed to encourage broad-based, early and continuing for public involvement.

Retained records: public engagement plan and/or procedures

At the beginning of the agency's transportation or service plan, a jurisdiction-wide demographic analysis was completed to understand the location of communities of color, limited English proficient and low-income populations, disabled, seniors and youth in order to include them in engagement opportunities.

Retained records: summary of or maps illustrating jurisdiction-wide demographic analysis

Public notices included a statement of non-discrimination (Metro can provide a sample).

Retained records: public engagement reports including/or dated copies of notices

Throughout the process, timely and accessible forums for public input were provided.

Retained records: public engagement reports including/or descriptions of opportunities for ongoing engagement, descriptions of opportunities for input at key milestones, public meeting records, online or community survey results

Throughout the process, appropriate interested and affected groups were identified and contact information was maintained in order to share project information, updates were provided for key decision points, and opportunities to engage and comment were provided.

Retained records: public engagement reports including/or list of interested and affected parties, dated copies of communications and notices sent, descriptions of efforts to engage the public, including strategies used to attract interest and obtain initial input, summary of key findings; for announcements sent by mail or email, documented number of persons/groups on mailing list

Throughout the process, focused efforts were made to engage underrepresented populations such as communities of color, limited English proficient and low-income populations, disabled, seniors and youth. Meetings or events were held in accessible locations with access to transit. Language assistance was provided, as needed, which may include translation of key materials, using a telephone language line service to respond to questions or take input in different languages and providing interpretation at meetings or events.

Retained records: public engagement reports including/or list of community organizations and/or diverse community members with whom coordination occurred; description of language assistance resources and how they were used, dated copies of communications and notices, copies of translated materials, summary of key findings

Public comments were considered throughout the process, and comments received on the staff recommendation were compiled, summarized and responded to, as appropriate.

Retained records: public engagement reports or staff reports including/or summary of comments, key findings and final staff recommendation, including changes made to reflect public comments

Adequate notification was provided regarding final adoption of the plan or program, at least 15 days in advance of adoption, if feasible, and follow-up notice was distributed prior to the adoption to provide more detailed information. Notice included information and instructions for how to testify, if applicable.

Retained records: public engagement reports or final staff reports including/or dated copies of the notices; for announcements sent by mail or email document number of persons/groups on mailing list

Project development

This part of the checklist is provided in past tense for applications for project implementation funding. Parenthetical notes in future tense are provided for applicants that have not completed project development to attest to ongoing and future activities.

At the beginning of project development, a public engagement plan was (is budgeted to be) developed to encourage broad-based, early and continuing opportunity for public involvement.

Retained records: public engagement plan and/or procedures

At the beginning of project development, a demographic analysis was (is budgeted to be) completed for the area potentially affected by the project to understand the location of communities of color, limited English proficient and low-income populations, disabled, seniors and youth in order to include them in engagement opportunities.

Retained records: summary of or maps illustrating demographic analysis

Throughout project development, project initiation and requests for input were (will be) sent at least 15 days in advance of the project start, engagement activity or input opportunity.

Retained records: public engagement reports including/or dated copies of notices

Throughout project development, public notices included (will include) a statement of nondiscrimination.

Retained records: public engagement reports including/or dated copies of notices

Throughout project development, timely and accessible forums for public input were (will be) provided.

Retained records: public engagement reports including/or descriptions of opportunities for ongoing engagement, descriptions of opportunities for input at key milestones, public meeting records, online or community survey results

Throughout project development, appropriate interested and affected groups were (will be) identified and contact information was (will be) maintained in order to share project information, updates were (will be) provided for key decision points, and opportunities to engage and comment were (will be) provided.

Retained records: public engagement reports including/or list of interested and affected parties, dated copies of communications and notices sent, descriptions of efforts to engage the public, including strategies used to attract interest and obtain initial input, summary of key findings; for announcements sent by mail or email, documented number of persons/groups on mailing list

Throughout and with an analysis at the end of project development, consideration was (will be) given to the benefits and burdens of the project for people of color, people with limited English proficiency and people with low income compared to those for other residents, as identified through engagement activities.

Retained records: staff reports including/or description of identified populations and information about benefits and burdens of the project for them in relation to other residents;

There was a finding of inequitable distribution of benefits and burdens for people of color, people with limited English proficiency and people with low income

Submitted records: for a finding of inequitable distribution of benefits and burdens, attach analysis, finding and documentation justifying the project and showing there is no less discriminatory alternative.

Public comments were (will be) considered throughout project development, and comments received on the staff recommendation were (will be) compiled, summarized and responded to, as appropriate.

Retained records: public engagement reports or staff reports including/or summary of comments, key findings and final staff recommendation, including changes made to reflect public comments

Adequate notification was (will be) provided regarding final adoption of the plan, at least 15 days in advance of adoption, if feasible, and follow-up notice was distributed prior to the adoption to provide more detailed information. Notice included (will include) information and instructions for how to testify, if applicable.

Retained records: public engagement reports or final staff reports including/or dated copies of the notices; for announcements sent by mail or email document number of persons/groups on mailing list

2. Summary of non-discriminatory engagement

Attach a summary (1-2 pages) of the key elements of the public engagement process, including outreach to communities of color, limited English and low-income populations, for this project or transportation or service plan.

The City of Tualatin adopted the most recent Transportation System Plan (TSP) in February 2014. The City had a robust public engagement process to include residents, businesses and other interested parties as a part of the process. The City also considered the needs of environmental justice populations. The TSP process included all of the items listed above in section 1 relating Transportation or Service Plan Development with the exception of a non-disclosure statement on public notices for the TSP related meetings.

The City received a letter from Deena Platman on February 27, 2013 certifying that Metro found that the TSP had considered environmental justice communities and was within substantial compliance with the RTFP and 20135 RTP.

As a part of the Herman Road Active Transportation Project the City will complete the following items as a part of the project development process:

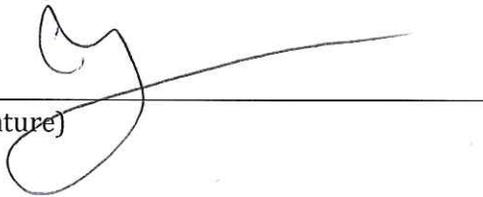
- A public engagement plan was prepared as a part of the TSP and it is budgeted to be developed to encourage broad-based, early and continuing opportunity for public involvement.
- The demographic analysis which was completed for the TSP evaluated the city as a whole including the area potentially affected by the project to understand the location of communities of color, limited English proficient and low-income populations, disabled, seniors and youth in order to include them in engagement opportunities.
- Project initiation and requests for input will be sent at least 15 days in advance of the project start, engagement activity or input opportunity throughout the project.
- Public notices will include a statement of nondiscrimination.
- Timely and accessible forums for public input were available as a part of the TSP and will be provided as a part of this project.
- Appropriate interested and affected groups were identified during the TSP and will be identified and contact information will be maintained in order to share project information, updates will be provided for key decision points, and opportunities to engage and comment will be provided.
- Consideration will be given to the benefits and burdens of the project for people of color, people with limited English proficiency and people with low income compared to those for other residents, as identified through engagement activities.

- Public comments were considered during the TSP process and will be considered throughout project development, and comments received on the staff recommendation will be compiled, summarized and responded to, as appropriate.
- Adequate notification was provided regarding final adoption of the TSP and will be provided regarding the final adoption of this project development plan, at least 15 days in advance of adoption, if feasible, and follow-up notice was distributed prior to the adoption to provide more detailed information. Notice will include information and instructions for how to testify, if applicable.

3. Certification statement

The City of Tualatin (agency) certifies adherence to engagement and non-discrimination procedures developed to enhance public participation and comply with federal civil rights guidance.

As attested by:


(signature)

Jeff Fuchs, PE City Engineer
(name and title)

August 25, 2016
(date)

Appendix B –
GIS Shape File

*Submitted
Electronically*

Appendix C –
Active Transportation
Checklist

APPENDIX C – ACTIVE TRANSPORTATION DESIGN GUIDELINES

The following checklist items are street design elements that are appropriate and desirable in regional mobility corridors. Trail projects should use the *Off-Street and Trail Facilities* checklist (item D) at the end of this list. All other projects should use items A – C.

