



Active Transportation & Complete Streets Projects

Name of Project Molalla Avenue: Beaver Creek Road to Hwy 213

(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: street(s), intersection(s), path or area. Molalla Avenue
- Beginning facility or milepost. Beaver Creek Road
- Ending facility or milepost. Hwy 213
- Provide a brief description of the project elements.

Molalla Avenue is a key corridor for all travel modes connecting the Oregon City Regional Center with Clackamas Community College and Clackamas County Red Soils Campus; as well as connecting the residential areas on the west side to the commercial areas on the north & east sides. Currently, the corridor is uncomfortable, unwelcoming and unaccommodating for those walking, biking or accessing transit. With some of the highest population and employment densities in Oregon City adjacent to the Molalla Avenue corridor, we would like to encourage non-auto modes by creating a right of way that better accommodates all users. The project would include continuous bike lanes along the entire corridor; 10 foot wide continuous ADA compliant sidewalks, street trees and pedestrian level street lighting along the west side of this developed corridor; ADA compliant ramps along both the east & west sides of the corridor; transit amenities along both sides of the corridor; street furnishings; improved access management; and more convenient and safer street crossings. With these items lacking, Molalla Avenue currently functions as a barrier to pedestrian, bicycle and transit users.

- City (ies). Oregon City
- County (ies). Clackamas County

Base project information

- Corresponding RTP project number(s) for the nominated project.
10125: Molalla Avenue Streetscape Improvements Phase 4 addresses a gap including widening sidewalks, sidewalk infill, ADA accessibility, bike lanes, reconfigure travel lanes, and add bus stop amenities.
10121: Molalla Avenue Frequent Bus Service relieves congestion including improve sidewalks, lighting, crossings, bus shelters & benches.
- Attach a completed Public Engagement and Non-discrimination checklist (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).
Molalla Avenue is a key route for all travel modes providing connections between the essential services along the Molalla Avenue corridor. The east side of the Molalla Avenue corridor includes commercial development where much of Oregon City's services are provided. Fred Meyer, Goodwill, Bi-Mart, U.S. Post Office, fast food restaurants and several banks are just examples of the service providers that reside on the east side of Molalla Avenue. Across the street to the west are 90 acres of high to medium density residential, an elementary school, seven multifamily residential developments and assisted living facilities, plus a 189 unit mobile home park. Clackamas Community College and its over 11,000 students at the Oregon City campus to the southeast and the County's Red Soils Campus to the northwest anchor the ends of the project area. The Oregon City Transit Center is located in the heart of our Regional Town Center in historic downtown Oregon City, and is easily accessible by transit.

Molalla Avenue from Beaver Creek Road to Hwy 213 is a challenge for non-motorized users. Excessive driveways reduce the efficiency and safety of the street, sidewalk and bike lanes, coupled with few, inconvenient and unsafe street crossings, putting non-motorized users in adverse conditions. Because of this Molalla Avenue currently functions as a barrier between residential areas and essential services. Existing sidewalks are barely 5 feet wide, curb-tight and often obstructed by utility poles, traffic signals or signage, further narrowing the sidewalk to widths inaccessible to wheelchairs and strollers. Street crossing opportunities are inconveniently spaced in relation to transit stops and other mid-block service locations. Project improvements will increase pedestrian and bike traffic by addressing safety and access issues for the elderly, disabled, and families with small children, bicyclists, and low income families that don't have automobiles. They will also increase availability of services for the residential areas that include currently underserved populations. Finally, improvements to Molalla Avenue will increase non-auto trip access to essential services by completing the "last mile" connection to essential services and employment in the corridor. The Clackamas County Red Soils Campus is home to nearly all the County's offices and services. The high employment provided by the Red Soils Campus and other employers in the area, combined with the mix of commercial uses, makes this a good location for active transportation investments.

- Attach a completed Active Transportation Design checklist (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).
The City will work with TriMet to review ridership both before and after improvements are complete. Pedestrian and bicycle counts will be gathered at key intersections to demonstrate an increase in bike and pedestrian travel throughout the project area. We will gather and compare crash data to show a decrease in crashes overall, specifically, between pedestrians and freight. Additionally, a neighborhood & business survey will be conducted before and after the improvements are constructed to get feedback from the local community.

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 project cost estimate was determined based on a review of the existing corridor for right of way width and for improvements needed to create a safe and comfortable corridor encouraging active

transportation modes. Oregon City prepares a biennial budget and would commence allocating the local match funds beginning in the 2017-2019 Biennial Budget. In the previous RFFA funding cycle the Molalla Avenue project was well supported by the community, and received many comments that the improvements would be appreciated and valued by the public.

- Total project cost (Include and describe any cost elements beyond those funded by the request + match):
\$7,985,379
- RFFA funding request by project phase:
(e.g. Project Development, P.E., Environmental, ROW acquisition, Construction)
Preliminary Engineering: \$1,401,389
ROW: \$521,023
Construction: \$6,062,967
- Local match or other funds (minimum match = 10.27% of funds requested + match): \$4,000,000

Map of project area

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

Project sponsor agency

- Contact information (phone # & email) for:
- Application lead staff: John Lewis, 503-496-1545 jmlewis@orc.org
- Project Manager (or assigning manager): Aleta Froman-Goodrich, 503-496-1570 afroman-goodrich@orc.org
- Project Engineer (or assigning manager): Dayna Webb, 503-974-5508 dwebb@orc.org
- *Describe the agencies 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 Oregon City public works department has an excellent track record of delivering successful federal aid transportation projects. The projects include:
 - 2006 to 2010 McLoughlin Blvd. Phase 1 – Project Cost: \$10 million
Federal-aid \$4.5 million, State STIP \$2.4 million, City local funds \$3.1 million
 - 2009 to 2010 McLoughlin Promenade – Project Cost: \$1.5 million
ARRA \$1.4 million, City local funds \$0.1 million
 - 2009 to 2011 Warner Milne – Project Cost: \$3.1 million
ARRA \$0.9 million, City local funds \$2.2 million
 - 2011 to 2013 Main Street 5th -10th Street – Total Cost: \$4 million
Federal-aid \$2.7 million, City local funds \$1.3 million
 - 2009 to 2013 Jughandle Project – Project Cost: \$26.8 million
Federal-aid \$2.5 million, 2009 Oregon JTA \$22 million, City local funds \$2.3 million
 - 2013 to 2015 McLoughlin Blvd. Phase 2 – Project Cost: \$4.5 million
MTIP \$3.4 million, State Stormwater \$0.24 million, City local funds \$0.9 million

The City of Oregon City delivered the six (6) federal aid transportation projects listed above on time and budget within the past 10 years. The City's success in delivering these projects included assigning the projects to one of the City of Oregon City Public Works Engineering Group's registered professional engineers. The project engineer managed the agreements, project prospectus, scoping and planning, design and construction phases, budget and schedule to deliver the projects successfully, including the federal aid project close-out.

- *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 Oregon City Public Works Engineering Group has five (5) registered professional engineers. The federal aid projects are assigned to one of the project engineers that specializes in transportation projects and has received ODOT training specifically for “Local Agency Federal-Aid Project Delivery”. This engineer will oversee the project planning and federal aid grant application process. When the City is successful in obtaining the federal aid transportation grant, then the project engineer will manage all aspects of the project from the scoping and prospectus, through the design and construction phase, monitoring the budget and schedule to the final completion and successful delivery of the project, including the federal aid project close-out. With one transportation project engineer that oversees all aspects of the federal aid project, this ensures consistency and good project administration and management, with good oversight of the budget and schedule to deliver the project successfully.

The City of Oregon City has identified specific transportation capital improvement projects in the City’s Transportation System Plan for funding through the City’s Transportation Capital Improvement Program. The City allocates transportation funds to these projects through biennial budgets, including allocations of potential grant matching funds in anticipation of federal-aid projects. The City’s Finance Department assists the Public Works Engineering Group with 6-month audits of projects to ensure that funding and budgets are on target as allocated. The City’s Public Works Director and City Engineer have also received training on the process for “Local Agency Project Delivery” of federal-aid transportation projects and the City Engineer delivered 4 of the 6 projects listed above.

