



2022-2024 Regional Flexible Funds Project Application

INTRODUCTION

This application is organized to consider, assess, screen, and select Regional Flexible Fund Allocation (RFFA) projects. The assessment is focused on first determining a candidate project's applicability to the RFFA program and their technical feasibility. Upon that assessment, promising projects will be assessed on the merits of their intended project outcomes that will be used for project scoring.

To be applicable to the RFFA program, a project must be at least one of the following project types:

- **Active Transportation and Complete Streets, or**
- **Freight and Economic Development Initiatives**

Each project should demonstrably support the four 2018 Regional Transportation Plan (RTP) investment priorities:

- Advancing **Equity**
- Improving **Safety**
- Implementing the region's **Climate Smart Strategy**
- Managing **Congestion**

Although information from the entire application may be used to inform project scoring, the questions presented in the section, "Project Outcomes" are directly related to scoring and evaluation criteria and the answers to these questions will directly inform the project scoring.

After all relevant questions are completed, please secure the required signatures as indicated at the end of this application form, and email it, along with other required information and supporting documentation to rffa@oregonmetro.gov. Applications MUST be received by 4:00 p.m. on Friday, June 21, 2019 in order to be considered.

APPLICANT INFORMATION

1. Jurisdiction name City of Tigard
2. Contact info: Name, phone #, email Gary Pagenstecher, 503-718-2434, garyp@tigard-or.gov
3. Funding category (check one): Active Transportation Freight Both
4. Project name. Red Rock Creek Trail Implementation Plan (RRCTIP) - Alignment Study
5. Describe the project purpose. What problems or issues is the project intended to address?

The purpose of the RRCTIP project development grant is to fund an alignment study predesign level of work so that the alignment, section, preliminary design and easement requirements of the trail are available for implementation by the city and its partners during the planning and construction of future capital improvement and private development projects.

The proposed two-mile long Red Rock Creek Trail will provide active transportation options in an urbanizing Metro-designated Town Center area of Tigard and overcome significant barriers to connectivity within the area. Development of the RRCTIP is a timely response to related planning and development activities underway that will impact the Red Rock Creek watershed, including the Tigard Triangle Urban Renewal Equitable Development Plan, SW Corridor Light Rail Transit, Tigard Triangle Stormwater Implementation Plan, and the ripeness of the Tigard Triangle District and the Hunziker Core industrial area for re-development.

PROJECT READINESS

The following questions intend to gather information about how developed the project is and the steps that will still be required to complete the project. This section will be used for screening project feasibility.

Project Detail

6. Is this project on the 2018 RTP Constrained list? ¹ Yes No
7. What is the RTP Project ID #? 12008 Red Rock Greenway; 11227 Neighborhood trails and regional trail connections.
8. In which RTP network and policy map(s) is the project included? Check all that apply, indicate specific functional classification.
 - High Injury Corridor (or ODOT ARTS Hotspot map) [Click here to enter text.](#)
 - Bicycle: Metro Regional Trail System Plan, Metro Potential Regional Trail Investments.
 - Pedestrian: Metro Regional Trail System Plan, Metro Potential Regional Trail Investments.
 - Freight [Click here to enter text.](#)
 - Transit [Click here to enter text.](#)
9. List the project beginning and ending points. What specific streets/intersections are included in the project area? The proposed two-mile RRCT improvement extends from the Fanno Creek Regional Trail (FCRT) on the southwest to SW 64th Street at Pacific Hwy on the northeast and is comprised of four distinct trail segments including the Rail Road Crossing Multi-Use Path (MUP)

¹ Project must be on the 2018 RTP Constrained list, available for download at: oregonmetro.gov/RTP or oregonmetro.gov/sites/default/files/2019/04/02/2018-RTP-Master-Project-List-All-Projects-20190315.xls

Bridge, Hunziker Core industrial area, the Hwy 217 MUP Bridge, and the Tigard Triangle Plan District. The trail alignment crosses 68th Parkway, 72nd Ave, future 74th Ave, Dartmouth Street, Hwy 217 (overcrossing), Hunziker Road, Wall Street, and the Pacific and Western RR (overcrossing).

10. Is the project included in an adopted local transportation safety plan or audit? Yes No
Please describe. The proposed Red Rock Creek Trail will be a new off-street trail within the urbanizing Triangle and Hunziker Core areas of Tigard. As this active transportation infrastructure is built out and becomes an alternative to vehicular travel, benefits to transportation safety and congestion reduction should accrue.
11. Describe the non-RFFA funding sources available and amounts necessary for the project to be completed. How secured is the funding for each funding source (Certain, Probable, or Competitive?) The city is requesting \$35,945 from MSTIP Opportunity Funds as a 10.27 percent match for \$314,055 from RFFA, for a total project cost of \$350,000. The MSTIP Opportunity Fund match is a competitive, but probable, source of funds based on the WCCC recommendation on June 17, 2019 for RFFA funding.
12. Which Project Development Stages are to be considered for RFFA funding?² The proposed RFFA project development scope includes the full two-mile alignment from the city boundary on the northeast to the trail's intersection with the Fanno Creek Trail on the southwest, as shown on the Proposed RRCT map. This will provide a comprehensive look that will complement and provide context for separate initiatives to design and build portions of the RRCT pursuant to the Tigard Triangle Urban Renewal Area Equitable Development Plan, Tigard Triangle Stormwater Implementation Plan, SWC LRT Hwy 217 bridge, and the proposed Fields Property RR bridge. Each of these projects is described in more detail in the attached Draft Red Rock Creek Trail Implementation Plan.
13. If your project is found to not be as far along as indicated or has specific challenges that need to be (re)addressed to improved technical feasibility, are you interested in RFFA funding for project development activities? Yes No This application is for a Project Development Grant.
14. Attach or describe the project schedule and include information about important schedule considerations or drivers. Development of the RRCTIP is a timely response to related planning and development activities underway that will impact the Red Rock Creek watershed, including the Tigard Triangle Urban Renewal Equitable Development Plan, SW Corridor Light Rail Transit, Tigard Triangle Stormwater Implementation Plan, and the ripeness of the Tigard Triangle District and the Hunziker Core industrial area for re-development. Since each of these activities in the watershed has its own schedule, it is the intent of the RRCTIP project development grant to fund an alignment study and predesign development so that the alignment, section, and preliminary design and easement requirements of the trail are available for implementation by the city and its partners during the planning and construction of future capital improvement and private development projects. The RFFA Project Development Schedule.

Project Completeness

15. At what stage of the project development process is the project, and what is the status of each project stage (refer to Defining Project Development Stages above)? The project is at the concept development stage and ready for the project development phase, the subject of this RFFA grant request.

² Please refer to guidance found in the RFFA nomination process handbook.

16. Is right of way (ROW) acquisition likely? Will the project need any unique ROW requirements such as temporary easements, special coordination with other agencies? What is the status of the ROW acquisition task of the project? The application is for project development to preliminary design. One of the outcomes of the grant will be a determination of the required ROW and/or public access easements that will be needed to accommodate the RRCT along its length.
17. What project development (project study reports, transportation safety plan, safety audit, feasibility studies) has been completed? How recent are these reports or this project development, and are they still relevant? Are they in digital format for possible transfer? The concept development phase is documented in the Draft RRCT Alignment and Implementation Report, Aug 2018, which provides a parcel by parcel trail alignment analysis within the Tigard Triangle District Plan. In addition, the Proposed RRCT Map, June 20, 2019, shows the full length of the proposed RRCT including a generalized alignment on the downstream segments to the confluence with the Fanno Creek Regional Trail. See attached report and map.
18. Does the project area intersect with Title 13 resource areas³, wetlands, cemeteries, railroad tracks, Native American burial grounds, protected species habitat, or any other qualifiers that would require permitting? Yes. The RRCTIP is a Red Rock Creek watershed-scale active transportation network beginning with its confluence with Fanno Creek and extending to the City Boundary in the upper reaches of the creek. The creek is subject to Clean Water Services' Design and Construction Standards for stormwater management and vegetated corridors, Corps/DSL requirements for floodplain and wetlands in the lower reaches, and City of Tigard development code provisions for Tigard Significant Wetlands and Title 13 habitat areas.
19. To what extent has environmental permitting been scoped or completed? None. One of the outcomes of the RFFA grant will be a determination of permitting requirements for segments of the RRCT.

Community Support

20. What needs expressed by community members (e.g., unsafe crossing; egregiously long red lights) does the project address? Tigard's Strategic Plan vision is to become the most walkable community in the Pacific Northwest where people of all ages and abilities enjoy healthy and interconnected lives. The Strategic Plan was two years in development and culminated in adoption by City Council in 2014. The plan acknowledged that the city's current infrastructure does not support these values, as a suburban community incorporated in 1961 during the height of auto centrality in America. The proposed RRCTIP implements the Strategic Plan by providing a new active transportation spine in the urbanizing Tigard Triangle and Downtown districts. In addition, the City of Tigard has been working very closely with the community in developing the Tigard Triangle Strategic Plan. Community meetings were held which identified both the challenges and opportunities. Currently, within the Metro-funded Tigard Triangle Equitable Urban Renewal Implementation Strategy, we are working with the community to prioritize projects. Using an equity lens, the City of Tigard has worked with the community through four community conversations, an equity-focused Town Center Advisory Committee subcommittee, and online surveys to identify equitable criteria to rank urban renewal projects. The RRCTIP project addresses several needs facing the community and ranks high when using both the equity scorecard created for projects in this area as well as the quantitative scoring designed

³ Available for download at: oregonmetro.gov/urban-growth-management-functional-plan

with and by the community. The Red Rock Creek trail project scores highly with respect to the following criteria: multimodal transportation, environmental condition and infrastructure, regional destination and diversity, equitable economic opportunity, and public gathering spaces. See attached, A New Tigard Triangle, Planning for Equitable Development, pages 19/20.

21. Which community partners are involved? TriMet is developing SWC LRT in partnership with Tigard, including an MOU that requires the design of an MUP crossing Hwy 217; Metro has funded the Equitable Development Strategy, through which Tigard has identified the RRCT as high priority for implementation; Tigard's Town Center Development Commission and Transportation Advisory Committee have written letters in support of the RRCTIP; The Tualatin Riverkeepers has written a letter in support of the RRCTIP's watershed stewardship initiative; Community Partners for Affordable Housing has written a letter in support of the RRCT alignment across their property on 68th Parkway; DBG Properties and Bennett Development have written letters of support for the RRCTIP and are collaborating with the city on the Fields Property RR Bridge. See attached letters of support.
22. Describe the agency and community support (and any opposition) for the project. Discuss the focus on equity and stakeholder engagement process. The agency and community are supportive of equitable development within the Tigard Triangle and to improve access to recreation, employment and natural resources. The Tigard Triangle is deficient of all three of these elements and the Red Rock Creek trail would support the vision created by the community for this area. In 2017, residents voted to approve the creation of an urban renewal area in the Tigard Triangle and have continued to support their investment in the area by staying involved in the implementation strategy for the projects. To support equitable development in this area the City is working on an Equitable Development Strategy with equitable criteria defined by the community it will serve. The city has been working with Unite Oregon to help facilitate discussion with community members about the community needs and prioritizing projects with an equity lens. Three focus groups, four community meetings, online engagement and a Town Center Advisory Committee subcommittee were used to 1) create criteria for equity and what it means for this community, 2) Develop quantitative scoring for how the criteria is realized, and 3) Prioritize projects based on these elements and the needs of the community. This project would complement the other investments in this area and support the community's vision. To date there has been no apparent opposition. The City has been working with Unite Oregon for over three years and have developed a foundation of trust and follow through within the community. The City will continue to work with Unite Oregon to raise awareness and drive continued support for projects within Tigard Town Center, including the RRCTIP.

Interagency Connections

23. Are TriMet, SMART, or adjacent or overlapping jurisdictions (counties, cities) involved in and supportive of the project? TriMet, Metro, Portland, and Washington County are partners in Southwest Corridor Light Rail Transit (SWC LRT) and are aware of the proposed RRCTIP through iterative design development efforts that have referenced the proposed RRCT map Tigard provided to the design team. The SWC LRT Preferred Alternative alignment crosses Red Rock Creek three times traversing the watershed through the Triangle and Hunziker Core areas. Item #5 in the Tigard/TriMet MOU dated November 14, 2018 states "TriMet will study and design the Project to accommodate bicycle and pedestrian travel to establish an active transportation connection between downtown and the Tigard Triangle." See attached TriMet letter of support.

24. Is the project on or does it connect with a separate agency facility? Indicate all potentially involved agencies' awareness of and cooperation with the project. Potential agencies include Oregon Department of Transportation (ODOT) (Highway, Rail divisions and others as required), railroads, utilities, Bonneville Power Administration, or Port of Portland. ODOT Rail and Hwy Divisions will be involved in the overcrossing segments of the trail over the P&W railroad yard and Hwy 217. A diagnostic meeting was held with ODOT Rail, TriMet and the Genesee & Wyoming Company on July 18, 2018 (see correspondence with ODOT Rail, attached). PGE transmission lines within the RR right of way will be a factor in the design of the bridge to avoid moving or raising the lines, if possible. See attached correspondence with PGE.
25. Will utilities need to be relocated? Who owns the utilities and what is their level of awareness and support for the utility relocation? The need for utility relocation will be one of the outcomes of this project development grant, determined with the alignment alternative analysis and preliminary design work.
26. Do you have design control consistently across the project area? If other agencies are affected by this project, do you have the necessary documentation of agreement regarding design elements reflected within this project? (Please obtain signatures as indicated on the Signature Page of this application.) As a project development grant request, agency coordination will be one of the outcomes of the grant, identifying which agencies and standards will be applicable within the alignment alternatives analysis.

PROJECT RISKS

The following questions intend to identify potential risks to project completion.

27. Has a person(s) with the proper authority reviewed and agreed to the project design, and signed off on this application?⁴ Yes No
28. Are there any anticipated risks for the following:
 - a. Right of way (ROW)
 - i. Are ROW acquisition costs included in the cost estimate? No. The application is for project development. One of the outcomes of the grant will be to identify required ROW and/or easement acquisition.
 - ii. Were the federal Right of Way Uniform Act's acquisition and negotiation processes performed during the ROW acquisition stage or considered in the schedule and budget, for those projects which have not yet performed ROW acquisition? One of the outcomes of the grant will be to identify required ROW and/or easement acquisition and to ensure that the applicable Right of Way Uniform Act's acquisition and negotiation processes are considered in the cost estimate for the ROW acquisition stage. In support of this grant request, and in anticipation of the need to acquire public access easements across private property, please see the attached communication in support of the project from a sample of private property owners from whom easements may be required.
 - b. Utility Relocation
 - i. Are utility relocation costs included in the cost estimate? One of the outcomes of the grant will be a determination of any potential conflicts with utilities that may include relocation.
 - c. Stormwater considerations

⁴ As indicated on final page of application.

- i. Water quantity: The RRC Stormwater Capital Improvement Plan identifies project areas within the watershed to mitigate for hydromodification. The Tigard Triangle URA plan will consider regional stormwater facilities to facilitate redevelopment of the district and apply evolving CWS standards addressing hydromodification. The project development grant request assumes close coordination with Tigard Engineering and CWS as key stakeholders. Impervious surfaces identified through project development of the RRCTIP through the proposed RRFA grant will be subject to CWS review and comment.
 - ii. Water quality: See above.
 - d. Environmental and Permitting
 - i. Have potential State environmental (SEPA)/ National Environmental Policy Act (NEPA) impacts been identified? One of the outcomes of the project development grant will be to identify any applicable NEPA impacts.
 - e. Schedule: The proposed schedule for this project development grant is dependent on the project beginning, phasing and closeout parameters of the RFFA grant cycle, ODOT project delivery capacity and responsiveness, and availability of consultant resources. See attached Schedule.
 - f. Budget: The proposed project budget will be the amount of the RFFA grant and the MSTIP Opportunity Fund match, together being \$350,000. The attached cost estimate tasks include public engagement, research and data collection, existing conditions analysis, alternative alignment and phasing evaluation, public outreach, agency coordination, 30% plans and cost estimates, permits and easement acquisition plan, and draft and final reports. The proposed cost estimate can conform to the budget.
 - g. Staff availability
 - i. Does the agency have sufficient and qualified staffing resources to lead, manage, and deliver the project? Please describe. Yes, The Tigard Community Development Department has assigned staff to lead, manage, and deliver the project and budgeted for sufficient and qualified complementary staff resources in the Community Development, Public Works and Administration departments. Project Planner, Gary Pagenstecher, AICP UD, has initiated and led RRCTIP conceptual project development over the past year. Gary's work over the past decade with the City of Tigard's Community Development Department gives him a depth of understanding of the complex planning context and familiarity with property owners and stakeholders in the project area. Additionally, Gary is the Urban Design Team Lead for Tigard's partnership with TriMet for SWC LRT.

PROJECT DESIGN

Project designs will be scored on the level of safety and environmental improvements they can provide. A project that includes as many safety and environmental mitigation elements as feasible will more completely meet the criteria.

29. Describe the project elements and countermeasures that address safety. Current conditions in the project area make walking and biking unsafe. By building a fully protected, separated mixed use pathway, this project will greatly enhance safety for vulnerable road users (bicyclists and pedestrians). One of the outcomes of the Project Development grant will be to ensure that the design of the trail project includes elements and countermeasures that further address safety at surface street crossings and grade separated crossings of Hwy 217 and the railroad.

30. What countermeasures are included that reduce conflicts between modes (vehicles, pedestrians, bicycles, railroad crossings) and improve safety? (Use Appendix C design checklist, check all that apply) The proposed RRCT is an off-street active transportation trail facility. One of the outcomes of the Project Development grant will be to ensure that the design of the trail project includes countermeasures that reduces conflicts between modes where they intersect the trail at street, highway, and railroad crossings. The base design will be a 12-foot wide paved trail with two-foot shoulders. However, because of varying topography along the alignment, alternative sections may be appropriate to accommodate steep terrain, existing development, and limited right of way.
31. What specific project design elements are aimed at reducing environmental impacts (street trees, bioswales, etc.)?⁵ Duplicate, see #48 per Errata Sheet.
32. Are there additional design elements or countermeasures not on the checklist that are included in the project design that will improve safety and environmental outcomes? Current conditions in the project area make walking and biking unsafe. By building a fully protected, separated mixed use pathway, this project will greatly enhance safety for vulnerable road users (bicyclists and pedestrians). One of the outcomes of the Project Development grant will be to ensure that the design of the trail project includes measures that will improve safety and environmental conditions. Where the trail crosses five streets at grade along its two-mile length, well designed safety and place making features are anticipated to both prioritize pedestrian activity and celebrate Red Rock Creek as the natural resource heart of the district. The trail is envisioned to be developed in conjunction with elements of the Red Rock Creek Stormwater Capital Improvement Plan within the watershed to limit impacts and optimize environmental benefits.

PROJECT OUTCOMES

Projects will be scored in terms of their ability to create positive outcomes that align with RFFA priorities and regional goals. The following questions aim to gather details directly related to those potential outcomes. Please provide all relevant data to support your response, using Metro-provided data or additional sources. Metro staff will provide data to the scoring committee to confirm

Affordability/Equity

33. Is the project in an Equity Focus Area? Yes No Please indicate which Focus Area. The project area is not in an Equity Focus Area according to the RTP project data.
34. List the community places⁶, affordable housing, and Title 1 schools within ¼ mile of project. Fields Apartments (264 units of regulated affordable housing under construction) adjacent to proposed alignment, Community Partners for Affordable Housing (49 units of regulated affordable housing in development) adjacent to proposed alignment, Fanno Creek Park and Greenway (includes the proposed RRCT confluence segment linking to the Fanno Creek Regional Trail), Tigard Public Library within 1,000 feet (Fanno Creek Trail gap segment in design and funded for 2020 construction), Tigard City Hall within 1,300 feet (accessible with gap completion in 2020).
35. What are the estimated totals of low-income, low-English proficiency, non-white, seniors and youth, and persons with disabilities who will benefit from this project? Since the Tigard Triangle

⁵ 2018 RTP Environmental Assessment and Potential Mitigation Strategies (Table 4 summarizes potential strategies by resource areas and pages 34 to 59 identify all RTP Projects that intersect with one or more environmental resource area)

oregonmetro.gov/sites/default/files/2019/03/01/RTP-Appendix_F_EnvironmentalAnalysisMitigationStrategies190301.pdf

⁶ Community places are defined as key local destinations such as schools, libraries, grocery stores, pharmacies, hospitals and other medical facilities, general stores, parks, greenspaces, and other places that provide key services and/or daily needs.

and Downtown Districts are under redevelopment with substantial capacity provided under the Triangle Mixed-Use and Mixed-Use-Central Business District zones that characterize the majority of the Metro-designated Town Center area, it is difficult to estimate the total of potential beneficiaries in this demographic profile for the proposed RRCTIP area. According to the Equitable Development Project Intake Sheets for RRCT within the Tigard Triangle, the Equitable Economic Opportunity criterion projects an increase in development value of \$177m, an increase of affordable housing unit capacity of 316 units and an increase of employment capacity of 1042 jobs.

36. What are the barriers faced by these communities that the project addresses or overcomes, and how will these populations benefit from this project? Current conditions in the project area make walking and biking unsafe. By building a fully protected, separated mixed use pathway, this project will greatly enhance safety for vulnerable road users (bicyclists and pedestrians). The proposed RRCTIP will provide a new two-mile long active transportation alternative to vehicle mobility in the developing Metro-designated Tigard Town Center. The connectivity provided by the trail will overcome significant barriers including grade-separated crossings of the Pacific & Western railroad and Hwy 217, provide enhanced access to bus lines and the downtown transit center, access to city services at Town Hall, access to the Tigard Public library, access to the Tigard senior center. In addition, the trail's adjacent proximity to Costco, Winco and Walmart will create additional unprecedented access within the Tigard Town Center to daily grocery and sundry needs by the anticipated significant multi-family population in both the Triangle and Downtown districts.
37. What contracting opportunities are available to Office for Business Inclusion and Diversity (COBID) firms through this project? What is your agency's policy, history, or removing of barriers to hire and advance COBID firms in infrastructure projects? Click here to enter text.

Safety

38. How many fatal or serious injury crashes have occurred in the project area in the last 5 years (or most recent 5 years of available crash data)? Current conditions in the project area make walking and biking unsafe. By building a fully protected, separated mixed use pathway, this project will greatly enhance safety for vulnerable road users (bicyclists and pedestrians). The proposed RRCT parallels Pacific Hwy to the south through the Triangle. According to Tigard Police records Pacific Highway sees more crashes than any other part of Tigard. The city compiled a list of the most common places to get in a traffic crash in 2011, and nearly every major intersection on Pacific Highway made the list of the 20 most common places to get in a crash, with half of the top 10 most common crash sites found on Pacific Highway between Hall Boulevard and Interstate 5 alone. Police responded to about 150 crashes between Hall and the Interstate in 2011. The intersections that saw the most crashes were Pacific Highway and Highway 217, Pacific Highway and Hall Boulevard, crashes along Dartmouth Street and near Fred Meyer at 11565 SW Pacific Highway. The RRCTIP will provide a safer non-motorized alternative for some travelers to avoid the highest risk intersections on Pacific Hwy along the proposed alignment, which may also have a marginal positive impact on reducing the crash rate within the Tigard Town Center area.
39. How does the project aim to reduce the number of fatal or serious injury crashes? As identified above, for the most part, the RRCT would be a conflict-free alternative that fully separates vehicle and bike/ped traffic, making it much safer than existing conditions where the bicycle and sidewalk network is spotty or nonexistent. The project aims to reduce the number of fatal or serious crashes by providing a non-motorized vehicle alternative within the Tigard Town Center area.

40. How does the project remove or mitigate conflicts, with (including) active transportation, railroad crossings, turning movements, and others? (Use Appendix C design checklist, indicate all that apply) As identified above, for the most part, the RRCT would be a conflict-free alternative that fully separates vehicle and bike/ped traffic, making it much safer than existing conditions where the bicycle and sidewalk network is spotty or nonexistent. One of the outcomes of the RRCTIP project development grant will be to determine the design of the RRCT active transportation alignment where it crosses 68th Parkway, 72nd Ave, 74th Ave, Dartmouth, and Hunziker Rd at grade. Many of the pedestrian and bicycle design elements listed in Appendix C will apply.

System Completion

41. What network gap(s) will be completed by this project? How will system connectivity or network deficiencies be improved? The proposed RRCT alignment through the Tigard Triangle Plan District is represented in concept on the Tigard Triangle Transportation Network Map. The RFFA project development grant will bring the trail from the concept level through an alternatives analysis to preliminary design. The grant will also provide preliminary design to trail segments downstream outside of the Triangle Plan District to connect with the Fanno Creek Regional Trail. Additionally, Metro's Regional Trails System Plan is improved with the RRCT by providing connections to both the Tigard-Lake Oswego trail to the east and Portland's T-3 trail to the north.
42. How will access to active transportation be improved? What specific barriers in addition to the network gaps identified above will the project eliminate? The proposed RRCT is an active transportation facility and will expand the existing active transportation network in Tigard as described above. Two pedestrian/bicycle bridges are proposed along the RRCT alignment to cross the significant barriers represented by Hwy 217 and the Pacific & Western railroad.

Multimodal Travel, Mode Share, and Congestion

43. How will the project reduce transit delay and improve transit reliability? The project will provide an active transportation alternative to motor vehicle travel within the Tigard Town Center area. The effect of reducing vmt could reduce congestion on nearby transit streets and consequently improve transit reliability.?
44. How does the project improve connections to transit and employment or residential sites/areas? The project will provide a new active transportation alternative to motor vehicle travel within the Tigard Town Center mixed use area. The proposed RRCT would provide pedestrian and bicycle connectivity to transit and employment and residential areas within the mixed-use zones that comprise the majority of the Downtown and Triangle Plan Districts.
45. How will the project reduce vehicle trips or VMT (other than freight-related trips)? The proposed RRCTIP is an active transportation alternative to motor vehicle use. Within the highly constrained vehicle access through the area because of limited access freeways, railroads, and creeks, the RRCTIP would provide greater connectivity for new non-motorized access and mobility for residents and employees.
46. How does the project reduce the need for throughway expansion? The proposed RRCTIP can reduce pressure on throughway expansion by reducing vmt and consequently congestion on area streets, which is usually the pretext for expansion.

Climate Change and Environmental Impact

47. Describe the measures included to specifically mitigate the project's greenhouse gas emissions and environmental impact. The proposed RRCT is an active transportation alternative to vehicle

mile traveled in the Tigard Town Center area. The project itself is a mitigation for the limited access roadways, lack of street connectivity and limited trail development to date.

48. What specific project design elements are aimed at reducing environmental impacts (street trees, bioswales, etc.)? The proposed RRCT will be constructed with a 12-foot paved section that will require stormwater mitigation per CWS design and construction standards. Per CWS standards, the trail alignment will be designed to be outside of the vegetated corridor or encroaching at most within the outer 40 percent of the buffer. The trail will be designed in conjunction with regional stormwater facilities and with the Red Rock Creek Stormwater CIP. These design opportunities will minimize the environmental impacts of the trail's impervious surfaces.

Freight Related Impact

49. How does the project address freight travel time reliability and reoccurring or nonrecurring congestion affecting freight goods movement? The project does not directly address freight travel time. Indirectly, however, to the extent that active transportation modes provide alternatives to vehicle trips on adjacent freight routes such as Pacific Hwy and Hunziker Road, the project will have a decongesting effect on those routes.
50. Is this project on a "Reduction Review Route" (defined and stipulated by statute; OAR 731-012 and ORS 366.215) and to what extent has coordination occurred with the freight industry? Not applicable.
51. If there is freight delay along the corridor, when does this delay occur, to what extent is there delay, and how does this project address that delay? Congestion on Pacific Hwy adjacent to the Tigard Triangle is well documented. The project does not directly address freight travel time. Indirectly, however, to the extent that active transportation modes provide alternatives to vehicle trips on adjacent freight routes such as Pacific Hwy and Hunziker Road, the project will have a decongesting effect on those routes.

Employment/Economic Development

52. Describe the employment area(s) served by this project. What is the number of current and projected jobs in traded sectors?⁷ Approximately 1,331 traded-sector employees across 85 companies exist within a quarter mile of the proposed RRCT. An additional 300+ employees can be added once the Fields industrial sites comes online, provide the jobs are traded-sector.
53. Describe how the project supports and catalyzes low-carbon and resource efficient economic sectors.⁸ The proposed RRCT could provide enticement for companies to continue and expand operations in Tigard by providing quality of life active transportation alternatives and better access to existing and future transit (SWC) for employees. An example of this is development of the Fields Parcel 2 property, where the owners are capitalizing on the proposed RRCT improvements by marketing the seven-acre property as the "Trailhead" due to its adjacency to the trail and willingness to collaborate on the RR bridge design and integration of the bridgehead into the site plan. Agilyx / Regenyx, a leader in polystyrene recycling, would be directly served by the trail and employs 43 workers.

Project Leverage

54. How does this project leverage other funding sources? The proposed project development grant will result in an actionable RRCT Implementation Plan that will provide strategic direction for

⁷ Traded sector industries as indicated in the Economic Value Atlas, available at: oregonmetro.gov/tools-partners/guides-and-tools/economic-value-atlas

⁸ Clean Technology industry sectors as defined in the Oregon Business Plan, <https://oregonbusinessplan.org/about-the-plan/industry-clusters/>

easement acquisition and trail design and development readiness. The resulting RRCTIP will make segment projects more competitive for matching funds and construction dollars such as SWC LRT crossing of Hwy 217 and siting of the SWC Operations and Maintenance Facility adjacent to the creek, private/public collaboration on the RR bridge to Fanno Creek Park, and Red Rock Creek Stormwater and regional stormwater facilities construction. In addition, the RRCTIP will provide greater certainty in project development and facilitate trail construction associated with private development projects along the trail alignment.

55. Will the receipt of RFFA funding position the region to take advantage of federal and state funding opportunities as they arise? If so, explain. Yes, RFFA funding will prime the pump, so to speak, for applicable state and federal funding for active transportation project design and construction.
56. Will this help advance any Transportation Systems Management and Operations (TSMO) goals and strategies? The proposed RRCTIP is a significant new off-street active transportation facility located within the Metro-designated Tigard Town Center, which will help to implement Tigard's Strategic Plan to become the most walkable community in the Pacific Northwest where people of all ages and abilities enjoy healthy and interconnected lives.
57. Is this project on the Regional Emergency Transportation Network?⁹ Will this project help improve resiliency of the transportation network? If so, describe how. No. However, the RRCT can contribute to improving resiliency of the active transportation network by providing an alternative to motor vehicle use in the currently highly constrained access to, and limited connectivity within, the Tigard Triangle.

PROJECT COST ESTIMATE

58. What is the source of the project cost estimate?
- Conceptual:** These cost estimates are used where a significant need has been identified but a detailed project scope has not been developed. These cost estimates have the potential to change significantly as the project scope becomes more defined.
- Planning level:** These cost estimates are based on a generally defined scope. Cost estimates are usually based on limited field-work and general cost assumptions. No actual design work has been done prior to the development of these cost estimates. The cost estimate could still change significantly as design work begins, but the estimate is more reliable than the conceptual estimates. (e.g., comprehensive plan, TSP, Metro cost estimate worksheet, corridor plan).
- Engineering level:** These cost estimates are based on actual preliminary design work. If done for all facets of the project and there are no further additions to the project scope, these estimates should represent a fairly accurate cost for the project. (e.g. detailed planning report, preliminary engineering, final design, NEPA documentation, etc.)
59. During what project development stage (refer to page 9 of the RFFA application guidebook) was the cost estimate created?
- X Planning
- Alternatives Identification and Evaluation
- Preliminary Design
- Final Design

⁹ oregonmetro.gov/sites/default/files/2019/04/05/Regional_Emergency_Transportation_Routes_2006.pdf

60. What year was the cost estimate created? Does it include any escalation factors and to what year? 2019. As a project development grant request, the cost estimate does not include any escalation factors. (see attached cost estimate)

61. To what extent were the following considered during cost estimating? The application is for a Project Development grant. Most of the following items relate to project engineering and construction and do not apply to the proposed project development phase. The listed items should be identified through the project research and existing conditions tasks identified in the cost estimate for the project development grant.

- a. Right of way (ROW)
- b. Utility relocation or underground
- c. Stormwater considerations
- d. Environmental mitigation strategies
- e. Bridge, railroad, or major facility impacts
- f. Retaining walls
- g. Clearing and grading
- h. Removal of current pavement or facilities
- i. Signing and pavement markings
- j. Sidewalk and street furniture
- k. Street trees, landscaping, irrigation
- l. Mobilization, staging, and traffic control
- m. Staff availability or need for outside services

62. Please attach your cost estimate. Verify that it includes the following items:

- a. Unit cost assumptions
- b. Contingency assumptions

Response: The application is for a Project Development grant. Unit cost and contingency are functions of construction cost estimates and therefore do not apply to the subject project development cost estimate.

SIGNATURE PAGE

All relevant applicant agency and other agency staff with authority must attest to the design and cost estimates of the project, and that proper coordination and cooperation exists between all parties. Please attach additional signature pages as warranted.

Applicant agency staff signatures:

Community Development Dept. 