Use of federal transportation funds on separated pathways are intended for projects that primarily serve a transportation function. Pathways for recreation are not eligible for federal transportation funding through the regional flexible fund process. Federal funds are available from other sources for recreational trails. To allow for comfortable mixing of persons on foot, bicycle and mobility devices at volumes expected to be a priority for funding in the metropolitan region, a 12-foot hard surface with shoulders is a base design width acceptable to FHWA Oregon. Exceptions to this width for limited segments is acceptable to respond to surrounding context, with widths less than 10-feet subject to a design exception process. Wider surfaces are desirable in high volume locations.

A. Pedestrian Project design elements – check all that apply

Design elements emphasize separating pedestrians from auto traffic with buffers, increasing the visibility of pedestrians, especially when crossing roadways, and make it easier and more comfortable for people walking to access destinations.

For every element checked describe existing conditions and proposed features:

- Add sidewalks or improve vertical delineation of pedestrian right-of-way (i.e. missing curb)
The project will install sidewalk and curb where there is currently none.
- Add sidewalk width and/or buffer for a total width of 17 feet (recommended), 10 feet minimum; buffer may be provided by parking on streets with higher traffic volumes and speeds (over 35 mph, ADT over 6,000)
Project will install sidewalk and landscape buffer where there is none.
- Add sidewalk width and/or buffer for a total width of 10 feet (recommended), 8 feet minimum on streets with lower traffic volumes and speeds (ADT less than 6,000 and 30 mph or less); Buffer may be provided by parking, protected bike lane, furnishing zone, street trees/planting strip
- Sidewalk clear zone of 6 feet or more – **project will include 6 foot bike lane and planter strip. A ½ mile segment of the project area currently has no sidewalk and pedestrians must walk in the travel lanes.**
- Remove obstructions from the primary pedestrian-way or add missing curb ramps – **project will install ADA curb ramps and sidewalk where there are currently no accessible pedestrian facilities.**
- Add pedestrian crossing at appropriate location
- Re-open closed crosswalks
- Raised pedestrian refuge median or raised crossing, required if project is on a roadway with 4 or more lanes
- Reduced pedestrian crossing distance
- Narrowed travel lanes – **During design development, evaluate reduced vehicle lane widths to accommodate buffered bike lanes and reduce automobile speeds. Current lanes widths are 12⁺ feet**
- Reduced corner radii (e.g. truck apron)
- Curb extensions
- Rectangular Rapid Flashing Beacon (RRFB) or pedestrian signal
- Lighting, especially at crosswalks – pedestrian scale (10-15 feet), preferably poised over sidewalk

- Add countdown heads at signals
- Shorten signal cycle lengths of 90 seconds or less – pedestrian friendly signal timing, lead pedestrian intervals
- Access management: minimize number and spacing of driveways
- Arterial traffic calming: Textured intersections, gateway treatments, raised medians, road diets, roundabouts -
- Wayfinding
- Benches
- Transit stop amenities or bus stop pads – **Add Ride Connection stops for last-mile service where there are currently no transit stops. Connect transit stops to the rest of the corridor with sidewalks and bike lanes.**
- Add crosswalk at transit stop
- Pedestrian priority street treatment (e.g. woonerf) on very low traffic/low volume street

B. Bicycle Projects design elements

Design elements emphasize separating bicycle and auto traffic, increasing visibility of bicyclists, making it easier and more comfortable for people traveling by bicycle to access routes and destinations.

For every element checked describe existing conditions and proposed features:

- On streets with higher traffic volumes and speeds (over 35 mph, ADT over 6,000): Buffered bicycle lane, 6 foot bike lane, 3 foot buffer; Protected bikeway with physical separation (e.g. planters, parking); Raised bikeway - **The Speed limit on all but 600-ft of this alignment is 45 MPH. The far east end of the alignment reduces to 35 MPH just west of the Tualatin Road intersection. Install 3-foot buffer and 6-foot bike lanes. Evaluate physical separation during design development phase.**
- Separated multi-use trail parallel to roadway
- Bike priority treatments at intersections and crossings (i.e. advance stop lines, bike boxes, signals, high-intensity activated crosswalk (HAWK) signals, user-activated signals) **Currently, there are no bike priority treatments on this alignment. Evaluate alternatives for intersection crossing markings, colored bike facilities, bike through lanes, bike boxes, combined right turn lanes, and two stage left-turn lanes. Add bicycle detection to signals.**
- Medians and crossing treatments
- Wayfinding, street markings
- Lighting at intersections **Evaluate and upgrade lighting at intersections.**
- Bicycle boulevard treatment where ADT is less than 3,000 per day: Buffered bicycle lane, 6 foot bike lane, 3 foot buffer

C. Other Complete Street Features

For every element checked describe existing conditions and proposed features:

- Turning radius improvements (freight route only)
- Gateway feature
- Street trees **Sections of the project have streets and other sections do not. Plant street trees along both sides of roadway.**
- ITS elements (i.e. signal timing and speed detection) **Existing roadway does not include ITS elements. Washington County operates and maintains signals within Tualatin. During Design Development, work with Washington County to identify Intelligent Transportation System (ITS) improvements that could be included on this corridor.**

D. Off-Street and Trail Facilities

For every element checked describe existing conditions and proposed features:

- Minimum 12' trail width (plus 2' graded area each side)
- Always maintains minimum 5' separation when adjacent to street **or** never adjacent to street
- All on-street segments include improvements beyond bike lanes (item C, above) **or** no on-street segments
- All street crossings include an appropriate high-visibility crosswalk treatment
- All 4-lane street crossings include appropriate refuge island **or** no 4-lane street crossings
- Frequent access points (generally every ¼-mile)
- All crosswalks and underpasses include lighting
- Trail lighting throughout
- Trailhead improvements
- Rest areas with benches and wheelchair spaces
- Wayfinding or interpretive signage
- Signs regulating bike/pedestrian interaction (e.g. bikes yield to pedestrians)
- Trail priority at all local street/driveway crossings

Appendix E –
Cost Estimate
Workbook

*Excel File Submitted
Electronically*

<p>1. Construction</p> <p>Sections A through E must be completed. Complete Sections F and/or G if applicable.</p> <p>Projects will not include all elements below, but most will include elements from multiple sections.</p> <p>Enter quantities only for elements actually included in your project.</p>	<p>HERMAN ROAD ACTIVE TRANSPORTATION CORRIDOR - PRELIMINARY ENGINEERING</p> <p>SW 124th Avenue to SW Tualatin Road</p> <p>City of Tualatin</p>
---	--

1.A - Road Construction, Reconstruction, or Resurfacing

Item	Unit	Quantity	Unit cost	Total	Description	
Road - new/reconstruct (incl. curb, sidewalk, drainage)	SF		\$15	\$0	Specify SF of pavement, not including sidewalks and curbs (these are assumed in unit cost).	
Road - resurface	SF	50,400.0	\$4	\$201,600		
◦ Specify length and typical width of project					2,100.0	For documentation of assumptions used.
Section 1.A Subtotal				\$201,600		

1.B - Addition of Roadway Elements to Existing Roadway

Item	Unit	Quantity	Unit cost	Total	Description	
Minor widening, no curbs	SF	25,200.0	\$15	\$378,000	Used for bike lanes, other minor widening. Does not include curbs, sidewalks, or drainage.	
Remove pavement	SF	0.0	\$0.75	\$0		
Curb only	LF	4,200.0	\$16	\$67,200	For new curb installation. Does not include drainage.	
Remove curb	LF	0.0	\$6	\$0		
Median in existing lane no drainage	LF	0.0	\$86.50	\$0	Includes pavement removal, curbs, landscaping for a 12' median in 14' lane. No drainage included.	
Landscaping only - medians and bulbouts	SF	0.0	\$4	\$0	Install 18" topsoil plus plants	
Drainage system - both sides	LF	4,200.0	\$115	\$483,000	For new installations. Length is overall project length where drainage is added.	
Bridge - new or replace	SF	0.0	\$250	\$0		
◦ Specify length and width of bridge					2,100.0	For documentation of assumptions used.
Street trees with tree grates	LF		\$40	\$84,000	Per side.	
Irrigation system		Provide estimate	→	\$10,000	For irrigation of medians and bulbouts. Specific estimate required if used (describe in Section 1.G).	
Signing/markings	LF	13,300.0	\$2	\$26,600	Use when new pavement markings are to be installed (per line).	
Clearing	SF	50,400.0	\$0.06	\$3,024	Used for new alignments.	
Grading	CY	3,500.0	\$17.50	\$61,250	Provide an estimate of grading and describe assumptions in Section 1.G.	
Retaining walls (by wall area)	SF	3,600.0	\$55	\$198,000	Use SF of walls if known. If not, estimate length of walls and describe assumptions in Section 1.G.	
Retaining walls (by length)	LF	0.0	\$250	\$0		
Section 1.B Subtotal				\$1,311,074		