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 Oregon City School District has three schools which serve the project area: Gaffney Lane Elementary with 584 students (located on Gaffney Lane, to the west of Molalla Avenue) which is a Title 1 designated school, Gardiner Middle School with 779 students (located northwest of the project) and Oregon City High School (located southeast of the project) with 2,137 students.

The Clackamas Community College Oregon City Campus is located at the southeast end of the Molalla Avenue Corridor, just across Hwy 213, with over 11,000 students utilizing this facility.

ACS Census data referenced is from 2010-2015.

Low Income: Of the students within the project area schools 41.69% at Gaffney Lane Elementary, 43.5% at Gardiner Middle School, and 38% at Oregon City High School are eligible to receive free/reduced lunches. ACS Census data shows that 13.1% of Oregon City is considered persons in poverty, which is higher than Clackamas County at 9.5% and Washington County at 12.5%. TriMet’s Title VI Report 2013 identifies the area along the Molalla Avenue corridor as low-income population greater than or equal to the average for their district.

Taking into account the immediate project area is served by a Title 1 elementary school, Census data shows a higher % of poverty in Oregon City than Clackamas County & Washington County, and TriMet identifies the corridor as greater than the average low income for their district clearly shows the Molalla Avenue corridor has a higher than average relative population of low-income families.

Non-white: The Oregon City School District schools which serve this area are Gaffney Lane Elementary (18.5% ethnic minority), Gardiner Middle School (26.3% ethnic minority) and Oregon City High School (21.3% ethnic minority).

Clackamas Community College's *Clackamas at a Glance* document identifies in the 2014-2015 enrollment statistics that 23% of the student body identifies as racial/ethnic known minorities. Although these students may not reside in the immediate area, they are repeatedly in the area utilizing services in the Molalla Avenue corridor.

Elderly & Young: ACS data shows that Oregon City has 25.5% under 18 years old, which is greater than Clackamas County at 23.7%, Multnomah County at 20.5% & Oregon at 22.6%. With a higher than average youth population, we are offered the ability to create an environment where selecting walking, biking and non-auto modes of transportation can become a way of life by proving our youth with safe choices as they travel to and from school, work and commercial destinations.

The Oregon City Pioneer Adult Community Center Meals on Wheels Coordinator reports there are five routes in the Molalla Avenue corridor that serve daily meals to seniors. Many of the seniors in this area are low-income and dependent on State and County programs such as food benefits and rental assistance. They serve about 1,000 meals per month in that area due to the inability of these residents to access grocery and nutrition services.

Numerous elderly services are located nearby the Molalla Avenue corridor, which means that even though Oregon City may not have a higher than average permanent elderly population, we experience a higher than average population influx of elderly accessing services in the corridor daily at both the Clackamas County Red Soils Campus (north and west of the corridor) and at the Social Security Administration offices (just north of the corridor off Molalla Avenue). These people may not reside here, but they are visiting the corridor, and need to be able to easily & safely get around. These services include information and resources about long-term support, in-home care, long term care planning, how to arrange for home delivered meals, how to apply for Medicaid, transportation assistance, money management program and much more.

Disability: ACS Census data shows that 9.6% of Oregon City identified as a person with a disability under age 65. This is higher than Clackamas County at 8.0%, Multnomah County at 9.4% & Washington County at 6.9%. Various disability services are available nearby through Clackamas County's social services, these include housing assistance, energy assistance, transportation assistance, as well as behavioral health services & developmental disability services. People with disabilities are coming to the area, seeking assistance with disability services. Although these people may not reside here, because of the services available to them in the corridor, they are often in the area. The Metro Equity Analysis - Disability map shows that there is an above average concentration of LIFT Paratransit events in the corridor and that several stops in the Molalla Avenue Corridor experience 16+ monthly bus ramp deployments. Spring 2016 ridership numbers from TriMet show that the Molalla Avenue/Gaffney Lane stop experiences 68 monthly ramp deployments.

Oregon City has a higher percentage of people under 65 years old identifying as disabled than each of the 3 metro area counties, numerous Clackamas County social services located in the area and a higher than average LIFT events, as well as several stops in the Molalla Avenue corridor that experience 16+ monthly bus ramp deployments. Based on this, the Molalla Avenue corridor is actively used by mobility disadvantaged populations as well as disabled populations, and desperately needs to provide a safe, secure experience for those needing to get around.

The Molalla Avenue project area will serve a higher than average number of historically underserved populations including low-income, non-white, elderly & young, as well as persons with disabilities. The project will assist them by removing barriers to safely traveling the corridor and providing safe, continuous ADA accessible sidewalks with adequate lighting and pedestrian actuated mid-block

crossings. With these amenities, pedestrian, bicycle and non-auto travelers can safely and comfortably move between their neighborhoods, places of employment, commercial services, social services, and the essential services they require.

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 Metro provided crash data for all crashes 2007-2013 indicates that the intersections of Molalla Avenue/Beavercreek Road and Molalla Avenue/Hwy 213 are both areas of significant vehicular accidents. Additionally, these areas are also prone to bicycle & pedestrian crashes, as is the intersection of Molalla Avenue/Gaffney Lane. Oregon City's 2014 crash data also shows additional crashes along Molalla Avenue at both Gaffney Lane & Clairmont Way, where updated signal controls are proposed, and at Char Diaz Drive & Garden Meadow Drive where pedestrian actuated crossings are proposed.

Overall, Oregon City experiences a much higher city-wide accident and injury rate per capita than any of its neighboring cities. According to ODOT's 2014 Oregon Traffic Crash Summary (and using certified 2014 population estimates available from PSU), Oregon City has an overall crash rate of 1.79% per capita followed in order by Gladstone (1.48%), Wilsonville (1.02%), Happy Valley (.98%), Milwaukie (.92%), West Linn (.86%) and Lake Oswego (.85%). Oregon City is tied with Happy Valley for the most fatalities per capita at .012% (Fatalities: 4 - Oregon City; 2 - Happy Valley) with Gladstone being the only other city with a fatality. As for injuries, Oregon City has the highest overall accident injury rate of 1.2% per capita followed in order of worst to best by Gladstone, Happy Valley, Wilsonville, West Linn, Milwaukie and Lake Oswego. This ODOT data also identifies Molalla Avenue & Gaffney as ranking 20th in the city for highest number of crashes.

The Molalla Avenue corridor experiences a large number of vehicle crashes, which would be alleviated with better pedestrian crossings, street lighting & more consistent lane widths. From Beavercreek Road to Hwy 213, Molalla Avenue is approximately 4,500 lf and currently includes only 6 marked crossing opportunities. The project would increase safety for pedestrians and bicyclists wanting to cross Molalla Avenue by providing marked, pedestrian activated crossings as close to 530 feet intervals along the corridor, as safety allows. Mid-block pedestrian activated crossings are planned to be installed at high-demand locations, such as near transit stops. Lengthy segments of sidewalk are missing, existing sidewalks are narrow and obstructed, driveway access is excessive and unmanageable, lighting is poor, and travel lane widths are wide and inconsistent. Most pedestrian ramps do not comply with current ADA standards, and the existing intersection signalization is outdated and will be upgraded to meet today's standards. Lane configurations will be modified through striping, and median treatments added resulting in efficient and safer travel ways. Throughout the project, 6 foot bike lanes will be striped, and signage and bicycle signal detection added. Sidewalks will be 10 feet wide with improved provisions at transit stops and crossing locations. Two intersections, Molalla Avenue/Clairmont Way and Molalla Avenue/Gaffney Lane, would be reconstructed with updated signalization meeting today's standards and three mid-block crossing facilities, including pedestrian activated flashing beacons, signage and center median pedestrian refuges would be constructed.