Tom McGuire, Assistant Community Development Director

Project manager 

Gary Pagenstecher, AICP CU, Project Planner, Community Development

Engineering NA

Right of Way NA

Environmental NA

Other agency signatures (as required):

ODOT Highway NA

ODOT Rail See attached communication with ODOT Rail

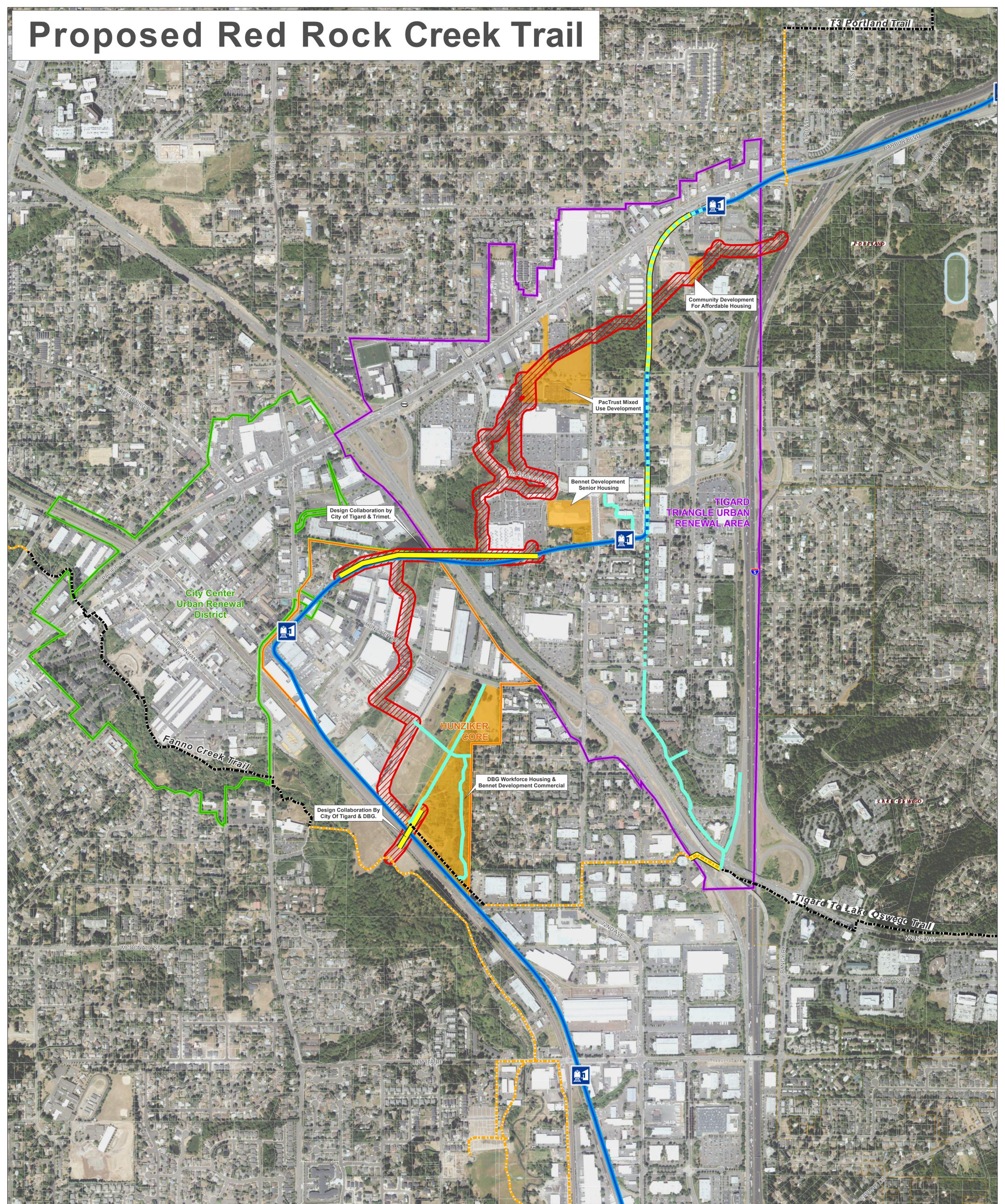
TriMet See attached communication with TriMet

SMART NA

Utilities See attached communication with PGE

Other (please indicate) _____

Proposed Red Rock Creek Trail

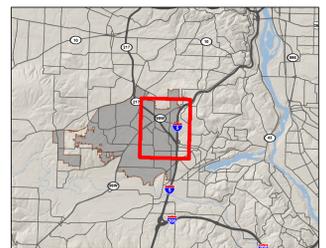


Community Development
 13125 SW Hall Blvd
 Tigard, Oregon 97223
 503 - 718 - 2434
www.tigard-or.gov

Date: 6/20/2019

- Transit Stations
- Proposed Red Rock Creek Trail Alignment
- Private Property Letters of Support
- SWC LRT LPA Alignment

- Proposed Pedestrian/Bike Bridges
- Existing Regional Trails
- Proposed Regional Trail Extension
- Existing/Approved Local Trails
- Proposed 70th St Connector



MEMORANDUM OF UNDERSTANDING REGARDING CONSTRUCTION OF THE SOUTHWEST CORRIDOR LIGHT RAIL PROJECT IN TIGARD CITY LIMITS

This Memorandum of Understanding (“MOU”) is between the City of Tigard (“Tigard”) and Tri-County Metropolitan Transportation District of Oregon (“TriMet”). The intent of this MOU is to demonstrate a commitment to collaborate to ensure that the improvements associated with the Southwest Corridor Light Rail Transit Project (“SWC Project” or “Project”) address regional transportation needs while facilitating housing preservation and development, employment preservation and enhancement, and redevelopment land preservation and creation in the City of Tigard.

The Southwest Corridor Steering Committee (“Steering Committee”) recommended a Preferred Alternative that serves downtown Tigard by placing a station east of Hall Boulevard in an industrial district. This station location requires focused attention on pedestrian connectivity across and along Hall Boulevard and urban design considerations to ensure development near the station supports commonly understood station area development principles. It also avoids significant adverse traffic effects on Highway 99W, at-grade light rail crossings of Hall Boulevard in two locations, acquisition of unregulated apartment buildings that appear to serve lower income households, and allows a logical and efficient route to a Bridgeport terminus.

This MOU memorializes the commitment of both parties to address the land use, transportation, redevelopment, economic and fiscal impacts that result from the Preferred Alternative selection.

Recitals

Whereas, all parties support the extension of light rail in the Southwest Corridor to address the existing and forecasted travel demand in this corridor and support the region’s 2040 Growth Concept and Tigard’s land use vision.

Whereas, all parties recognize the recommendations of the Steering Committee in support of the region’s 2040 Growth Concept and the Regional High Capacity Transit System (“HCT”) Plan, including light rail as the transit mode, the Preferred Alternative as the route, and Bridgeport Village as the desired terminus.

Whereas, all parties recognize that federal funding via the Federal Transit Administration’s (“FTA’s”) New Starts program is necessary to sufficiently finance the SWC Project, that to qualify for such funding the SWC Project must score competitively on multiple metrics to compete for federal funding, and that such metrics emphasize lower capital and operational costs and higher ridership.

Whereas, all parties recognize that the FTA provides guidance for private, commercial development on property purchased with federal funds under Circular 7050.1A, “FTA Guidance on Joint Development.”

Whereas, all parties recognize that the FTA must review and approve all transactions for properties purchased with federal funds, including dispositions and Joint Development applications.

Whereas, TriMet and Tigard seek to improve mobility, ensure high quality transit operations, and provide opportunities to enhance transit ridership within the City of Tigard by facilitating enhanced connectivity and transit-oriented development. TriMet will collaboratively look for approaches to siting

transit facilities to minimize the impacts on current development and maximize future residential development and job potential. TriMet will look for opportunities to partner with Tigard on development near future stations.

Whereas, Tigard seeks to advance implementation of assorted plans and policies focused on downtown redevelopment, including its Comprehensive Plan, and recognizes that multimodal transportation enhancements and catalytic development opportunities can occur in conjunction with the SWC Project.

Agreements

The parties agree to cooperate on the following items of interest:

1. If the SWC Project terminates at Bridgeport in the City of Tualatin, Tigard and TriMet will recommend to the Steering Committee that the Project will locate at least four light rail stations in the City of Tigard as follows: (1) one serving the northern portion of the Tigard Triangle; (2) one serving the southern portion of the Tigard Triangle; (3) one serving downtown Tigard; and (4) one serving the 72nd Avenue corridor. The final location of the terminal station at Bridgeport may be an additional station in Tigard.
2. With regard to the station serving downtown Tigard, the project must meet the conditions below. The following concepts will be included in a draft and final Conceptual Design Report to be presented to the City Council for acceptance:
 - a. Light rail station platform(s) will be located immediately south and east of Hall Boulevard. In consultation with Tigard, TriMet will lead planning and design studies to determine the optimal location of bus transit facilities and park and ride facilities to optimize and pedestrianize the downtown station area for Tigard residents, employees, visitors and transit passengers, for consideration by the Steering Committee. TriMet and Tigard will work to jointly agree to the final location of such facilities for consideration by the Steering Committee.
 - b. Pedestrian access and multimodal connectivity to the Downtown Tigard station platform are important to achieving the goals of creating an active station, fostering transit ridership, and facilitating connections to residences and businesses. Design of pedestrian connections along and across Hall Boulevard are of considerable importance to achieving these goals and the parties acknowledge that Hall Boulevard, in its current state, impedes safe and convenient multimodal use and crossing. TriMet and Tigard recognize the need for clear, safe multimodal access to a light rail station on Hall Boulevard and share this as a priority. The parties agree to work together with ODOT on a redesign of Hall Boulevard in the light rail station area, from the freight railroad to Hunziker Street, and that the Hall Boulevard redesign will be presented to the Tigard City Council at 15, 30 and 60 percent of Project completion. Eligible Project elements within the station area will be funded as part of the Project. For other elements, TriMet and Tigard will jointly seek funding from ODOT and others to include as Project betterments. The parties also agree to seek a jurisdictional transfer of Hall Boulevard.
 - c. Tigard desires transit-oriented development ("TOD") to occur around the Downtown Tigard station and recognizes that the construction of parking facilities is a financial hurdle

to TOD's feasibility. In conjunction with a Station Optimization Study, the parties will consider additional non-transit parking at the structure that supports transit-oriented development. The parties understand that the FTA will not fund parking facilities for non-transit uses and the funds for any additional non-transit parking will need to be provided by sources outside the SWC Project. Based on Tigard's findings, the park and ride parking structure will be designed and constructed accordingly. Upon adoption of the Land Use Final Order, the parties will begin negotiating a Shared Use Agreement to be completed prior to the Engineering phase of the Project, which will define the obligations of each party related to the financing, construction, operations, maintenance, and use of the structure. This proposal will be informed by the Steering Committee's decision on the location and size of park and ride facilities along the alignment.

- d. Tigard seeks to enhance urban design, redevelopment potential, and the potential for station area density around the downtown station. To that end, TriMet agrees to locate, design, construct, and operate any Operations and Maintenance Facility ("O&M Facility") in Tigard city limits to maximize the redevelopment potential of the downtown station area. The O&M Facility will be located and designed to complement adjacent development and include physical and visual connections to its surrounding environment wherever possible.
 - e. TriMet will help mitigate business impacts in the Hunziker Industrial Core through standard federally required mechanisms in the Uniform Relocation Act, and through the proactive development of an Employment Transit Oriented Development District which TriMet will, through its planning and design efforts, help to effectuate. The goal is to achieve an overall employment density increase in the Hunziker Industrial Core after the Project is constructed as compared to before.
3. If the Project does not terminate at Bridgeport in Tualatin, Tigard and TriMet will recommend to the Steering Committee three light rail stations will be located in the City of Tigard as follows: (1) one serving the northern portion of the Tigard Triangle; (2) one serving the southern portion of the Tigard Triangle; and (3) one serving downtown Tigard. With regard to the downtown-serving station, TriMet and Tigard will work jointly to agree to the design and location of an MOS station prior to Steering Committee action in advance of the FEIS publication. The ultimate goal of the Project, whether as one process or in phases, is for a terminus at Bridgeport Village. Should the extension to Bridgeport Village be done in phases, TriMet will use its best efforts to ensure such completion occurs as quickly as possible, with a strong preference for within 10 years from the completion of the first phase.
 4. TriMet will demonstrate support for Tigard efforts to establish a multimodal Ash Avenue crossing across the existing freight tracks by furthering Tigard's interest in this crossing in Project negotiations with ODOT Rail and the railroad companies. This may be done by conducting a study of the nexus of this crossing with the Project and considering inclusion of the new crossing in the Project's Rail Order. TriMet will support Tigard's efforts to fund the new crossing as a Project betterment. Tigard will identify up to two existing public crossings that Tigard will close at Tigard's cost as part of an agreement with ODOT Rail.
 5. TriMet will study and design the Project to accommodate bicycle and pedestrian travel to establish an active transportation connection between downtown and the Tigard Triangle. This

multi-use path will be a betterment and both parties agree to be co-applicants for grants to fund the bicycle and pedestrian infrastructure.

6. To capitalize on real estate value created by the light rail project, TriMet will work with Tigard on a Joint Development Project Proposal that focuses on significant residential and employment (i.e. ridership-enhancing) development opportunities.
7. The parties seek to preserve and develop affordable housing in the city limits in proximity to the Project. TriMet and Tigard are both parties to the executed "Memorandum of Understanding Between the City of Portland, City of Tigard, Metro, Washington County and the Tri-County Metropolitan Transportation District of Oregon Regarding Southwest Corridor and Affordable Housing" ("Affordable Housing MOU"). As parties to the Affordable Housing MOU, TriMet agrees to use Project property to encourage development of affordable housing consistent with FTA requirements and Tigard agrees work to implement the Equitable Housing Strategy, facilitate construction of affordable housing, and work with TriMet to encourage ridership in the SW Corridor, which the parties recognize as encouraging enhanced transit corridors for streetcar and bus operations. Tigard anticipates using tax increment financing and potentially other funds for the development of affordable housing at or near TriMet stations.
8. TriMet and Tigard will develop an IGA to define the scope and budget necessary for City staff participation in Project activities.
9. This MOU is a statement of cooperation between the parties, setting out the parties' intent to act together to achieve the goals set out herein. This MOU may not be judicially enforced and may not be relied upon as a basis for a contract by estoppel or be the basis for a claim based on detrimental reliance or any other theory. The concepts in this MOU may be refined through additional intergovernmental agreements.

IN WITNESS WHEREOF, the parties have executed this MOU to be effective as of the date last executed. The parties attest that the signatories to this MOU have the authority to enter into this agreement on behalf of their respective agencies.

CITY

TRI-MET

By: _____

By: _____

Print Name: Martha Wine

Print Name: Steve Witter

As Its: City Manager

As Its: Executive Director, Capital Projects

Date: _____

Date: _____



City of Tigard

Memorandum

To: Washington County Coordinating Committee

From: Gary Pagenstecher, Project Planner, City of Tigard

Re: MSTIP Opportunity Fund Request

Date: May 28, 2019

Request

The City of Tigard requests MSTIP Opportunity Funds as a match for a Regional Flexible Funds Allocation Project Development grant for development of the Red Rock Creek Trail Implementation Plan (RRCTIP). The city is requesting \$35,945 from MSTIP Opportunity Funds as a 10.27 percent match for \$314,055 from RFFA, for a total project cost of \$350,000.

Project Description

Development of the RRCTIP is a timely response to related planning and development activities underway that will impact the Red Rock Creek watershed, including the Tigard Triangle Urban Renewal Plan, SW Corridor Light Rail Transit, various Tigard stormwater Capital Improvement Projects and the ripeness of the Tigard Triangle District and the Hunziker Core industrial area for re-development.

As shown in the following Proposed Red Rock Creek Trail map, the proposed two-mile trail improvement extends from the Fanno Creek Regional Trail (FCRT) on the southwest to SW 64th Street at Pacific Hwy on the northeast and is comprised of four distinct trail segments including the Rail Road Crossing Multi-Use Path (MUP) Bridge, Hunziker Core industrial area, the Hwy 217 MUP Bridge, and the Tigard Triangle Plan District. The RRCTIP links each of these segments, described below, with regional trails in support of Tigard's Strategic Plan to become the most walkable city in the Northwest in support of interconnected and healthy lives.

RR MUP Bridge

The proposed bridge is a priority public facility improvement because: 1) it takes advantage of new access provided by Wall Street, 2) dramatically improves the pedestrian network within Tigard's Metro-designated Town Center and between two of the city's urbanizing districts, Tigard Triangle and Downtown, 3) provides equitable public access to parks, active recreation and library services for traditionally underserved workforce housing now being constructed (Fields Apartments), 4) provides a critical local trail segment connecting the FCRT through the Hunziker Core area to Red Rock Creek Trail (RRCT) identified on the Tigard Triangle Transportation Network Map, 5) provides a critical regional trail segment connecting the FCRT with the Lake Oswego Regional Trail implementing Metro's Regional Trails Plan, and 6) it is an opportunity to celebrate Strategic Plan implementation with a bridge type and design that engages the public, inspires active recreation and helps tell Tigard's transformational story.

Hunziker Core

The following ongoing and planned developments within the Hunziker Core underwrite the timing of the RR MUP Bridge, discussed above: Wall Street improvements: Phase 1 (complete), Phase 2 (under construction), Phase 3 (construction in 2021); Fields Development Parcel 1 for 264 units of workforce housing; Fields Development Parcel 2, a mixed use commercial PDR to include a minimum of 280 jobs; and the Jack Martin industrial property for 285,000 square feet of industrial flex/office.

In addition, two major facilities of the SW Corridor alignment are planned in the Hunziker Core area including the Hall Blvd station and the Operations & Maintenance Facility. The O&MF is proposed to be built adjacent to RRC and should include a portion of the trail in its development. Linkages to the RRCT will need to be identified in the downtown station area plan through the Core area.

Hwy 217 MUP Bridge

Hwy 217 is the second major barrier to the RRCT within the watershed in addition to the railroad. The SWC project includes design development of this element and inclusion of the MUP bridge in the CDR. The RRCTIP provides the context for the bridge design including location and design of access ramps.

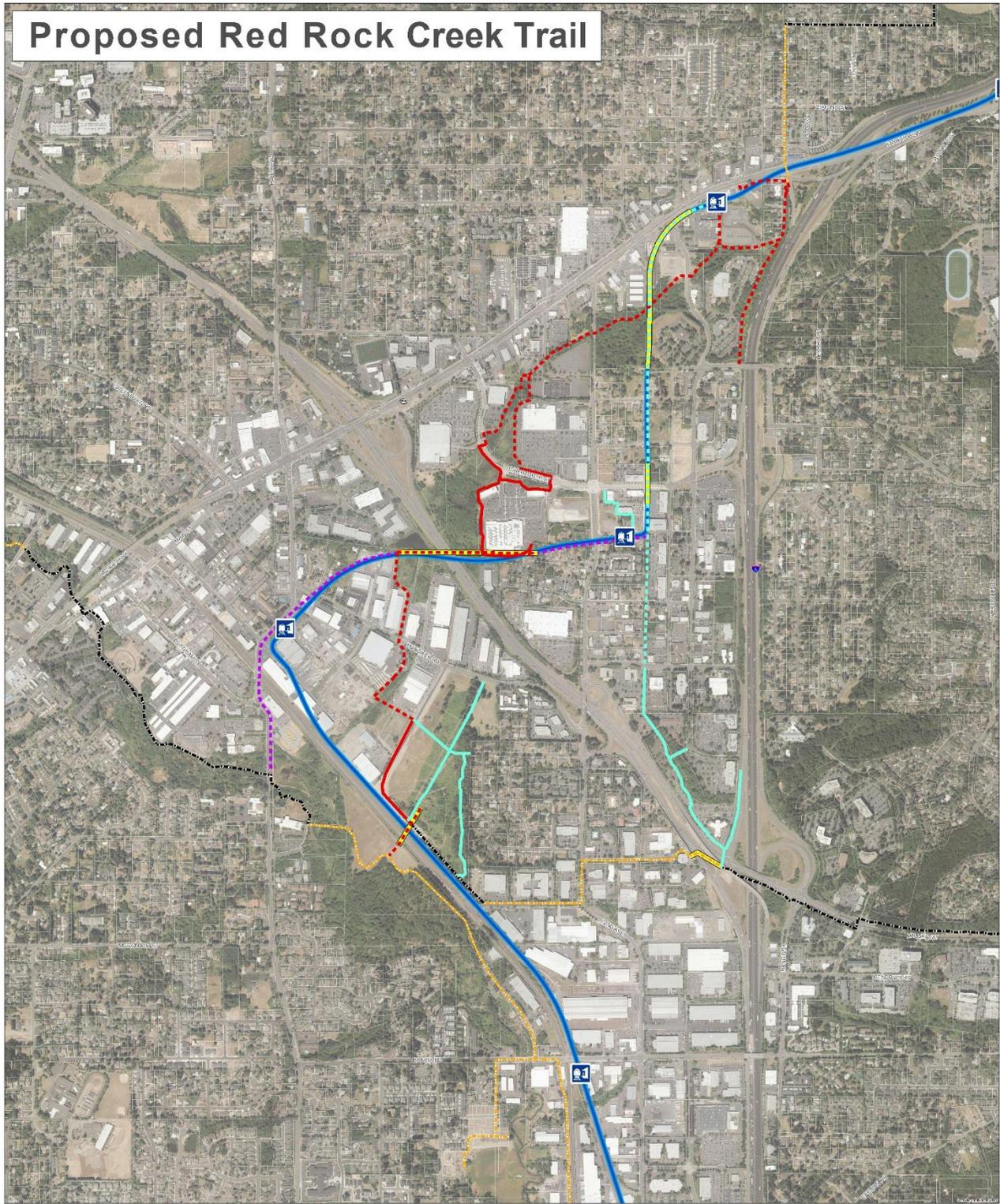
Tigard Triangle Plan District

The proposed Red Rock Creek Trail is identified on the Tigard Triangle Plan District Transportation Network Map. This past summer, the city prepared a draft alignment of the trail within the District at the parcel scale. But now the city needs to engage affected property owners within the watershed, active recreation and park stakeholders, and others in an effort to write the story of the trail, find champions, and build community stewardship and financial support to help design, build and maintain this piece of critical mobility infrastructure for a city whose vision is to become the most walkable in the Pacific Northwest for healthy and interconnected lives.

Thank you for your consideration.

Proposed Red Rock Creek Trail Map
(following page)

Proposed Red Rock Creek Trail



Community Development
 13125 SW Hall Blvd
 Tigard, Oregon 97223
 503 - 718 - 2434
www.tigard-or.gov

Date: 2/11/2019

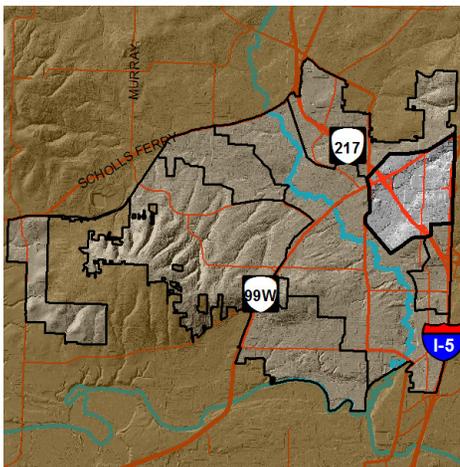
Revised: 2/11/2019 10:12:10 AM Project: C:\projects\2019\Red_Rock_Creek_Trail_SWC.mxd

- Transit Stations
- SWC LRT LPA Alignment
- Existing Regional Trails
- Existing Red Rock Creek Trail
- Existing Local Trails
- Proposed Red Rock Creek Trail System
- Proposed Regional Trail Extension
- Proposed 70th St Connector
- Proposed Elmhurst St Connector
- Proposed Pedestrian Bridges





Red Rock Creek Study Area



Existing Conditions

Red Rock Creek is at the eastern edge of Tigard where commercial/industrial buildings, box stores, office complexes, and three major transportation corridors dominate the landscape. The Tigard Triangle, bound by I-5, Hwy 99, and Hwy 217, is mostly located in the basin. The creek flows southwest into Tigard from a densely developed part of Portland. The study area within Tigard is 1.1 sq. mi.

With a significant amount of impervious

surface in the basin directing runoff to the creek unmanaged, stream flow in Red Rock Creek rises quickly during storms. In heavy rain, the creek has been known to rise eight feet in 15 minutes. The effects of these fast high flows are exacerbated by constriction and alteration of the floodplain throughout its length.

In the upper reaches, the creek flows through very steep terrain while lower reaches are quite flat. Eroded soils

from the steep sections are transported downstream and settle out in the flat portions - blocking culverts and filling natural wetlands.

A sanitary sewer line runs the length of Red Rock Creek. The erosive forces of urban stormwater runoff have carved the creek channel lower than the sewer line. When sections of the streambank fall into the creek due to erosion, they can

continued on back page

Issues and Risks

The Stormwater Master Plan assessed the risk of erosion in Tigard's streams. The assessment analyzed the likelihood of erosion based on stream geology and the consequence of erosion based on the stream's proximity to important features such as roads, sewer lines, and buildings.

The assessment classified about 50% of Red Rock Creek as medium overall erosion risk. A few spots are classified as moderately severe. The entire upper reach downstream to SW Dartmouth Street is in this range. Essentially the only risk of critical damage from erosion in Red Rock Creek is where the sewer line is located just feet from the channel.

Water quality is also a concern in Red Rock Creek as a tributary to Fanno Creek. Fanno Creek is home to native fish and

is water quality limited under the Clean Water Act for phosphorus, bacteria, dissolved oxygen, and temperature.

Urban stormwater runoff is known to carry metals, nutrients, and bacteria to streams. Red Rock Creek lacks shade where riparian canopy cover has been reduced or removed. Shade from canopy cover effectively cools streams. Warm water can stress or kill cold-water fish such as native salmon and steelhead.

Redevelopment is a City priority in Tigard Triangle, where many lots are small. Stormwater facilities can compete for space with other needs, and requirements to treat and detain runoff on redevelopment sites may be perceived as a deterrent to redevelopment in the Tigard Triangle.

Proposed Strategies and Solutions

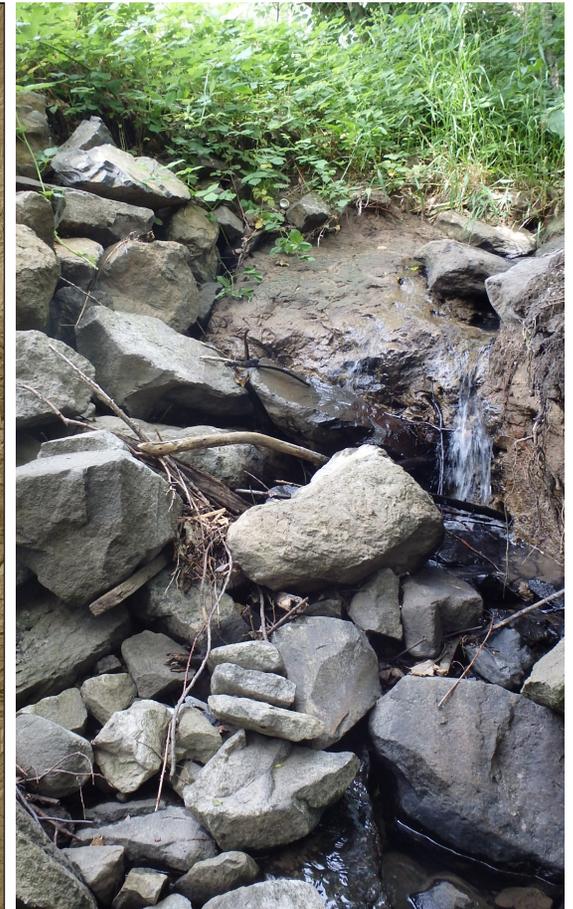
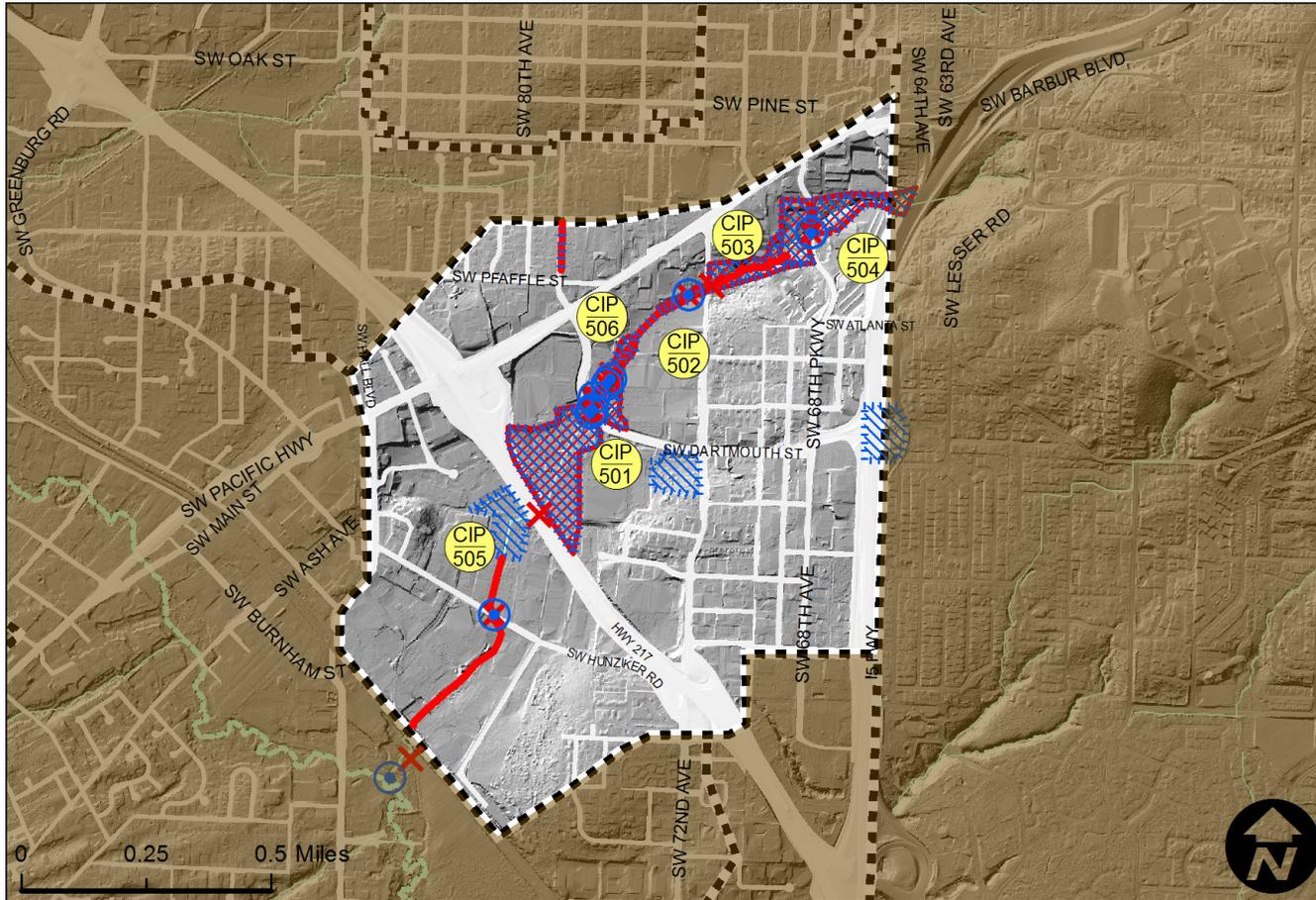
A primary strategy is to support re-development in the Tigard Triangle, which will bring existing developed properties up to current standards for runoff treatment and control. Use of small Low Impact Development Approaches to reduce competition for space is a key element. See the Tigard Triangle Stormwater Implementation Plan program for more details.

Red Rock Creek will also benefit from the Storm Sewer Assessment and Extension program to extend storm sewer to areas without it.

Proposed CIPs in Red Rock Creek expand detention capacity in existing natural areas and help prevent erosion that threatens the sanitary sewer pipe by improving the floodplain greenway.

Proposed CIPs	
SW Dartmouth Regional Wetland Detention Pond	
Rank: 5	CIP 501
Red Rock Channel Stabilization & Sewer Protection	
Rank: 12	CIP 506
Knez Wetland & Riparian Enhancement	
Rank: 15	CIP 505
Red Rock Floodplain Reconnection	
Rank: 16	CIP 503
Red Rock Creek Grade Control & Culvert Improvement	
Rank: 16	CIP 504
Red Rock Creek Daylighting & Riparian Restoration	
Rank: 18	CIP 502
Total Cost: \$13.9 million	

Red Rock Creek Study Area



Legend

Known Issues Potential Projects

-  Point
-  Point
-  Line
-  Line
-  Area
-  Area
-  Capital Improvement Project
-  Study Area

expose the sewer line. In the last decade, the sewer line has broken six times.

The City has identified the Tigard Triangle as a center for economic development and transit-oriented redevelopment. Metro's Southwest Corridor Plan links fish-passage and natural area improvements to the proposed MAX light rail line from downtown Portland, through the Tigard Triangle, and to Bridgeport Village.

