



Active Transportation & Complete Streets Projects

Name of Project: Monroe Street Active Transportation Project

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: Monroe Street between Linwood Avenue and Fuller Road, Boyer Drive between Fuller Road and 85th Avenue, 85th Avenue and Spencer Drive to the intersection with the I-205 Multiuse Path.

Beginning facility or milepost: Intersection of Monroe Street and Linwood Avenue

Ending facility or milepost. Intersection of Spencer Drive with the I-205 Multiuse Path

City: Unincorporated area

County: Clackamas County

Provide a brief description of the project elements:

Located in northern Clackamas County, Monroe Street has been envisioned by local and regional governments as a primary active transportation route stretching west from the I-205 Multiuse Path in the unincorporated area to the Trolley Trail in Milwaukie. This connection will improve local access to two lines on the MAX regional light rail system – the Green Line along I-205 and the Orange Line in Milwaukie and provide safer bicycling and walking to and within the Clackamas Regional Center (see Figure 1 in Maps, attached).

The need for this connection is a result of the street grid as developed in this portion of unincorporated Clackamas County and City of Milwaukie. In the area, there are only two continuous streets connecting the east and west sides of the area - Monroe Street and King Road, which is between 2 and 3 blocks north of Monroe Street. King Road is the main connection for vehicular traffic. The most recent data for King Road shows a daily traffic volume of 12,635 ADT. As such it is a very uncomfortable and unsafe choice for children, teens and inexperienced adult cyclists. Local and regional governments have determined that the second continuous east-west route, Monroe Street, is the better choice for the creation of an east-west active transportation connection. Completion of this project and the companion project in Milwaukie on the west end of the corridor will link downtown Milwaukie and the Clackamas Town Center, connecting local neighborhoods to jobs, schools and essential services along the way. Recognizing this, Clackamas County and the City of Milwaukie have been working in tandem using ODOT TGM funds to plan the redevelopment of the corridor as an active transportation corridor incorporating Complete Streets principles. The Clackamas County section of this corridor, the subject of this application, was planned in the Monroe Neighborhood Street Design Plan, which was funded with a TGM grant from the Oregon Department of Transportation.

Addressing the identified regional need while being sensitive to the neighborhood context required a great deal of effort in planning for this corridor. Existing cross-sections, available right-of-way and overall street character vary throughout the length of the project. As a result, the proposed design treatments vary throughout the project to address different contexts and needs. Nonetheless, there are common elements across the entire proposed project include the following:

Continuous Pedestrian and Bicycle Connection – The proposed project will provide a continuous pedestrian and bicycle connection across facilities that are appropriate to the neighborhood context – “cycle track” and “bike boxes” in the highest traffic locations, multiuse paths in moderate traffic areas, “sharrow” pavement markings in locations with low traffic and sufficient pavement width.

Gateway and Wayfinding Signage – A gateway sign is proposed to be placed on the I-205 Multiuse Path at the intersection with Spencer Drive with wayfinding signage the entire length of the Monroe Street Active Transportation Corridor.

Improved Safety – The Monroe Street project will improve safety for all users by incorporating traffic calming design features to decrease traffic speed and increase driver attention to their surroundings including raised intersections, raised crosswalks, curb “chicanes,” speed cushions, and a mini-roundabout.

Access for those with Disabilities – The project area has a high incidence of persons with disabilities but no ADA compliant facilities. This project will greatly improve ADA accessibility through the provision of the multiuse path and sidewalks as well as 33 ADA compliant curb ramps.

In total there are 7 segments with various cross-sections that make up this project running from the intersection of Monroe Street and Linwood Avenue east to the intersection of Spencer Drive and the I-205 Multiuse Path (see Figure 2 in Maps, attached). Six of the segments are proposed for funding through this RFFA proposal (segments 1 to 4, 6 and 7 in Figure 2). The portion shown as Segment #5 on Figure 2 is already underway and will be constructed by the North Clackamas Revitalization Area during 2017. Although not proposed for funding in this project, it is included on the map and in this discussion since it is a critical link connecting the west and east portions of the project and creates a complete corridor. The following describes all the segments of the proposed project from west to east (further information is found in Appendix C including cross sections and illustrations)

1. **Monroe Street from Linwood Avenue to Maplehurst Avenue** (Figure 2 Segment #1) - 12 foot multiuse path.
2. **Monroe Street from Maplehurst Avenue to 72nd Avenue** (Figure 2 Segment #2) - 10 foot multiuse path.
3. **Monroe Street from 72nd Avenue to 78th Avenue** (Figure 2 Segment #3) - 12 foot multiuse path
4. **Monroe Street from 78th Avenue to Fuller Road** (Figure 2 Segment #4) – 12 foot wide multiuse path from 78th Avenue through the “Gap.” East of the “Gap” to Fuller Road the proposal is for 5-6 foot sidewalks on both sides of Monroe Street and “sharrow” pavement markings due to low traffic volumes.
5. **Boyer Drive between Fuller Road and 82nd Avenue** (Figure 2 Segment #5) - will include 12 foot shared use paths on both sides of Boyer Drive with a “bikebox” at both intersections. This segment is funded by the North Clackamas Revitalization Area and will begin construction in spring 2017.
6. **Boyer Drive between 82nd Avenue and 85th Avenue** (Figure 2 Segment #6) - will include 6 foot sidewalks and 6 foot bike lane on both sides of the road from Boyer Drive to 85th Avenue.
7. **85th Avenue from Boyer Drive to Spencer Drive and Spencer Drive East of 85th Avenue to I-205 Multiuse Path** (Figure 2 Segment #7) – the route will follow Spencer Drive from 85th Avenue east to the existing bike and pedestrian access to the I-205 Multiuse Path. Traffic volume in this segment is very low and the improvements proposed will include “sharrow” pavement markings, bicycle wayfinding signage and a gateway sign at the intersection with the I-205 Multiuse Path.

Base project information

Corresponding RTP project number(s) for the nominated project.

Monroe Street from Linwood Avenue to 72nd Avenue: [RTP Project Number 11524](#)

Monroe Street from 72nd Avenue to Fuller Road: [RTP project Number 11494](#)

Attach a completed Public Engagement and Non-discrimination checklist ([see attached in Appendix A](#)).

Purpose and need statement

The Monroe Street Active Transportation project will address both regional and local needs:

Regional Needs – The primary regional need is for an east-west Active Transportation route connecting the I-205 Multiuse Path with the Trolley Trail. The Monroe Street corridor is identified as a Principal Active Transportation route in the Clackamas County Active Transportation Plan and in the Metro Regional Transportation Plan it is designated as “Bicycle Parkway,” the plan’s highest bicycle classification. These designations show that both Metro and Clackamas County have recognized the Monroe Street corridor has the best potential for an east-west active transportation connection between the I-205 Multiuse Trail and the Trolley Trail. This connection will facilitate east-west travel by pedestrians, bicyclist and those using mobility devices, decrease auto-dependence and increase non-auto trip access for regional travel. This project will also meet a need for improved connections to existing high capacity transit investments.

Local Needs – The primary local need is a safe, continuous bicycle and pedestrian connection to employment, essential services and regional high capacity transit. The Monroe Street neighborhood suffers from almost a complete lack of active transportation facilities, limiting transportation options to vehicles only. That need is particularly important in the project area due to a much higher than average incidence low income households, minority population, those with Limited English Proficiency, and those with disabilities.

Attach a completed Active Transportation Design checklist ([see attached in Appendix C](#)).

Description of post implementation measurement of project effectiveness

Increase in trips by pedestrians, bicyclists and those using mobility devices in the Monroe Street Corridor which will be documented by counts prior to construction and one year after completion.

Project Cost and Funding Request Summary

Attach a completed Cost Methodology workbook ([see attached in 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.

Total Cost: Total cost for the project including full design, right-of-way, and construction is estimated to be \$6,073,647. Attached is a completed Cost Methodology workbook in Appendix E. **This application requests \$3,000,000 in RFFA Active Transportation funds. Local funds in the amount of \$3,073,647 will be provided by the Clackamas County Development Agency – North Clackamas Revitalization Area** ([see attached letter from Dan Johnson, Manager, Clackamas County Development Agency](#)).

Project Readiness: Clackamas County Department of Transportation and Development staff are confident that all phases of this project can be obligated within the 2019-2021 timeframe. Study during the TGM planning project determined that there are no issues with environment, right-of-way, or utilities that will delay the project. Public involvement during the TGM project showed high levels of community support for the project. This project is identified as a high priority by the Board of County Commissioners. The Monroe Street Corridor is also a high

priority for the adjoining City of Milwaukie (see attached Letter of Support). Other Letters of Support show that the project is supported by local and regional active transportation groups and organizations. There are no complex, untested or unique aspects of the project. An extensive public engagement process took place during planning in which community members participated in the section of the project alignment and improvements. As a result, neighborhood support for the project is very high. Although environmental review has not been completed, and has not been designed, the simplicity of the project and absence of any “show-stopper” issues, Clackamas County is very confident the project will be ready to move forward in 2019 for Preliminary Engineering, 2020 for right-of-way and 2021 for construction.

Construction Cost: Total construction cost not including escalation or contingency is anticipated to be \$2,443,989. Inclusion of contingency and escalation results in a total construction cost of \$3,837,415. This cost estimate was developed with the recently completed TGM study as a starting point. That project included improvement recommendations, cross-sections, and right-of-way needs for each of the project segments identified above for funding in this project. Unit costs used were based on actual costs from projects that are now underway within a mile of the proposed project location and escalated to the appropriate construction year. There is a roundabout at the intersection of Monroe Street and 72nd Avenue whose cost was estimated from the actual cost of a similar roundabout built by Clackamas County at a nearby location.

Preliminary Engineering/Environmental: Total costs for engineering for the project is expected to be \$645,074 including escalation. Although an environmental assessment for this project has not yet been completed, staff believes that environmental compliance for this project will be routine. The field work conducted as part of the TGM funded project did not reveal any environmental issues within the corridor, nor any historic or cultural resources. In addition, the corridor is almost completely developed and the proposed improvements will not result in any new environmental impacts. Clackamas County staff anticipates that the environmental assessment will not reveal any environmental impacts.