There are many conflicts between freight and active transportation in this corridor. Within the project area there exists a high level of freight traffic daily with industrial uses off Fir Street and commercial uses along both sides of the corridor. This mixed with medium/high density residential uses on the west side of the corridor, creates a corridor that projects a treacherous feeling. The proposed project design elements will reduce the number of conflicts through access management. We have identified a number of driveways that could be closed, narrowed or combined with others,

reducing the potential for conflict. Lane configurations will be modified through striping, and landscaped median treatments installed resulting in more efficient and safe use of the travel lanes.

Oregon City periodically does traffic counts throughout the city (2014, 2011 & 2008), which includes bicycle counts. The number of bicycles along the Molalla Avenue Corridor has decreased over time, presumably from bicyclists not feeling safe traveling on the roadway. With the addition of pedestrian level street lighting, wider more comfortable sidewalks and amenities such as street trees providing a safer feeling sidewalk, it is expected that the volume of pedestrians and bicycles will increase.

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

Six priority destinations exist in and around the Molalla Avenue corridor. These destinations range from grocery stores to public service buildings, and provide education, government services and everyday commerce.

Improving accessibility to the **Clackamas County Red Soils Campus** not only provides better connections to a large employment area but also an area that provides essential health & social services for historically underserved communities. **Clackamas Community College**, also a large employment area, provides not only access to higher education with transfer degrees & technical programs, but also community education, GED and adult diplomas. Residents looking for grocery, banking, cinema, retailers, and food services, can find what they need at the **Hilltop Shopping Center**, a 22 acre commercial development. The Metro Active Transportation Plan Regional Destinations include the **Molalla Avenue Corridor Employment Lands** that currently provide nearly 10,000 jobs and are anticipated to add an additional 2,250 jobs by 2040. The **Oregon City Transit Center**, located downtown in our **Regional Center**, is accessible via a short bus ride from the Molalla Avenue corridor. Operations at the Transit Center include 428 bus arrivals and departures each weekday, with over 15,000 weekly passenger boardings and deboardings. From the Oregon City Transit Center you can easily reach destinations such as Clackamas Town Center, Portland City Center, Clackamas Community College, University of Portland, Canby Area Transit, MAX Orange Line, and West Linn, Gladstone, Milwaukie, SE Portland, North Portland, and Canby from the 7 TriMet lines and Canby Area Transit services provided at the Transit Center.

The Metro Equity Analysis shows barriers to non-auto travel and points to below average proximity to sidewalks, transit facilities, and active transportation along the Molalla Avenue corridor. This project would provide continuous, accessible sidewalks for underserved communities, residents, and families walking with small children and strollers and those visiting the area for specialty services. In doing so it provides seamless connections, north and south, between the adjacent neighborhoods, transit services, and local services such as grocery, post office, education, faith organizations, and medical/dental services. By removing the barriers to non-auto travel we are creating the ability to safely & comfortably walk to priority destinations in the Molalla Avenue corridor.

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

This project is part of an overall streetscape plan for the Molalla Avenue corridor. Completion of this project will result in a boulevard that extends from Clackamas Community College, through the hilltop region of Oregon City and into the downtown area, thereby connecting residents from previously disjointed areas, creating a greater sense of community and providing a direct link to our Regional Center in downtown Oregon City.

In November 2014 voters approved a \$90 million bond measure for Clackamas Community College. With this funding they will construct an Industrial Technical Center, DeJardin Science Addition, Student Services & Community Commons Building, and general facilities and campus upgrades.

These will expand facilities in manufacturing, machining, technology programs and career technical education programs, as well as for Biology, Chemistry and other STEM programs.

The Clackamas County Red Soils Campus is a 68 acre site, with a Master Plan that identifies approximately 1,120,852 square feet of development on the site. The Red Soils Campus Master Plan envisions a 20-year build-out period with completion by 2030. A number of buildings were completed as part of Phase 1, and additional building & services are proposed for the future.

The Oregon City TSP shows an increase of 500-1,000 jobs are expected in the industrial area off of Fir Street, and an increase of 1,000+ jobs to the east in the Beaver Creek Road Concept Plan area. Oregon City also anticipates 1,000+ jobs in our Regional Center, easily accessible via transit from the Molalla Avenue corridor. The highest density of Oregon City's existing employment is focused in the Red Soils Campus area and along the Molalla Avenue Corridor. The 2040 Employment Forecast shows nearly 10,000 existing jobs along the Molalla Avenue Corridor, with a projection of an additional 2,250 jobs by 2040. This area includes the Fir Street Industrial area, shown as one of the areas with the highest increase in employment which includes an increase of nearly 1,000 jobs in that area alone.

ACS Census data shows the percent population change between 2010 and 2015 for Oregon City was 9.8%, this percent increase is higher than each of the metro area county's growth percentages (Clackamas 6.8%, Multnomah 7.5%, and Washington 8.4%). Oregon City has seen high growth rates recently and expects to continue to see growth in the coming years based on the number of land use inquiries and applications that are being reviewed and building permits issued. Additionally, the Oregon City TSP anticipates over 1,000 new households in the residential areas to the west of the Molalla Avenue Corridor.

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).*

The Molalla Avenue corridor is identified as both a Pedestrian Parkway & Regional Bikeway in the Regional Active Transportation Plan (ATP). The ATP also identifies Molalla Avenue as one of the project investment areas that by 2035 and upon completion of improvements, will have increased access to destinations within a 1 mile walk. Appendix 1 of the ATP identifies Molalla Avenue as P26, on the pedestrian network, with RTP projects 10121 (Oregon City) OC transit center to CCC – improve access to transit & 10125 (Oregon City) Molalla Avenue: Beaver Creek to Hwy 213, Phase 4 streetscape improvements.

The Oregon City TSP identifies the project as W74 Molalla Avenue Streetscape Improvements, Phase 4 and W34 Molalla Avenue Sidewalk Infill, to address the areas in the corridor where no sidewalk currently exists.

With the addition of safe, ADA compliant and comfortable sidewalks this project will complete Molalla Avenue as the Pedestrian Parkway the ATP envisioned it to be, thereby removing pedestrian's concerns for their safety and providing pedestrians safe locations to cross Molalla Avenue.

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? What barriers will be eliminated or mitigated?*

This project includes many design elements that will enhance the user experience and increase user comfort, thereby increasing non-auto trips. The design elements included in the project are:

Pedestrian Design Elements:

- **Add sidewalk:** Three sections (~1,315 lf) on the west side of the corridor currently lack sidewalks completely, those areas will be provide 10' sidewalks with street trees & pedestrian level lighting.
- **Add width to provide 10 foot sidewalks & provide a sidewalk clear zone of 6 or more feet:** The existing sidewalk on the west side that is only 5 feet wide (~ 2,700 lf) and not ADA accessible as it has many obstructions in the sidewalk including street signs, power poles and bus stop signs, will be widened to 10 feet.
- **Remove obstructions from primary pedestrian way or add missing curb ramps:** By widening the sidewalk we can remove the obstructions from the clear pedestrian zone and place them in the furnishing zone with the street trees and street lighting.
- **Raised pedestrian refuge median, including Rectangular Rapid Flashing Beacons (RRFB's):** The project is proposing 3 new raised pedestrian refuges with RRFB's, located at Adrian Way, Garden Meadow Drive and Char Diaz Drive. These are generally spaced within the 530 foot guideline, except at the south end of the project, as the sight distance around the horizontal curve creates safety concerns.
- **Lighting:** 4,015 lf of pedestrian scale lighting will be provided along the west side of the corridor.
- **Countdown heads & shortened cycle lengths:** Providing countdown heads & shortened cycle lengths creates a more pedestrian friendly corridor.
- **Access Management:** Along the corridor there are currently locations where driveways are very wide and excessive. The project will work to clearly define driveways and also provide the appropriate number & size of driveways.
- **Arterial Traffic Calming:** Inclusion of raised medians in appropriate locations, and a gateway feature at the south end provides traffic calming.
- **Transit stop amenities:** Benches, shelters, trash receptacles and lighting.
- **Add crosswalk at transit stop:** Project includes adding RRFB's near two transit stops along the corridor.