Oregon Department of Transportation has tentative plans to widen both Hwy 217 and I-5 in the area.

These improvements will include rehabilitation and expansion of existing stormwater facilities in the Red Rock Creek study area.



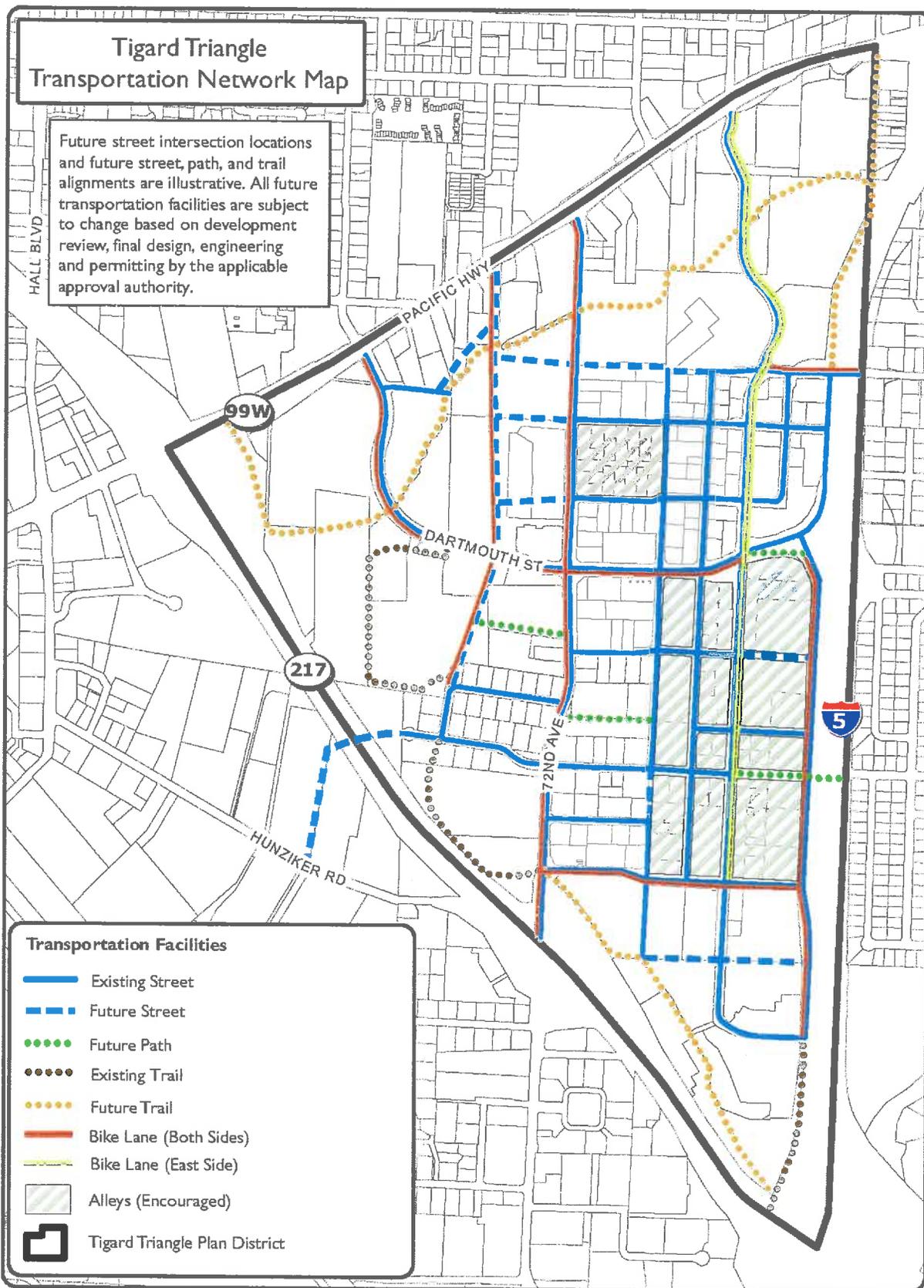
Draft

**Tigard Triangle Red Rock Creek Trail
Alignment and Implementation Report**

Alex Kaiser, Intern

August 2018

Map 18.660.B Tigard Triangle Transportation Network



Overview

The Red Rock Creek Trail alignment study area is located with the Tigard Triangle, which is bordered by Hwy 217, Interstate 5, and Hwy 99. The proposed alignment begins just beyond the northeast corner of Tigard's jurisdictional boundary at Hwy 99 and Interstate 5 and extends down to Hermosa Way at the southeast corner of the Walmart property. The Tigard Triangle will likely see an increase in development due eventually to the proposed SWC light rail extension from Portland to Tualatin, which will pass directly through the Triangle and include two stations, one at Hwy 99 at SW 68th Parkway and the other at Elmhurst at 72nd Ave. Together with the recently adopted Triangle District Plan and the Equitable Urban Renewal Plan implementation, the Triangle is primed for redevelopment, making the RRCT alignment study timely in anticipation of development proposals that need to incorporate the trail into their plans.

The proposed 1.1-mile trail alignment follows the northern side of Red Rock Creek, which is predominantly in private ownership. The terrain includes wetlands, vegetated corridors, steep slopes, street crossings and parking lots. The trail drops a total of 225 feet from its highest point to its lowest point in this study area. Getting the trail through these areas will require easements and working with both private and public property owners (see attached property owners list). There is an existing trail around Walmart from Hermosa Way to Dartmouth Avenue and demand trails along other sections of the proposed trail alignment.

The proposed alignment will be designed as a multi-use trail accessible for bikes and pedestrians, and ADA accessible, where possible. The trail will include interpretive viewpoints of the Red Rock Creek natural area.

The proposed Red Rock Creek trail alignment within the Triangle should serve as a connector to many intersecting paths and trails in the area, e.g. connections to the future light rail stations at Hwy 99 and 68th Parkway and Elmhurst at 70th/72nd, across Hwy 217 to the Lower Red Rock Creek Trail and on to the downtown Tigard station east of Hall and the Fanno Creek Regional trail.

Goals

- Maintain the integrity of the Red Rock Creek natural resource
- Where possible, make the trail ADA accessible
- Expand Tigard's network of local trails to connect communities
- Create public-private partnerships
- Create interpretive viewpoints
- Safe pedestrian street crossings

Street Crossings

- 64th Avenue
- 68th Avenue
- 72nd Avenue
- Future 74th Avenue (future)
- Dartmouth Street

Environmental Impacts

Maintaining the integrity of the natural resources of Red Rock Creek, its surrounding forests and wetlands is a high priority for the proposed trail alignment. The proposed route(s) of the trail have a minimal impact on the natural resource, while also being the most economically conscious.

Public-Private Partnership

The proposed trail alignment traverses properties that are planned for redevelopment such as the CPAH property and the Pacific Reality Associates property. Public-private partnerships are important opportunities to work with property owners to include public access trail easements in their development plans. Collaborative relationships are more efficient for both the property owner and the city with a higher likelihood of safe and comfortable active transportation facility outcomes.

Phased Implementation Plan

The following phases describe the relative difficulty of specified trail segment development.

Phase 1 of the trail may be the easiest to construct.

- The Midlands segment from 68th to 74th Avenue.
- This segment includes a demand path along most of its length, moderate stream gradients, and most of the open space north of Dartmouth.
- Opportunities in this area include the potential for turning a portion of the forested OEA property into a neighborhood park and featuring the future SWC LRT bridge design that will cross this segment in the vicinity of the 70th Ave alignment.

Phase 2 has some grade and access challenges:

- The Headwaters segment north of 68th to Hwy 99 via 64th or 65th Avenues.
- This segment includes steep slopes at the Triangle headwaters suggesting a nuanced trail section in response. The alignment will require ODOT cooperation to use 64th and I-5 right of way to connect to Hwy 99 and PGE's cooperation to traverse its site and access way.
- Opportunities in this segment include cooperation with CPAH to include the trail in their site development and the potential connection to the 68th/Hwy 99 LRT station.

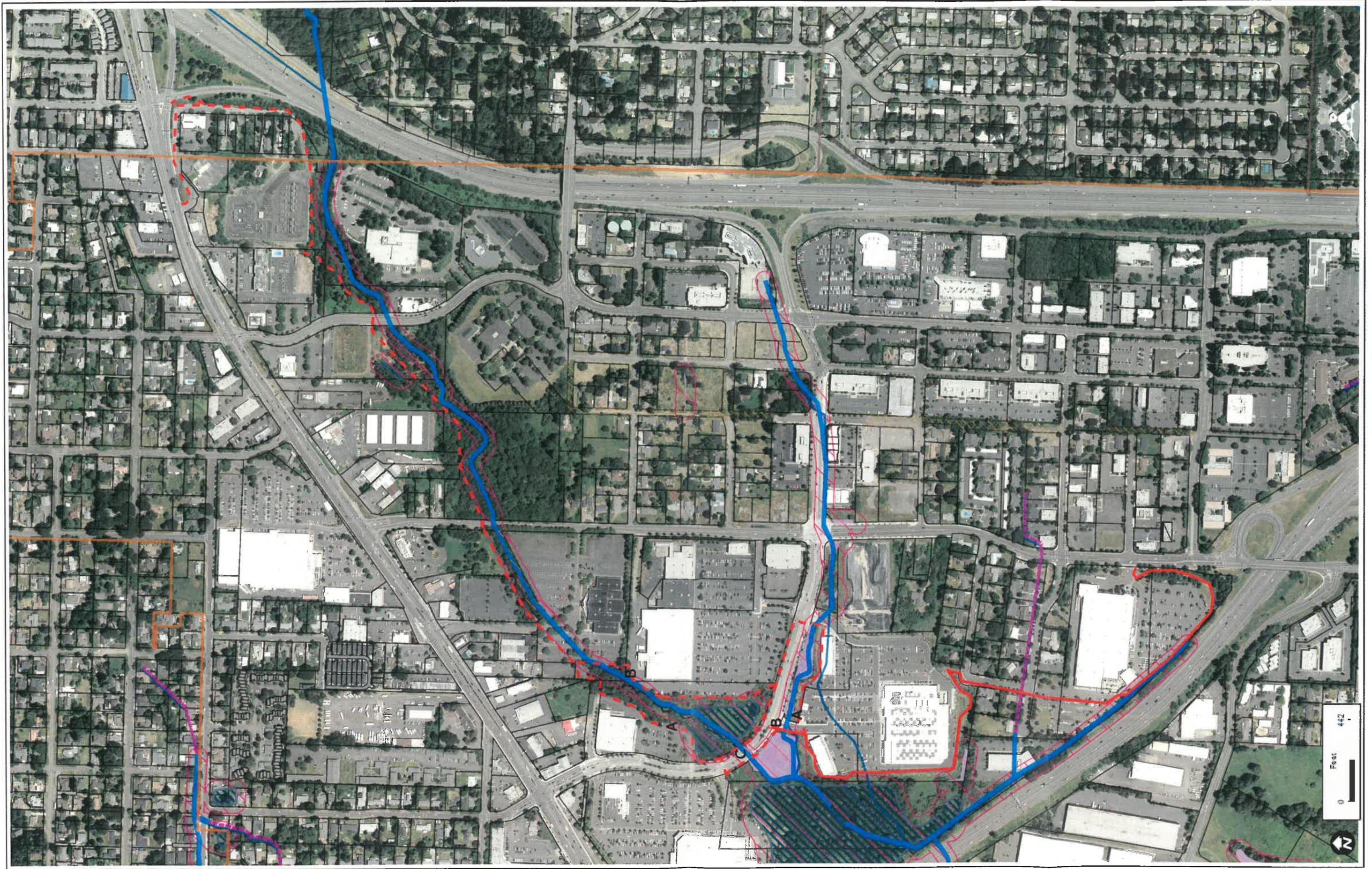
Phase 3 is perhaps the most constrained by existing development and sensitive lands:

- The Cataract Plunge segment from 74th to Dartmouth.
- This trail segment may be the most difficult to develop due to steep terrain reaches and culverted portions of the stream, limited crossing potential of SW Dartmouth Street, and the uncertainty of the timing for redevelopment of fully developed sites including the future street extension of Atlanta and the conversion of the private access to 74th Avenue across the creek.
- Opportunities in this segment include alternative routes north and south of the resource and requiring new development to implement the preferred alignment.

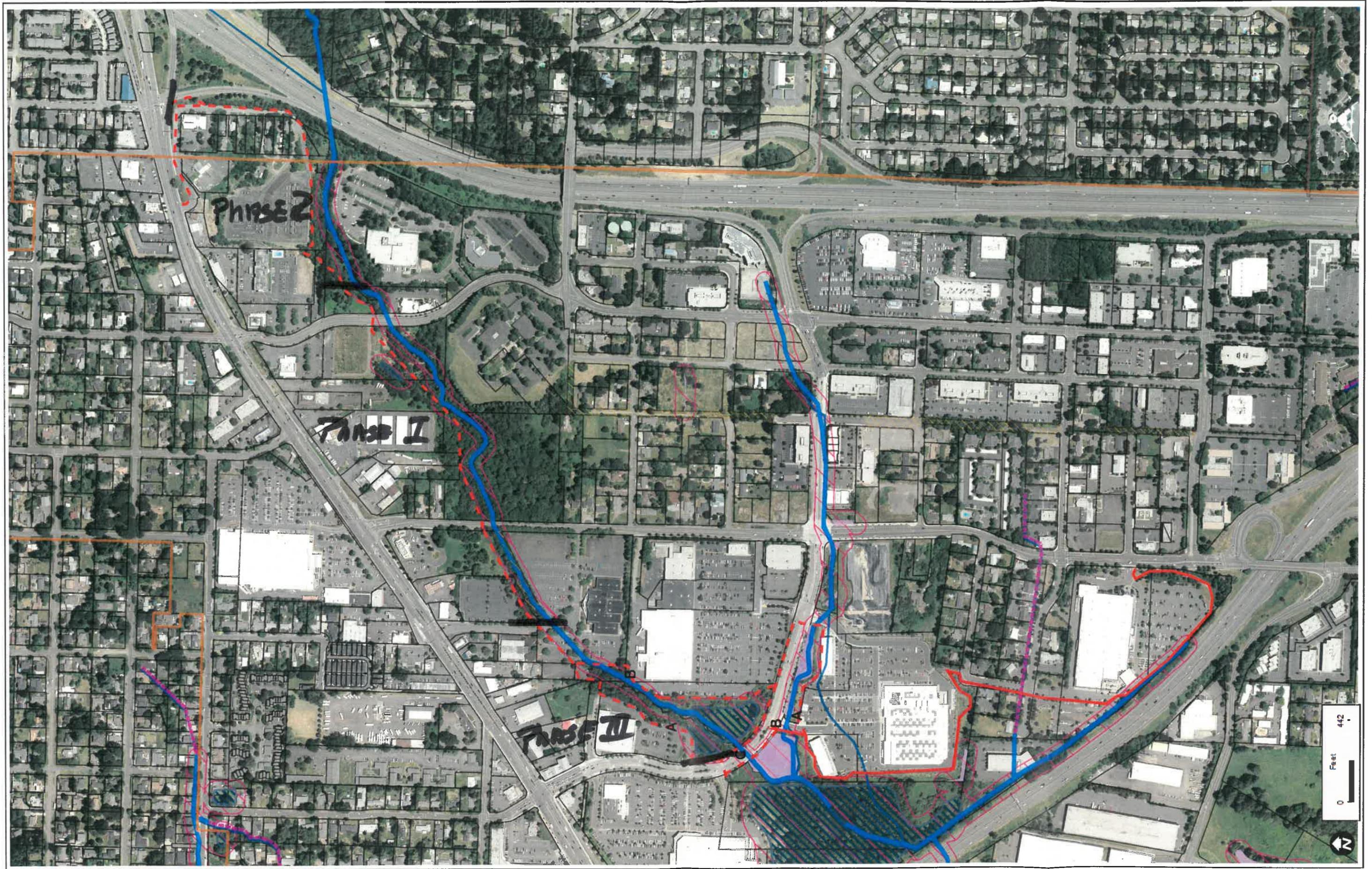
Property Owners

Prop Id/ Phase #	Parcel #	Owner	Contact Address	Site Conditions	Trail length in feet
1 / 2	Right of way	ODOT	Right of way within Portland city limits	Hwy 99 through ODOT row at I-5 Southbound onramp/ paved 64th Ave.	200/500
2 / 2	1S136AD06300	PORTLAND GENERAL ELECTRIC COMPANY	121 SW SALMON ST PORTLAND, OR, 97204	level, forested, adjacent to power station	700
3 / 2	1S136AD06507	AISLING CREATION LLC	PO BOX 1120 BEAVERTON, OR, 97075	Steep grade, forested, near creek	80
4 / 2	1S136AD06505	BAILEY GOLSAN BUILDING LLC	10998 SW 68TH PKWY TIGARD, OR, 97223	Steep grade, forested, near creek	85
5 / 2	1S136DA00100	BENENSON 68TH PARKWAY KEY LLC,	708 3RD AVE, 28TH FLOOR NEW YORK, NY, 10017	Steep grade, forested, near creek	150
6 / 1	1S136DA02500	COMMUNITY PARTNERS FOR AFFORDABLE HOUSING	6380 SW CAPITOL HWY, STE 151 PORTLAND, OR, 97239	Moderate to gentle slope top of bank within VC adj to future development	235
7 / 1	1S136DA02400	RPC TIGARD 68 LLC	2101 CEDAR SPRINGS RD STE 1600 DALLAS, TX, 75201	Moderate grade, forested, use existing maintenance road alignment, existing blanket easement	390
8 / 1	1S136DA00600	LU, XU JIAN / HUANG, WEN HUI	4798 AUBURN LN LAKE OSWEGO, OR, 97035	Moderate grade, forested, toe of fill slope and incised channel constrict access	215
9 / 1	1S136DA02300	OREGON EDUCATION ASSN	6900 SW ATLANTA ST TIGARD, OR, 97223	Forest, creek	10
10 / 1	1S136DA00902	OREGON EDUCATION ASSN	6900 SW HAINES TIGARD, OR, 97223	Forested, Demand trail, creek	635
11 / 1	1S136DB02600	STEWART/BARI PROPERTIES LLC, STEWART TRUST, BY US BANK (McDonalds)	BOX 64142 ST PAUL, MN, 55164	Gentle treed slope following creek with demand path between creek and slope up to dev	300
12 / 1	1S136DB02603	TRI-COUNTY METROPOLITAN	4012 SE 17TH AVE PORTLAND, OR, 97202	Gentle treed slope following creek with demand path between creek and Park N' Ride	290
13 / 3	1S136DC00500	PACIFIC REALTY ASSOCIATES LP	15350 SW SEQUOIA PKWY #300 PORTLAND, OR, 97224	Parking Lot for cinema, approximately 20,000 sq ft	555
14 / 3	1S136CD04300	WINCO FOOD LLC ATTN: TAX DEPARTMENT	PO BOX 5756 BOISE, ID, 83705	Parking Lot/ high retaining wall/wetland mitigation site	900
15 / 3	1S136CD02000	TOYS "R" US PROPERTY COMPANY II LLC BY HAYDEN, ROBIN	ONE GEOFFREY WAY WAYNE, NJ, 07470	Parking Lot/ high retaining wall/wetlands mitigation site	700
16 / -	Right of way	City of Tigard	Right of way	Existing sidewalk both sides with signalized crossing at Costco access	600
17 / -	2S101BA00500	Walmart	Wal-mart Real Estate Business TR by Property Tax Deot Store 5935-00 PO Box 8050 Bentonville AR 72716	Existing path around Walmart property from Dartmouth to Hermosa Way	2000

RED ROCK CREEK TRAIL ALIGNMENT 08/2018



RED ROCK CREEK TRAIL PHASES IMPLEMENTATION





RR PEDESTRIAN/BICYCLE BRIDGE

a project of the Red Rock Creek Trail Implementation Plan¹

PROJECT DEVELOPMENT: Gary Pagenstecher

DATE: March 2019

Project

The City of Tigard proposes to design and build a pedestrian/bicycle bridge over the P&W RR yard between Hall and Bonita to provide local and regional connectivity in a developing area of the city. The bridge is the first project of the Red Rock Creek Trail Implementation Plan and supports the City's Strategic Plan to become the most walkable city in the Northwest in support of interconnected and healthy lives.

The proposed bridge is a priority public facility improvement because:

1. It takes advantage of new access provided by Wall Street, the timing of adjacent private development and property owner interest and willingness to help fund the bridge, and unique site circumstances that efficiently incorporate the eastern bridgehead into future development on Parcel 2 of the Fields property.
2. It will dramatically improve the pedestrian network within Tigard's Metro-designated Town Center and between two of the city's urbanizing districts, Tigard Triangle and Downtown. The one-mile distance between surface railroad crossings at Hall and Bonita will be cut in half reducing out of direction travel by more than a mile for existing and future neighboring residents.
3. It will provide equitable public access to parks, active recreation and library services for traditionally underserved workforce housing now being constructed (Fields Apartments). Two hundred and sixty units of workforce housing and over 500 employees adjacent to the proposed bridgehead in the Hunziker Core area will be directly connected, within a quarter mile, to the Fanno Creek Regional Trail (FCRT) and the Tigard public library.
4. It will provide a critical local trail segment eventually connecting the FCRT through the Hunziker Core area and over Hwy 217 to Red Rock Creek Trail (RRCT) identified on the Tigard Triangle Transportation Network Map. The proposed bridge will cross the most daunting barrier to implementation of the fully realized two-mile long RRCT and anchor access to the natural resource heart of the Tigard Triangle Urban Renewal Plan.
5. It will provide a critical regional trail segment connecting the FCRT with the Lake Oswego Regional Trail (LORT) using a combination of Wall Street, Tech Center Drive, 72nd and Sandburg Street (with potential ODOT bridge over the 217 Southbound on-ramp to I-5 south). The proposed bridge will connect these two long-planned regional trails serving the southwest metropolitan area and implement Metro's Regional Trails Plan.

¹ RRCTIP is under development and includes segments within the Tigard Triangle, Hwy 217 crossing, Hunziker Core, and this RR MUP bridge.

Project Description

RR Pedestrian/Bicycle Bridge

6. It is an opportunity to celebrate Strategic Plan implementation with a bridge type and design that engages the public, inspires active recreation and helps tell Tigard's transformational story.

Why we are doing this project

Tigard is a city of barriers with a vision to be the most walkable (connected) city in the Pacific Northwest. The Fields Property development, currently under construction, provides the city a unique and timely collaborative opportunity to establish a ped/bike connection over the P&W railyard, one of the city's most challenging barriers. A grade-separated crossing at this location, half way between Hall and Bonita, would be the first segment of the RRCT, connecting the FCRT and the Tigard public library directly to the 264 units of workforce housing on Parcel 1, the minimum 280 jobs required of Parcel 2, and the pedestrian trails connecting the Rolling Hills neighborhood at Varns and the Hunziker Core through the new Wall Street extension.

Proposed improvements (see attached map and visualizations)

The preliminary design of the proposed bridge, as shown in the attached map and visualizations, was used to make a preliminary cost estimate. The bridge spans Wall Street and the railroad yard for a total length of approximately 400 feet. The preliminary design is a 12 foot by 12 foot through-truss design similar to Trimet's Lafayette Bridge built over the Brooklyn RR yard in southeast Portland. The bridgehead on the west, located on property owned jointly by Metro and the City would include a stair and ADA ramp for access to the Brown Natural Area and the nearby Fanno Creek trail. On the east, the bridgehead would be at grade with the finish floor elevation of proposed development on Parcel 2 of the Fields property, with connecting access to Wall Street, Varns and Hunziker streets. The preliminary design is illustrative for location, size and baseline cost estimating. Bridge type analysis and design development will follow Project approval.

The project implements plans and policies adopted by the city.

The Project will contribute to improving access to the Tigard Triangle through a more integrated system of transportation options for pedestrians and cyclists. The proposed bridge would provide a connection between the funded FCRT extension through the Brown Natural Area, as shown in Figure 5-11, and the upper Red Rock Creek Trail within the Tigard Triangle, as shown in Figure 5-12 of the adopted 2035 TSP, Amended December 12, 2017.

In addition, Red Rock Creek Trail development is included in the following adopted plans:

- Tigard Park System Master Plan, July 2009
- Tigard Triangle URP, December 2016
- Tigard Triangle District Plan, August 2017
- Resolution 18-47, SWC PA MOU between Tigard/Trimet, October 2018
- Tigard Comp Plan, Goal 8.1, Policy 4; Goal 8.2, Policy 1; Goal 12.3, Policy 10; (various)
- Capital Improvement Projects identified for the Fanno Creek Trail extension from Milton Court to the Tigard Public Library, (various)
- Metro Regional Trails Plan, November 2018

Project Description

RR Pedestrian/Bicycle Bridge

The proposed bridge itself, and the lower RRCT through the Hunziker Core area of which it would be a part, do not appear in *any* plans, adopted or otherwise. However, the potential in a private/public collaborative development opportunity for the proposed bridge is new and promising. Fields property developers Skip Grodahl and Greg Daniels have expressed interest in helping fund the project and to incorporate the eastern bridgehead into the future development of Parcel 2.

The context for the bridge is more fully discussed within the developing Red Rock Creek Trail Implementation Plan (RRCTIP). The Plan scope is from the Fanno Creek Regional Trail, on the west, to SW 64th Street at Pacific Hwy, on the east, comprised of four distinct trail segments including the RR MUP Bridge, Hunziker Core, Hwy 217 MUP Bridge, and the Tigard Triangle. This Charter concerns the RR MUP Bridge segment, which will connect a newly extended Fanno Creek Trail across the P&W RR yard to the Fields property developments and neighborhoods beyond.

This project supports Strategic Plan implementation.

The proposed project supports Strategic Plan implementation. The bridge would improve the pedestrian network between two of the city's urbanizing districts in the Triangle and Downtown. The bridge would serve traditionally underserved affordable housing residents with enhanced access to parks, active recreation, and library services. The bridge would be the critical segment connecting the FCRT with Tigard Triangle RRCT and the LORT. Successful development of the RR MUP Bridge would raise the competitiveness of future RRCT segment funding and elevate the Strategic Plan's vision with the public. The bridge could be a signature public facility that helps catalyze RRCT implementation and by extension, watershed stewardship within the Hunziker Core and the Tigard Triangle, around which future private development can coalesce.

Criteria that must be met for the project to be considered successful

1. Early developer funding commitments to justify project prioritization.
2. Design excellence emblematic of the city's commitment to Strategic Plan implementation.
3. Critical focus on operations and maintenance issues for low-cost, long-term sustainability.
4. Where possible, locally sourced design, materials and construction to build local business capacity, awareness and commitment to the Strategic Plan vision (e.g. Fought Steel).
5. Broad citizen and neighborhood support

Parties affected by the project

■ ***External Stakeholders***

- ODOT Rail, Trimet, Pacific & Western RR: railroad crossing authorities and Order, funding
- Metro: co-owner with City, Brown Natural Area, RTP, funding
- PGE: transmission line fit over west bridgehead

Project Description

RR Pedestrian/Bicycle Bridge

- GBD LLC: Property Owner, funding and bridgehead design development
- Oregon Community Foundation, Fields Trust, other funding partners
- TTAC, PRAB, advisory
- Rolling Hills Neighborhood
- General Public

■ ***Internal Stakeholders***

List key staff by department and show roles

- Community Development: GP, design and project management
- Engineering: RM, engineering oversight
- Public Works: SM, parks program and maintenance
- City Administration: SR, developer agreements, easements
- Finance: JB, contracts and account management

The proposed project schedule:

- Preliminary design and cost; July - Oct 2018
- Charter: internal review, revisions and authorization; Dec/Feb 2019
- Private funding commitments; Spring 2019
- Design development; Spring 2019
- Public review and comment; spring/summer 2019
- Grant funding applications and commitments; Feb 2019 – June 2020
- Construction; in conjunction with Parcel 2, TBD 2020-22

Estimated funding sources:

Sources	Estimated Amount or Percentage
Private (Developer & interested parties)	\$1,000,000 (25%)
Grants: Metro RFFA + (Bond), State, OCF, others	\$2,000,000 (50%)
SDCs parks and transportation	\$1,000,000 (25%)
Total Preliminary Cost Estimate	\$4,000,000

RED ROCK CREEK TRAIL IMPLEMENTATION PLAN- Alignment Study
RFFA PROJECT DEVELOPMENT GRANT
Scope and Schedule of Work and
Preliminary Cost Estimate
June 21, 2019

The project work scope is anticipated to include the following tasks:

- A. Project Management and Public Engagement Plan**
This task includes project start-up, regular check-ins with City project management team, monthly status reports, consultant team management, and development of an equitable public engagement plan.
- B. Project Research and Data Collection**
Research topics unique to the alignment such as elevated structures, LRT integration, Stormwater facility integration. Collection of relevant data needed to complete the alignment analysis and cost estimating. This may include: survey data, wetland and environmental data, hydraulic data, geotechnical data, etc.
- C. Property Owner/Stakeholder Stewardship Modeling**
Research and develop a stewardship model that property owners and stakeholders can use for long-term development and management of the Red Rock Creek trail and greenway in partnership with the City. Consider Watershed Council, Friends of, and Non-profit precedents. Develop the model in cooperation with property owners, agency stakeholders, and other interested parties based on mutual benefit outcomes.
- D. Public Involvement**
Public involvement efforts will be led by the City. The consultant team will need to help prepare figures, graphics, and written material for use at public open houses, stakeholder meetings, and the City website. Consultant staff will also need to be present at public involvement activities to help answer questions and hear input first hand.
- E. Develop Final Alignment**
Develop draft alignment alternatives for the trail connection between Pacific Hwy at I-5 and the Fanno Creek Trail. Include phased loop segments which, when combined with sidewalks and other intersecting trails, can form completed useful loop trails during Red Rock Creek trail buildout. With the help of stakeholders, develop evaluation criteria to be used to rank/prioritize draft alternatives and establish a preferred alternative. Suggested evaluation criteria may include cost, user experience, environmental impacts, and more.
- F. Clean Water Services and ODOT Coordination**
Coordinate with CWS on a programmatic approach to stormwater management in the watershed, considering water quantity and quality facility needs as it relates to the preferred trail alignment and design and integration. Coordinate with ODOT on rail and highway crossings.

G. Cost Estimates

Develop 10 - 20% engineer's cost estimates for draft alignment alternatives and the preferred final alignment. The cost estimate for the preferred final alignment will be used to seek funding for future final design and construction. To help establish unit costs, it is recommended this task include a review of recently bid trail projects in the area.

H. Permit and Easement Acquisition Plan

Identify required permits and easements to realize the preferred alternative alignment. Prepare a draft easement template for the RRCT to facilitate easement acquisition within the project period.

I. Final Report Project Scoping Documents

Prepare draft and final alignment reports. Assist City staff in preparing project scoping documents for the final design.