Design and engineering work for this project will be undertaken by consulting engineers that will be procured by Clackamas County. Costs for survey, design and coordination add a 20% markup to the construction costs based on recent county experience with projects of similar size. Based on recent experience, construction engineering will add a 10% markup to the project.

Right-of-way: Total right-of-way costs for the Monroe Street Active Transportation Project is estimated to be \$1,591,158 including escalation. Clackamas County’s right-of-way cost estimates for the project were developed by the county’s Senior Right-Of-Way Agent working in conjunction with staff engineers. Approximately 71 properties were identified that will be affected by the project. In each case, Clackamas County staff estimated the right-of-way impact on the property and assigned a cost based on recent right-of-way costs for properties in the same area with the same zoning designation. For approximately 67 of the properties the impact was limited to easements. In those cases, the only costs were for permanent and temporary construction easements, payment for some improvements (fences, trees, landscaping, etc.), right-of-way consultant fees, appraisal fee and consultant appraisal review fee. Approximately three properties were identified as requiring some property acquisition without a full purchase and one property was identified that will require full acquisition.

Contingency and Risk: Total unescalated contingency cost for the project is estimated to be \$886,621. Clackamas County is certified by ODOT for management of federally funded projects and at any time has five or more such projects in the development process. As noted, the entire project area is developed, so no environmental issues have been identified. There are no nearby historical or cultural resources. There are no railroads in the corridor and minimal adjustments to utilities are expected. There are no bridges or culverts. Required infrastructure improvements have been identified and included in the project. There are no complex, untested or unique aspects of the project. Although the project has not completed environmental review, and has not been designed, the project elements have been identified. Due to the simplicity of the project and absence of any “show-stopper”

issues, we are very confident the project will be ready to move forward in 2019 for Preliminary Engineering, 2020 for right-of-way and 2021 for construction.

Given the agency experience in developing federally funded projects and absence of high risk factors in the project area, we believe that contingency and risk for this project will be limited. Given that low level of risk, a contingency markup of only 20% was used for right-of-way rather than the default markup of 40% to 50%.

Cost Summary: The summarized cost for the project is 2007 dollars is \$5,637,446. Based on the cost inflation table in the Cost Methodology workbook we have applied the default inflation factors of 1.52% for 2019, a 5.58% escalation factor for 2020 and a 9.80% escalation factor for 2021. Using these escalation factors the total estimated cost for the project is \$6,073,647. We are proposing an RFFA funding request of \$3,000,000 and a local funding contribution from the North Clackamas Revitalization Area of \$3,073,647. This will result in a federal fund share of 49.4% and a local fund share of 50.6%. The North Clackamas Revitalization Area will provide the local funds for the project. Approval to do so was secured from the Board of County Commissioners as part of the approval of this proposal submission. In the Letters of Authorization section (attached) are two letters documenting the above – a Letter of Approval for Submission of the RFFA proposal from Don Krupp, Clackamas County Executive, and a Letter of Commitment for the Local Funds from Dan Johnson, Director of the Clackamas County Development Agency.

It should be noted that the segment of Monroe Street from 72nd Avenue to Fuller Road is federally classified as a local road. In consultation on this issue, Metro informed Clackamas County staff that the active transportation components of the project would be eligible for federal funding. In that segment Clackamas County will use only federal funds with local match for the active transportation components including required right-of-way. Other improvements in that segment will be funded using local contributions. Due to the large contribution from North Clackamas Revitalization Area, the project will meet all match requirements despite this unequal allocation of local funds.

Total project cost: \$6,073,647.

RFFA funding request by project phase:

	Total by Phase	RFFA Request	Local Funds
P.E. and Environmental	\$ 645,074	\$ 318,626	\$ 326,448
ROW acquisition	\$ 1,591,158	\$ 785,932	\$ 805,226
Construction	\$ 3,837,415	\$ 1,895,442	\$ 1,941,973
	<u>\$ 6,073,647</u>	<u>\$ 3,000,000</u>	<u>\$ 3,073,647</u>

Local match or other funds: \$3,073,647

Map of Project Area

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

Project sponsor agency

Contact information (phone # & email) for:

- **Application Lead Staff:** Stephen Williams, Principal Transportation Planner, (503) 742-4696, swilliams@clackamas.us,
- **Project Manager:** Karen Buehrig, Transportation Planning Supervisor, (503) 742-4683, KarenB@co.clackamas.or.us.
- **Project Engineer:** Joel Howie P.E., Civil Engineering Supervisor, (503) 742-4658, JHowie@co.clackamas.or.us.

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 Clackamas County Department of Transportation and Development (DTD) is certified by ODOT for local administration of most phases of federally funded projects except for environmental review/permitting and right-of-way. At any particular time DTD has about 5 projects moving through the project development process. Over 80% of such projects have been delivered within schedule and budget. Over time, some projects have experienced delays in project delivery. Those delays have been caused by issues that have arisen outside DTD's project development process, but resulted in delays in project delivery. The development of cooperative projects with partners such as ODOT or cities within the county have caused project delays when the partner made decisions that stopped progress. In other cases, environmental and permitting processes have uncovered conditions that couldn't be identified in advance, but which required revisions to the project design or addition of mitigation measures. Projects have also been delayed because it was being developed in very complex land ownership environments and the right-of-way process resulted in unanticipated delays.

This project has been developed by Clackamas County based on lessons learned from previous projects. Staff believes that the risk of delay in the environmental and permitting process for the project is low due to the developed character of the area and previous work with the community in development of the project concepts. Although this project will require right-of-way acquisition from approximately 71 properties, all but one will be acquisition of additional right-of-way along the street frontage and will not impact the residences or businesses. Based on our previous experiences as a certified local governments we are confident that DTD will be able to deliver the proposed project on schedule and within budget.

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.

As a certified local government, Clackamas County has sufficient technical and administrative capacity to carry out the proposed project, and typically has about 5 projects in some phase of development. The local funding contribution for this project in the amount of \$3,073,647 will come from the North Clackamas Revitalization Area (NCRA). The NCRA has sufficient resources available to commit this funding contribution. A Letter of Funding Commitment is attached to this application from the director of the Clackamas County Development Agency committing the agency to provide these funds.

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 area served by the proposed Monroe Street Active Transportation project is characterized by significant transportation equity issues. In particular, the area has a much higher than regional average incidence of low income households, much higher than regional average percentage of the population with Limited English Proficiency, much higher than regional average percentage minority population, and a much higher than regional average percentage of persons with disabilities.

To provide the most up to date view of the communities that will be served by the proposed project, Clackamas County staff analyzed the recently released American Community Survey data for the five year, 2010 to 2014 period. Regional data is for the Oregon portion of the Portland – Vancouver Urbanized Area. Data from Clackamas County Census Tracts 216.01, 216.02 and 222.01 was summed and used to represent the area of benefit for the Monroe Street Project. The following summarizes the ACS data for the region and area of project benefit:

Low Income – The 2010–2014 ACS data shows that there were 604,304 households within the Portland-Vancouver

urbanized area with a median household income of \$58,474, with 40.5% of households having an income of 80% of median (\$46,779) or less. In the three census tract area of benefit there are 6,451 households with a median household income is \$43,412. In the area of benefit, 4,218 or 65.4% of households are at or below the regional median household income and 3,737 or 57.9% are at or below 80% of the regional median household income. The percentage of households in the area of benefit at or below 80% of regional median household income is 43% higher than it is for the region.

Low-English Proficiency – The 2010-2014 ACS data shows that the Oregon portion of the Portland-Vancouver Urbanized Area had 1,460,934 people 5 or more years old of whom 68,839 (4.7%) self-identified as speaking English not well or not at all. For the three census tract area of benefit the population 5 or more years old was 14,952 of whom 881 (5.9%) self-identified as speaking English not well or not at all. The percentage of individuals 5 or more years of age speaking English not well or not at all was 25% higher in the area of benefit than it is in the region.

Minority – The minority population in the area of benefit is Hispanic or Latino. The 2010-2014 ACS data shows that the Oregon portion of the Portland-Vancouver Urbanized Area has a total population of 1,536,896 with 190,774 or 12.4% self-identifying as Hispanic or Latino. The area of benefit for the Monroe Street project has a total population of 16,005 with 2,923 or 18.3% self-identifying as Hispanic or Latino. The percentage of the population self-identifying as Hispanic or Latino is 47% higher in the area of benefit than it is in the region.

Elderly or Young – There is little variation in the age composition of the population in the Oregon portion of the Portland-Vancouver Urbanized Area and the area of benefit. Young people below the age of 18 make up 24.6% of the regional population and 23.8% of the population in the area of benefit. Those 65 years or more make up 11.6% of the regional population and 13.0% of the population of the area of benefit.

Persons with Disabilities – The 2010-2014 ACS data shows that the Oregon portion of the Portland-Vancouver Urbanized Area had 1,526,361 noninstitutionalized persons with 173,796 or 11.4% experiencing a disability. For the three census tract area of benefit the population of noninstitutionalized persons is 15,860 with 2,420 or 15.3% experiencing a disability. The percentage of noninstitutionalized persons in the area of benefit experiencing a disability is 34% higher than it is in the region.

Summary of Benefits: As shown in the data above, the area of benefit for this project has a very high percentage of transportation disadvantaged individuals and households. This project will benefit 3,737 households with incomes at 80% of the regional median, 881 individuals who speak English not well or not at all, 2,923 persons who self-identify as Hispanic or Latino and 2,420 experiencing a disability. For these groups this improvement will provide a safe route for access by foot or bike to areas of employment and essential services. The proposed project will also greatly improve access to regional high capacity transit, the MAX Green Line. In addition, completion of the Milwaukie portion of the project will also connect this area to downtown Milwaukie, the Trolley Trail and the MAX Orange Line. These improvements will greatly reduce the auto dependency of the residents of this area and reduce their household transportation cost. The proposed project will be particularly important to those with disabilities due to the fact that the Monroe Street corridor does not currently have a safe, ADA accessible facilities.

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 safety problem addressed by this project is the lack of safe, continuous east-west bike and pedestrian facilities in Clackamas County and Milwaukie between the I-205 Multiuse Path and the Trolley Trail, forcing those who want or need to use those modes onto heavily traveled streets such as King Road.