Bicycle Design Elements:

- **Medians with crossing treatments:** By including medians limiting left turns, we provide a safer corridor bicycles, but limiting their conflicts with turning vehicles.
- **Lighting:** 4,015 lf of pedestrian scale lighting is provided along the corridor.
- **Bicycle detection:** The project proposes bicycle detection at the 2 updated traffic signals.

Other Complete Street Features:

- **Gateway Feature:** The project proposes a gateway feature at the south end of the project.
- **Street Trees:** The project includes street trees along the west side of the corridor.

This extensive list of design elements provided by the Molalla Avenue corridor project will remove the many barriers to non-auto travel in this highly used corridor by providing a safe, well-lit clear pedestrian zone & ADA accessible sidewalks; enhanced pedestrian crossings; street trees that provide a feeling of separation between pedestrians and vehicles; transit stop amenities; fewer/reduced size driveways; and medians to limit the number of conflict locations between pedestrians, bicycles & vehicles.

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

Within the project area we have identified several locations that lack sidewalks, biking facilities, and the ability to cross Molalla Avenue safely. Discontinuous sidewalks and narrow widths create barriers to those with wheelchairs and families with strollers and small children traveling north/south. The lack of adequate crossing sites and safety issues also create barriers for

pedestrians and bicyclists alike going east/west. The project will create a new section of "boulevard" for the community and encourage active transportation along this corridor, providing a safe alternative to both Beaver Creek and Hwy 213. By upgrading the sidewalks, transit stops and pedestrian crossings, this project completes the "last mile" for non-auto travel to Clackamas Community College (and the transit hub there), the Clackamas County Red Soils Campus and encourages increased travel to downtown Oregon City and its connections with the heart of the metro area. This project completes the "last mile" between the local neighborhoods and the services the citizens require to maintain their health, fitness, and sense of community. As these improvements are made, the safety and comfort level for non-auto traveling will increase. This increase will also enhance the neighborhoods outside of the project zone.

Clackamas Community College has received a \$1,762,950 *ConnectOregon* grant to update the Transit Center located on the campus, with a total project cost of \$2,555,000. The project will improve transit connections for Canby Area Transit, South Clackamas Transit District, and TriMet fixed route and paratransit vehicles through new designated sawtooth bus bays for safer vehicle maneuvering and passenger boarding. Pedestrians and bicycles will have improved access to transit through the new shared use path on the campus that will provide a "last mile" connection to Molalla Avenue, Oregon City High School and future industrial properties to the east & south of the campus.

Clackamas Community College has also been awarded an ODOT Transit Network Discretionary Grant for \$98,000 to build a shared use path that will complete the on-site pedestrian and bicycle network at the campus's entrance on Hwy 213, directly across from south end of the Molalla Avenue corridor project.

Additionally, Oregon City High School recently received a \$25,000 Nature in Neighborhoods grant for a CCC Shared Use Path that will significantly improve and pave an existing gravel pathway between Oregon City High School and Clackamas Community College. This will provide a safe direct connection from the High School property, through CCC to the Molalla Avenue corridor.

Priority criteria

8. *How the public will 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).*

The City performed outreach to local residents regarding this project during the 2001 Molalla Avenue Boulevard and Bikeway Plan development, during the 2012 TSP update, and during the previous RFFA grant process. For the Molalla Avenue corridor project the City would build on the successful techniques from our Main Street Two-Way Conversion Project outreach. This includes:

- Public meetings, both formal open houses and drop-in events will be held during preliminary engineering & construction phases, including a design workshop
- Easily accessible project staff, being available by phone and email, as well as checking in regularly at the impacted business
- Periodic updates including construction notifications, and weekly construction schedules provided to adjacent property owners, residents, business owners and property managers
- Project website providing timely construction updates and photos, articles in the Oregon City Newsletter Trail News, direct mailings to impacted parties
- Accommodations for public access will be important, as will coordination with TriMet for temporary bus stop locations

- Open & regular communication with interest groups will be maintained, this includes, but is not limited to: neighborhood associations, Transportation Advisory Committee, Citizen Involvement Committee, Oregon City Business Alliance, Oregon City Chamber of Commerce
- The City would also work closely & collaboratively with other impacted agencies including ODOT, Clackamas Community College, Clackamas County, TriMet, Metro to ensure the highest quality project is delivered.

Working with the adjacent property owners prior to preliminary engineering and developing the ability to more efficiently & effectively move forward with a project that not only builds partnerships, but allows working together to create a project that benefits everyone. Providing a safe & comfortable way for non-auto travelers to utilize the corridor is a win-win for the Molalla Avenue corridor and active transportation.

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

The City is committed to the success of this project and will commit funding from pavement maintenance utility fees, transportation system development charges, gas taxes and right of way fees . Oregon City prepares a biennial budget and would be able to begin allocating the local match funds beginning in the 2017-2019 Biennial Budget. Oregon City is proposing to provide a total of \$4.0 million in match funds, with an estimated project cost of \$7.98 million, thereby leveraging more than 50% of the total project cost with local funds.

If successful with this grant, the City will work with our local partners & interest groups to pursue a Metro Enhancement Grant Program to provide wayfinding signage along the corridor, thereby enhancing the art & culture within the City.

Many other recent grant awards at the south end of the project can be leveraged and compounded by this project, creating the ability to provide an even more connected, safe, comfortable active transportation network in the area:

- Clackamas Community College has received a \$1,762,950 *ConnectOregon* grant to update the Transit Center located on the campus, with a total project cost of \$2,555,000.
- Clackamas Community College has also been awarded an ODOT Transit Network Discretionary Grant for \$98,000 to build a shared use path that will complete the pedestrian and bicycle network at the campus’s entrance on Hwy 213, directly across from south end of the Molalla Avenue corridor.
- Oregon City High School recently received a \$25,000 Nature in Neighborhoods grant for a CCC Shared Use Path that will significantly improve and pave an existing gravel pathway between Oregon City High School and Clackamas Community College.

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

The Oregon City to Willamette Valley mobility corridor 9 encompasses Hwy 213 south of I-205, parallel arterials as well as transit service and bicycle routes that support movement in and through the corridor. Hwy 213 supports both intraregional and interregional travel between the Oregon City regional center and neighboring communities. Beaver Creek Road and Molalla Avenue are identified as parallel arterials to Hwy 213. Hwy 213 does not currently accommodate safe walking and biking, and improvements could not be cost-effectively implemented due to environmental and topographic constraints. Improving the existing walking and biking facilities along the Molalla Avenue corridor would be the most cost-effective means of providing safer and more accommodating connections to and through this mobility corridor. These improvements would also provide a continuous multi-modal connection between the Oregon City Transit Center downtown, Clackamas Community College, the Clackamas County Red Soils Campus and areas further south along Hwy 213.

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)*

The Molalla Avenue Boulevard and Bikeway Plan began the process of looking closely at the Molalla Avenue corridor with its adoption in January 2001. This plan accomplished the goal of creating a corridor plan to guide the management and development of the roadway and surrounding land use and transportation systems. Shortly after completion of the plan, the Corridor Safety & Enhancement Plan was completed in May 2001. This supplement to the original study outlined solutions to identify accessibility and mobility issues along the corridor in order to provide for the safe and efficient movement of people and goods throughout the corridor.

The most recent public involvement input related to this project comes from the City's efforts through the process of creating a Transportation System Plan Update (TSP). During the 2012 TSP update City staff and citizens worked together evaluating our transportation system. The TSP studied how we get around Oregon City and where problems with travel in Oregon City exist. The TSP then identified improvement opportunities for all modes of travel (auto, bicycles, pedestrians, freight and transit) through 2035. The plan incorporates community comments into an equitable and efficient transportation system plan. The project stakeholders (including the public) were provided opportunities to create and weigh transportation goals, objectives, and evaluation criteria in order to select and prioritize projects. This project is listed in the TSP as W74 Molalla Avenue Streetscape Improvements, Phase 4 and W34 Molalla Avenue Sidewalk Infill, both scored very well during the evaluation process.