PRELIMINARY COST ESTIMATE

A.	Project Management and Public Engagement Plan	\$30,000
B.	Project Research and Data Collection	\$25,000
C.	Property Owner/Stakeholder Stewardship Modeling	\$20,000
D.	Public Involvement	\$35,000
E.	Develop Final Alignment	\$40,000
F.	Clean Water Services and ODOT Coordination	\$20,000
G.	Cost Estimates	\$65,000
H.	Permit and Easement Acquisition Plan	\$25,000
I.	<u>Final Report Project Scoping Documents</u>	<u>\$30,000</u>
Sub Total		\$290,000
+20% for COT project management and coordination with ODOT Project Delivery		\$58,000
Total		\$348,000
RFFA Grant Request		\$350,000



A New Tigard Triangle

PLANNING FOR EQUITABLE DEVELOPMENT

Project Intake Sheets

June 2019

PREPARED FOR



PREPARED BY



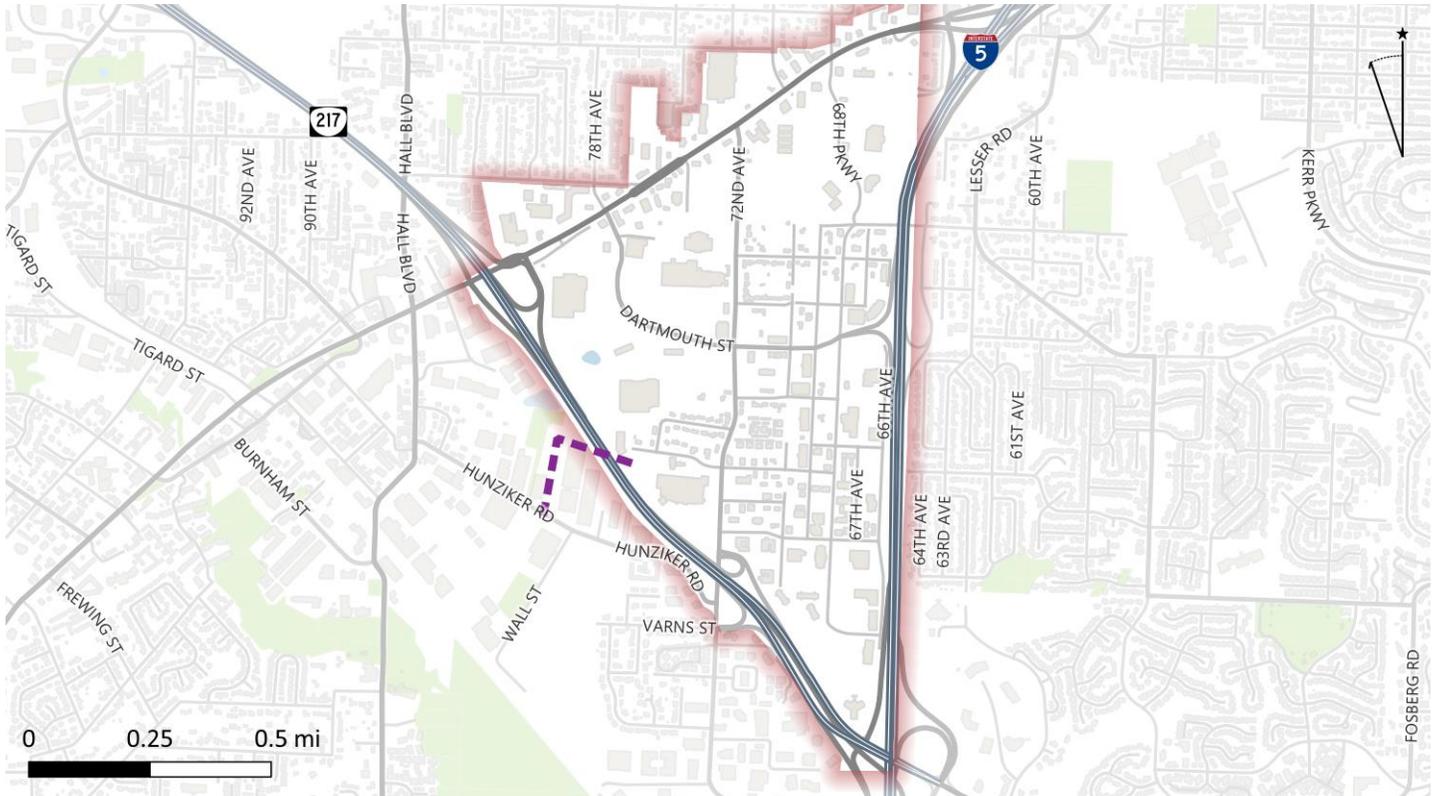


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T1. New Hwy 217 Overpass (Beveland)

Project Map



Project Stats

Project Description Extend Beveland Rd south over Hwy 217 to Hunziker Rd/Wall St area with car, ped, and bike facilities

Earliest Start Date	Latest Start Date	Project Duration
Late term		5+ years

Total Costs	Urban Renewal	Other Sources
\$ 50 M	\$ 5 M	\$ 45 M
Funding Notes:	In TSP, financially constrained, will not happen without outside funding	
Dependencies:	SW Corridor LRT structure over 217 could include bike and ped facility, but unlikely.	

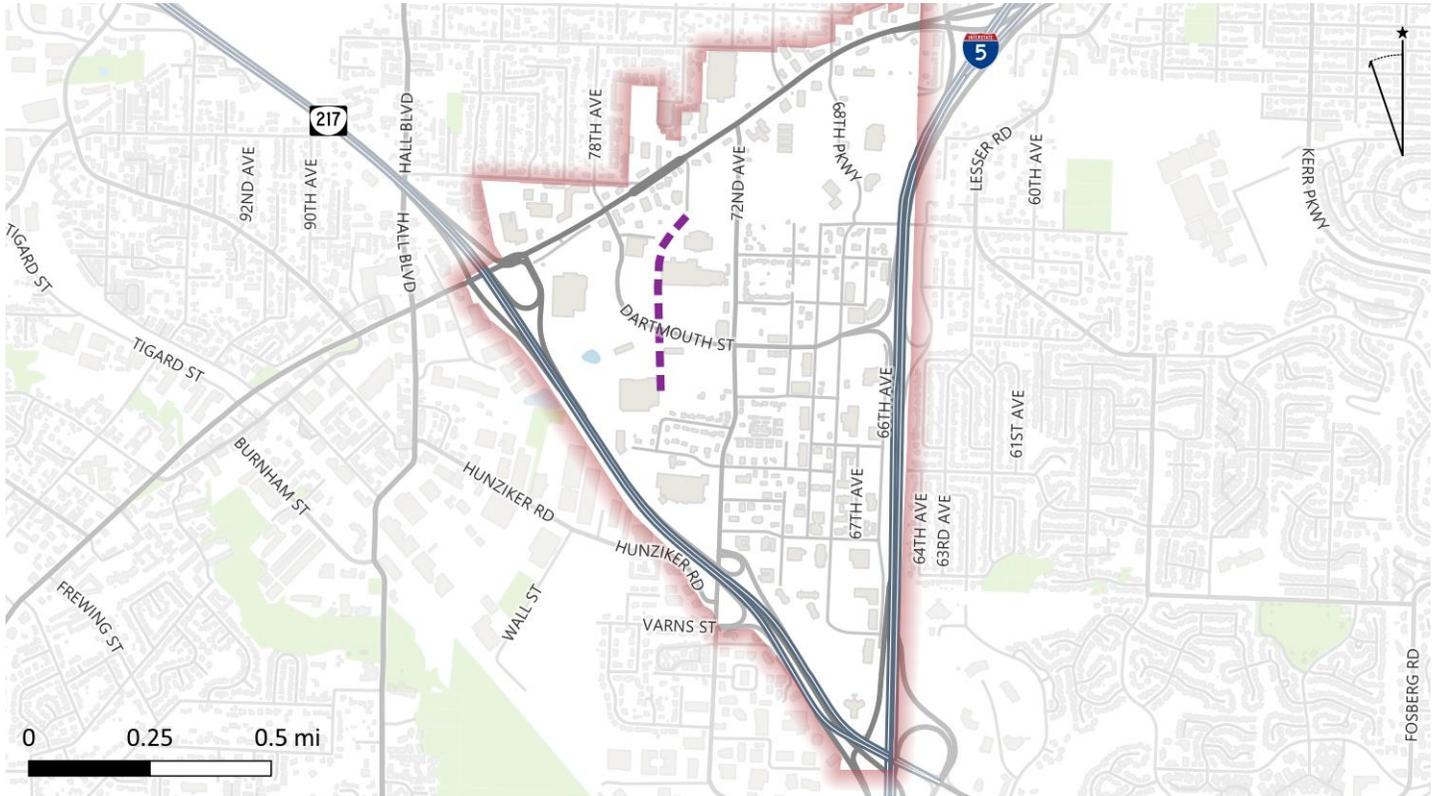
T1. New Hwy 217 Overpass (Beveland)

Qualitative Data Mapping

Criteria	Notes & Qualitative Scoring	Quantitative Scoring		
Multimodal Transportation	High – Med – Low Introduces needed multimodal additional access, creates new safe routes to and from destinations for pedestrians, cyclists, and transit riders.	Bike Access to Key Destinations + 27 people	Walk Access to Transit + 324 people	Mixed-use Development Potential + 0 acres
Environmental conditions & infrastructure	High – Med – Low Not applicable	Improves Stormwater or Sewer Infrastructure No	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Regional destination, diversity	High – Med – Low Connects surrounding residents with jobs and services, increasing connections to key destinations.	Pedestrian Access and Safety + 313 people	Bike Access and Safety + 483 people	Increase in Activity Density + 0 people
Equitable economic opportunity	High – Med – Low Not directly applicable	Increase in Development Value + \$0	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 0 jobs
Reduces displacement and gentrification	High – Med – Low Not applicable	Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
Affordable housing	High – Med – Low Connects the Triangle with affordable housing investments, but overall impact is expected to be minimal	New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Public gathering spaces	High – Med – Low Access to open space near the wetlands, Walmart, for employees and residents south of the Triangle	Access to Open Space + 0 people		Proximity to Walkable Streets + 0 people

T2. New Street (74th Avenue)

Project Map



Project Stats

Project Description Extend 74th Ave south from 99w to Hermoso Way or Beveland

Earliest Start Date	Latest Start Date	Project Duration
Late term		Will occur in segments

Total Costs	Urban Renewal	Other Sources
\$ 5 M	\$ 5 M	\$ 0
Funding Notes:	Costs reflect public funding, private development will build segments	
Dependencies:	Will depend on private dev., especially theater redevelopment	

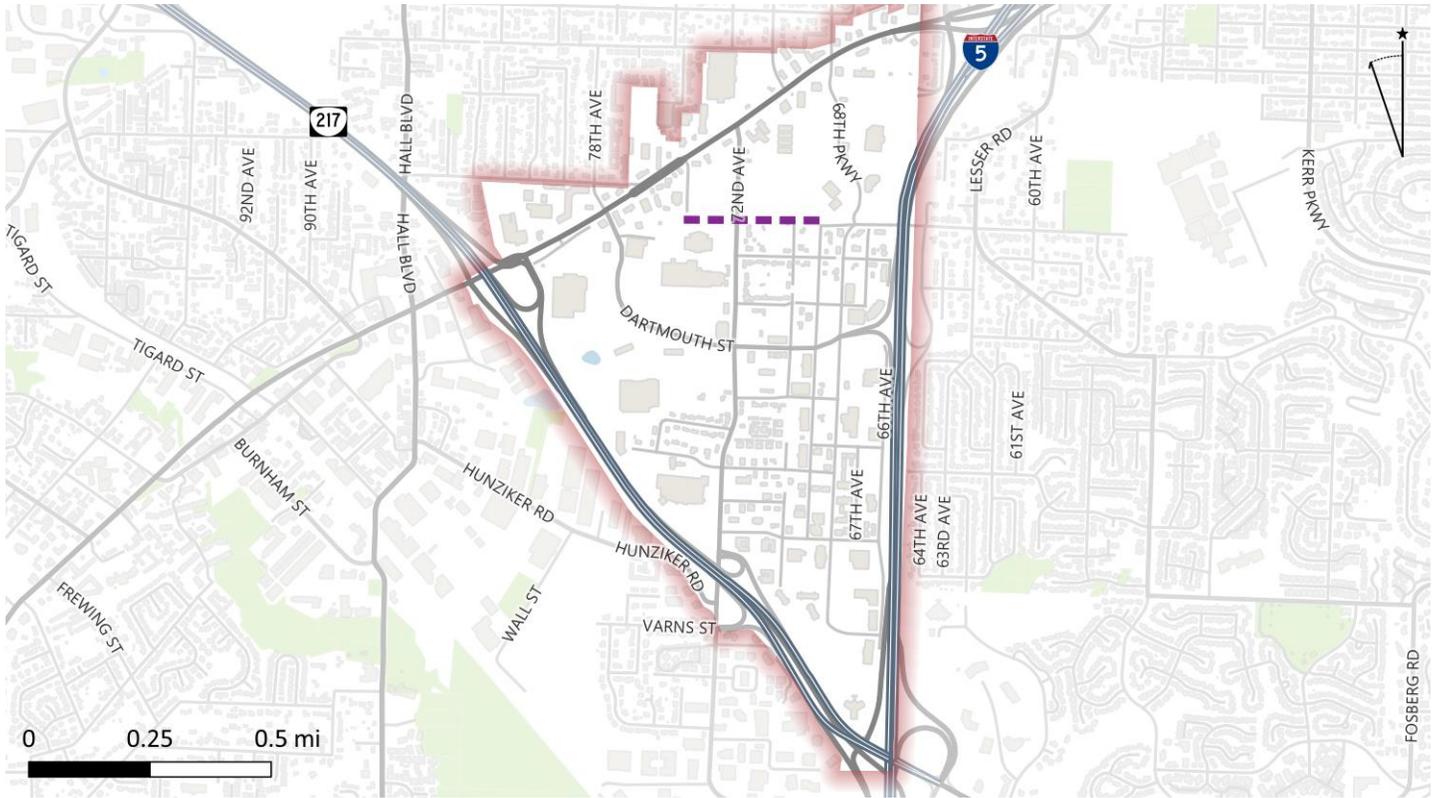
T2. New Street (74th Avenue)

Qualitative Data Mapping

Criteria	Notes	Quantitative Scoring		
Multimodal Transportation	High – Med – Low New street connectivity provides critical connections between various uses between major commercial services	Bike Access to Key Destinations + 0 people	Walk Access to Transit + 0 people	Mixed-use Development Potential + 0 acres
Environmental conditions & infrastructure	High – Med – Low Investment likely to improve stream conditions, but not directly nor significantly	Improves Stormwater or Sewer Infrastructure No	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Regional destination, diversity	High – Med – Low Improves grid connectivity, access through the Triangle, would support redevelopment of theatre and shopping center	Pedestrian Access and Safety + 19 people	Bike Access and Safety + 66 people	Increase in Activity Density + 0 people
Equitable economic opportunity	High – Med – Low Not applicable	Increase in Development Value + \$0	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 0 jobs
Reduces displacement and gentrification	High – Med – Low Relative to other projects, there is virtually no displacement that would happen as a result of the project	Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
Affordable housing	High – Med – Low Would support redevelopment of large sites that would likely include element of affordable housing	New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Public gathering spaces	High – Med – Low Increases access to wetlands, Red Rock Creek, street would likely include public amenities	Access to Open Space + 0 people		Proximity to Walkable Streets + 0 people

T3. New Street (Atlanta)

Project Map



Project Stats

Project Description Extend Atlanta St west from 69th Ave to Dartmouth St or future 74th Ave.

Earliest Start Date	Latest Start Date	Project Duration
Short/Mid-term		Built in segments

Total Costs	Urban Renewal	Other Sources
\$4M	\$3M	\$ SW Corridor
Funding Notes:	Cost estimate seems low. Private development could build some segments. SW Corridor may purchase ROW at Atlanta/70 th Ave intersection	
Dependencies:	Redevelopment, SW Corridor	

T3. New Street (Atlanta)

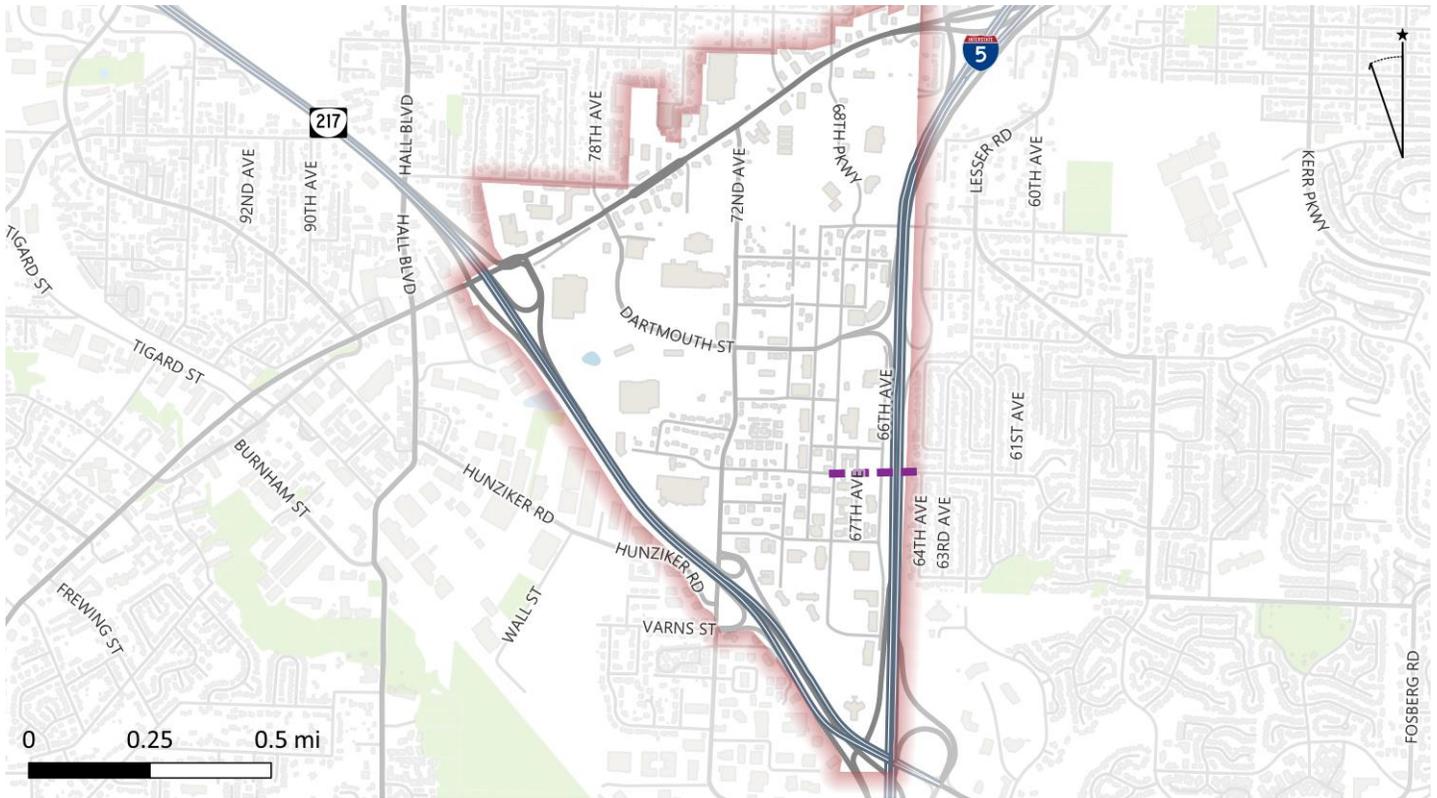
Qualitative Data Mapping

Criteria	Notes
Multimodal Transportation	High – Med – Low Provides needed connections through neighborhood, completes grid pattern, potentially to light rail
Environmental conditions & infrastructure	High – Med – Low Street would likely include new infrastructure to support new development and provide stormwater mitigation
Regional destination, diversity	High – Med – Low Improves street grid, enables development on interior parcels
Equitable economic opportunity	High – Med – Low Providing access to smaller parcels for incremental development, supports land use mix
Reduces displacement and gentrification	High – Med – Low Risk of displacement slightly higher due to smaller parcels and older structures
Affordable housing	High – Med – Low Supports adjacent affordable housing investments and would further support investment
Public gathering spaces	High – Med – Low Not directly applicable, impacts are low relative to others, despite being near Red Rock Creek

Quantitative Scoring		
Bike Access to Key Destinations + 0 people	Walk Access to Transit + 0 people	Mixed-use Development Potential + 6 acres
Improves Stormwater or Sewer Infrastructure No	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Pedestrian Access and Safety + 253 people	Bike Access and Safety + 66 people	Increase in Activity Density + 527 people
Increase in Development Value + \$51.5m	Increase in Housing Unit Capacity + 110 units	Increase in Employment Capacity + 293 jobs
Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
New Net Housing Capacity + 110 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Access to Open Space + 0 people	Proximity to Walkable Streets + 0 people	

T4. New HWY I-5 Overpass (Beveland)

Project Map



Project Stats

Project Description Provide ped/bike bridge across Hwy I-5 from Beveland Rd to Southwood Dr.

Earliest Start Date	Latest Start Date	Project Duration
Late term		5 years

Total Costs	Urban Renewal	Other Sources
\$ 6 M	\$ 1 M	\$ 5 M
Funding Notes:	Funding from Lake Oswego? Verify if bridge would touch down in Lake O	
Dependencies:	Will need cooperation from Lake Oswego, and ODOT. TSP update could prioritize	

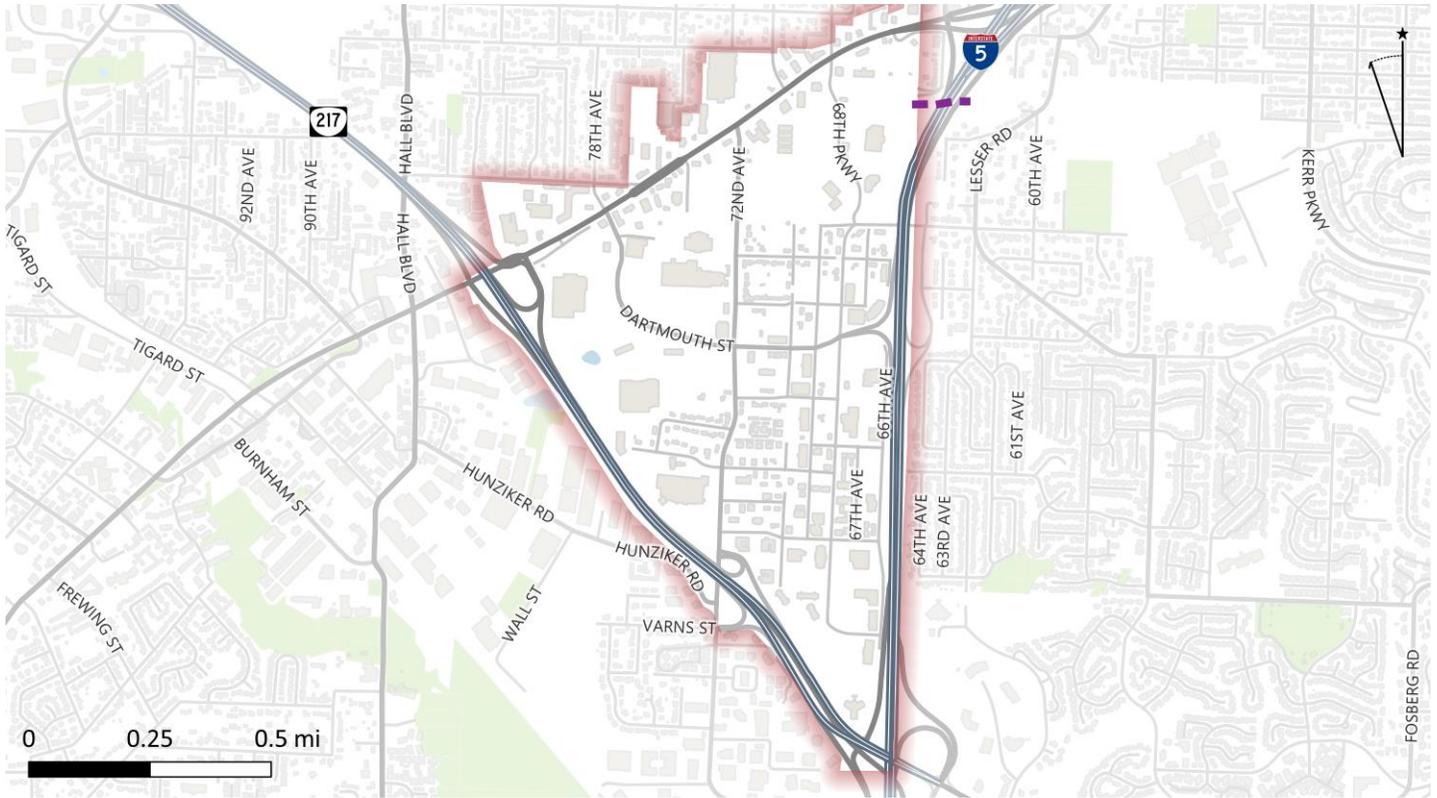
T4. New HWY I-5 Overpass (Beveland)

Qualitative Data Mapping

Criteria	Notes	Quantitative Scoring		
Multimodal Transportation	High – Med – Low Additional, rare opportunity for ped/bike connectivity, connecting residential areas to commercial amenities within the Triangle	Bike Access to Key Destinations + 0 people	Walk Access to Transit + 433 people	Mixed-use Development Potential + 0 acres
Environmental conditions & infrastructure	High – Med – Low Potential to reduce VMT, but low impact on infrastructure capacity and no direct impact on environmental conditions	Improves Stormwater or Sewer Infrastructure No	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Regional destination, diversity	High – Med – Low Improves safety and access, particularly for pedestrian and bicyclists, connects neighborhood areas with Triangle	Pedestrian Access and Safety + 543 people	Bike Access and Safety + 502 people	Increase in Activity Density + 0 people
Equitable economic opportunity	High – Med – Low Not applicable	Increase in Development Value + \$0	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 0 jobs
Reduces displacement and gentrification	High – Med – Low Not applicable	Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
Affordable housing	High – Med – Low Provides access to residential neighborhood, improving opportunities for outside housing	New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Public gathering spaces	High – Med – Low Bridge may help connect residents/employees to open space within and outside the Triangle	Access to Open Space + 0 people		Proximity to Walkable Streets + 0 people

T5. New HWY I-5 Overpass (Red Rock Creek)

Project Map



Project Stats

Project Description Provide ped/bike bridge across Hwy I-5 between the Triangle and PCC Sylvania around location of Red Rock Creek.

Earliest Start Date	Latest Start Date	Project Duration
Mid/Late-term		5 years

Total Costs	Urban Renewal	Other Sources
\$ 6 M	\$ 1 M	\$ 5 M
Funding Notes:		
Dependencies:	Will need cooperation from Portland (SW Trails project) and ODOT. SW Corridor could make it a priority	

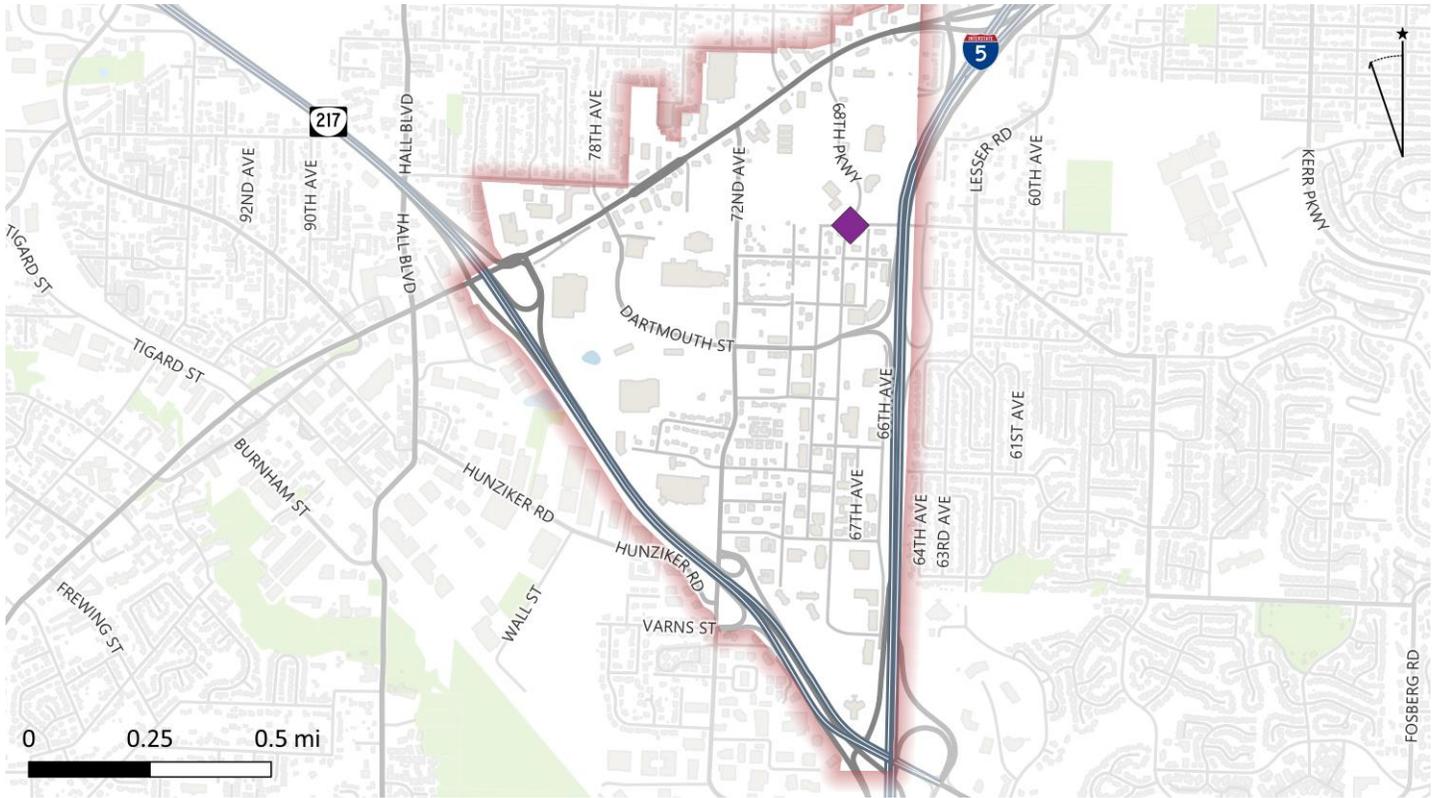
T5. New HWY I-5 Overpass (Red Rock Creek)

Qualitative Data Mapping

Criteria	Notes	Quantitative Scoring		
Multimodal Transportation	High – Med – Low Improves connectivity and access, provides ped/bike options, and supports trail-oriented development, despite low quantitative scoring	Bike Access to Key Destinations + 0 people	Walk Access to Transit + 0 people	Mixed-use Development Potential + 0 acres
Environmental conditions & infrastructure	High – Med – Low Potential to reduce VMT, but low impact on infrastructure capacity and no direct impact on environmental conditions	Improves Stormwater or Sewer Infrastructure No	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Regional destination, diversity	High – Med – Low More complete trail system, connects to regional asset (PCC), drives people to the Triangle, despite low quantitative scoring	Pedestrian Access and Safety + 2 people	Bike Access and Safety + 0 people	Increase in Activity Density + 0 people
Equitable economic opportunity	High – Med – Low May enhance PCC's ability to serve the Triangle and enable businesses to access services offered by PPC	Increase in Development Value + \$0	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 0 jobs
Reduces displacement and gentrification	High – Med – Low Not applicable	Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
Affordable housing	High – Med – Low Provides access to residential neighborhood, improving opportunities for outside housing	New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Public gathering spaces	High – Med – Low Provides access to Red Rock Creek	Access to Open Space + 0 people		Proximity to Walkable Streets + 0 people

T6. Modified Intersection (Atlanta/68th)

Project Map



Project Stats

Project Description Install traffic signal and turn lanes where needed at Atlanta St/68th Ave intersection.

Earliest Start Date	Latest Start Date	Project Duration
Mid-term		2 Years

Total Costs	Urban Renewal	Other Sources
\$ 500,000	\$ 500,000	\$ 0
Funding Notes:	Estimated cost seems low, might cost \$1 million	
Dependencies:	Depends on T3 (Atlanta), SW Corridor could make it a priority	

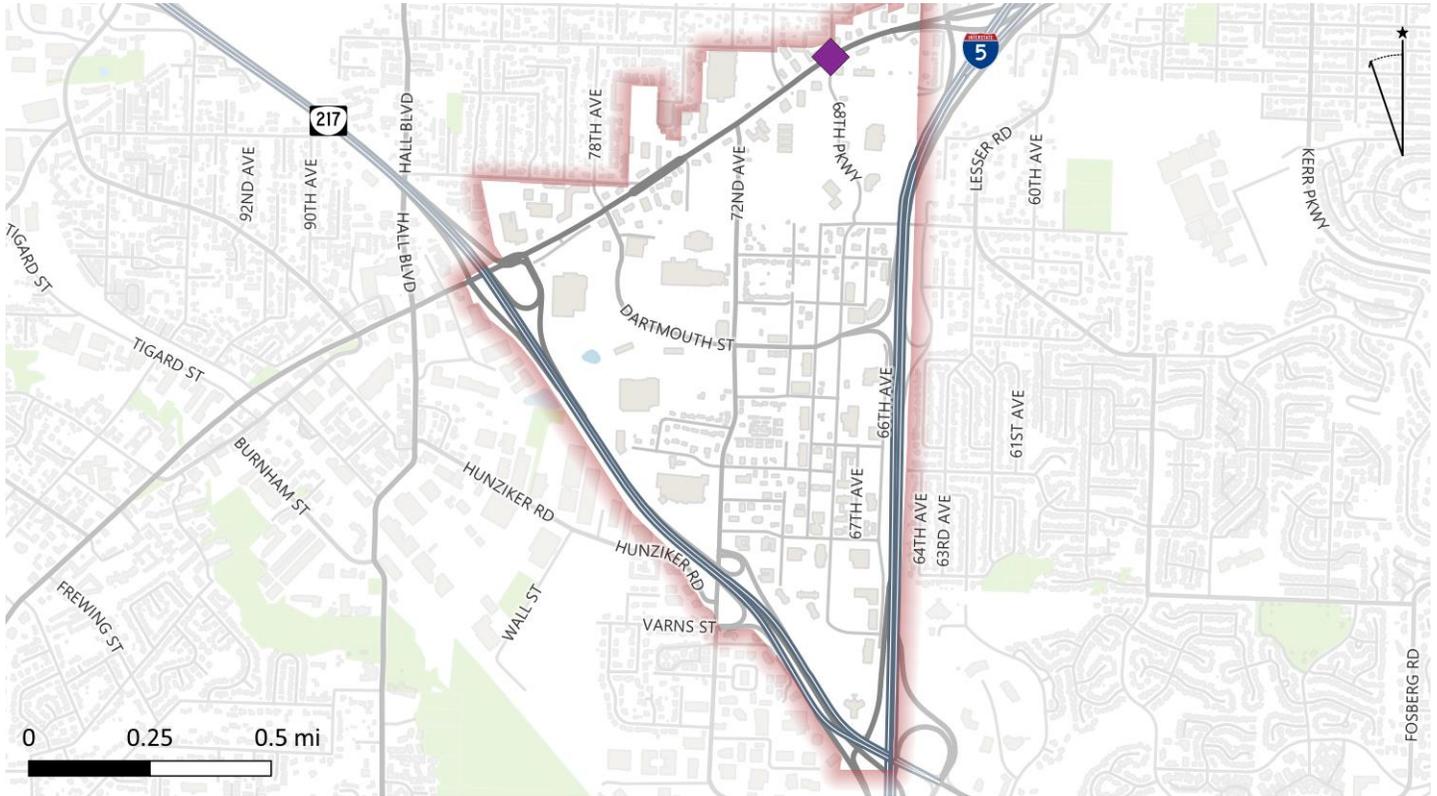
T6. Modified Intersection (Atlanta/68th)

Qualitative Data Mapping

Criteria	Notes	Quantitative Scoring		
Multimodal Transportation	High – Med – Low This is a safety-driven project that will moderately improve multimodal connectivity, despite low quantitative scoring	Bike Access to Key Destinations + 0 people	Walk Access to Transit + 0 people	Mixed-use Development Potential + 0 acres
Environmental conditions & infrastructure	High – Med – Low Will likely increase the footprint of the intersection, otherwise not applicable	Improves Stormwater or Sewer Infrastructure No	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Regional destination, diversity	High – Med – Low Not applicable, other than marginally impacting pedestrian safety	Pedestrian Access and Safety + 0 people	Bike Access and Safety + 0 people	Increase in Activity Density + 0 people
Equitable economic opportunity	High – Med – Low Not applicable	Increase in Development Value + \$0	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 0 jobs
Reduces displacement and gentrification	High – Med – Low Not applicable	Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
Affordable housing	High – Med – Low Not applicable	New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Public gathering spaces	High – Med – Low Not applicable	Access to Open Space + 0 people		Proximity to Walkable Streets + 0 people

T7. Modified Intersection (99W/68th)

Project Map



Project Stats

Project Description Add protected left turn and transit improvements on 68th Pkwy at 99W.