Although this corridor has been identified by both Metro and Clackamas County as a high priority Active Transportation Route, use of the corridor by pedestrians and bicyclists has been very low due to lack of facilities and conflicts with vehicles that create safety concerns on the part of potential users. This project combined with the Boyer Drive Extension being undertaken by the North Clackamas Revitalization Area will create a safe, continuous walk and bike corridor from the I-205 Multiuse Path to the City Limits of Milwaukie at Linwood Avenue. The safety issues for pedestrians and bicyclists in the corridor can best be described for the west (Monroe Street), center (Boyer Drive) and east (85th Ave and Spencer Drive) sections of the corridor.

The portion of the corridor on Monroe Street between Linwood Avenue and Fuller Road is a moderate to high density area which could be expected to have high walking and biking demand due to low household incomes and low vehicle availability. However, actual walking and biking in the corridor is very low due to conflicts with vehicles and lack of safe facilities. The effective pavement width on Monroe Street is 30 feet, with a relatively high traffic volume – 2,350 vehicles per day on Monroe east of Linwood. Although posted for 25 miles per hour, the 85th percentile speed is 34 miles per hour. Facilities for bicyclists, pedestrians and those using mobility devices such as wheelchairs are missing on the Monroe Street corridor. There are no bicycle facilities of any type in the Monroe Street portion of the corridor and only a single 200 foot orphan section of sidewalk. The properties along the corridor have many barriers to pedestrian travel along the frontage including hedge rows, fences, landscaping, trees, and utility poles. Given these obstacles the only choice for bicyclists and pedestrians is to walk or bike on the street in traffic. Development of the proposed multiuse path and sidewalks in this segment of the corridor will allow unimpeded travel along the corridor by those walking, biking and using mobility devices such as wheelchairs.

In the center of the corridor, Boyer Drive between Fuller Road and 85th Avenue, the two north-south cross streets, Fuller Road and 82nd Avenue, are both very wide, high traffic streets that are unsafe for crossing by pedestrians and bicyclists. Currently, there is no direct connection in the corridor between Fuller Road and 82nd Avenue forcing out of direction travel by those on foot or bike. Development of the planned Boyer Drive Extension between Fuller Road and 82nd Avenue by the North Clackamas Revitalization Area will provide a direct east-west connection between Fuller Road and 82nd Avenue, a multiuse path on both sides of Boyer Drive and safety improvements at both intersections. Although the improvement of this segment will greatly improve safety, full utilization will only come about when it is integrated into the improvements to the east and west proposed in this project.

The east portion of the project corridor is 85th Avenue starting at the end of Boyer Drive and then Spencer Drive. Although 85th Avenue and Spencer Drive lack sidewalks they are very low traffic, dead end residential streets. “Sharrow” pavement markings and wayfinding signage will be sufficient to alert drivers to the presence of bicyclist and pedestrians and reduce conflicts.

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

The Monroe Street Active Transportation Project will provide access directly to priority employment and essential services in the 82nd Avenue corridor, the Clackamas Regional Center, the I-205 Multiuse Path and the MAX Green Line (see Figure 1 in the attached Maps section). As described above, the project area served by the proposed Monroe Street Active Transportation Project fits the typical definition of an EJ area with much higher than average

percentages of minorities, low income households, those with Limited English Proficiency and those experiencing disabilities. This project will benefit these EJ groups by providing a shorter and safer trip for pedestrians, bicyclists and those using mobility devices to high priority destinations for essential services. This can be illustrated by comparing the distance from the mid-point of the west section of the corridor, the intersection of Monroe Street & 72nd Avenue, to priority destinations for essential services under current conditions and after completion of the proposed project using the route that would be followed by pedestrians, bicyclists or those on mobility devices.

- **Bus Stop** – The distance from the mid-point of the corridor to the nearest TriMet bus stop on Route #72 that provides service along 82nd Avenue will decrease from 2/3rd of a mile under current conditions to about ½ mile with the proposed project.
- **Max Light Rail** – The distance from the mid-point of the corridor to the Max Green Line station at Clackamas Town Center will decrease from about 1 ¾ miles to 1 ½ miles.
- **Grocery Store** – The distance from the mid-point of the corridor to the nearest grocery store will decrease from 7/8ths of a mile 5/8ths of a mile.
- **Bank** – The distance from the mid-point of the corridor to the nearest bank will decrease from ¾ of a mile to 2/3 of a mile.
- **Health Clinic/Emergency Medical** – the distance from the mid-point of the corridor to the nearest health clinic will decrease from 7/8ths of a mile to 5/8ths of a mile.
- **Drug Store/Pharmacy** – the distance from the mid-point of the corridor to the nearest drug store/pharmacy will decrease from 7/8ths of a mile to 5/8ths of a mile.

The availability of a safe, continuous route and the decrease in distance to destinations should make biking and walking a much more attractive transportation option for those living in the Monroe Street Corridor.

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

The proposed project supports the existing and expected development in the project area by providing active transportation facilities that connect to high employment areas, essential services and transit. This improvement will serve vital transportation needs and reduce household cost by reducing vehicle dependence.

The project area is currently developed with a mixture of housing types at moderate/high density – small lot single family units, duplexes and townhouse style apartment units, primarily built during the 1960’s. The largest employer in the project area is a large greenhouse complex at the intersection of Monroe Street and 72nd Avenue with employment of about 35. The greenhouses have been there since before the surrounding residential development and are at least 60 years old at this point. In addition, there are several vacant properties immediately accessed from the Monroe Street corridor via various side streets. The area occupied by the greenhouses and the vacant properties are all zoned R-10 which designates single family units at 10 units per acre. Clackamas County Planning staff estimates that development of existing vacant properties and redevelopment of the greenhouse site would result in 88 new residential units.

Higher priority criteria

5. How does the proposed project complete a gap or improve a deficiency in the Regional Active Transportation network?

The Monroe Street corridor is identified as a Principal Active Transportation route in the Clackamas County Active Transportation Plan and in the Metro Regional Transportation Plan it is designated as “Bicycle Parkway,” the plan’s highest bicycle classification. As of today, the Monroe Street Active Transportation route does not exist in either Clackamas County or Milwaukie. The lack of the route is a major gap in the regional active transportation network. In addition, this project will push the multiuse path/active transportation facility through the Monroe Street “gap,”

a major barrier. The “gap” is a section of 200 feet of Monroe Street right-of-way without any improvements at all – either street or pedestrian/bicycle improvements. This “gap” prevents continuous travel down the corridor.

The proposed project improves the Regional Active Transportation Network by creating a vital east-west connection that is currently missing. The corridor connects the I-205 Multiuse Path with the Trolley Trail. It also provides an active transportation link between the MAX Green Line at Clackamas Town Center and the MAX Orange Line in downtown Milwaukie. Further improvements proposed within the City of Milwaukie will advance the section of the active transportation route in the city approximately 2 miles further west to downtown Milwaukie, the Trolley Trail, and the MAX Orange Line. When completed, this corridor will serve as a vital active transportation link in northern Clackamas County.

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?

The proposed project will provide a good user experience/increased comfort through the development of a multiuse path and sidewalks in an area without any active transportation facilities, and also through traffic calming improvements such as curb chicanes, raised intersections and crosswalks and a roundabout as traffic calming measures. This portion of Monroe Street, from Linwood Avenue to Fuller Street has a daily traffic volume of about 2,400 vpd and relatively high traffic speeds with an 80 percentile speed of 34 miles per hour, 9 miles per hour over the posted speed. As a result, the corridor can't be safely used by pedestrians, those with mobility devices such as wheelchairs, or less experienced bicyclist such as children, teens or inexperienced adult riders. Only experienced, high skill adult cyclists are comfortable on this section of Monroe Street. The proposed project will provide 12 foot wide multiuse path along the entire Monroe Street segment from Linwood Avenue to Fuller Street, creating a continuous active transportation facility across that length and connecting to Boyer Drive, 85th Avenue and Spencer Drive, extending the active transportation facility to the I-205 Multiuse Path. The project also will include traffic calming measures to reduce speeds, such as curb chicanes, raised intersections and crosswalks and a roundabout at the intersection of Monroe Street and 72nd Avenue. These improvements will provide a comfortable active transportation route for all users and cross a major barrier by connecting into a major active transportation route, the I-205 Multiuse Path.

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

The proposed Monroe Street Active Transportation project creates a ‘last mile’ connection between employment and transit in the 82nd Avenue Corridor and Clackamas Regional Center and the MAX Green Line and populations in a transportation disadvantaged residential area. Those two employment areas are the location of transit stops on TriMet route #72 as well as the MAX Green Line station at the Clackamas Regional Center. As such, the project provides the “last mile” connection between a transportation disadvantage population and transit connections to employment in the east section of the region.

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.

Public Engagement during Planning: A great deal of public engagement took place over the past year during the ODOT TGM funded planning study that led to this project proposal. Recognizing the high percentage of minority population and those with Limited English Proficiency, Clackamas County DTD staff invested considerable effort in involving those groups. Outreach materials were developed in three languages – English, Spanish and Russian. Project staff members met with leadership from community organizations to recruit local residents to serve on the

project advisory group and gather input from those groups. Neighborhood residents and business owners were strongly represented as was the elementary school parent-teacher organization. That advisory group met 8 times over the course of the project and provided extremely valuable input on neighborhood conditions and issues that informed and shaped the final project recommendations. In conjunction with the advisory group, DTD staff developed outreach materials in three languages – English, Spanish and Russian, and partnered with the Hispanic parent-teacher organization (as well as the English PTO) from the local elementary school to distribute the materials. Meetings were announced and participation invited using “door-hangers” that were put on the front door of every residential unit within the project area. Meetings were held at the elementary school within easy walking distance of the entire neighborhood. Childcare was provided for those meetings. Spanish and Russian interpreters were provided to facilitate participation in the workshops by those with Limited English Proficiency. ADA accessible county buses were provided for door-to-door rides for those with disabilities to attend the meetings. These efforts resulted in participation by over 75 local residents in each of the public workshops and on-going engagement by members of the citizen’s advisory group.