1.C - Addition of Pedestrian Elements to Existing Roadway

Item	Unit	Quantity	Unit cost	Total	Description
Sidewalk, no curb	SF	12,600.0	\$10	\$126,000	Includes curb ramps.
Remove sidewalk	SF	0.0	\$1.25	\$0	
Shared-use path	SF	0.0	\$5	\$0	Includes curb ramps.
Street furniture - bench	EA	0	\$2,275	\$0	
Street furniture - bike rack	EA	0	\$330	\$0	
Street furniture - trash can	EA	0	\$1,350	\$0	
Section 1.C Subtotal				\$126,000	

1.D - Utilities

Item	Provide estimate	Total	Description
Utility burial	→		If utility burial is included, provide a detailed cost from the appropriate utility.
Utility relocation	→		Describe what utilities will or may be relocated. Provide cost estimate and describe assumptions.
Description: <input style="width: 100%; height: 20px;" type="text"/>			
Railroad impacts			
Summary:		Summarize impacts Describe potential impacts to railroads in project area.	
<input style="width: 100%; height: 20px;" type="text"/>			
Section 1.D Subtotal		\$0	

1.E - Traffic Signals and Lighting

Item	Unit	Quantity	Unit cost	Total	Description
Traffic signals (4-lanes or more)	EA	0	\$150,000	\$0	Use where at least one roadway is 4 lanes or more.
Traffic signals (less than 4-lanes)	EA	0	\$105,000	\$0	Use where both roadways are 3 lanes or less.
Street lighting - per side	LF	2100.0	\$80	\$168,000	Install street lighting at 100' spacing per side.
Section 1.E Subtotal				\$168,000	

1.F - Associated Costs

Item	Basis	Total	Description
Mobilization, staging, traffic control	15%	\$271,001	
Erosion control - enter value to override fixed 1.5%	1.5%	\$27,100	Use 1.5% of construction costs, or provide a cost estimate and describe assumptions.
No Description Required: <input style="width: 100%; height: 20px;" type="text"/>			
Section 1.F Subtotal		\$298,101	

1.G - Additional Information

Use the space below to provide additional information, including items not listed above, or to expand on assumptions used.

400 LF chainlink fence at \$20/LF = \$8000

Other Expected Costs	Provide estimate →	\$8,000
Section 1.G Subtotal		\$8,000

SUMMARY

Total of sections A through G **\$2,112,775** Section 1 Total

2. Environmental Impact and Mitigation HERMAN ROAD ACTIVE TRANSPORTATION CORRIDOR - PRELIMINARY ENGINEERING
 Sections A and B must be completed. Complete Section C if applicable. Contact Metro if information for 2.B is needed. SW 124th Avenue to SW Tualatin Road
City of Tualatin

2.A - Status and Information

Please place an 'X' in the appropriate box.

EA not completed; an EIS IS expected.	<input type="checkbox"/>
EA not completed; an EIS is NOT expected.	<input checked="" type="checkbox"/>
EA not completed; unknown whether EIS is expected.	<input type="checkbox"/>
EA has been completed; an EIS IS required.	<input type="checkbox"/>
EA has been completed; an EIS is NOT required.	<input type="checkbox"/>
Both an EA and an EIS have been completed.	<input type="checkbox"/>

Describe expected environmental impacts, assumptions, and unknowns.

Description: The project is not located in a sensitive area. The property being considered for widening is generally disturbed non-vegetaed land.

2.B - Environmental Impacts and Mitigation

Item	Unit	Quantity	Unit cost	Total	Description
Estimate acreage of impact/mitigation	ACRE	1.15	\$150,000	\$172,500	
Section 2.B Subtotal				\$172,500	

2.C - Additional Information

Use the space below to provide additional information, including items not listed above, or to expand on assumptions used.

Other Expected Costs Provide estimate → \$0

Section 2.C Subtotal

SUMMARY

Total estimate for environmental mitigation **\$172,500** Section 2 Total

3. Right-of-Way Cost Estimation HERMAN ROAD ACTIVE TRANSPORTATION CORRIDOR - PRELIMINARY ENGINEERING
 Use either Method 'A' or Method 'B'. Method 'A' is preferred. Complete Section C if applicable. SW 124th Avenue to SW Tualatin Road
City of Tualatin

Where the exact SF of ROW is unknown, an estimate must be made. At the most simplistic level, this estimate can be made by calculating the difference between the proposed cross-section width and the existing ROW width, multiplied by the project length. Where ROW width cannot be determined, it should be assumed to be the width of the existing roadway including sidewalks.

3.A - Method 'A' (moderate confidence)

Item	Unit	Quantity	Unit cost	Total	Description
Estimate area (SF) of ROW taking	SF				
Describe assumptions used in calculating area:					
Estimate unit cost (per SF) of taking	\$				
Describe assumptions used in calculating unit cost(s):					
Estimated total cost of taking				\$0	Estimated area multiplied by estimated unit cost.
Number of affected parcels:	EA		\$10,000	\$0	Reflects administrative costs of property acquisition.
Section 3.A Subtotal				\$0	

3.B - Method 'B' (low confidence)

Item	Unit	Quantity	Unit cost	Total	Description
Estimate square-feet of high-value ROW taking	SF		\$30	\$0	Use in urban areas and moderate to high-priced neighborhoods.
Estimate square-feet of developed ROW taking	SF	3600.0	\$20	\$72,000	Use in other established neighborhoods.
Estimate square-feet of undeveloped ROW taking	SF	37800.0	\$15	\$567,000	Use in undeveloped areas.
Describe assumptions used in calculating area:		Approx. 18' x 2100' and approx. 18' x 200'			
Estimated total cost of taking				\$639,000	Estimated area multiplied by estimated unit cost.
Number of affected parcels:	EA	6	\$10,000	\$60,000	Reflects administrative costs of property acquisition.
Section 3.B Subtotal				\$699,000	

3.C - Additional Information

Use the space below to provide additional information, including items not listed above, or to expand on assumptions used.

SUMMARY

Method 'A' Right-of-Way estimate (moderate confidence)	\$0	Section 3 Total (moderate confidence)
Method 'B' Right-of-Way estimate (low confidence)	\$699,000	Section 3 Total (low confidence)

4. Design and Administration Costs HERMAN ROAD ACTIVE TRANSPORTATION CORRIDOR - PRELIMINARY ENGINEERING
SW 124th Avenue to SW Tualatin Road
City of Tualatin
Complete input cells in Sections A and B if applicable. Default markup values can be overridden.

4.A - Design

Construction Costs (from Section 1):

\$2,112,775

Environmental Impact Costs (from Section 2):

\$172,500

Item

Base Cost	Markup	Total
-----------	--------	-------

Description

Surveying, design, coordination

\$2,285,275	25%	\$571,319
-------------	-----	-----------

(Default 30%) Typically included in the professional engineering contract

Construction Engineering

\$2,285,275	10%	\$228,528
-------------	-----	-----------

(Default 20%) Engineering services during construction

Other Expected Costs

Provide estimate →

Description of other expected costs:

--

Section 4.A Subtotal

\$799,846

4.B - Administration

Project Administration will be applied throughout project.

Administration

\$2,285,275	5%	\$114,264
-------------	----	-----------

(Default 35%) Project overhead

Section 4.B Subtotal

\$114,264

4.C - Additional Information

Use the space below to provide additional information, including items not listed above, or to expand on assumptions used.

The majority of project administration will be performed by City staff. Staff costs are charged against the general fund and not against the project.