Earliest Start Date	Latest Start Date	Project Duration
Mid-term		4 years

Total Costs	Urban Renewal	Other Sources
\$ 4 M	\$ 1 M	\$ 3 M
Funding Notes:	SW Corridor could provide funding	
Dependencies:	SW Corridor	

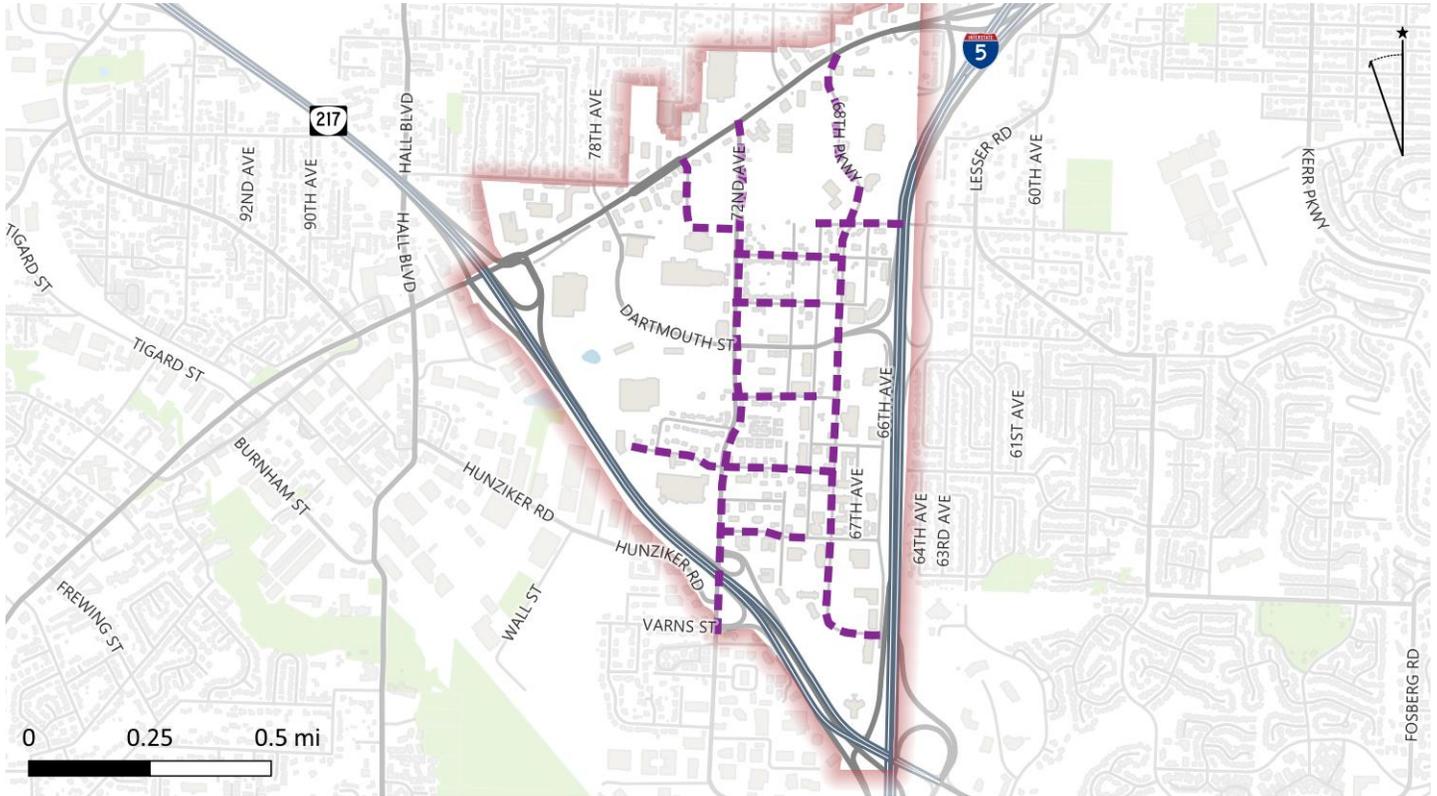
T7. Modified Intersection (99W/68th)

Qualitative Data Mapping

Criteria	Notes	Quantitative Scoring		
Multimodal Transportation	High – Med – Low Multimodal, potentially connected to a future light rail station, improves safety and connectivity to surrounding neighborhoods	Bike Access to Key Destinations + 0 people	Walk Access to Transit + 0 people	Mixed-use Development Potential + 0 acres
Environmental conditions & infrastructure	High – Med – Low Not applicable	Improves Stormwater or Sewer Infrastructure No	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Regional destination, diversity	High – Med – Low Enhances connections to neighborhoods to the north and creates a gateway to the Triangle	Pedestrian Access and Safety + 0 people	Bike Access and Safety + 0 people	Increase in Activity Density + 0 people
Equitable economic opportunity	High – Med – Low Not applicable	Increase in Development Value + \$0	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 0 jobs
Reduces displacement and gentrification	High – Med – Low Not applicable	Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
Affordable housing	High – Med – Low Enhances connectivity to the CPAH project	New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Public gathering spaces	High – Med – Low Directly impacts Red Rock Creek and light rail	Access to Open Space + 0 people		Proximity to Walkable Streets + 0 people

T8. Modified Streets

Project Map



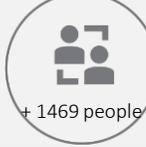
Project Stats

Project Description Develop comfortable, interesting, and attractive streetscapes throughout the Area, especially along designated pedestrian streets.

Earliest Start Date		Latest Start Date		Project Duration	
				Phased, built in segments	
Total Costs		Urban Renewal		Other Sources	
\$ TBD		\$ 3.5 M		\$ TBD	
Funding Notes:					
Dependencies:		Streets in SW Corridor station areas could get priority. Will be opportunistic with redevelopment			

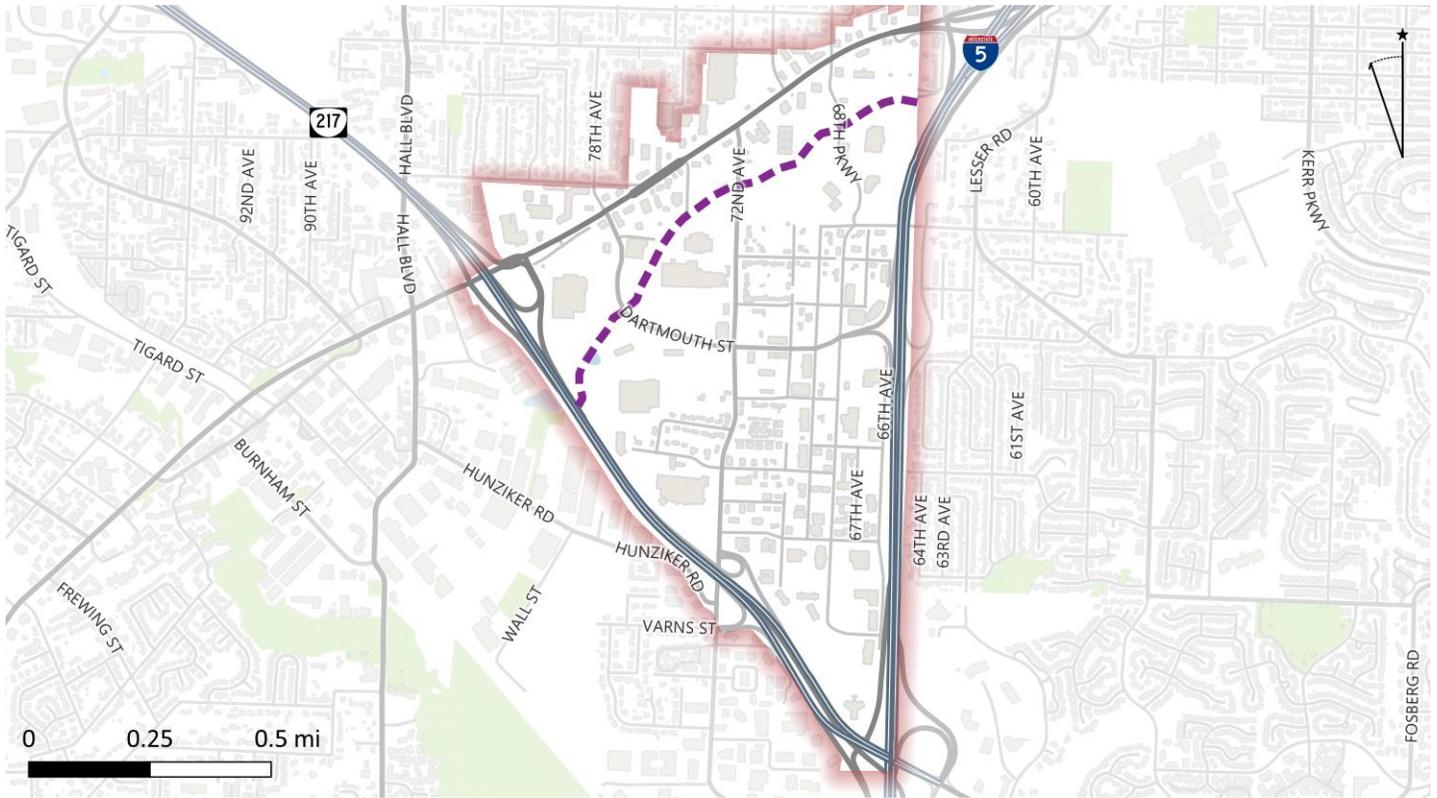
T8. Modified Streets

Qualitative Data Mapping

Criteria	Notes	Quantitative Scoring		
Multimodal Transportation	High – Med – Low Improves underlying issues relating to bike and ped facilities	Bike Access to Key Destinations  + 755 people	Walk Access to Transit  + 456 people	Mixed-use Development Potential  + 17 acres
Environmental conditions & infrastructure	High – Med – Low Added stormwater and streetscape improvements	Improves Stormwater or Sewer Infrastructure  Yes	Connection to Sewer  + 0 parcels	New Access to Stormwater Infrastructure  + 152 parcels
Regional destination, diversity	High – Med – Low Supports incremental development throughout the district; opportunities to improve aesthetics of Tirnagle	Pedestrian Access and Safety  + 312 people	Bike Access and Safety  + 44 people	Increase in Activity Density  + 1469 people
Equitable economic opportunity	High – Med – Low Supports incremental development throughout the district	Increase in Development Value  + \$145.7m	Increase in Housing Unit Capacity  + 303 units	Increase in Employment Capacity  + 828 jobs
Reduces displacement and gentrification	High – Med – Low Not applicable	Employee Displacement Potential  - 6 jobs	Residential Displacement Potential  - 6 residents	Gentrification Migration Potential  No
Affordable housing	High – Med – Low Supports the development of housing projects by taking care of added costs	New Net Housing Capacity  + 303 units	Supports Creation of New Affordable Housing  No	Helps Retain Existing Employers  No
Public gathering spaces	High – Med – Low Improves public realm and helps facilitate access to and from public open space	Access to Open Space  + 380 people		Proximity to Walkable Streets  + 1262 people

T9. New Trail (Red Rock Creek)

Project Map



Project Stats

Project Description Build new trail along Red Rock Creek parallel to and south of 99W.

Earliest Start Date	Latest Start Date	Project Duration
Near to late term		

Total Costs	Urban Renewal	Other Sources
\$ 3 M	\$ 3 M	\$
Funding Notes:	ROW will be dedicated with redevelopment. SW Corridor project could build a small portion.	
Dependencies:	Stormwater (PU 18) and Sewer Improvement (PU 20) projects, as well as Public Spaces, Facilities project. Project included in Parks and Trails Master Plan and TSP	

T9. New Trail (Red Rock Creek)

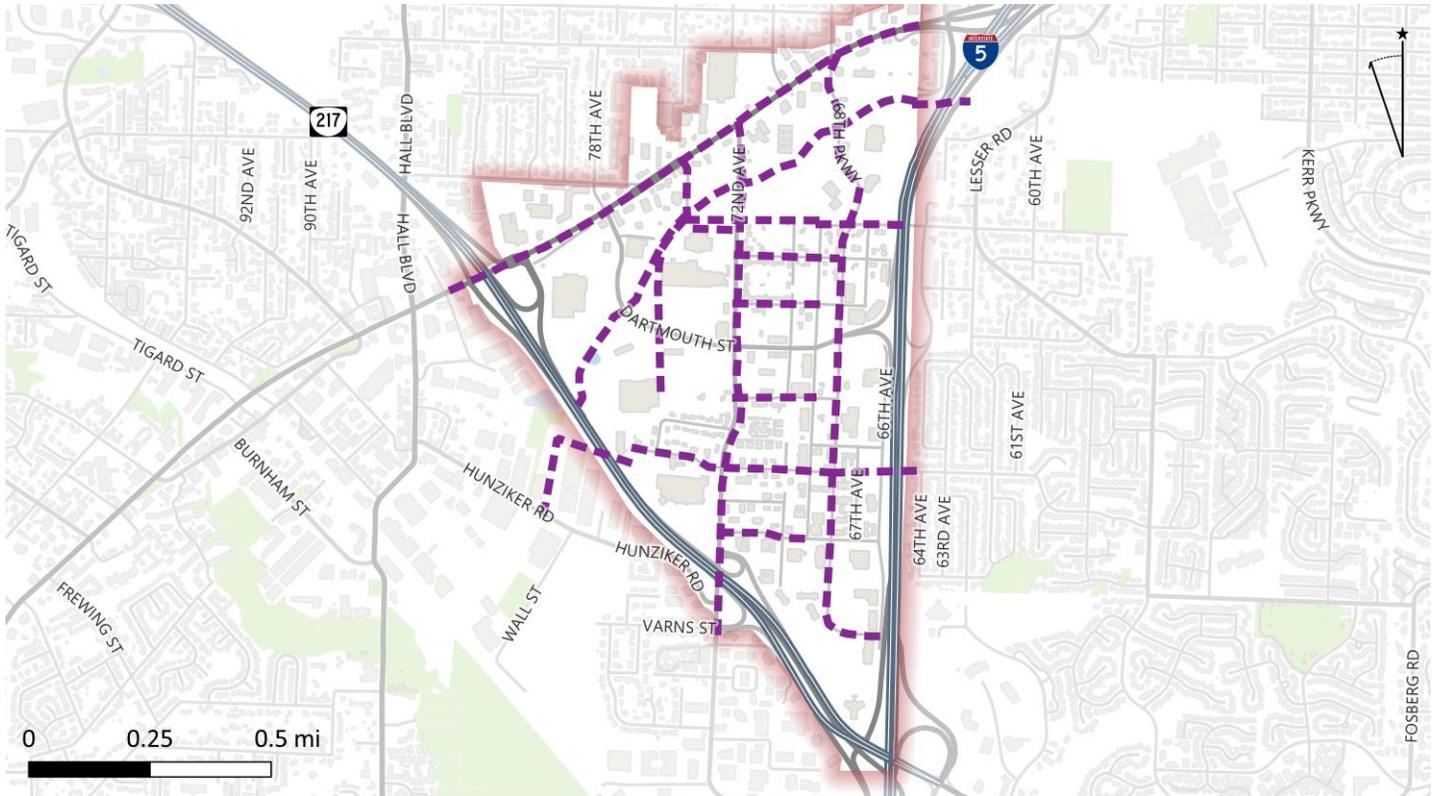
Qualitative Data Mapping

Criteria	Notes	Quantitative Scoring		
Multimodal Transportation	High – Med – Low Provides critical trail connection, improves ped and bike connectivity and access to and from Triangle, scores high quantitatively	Bike Access to Key Destinations + 261 people	Walk Access to Transit + 472 people	Mixed-use Development Potential + 18 acres
Environmental conditions & infrastructure	High – Med – Low Completed in conjunction with stormwater	Improves Stormwater or Sewer Infrastructure No	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Regional destination, diversity	High – Med – Low Major regional amenity that would distinguish the Triangle	Pedestrian Access and Safety + 356 people	Bike Access and Safety + 369 people	Increase in Activity Density + 1710 people
Equitable economic opportunity	High – Med – Low Wide-reaching catalytic impacts could catalyze significant investment	Increase in Development Value + \$177.4m	Increase in Housing Unit Capacity + 316 units	Increase in Employment Capacity + 1042 jobs
Reduces displacement and gentrification	High – Med – Low Not applicable	Employee Displacement Potential - 16 jobs	Residential Displacement Potential - 12 residents	Gentrification Migration Potential No
Affordable housing	High – Med – Low Improves access between housing opportunity sites, existing neighborhoods, and amenities	New Net Housing Capacity + 316 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Public gathering spaces	High – Med – Low Direct investment in public gathering space	Access to Open Space + 668 people		Proximity to Walkable Streets + 0 people



T10. New Streets

Project Map



Project Stats

Project Description Improve connectivity, circulation, and access throughout the Area with new or extended local streets.

Earliest Start Date	Latest Start Date	Project Duration
UR Duration		Built in segments

Total Costs	Urban Renewal	Other Sources
\$ 5 M	\$ 4 M	\$ 1 M
Funding Notes:	Redevelopment will pay for some (potential SDC credits). Urban renewal should look for opportunities to partner	
Dependencies:	Redevelopment will build some frontages and/or contribute ROW	

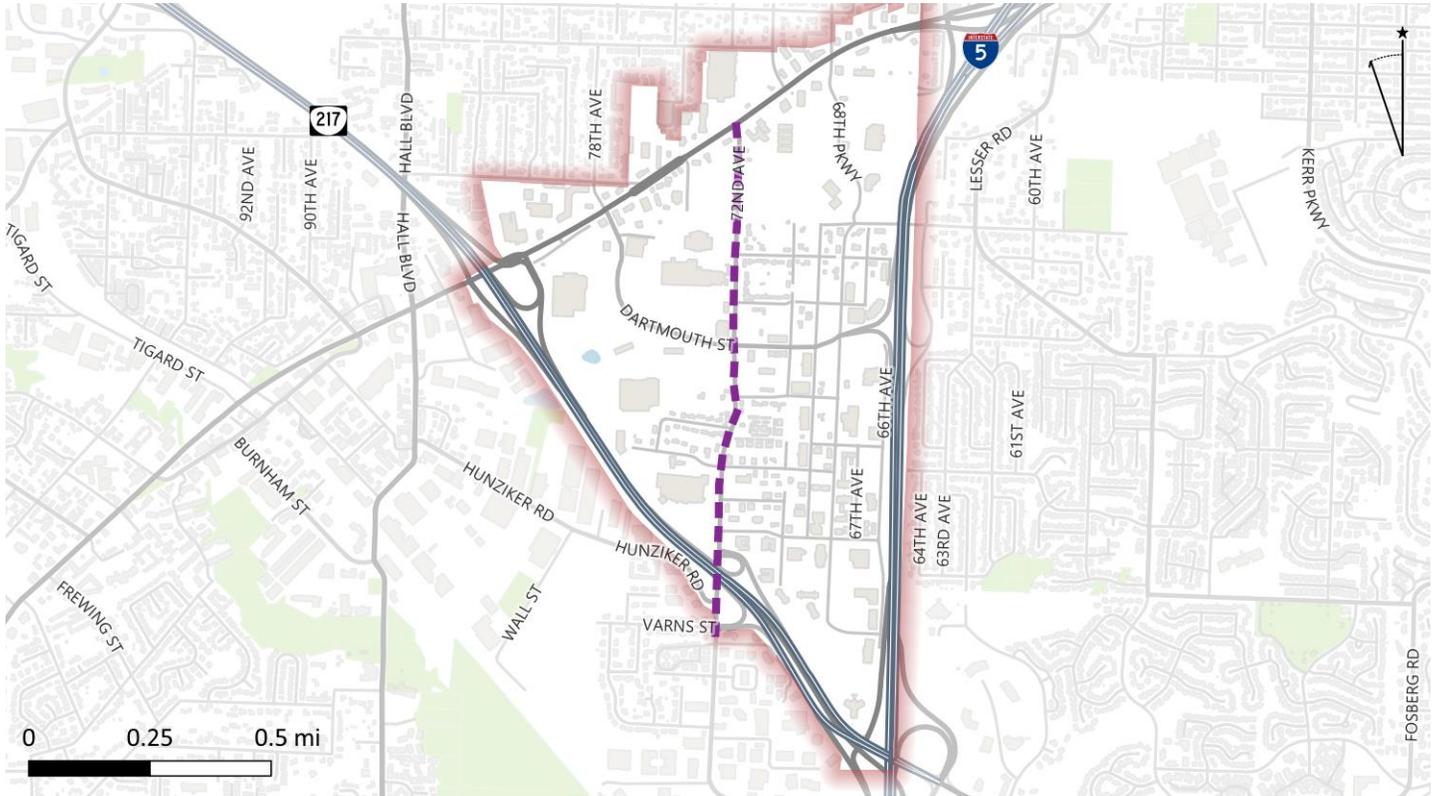
T10. New Streets

Qualitative Data Mapping

Criteria	Notes	Quantitative Scoring (NA)		
Multimodal Transportation	High – Med – Low Improved connectivity, circulation, and access as a direct result of new streets.	Bike Access to Key Destinations + 0 people	Walk Access to Transit + 0 people	Mixed-use Development Potential + 0 acres
Environmental conditions & infrastructure	High – Med – Low Built in conjunction with other infrastructure.	Improves Stormwater or Sewer Infrastructure No	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Regional destination, diversity	High – Med – Low Supports the Triangle's emergence as a regional destination through improved accessibility, connectivity, etc.	Pedestrian Access and Safety + 0 people	Bike Access and Safety + 0 people	Increase in Activity Density + 0 people
Equitable economic opportunity	High – Med – Low Not applicable	Increase in Development Value + \$0	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 0 jobs
Reduces displacement and gentrification	High – Med – Low Not applicable	Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
Affordable housing	High – Med – Low Opens up access to areas, help offset development costs for housing.	New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Public gathering spaces	High – Med – Low Supports connectivity between existing neighborhoods and parks and open space.	Access to Open Space + 0 people		Proximity to Walkable Streets + 0 people

T11. Modified Street (72nd Ave)

Project Map



Project Stats

Project Description TBD. Improve 72nd Ave corridor, including intersections/interchanges. Dependent on 72nd Ave Corridor Study recommendations.

Earliest Start Date	Latest Start Date	Project Duration
Mid-term		phased

Total Costs	Urban Renewal	Other Sources
\$ 13M	\$ 8 M	\$ 5M
Funding Notes	Potential funding from gas tax, MSTIP	
Dependencies:	72nd Ave Corridor Study. SW Corridor and redevelopment would accelerate timeline	

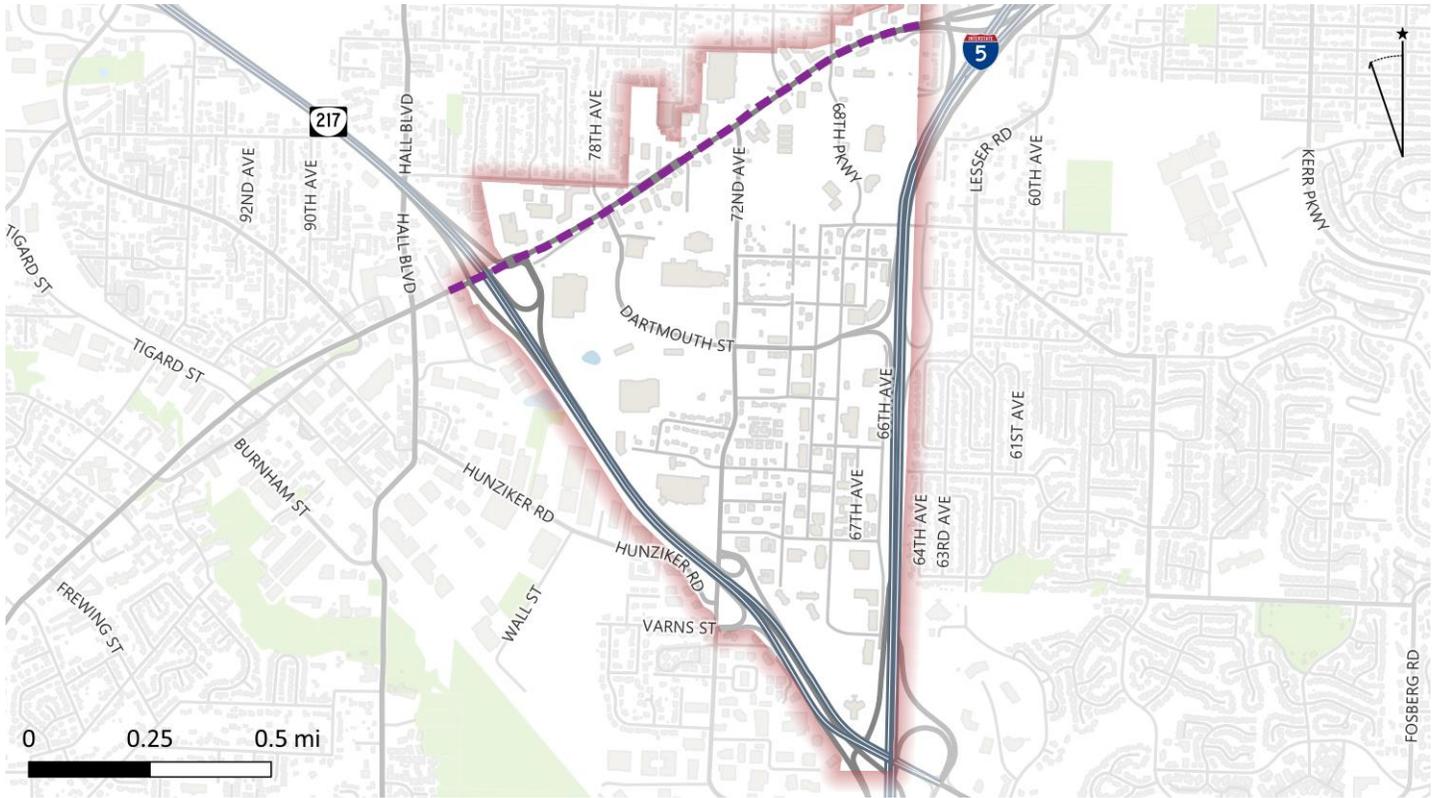
T11. Modified Street (72nd Ave)

Qualitative Data Mapping

Criteria	Notes	Quantitative Scoring		
Multimodal Transportation	High – Med – Low Shortens safe ped/bike distances to transit and key destinations, and catalyzes mixed-use development in well-connected areas	Bike Access to Key Destinations + 324 people	Walk Access to Transit + 324 people	Mixed-use Development Potential + 6 acres
Environmental conditions & infrastructure	High – Med – Low Built in conjunction with other infrastructure, such as bioswales and other stormwater features	Improves Stormwater or Sewer Infrastructure Yes	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 41 parcels
Regional destination, diversity	High – Med – Low New multimodal street shortens safe walk/bike distances to destinations, also catalyzes new development—connecting additional people.	Pedestrian Access and Safety + 234 people	Bike Access and Safety + 234 people	Increase in Activity Density + 601 people
Equitable economic opportunity	High – Med – Low Causes many parcels to become redevelopment, increasing development value and allowing for both job and housing unit growth	Increase in Development Value + \$83.8m	Increase in Housing Unit Capacity + 155 units	Increase in Employment Capacity + 490 jobs
Reduces displacement and gentrification	High – Med – Low Not applicable	Employee Displacement Potential - 9 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
Affordable housing	High – Med – Low Opens up access to areas, helps offset development costs for housing	New Net Housing Capacity + 155 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Public gathering spaces	High – Med – Low Expected public gathering spaces, such as safe seating and engaging streetscape elements	Access to Open Space + 2 people	Proximity to Walkable Streets + 738 people	

T12. Modified Street (99W)

Project Map



Project Stats

Project Description Implement access management strategies and median projects in Hwy 99W Plan, including additional pedestrian crossing locations.

Earliest Start Date	Latest Start Date	Project Duration
Late term (2028)		

Total Costs	Urban Renewal	Other Sources
\$ TBD	\$ 600,000	\$ TBD
Funding Notes:		
Dependencies:	<p>ODOT (STIP) project will repave 99W, some access management could happen. UR could provide matching funds for a larger regional regional project</p>	

T12. Modified Street (99W)

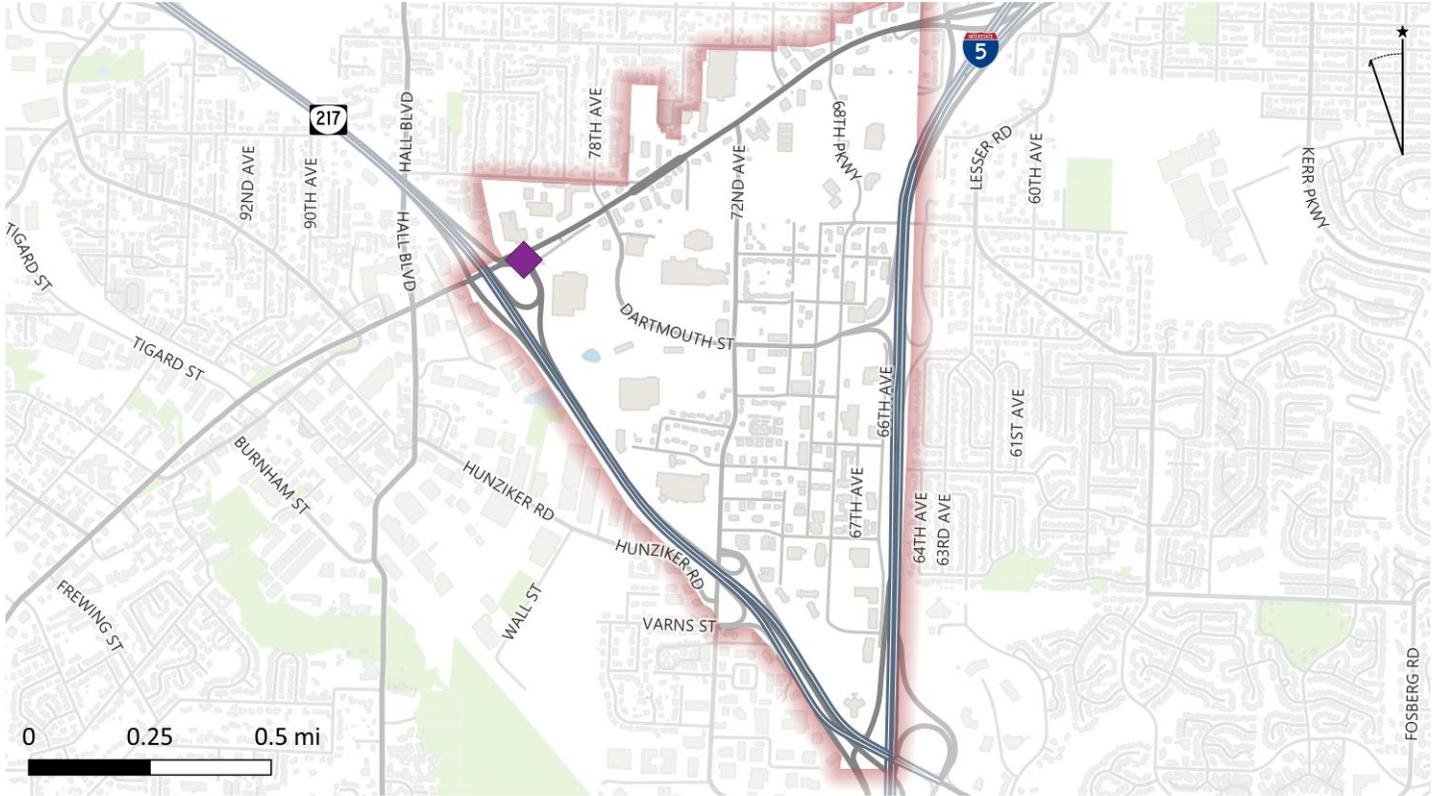
Qualitative Data Mapping

Criteria	Notes
Multimodal Transportation	High – Med – Low Emphasis on pedestrian access and connectivity rather than improving overall multimodal transportation options
Environmental conditions & infrastructure	High – Med – Low Not applicable
Regional destination, diversity	High – Med – Low Gateway street, improved image of 99 is critical to the Triangle’s brand
Equitable economic opportunity	High – Med – Low Enhances opportunities for businesses along 99W – especially small, entrepreneurial businesses
Reduces displacement and gentrification	High – Med – Low Unlikely to have significant impacts
Affordable housing	High – Med – Low Enhance access to amenities and services along 99 from planned housing developments within Triangle
Public gathering spaces	High – Med – Low Not applicable

Quantitative Scoring		
Bike Access to Key Destinations + 57 people	Walk Access to Transit + 0 people	Mixed-use Development Potential + 0 acres
Improves Stormwater or Sewer Infrastructure No	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Pedestrian Access and Safety + 0 people	Bike Access and Safety + 4 people	Increase in Activity Density + 142 people
Increase in Development Value + \$20.4m	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 142 jobs
Employee Displacement Potential - 13 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Access to Open Space + 0 people	Proximity to Walkable Streets + 0 people	

T13. Modified Interchange (99W/HWY 217)

Project Map



Project Stats

Project Description Add second left turn lane on Hwy 217 northbound ramp to 99W.