Public Engagement during Construction: When this project moves into project development and construction Clackamas County will build on these successful efforts and continue to engage the community. We will continue to reach out to minority and Limited English Proficiency populations through materials in English, Spanish and Russian as well as interpretation for those languages at public meetings. We will also continue to build on the advisory group, adding new members and maintaining a regular meeting schedule. Clackamas County will continue working with community groups, and with both the English and Spanish language Parent Teacher Organizations from the Whitcomb Elementary School. In addition, the county will continue to provide support services to assist those who want to attend public meetings including child-care and door to door transit service for those with disabilities.

Demand Management Strategies: Once the project is complete, demand management will be accomplished through several different strategies. Clackamas County staff will continue to reach out to the same groups identified above (Whitcomb Elementary PTO, community groups and businesses, Latino and Russian groups) to provide information about the improvements to encourage use. A grand opening ceremony will be conducted and informational materials will be distributed door to door in the surrounding neighborhoods. Staff will also reach out through regional bicycle and active transportation groups to let them know about the availability of the new route. The county will work to ensure that the route is added to GPS direction apps that support bike and walk modes such as Google Maps, Strava, Map My Ride and Map My Run, as well as locally published bike maps. Clackamas County will work with Oregon DOT to add a gateway sign at the Spencer Drive access to the I-205 Multiuse Path. In addition, the project will include wayfinding signage for the entire length with a design coordinated with the signage that is currently being installed in the Clackamas Regional Center area.

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

Total additional funding leveraged by this project is \$7,936,647. The North Clackamas Revitalization Area (NCRA) is committing \$3,073,647 as local contribution for this project, over 50.6% of project cost. In addition, NCRA will also commit \$4,863,000 to extend Boyer Drive to connect between 82nd Avenue and Fuller Road. This project, which will begin construction in Spring 2017, is the most expensive segment of the corridor and a vital connection across an existing gap in the corridor between 82nd Avenue and Fuller Road.

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

The proposed project will allow those in the area to use active transportation modes, options that are not currently available. Due to a lack of active transportation facilities, the residents of the Monroe Street neighborhoods have no choice but to drive for all transportation purposes. These trips inevitably use Thompson

Street to connect to Fuller Road and 82nd Avenue, or use Linwood Avenue to connect to King Road or Johnson Creek Blvd to access 82nd Avenue. These trips impact 82nd Avenue, one of the most congested corridors in Clackamas County as well as surrounding collector and minor arterials streets. The proposed Monroe Street active transportation project will provide facilities and cross major barriers to provide direct bike and walk access to the 82nd Avenue corridor. This will reduce traffic congestion on 82nd Avenue and traffic impacts in the surrounding residential neighborhoods.

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.

Clackamas County invested considerable effort in the public engagement process used to development this project. Public engagement in the planning process took place at four levels. Questionnaires were distributed on paper and online to secure direct input from residents of the area. County staff meet with local businesses and community organizations to secure further input and encourage participation by representatives of minority and low income groups. A project advisory committee was formed that met 8 times through the course of planning. This group provided in-depth review and input on the alternatives and the specific improvement proposals. Two public workshops were held at the Whitcomb Elementary School to engage as many neighborhood residents as possible in face-to-face dialogue about the project. Materials were distributed in three languages (English, Spanish and Russian) announcing the workshops. "Door hangers" on every residence in the neighborhood were used to announce the workshops as were flyers distributed by the elementary school. Interpreters were provided at the workshops and door-to-door rides were provided by the county using ADA accessible vehicles. These efforts resulted in a very high level of engagement on the project and strong support for the final proposals.

Further information on public engagement for this project is described under Priority Criteria #8 above, as well as in Appendix A the Environmental Justice Checklist.

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.

This project was planned in close coordination with Oregon Department of Transportation and the City of Milwaukie. The planning of the project in the unincorporated county as well as the portion in Milwaukie were both funded through TGM grants from the Oregon Department of Transportation. Throughout the planning process there was cross representation on the project technical committees so that the city, county and ODOT were represented on both. In addition the technical committee for the county project included representation from the North Clackamas School District, Clackamas Fire District #1, and Clackamas County Water Environment Services. Other participants on the technical committee represented Oregon Walks, Bicycle Transportation Alliance, and the Safe Routes to School National Partnership. The participation by these public and private partners helped shape a very high quality product that will provide great benefit in the north Clackamas County area.

Letters of Authorization



August 25, 2016

Daniel Kaempff, Principal Transportation Planner
Planning and Development Department
Metro
600 NE Grand Avenue
Portland, Oregon 97232

RE: RFFA Grant Application

Dear Mr. Kaempff:

At their meeting on August 9, 2016, the Clackamas County Board of Commissioners reviewed and approved submittal of a proposal for a Metro Regional Flexible Funds Allocation for the Monroe Street Complete Street project. At the same time the Board of County Commissioners also authorized the use of funds from the North Clackamas Revitalization District to provide required match and fund additional improvements.

Please contact Karen Buehrig, Transportation Planning Supervisor (503) 742-4683 or KarenB@co.clackamas.or.us if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Don Krupp", with a long horizontal flourish extending to the right.

Don Krupp,
Clackamas County Administrator

cc: Barbara Cartmill, Director, Department of Transportation and Development
Mike Bezner, Assistant Director for Transportation
Dan Johnson, Assistant Director for Development Services



DAN JOHNSON
MANAGER

DEVELOPMENT AGENCY

DEVELOPMENT SERVICES BUILDING
150 BEAVERCREEK ROAD | OREGON CITY, OR 97045

August 23, 2016

Metro
600 NE Grand Avenue
Portland, OR 97232

Re: Monroe Street RFFA Application

To Whom It May Concern,

The Clackamas County Development Agency is responsible for implementing the North Clackamas Revitalization Area Plan, which identifies several projects that should be implemented in order to provide a safe, clean and affordable community for its diverse citizenry.

When the Plan was adopted in 2006, most roads in this area of the County were substandard with poor drainage, minimal lighting and no pedestrian or bicycle facilities. This made it difficult for residents to access services in the area. Since that time, the Agency has constructed two road improvement projects, which now provide citizens greater access to services and transit facilities.

Monroe Street is another substandard road that has been identified as a primary active transportation route through the North Clackamas Revitalization Area. When completed, this route will improve access by providing safer bicycling and walking to and within the Clackamas Regional Center as well as connections to two MAX light rail lines.

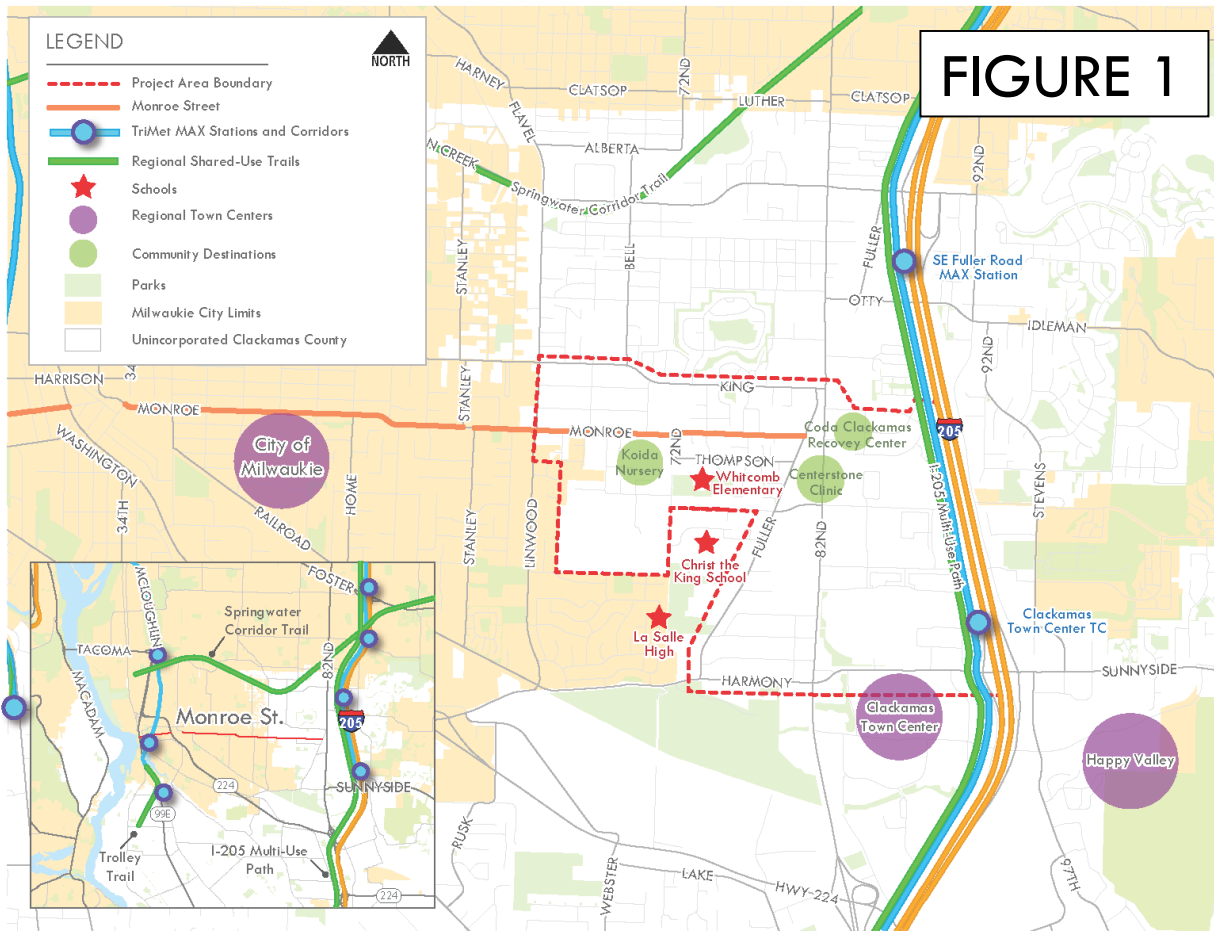
In our continuing effort to meet the goals of the Plan, the Agency has dedicated funds for the Monroe Street improvements that are described on the RFFA application. As a match for the requested RFFA grant, \$3,073,647 will be budgeted for the 2019-20 budget year.