--

SUMMARY

Total of all above items

\$914,110

Section 4 Total

5. Contingency and Risk HERMAN ROAD ACTIVE TRANSPORTATION CORRIDOR - PRELIMINARY ENGINEERING
SW 124th Avenue to SW Tualatin Road
City of Tualatin
Complete input cells in Section A if applicable. Default markups can be overridden. Section B must be completed.

5.A - Contingency

Item	Section Total	Markup	Contingency \$	Description
Section 1 - Construction	\$2,112,775	20%	\$422,555	(Default 20%)
Section 2 - Environmental	\$172,500	20%	\$34,500	(Default 20%)
Section 3.A - Right-of-Way (moderate confidence)	\$0	40%	\$0	(Default 40%)
Section 3.B - Right-of-Way (low confidence)	\$699,000	50%	\$349,500	(Default 50%)
Section 4.A - Design	\$799,846	20%	\$159,969	(Default 20%)
Section 4.B - Administration	\$114,264	No contingency on Administration		
Other Expected Costs	Provide estimate	→		
Description of other expected costs:				
Section 5.A Subtotal	\$966,524			

5.B - Risk

Describe project components, impacts, or unknowns that are uncertain in scope at this point. Items might include:

- environmental issues
- nearby historic or cultural resources
- railroad or utility work
- bridge work
- agency approvals
- existing deficient infrastructure
- complex or untested components
- other unique elements

Description of these items is not intended to affect project selection, but rather to identify and document key issues that need refinement.

6. Project Summary Sheet

HERMAN ROAD ACTIVE TRANSPORTATION CORRIDOR - PRELIMINARY ENGINEERING

SW 124th Avenue to SW Tualatin Road

Construct new bike lanes, sidewalks, landscape buffers, and transit stops and add buffered bike lanes to existing bike lanes.

City of Tualatin

6.A - Cost Summary in 2007\$

	Item Total	Phase Total
<u>Preliminary Engineering (PE)</u>		\$714,149
Surveying, design, coordination	\$571,319	
Contingency at 20%	\$114,264	
Administration at 5%	\$28,566	
<u>Right-of-Way (ROW)</u>		\$1,048,500
Right-of-Way (moderate confidence)	\$0	
Contingency at 40%	\$0	
Right-of-Way (low confidence)	\$699,000	
Contingency at 50%	\$349,500	
<u>Construction (Const)</u>		\$3,142,253
Construction (Section 1)	\$2,112,775	
Contingency at 20%	\$422,555	
Environmental (Section 2)	\$172,500	
Contingency at 20%	\$34,500	
Construction Engineering	\$228,528	
Contingency at 20%	\$45,706	
Administration at 5%	\$125,690	
		Total
		\$4,904,902

6.B - Funding Summary by Year of Expenditure

Phase		2007 Dollars	YOE Year	Escalation	YOE Cost
Preliminary Engineering	PE	\$ 714,149	2019	1.52%	\$ 724,979
Right-of-Way	ROW	\$ 1,048,500	2022	9.80%	\$ 1,151,256
Construction	Const	\$ 3,142,253	2023	9.80%	\$ 3,450,203
	Total	\$ 4,904,902			\$ 5,326,438

Appendix F – Letters of Support

Letters of Support

1. Kai USA
2. Kaiser Permanente
3. Lam Research
4. Nortek Air Solutions
5. Providence Health & Services
6. Ride Connection
7. TriMet
8. Tualatin Chamber of Commerce
9. Tualatin Commercial Citizen Involvement Organization
10. Washington County Coordinating Committee
11. Westside Economic Alliance
12. Westside Transportation Alliance



August 18, 2016

Regional Flexible Fund Allocation
Metro
600 NE Grand Avenue
Portland, OR

RE: Letter of Support for the City of Tualatin's
Herman Road Active Transportation Project

To Whom It May Concern,

I am writing in support of the City of Tualatin's application for a 2019-21 Regional Flexible Funds Allocation Grant to complete project development for active transportation improvements on Herman Road between Tualatin Road and 124th Avenue.

KAI USA is located at the intersection of Teton Road and Herman Road which is in Tualatin's major employment district. This project will provide a much needed safe corridor for bikes and pedestrians, connecting residential areas to this employment district. Active transportation improvements like this project are an essential element of the regional transportation system. KAI USA has over 250 employees and it is important that our employees have safe commuting options.

We support this project and appreciate your consideration.

Respectfully,

A handwritten signature in black ink, appearing to read 'Jeanne Donnelly'.

Jeanne Donnelly
Manager, HR and General Affairs
Kai USA Ltd



August 24, 2016

Regional Flexible Fund Allocation
Metro
600 NE Grand Avenue
Portland, OR 97232

RE: Letter of Support for the City of Tualatin's Herman Road Active Transportation Project

To Whom It May Concern:

On behalf of Kaiser Permanente Northwest and the Tualatin Medical Office, I am writing in support of the City of Tualatin's application for a 2019-21 Regional Flexible Funds Allocation Grant to complete project development for active transportation improvements on Herman Road between Tualatin Road and 124th Avenue.

This project will provide a much-needed safe corridor for bikes and pedestrians, connecting residential neighborhoods with Tualatin's major employment district, which includes the Tualatin Medical Office. There are approximately 6,594 jobs within a quarter mile of the project area and over 6,000 residents within the three census blocks adjacent to this project. Currently the roadway consists of two 12-ft travel lanes with no bike lanes, sidewalks, or transit stops. The completed project will include buffered bicycle lanes, pedestrian facilities, upgraded lighting, and other improvements that will enhance transportation options for the community and improve safety for all users.

Active transportation is an important determinant of increasing physical activity, which in turn leads to better health. We recognize that promoting active transportation will not be successful unless infrastructure improvements are made along existing roadways, especially those that originally were not designed with active transportation in mind.

Kaiser Permanente is proud to be a member of the Tualatin community, and, as such, we strongly support projects such as the Herman Road active transportation improvements that ultimately enhance the community's quality of life.

Thank you for your consideration of this important project.

Respectfully,



Eliseo Olvera, RN, BSN, MDiv
Department Administrator



August 10, 2016

Lam Research Corporation

11155 SW Leveton Drive

Tualatin, OR 97062

www.lamresearch.com

Regional Flexible Fund Allocation
Metro
600 NE Grand Avenue
Portland, OR

RE: Letter of Support for the City of Tualatin's
Herman Road Active Transportation Project

To Whom It May Concern,

I am writing in support of the City of Tualatin's application for a 2019-21 Regional Flexible Funds Allocation Grant to complete project development for active transportation improvements on Herman Road between Tualatin Road and 124th Avenue.

This project will provide safe bike and pedestrian connections from residential neighborhoods to Tualatin's major employment district. Active transportation improvements like this project are an important part of the regional transportation system.

As Tualatin's largest (and likely fastest growing) employer, we support this project and look forward to providing input during the project development phase. A large percentage of our employees, contractors, inbound and outbound shipments travel on Herman road. A growing number of our employees use regional public transportation, bike or walk to work. As traffic congestion increases, the demand for these modes will increase. Addressing the proposed section of Herman Road will fill a critical gap in the local infrastructure.

Thank you for your consideration,

A handwritten signature in black ink, appearing to read "Michael Snell".

Michael Snell
Managing Director
Tualatin Manufacturing Operations
Lam Research Corporation

August 5, 2016

Regional Flexible Fund Allocation
Metro
600 NE Grand Avenue
Portland, OR

RE: Letter of Support for the City of Tualatin's
Herman Road Active Transportation Project

To Whom It May Concern,

I am writing in support of the City of Tualatin's application for a 2019-21 Regional Flexible Funds Allocation Grant to complete project development for active transportation improvements on Herman Road between Tualatin Road and 124th Avenue.

This project will provide a much needed safe corridor for bikes and pedestrians, connecting residential neighborhoods with Tualatin's major employment district. The project will also improve Herman Road to allow for transit stops on the existing last-mile transit shuttle, served by Ride Connection. The Ride Connection shuttle connects Tualatin's employment areas with Tualatin's WES transit station and TriMet's 96 express bus to downtown Portland. Currently the roadway consists of two 12-ft travel lanes with no bike lanes, sidewalks, or transit stops.