In the previous RFFA funding cycle the Molalla Avenue project scored well and was greatly supported by the community. The project received numerous comments that the improvements would be appreciated and valued by the public, that in its current state it is dangerous for pedestrians & bicyclists, and essentially discourages people from using the corridor for active transportation.

- *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.*

TriMet is in support of this project. TriMet has identified the Red Soils Campus as one of 10 key areas in the region with the highest need for pedestrian and transit improvements in their Pedestrian Network Analysis that was completed in 2012. The Pedestrian Network Analysis states that Molalla Avenue provides motor vehicle and transit service access to a variety of regional and local destinations, in its current state, it also acts as barrier to pedestrians and bicyclists, who are moving around the area and accessing destinations. The report also concludes that both Beaver Creek Road & Molalla Avenue have posted speed limit of 35 mph, however Beaver Creek Road has 85th percentile speeds above the posted limit and Molalla Avenue has 85th percentile speeds below the posted limit. Based on this, Molalla Avenue would provide a safer, more comfortable experience once complete than Beaver Creek Road does now. It also notes that Molalla Avenue has more driveways which pedestrians must contend with. By consolidating & narrowing driveways, we will provide a more enjoyable active transportation experience.

Oregon City will work with ODOT during design. The project does not anticipate any modifications to the Hwy 213 & Molalla Avenue intersection, as there are already marked pedestrian crosswalks and ADA compliant curb ramps. The project would look to widen sidewalks, and add pedestrian level lighting and street trees along Molalla as it approaches the intersection with Hwy 213.

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 for 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 non-discrimination.

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

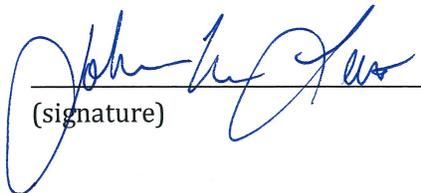
2. Summary of non-discriminatory engagement

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.

3. Certification statement

City of Oregon City _____ (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)

John Lewis, Public Works Director

(name and title)

8/26/2016

(date)

Appendix A – Environmental Justice Compliance Summary of Non-Discriminatory Engagement

City of Oregon City – Molalla Avenue Corridor

During the TSP engagement of a diverse range of the populations was sought continually throughout the creation and adoptions process. All inquiries (English and non-English) about the project were responded to in a timely manner. Comments received throughout the process are included in the record. The comments generally identified deficiencies in the transportation system and suggested opportunities for public improvements. The comments were reviewed and utilized when creating the list of projects identified in the Transportation System Plan.

The process of updating the Oregon City Transportation System Plan included a variety of tools to engage all populations with the following tools:

- **Stakeholder Advisory Team** - The Stakeholder Advisory Team (SAT) serves as the voice of the community and the caretaker of the goals and objectives of the Updated TSP. The SAT assisted with the development of goals and objectives of the TSP and the creation of evaluation criteria to evaluate future projects. The SAT provided direction to staff and reviewed all documents associated with the TSP over email and at meetings. Invitations to join the committee were sent to the Transportation Advisory Committee, Parks and Recreation Advisory Committee, Historic Review Board, Natural Resource Committee, Planning Commission, Clackamas Community College, Main Street Oregon City, Chamber of Commerce, private development interests, Oregon City School District, Citizen Involvement Council and Clackamas County Planning Organizations, freight organizations, and local businesses and posted on the project website for the public. All four (4) SAT meetings were advertised and open to the public.
- **Technical Advisory Team (TAT)** - The Technical Advisory Team (TAT) provided technical guidance and coordination throughout the Project. The TAT addressed and resolved technical and jurisdictional issues in order to produce a timely and complete Updated TSP. The TAT provided direction to staff and reviewed all documents associated with the TSP over email and at meetings. Invitations to the TAT were extended to Clackamas County Development and Transportation, Metro, ODOT, City of Gladstone, Oregon City Planning, Oregon City Development, Oregon City Public Works, Oregon City Community Services, Department of Land Conservation and Development (DLCD), Clackamas County Fire District #1, TriMet, and freight organizations. All three (3) TAT meetings were advertised and open to the public.
- **Committee Updates** -To ensure that the City Commission, Planning Commission, Historic Review Board and Natural Resource Committee members are fully informed about the TSP process, multiple presentations were made at regularly scheduled public hearings for these bodies.
- **Community Meetings – Open Houses** - To ensure that the public is provided multiple opportunities to learn about the project and interact with the project team, four Community Meetings were/are to be held. Email notices were sent to all city groups, SAT, TAT, CIC, Neighborhood Associations, churches and media groups. In addition, notices were posted on the City website, project website, Twitter, Facebook and signs were posted at all city facilities, online blogs, and at coffee shops, grocery stores, and other businesses around town. In addition, all meetings were located near a transit line and were ADA accessible.
- **Utility Bills** - A flyer was placed in utility bills three times to inform utility customers of the Transportation System Plan Update project and direct them to the website. More than 10,000 notices were provided to the Utility Billing Department for dispersal in the May 2012, October 2012, and February 2012 bills.
- **Mailed Postcards** -More than 10,500 postcards were mailed on February 15, 2013 to all property owners within the urban growth boundary and within Oregon City limits informing citizens of the Transportation System Plan and providing the first work session and hearing dates for both the Planning Commission and the City Commission.
- **Project Poster** - A poster describing the project and directing the public how to comment on the project was created and distributed throughout the project. The single-sided poster was printed on 8.5"x11" and

larger poster sizes and posted at City facilities, on the project website, public meetings, public spaces such as parks, transit stations, the municipal elevator, downtown, grocery stores, coffee shops etc.