We look forward to successful completion of this project.

Sincerely,

Dan Johnson, Manager
Clackamas County Development Agency

Maps



Appendix A

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

Clackamas County Department of Transportation and Development

_____ (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)

Barbara Cartmill, Director

(name and title)

August 24, 2016

(date)

Section B: Summary of Nondiscriminatory Engagement

A great deal of public engagement took place over the past year during the ODOT TGM funded Monroe Street Neighborhood Design planning study that led to this project proposal.

Recognizing the high percentage of minority population and those with Limited English Proficiency, Clackamas County DTD staff invested considerable effort in involving those groups. The following describes the aspects of the nondiscriminatory engagement effort.

- Outreach materials were developed in three languages – English, Spanish and Russian.
- An advisory committee was formed composed of local residents and members of community organizations. Neighborhood residents and business owners were strongly represented as was the elementary school parent-teacher organization. That advisory group met 8 times over the course of the project and provided extremely valuable input on neighborhood conditions and issues that informed and shaped the final project recommendations.
- Project staff members met with leadership from community organizations to recruit local residents to serve on the project advisory group and gather input from those groups.
- In conjunction with the advisory group, DTD staff developed outreach materials in three languages – English, Spanish and Russian, and partnered with the Hispanic parent-teacher organization (as well as the English PTO) from the local elementary school to distribute the materials.
- Meetings were announced and participation invited using “door-hangers” that were put on the front door of every residential unit within the project area.
- Meetings were held at the elementary school within easy walking distance of the entire neighborhood. Childcare was provided for those meetings.
- Spanish and Russian interpreters were provided to facilitate participation in the workshops by those with Limited English Proficiency.
- ADA accessible county buses were provided for door-to-door rides for those with disabilities to attend the meetings.
- These efforts resulted in participation by over 75 local residents in each of the public workshops and on-going engagement by members of the citizen’s advisory group.

Appendix C

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

Description of Active Transportation Features:

The following describes the existing conditions in the project corridor and all active transportation features that are included in the proposed project. For more information see the attached cross sections and illustrations.

A. **Pedestrian Project design elements** – 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)**
With the exception of a single 200 foot orphan sidewalk section, there is no sidewalk in the Monroe Street corridor between Linwood Avenue and Fuller Road and also no curb. The proposed project will add full curb on both sides. About 700 feet of sidewalk will be added in the segment of Monroe Street from the Monroe “Gap” to Fuller Road.
- ✓ **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.** In the segment of Monroe Street to Fuller Road has volume below 1,000 ADT with speeds under 25 mp. There is currently a narrow sidewalk section on the north side only. The project will improve that section with 5 foot wide sidewalks buffered by parking. On the south side 6 foot wide sidewalk will be added with a 5 foot planting strip.
- ✓ **Remove obstructions from primary pedestrian-way or add missing curb ramps.** The Monroe Street corridor between Linwood Avenue and Fuller Road currently has a number of locations in which sidewalk meets the curb but without ADA compliant curb ramps. This project will add 33 curb ramps at crossings and intersections to replace those that are not ADA compliant and for the multiuse path and the sidewalks.
- ✓ **Add pedestrian crossing at appropriate locations.** There are currently no pedestrian crossings of Monroe Street anywhere in the corridor. This project will add pedestrian crossings at Maplehurst Avenue (2 crosswalks), 74th Avenue (1 crosswalk), and 77th Avenue (1 crosswalk).
- ✓ **Raised pedestrian refuge median or raised crossing, required if project is on a roadway with 4 or more lanes.** There are currently no raised crossings in the Monroe Street corridor. The proposed project will add raised crossings at the new roundabout at the intersection of Monroe Street and 72nd Avenue and at the crossing of 78th Avenue.
- ✓ **Reduced pedestrian crossing distance.** The Monroe Street corridor does not currently have any facilities to reduce pedestrian crossing distance. The proposed project will add corner “bump-outs” to 8 intersections to reduce crossing distance and to calm traffic.
- ✓ **Narrowed travel lanes.** Currently the paved vehicle lanes on Monroe Street are about 15 wide and undefined, resulting in an 85 percentile speed of 34 mph even though the posted speed is 25 mph. This project will add curbs through the length of the corridor and include curb chicanes to narrow the travel lanes and reduce traffic speed.
- ✓ **Curb extensions.** Currently there is only limited curb within the Monroe Street corridor. This project will extend curb the entire length of the corridor.

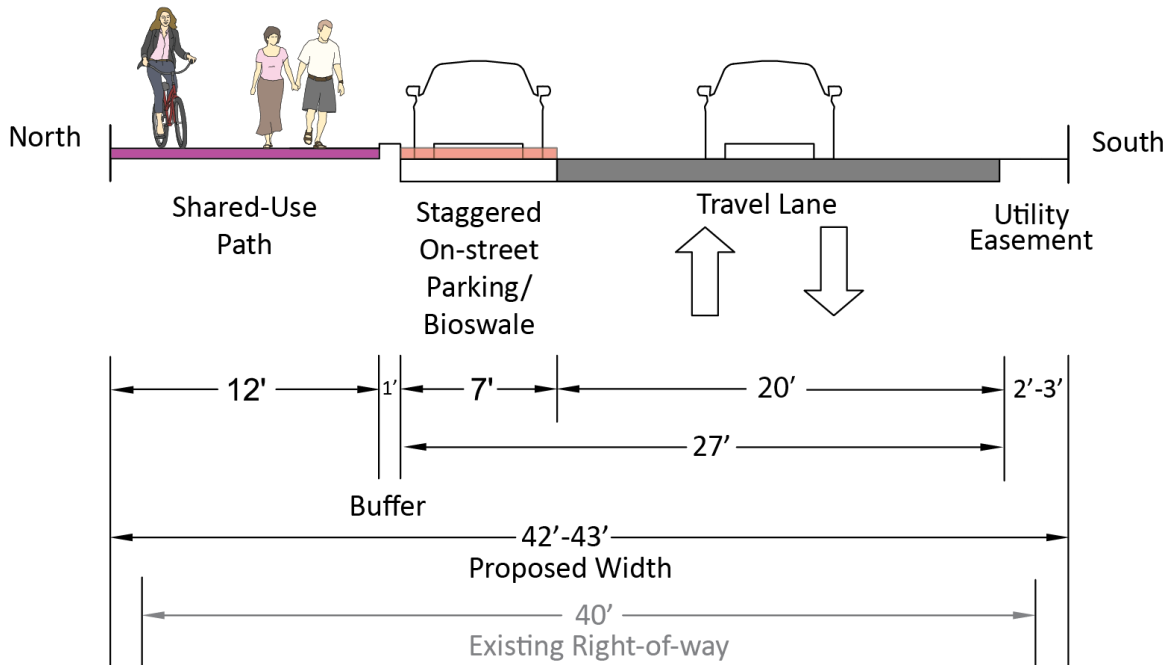
- ✓ **Lighting, especially at crosswalks – pedestrian scale (10-15 feet), preferably poised over sidewalk.** There are currently only a few street lights in the corridor and those are the typical “high” street lights. This project will include lighting for its entire length that will be poised over the multiuse path or sidewalk.
- ✓ **Arterial traffic calming: Textured intersections, gateway treatments, raise medians, road diets, roundabouts.** There are currently no arterial traffic calming features in the Monroe Street corridor. This project will add 4 speed cushions, 2 raised intersections with textured pavements, and a roundabout at the intersection of Monroe Street and 72nd Avenue.
- ✓ **Wayfinding.** There is currently no wayfinding within the corridor. This project will add wayfinding signage for the entire length of the project from the intersection of Monroe Street and Linwood Avenue to the intersection of Spencer Drive with the I-205 Multiuse Path. The project also includes gateway signage at the intersection of Spencer Drive with the I-205 Multiuse path.

B. **Bicycle Projects design elements** - For every element checked describe existing conditions and proposed features:

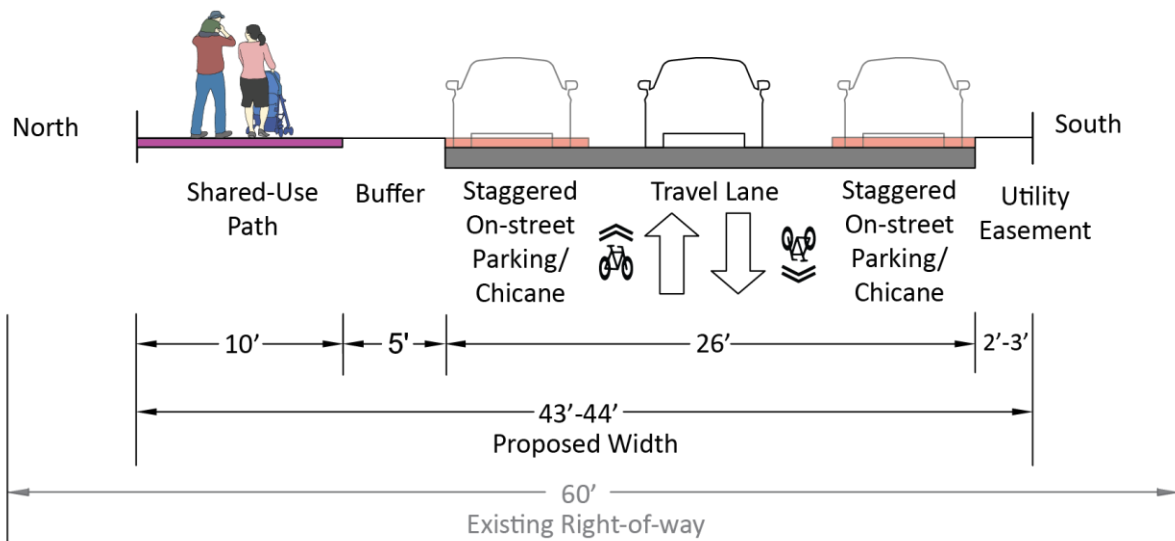
- ✓ **Separated multiuse trail parallel to roadway.** There is currently no separated bicycle facility in the project corridor. The proposed project will add a separated multiuse path along Monroe Street from Linwood Avenue to 78th Avenue/Monroe Street “Gap.” This multiuse path will be separated from the travel lanes by planting street/street trees, by parked cars in some segments and by bioswale.
- ✓ **Medians and crossing treatments.** There are currently no medians or crossing treatments within the project corridor. The project will add textured crosswalks that will be raised in some cases.
- ✓ **Wayfinding, street marking.** There is currently no wayfinding within the corridor. This project will add wayfinding signage for the entire length of the project from the intersection of Monroe Street and Linwood Avenue to the intersection of Spencer Drive with the I-205 Multiuse Path. The project also includes gateway signage at the intersection of Spencer Drive with the I-205 Multiuse path. In the segments that do not include separated multiuse path due to low traffic volume the pavement will be marked with “sharrow” pavement marking.