Active transportation improvements like this project are an essential element of the regional transportation system. Completing gaps in the system will make it easier and safer for residents and employees to use alternative modes of transportation. The Herman Road project will provide significant local and regional benefit by filling in a gap in the active transportation system along Herman Road.

As a large employer in Tualatin, we support this project and look forward to providing input during the project development phase.

Thank you for your consideration,

Brian J Motland, PE
Director of Operations

Providence Health & Services
4400 NE Halsey St., Building 2
Suite 599
Portland, OR 97213
www.providence.org/oregon



August 25, 2016

Regional Flexible Fund Allocation
Metro
600 NE Grand Avenue
Portland, OR

RE: City of Tualatin's Herman Road Active Transportation Project

To whom it may concern:

Providence Health & Services in Oregon is committed to building healthier communities, together. As part of this effort we are excited to express our support for the City of Tualatin's Herman Road Active Transportation project, which aims to increase activity among all members of the community.

The 2019-2021 Regional Flexible Funds Allocation Grant would make important active transportation improvements on Herman Road between Tualatin Road and 124th Avenue. A busy area with approximately 6,594 jobs within a quarter mile and over 6,000 residents within the three census blocks adjacent to this project.

When complete, there will be safe bike and pedestrian connections between residential neighborhoods and Tualatin's major employment district. In addition to filling gaps in the current transportation system, active transportation improvements like this project make it easier and safer for residents and employees to use alternative modes of transportation.

As this project moves forward to the design development phase, we're confident the City of Tualatin will develop concepts for best serving all people and modes of transportation along Herman Road.

Thank you for your consideration of this important project, and your on-going commitment to the wellness of our community.

Respectfully,

A handwritten signature in black ink, appearing to read "Dave Underriner", with a stylized flourish at the end.

Dave Underriner
Chief Executive, Oregon Region

August 3, 2016

Regional Flexible Fund Allocation
Metro
600 NE Grand Avenue
Portland, OR 97232

RE: Letter of Support for the City of Tualatin's Herman Road Active Transportation Project

To Whom It May Concern,

I am writing in support of the City of Tualatin's application for a 2019-21 Regional Flexible Funds Allocation Grant to complete project development for active transportation improvements on Herman Road between Tualatin Road and 124th Avenue.

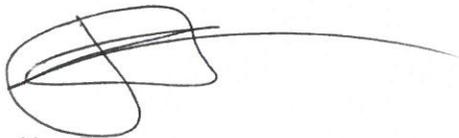
This project will provide a much needed safe corridor for bikes and pedestrians, connecting residential neighborhoods with Tualatin's major employment district. The project will also improve Herman Road to allow for transit stops. Ride Connection currently operates a first/last mile community connector shuttle that links Tualatin's WES station (as well as TriMet's 76, 96, and 97 bus routes) with major employment areas in Tualatin.

Currently, the roadway consists of two 12-ft travel lanes with no bike lanes, sidewalks, or transit stops. There are sections of roadway with steep shoulders that pose a serious danger to pedestrians and cyclists. Herman Road also serves as a truck route, adding another layer of safety concerns for our transit riders.

Active transportation infrastructure improvements along Herman Road will allow pedestrians, cyclists, and transit riders to have safe and convenient access to employment destinations.

We look forward to working with the City during the design phase of this project.

Respectfully,



Alex Page
Service Planner



9955 NE Glisan Street
Portland, OR 97220
503.528.1720
TTY 711
rideconnection.org

To link accessible, responsive transportation with community needs.



August 11, 2016

Regional Flexible Fund Allocation
Metro
600 NE Grand Avenue
Portland, OR 97232

RE: Letter of Support for the City of Tualatin's Herman Road Active Transportation Project

To Whom It May Concern,

I am writing in support of the City of Tualatin's application for a 2019-21 Regional Flexible Funds Allocation Grant to complete project development for active transportation improvements on Herman Road between Tualatin Road and 124th Avenue.

Currently, this entire stretch of Herman Road lacks sidewalk on the south side. Other portions of Herman Road are narrow with no shoulders and a steep ditch on the north side. This project will improve safety for all roadway users including transit, bicycles, and pedestrians. The completed project will include buffered bicycle lanes, pedestrian facilities, upgraded lighting, enhanced access to transit, and other improvements to improve safety along this roadway for residents and commuters alike.

The project will also allow for transit stops on the existing last-mile transit shuttle, served by Ride Connection. TriMet passes through federal funding as well as provides the grant match for the shuttle. The Ride Connection shuttle provides a vital connection between Tualatin's employment areas and Tualatin's WES transit station, TriMet bus lines 76 to Tigard and Beaverton, Line 96 express to downtown Portland, and Line 97 to Sherwood.

In summary, this project will provide a much needed safe corridor for residents and employees as they travel by transit, bike or foot through Tualatin's primary employment district. Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tom Mills".

Tom Mills
Senior Planner
TriMet



TUALATIN

CHAMBER of COMMERCE

August 3, 2016

Regional Flexible Fund Allocation
Metro
600 NE Grand Avenue
Portland, OR

RE: Letter of Support for the City of Tualatin's Herman Road Active Transportation Project

To Whom It May Concern,

I am writing in support of the City of Tualatin's application for a 2019-21 Regional Flexible Funds Allocation Grant to complete project development for active transportation improvements on Herman Road between Tualatin Road and 124th Avenue.

This project will provide a much needed safe corridor for bikes and pedestrians, connecting residential neighborhoods with Tualatin's major employment district. Currently the roadway consists of two 12-ft travel lanes with no bike lanes, sidewalks, or transit stops. The road is narrow and difficult to maneuver for bicyclists and pedestrians, requiring that employees in this area commute by car.

The Tualatin Chamber of Commerce is supportive of this project. There are approximately 6,594 jobs within a quarter mile of the project area. We look forward to the design development phase to evaluate concepts for best serving all modes of transportation along Herman Road. The completed project including buffered bicycle lanes, pedestrian facilities, upgraded lighting, and other improvements will improve safety for commuters along this roadway.

Thank you for your consideration of this important project.

Respectfully,

A handwritten signature in blue ink that reads "Linda Moholt". The signature is written in a cursive, flowing style.

Linda Moholt, CEO, IOM
linda@tualatinchamber.com

PO Box 701
8101 SW Nyberg St., Suite 102
Tualatin, OR. 97062

Phone: 503-692-0780
Chamber@tualatinchamber.com
www.TualatinChamber.com

Commercial Citizen Involvement Organization



August 24, 2016

Washington County Department of Land Use & Transportation
Planning & Development Services - Long Range Planning
Attn: Dyami Valentine, Senior Planner
155 N First Avenue, Suite 350 MS14
Hillsboro, Oregon 97124

Re: Support for City of Tualatin's Request for MSTIP Opportunity Funds
(Herman Road Active Transportation Corridor Project)

Mr. Valentine:

The Commercial Citizen Involvement Organization ("CCIO") acts as an advocate for the commercial enterprises in the City of Tualatin. In that context, I am writing to inform you of the CCIO's support for the City of Tualatin's Request for MSTIP Opportunity Funds, which would be used as local matching funds for the City's application for grant funding for the Herman Road Active Transportation Corridor Project from the 2019-21 Regional Flexible Funding Allocation program.

The CCIO supports the Herman Road Active Transportation Corridor Project as a means of providing safe travel for all modes of local traffic (freight and employees/pedestrians commuting by car, bike and as walkers) along this important, local commercial route. The current state of the facilities on Herman Road between Tualatin Road and Teton Ave. is, as described in the City's Project Description and the enclosed article from *Tualatin Life*, is inadequate and unsafe for the volume of all modes of traffic presently using the Transportation Corridor. The installation of the improvements noted in the City's Project Description will dramatically improve safety in the Corridor as well as increase both the speed the delivery of goods and mobility of employees.

If you have any questions regarding the CCIO's support of the City's Request for MSTIP Opportunity Funds or would like to discuss this matter, then please contact me at 503-691-1813 or by email at tualatincommercialcio@gmail.com.

Sincerely,

A handwritten signature in black ink that reads "Cathy Holland". The signature is written in a cursive, flowing style.