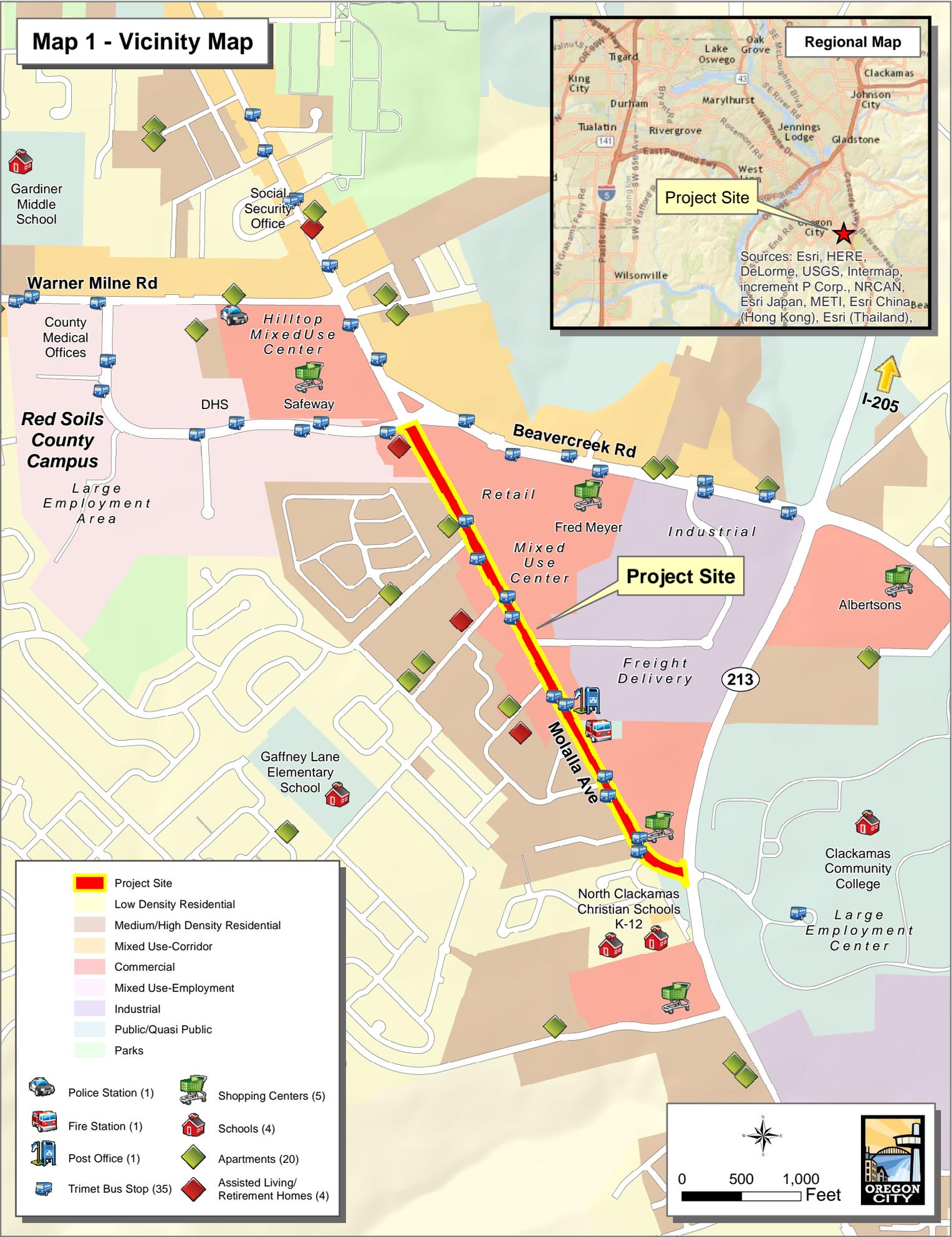
- **Website-** The Transportation System Plan (TSP) website (www.OCTransportationPlan.org) served as the primary public source of information about the project. All project documents as well as opportunities to comment are available on the website so that the public is continually involved in the process. The website features an interactive map to allow the public to post and view comments. A link to the project website is provided on the City's homepage. A rotating feature on the homepage of the City's website (www.orcity.org) will also direct the public to the project website.
- **Project Website Note Cards** -Note cards were created to provide a brief description of the project and a link to the Transportation System Plan (TSP) website (www.OCTransportationPlan.org). The cards were placed at City offices and at community events throughout the duration of the project.
- **Social Media** – Posts were added to the City of Oregon City Facebook and a Twitters about the project and before each project meeting.
- **Earned media** - City staff was interviewed on the radio regarding the Transportation System Plan in June 2012.
- **Emails** - Project updates were sent out to those whom signed up. In addition, some groups were specifically contacted such as churches to help inform the City of the update process.
- **Published Notices** - Notice of the project was posted numerous times in the free community publication "Trail News" in each publication that has been released over the duration of the project creation. In addition, notice was posted in the Clackamas Review and Oregon City News and newspaper articles were written about the project.
- **Outreach via other Organizations** - A short presentation or a poster with a comment box was present at as many community meetings as possible. Examples of events include:
 - Presentation at the Park Place Neighborhood Association Meeting
 - Citizen Involvement Council
 - Poster at Oregon City engAGE in Community Conversation
 - EngAGE in Community Expo 2012
 - Poster at the Landslide Preparedness Community Meeting
 - Poster at the Earthquake & Emergency Preparedness Community Meeting
 - Oregon City Hilltop Farmers Market
 - ODOT Project Open House – Main Street Businesses
 - ODOT Project Open House – Public
 - Main Street Oregon City "Downtown Update" email to 400 to 500 email addresses.
- **Public Hearings**

After creation of the TSP, the plan was adopted through a Legislative process which included twelve (12) public hearings by the Planning Commission and City Commission which were recorded and available to watch live and on demand at www.orcity.org. Notice of the first Planning Commission public hearing for the proposal was published in the Clackamas Review on, and mailed to the affected agencies, the CIC and all Neighborhood Associations. In accordance with ORS 197.610 and OAR 660-018-000, a Notice of Proposed Amendment to the Oregon City Comprehensive Plan was provided to the Oregon Department of Land Conservation and Development 35 days prior to the first noticed Evidentiary Hearing on February 13, 2013. All comments received were forwarded to the Planning and/or City Commissions and posted online throughout the adoption process. In addition, all meetings were located near a transit line and were ADA accessible.
- **Available information**

In addition to the project website, information about the project was available at most public facilities: Planning Division, City Hall, Library, Public Works, Police Departments.

Map 1 - Vicinity Map

Regional Map



Project Site

Project Site

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), Swatch, Bing, etc.

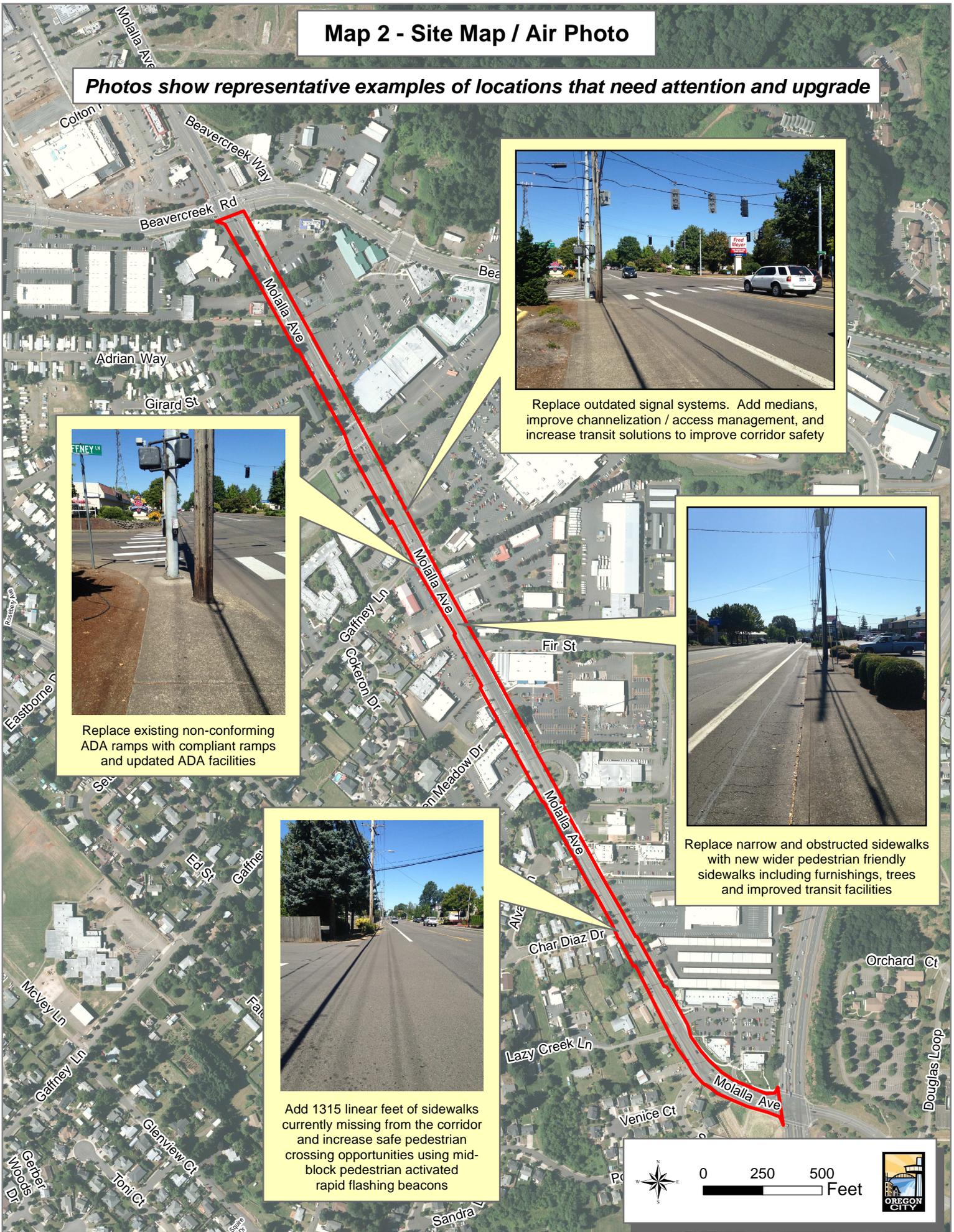
- Project Site
- Low Density Residential
- Medium/High Density Residential
- Mixed Use-Corridor
- Commercial
- Mixed Use-Employment
- Industrial
- Public/Quasi Public
- Parks