Earliest Start Date		Latest Start Date		Project Duration	
Long term					
Total Costs		Urban Renewal		Other Sources	
\$ 3 M		\$ 600,000		\$ 2,400,000	
Funding Notes:		Retaining wall needed, ODOT will be primary funder			
Dependencies:		99W Regional project, ODOT			

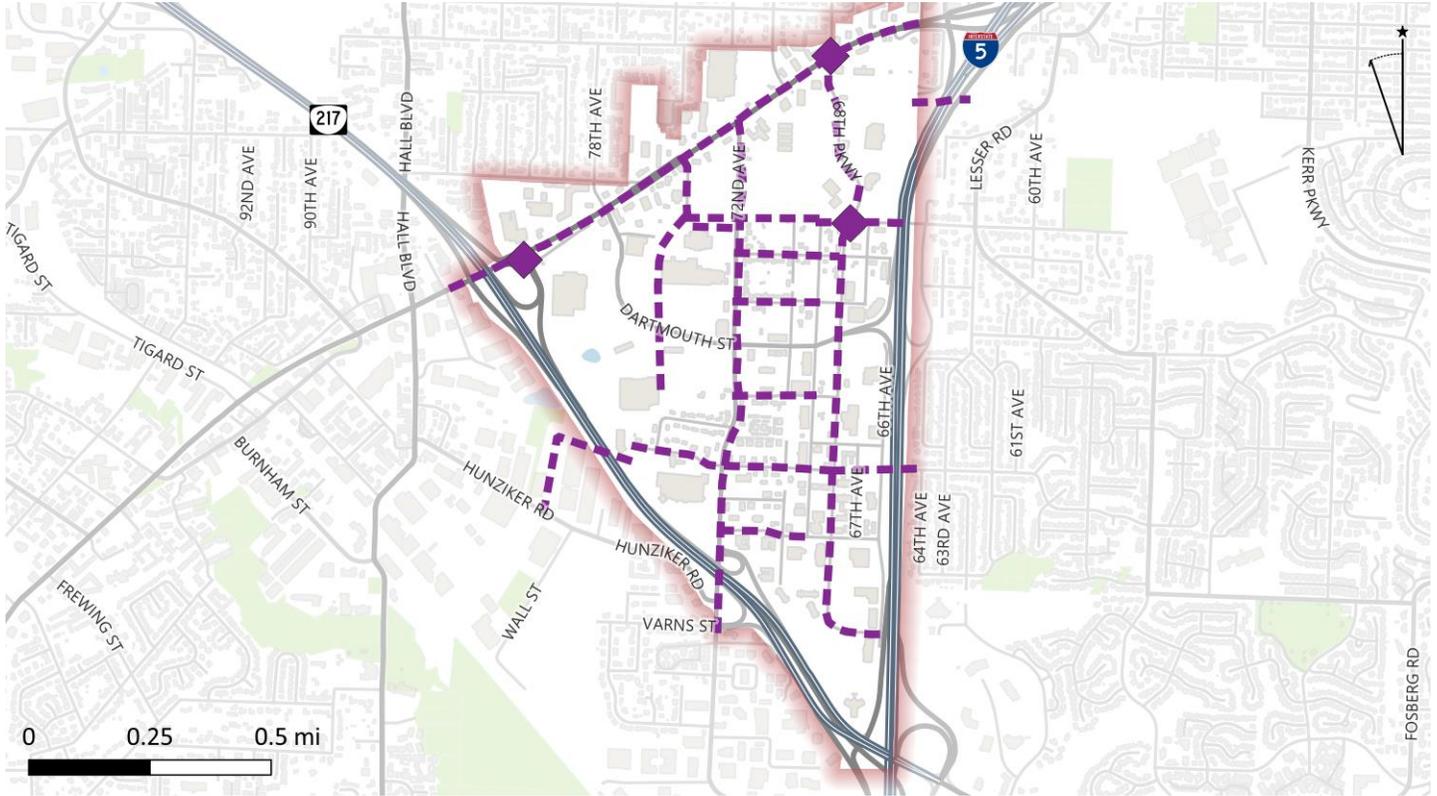
T13. Modified Interchange (99W/HWY 217)

Qualitative Data Mapping

Criteria	Notes	Quantitative Scoring		
Multimodal Transportation	High – Med – Low Supports increased connectivity, but mostly relating to automobiles rather than additional modes.	Bike Access to Key Destinations + 0 people	Walk Access to Transit + 0 people	Mixed-use Development Potential + 0 acres
Environmental conditions & infrastructure	High – Med – Low Not applicable	Improves Stormwater or Sewer Infrastructure No	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Regional destination, diversity	High – Med – Low The interchange is not a gateway, but simply just a road that direct people west toward downtown, rather than the Triangle	Pedestrian Access and Safety + 0 people	Bike Access and Safety + 0 people	Increase in Activity Density + 0 people
Equitable economic opportunity	High – Med – Low Not applicable	Increase in Development Value + \$0	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 0 jobs
Reduces displacement and gentrification	High – Med – Low Not applicable	Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
Affordable housing	High – Med – Low Not applicable	New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Public gathering spaces	High – Med – Low Not applicable	Access to Open Space + 0 people		Proximity to Walkable Streets + 0 people

T14. Modified Signals

Project Map



Project Stats

Project Description Upgrade signals throughout the Area with adaptive signal coordination technology.

Earliest Start Date		Latest Start Date		Project Duration	
Mid-term					
Total Costs		Urban Renewal		Other Sources	
\$ 1.2 M		\$ 300,000		\$ 900,000	
Funding Notes:		Is in RTP as a TSMO recommended project, so could be eligible for regional funding			
Dependencies:		72 nd Ave, other New Streets projects			

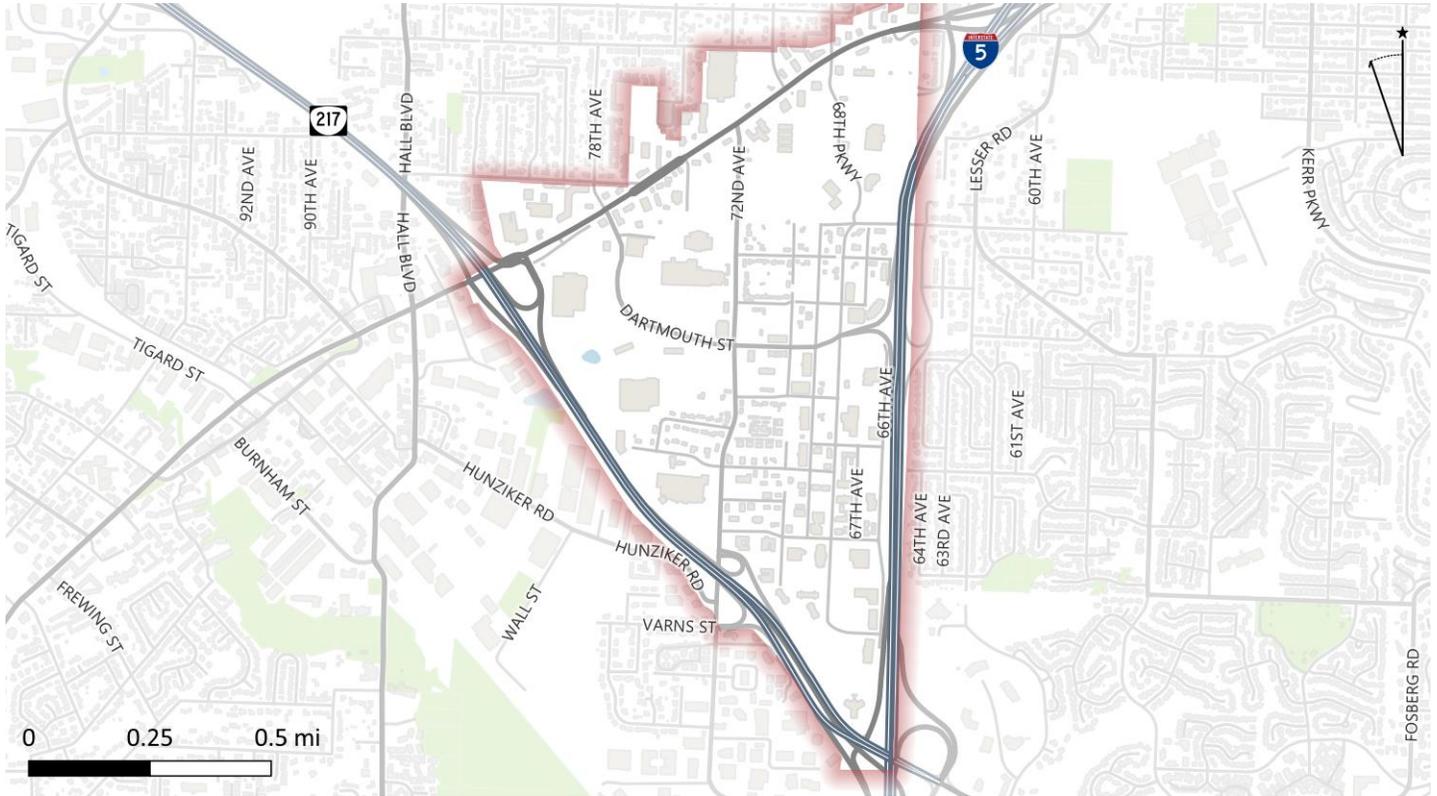
T14. Modified Signals

Qualitative Data Mapping

Criteria	Notes	Quantitative Scoring		
Multimodal Transportation	High – Med – Low The project is likely to improve access and safety for all modes with innovative technologies	Bike Access to Key Destinations + 0 people	Walk Access to Transit + 0 people	Mixed-use Development Potential + 0 acres
Environmental conditions & infrastructure	High – Med – Low Not applicable	Improves Stormwater or Sewer Infrastructure No	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Regional destination, diversity	High – Med – Low Improves safety, allowing greater circulation, access to and within the Triangle to the broader region	Pedestrian Access and Safety + 0 people	Bike Access and Safety + 0 people	Increase in Activity Density + 0 people
Equitable economic opportunity	High – Med – Low Could reduce offsite traffic impacts for prospective developers, supporting incremental development	Increase in Development Value + \$0	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 0 jobs
Reduces displacement and gentrification	High – Med – Low Not applicable	Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
Affordable housing	High – Med – Low Not applicable	New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Public gathering spaces	High – Med – Low Not applicable	Access to Open Space + 0 people		Proximity to Walkable Streets + 0 people

T15. Parking Management Plan

Project Map



Project Stats

Project Description Develop a plan and implement strategies for managing parking.

Earliest Start Date		Latest Start Date		Project Duration	
Near term (plan): Y1, Mid-term (implementation): Y5				1 year (plan)	
Total Costs		Urban Renewal		Other Sources	
\$ TBD		\$ 3 M		\$ TBD	
Funding Notes:		Revenue from smart meters for on-street parking could pay for program			
Dependencies:		SW Corridor could accelerate need for public parking facilities			

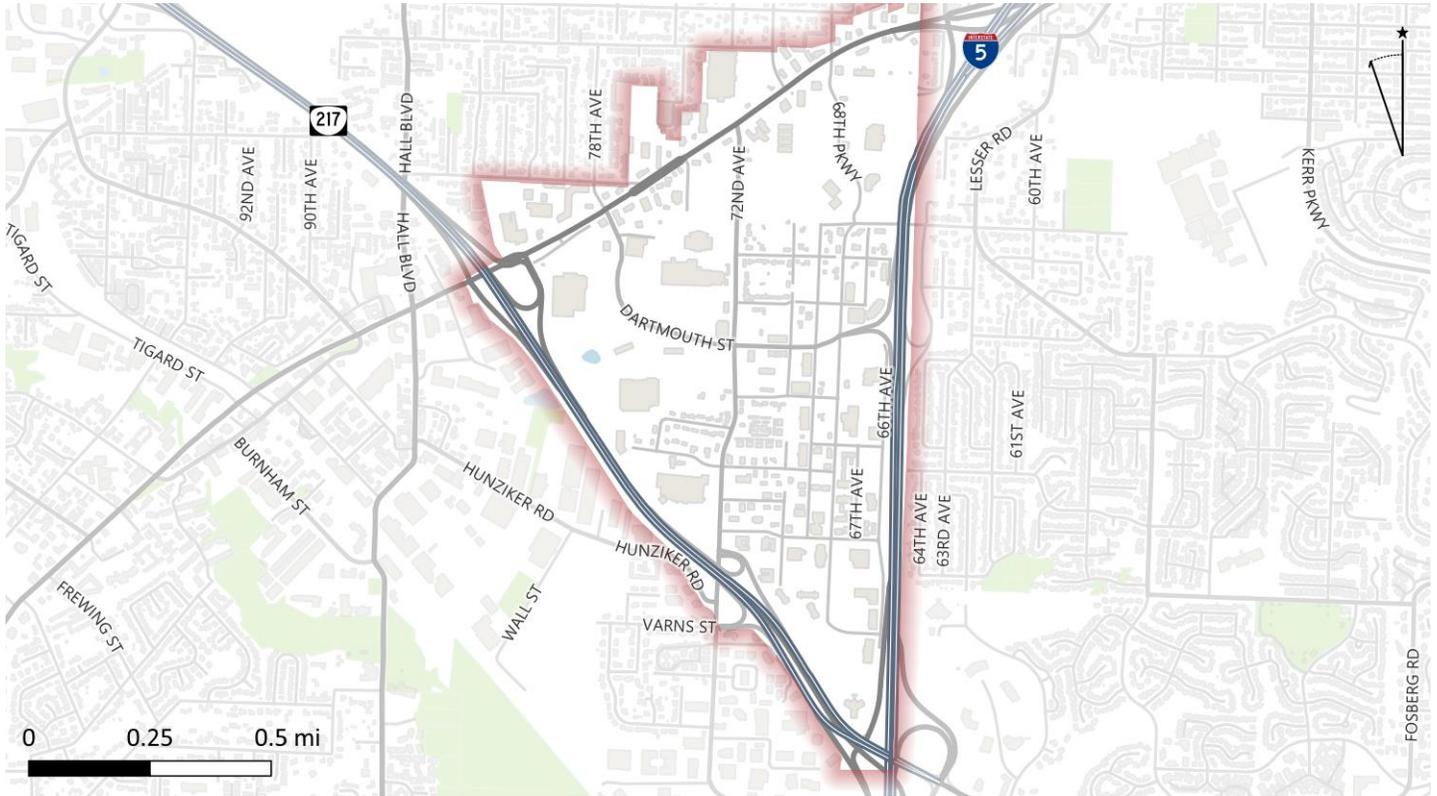
T15. Parking Management Plan

Qualitative Data Mapping

Criteria	Notes	Quantitative Scoring		
Multimodal Transportation	High – Med – Low Primarily about the car, could be benefits for safe, convenient places to go, bike parking possible, etc.	Bike Access to Key Destinations + 0 people	Walk Access to Transit + 0 people	Mixed-use Development Potential + 0 acres
Environmental conditions & infrastructure	High – Med – Low Not applicable	Improves Stormwater or Sewer Infrastructure No	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Regional destination, diversity	High – Med – Low Facilitates additional activity and easier, safer access to the Triangle.	Pedestrian Access and Safety + 0 people	Bike Access and Safety + 0 people	Increase in Activity Density + 0 people
Equitable economic opportunity	High – Med – Low Enables smaller, incremental development by removing parking costs for new projects	Increase in Development Value + \$0	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 0 jobs
Reduces displacement and gentrification	High – Med – Low Not applicable	Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
Affordable housing	High – Med – Low A parking plan could help serve housing needs by alleviating the parking burden for affordable housing developers	New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Public gathering spaces	High – Med – Low Not applicable	Access to Open Space + 0 people		Proximity to Walkable Streets + 0 people

T16. Transportation Study

Project Map



Project Stats

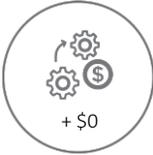
Project Description Periodically evaluate the functioning of the transportation system to refine project scope and inform project prioritization.

Earliest Start Date		Latest Start Date		Project Duration	
UR duration					
Total Costs		Urban Renewal	Other Sources		
\$ 500,000		\$ 500,000	\$ 0		
Funding Notes:		Broken into multiple projects			
Dependencies:		Redevelopment and SW Corridor could determine when new studies are needed			

T16. Transportation Study

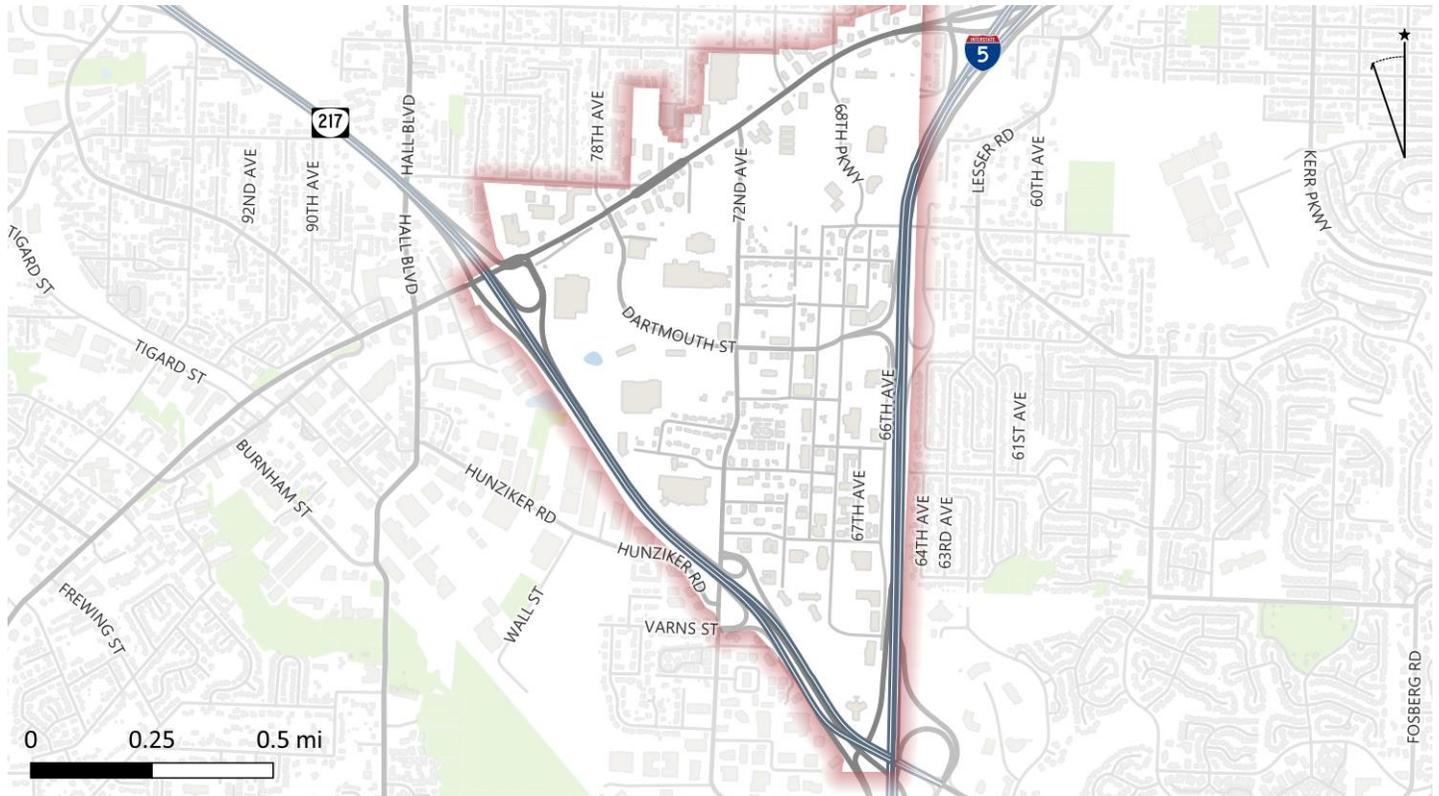
Qualitative Data Mapping

Criteria	Notes
Multimodal Transportation	High – Med – Low Facilitates increase in transportation modes, assuming multimodal options remain a top priority for the Triangle
Environmental conditions & infrastructure	High – Med – Low Not applicable
Regional destination, diversity	High – Med – Low Evaluates local and regional transportation need to support the Triangle’s capacity as a regional destination from a narrow perspective
Equitable economic opportunity	High – Med – Low Supports district-wide transportation solutions rather than relying on individual projects to solve regional needs
Reduces displacement and gentrification	High – Med – Low Not applicable
Affordable housing	High – Med – Low May help identify opportunities for further housing development and support access between projects and other amenities
Public gathering spaces	High – Med – Low Not applicable

Quantitative Scoring		
Bike Access to Key Destinations  + 0 people	Walk Access to Transit  + 0 people	Mixed-use Development Potential  + 0 acres
Improves Stormwater or Sewer Infrastructure  No	Connection to Sewer  + 0 parcels	New Access to Stormwater Infrastructure  + 0 parcels
Pedestrian Access and Safety  + 0 people	Bike Access and Safety  + 0 people	Increase in Activity Density  + 0 people
Increase in Development Value  + \$0	Increase in Housing Unit Capacity  + 0 units	Increase in Employment Capacity  + 0 jobs
Employee Displacement Potential  - 0 jobs	Residential Displacement Potential  - 0 residents	Gentrification Migration Potential  No
New Net Housing Capacity  + 0 units	Supports Creation of New Affordable Housing  No	Helps Retain Existing Employers  No
Access to Open Space  + 0 people	Proximity to Walkable Streets  + 0 people	

PU1. Stormwater/Sewer

Project Map



Project Stats

Project Description Develop a stormwater master plan for the Triangle and a greenway plan for Red Rock Creek that addresses stormwater, sewer, and recreational needs.

Earliest Start Date	Latest Start Date	Project Duration
Near-term		1 year

Total Costs	Urban Renewal	Other Sources
\$ 300,000	\$ 300,000	\$ 0
Funding Notes:	LRT could partially pay for implementation	
Dependencies:	Next Fiscal Year Triangle Stormwater Strategy, Trail (T9) and Stormwater/Sewer (PU4)	

PU1. Stormwater/Sewer

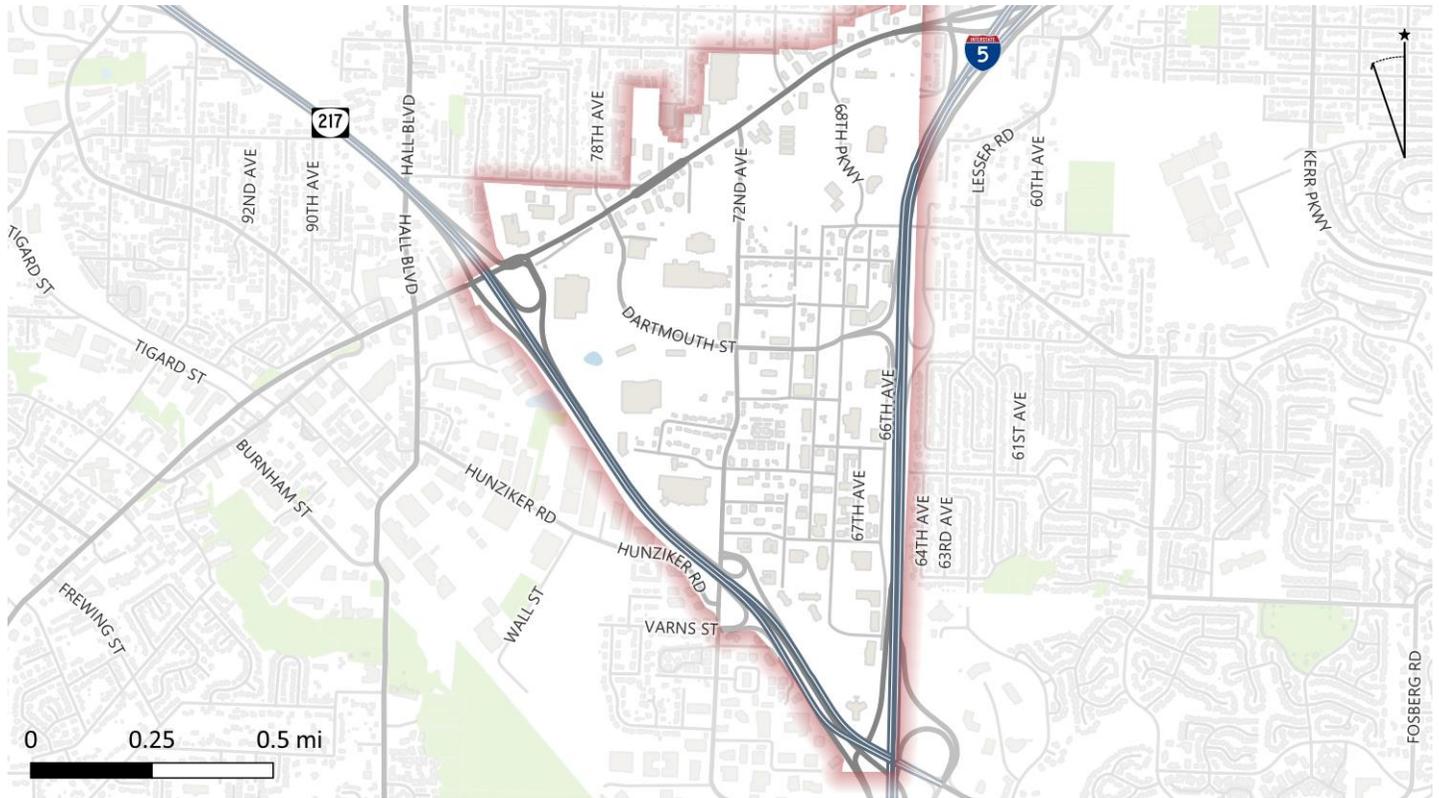
Qualitative Data Mapping

Criteria	Notes
Multimodal Transportation	High – Med – Low Supports additional trail development and ped/bike access
Environmental conditions & infrastructure	High – Med – Low Addresses a significant infrastructure problem and builds capacity
Regional destination, diversity	High – Med – Low Alleviates significant barriers to development to allow the Triangle to develop as a regional, diverse destination.
Equitable economic opportunity	High – Med – Low Address a critical infrastructure need to support incremental development, alleviating high-cost infrastructure requirements for developers.
Reduces displacement and gentrification	High – Med – Low Not applicable
Affordable housing	High – Med – Low Supports housing development by providing the infrastructure that would otherwise need to be developed by a developer, decreasing costs and rents.
Public gathering spaces	High – Med – Low Directly provides recreational amenities, additional stormwater improvements could include other open space provisions etc.

Quantitative Scoring		
Bike Access to Key Destinations + 0 people	Walk Access to Transit + 0 people	Mixed-use Development Potential + 0 acres
Improves Stormwater or Sewer Infrastructure Yes	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Pedestrian Access and Safety + 0 people	Bike Access and Safety + 0 people	Increase in Activity Density + 0 people
Increase in Development Value + \$0	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 0 jobs
Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Access to Open Space + 0 people	Proximity to Walkable Streets + 0 people	

PU2. Stormwater

Project Map



Project Stats

Project Description Construct approx. 3 regional stormwater facilities to meet new DEQ regs. for water quantity mgt. Cost estimates developed with master plan.

Earliest Start Date		Latest Start Date		Project Duration	
Near to mid				Built in segments	
Total Costs		Urban Renewal		Other Sources	
\$ 11 M		\$ 8.2 M		\$ 2.8 M	
Funding Notes:		4 Red Rock related projects are in the CIP (\$7.6 M)			
Dependencies:		Trail (T9) and Stormwater/Sewer (PU4), Tigard Triangle Stormwater Strategy results. SW Corridor would require stormwater facilities.			

PU2. Stormwater

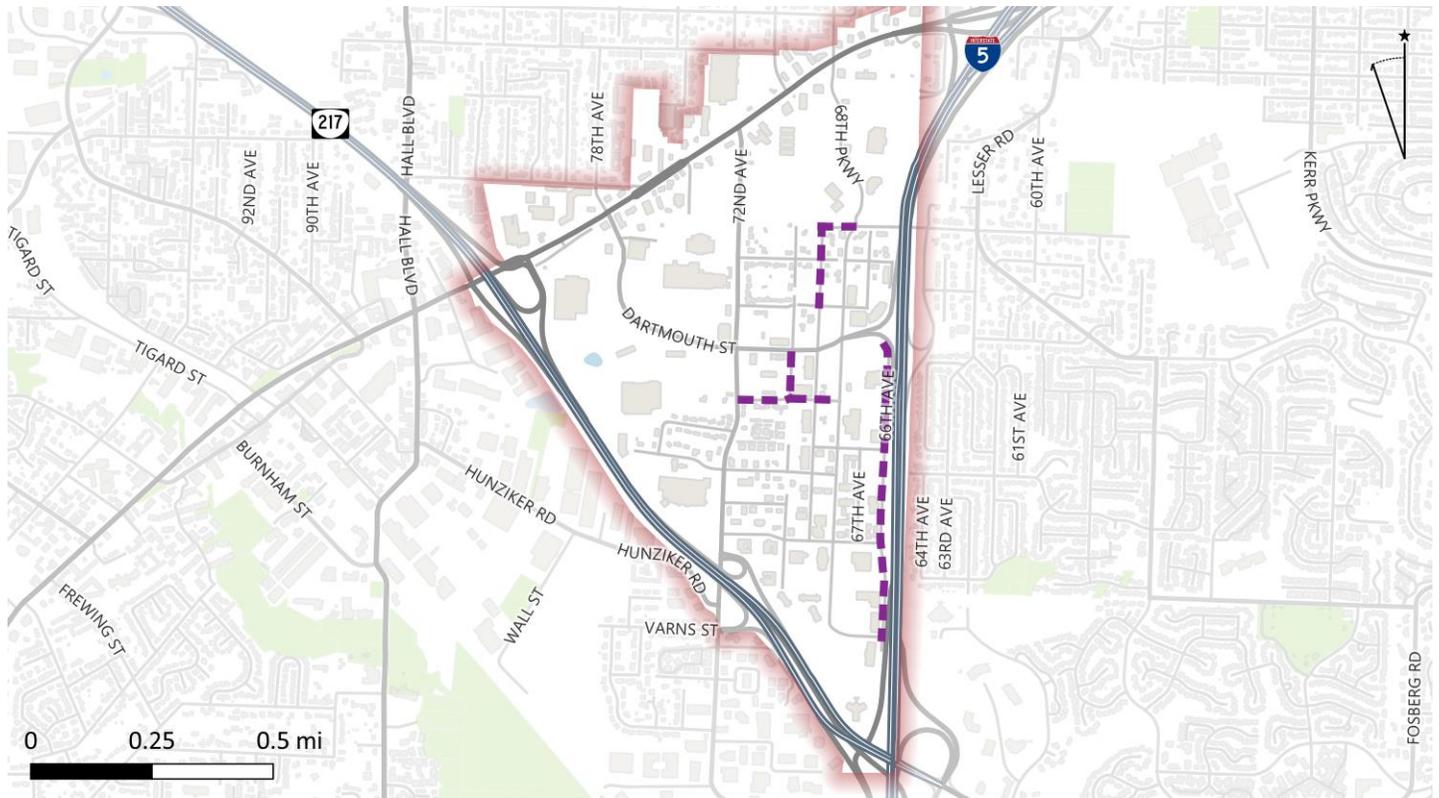
Qualitative Data Mapping

Criteria	Notes
Multimodal Transportation	High – Med – Low Supports/addresses trails, ped/bike access
Environmental conditions & infrastructure	High – Med – Low Directly provides stormwater mitigation strategies, thereby decreasing environmental impacts as a result of runoff
Regional destination, diversity	High – Med – Low Provides critical facilities to support the Triangle's build out as mixed-use, regional destination, and helps cover potentially inhibitive utility costs.
Equitable economic opportunity	High – Med – Low Implements a critical infrastructure need to support incremental development by alleviating costs
Reduces displacement and gentrification	High – Med – Low Not applicable
Affordable housing	High – Med – Low Supports housing development by covering costs that may otherwise fall upon a housing developer and be a significant barrier to development.
Public gathering spaces	High – Med – Low Directly provides recreational amenities, additional stormwater improvements could include other open space provisions etc.