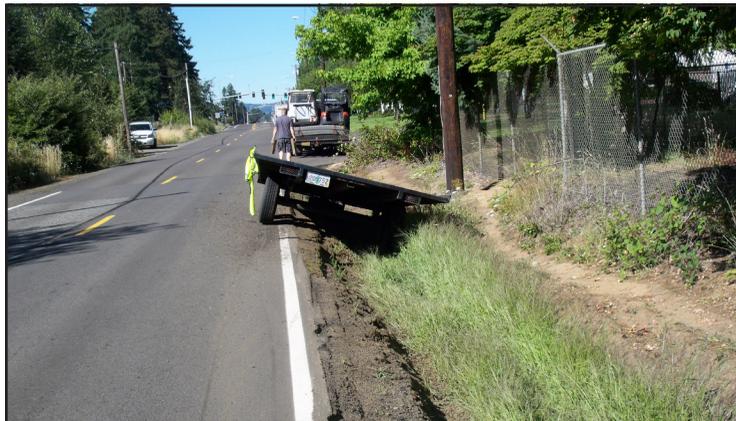
Cathy Holland
President, Commercial CIO

Tualatin's Herman Road Problem

BY JONATHAN CRANE

Several years ago Herman Road was vastly improved to accommodate truck traffic to and from our industrial areas in north Tualatin. The improvements widened the road, added lighting, some signals and it was a very successful project from Teton west to a little past 124th. However, a couple hundred yards east of Teton, the road is a catastrophe waiting to happen.

The photos from that stretch of road show how thin the road gets, and some portions are even crumbling into the deep culvert on the north side of the road. To think that a car, school bus or truck could actually veer off the road, possibly overturn is certainly a possibility.



Additionally there is zero room for cyclists, and pedestrians have to be quite the daredevils to even attempt it. When two semi-trucks are going opposite directions on that stretch, there is absolutely no room for error.

When I asked the City about it a couple years ago, they mentioned the funding for the project had ended at Teton. Maybe it's time we find some funding to repair the last couple hundred yards of the project before someone gets hurt.





August 23, 2016

Subject: City of Tualatin's Regional Flexible Funds Grant Application

To Whom It May Concern:

Washington County Coordinating Committee (WCCC), which consists of elected officials from Washington County and the cities in Washington County, is pleased to submit this letter of support for the City of Tualatin's Regional Flexible Funds (RFFA) grant application. The City of Tualatin is seeking \$571,000 in RFFA funding for project development to design Herman Road between Tualatin Road and 108th Avenue as a complete street.

WCCC members are committed to modernizing the county's major street network, supporting multimodal transportation solutions, and improving connections to key destinations. In demonstration of this commitment, WCCC members voted to commit \$70,000 in matching funds from the countywide Major Streets Transportation Improvement Program (MSTIP). MSTIP is a countywide, voter approved, property tax, which has been vital to the strong and sustained economic growth in Washington County by contributing over \$730 million in strategic transportation investments over the last 28 years.

The WCCC is encouraged that through this grant opportunity, these project development grant funds may be used to support safe multimodal transportation solutions, improve access to jobs, and connect key destinations.

I respectfully request you give the City of Tualatin's application the fullest consideration.

Sincerely,

Roy Rogers, Chairman
Washington County Coordinating Committee

cc: Mayor Lou Ogden City of Tualatin
Washington County Board of Commissioners
Washington County Coordinating Committee
Andrew Singelakis, Director, Land Use & Transportation

Department of Land Use & Transportation

155 North First Avenue, Ste. 350 MS 16 · Hillsboro, OR 97124-3072
phone: (503) 846-4530 · fax: (503) 846-4412 · TTY: (503) 846-4598 · www.co.washington.or.us



August 11, 2016

Metro Council
Regional Flexible Fund Allocation
600 NE Grand Avenue
Portland, OR

RE: Support for the City of Tualatin's Herman Road Active Transportation Project

Dear President Hughes and members of the Council:

Westside Economic Alliance is writing in support of the City of Tualatin's application for a 2019-21 Regional Flexible Funds Allocation Grant to complete project development for active transportation improvements on Herman Road between Tualatin Road and 124th Avenue.

This project will provide a much needed safe corridor for bikes and pedestrians, connecting to Tualatin's major employment district. The project will also improve Herman Road to allow for transit stops on the existing last-mile transit shuttle, served by Ride Connection. The Ride Connection shuttle connects Tualatin's employment areas with Tualatin's WES transit station and TriMet's #96 express bus to downtown Portland. The project will provide safe commuting options for employees traveling by bike, foot, shuttle or vehicle.

Westside Economic Alliance is a business advocacy organization representing members from both the public and private sector in Washington and western Clackamas counties. We continue to work together to nurture the business climate and create a vibrant economy.

We are encouraged by Tualatin's efforts to enhance the active transportation options for commuters along Herman Road. Thank you for your consideration of this important project.

Respectfully,

Pamela Treece
Executive Director

10220 SW Nimbus Ave.
Suite K-12
Tigard, Oregon 97223
Office 503.968.3100
Fax 503.624.0641
www.westsidealliance.org

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Kyle Latta
KG Investment Properties

Brantley Dettmer
Kaiser Permanente NW

Tim Parker
Melvin Mark Companies

Nancy Roberts
Providence Health & Services

Chairman Andy Duyck
Washington County

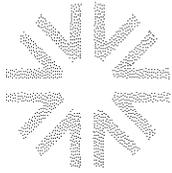
Councilor Craig Dirksen
Metro

Mayor John Cook
City of Tigard

Mayor Denny Doyle
City of Beaverton

Mayor Lou Ogden
City of Tualatin

Mayor Jerry Willey
City of Hillsboro



**Westside
Transportation
Alliance**

August 11, 2016

Regional Flexible Fund Allocation
Metro
600 NE Grand Avenue
Portland, OR

RE: Letter of Support for the City of Tualatin's Herman Road Active Transportation Project

To Whom It May Concern,

I am writing in support of the City of Tualatin's application for a 2019-21 Regional Flexible Funds Allocation Grant to complete project development for active transportation improvements on Herman Road between Tualatin Road and 124th Avenue.

Herman Road provides an essential connection to Tualatin's major employment district; however, it is not a safe route for bicyclists and pedestrians. This project will provide a much needed safe corridor for bikes and pedestrians along Herman Road. The project will also improve Herman Road to allow for transit stops on the existing last-mile transit shuttle, served by Ride Connection.

Westside Transportation Alliance is a TMA focused on providing services and programs that help employees in Washington County commute by transit, carpool, bicycling or walking. Safe and pleasant "last mile" routes are essential to employers' efforts to decrease single occupancy commutes and ultimately create a more positive commuting experience for employees — and healthier communities in general. We whole-heartedly support Tualatin's proposed project and are confident it will enhance active transportation options for commuters.

Respectfully,

Tracy Love-Silver
Interim Executive Director

Instructions for Using This Workbook

Password for locking/unlocking this sheet is 'metro'. All other sheets have no password.

Purpose:

This workbook provides a methodology for planning-level cost estimating for transportation infrastructure projects. Alternative methodology of similar or better detail is acceptable.

Where agencies propose cost methodology significantly different from this methodology, documentation should be provided.

This includes unit costs which vary significantly from that specified here. Consistency of such costs between projects is desirable in that it allows for equitable comparison of projects.

Instructions:

This workbook or a comparable cost estimate must be completed for each project submitted.

Complete the project information below and in Sheets 1 through 5. Worksheets are accessed by tabs at the bottom of the window.

Sheet 6 summarizes total estimated cost of the project.

Input cells are shaded light blue, and should be filled in by the user (where applicable). Other cells are locked and should not be changed.

<sample> ← Appearance of input cells used throughout this workbook.

Locked cells can be unlocked by selecting Review > Unprotect Sheet. This is not recommended in most cases. Password is 'metro'.

Questions about completing the workbook should be directed to Anthony Buczek, Transportation Engineer with Metro.

Feedback and comments about this workbook are encouraged, and will help to improve it for future updates.

phone: 503-797-1674

e-mail: anthony.buczek@oregonmetro.gov

These cells are shaded light blue, which means they should be filled in.

Project Information:

Fill in all of the information below for your project.