- Police Station (1)
- Shopping Centers (5)
- Fire Station (1)
- Schools (4)
- Post Office (1)
- Apartments (20)
- Trimet Bus Stop (35)
- Assisted Living/Retirement Homes (4)

0 500 1,000
Feet

Map 2 - Site Map / Air Photo

Photos show representative examples of locations that need attention and upgrade



Map 3 - Site Map / Construction Area

Project Major Improvements

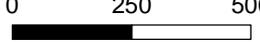
-  Add missing sidewalk & street lighting
-  Sidewalk widening & street lighting
-  New medians
-  Pedestrian activated rapid flashing beacons
-  Reconstructed intersection and replacement signal systems
-  Existing frontage improvements (no sidewalk replacement)

Land Use

-  Low Density Residential
-  Medium/High Density Residential
-  Mixed Use-Corridor
-  Commercial
-  Mixed Use-Employment
-  Industrial
-  Public/Quasi Public
-  Parks

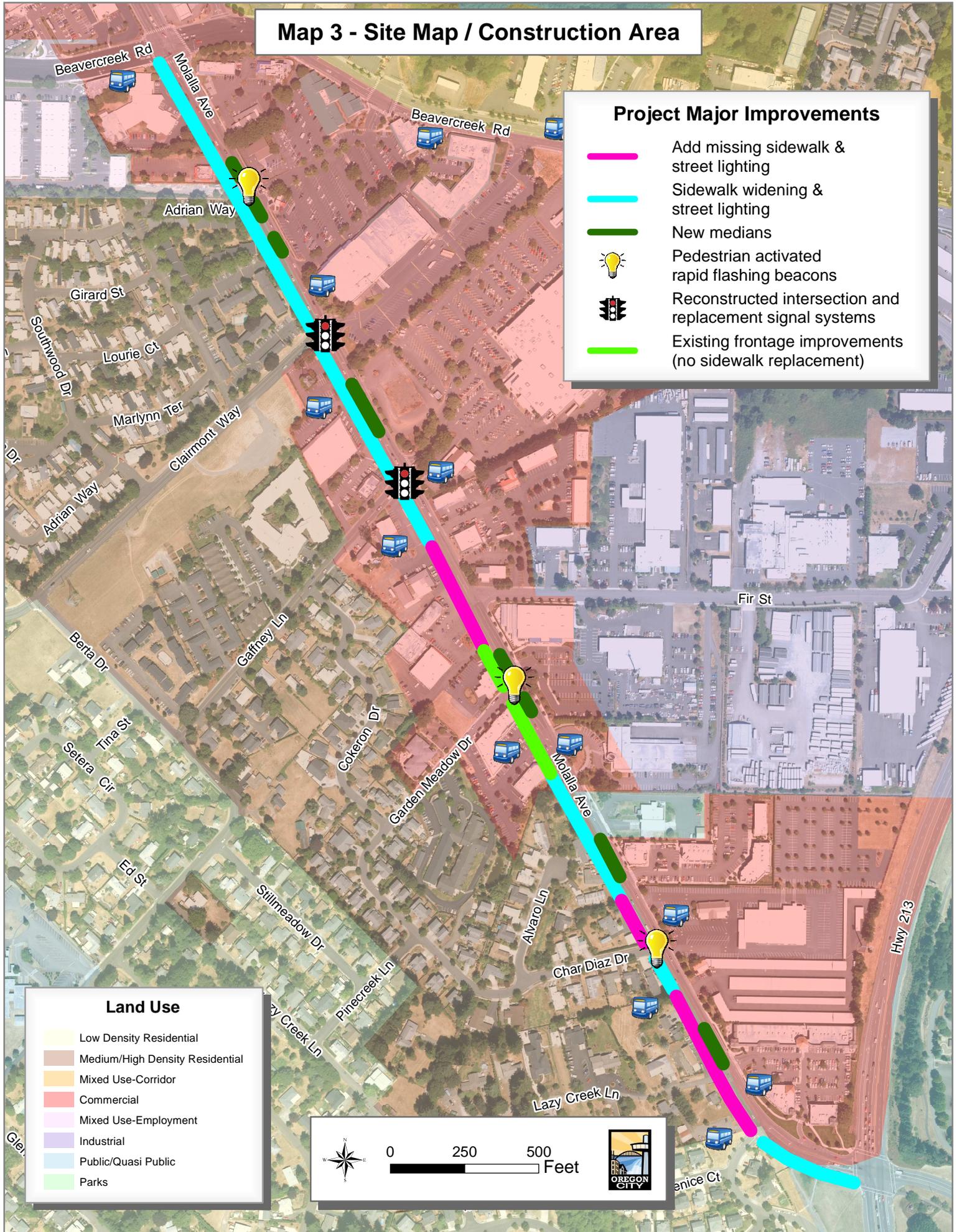


0 250 500



Feet





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)
- 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)
- 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
- Remove obstructions from the primary pedestrian-way or add missing curb ramps
- 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
- 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 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
- 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)
- Medians and crossing treatments
- Wayfinding, street markings
- 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
- ITS elements (i.e. signal timing and speed detection)

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

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.



← Appearance of input cells used throughout this workbook.

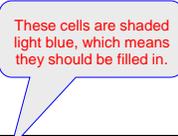
Locked cells can be unlocked by selecting Review > Unprotect Sheet. This is not recommended in most cases. Password is 'metro'.

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



Project Information:

Funding year:	PE	2019
	ROW	2020
	Const	2021
Project name:	Molalla Avenue	
Corridor and endpoints:	Beavercreek Road to Hwy 213	
Project description:	Sidewalk infill & widening, and lighting improvements on the west side, ADA ramps on east & west side of corridor, installation of 3 RRF	
Local plan project #:	W74 - Molalla Avenue Streetscape Phase 4	
RTP project #:	10125 & 10121	
Submitting agency:	City of Oregon City	
Agency contact:	John M. Lewis	
Contact phone:	503-496-1545	
Contact e-mail:	jmlewis@orc.org	

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)

1. Construction Molalla Avenue
Beavercreek Road to Hwy 213
City of Oregon City

Sections A through E must be completed. Complete Sections F and/or G if applicable.

Projects will not include all elements below, but most will include elements from multiple sections.

Enter quantities only for elements actually included in your project.

1.A - Road Construction, Reconstruction, or Resurfacing

Item	Unit	Quantity	Unit cost	Total	Description
Road - new/reconstruct (incl. curb, sidewalk, drainage)	SF	30,245.0	\$15	\$453,675	Specify SF of pavement, not including sidewalks and curbs (these are assumed in unit cost).
Road - resurface	SF	154,445.0	\$4	\$617,780	
◦ Specify length and typical width of project Section 1.A Subtotal					For documentation of assumptions used.
				\$1,071,455	

1.B - Addition of Roadway Elements to Existing Roadway

Item	Unit	Quantity	Unit cost	Total	Description
Minor widening, no curbs	SF	0.0	\$15	\$0	Used for bike lanes, other minor widening. Does not include curbs, sidewalks, or drainage.
Remove pavement	SF	30,245.0	\$0.75	\$22,684	
Curb only	LF	0.0	\$16	\$0	For new curb installation. Does not include drainage.
Remove curb	LF	0.0	\$6	\$0	
Median in existing lane no drainage	LF	1,003.8	\$86.50	\$86,824	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	
Drainage system - both sides	LF	0.0	\$115	\$0	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 Street trees with tree grates					For documentation of assumptions used.
Irrigation system	LF	4,015.0	\$40	\$160,600	Per side.
Signing/marketing	LF	16,060.0	\$2	\$32,120	Use when new pavement markings are to be installed (per line).
Clearing	SF	57,245.0	\$0.06	\$3,435	
Grading	CY	2,120.2	\$17.50	\$37,103	Provide an estimate of grading and describe assumptions in Section 1.G.
Retaining walls (by wall area)	SF	401.5	\$55	\$22,083	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				\$418,382	