Project Segment Cross Sections and Illustrations

Segments #1 and #2 (Monroe Street from Linwood Avenue to 72nd Avenue)



Segment #3 (Monroe Street from 72nd Avenue to 78th Avenue)

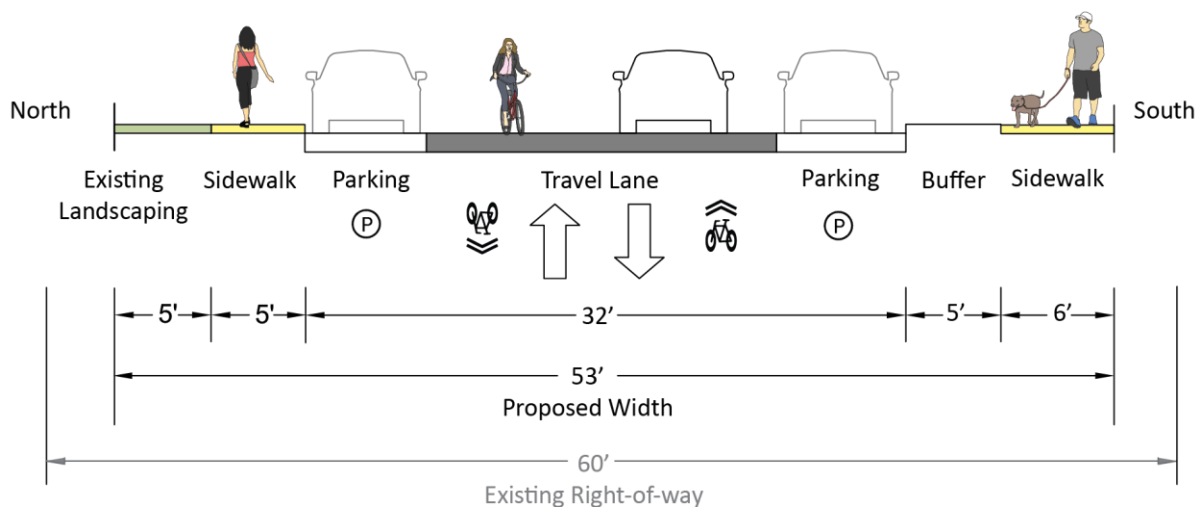


Segment #4 (Monroe Street from 78th Avenue to Fuller Road)

Monroe "Gap" Improvements



Monroe "Gap" to Fuller Road



Segment #5 (Boyer Drive from Fuller Road to 82nd Avenue)

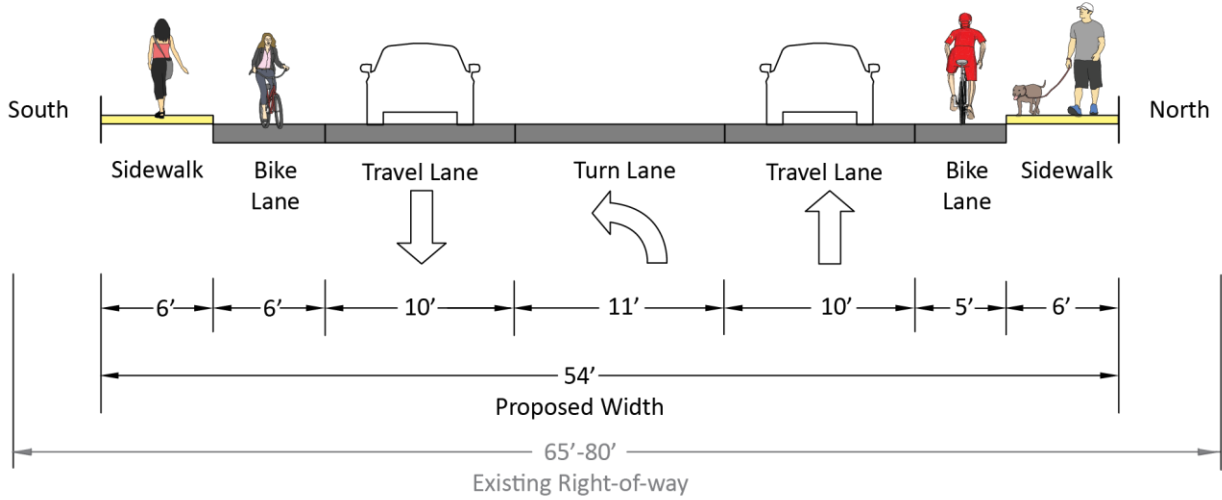


Bicycle Box

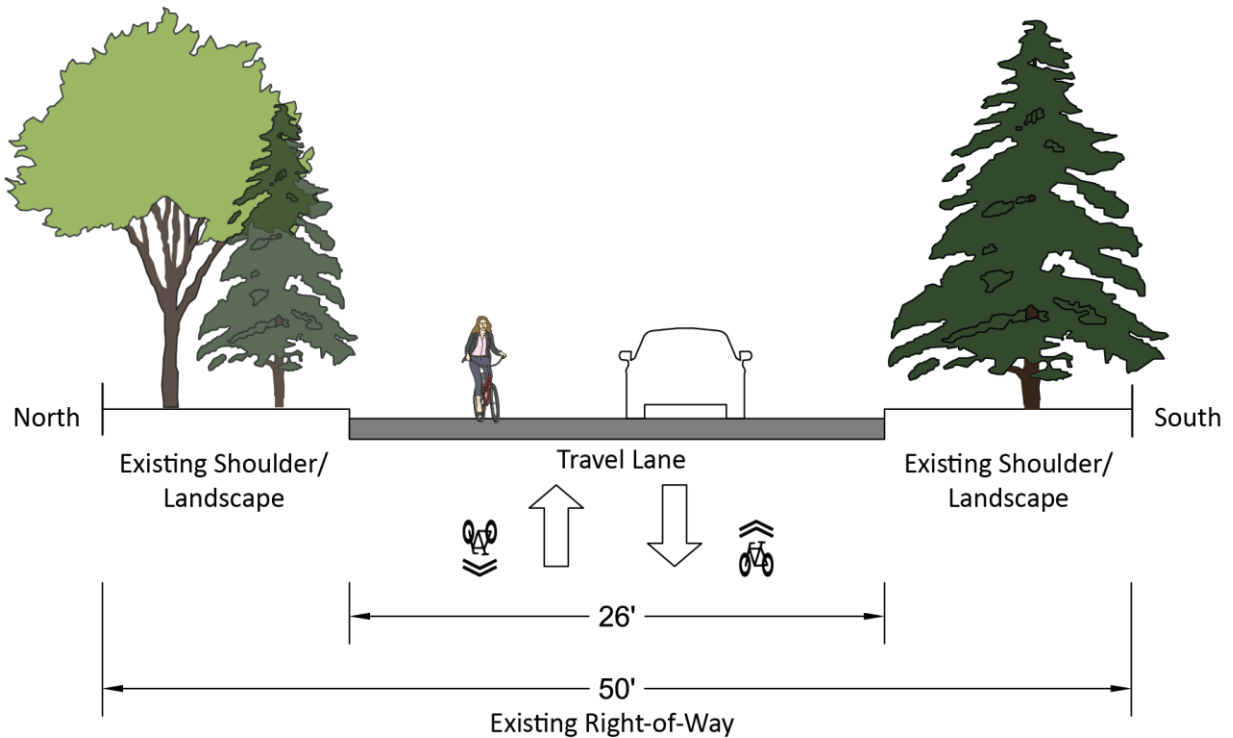


Conceptual Rendering of a bicycle box at a signalized intersection with a bicycle lane approach.
Credit: NACTO (2015)

Segment #6 (Boyer Drive from 82nd Avenue to 85th Avenue)



Segment #7 (85th Avenue from Boyer Drive to Spencer Drive and Spencer Drive from 85th Avenue to I-205 Multiuse Path)



Example Gateway Sign



I-205 Multiuse Path access from Spencer Drive as it appears today



Looking north along the I-205 Multiuse Path from Spencer Drive access

Appendix E

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

Project Information:

Funding year:	PE	2019
	ROW	2020
	Const	2021
Project name:	Monroe Street Active Transportation Project	
Corridor and endpoints:	Monroe St from Linwood Ave to Fuller Rd; Boyer Dr, 85th Ave and Spencer Dr from 82nd Ave to I-205 Multiuse Path	
Project description:	Active transportation improvements including 1 mile of MUP, 700 ft of sidewalk, traffic calming measures and wayfinding signs	
Local plan project #:	Clackamas County TSP project #1035 and #1036.	
RTP project #:	RTP project #11524 (Monroe St from Linwood Ave to 72nd Ave) and #11494 (Monroe Street from 72nd Ave to Fuller Rd)	
Submitting agency:	Clackamas County Department of Transportation and Development	
Agency contact:	Stephen Williams, Principal Transportation Planner	
Contact phone:	(503) 742-4696	
Contact e-mail:	swilliams@clackamas.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>Monroe Street Active Transportation Project</p> <p>Monroe St from Linwood Ave to Fuller Rd; Boyer Dr, 85th Ave and Spencer Dr from 82nd Ave to I-205 Multiuse Path</p> <p>Clackamas County Department of Transportation and Development</p>
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1.A - Road Construction, Reconstruction, or Resurfacing