Funding year:	PE	2019	
	ROW	2022	
	Const	2023	
Project name:	HERMAN ROAD ACTIVE TRANSPORTATION CORRIDOR - PRELIMINARY ENGINEERING		
Corridor and endpoints:	SW 124th Avenue to SW Tualatin Road		
Project description:	Construct new bike lanes, sidewalks, landscape buffers, and transit stops and add buffered bike lanes to existing bike lanes.		
Local plan project #:			
RTP project #:	10715		
Submitting agency:	City of Tualatin		
Agency contact:	Zoe Monahan		
Contact phone:	503-691-3020		
Contact e-mail:	zmonahan@ci.tualatin.or.us		

Proceed to Sheet 1 when the above is completed.

Unit costs year:

2007

Escalation rate

	Used in Calculations	Default	Override
2007 - 2008	100.38%	100.38%	
2008 - 2009	84.72%	84.72%	
2009 - 2010	96.78%	96.78%	
2010 - 2011	101.04%	101.04%	
2011 - 2012	105.05%	105.05%	
2012 - 2013	97.86%	97.86%	
2013 - 2014	100.79%	100.79%	
2014 - 2015	100.71%	100.71%	
2015 - 2016	104.00%	104.00%	
2016 - 2017	104.00%	104.00%	
2017 - 2018	104.00%	104.00%	
2018 - 2019	104.00%	104.00%	
2019 - 2020	104.00%	104.00%	
2020 - 2021	104.00%	104.00%	

Do not override these unless better escalation factors are identified.

2007 - 2015 based on FHWA NHCCI

2016 - 2021 based on ODOT inflation assumptions

Escalation Lookup Table

v From \ To >	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
2007	100.00%	100.38%	85.04%	82.30%	83.16%	87.36%	85.49%	86.16%	86.78%	90.25%	93.86%	97.61%	#####	#####	#####
2008	---	100.00%	84.72%	81.99%	82.84%	87.03%	85.17%	85.84%	86.45%	89.91%	93.50%	97.24%	#####	#####	#####
2009	---	---	100.00%	96.78%	97.79%	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
2010	---	---	---	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
2011	---	---	---	---	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####
2012	---	---	---	---	---	#####	97.86%	98.63%	99.33%	#####	#####	#####	#####	#####	#####
2013	---	---	---	---	---	---	#####	#####	#####	#####	#####	#####	#####	#####	#####
2014	---	---	---	---	---	---	---	#####	#####	#####	#####	#####	#####	#####	#####
2015	---	---	---	---	---	---	---	---	#####	#####	#####	#####	#####	#####	#####
2016	---	---	---	---	---	---	---	---	---	#####	#####	#####	#####	#####	#####
2017	---	---	---	---	---	---	---	---	---	---	#####	#####	#####	#####	#####
2018	---	---	---	---	---	---	---	---	---	---	---	#####	#####	#####	#####
2019	---	---	---	---	---	---	---	---	---	---	---	---	#####	#####	#####
2020	---	---	---	---	---	---	---	---	---	---	---	---	---	#####	#####
2021	---	---	---	---	---	---	---	---	---	---	---	---	---	---	#####

Workbook revision date: June 27, 2016 (metro)

<p>1. Construction</p> <p>Sections A through E must be completed. Complete Sections F and/or G if applicable.</p> <p>Projects will not include all elements below, but most will include elements from multiple sections.</p> <p>Enter quantities only for elements actually included in your project.</p>	<p>HERMAN ROAD ACTIVE TRANSPORTATION CORRIDOR - PRELIMINARY ENGINEERING</p> <p>SW 124th Avenue to SW Tualatin Road</p> <p>City of Tualatin</p>
---	--

1.A - Road Construction, Reconstruction, or Resurfacing

Item	Unit	Quantity	Unit cost	Total	Description
Road - new/reconstruct (incl. curb, sidewalk, drainage)	SF		\$15	\$0	Specify SF of pavement, not including sidewalks and curbs (these are assumed in unit cost).
Road - resurface	SF	50,400.0	\$4	\$201,600	
◦ Specify length and typical width of project					For documentation of assumptions used.
		2,100.0			
Section 1.A Subtotal				\$201,600	

1.B - Addition of Roadway Elements to Existing Roadway

Item	Unit	Quantity	Unit cost	Total	Description
Minor widening, no curbs	SF	25,200.0	\$15	\$378,000	Used for bike lanes, other minor widening. Does not include curbs, sidewalks, or drainage.
Remove pavement	SF	0.0	\$0.75	\$0	
Curb only	LF	4,200.0	\$16	\$67,200	For new curb installation. Does not include drainage.
Remove curb	LF	0.0	\$6	\$0	
Median in existing lane no drainage	LF	0.0	\$86.50	\$0	Includes pavement removal, curbs, landscaping for a 12' median in 14' lane. No drainage included.
Landscaping only - medians and bulbouts	SF	0.0	\$4	\$0	Install 18" topsoil plus plants
Drainage system - both sides	LF	4,200.0	\$115	\$483,000	For new installations. Length is overall project length where drainage is added.
Bridge - new or replace	SF	0.0	\$250	\$0	For documentation of assumptions used.
◦ Specify length and width of bridge					
Street trees with tree grates	LF	2,100.0	\$40	\$84,000	Per side.
Irrigation system		Provide estimate	→	\$10,000	For irrigation of medians and bulbouts. Specific estimate required if used (describe in Section 1.G).
Signing/markings	LF	13,300.0	\$2	\$26,600	Use when new pavement markings are to be installed (per line).
Clearing	SF	50,400.0	\$0.06	\$3,024	Used for new alignments.
Grading	CY	3,500.0	\$17.50	\$61,250	Provide an estimate of grading and describe assumptions in Section 1.G.
Retaining walls (by wall area)	SF	3,600.0	\$55	\$198,000	Use SF of walls if known. If not, estimate length of walls and describe assumptions in Section 1.G.
Retaining walls (by length)	LF	0.0	\$250	\$0	
Section 1.B Subtotal				\$1,311,074	

1.C - Addition of Pedestrian Elements to Existing Roadway

Item	Unit	Quantity	Unit cost	Total	Description
Sidewalk, no curb	SF	12,600.0	\$10	\$126,000	Includes curb ramps.
Remove sidewalk	SF	0.0	\$1.25	\$0	
Shared-use path	SF	0.0	\$5	\$0	Includes curb ramps.
Street furniture - bench	EA	0	\$2,275	\$0	
Street furniture - bike rack	EA	0	\$330	\$0	
Street furniture - trash can	EA	0	\$1,350	\$0	
Section 1.C Subtotal				\$126,000	

1.D - Utilities

Item	Provide estimate	Total	Description
Utility burial	→		If utility burial is included, provide a detailed cost from the appropriate utility.
Utility relocation	→		Describe what utilities will or may be relocated. Provide cost estimate and describe assumptions.
Description: <input style="width: 100%; height: 20px;" type="text"/>			
Railroad impacts			
Summary:		Summarize impacts Describe potential impacts to railroads in project area.	
<input style="width: 100%; height: 20px;" type="text"/>			
Section 1.D Subtotal		\$0	

1.E - Traffic Signals and Lighting

Item	Unit	Quantity	Unit cost	Total	Description
Traffic signals (4-lanes or more)	EA	0	\$150,000	\$0	Use where at least one roadway is 4 lanes or more.
Traffic signals (less than 4-lanes)	EA	0	\$105,000	\$0	Use where both roadways are 3 lanes or less.
Street lighting - per side	LF	2100.0	\$80	\$168,000	Install street lighting at 100' spacing per side.
Section 1.E Subtotal				\$168,000	

1.F - Associated Costs

Item	Basis	Total	Description
Mobilization, staging, traffic control	15%	\$271,001	
Erosion control - enter value to override fixed 1.5%	1.5%	\$27,100	Use 1.5% of construction costs, or provide a cost estimate and describe assumptions.
No Description Required: <input style="width: 100%; height: 20px;" type="text"/>			
Section 1.F Subtotal		\$298,101	

1.G - Additional Information

Use the space below to provide additional information, including items not listed above, or to expand on assumptions used.