1.C - Addition of Pedestrian Elements to Existing Roadway

Item	Unit	Quantity	Unit cost	Total	Description
Sidewalk, no curb	SF	27,000.0	\$10	\$270,000	Includes curb ramps.
Remove sidewalk	SF	13,500.0	\$1.25	\$16,875	
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				\$286,875	

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: <div style="border: 1px solid black; height: 20px; width: 100%;"></div>			
Railroad impacts	Summarize impacts		Describe potential impacts to railroads in project area.
Summary: <div style="border: 1px solid black; height: 20px; width: 100%;"></div>			
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	2	\$105,000	\$210,000	Use where both roadways are 3 lanes or less.
Street lighting - per side	LF	4015.0	\$80	\$321,200	Install street lighting at 100' spacing per side.
Section 1.E Subtotal				\$531,200	

1.F - Associated Costs

Item	Basis	Total	Description
Mobilization, staging, traffic control	15%	\$346,187	
Erosion control - enter value to override fixed 1.5%	1.5%	\$34,619	Use 1.5% of construction costs, or provide a cost estimate and describe assumptions.
No Description Required: <div style="border: 1px solid black; height: 20px; width: 100%;"></div>			
Section 1.F Subtotal		\$380,805	

1.G - Additional Information

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

Clearing & Grading quantity based on 1/2 street improvements on 1,315 lf & sidewalk widening on 2,700 lf.

Utilized recent irrigation costs on similar projects.

Assumed based on project length: 5% retaining walls & 25% raised medians.

Other Expected Costs	Provide estimate	→	\$90,000	RRFB's @ \$30,000 EA
Other Expected Costs	Provide estimate	→	\$70,000	TriMet Stop Improvements (\$7K per Stop)
Other Expected Costs	Provide estimate	→	\$120,000	Gateway Feature
Section 1.G Subtotal			\$280,000	

SUMMARY

Total of sections A through G **\$2,968,717** Section 1 Total

2. Environmental Impact and Mitigation Molalla Avenue
Beavercreek Road to Hwy 213
City of Oregon City
 Sections A and B must be completed. Complete Section C if applicable. Contact Metro if information for 2.B is needed.

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:

2.B - Environmental Impacts and Mitigation

Item	Unit	Quantity	Unit cost	Total	Description
Estimate acreage of impact/mitigation	ACRE	<input type="text" value="0.00"/>	\$150,000	<input type="text" value="\$0"/>	
Section 2.B Subtotal				\$0	

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 →

Section 2.C Subtotal

SUMMARY

Total estimate for environmental mitigation **\$0** Section 2 Total

3. Right-of-Way Cost Estimation Molalla Avenue
Beavercreek Road to Hwy 213
City of Oregon City

Use either Method 'A' or Method 'B'. Method 'A' is preferred. Complete Section C if applicable.

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	9950.0	\$20	\$199,000	Use in other established neighborhoods.
Estimate square-feet of undeveloped ROW taking	SF		\$15	\$0	Use in undeveloped areas.
Describe assumptions used in calculating area:					
Estimated total cost of taking				\$199,000	Estimated area multiplied by estimated unit cost.
Number of affected parcels:	EA	13	\$10,000	\$130,000	Reflects administrative costs of property acquisition.
Section 3.B Subtotal				\$329,000	

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)	\$329,000	Section 3 Total (low confidence)

4. Design and Administration Costs Molalla Avenue
Beavercreek Road to Hwy 213
City of Oregon City
 Complete input cells in Sections A and B if applicable. Default markup values can be overridden.

4.A - Design

Construction Costs (from Section 1):

\$2,968,717
\$0

Environmental Impact Costs (from Section 2):

Item	Base Cost	Markup	Total	Description
Surveying, design, coordination	\$2,968,717	30%	\$890,615	(Default 30%) Typically included in the professional engineering contract
Construction Engineering	\$2,968,717	20%	\$593,743	(Default 20%) Engineering services during construction
Other Expected Costs	Provide estimate →			

Description of other expected costs:

Section 4.A Subtotal **\$1,484,359**

4.B - Administration

Project Administration will be applied throughout project.

Administration	\$2,968,717	35%	\$1,039,051	(Default 35%) Project overhead
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Section 4.B Subtotal **\$1,039,051**

4.C - Additional Information

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

SUMMARY

Total of all above items **\$2,523,410** Section 4 Total

5. Contingency and Risk Molalla Avenue
Beavercreek Road to Hwy 213
City of Oregon City

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	\$2,968,717	20%	\$593,743	(Default 20%)
Section 2 - Environmental	\$0	20%	\$0	(Default 20%)
Section 3.A - Right-of-Way (moderate confidence)	\$0	40%	\$0	(Default 40%)
Section 3.B - Right-of-Way (low confidence)	\$329,000	50%	\$164,500	(Default 50%)
Section 4.A - Design	\$1,484,359	20%	\$296,872	(Default 20%)
Section 4.B - Administration	\$1,039,051	No contingency on Administration		
Other Expected Costs	Provide estimate	→		
Description of other expected costs:				
Section 5.A Subtotal			\$1,055,115	

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

Molalla Avenue

Beavercreek Road to Hwy 213

Sidewalk infill & widening, and lighting improvements on the west side, ADA ramps on east & west side of corridor, installation of 3 RRFB's, and replacement of 2 signals.

City of Oregon City

6.A - Cost Summary in 2007\$

	Item Total	Phase Total
<u>Preliminary Engineering (PE)</u>		\$1,380,454
Surveying, design, coordination	\$890,615	
Contingency at 20%	\$178,123	
Administration at 35%	\$311,715	
<u>Right-of-Way (ROW)</u>		\$493,500
Right-of-Way (moderate confidence)	\$0	
Contingency at 40%	\$0	
Right-of-Way (low confidence)	\$329,000	
Contingency at 50%	\$164,500	
<u>Construction (Const)</u>		\$5,521,814
Construction (Section 1)	\$2,968,717	
Contingency at 20%	\$593,743	
Environmental (Section 2)	\$0	
Contingency at 20%	\$0	
Construction Engineering	\$593,743	
Contingency at 20%	\$118,749	
Administration at 35%	\$1,246,861	
		Total
		\$7,395,768

6.B - Funding Summary by Year of Expenditure

Phase	2007 Dollars	YOE Year	Escalation	YOE Cost
Preliminary Engineering	PE \$ 1,380,454	2019	1.52%	\$ 1,401,389
Right-of-Way	ROW \$ 493,500	2020	5.58%	\$ 521,023
Construction	Const \$ 5,521,814	2021	9.80%	\$ 6,062,967
Total	\$ 7,395,768			\$ 7,985,379

August 24, 2016

Metro Council and JPACT Members
600 NE Grand Avenue
Portland, Oregon 97232

Dear Selection Committee:

I am writing this letter to offer TriMet's support for the **City of Oregon City's Molalla Avenue Beaver Creek Rd to Highway 213** application for the 2019-2021 Metropolitan Transportation Improvement Program (MTIP) funding program Regional Flexible Funds Active Transportation Candidate Project.

Molalla Avenue is a key corridor with some of the highest population and employment numbers in Oregon City adjacent to the corridor. The corridor is served by TriMet Frequent Service Line 33-McLoughlin connecting Clackamas Community College, Oregon City, Gladstone, and Milwaukie.

The segment on Molalla Avenue from Beaver Creek Road to Highway 213 can be unsafe and unwelcoming for pedestrians accessing transit. There are missing segments of sidewalk, existing sidewalks that are narrow and obstructed, poor lighting, and pedestrian ramps that do not comply with ADA standards.

Funding this project will improve pedestrian safety and access to transit with wider and continuous sidewalks, street furnishings, improved access management, and more convenient and comfortable street crossings.

Thank you for your consideration. We look forward to working in coordination with the City of Oregon City on this project after funding and design of roadway improvements.

Sincerely,



Alan Lehto
Director Planning and Policy