Quantitative Scoring		
Bike Access to Key Destinations + 0 people	Walk Access to Transit + 0 people	Mixed-use Development Potential + 0 acres
Improves Stormwater or Sewer Infrastructure Yes	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Pedestrian Access and Safety + 0 people	Bike Access and Safety + 0 people	Increase in Activity Density + 0 people
Increase in Development Value + \$0	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 0 jobs
Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Access to Open Space + 0 people	Proximity to Walkable Streets + 0 people	

PU3. Sewer

Project Map



Project Stats

Project Description Extend public sewer system to areas served by private septic systems.

Earliest Start Date	Latest Start Date	Project Duration
Mid-term		1 year

Total Costs	Urban Renewal	Other Sources
\$ 5 M	\$ 1 M	\$ 4 M
Funding Notes:		
Dependencies:	Redevelopment or urban renewal agency initiated? Projects will be included in Sewer Master Plan	

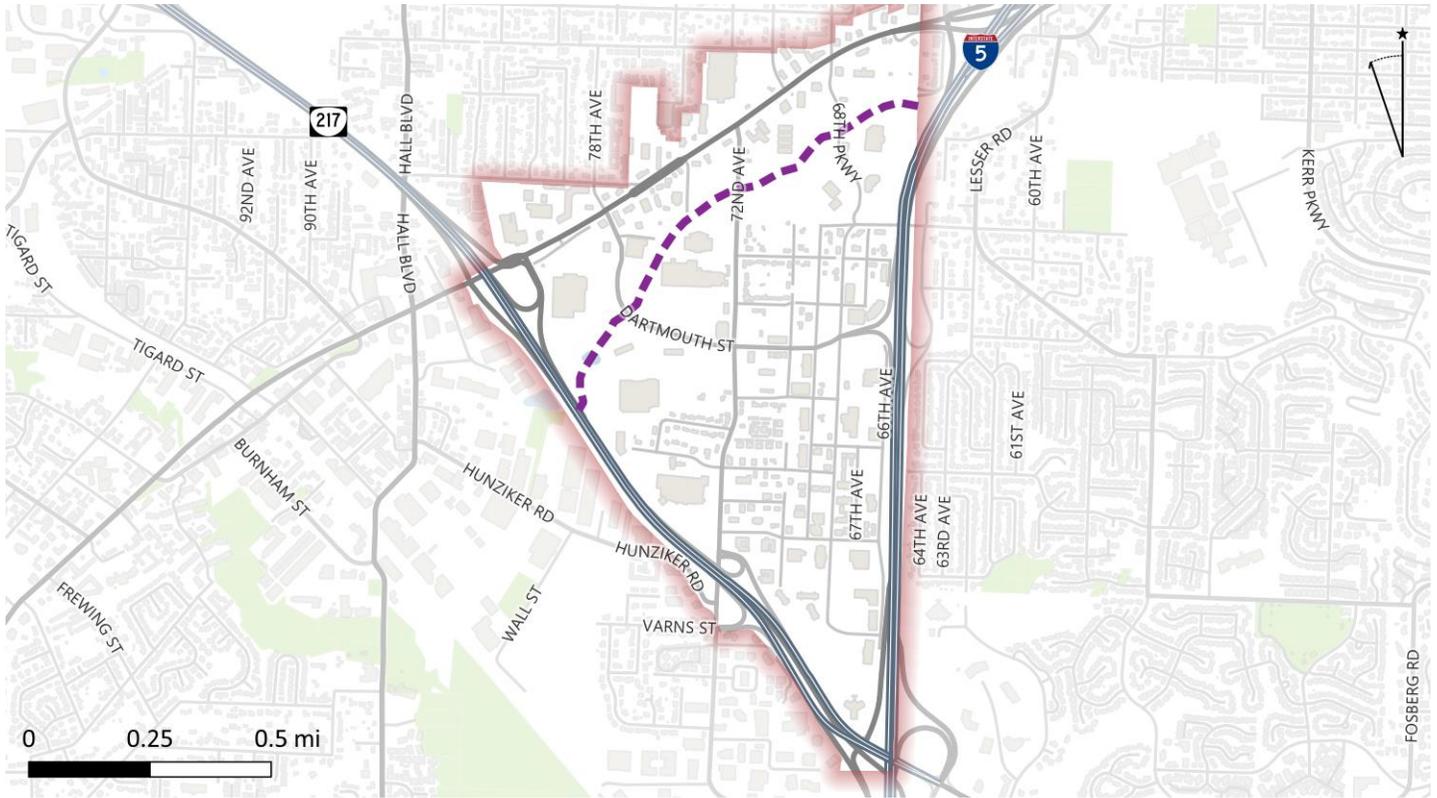
PU3. Sewer

Qualitative Data Mapping

Criteria	Notes	Quantitative Scoring		
Multimodal Transportation	High – Med – Low Supports mixed-use, urban development to encourage bicycling and walking in the immediate vicinity.	Bike Access to Key Destinations + 80 people	Walk Access to Transit + 57 people	Mixed-use Development Potential + 3 acres
Environmental conditions & infrastructure	High – Med – Low Directly improves environmental conditions by rectifying critical sewer issues and builds capacity for new development.	Improves Stormwater or Sewer Infrastructure Yes	Connection to Sewer + 18 parcels	New Access to Stormwater Infrastructure + 0 parcels
Regional destination, diversity	High – Med – Low Provides critical facilities to support the Triangle's build out as mixed-use, regional destination, and helps cover potentially inhibitive utility costs.	Pedestrian Access and Safety + 51 people	Bike Access and Safety + 51 people	Increase in Activity Density + 242 people
Equitable economic opportunity	High – Med – Low Improves capacity, allows smaller property owners the chance to redevelop	Increase in Development Value + \$24.1m	Increase in Housing Unit Capacity + 51 units	Increase in Employment Capacity + 135 jobs
Reduces displacement and gentrification	High – Med – Low Alleviates gentrification pressures by increasing development capacity	Employee Displacement Potential - 4 jobs	Residential Displacement Potential - 1 residents	Gentrification Migration Potential No
Affordable housing	High – Med – Low Supports housing development by covering costs that may otherwise fall upon a housing developer and be a significant barrier to development.	New Net Housing Capacity + 51 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Public gathering spaces	High – Med – Low Redevelopment on parcels attaching to sanitary sewer brings more future population into area with good parks access	Access to Open Space + 80 people	Proximity to Walkable Streets + 0 people	

PU4. Stormwater/Sewer

Project Map



Project Stats

Project Description Permanently fix compromised sewer lines in Red Rock Creek and restore creek channel and riparian buffer.

Earliest Start Date		Latest Start Date		Project Duration	
Near to mid term				Could occur in segments	
Total Costs		Urban Renewal		Other Sources	
\$ 3 M		\$ 3 M		\$	
Funding Notes:					
Dependencies:		PU2 incudes the other Red Rock Stormwater projects. Sewer, stormwater, trail, and greenway will be coordinated.			

*Indicated revision from original estimate

PU4. Stormwater/Sewer

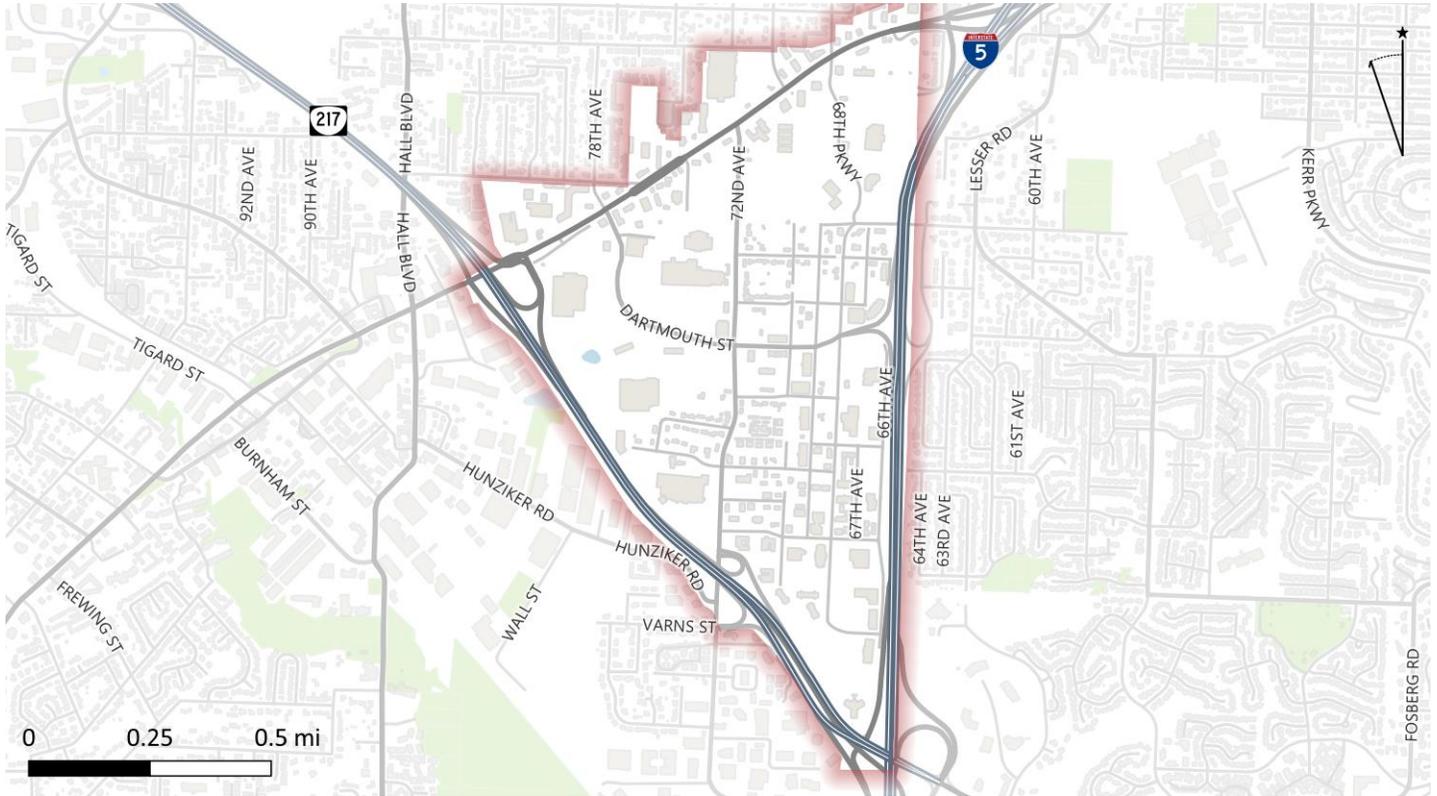
Qualitative Data Mapping

Criteria	Notes
Multimodal Transportation	High – Med – Low Connected to other project which supports/addresses trails, ped/bike access, but not directly impacting.
Environmental conditions & infrastructure	High – Med – Low Directly improves environmental conditions by providing riparian habitat, repairing critical sewer lines that would otherwise cause harm
Regional destination, diversity	High – Med – Low The project helps create a regional identity tied to the unique Red Rock Creek asset, improving ecological corridors and habitats
Equitable economic opportunity	High – Med – Low Provides critical infrastructure, but new development would not necessarily be otherwise burdened with construction
Reduces displacement and gentrification	High – Med – Low Not applicable, impacts are negligible
Affordable housing	High – Med – Low Not applicable, impacts are negligible
Public gathering spaces	High – Med – Low Directly provides recreational amenities, additional stormwater improvements could include other open space provisions etc.

Quantitative Scoring		
Bike Access to Key Destinations + 0 people	Walk Access to Transit + 0 people	Mixed-use Development Potential + 0 acres
Improves Stormwater or Sewer Infrastructure Yes	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 28 parcels
Pedestrian Access and Safety + 0 people	Bike Access and Safety + 0 people	Increase in Activity Density + 0 people
Increase in Development Value + \$0	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 0 jobs
Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Access to Open Space + 0 people	Proximity to Walkable Streets + 0 people	

PU5. Water

Project Map



Project Stats

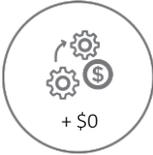
Project Description Install new water mains as needed.

Earliest Start Date		Latest Start Date		Project Duration
				Through the life of the UR district
Total Costs		Urban Renewal	Other Sources	
\$ 4 M		\$ 700,000	\$ 3,300,000	
Funding Notes:				
Dependencies:		Water provider is Tualatin Valley Water District, not City of Tigard, so depends on their plans and new development driving the need. Building of New Streets (Project T10) could provide opportunity to put in new water mains		

PU5. Water

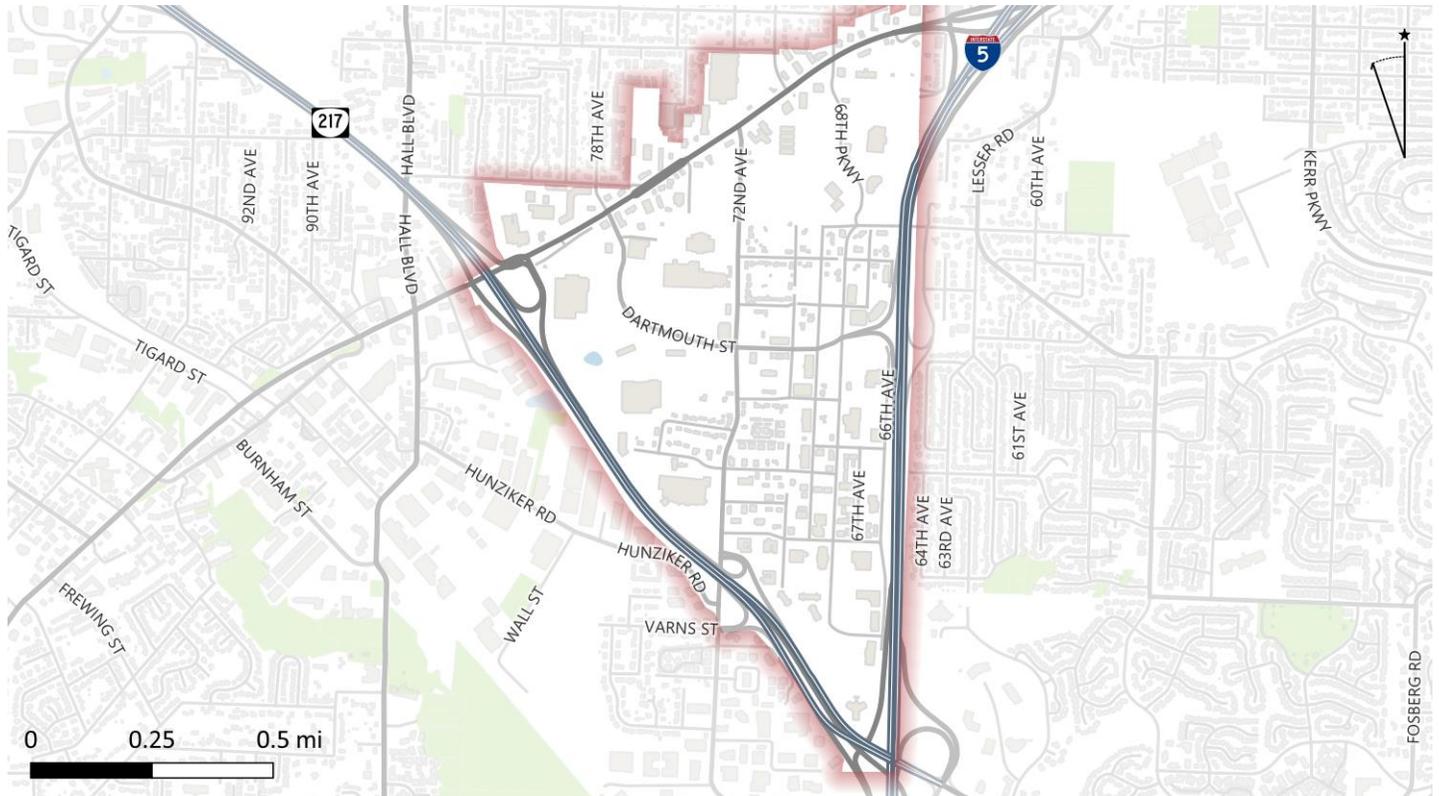
Qualitative Data Mapping

Criteria	Notes
Multimodal Transportation	High – Med – Low Not applicable
Environmental conditions & infrastructure	High – Med – Low Directly increases system capacity, protects valuable water resources, and helps mitigate existing stormwater issues.
Regional destination, diversity	High – Med – Low Not applicable
Equitable economic opportunity	High – Med – Low Improves development marketability by providing critical infrastructure elements that may otherwise fall to developers.
Reduces displacement and gentrification	High – Med – Low Not applicable
Affordable housing	High – Med – Low Improves housing development marketability by providing critical infrastructure elements that may otherwise fall to developers.
Public gathering spaces	High – Med – Low Not applicable

Quantitative Scoring		
Bike Access to Key Destinations  + 0 people	Walk Access to Transit  + 0 people	Mixed-use Development Potential  + 0 acres
Improves Stormwater or Sewer Infrastructure  Yes	Connection to Sewer  + 0 parcels	New Access to Stormwater Infrastructure  + 0 parcels
Pedestrian Access and Safety  + 0 people	Bike Access and Safety  + 0 people	Increase in Activity Density  + 0 people
Increase in Development Value  + \$0	Increase in Housing Unit Capacity  + 0 units	Increase in Employment Capacity  + 0 jobs
Employee Displacement Potential  - 0 jobs	Residential Displacement Potential  - 0 residents	Gentrification Migration Potential  No
New Net Housing Capacity  + 0 units	Supports Creation of New Affordable Housing  No	Helps Retain Existing Employers  No
Access to Open Space  + 0 people	Proximity to Walkable Streets  + 0 people	

Public Spaces, Facilities, and Installations

Project Map



Project Stats

Project Description Parks, greenways, recreational facilities, plazas, public restrooms, public art, wayfinding, gateway installations, district signage

Earliest Start Date	Latest Start Date	Project Duration

Total Costs	Urban Renewal	Other Sources
TBD	\$ 15,000,000	TBD
Funding Notes:		
Dependencies:		

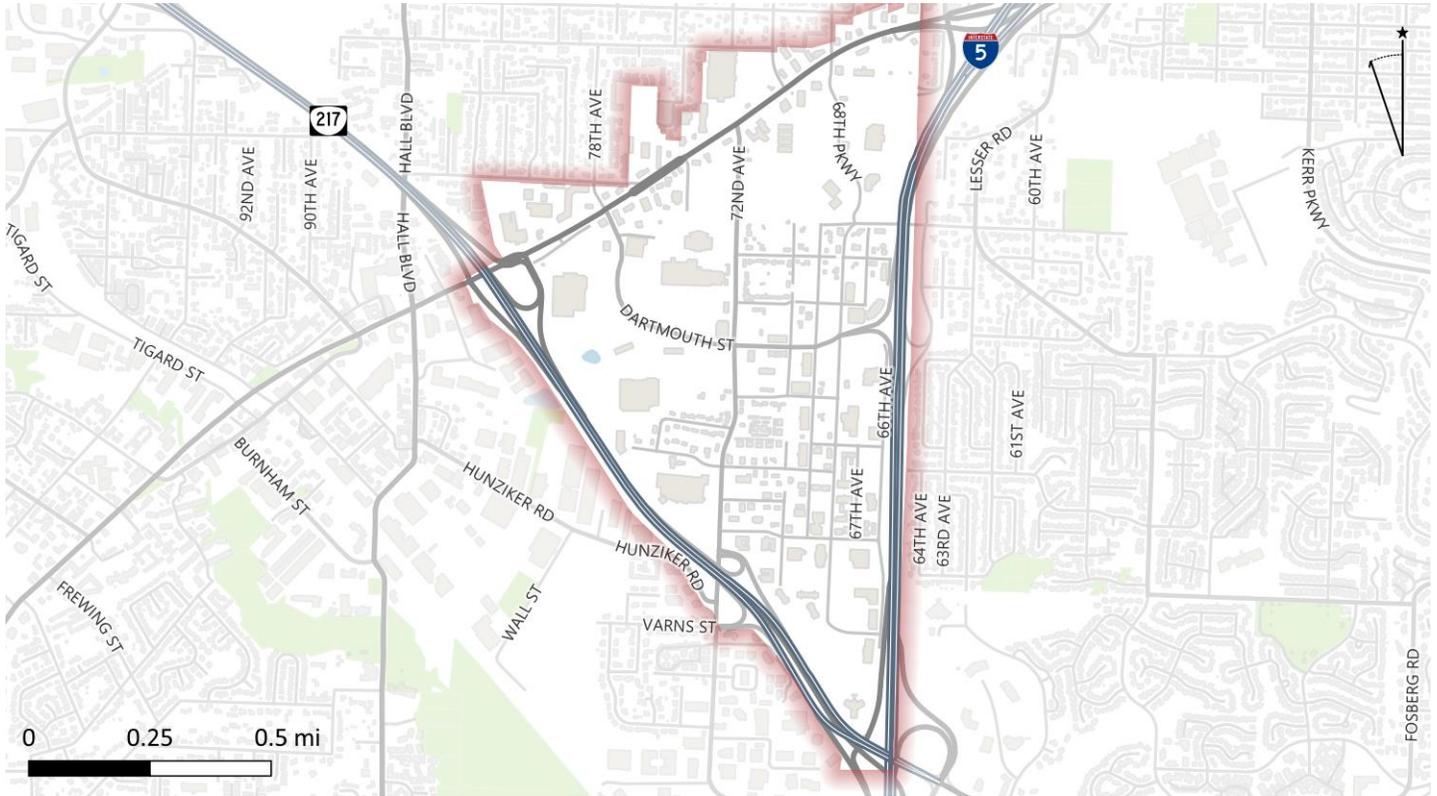
Public Spaces, Facilities, and Installations

Qualitative Data Mapping

Criteria	Notes	Quantitative Scoring		
Multimodal Transportation	High – Med – Low The project supports and prioritizes active transportation and increases the breadth of access to recreational amenities	Bike Access to Key Destinations + 0 people	Walk Access to Transit + 0 people	Mixed-use Development Potential + 0 acres
Environmental conditions & infrastructure	High – Med – Low Directly reduces impervious surfaces and provides additional green space	Improves Stormwater or Sewer Infrastructure No	Connection to Sewer + 0 parcels	New Access to Stormwater Infrastructure + 0 parcels
Regional destination, diversity	High – Med – Low Helps build the Triangle’s identity as a work, live, play, mixed-use destination for all people.	Pedestrian Access and Safety + 0 people	Bike Access and Safety + 0 people	Increase in Activity Density + 0 people
Equitable economic opportunity	High – Med – Low Public space is inherently equitable as it is available to all members of the community, but these projects are not likely to be a developer’s responsibility	Increase in Development Value + \$0	Increase in Housing Unit Capacity + 0 units	Increase in Employment Capacity + 0 jobs
Reduces displacement and gentrification	High – Med – Low Not applicable	Employee Displacement Potential - 0 jobs	Residential Displacement Potential - 0 residents	Gentrification Migration Potential No
Affordable housing	High – Med – Low Provides critical amenities to support housing and residents, with potential positive impacts for attracting new housing as a result of public space.	New Net Housing Capacity + 0 units	Supports Creation of New Affordable Housing No	Helps Retain Existing Employers No
Public gathering spaces	High – Med – Low Directly increases the number of active and attractive open space.	Access to Open Space + 0 people		Proximity to Walkable Streets + 0 people

Development Assistance

Project Map



Project Stats

Project Description

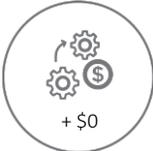
Earliest Start Date	Latest Start Date	Project Duration

Total Costs	Urban Renewal	Other Sources
	\$	
Funding Notes:		
Dependencies:		

Development Assistance

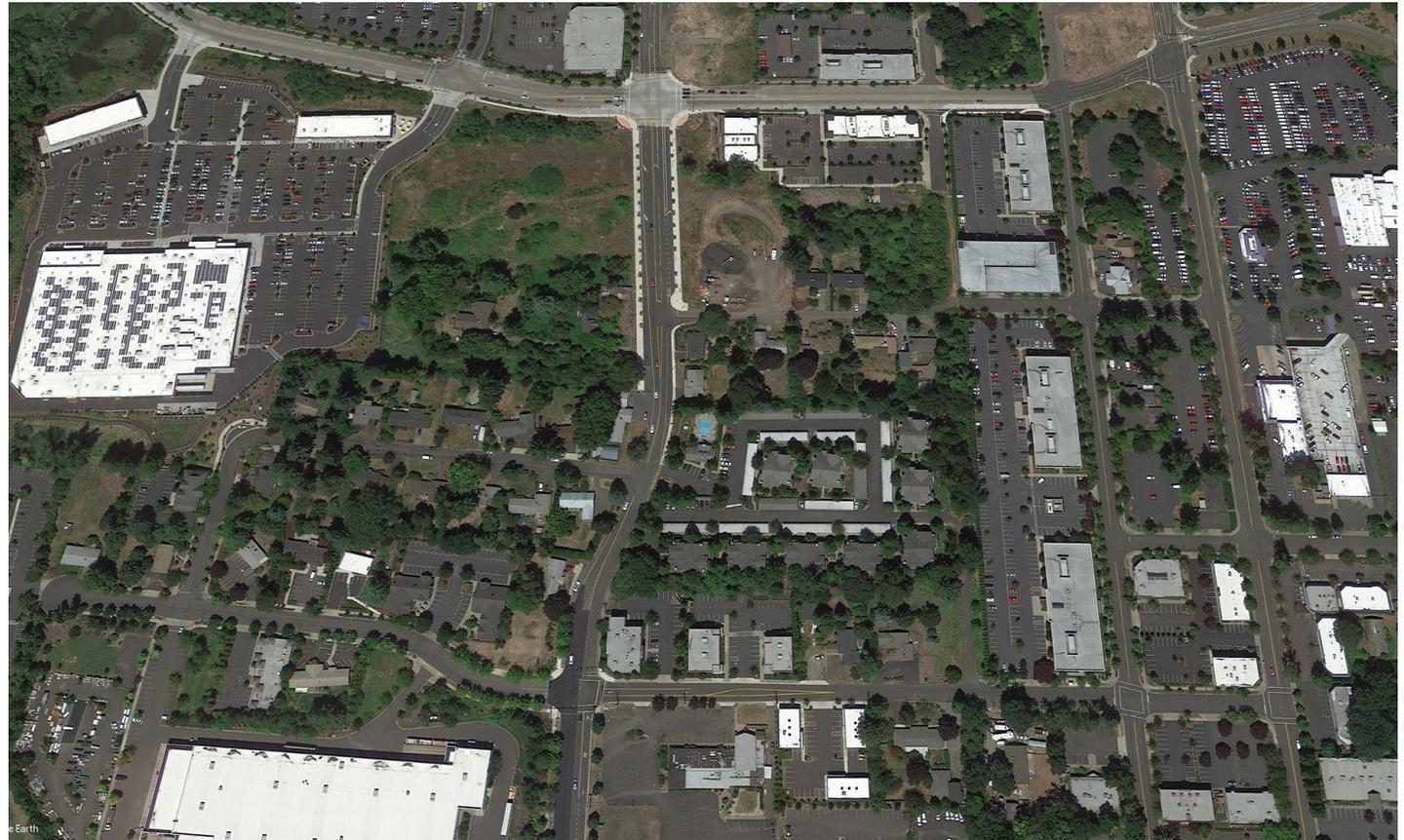
Qualitative Data Mapping

Criteria	Notes
Multimodal Transportation	High – Med – Low Not applicable
Environmental conditions & infrastructure	High – Med – Low Provides additional resources to help developers build infrastructure, buildings its capacity and increasing quality.
Regional destination, diversity	High – Med – Low Investment likely to directly support the creation of mixed-use district by incentivizing a greater diversity of uses and supporting additional investment
Equitable economic opportunity	High – Med – Low Provides critical funding and resources for incremental development, facilitates ongoing partnerships, and supports other necessary programs.
Reduces displacement and gentrification	High – Med – Low Project can indirectly support small business and vulnerable residents through targeted efforts, but results are not guaranteed.
Affordable housing	High – Med – Low Funding can be directly put to affordable housing development to serve existing and ongoing need through the life of the plan
Public gathering spaces	High – Med – Low Not applicable

Quantitative Scoring		
Bike Access to Key Destinations  + 0 people	Walk Access to Transit  + 0 people	Mixed-use Development Potential  + 0 acres
Improves Stormwater or Sewer Infrastructure  Yes	Connection to Sewer  + 0 parcels	New Access to Stormwater Infrastructure  + 0 parcels
Pedestrian Access and Safety  + 0 people	Bike Access and Safety  + 0 people	Increase in Activity Density  + 0 people
Increase in Development Value  + \$0	Increase in Housing Unit Capacity  + 0 units	Increase in Employment Capacity  + 0 jobs
Employee Displacement Potential  - 0 jobs	Residential Displacement Potential  - 0 residents	Gentrification Migration Potential  Yes
New Net Housing Capacity  + 0 units	Supports Creation of New Affordable Housing  Yes	Helps Retain Existing Employers  Yes
Access to Open Space  + 0 people	Proximity to Walkable Streets  + 0 people	



Tigard Triangle Stormwater Implementation Plan



Problem Statement

The City is focused on redevelopment activity in the Tigard Triangle, an area bound by Interstate 5, Hwy 99 and Hwy 217. New development code aims to simplify the process for parcels to develop and re-develop in this area and to support a desire for a transit-oriented, pedestrian and bike friendly environment. The City's vision for this area includes an enhanced greenway and trail along Red Rock Creek.

Most of Tigard Triangle is situated in the Red Rock Creek basin. Large areas of pavement from commercial, industrial, box store, and large office development generates large volumes of stormwater runoff delivered very quickly to Red Rock Creek. Three major transportation facilities drain into the area including I-5, Hwy 99, and Hwy 217. The result is a very flashy and erosive stream network.

The creek has incised, disconnecting it from the floodplain. The floodplain is squeezed by development and altered in many sections. Upper reaches flow through

moderately steep terrain while lower reaches are quite flat. Water levels in the creek can increase by 8 to 10 feet within 10 or 15 minutes during heavier rainfall events.

A sanitary sewer trunk line runs parallel to Red Rock Creek for most of its length. Channel incision has resulted in tall, unstable stream banks and stream bed elevations that are below the sewer line in several locations. When the stream bank fails it can result in a broken sewer line. There have been six line breaks or severe exposures in the last eight years.

The map on the back shows the Tigard Triangle Plan Area, the primary drainage routes through the area, the drainage divide between each drainage route, and the area inside and outside the Tigard Triangle that contributes stormwater runoff to the different streams.

Recommendation

The recommendation is to develop a Tigard Triangle Stormwater Implementation Plan to support redevelopment and transportation improvements while also supporting improvements to water quality and stream condition. In a recent Tigard Triangle Development Survey of 300 Tigard residents, restoring the creek in the Tigard Triangle was seen as the most important potential benefit, closely followed by building new streets and sidewalks and replacing a major sewer line in the Triangle.

Strategy A – This strategy applies to areas north of SW Dartmouth Street. Low Impact Development Approaches (LIDA) are to be utilized on individual redevelopment sites to meet water quality standards. Water quantity would be achieved through stream and floodplain restoration actions in Red Rock Creek. It is recommended that a minimum greenway width be established. The greenway can be expanded in areas for other purposes, such as water quality facilities, recreation, etc.

Strategy B – This strategy applies to areas south of SW Dartmouth Street that drain to Red Rock Creek. LIDA are to be utilized on individual redevelopment sites to meet water quality standards. Water quantity would be achieved through enhancement of a regional storage solution where stormwater is already collecting in a wetland area on the east side of Hwy 217.

Strategy C – This strategy applies to the area that drains to Ball Creek. LIDA are to be utilized on individual redevelopment sites to meet water quality standards. Water quantity would be through on-site stormwater detention.