400 LF chainlink fence at \$20/LF = \$8000

Other Expected Costs	Provide estimate →	\$8,000
Section 1.G Subtotal		\$8,000

SUMMARY

Total of sections A through G **\$2,112,775** Section 1 Total

2. Environmental Impact and Mitigation HERMAN ROAD ACTIVE TRANSPORTATION CORRIDOR - PRELIMINARY ENGINEERING
 Sections A and B must be completed. Complete Section C if applicable. Contact Metro if information for 2.B is needed. SW 124th Avenue to SW Tualatin Road
City of Tualatin

2.A - Status and Information

Please place an 'X' in the appropriate box.

EA not completed; an EIS IS expected.	<input type="checkbox"/>
EA not completed; an EIS is NOT expected.	<input checked="" type="checkbox"/>
EA not completed; unknown whether EIS is expected.	<input type="checkbox"/>
EA has been completed; an EIS IS required.	<input type="checkbox"/>
EA has been completed; an EIS is NOT required.	<input type="checkbox"/>
Both an EA and an EIS have been completed.	<input type="checkbox"/>

Describe expected environmental impacts, assumptions, and unknowns.

Description: The project is not located in a sensitive area. The property being considered for widening is generally disturbed non-vegetaed land.

2.B - Environmental Impacts and Mitigation

Item	Unit	Quantity	Unit cost	Total	Description
Estimate acreage of impact/mitigation	ACRE	1.15	\$150,000	\$172,500	
Section 2.B Subtotal				\$172,500	

2.C - Additional Information

Use the space below to provide additional information, including items not listed above, or to expand on assumptions used.

Other Expected Costs Provide estimate → \$0

Section 2.C Subtotal

SUMMARY

Total estimate for environmental mitigation **\$172,500** Section 2 Total

3. Right-of-Way Cost Estimation HERMAN ROAD ACTIVE TRANSPORTATION CORRIDOR - PRELIMINARY ENGINEERING
 Use either Method 'A' or Method 'B'. Method 'A' is preferred. Complete Section C if applicable. SW 124th Avenue to SW Tualatin Road
City of Tualatin

Where the exact SF of ROW is unknown, an estimate must be made. At the most simplistic level, this estimate can be made by calculating the difference between the proposed cross-section width and the existing ROW width, multiplied by the project length. Where ROW width cannot be determined, it should be assumed to be the width of the existing roadway including sidewalks.

3.A - Method 'A' (moderate confidence)

Item	Unit	Quantity	Unit cost	Total	Description
Estimate area (SF) of ROW taking	SF				
Describe assumptions used in calculating area:					
Estimate unit cost (per SF) of taking	\$				
Describe assumptions used in calculating unit cost(s):					
Estimated total cost of taking				\$0	Estimated area multiplied by estimated unit cost.
Number of affected parcels:	EA		\$10,000	\$0	Reflects administrative costs of property acquisition.
Section 3.A Subtotal				\$0	

3.B - Method 'B' (low confidence)

Item	Unit	Quantity	Unit cost	Total	Description
Estimate square-feet of high-value ROW taking	SF		\$30	\$0	Use in urban areas and moderate to high-priced neighborhoods.
Estimate square-feet of developed ROW taking	SF	3600.0	\$20	\$72,000	Use in other established neighborhoods.
Estimate square-feet of undeveloped ROW taking	SF	37800.0	\$15	\$567,000	Use in undeveloped areas.
Describe assumptions used in calculating area: Approx. 18' x 2100' and approx. 18' x 200'					
Estimated total cost of taking				\$639,000	Estimated area multiplied by estimated unit cost.
Number of affected parcels:	EA	6	\$10,000	\$60,000	Reflects administrative costs of property acquisition.
Section 3.B Subtotal				\$699,000	

3.C - Additional Information

Use the space below to provide additional information, including items not listed above, or to expand on assumptions used.

SUMMARY

Method 'A' Right-of-Way estimate (moderate confidence)	\$0	Section 3 Total (moderate confidence)
Method 'B' Right-of-Way estimate (low confidence)	\$699,000	Section 3 Total (low confidence)

4. Design and Administration Costs HERMAN ROAD ACTIVE TRANSPORTATION CORRIDOR - PRELIMINARY ENGINEERING
SW 124th Avenue to SW Tualatin Road
City of Tualatin
Complete input cells in Sections A and B if applicable. Default markup values can be overridden.

4.A - Design

Construction Costs (from Section 1):

\$2,112,775

Environmental Impact Costs (from Section 2):

\$172,500

Item	Base Cost	Markup	Total	Description
Surveying, design, coordination	\$2,285,275	25%	\$571,319	(Default 30%) Typically included in the professional engineering contract
Construction Engineering	\$2,285,275	10%	\$228,528	(Default 20%) Engineering services during construction
Other Expected Costs	Provide estimate →			

Description of other expected costs:

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Section 4.A Subtotal **\$799,846**

4.B - Administration

Project Administration will be applied throughout project.

Administration	\$2,285,275	5%	\$114,264	(Default 35%) Project overhead
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Section 4.B Subtotal **\$114,264**

4.C - Additional Information

Use the space below to provide additional information, including items not listed above, or to expand on assumptions used.

The majority of project administration will be performed by City staff. Staff costs are charged against the general fund and not against the project.

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SUMMARY

Total of all above items **\$914,110** Section 4 Total

5. Contingency and Risk HERMAN ROAD ACTIVE TRANSPORTATION CORRIDOR - PRELIMINARY ENGINEERING
SW 124th Avenue to SW Tualatin Road
City of Tualatin
Complete input cells in Section A if applicable. Default markups can be overridden. Section B must be completed.

5.A - Contingency

Item	Section Total	Markup	Contingency \$	Description
Section 1 - Construction	\$2,112,775	20%	\$422,555	(Default 20%)
Section 2 - Environmental	\$172,500	20%	\$34,500	(Default 20%)
Section 3.A - Right-of-Way (moderate confidence)	\$0	40%	\$0	(Default 40%)
Section 3.B - Right-of-Way (low confidence)	\$699,000	50%	\$349,500	(Default 50%)
Section 4.A - Design	\$799,846	20%	\$159,969	(Default 20%)
Section 4.B - Administration	\$114,264	No contingency on Administration		
Other Expected Costs	Provide estimate	→		
Description of other expected costs:				
Section 5.A Subtotal	\$966,524			

5.B - Risk

Describe project components, impacts, or unknowns that are uncertain in scope at this point. Items might include:

- environmental issues
- nearby historic or cultural resources
- railroad or utility work
- bridge work
- agency approvals
- existing deficient infrastructure
- complex or untested components
- other unique elements

Description of these items is not intended to affect project selection, but rather to identify and document key issues that need refinement.

6. Project Summary Sheet

HERMAN ROAD ACTIVE TRANSPORTATION CORRIDOR - PRELIMINARY ENGINEERING

SW 124th Avenue to SW Tualatin Road

Construct new bike lanes, sidewalks, landscape buffers, and transit stops and add buffered bike lanes to existing bike lanes.

City of Tualatin

6.A - Cost Summary in 2007\$

	Item Total	Phase Total
<u>Preliminary Engineering (PE)</u>		\$714,149
Surveying, design, coordination	\$571,319	
Contingency at 20%	\$114,264	
Administration at 5%	\$28,566	
<u>Right-of-Way (ROW)</u>		\$1,048,500
Right-of-Way (moderate confidence)	\$0	
Contingency at 40%	\$0	
Right-of-Way (low confidence)	\$699,000	
Contingency at 50%	\$349,500	
<u>Construction (Const)</u>		\$3,142,253
Construction (Section 1)	\$2,112,775	
Contingency at 20%	\$422,555	
Environmental (Section 2)	\$172,500	
Contingency at 20%	\$34,500	
Construction Engineering	\$228,528	
Contingency at 20%	\$45,706	
Administration at 5%	\$125,690	
		Total
		\$4,904,902

6.B - Funding Summary by Year of Expenditure

Phase		2007 Dollars	YOE Year	Escalation	YOE Cost
Preliminary Engineering	PE	\$ 714,149	2019	1.52%	\$ 724,979
Right-of-Way	ROW	\$ 1,048,500	2022	9.80%	\$ 1,151,256
Construction	Const	\$ 3,142,253	2023	9.80%	\$ 3,450,203
	Total	\$ 4,904,902			\$ 5,326,438