Item	Unit	Quantity	Unit cost	Total	Description
Road - new/reconstruct (incl. curb, sidewalk, drainage)	SF	2,534.4	\$15	\$38,016	Specify SF of pavement, not including sidewalks and curbs (these are assumed in unit cost).
Road - resurface	SF	84,480.0	\$4	\$337,920	
◦ Specify length and typical width of project 0.02 mile x 24' new rd + 1 mile x 16' overlay					For documentation of assumptions used.
Section 1.A Subtotal				\$375,936	

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	0.0	\$0.75	\$0	
Curb only	LF	10,560.0	\$16	\$168,960	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	
Drainage system - both sides	LF	5,280.0	\$115	\$607,200	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	0.0	\$40	\$0	Per side.
Signing/markering	LF	7,715.0	\$2	\$15,430	
Clearing	SF	63,360.0	\$0.06	\$3,802	Used for new alignments.
Grading	CY	4,693.3	\$17.50	\$82,133	
Retaining walls (by wall area)	SF	6,525.0	\$55	\$358,875	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				\$1,286,400	

1.C - Addition of Pedestrian Elements to Existing Roadway

Item	Unit	Quantity	Unit cost	Total	Description
Sidewalk, no curb	SF	4,200.0	\$10	\$42,000	Includes curb ramps.
Remove sidewalk	SF	0.0	\$1.25	\$0	
Shared-use path	SF	63,360.0	\$5	\$316,800	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				\$358,800	

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:			
Railroad impacts			
Summarize impacts		Describe potential impacts to railroads in project area.	
Summary:			
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	0.0	\$80	\$0	Install street lighting at 100' spacing per side.
Section 1.E Subtotal				\$0	

1.F - Associated Costs

Item	Basis	Total	Description
Mobilization, staging, traffic control	12%	\$242,536	
Erosion control - enter value to override fixed 1.5%	1.5%	\$30,317	Use 1.5% of construction costs, or provide a cost estimate and describe assumptions.
No Description Required:			
Section 1.F Subtotal		\$272,853	

1.G - Additional Information

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

Roundabout at Monroe/72nd
 1.0 miles of new 12' MUP and 700 feet of 6' wide sidewalk

Other Expected Costs	Provide estimate →	\$150,000
Section 1.G Subtotal		\$150,000

SUMMARY

Total of sections A through G **\$2,443,989** Section 1 Total

2. Environmental Impact and Mitigation Monroe Street Active Transportation Project
 Sections A and B must be completed. Complete Section C if applicable. Contact Metro if information for 2.B is needed. Monroe St from Linwood Ave to Fuller Rd; Boyer Dr, 85th Ave and Spencer Dr from 82nd Ave to I-205 Multiuse Path
Clackamas County Department of Transportation and Development

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	0.00	\$150,000	\$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.

The entire project area is already developed with no remaining environmental resources. Clackamas County staff is confident this project will move forward with only the required Environmental Assessment.

Other Expected Costs Provide estimate →
Section 2.C Subtotal **\$0**

SUMMARY

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

3. Right-of-Way Cost Estimation Monroe Street Active Transportation Project
 Use either Method 'A' or Method 'B'. Method 'A' is preferred. Complete Section C if applicable. Monroe St from Linwood Ave to Fuller Rd; Boyer Dr, 85th Ave and Spencer Dr from 82nd Ave to I-205 Multiuse Path
Clackamas County Department of Transportation and Development
 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	1.0			
Describe assumptions used in calculating area:					
Estimate unit cost (per SF) of taking	\$	\$350,000.00			
Describe assumptions used in calculating unit cost(s): Full Taking of Property					
Estimated total cost of taking				\$350,000	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				\$350,000	

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	4752.0	\$20	\$95,040	Use in other established neighborhoods.
Estimate square-feet of undeveloped ROW taking	SF	11088.0	\$10	\$110,880	Use in undeveloped areas.
Describe assumptions used in calculating area: there are 65 (R7) parcels estimated @ \$10,000 per parcel; 2 (R7) parcels estimated @ \$15,000 per parcel; 1 (HDR) parcel @ \$15,000; 1 (HDR) parcel @ \$50,000; 1 (HDR) parcel @ \$75,000. Current valuations from nearby areas of the county were used for R7 parcels; \$20 per square foot for HDR parcels					
Estimated total cost of taking				\$205,920	Estimated area multiplied by estimated unit cost.
Number of affected parcels:	EA	70	\$10,000	\$700,000	Reflects administrative costs of property acquisition.
Section 3.B Subtotal				\$905,920	

3.C - Additional Information

Use the space below to provide additional information, including items not listed above, or to expand on assumptions used.
 One full taking assumed for roundabout for tax lot 004500

SUMMARY

Method 'A' Right-of-Way estimate (moderate confidence)	\$350,000	Section 3 Total (moderate confidence)
Method 'B' Right-of-Way estimate (low confidence)	\$905,920	Section 3 Total (low confidence)

4. Design and Administration Costs Monroe Street Active Transportation Project
 Complete input cells in Sections A and B if applicable. Default markup values can be overridden. Monroe St from Linwood Ave to Fuller Rd; Boyer Dr, 85th Ave and Spencer Dr from 82nd Ave to I-205 Multiuse Path
Clackamas County Department of Transportation and Development

4.A - Design

Construction Costs (from Section 1):

\$2,443,989
\$0

Environmental Impact Costs (from Section 2):

Item	Base Cost	Markup	Total	Description
Surveying, design, coordination	\$2,443,989	20%	\$488,798	(Default 30%) Typically included in the professional engineering contract
Construction Engineering	\$2,443,989	10%	\$244,399	(Default 20%) Engineering services during construction
Other Expected Costs	Provide estimate →			

Description of other expected costs:

Section 4.A Subtotal **\$733,197**

4.B - Administration

Project Administration will be applied throughout project.

Administration	\$2,443,989	10%	\$244,399	(Default 35%) Project overhead
----------------	-------------	-----	-----------	--------------------------------

Section 4.B Subtotal **\$244,399**

4.C - Additional Information

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

Our estimates used lower markups for most of the above cost factors based on our experience with similar projects. We assumed 20% markup for Surveying, design and coordination rather than the default 30%, 10% for construction engineering rather than the default 20% and 10% for administration rather than the default 35%.

SUMMARY

Total of all above items **\$977,596** Section 4 Total

5. Contingency and Risk Monroe Street Active Transportation Project
 Complete input cells in Section A if applicable. Default markups can be overridden. Section B must be completed. Monroe St from Linwood Ave to Fuller Rd; Boyer Dr, 85th Ave and Spencer Dr from 82nd Ave to I-205 Multiuse Path
Clackamas County Department of Transportation and Development

5.A - Contingency

Item	Section Total	Markup	Contingency \$	Description
Section 1 - Construction	\$2,443,989	20%	\$488,798	(Default 20%)
Section 2 - Environmental	\$0	20%	\$0	(Default 20%)
Section 3.A - Right-of-Way (moderate confidence)	\$350,000	20%	\$70,000	(Default 40%)
Section 3.B - Right-of-Way (low confidence)	\$905,920	20%	\$181,184	(Default 50%)
Section 4.A - Design	\$733,197	20%	\$146,639	(Default 20%)
Section 4.B - Administration	\$244,399	No contingency on Administration		
Other Expected Costs	Provide estimate	→		
Description of other expected costs: There are no other costs.				
Section 5.A Subtotal	\$886,621			

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.

Contingency and risk issues are very limited for the Monroe Street project. As noted elsewhere, the area is entirely developed, so no environmental issues have been identified. There are no nearby historical or cultural resources. There are no railroads in the corridor and utility work will be completed at no cost to the project. There are no bridges or culverts in the project area. There are no required agency approvals except for FAHP notification. The existing infrastructure has already been studied and existing deficiencies identified, and cost for required improvements are already incorporated in this estimate. None of the project components are complex, untested or unique. The most complex elements in the corridor are in the Boyer Drive Extension which is not proposed for funding in this project and will be constructed in 2017 by the North Clackamas Revitalization Area.

6. Project Summary Sheet

Monroe Street Active Transportation Project

Monroe St from Linwood Ave to Fuller Rd; Boyer Dr, 85th Ave and Spencer Dr from 82nd Ave to I-205 Multiuse Path

Active transportation improvements including 1 mile of MUP, 700 ft of sidewalk, traffic calming measures and wayfinding signs

Clackamas County Department of Transportation and Development

6.A - Cost Summary in 2007\$

	Item Total	Phase Total
<u>Preliminary Engineering (PE)</u>		\$635,437
Surveying, design, coordination	\$488,798	
Contingency at 20%	\$97,760	
Administration at 10%	\$48,880	
<u>Right-of-Way (ROW)</u>		\$1,507,104
Right-of-Way (moderate confidence)	\$350,000	
Contingency at 20%	\$70,000	
Right-of-Way (low confidence)	\$905,920	
Contingency at 20%	\$181,184	
<u>Construction (Const)</u>		\$3,494,905
Construction (Section 1)	\$2,443,989	
Contingency at 20%	\$488,798	
Environmental (Section 2)	\$0	
Contingency at 20%	\$0	
Construction Engineering	\$244,399	
Contingency at 20%	\$48,880	
Administration at 10%	\$268,839	
		Total
		\$5,637,446

6.B - Funding Summary by Year of Expenditure

Phase		2007 Dollars	YOE Year	Escalation	YOE Cost
Preliminary Engineering	PE	\$ 635,437	2019	1.52%	\$ 645,074
Right-of-Way	ROW	\$ 1,507,104	2020	5.58%	\$ 1,591,158
Construction	Const	\$ 3,494,905	2021	9.80%	\$ 3,837,415
	Total	\$ 5,637,446			\$ 6,073,647

Letters of Support



August 24, 2016

Pamela Blackhorse
Metro Regional Center
600 NE Grand Ave
Portland, OR 97232-2736

Subject: Support for Clackamas County RFFA application for Monroe Street Greenway

Dear Ms. Blackhorse,

On behalf of the City, I am writing to express Milwaukie's support for Clackamas County's Regional Flexible Funding Allocation (RFFA) application for implementation of the County's portion of the Monroe Street Neighborhood Greenway.

Monroe Street is an important east-west connector route in Milwaukie and northwest Clackamas County, linking Milwaukie's Willamette riverfront and downtown with the Clackamas Town Center and commercial areas along 82nd Avenue. It runs through five neighborhoods, directly links two parks and an elementary school, and provides a connection between the Green and Orange light rail lines. But there are a number of challenging intersections and crossings, and pedestrian facilities are lacking along significant stretches of the route.

In 2014-15, the City conducted a public process to develop a Concept Plan for the Monroe Street Neighborhood Greenway. Public stakeholders and technical advisors worked together to outline a design for improvements to make the street safer for pedestrians, cyclists, vehicles, and neighborhood residents. The Milwaukie City Council adopted the Concept Plan in December 2015 and, like the County, is looking for funding to take the next steps for implementation.

The City was actively engaged in the County's project to develop its *Monroe Neighborhood Street Design Plan*, a conceptual design for neighborhood greenway treatments on the County's portion of Monroe Street, between Linwood Avenue and the I-205 multiuse path. The resulting vision dovetails nicely with the City's concept to create a seamless greenway route across the jurisdictional boundary.

As the County moves forward to implement its design, the City will continue to coordinate and seek partnership opportunities to ensure that the entire Monroe Street route is constructed and functions as a single greenway facility. With this in mind, we are registering our strong support for the County's RFFA application and encourage Metro to select it for funding in the 2019-21 cycle.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Gamba", written over a white background.

Mark Gamba
Mayor



Janet Alley
Associate Director Transportation

Alleyj@nclack.k12.or.us
13797 SE Webster Rd, Milwaukie, Oregon 97267
503-353-6155 office
www.nclack.k12.or.us

August 25, 2016

Pamela Blackhorse
Metro Regional Center
600 NE Grand Avenue
Portland, OR 97232

Re: Monroe Street RFFA – Clackamas County Application

Dear Ms. Blackhorse:

The North Clackamas School District is pleased to support the Clackamas County Monroe Street RFFA Application. The County's grant application will request funding for construction of pedestrian and bicycle improvements on Monroe Street from Linwood Avenue to the I-205 Multi-Use Path.

This project is sorely needed in an area of the region that currently has substandard infrastructure for pedestrians and bicyclists. We urge you to fund this important project because it will provide a key link connecting people from throughout the county to many destinations and it will help children be able to walk safely to North Clackamas Schools – Whitcomb Elementary and Linwood Elementary.

By funding this project you are leveraging local funds in helping make this area of the metro region significantly safer. This neighborhood has a need for bicycle and pedestrian improvements due to a high percentage of lower income households, minority residents and households with limited vehicle availability.

Thank you for considering the City of Milwaukie's Monroe Street project in this round of Regional Flexible Fund Allocation. We encourage you to fund this project to make our region safer and healthier.

Sincerely,

Janet Alley, Associate Director - Transportation Department
North Clackamas School District

August 2, 2016

Metro
600 NE Grand Avenue
Portland, OR 97232

Re: Monroe Street RFFA Application

To Whom It May Concern,

The Clackamas County Pedestrian/Bikeway Advisory Committee is pleased to support the Clackamas County Monroe Street RFFA Application. The committee voted unanimously in support of this plan at its meeting of August 2, 2016.

Providing a system of pedestrian and bicycle facilities with connections to two light rail stations (Orange and Green Lines), employment areas, the Clackamas Regional Center, transit centers and transit stops, 82nd Avenue businesses, the I-205 multi-use path, the Springwater Corridor, schools, parks, and more will be of great benefit to the communities in the area. It will provide multimodal options for a large community. In addition, this is a well-supported project and is a specific project in the County's 20-year Transportation System Plan.

There are a number of outstanding benefits to this project and they include the following:

- It complements a similar adjacent project in the city of Milwaukie. It connects to the Monroe Greenway project in Milwaukie.
- The community has been engaged for the past year in the development of the Monroe Neighborhood Street Design Plan.
- It is a significant regional active transportation / bikeway connection. Monroe Street is designated as a Bicycle Parkway in Metro's Regional Active Transportation Plan, the highest classification for regional bicycle routes.
- It is designated as a Principal Route in Clackamas County's Active Transportation Plan. Principal routes are the most important routes to connect communities and key destinations in the county.
- It is partially within the North Clackamas Revitalization Area (NCRA) urban renewal district and has been identified as a priority project in the NCRA Plan.

- It includes an area that is among the highest in the region in terms of the transportation disadvantaged.
- This project builds on the significant improvements made by ODOT, Metro and Clackamas County to Boyer Drive and 82nd Avenue.

We fully support this application!

Sincerely,

A handwritten signature in black ink, appearing to be "Blane Meier", followed by a horizontal line and a period.

Blane Meier, Chair
Clackamas County Pedestrian/Bikeway Advisory Committee



**PROTECTING YOUR
RIGHT TO ROAM**

To: Metro Councilors
600 NE Grand Ave
Portland, OR 97232

August 23, 2016

Dear Metro Councilors,

Oregon Walks is the statewide pedestrian advocacy organization working to making walking a safe, convenient, and accessible transportation option for every community in the state of Oregon. Improving conditions for walking in communities small and large is a remarkably cost-efficient investment that helps address a variety of statewide goals; including improved public health, cleaner air, climate resiliency, local economic development, mitigation of congestion, urban affordability, an aging demographic, and quality of life.

We are writing today to offer our support for Clackamas County's *Monroe Neighborhood Street Design Plan* application for their Regional Flexible Fund Allocation application. We urge you to fund this important project because it will provide a key link connecting people from the throughout the county, to the new MAX Orange Line and it will help kids be able to walk to school safely (adjacent to Whitcomb Elementary).

This project is sorely needed in an area with very little in the way of pedestrian infrastructure, this is one of the only streets that goes through from the City of Milwaukie to the I-205 multi-use path in the area, and this project will be a game changer in helping people choose walking and transit as a transportation option. Furthermore this project connects with the City of Milwaukie's Monroe Street Greenway project and other adjacent transportation investments, and is in the North Clackamas Revitalization Area (NCRA) urban renewal district and has been identified as a priority project in the NCRA Plan. This project is also a high priority in the Clackamas County TSP.

By funding this project you are leveraging local funds in helping make this corner of Clackamas County significantly healthier. The neighborhood has a very high need for bicycle and pedestrian improvements due to a very high percentage of lower income households, people with disabilities, minority residents, and households with limited vehicle availability.

Thank you for considering this project in this round of Regional Flexible Fund Allocation, we hope you choose to fund this important project to make our region healthier and safer.

Sincerely,

Kathryn Doherty-Chapman
Oregon Walks Projects and Plans Committee

618
NORTHWEST
GLISAN
SUITE 401
PORTLAND
OREGON
97209
BTAOREGON.ORG
T503
226
0676
F503
226
0498

August 22, 2016

Pamela Blackhorse
Metro Regional Center
600 NE Grand Ave.
Portland, OR 97232-2736

Dear Pamela Blackhorse,

Please accept this letter in support of Clackamas County's application for Regional Flexible Funds to develop their portion of the Monroe Street Neighborhood Greenway. This project would complement the Monroe Street Neighborhood Greenway in Milwaukie by connecting north to the Clackamas Town Center and Green Line MAX.

Both the Regional Active Transportation Plan and Clackamas County Active Transportation Plans identify Monroe Street as a key route to connect communities and destinations in Clackamas County, and it is a high priority project in the 2014 Transportation System Plan. It is also one of the Bicycle Transportation Alliance's 16 top priorities in our *Blueprint for Worldclass Bicycling*.

Today, Monroe Street is characterized by motor vehicle speeds and volumes that are generally not compatible with the character of a successful neighborhood greenway. It also serves a neighborhood with a high percentage of lower income households, people with disabilities, minority residents, and households with limited vehicle access. This community has been engaged in creating the Monroe Neighborhood Street Design Plan, which identified the neighborhood greenway treatments needed to provide a safe route.

The Bicycle Transportation Alliance strongly supports Clackamas County's effort to create a neighborhood greenway on Monroe, including design treatments that are needed to calm and divert traffic along Monroe.

We hope you will award Clackamas County with the requested funding to advance this project to its next stage, getting us closer to a new safe place to walk and bike.

Sincerely,



Rob Sadowsky
Executive Director



8.23.2016

To whom it may concern,

We are writing to express our support for Clackamas County's grant application for the Monroe Neighborhood Street project which proposes construction (design, right-of-way and construction) on Monroe Street from Linwood to the I-205 multi-use path.

The county recently completed a planning process to develop a design plan for Monroe Street called the *Monroe Neighborhood Street Design Plan*. The goal of the project was to develop a design that improves conditions and safety for all modes of travel (walking, bicycling, and driving), with a special emphasis on pedestrians and cyclists. This supports the County's goal of creating a healthy, active community. The plan was developed with guidance and input from the neighborhood, general public, direct stakeholders, affected regional jurisdictions and local businesses.

Monroe Street connects downtown Milwaukie with northwest Clackamas County and the Clackamas Town Center. The street is an important link for all types of users and provides a connection between the Orange light rail line in downtown Milwaukie and Oak Grove, and the MAX Green line at Clackamas Town Center. The Metro, City of Milwaukie, and Clackamas County Active Transportation Plans identify Monroe Street as a key route to connect communities and destinations in the County – and adding bikeways, pedestrian facilities, and traffic calming to Monroe is a high priority project in the 2014 Transportation System Plan (TSP).

The main reasons for selecting Monroe as a project for the Regional Flexible Fund Allocation include:

- The County project complements a similar adjacent project in Milwaukie
- The Community has been engaged for the past year in the development of the Monroe Neighborhood Street Design Plan
- It is an important regional active transportation / bikeway connection
- It is partially within the North Clackamas Revitalization Area (NCRA) urban renewal district and has been identified as a priority project in the NCRA Plan
- The neighborhood has a very high need for bicycle and pedestrian improvements due to a very high percentage of lower income households, people with disabilities, minority residents, and households with limited vehicle availability.

We hope that you will consider the County's application for the Regional Flexible Fund Allocation.

Sincerely,



Matt Menely



Greg Baartz-Bowman

Bike Milwaukie, Co- Founders and Organizers