A more detailed stormwater implementation plan should be prepared for the Tigard Triangle. The Implementation Plan would include the following:

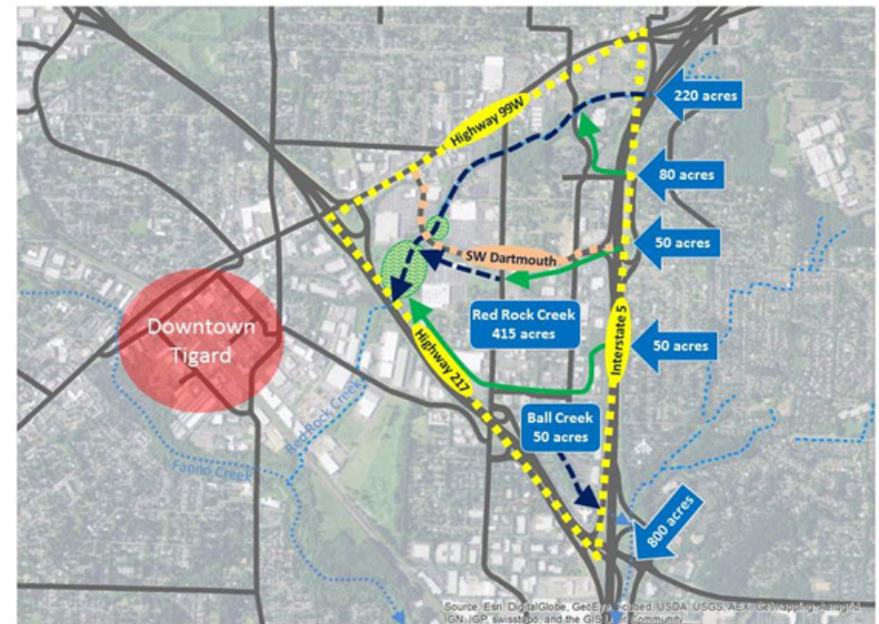
- Detailed data collection (channel profile, cross-section, outfalls)
- Delineation of jurisdictional wetlands and waters in project limits
- Hydrologic modeling and hydraulic modeling to define the 100-year floodplain
- Conceptual facility sizing and design (Strategy Area A & B)
- Preliminary Cost Estimates
- Phasing and sequencing recommendations tied to redevelopment actions
- Refinement of costs in the CIP for the projects tied to Red Rock Creek and to serve the Tigard Triangle area
- Recommendations for revisions to standards or city code specific to Tigard Triangle

Additional recommendations regarding strategy and recommended capital improvements for the Tigard Triangle can be found in the Red Rock Creek Study Area Fact Sheet.

Cost Estimate

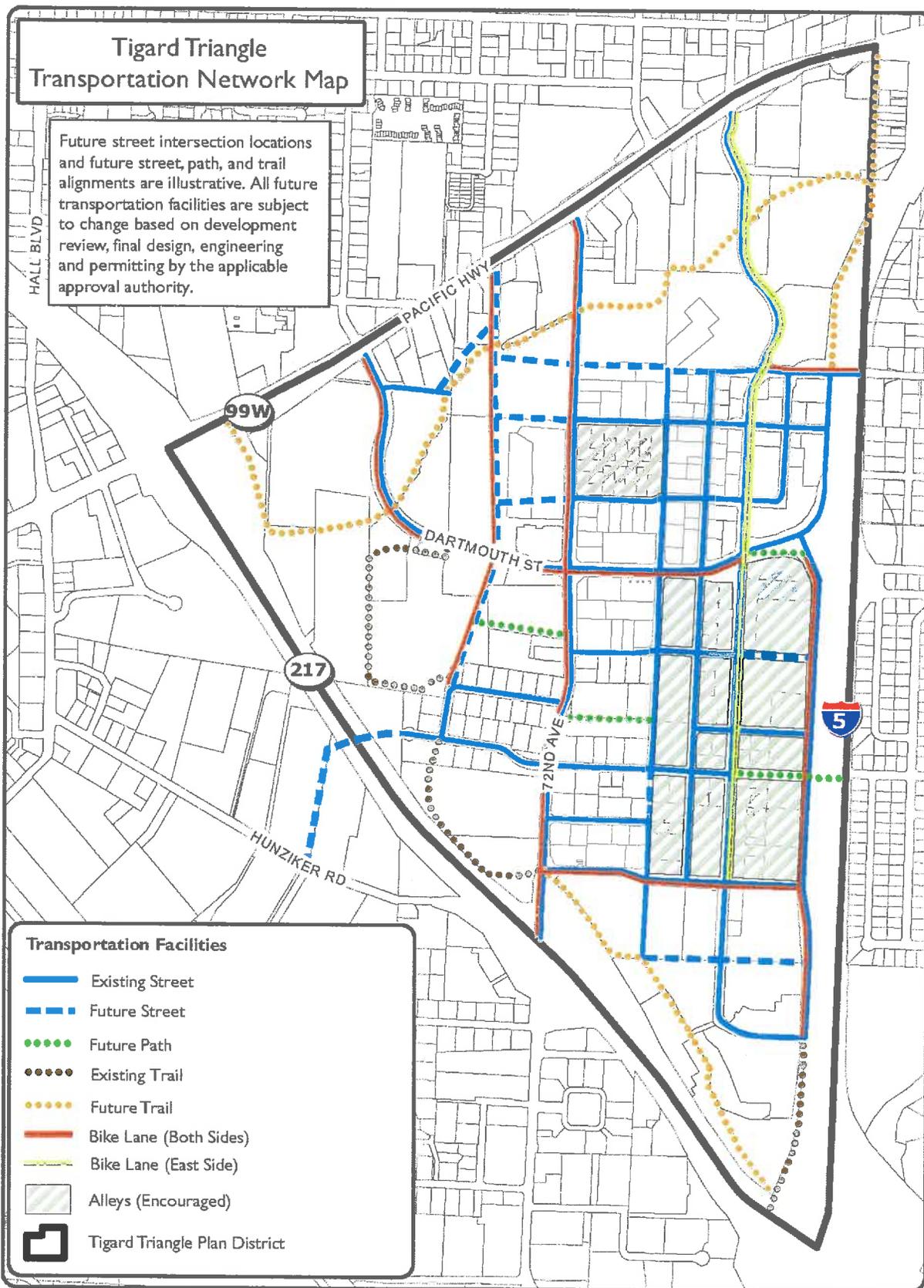
One-Time Costs

Items	Qty	Unit	Unit Price	Total
Professional Services	1	CONTRACT	\$130,000	\$130,000
Project Administration, 15% of services				\$20,000
One-Time Total				\$150,000



Tigard Triangle Map

Map 18.660.B Tigard Triangle Transportation Network



Brian Bennett
Bennett Development
4000 Ridge Ln
West Linn, OR

June 20, 2019

Attn: Dan Kaempff, Principal Transportation Planner, Metro
600 NE Grand Ave
Portland, OR
97232

Dear RFFA Grant Selection Committee,

On behalf of the Basecamp I, LLC and Bennett Development, I am offering my support the City of Tigard's application for a 2022-2024 Regional Flexible Funds Allocation (RFFA) Project Development grant for development of the Red Rock Creek Trail Implementation Plan.

If awarded grant funding, this project will provide the necessary planning and design development readiness for the trail's implementation through related planning and development activities underway within the Red Rock Creek watershed, including the Tigard Triangle Urban Renewal Plan, SW Corridor Light Rail Transit, Red Rock Creek Stormwater Capital Improvement Plan and private development within the Tigard Triangle District and the Hunziker Core industrial area.

Basecamp I, LLC is developing 198 units of senior housing in the Tigard Triangle adjacent to the proposed Elmhurst station SW Corridor stop which would be the terminus of the Red Rock Creek Trail Highway 217 overpass section of the trail. In addition, Basecamp I, LLC owns two additional parcels where we intend to add an additional 88 units of senior housing. In short, we strongly believe our residents and employees will make heavy use of this trail system for recreation and bike/walk commuting and believe it is beneficial to the growth of the area.

We believe that this endeavor is important for Tigard's continued and future livability, and strongly endorse the grant application to invest in well-designed active transportation improvements within the urbanizing Red Rock Creek watershed.

Sincerely,


Brian Bennett



June 20, 2019

Attn: Dan Kaempff, Principal Transportation Planner, Metro
600 NE Grand Ave
Portland, OR
97232

Dear RFFA Grant Selection Committee,

On behalf of Community Partners for Affordable Housing (CPAH), I am pleased to support the City of Tigard's application for a 2022-2024 Regional Flexible Funds Allocation (RFFA) Project Development grant for development of the Red Rock Creek Trail Implementation Plan.

CPAH is a Community Housing Development Organization that serves SW Portland and Washington County. CPAH is committed to ensuring our residents are successful and we understand the importance of active green space and connectivity for our residents. We are excited about the potential for funding to assist with the development of a trail along Red Rock Creek. We have residents in apartment communities nearby who would benefit from a trail. We are also building a new community that would enjoy this asset as well.

If awarded grant funding, this project will provide the necessary planning and design development readiness for the trail's implementation through related planning and development activities underway within the Red Rock Creek watershed, including the Tigard Triangle Urban Renewal Plan, SW Corridor Light Rail Transit, Red Rock Creek Stormwater Capital Improvement Plan and private development within the Tigard Triangle District and the Hunziker Core industrial area.

We believe that this endeavor is important for Tigard's continued and future livability, and strongly endorse the grant application to invest in well-designed active transportation improvements within the urbanizing Red Rock Creek watershed.

Sincerely,

Rachael Duke
Executive Director

Brian Bennett
Bennett Development
4000 Ridge Ln
West Linn, OR

June 20, 2019

Attn: Dan Kaempff, Principal Transportation Planner, Metro
600 NE Grand Ave
Portland, OR
97232

Dear RFFA Grant Selection Committee,

On behalf of the ESG Partners, LLC and Bennett Development, we are offering our support of the City of Tigard's application for a 2022-2024 Regional Flexible Funds Allocation (RFFA) Project Development grant for development of the Red Rock Creek Trail Implementation Plan.

If awarded grant funding, this project will provide the necessary planning and design development readiness for the trail's implementation through related planning and development activities underway within the Red Rock Creek watershed, including the Tigard Triangle Urban Renewal Plan, SW Corridor Light Rail Transit, Red Rock Creek Stormwater Capital Improvement Plan and private development within the Tigard Triangle District and the Hunziker Core industrial area.

ESG Partners, LLC is currently preparing a seven acre site for which Bennett Development is planning a 100,000 SF office project on Wall Street adjacent to the future SW Corridor route. Our team strongly believes that transit oriented development is the key to attracting new business to the suburbs. As such, we have been very strategic in marketing our project as the premier transit oriented office project in the SW Corridor.

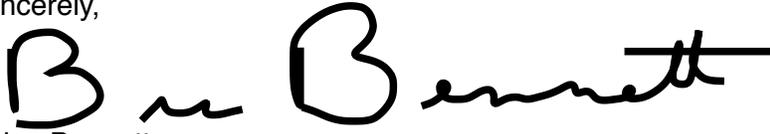
Our project, named **Trailhead**, has been strategically designed as transit oriented development:

- A. We have reserved an area within our project for the red rock creek bridge intended to cross the SW Corridor / West Side Commuter tracks to connect to Fanno Creek Trail. With this connection, we will be the trailhead for Red Rock Creek Trail, Lake Oswego Regional Trail, the Heritage Trail and connect directly into the Fanno Creek Regional Trail. This vital connection further allows the area's employees and residents to connect to South West Corridor stations .5 miles away and the West Side Train and TriMet's regional bus stations .7 miles away.
- B. We are providing indoor bike storage and bike servicing.
- C. We are creating an outdoor office environment to promote connection to the outdoors and celebrate the trail system.
- D. We are a truly multi-modal development where employees and visitors can easily get to the site via auto, bus, train, light rail, bike or walk.

On behalf of ESG Partners, LLC and Bennett Development, we strongly believe that this endeavor is important for Tigard's continued and future livability, and strongly endorse the grant

application to invest in well-designed active transportation improvements within the urbanizing Red Rock Creek watershed.

Sincerely,

A handwritten signature in black ink that reads "Brian Bennett". The signature is written in a cursive style with a large, prominent capital "B" at the beginning and a horizontal line at the end.

Brian Bennett



June 20, 2019

Attn: Dan Kaempff, Principal Transportation Planner, Metro
600 NE Grand Ave
Portland, OR
97232

Dear RFFA Grant Selection Committee,

I am pleased to support the City of Tigard's application for a 2022-2024 Regional Flexible Funds Allocation (RFFA) Project Development grant for development of the Red Rock Creek Trail Implementation Plan.

If awarded grant funding, this project will provide the necessary planning and design development readiness for the trail's implementation through related planning and development activities underway within the Red Rock Creek watershed, including the Tigard Triangle Urban Renewal Plan, SW Corridor Light Rail Transit, Red Rock Creek Stormwater Capital Improvement Plan and private development within the Tigard Triangle District and the Hunziker Core industrial area.

We are currently developing 24 acres of land located off Hunziker Street. When complete the project will have 264 work force apartments and up to 100,000 sq. ft. of office space employing approximately 300 people. Wall Street will be improved and expanded to tie Hunziker into Tech Drive and then 72nd Street. The Fanno Creek Regional trail offers many opportunities for our future residents and office employees. From access to the library, downtown Tigard, and open space, our residents and office tenants will enjoy an enhanced quality of life. We are especially excited about the bridge over the rail road tracks which provides a critical connector for the regional trails full utilization.

We have worked with the Gary Pagenstecher in the Planning Department and committed funds for the planning of the rail road bridge. We view the bridge as not only a critical component of the Fanno Creek Regional trail system, but a very real and valuable amenity for our residents and office employees.

We believe that this endeavor is important for Tigard's continued and future livability, and strongly endorse the grant application to invest in well-designed active transportation improvements within the urbanizing Red Rock Creek watershed.

Sincerely,

Skip Grodahl
DBG Properties LLC

June 20, 2019

Dan Kaempff, Principal Transportation Planner
Metro
600 N.E. Grand Ave
Portland, OR 97232

Re: Red Rock Creek Trail Implementation Plan

Dear RFFA Grant Selection Committee:

PacTrust supports the City of Tigard's application for a 2022-2024 Regional Flexible Funds Allocation (RFFA) Project Development grant for development of the Red Rock Creek Trail Implementation Plan.

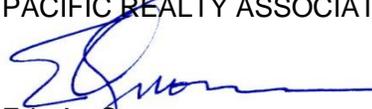
PacTrust owns over 2.5 million square feet of commercial property throughout the City of Tigard. We are a long-term holder of property and have actively developed in Tigard for over 45 years. We own several sites within the Tigard Triangle, including the Regal Cinema site which we plan to redevelop. Active transportation options and the amenities that Red Rock Creek greenway will provide will be of great benefit to our redevelopment. It will provide connectivity throughout the city and is of critical importance in fulfilling Tigard's vision of becoming the most walkable city in the Pacific Northwest, a vision that PacTrust fully supports.

It is our hope that grant funding will be provided as this project will provide the necessary planning and design development readiness for the trail's implementation through related planning and development activities underway within the Red Rock Creek watershed, including the Tigard Triangle Urban Renewal Plan, SW Corridor Light Rail Transit, Red Rock Creek Stormwater Capital Improvement Plan and private development within the Tigard Triangle District and the Hunziker Core industrial area.

We strongly endorse the grant application to invest in well-designed active transportation improvements within the urbanizing Red Rock Creek watershed. Please contact me with any questions.

Sincerely,

PACIFIC REALTY ASSOCIATES, L.P.

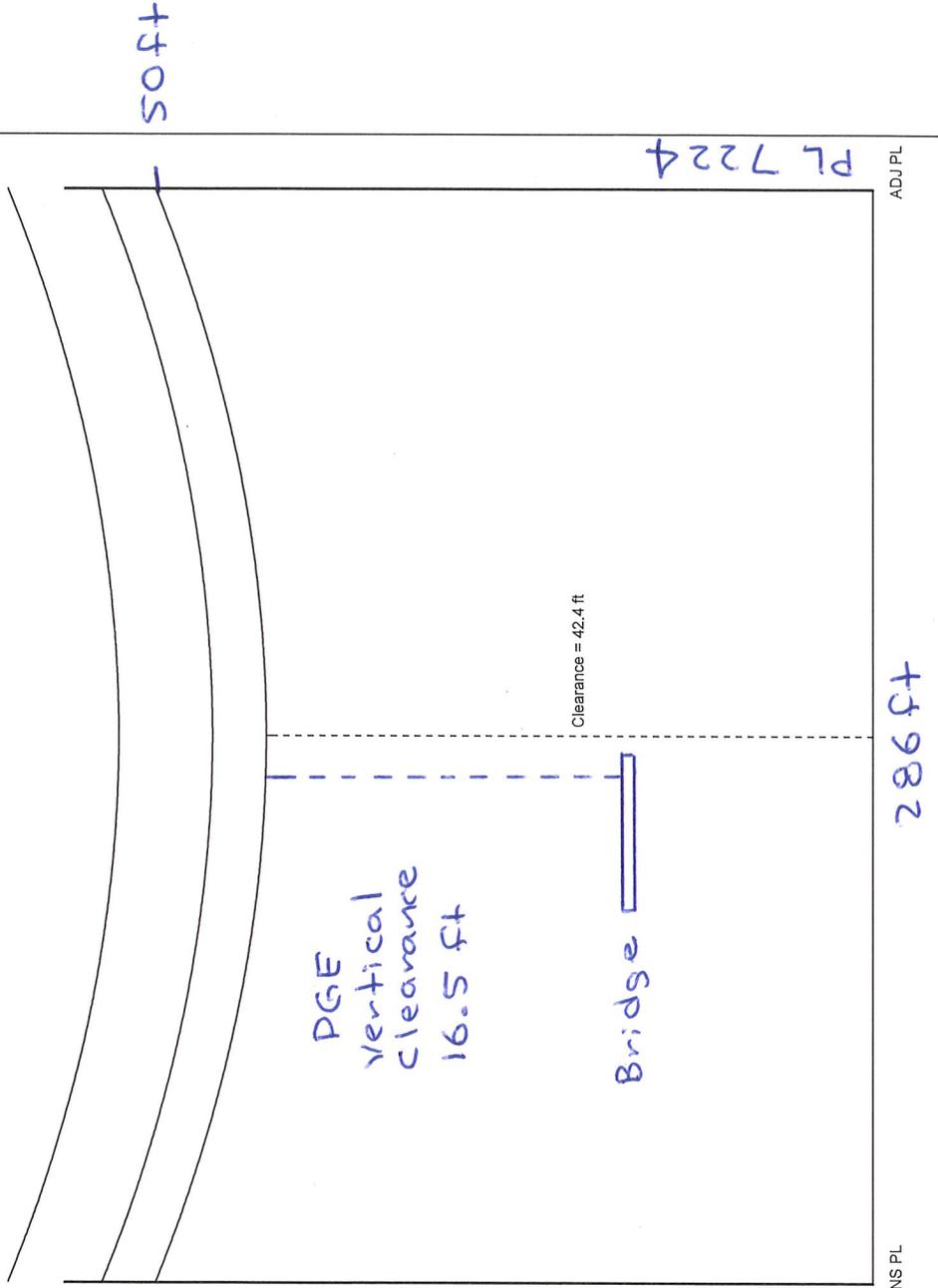


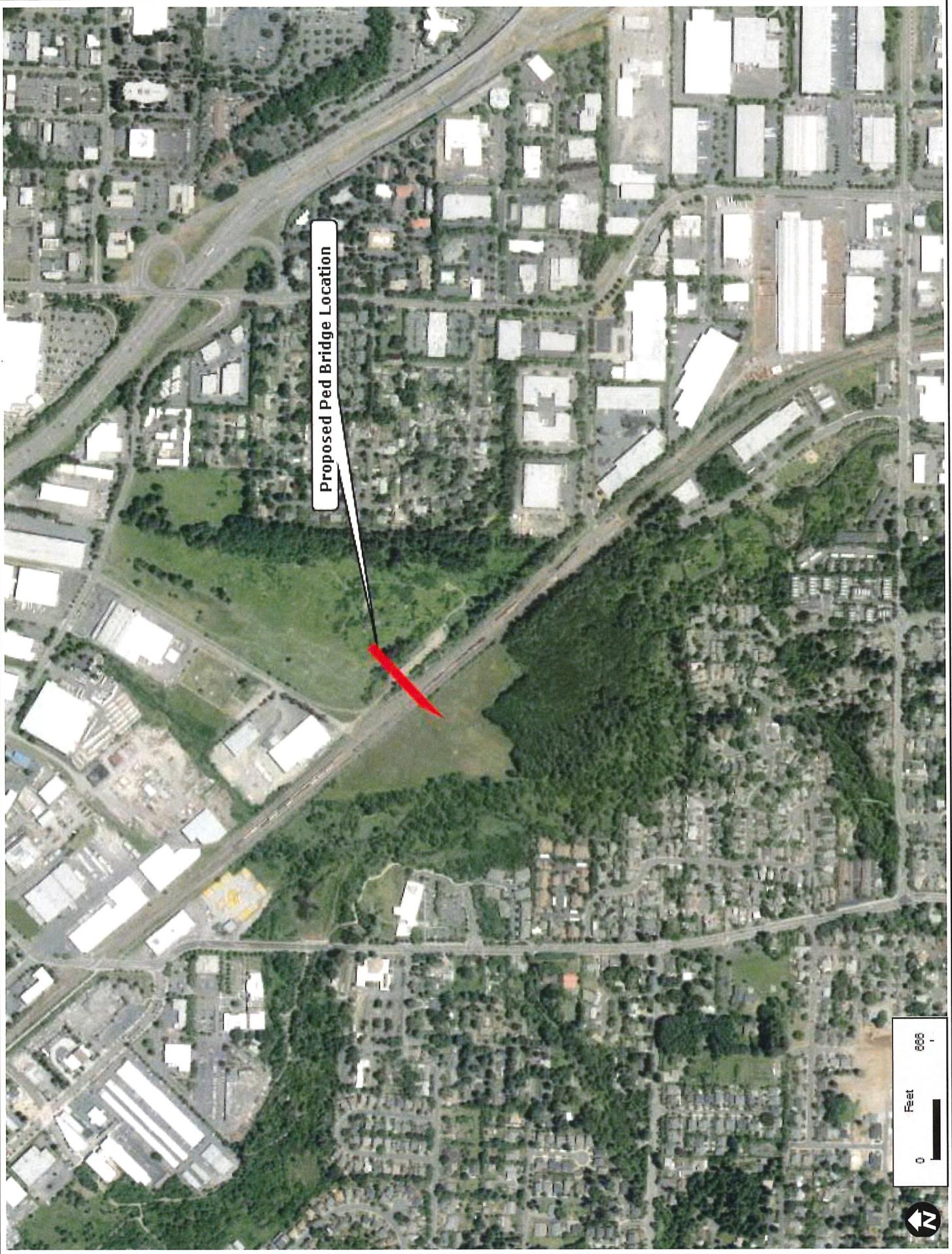
Eric A. Sporre
Vice President

cc: Gary Pagenstecher via e-mail - garyp@tigard-or.gov

File:
Span Length (ft): 286
Circuit 1
Primary Conductor: 795 AAC (37)-5000 (NESC 2007) Sag (in): 93 @ 200° F Ruling Span (ft): 300
ANS PL - Length (ft): 65 Setting Depth (ft): 8.5 Elevation (ft): 0
ADJ PL - Length (ft): 65 Setting Depth (ft): 8.5 Elevation (ft): 0

115 kV Transmission Line





Proposed Ped Bridge Location



795 AAC (37)-5000 (NESC 2007) - Sag Table - Initial 300' Ruling Span

Conductor: 795 AAC (37)-5000 (NESC 2007) - Medium Loading District - Initial

Ruling Span (ft)	Span Length (ft)	Initial Sag (in) @ Temperature (F)										
		30°	40°	50°	60°	70°	80°	90°	100°	120°	200°	32°L
300	220	15	16	18	20	22	24	27	29	33	49	20
300	250	19	21	24	26	28	31	35	38	43	63	26
300	280	24	26	30	32	36	39	44	47	54	79	32
300	300	27	30	34	37	41	45	50	54	62	79	37
300	310	29	32	36	40	44	48	53	58	66	97	40
300	340	35	39	44	48	53	58	64	69	80	117	48
300	370	41	46	52	56	62	68	76	82	94	138	56

300	Initial Tension (lbs) @ Temperature (F)									
	30°	40°	50°	60°	70°	80°	90°	100°	120°	200°
	3699	3337	3003	2703	2441	2217	2027	1868	1619	1108

Initial Design Tension = 5000 lbs @ Temperature = 15°, Ice = 0.25", Wind Pressure = 4 psf
 32°L - Sag at 32° with 0.25" of ice

Re: TCAC statement on Southwest Corridor bridge crossing of Hwy 217

Mayor Snider,

We are writing to you in your roles as the head of the Town Center Development Commission and as a member of the Southwest Corridor Steering Committee.

It has come to the attention of The City of Tigard's Town Center Advisory Commission (TCAC) that TriMet may, as part of the Southwest Corridor project, pursue a Highway 217 light rail bridge crossing that excludes an integrated multi-use path from its design and construction.

The TCAC urges TriMet in the strongest possible terms to fully and unequivocally support the inclusion of bicycle and pedestrian facilities in the bridge design for the Southwest Corridor's MAX line crossing of Highway 217 between the Tigard Triangle and Downtown Tigard.

There are three primary reasons why we feel that the inclusion of bicycle and pedestrian facilities is critical:

1. A non-motorized connection between Tigard's two Urban Renewal Areas. As the City commission tasked with advising the City's Town Center Development Agency on urban renewal investment, we feel it is absolutely critical to ensure a non-motorized, pedestrian and bicycle connection between the two urban renewal areas within the City of Tigard: Downtown Tigard and the Tigard Triangle. Failing to incorporate bike and pedestrian facilities into the design and construction of this bridge will limit transportation options between both urban renewal areas, substantially dampening the community's ability to achieve its urban renewal goals associated with equity, walkability, sustainability, transportation options and livability in general.
2. Transportation options for community residents and employees. A lack of bicycle and pedestrian facilities crossing Highway 217 means that the Tigard Triangle would remain an isolated, auto-dominated landscape – exactly what it is now. The TCAC asserts that this would lead to under-emphasized development of bike and pedestrian facilities throughout the Triangle generally, limiting the attractiveness of the Triangle to prospective residents and businesses. **This is without question one of the "big moves" that this project must absolutely get right** – the alternative being an under-optimized bridge crossing that utterly fails in promoting multi-modal transportation alternatives for City residents and employees for generations to come. A lack of bicycle and pedestrian facilities across Highway 217 is also inconsistent with the transportation futures envisioned by both Urban Renewal Area plans. Pedestrians and cyclists are also taxpayers who have supported motorized transportation infrastructure investment for decades. It is time for their needs and transportation choices to be supported as well – specifically in the context of this massive public investment in both regional and local transportation.
3. Project leveraging of green infrastructure. If the Southwest Corridor project doesn't catalyze the development of forward-looking, carbon-reducing, green infrastructure within and around the project area, it will have missed a major opportunity to improve the health and well-being of both current SW Corridor residents as well as the 75,000 additional residents anticipated to be

added to the corridor in the wake of the project. This omission would be directly at odds with the core missions of TriMet and Metro, both of which regularly promote principles of sustainability, regional livability and equity in its regional transportation and land use plans and projects.

The TCAC does not find persuasive the argument that including bicycle and pedestrian facilities on the Highway 217 bridge crossing would be “too expensive”. Many dimensions of the SW Corridor project promise to be expensive, but that fact alone doesn’t automatically disqualify those project components from being fully explored and budgeted for as the project moves forward. The TCAC contends that all options related to bicycle and pedestrian facilities should be investigated throughout the design refinement and final environmental impact statement stages of the project and included in all budgeting related to the Highway 217 bridge crossing.

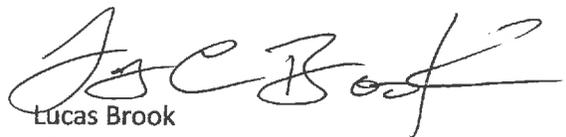
Also, the MOU with the City of Tigard commits TriMet to designing the multi-use path and seeking the appropriate funding. There are substantial local, state and federal sources of funding that exist explicitly to support the inclusion of bicycle and pedestrian facilities in large scale transportation projects like the Southwest Corridor. The long-term cost to the community of NOT including bicycle and pedestrian facilities on the Highway 217 bridge crossing is incalculable, particularly as both Downtown Tigard and the Tigard Triangle look to grow into regional centers serving tens of thousands of residents and workers, an increasing number of whom will want to move through the area on foot and on bicycle. When those facilities exist, people use them. It is critical that bicycle and pedestrian facilities remain within the scope of the project’s design and budget moving forward.

For the reasons described above, the City of Tigard Town Center Advisory Commission urges TriMet to include bicycle and pedestrian facilities in the design and implementation of the Highway 217 light rail bridge crossing. The TCAC would welcome the opportunity to more fully describe our position on this matter directly to TriMet project staff in person, and we invite you to attend one of our upcoming meetings for that purpose.

Respectfully,



Kate Rogers
Chair, Town Center Advisory Commission



Lucas Brook
Vice-chair, Town Center Advisory Commission

cc: Leah Robbins, TriMet, Director, Southwest Corridor Engineering & Construction

Jeb Doran, Senior Project Manager TriMet Capital Projects and Construction Division

June 18, 2019



City of Tigard

RFFA Grants
Attn: Dan Kaempff, Metro
600 NE Grand Avenue
Portland, Oregon 97232

Dear RFFA Grant Selection Committee,

On behalf of the Tigard Transportation Advisory Committee (TTAC), I am pleased to support the City of Tigard's application for a 2022-2024 Regional Flexible Funds Allocation (RFFA) Project Development grant for development of the Red Rock Creek Trail Implementation Plan.

TTAC is comprised of community members who are passionate about transportation issues. The group advises staff on transportation policy, programs, and projects for inclusion in the City's Capital Improvement Program, takes counts of users on our extensive trail network, communicates the virtues of a multi-modal transportation system to community members, and shares ideas with regional experts about ways to improve local transportation conditions.

If awarded grant funding, this project will provide the necessary planning and design development readiness for the trail's implementation through related planning and development activities underway within the Red Rock Creek watershed, including the Tigard Triangle Urban Renewal Plan, SW Corridor Light Rail Transit, Red Rock Creek Stormwater Capital Improvement Plan and private development within the Tigard Triangle District and the Hunziker Core industrial area.

We believe that this endeavor is important for Tigard's continued and future livability, and strongly endorse the grant application to invest in well-designed active transportation improvements within the urbanizing Red Rock Creek watershed.

Sincerely,

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

Kevin Watkins, TTAC Chair

13125 SW Hall Blvd. • Tigard, Oregon 97223 • 503.639.4171
TTY Relay: 503.684.2772 • www.tigard-or.gov



June 20, 2019

Attn: Dan Kaempff, Principal Transportation Planner, Metro
600 NE Grand Ave
Portland, OR
97232

Dear RFFA Grant Selection Committee,

On behalf of the TriMet, I am pleased to support the City of Tigard's request for 2022-2024 Regional Flexible Funds Allocation (RFFA) Project Development grant for advancement of the Red Rock Creek Trail Implementation Plan.

The City of Tigard is a project partner for the development of the Southwest Corridor Light Rail Project, a critical transit investment for the Portland Metro region. In addition to light rail infrastructure, the project team is dedicated to supporting multi-modal and active transportation connections to station areas throughout the corridor.

Specifically, the City of Tigard has identified a multi-use path over Highway 217 as an important connection linking the Tigard Triangle and Downtown Tigard. In a Memorandum of Understanding executed in November of 2018, TriMet and the City of Tigard agreed that the Southwest Corridor Light Rail Project will pursue designs to accommodate bicycle and pedestrian travel, establishing an active transportation connection over Highway 217. While not included in the Southwest Corridor Light Rail Project scope, the multi-use path is advancing as a betterment to be realized through additional funding opportunities.

If awarded grant funding, the Red Rock Creek Trail Implementation Project will help realize key trail segments that support the Southwest Corridor Light Rail project as betterments. We believe that this endeavor is important for Tigard's continued and future livability.

Sincerely,

A handwritten signature in blue ink that reads "Steve Witter".

Steve Witter
Executive Director
Engineering & Construction

June 20, 2019

Attn: Dan Kaempff, Principal Transportation Planner, Metro
600 NE Grand Ave
Portland, OR
97232

Dear RFFA Grant Selection Committee,

On behalf of the TriMet, I am pleased to support the City of Tigard's request for 2022-2024 Regional Flexible Funds Allocation (RFFA) Project Development grant for advancement of the Red Rock Creek Trail Implementation Plan.

The City of Tigard is a project partner for the development of the Southwest Corridor Light Rail Project, a critical transit investment for the Portland Metro region. In addition to light rail infrastructure, the project team is dedicated to supporting multi-modal and active transportation connections to station areas throughout the corridor.

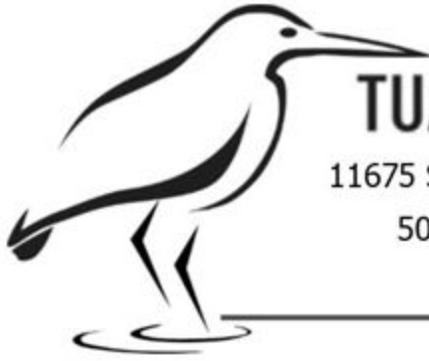
Specifically, the City of Tigard has identified a multi-use path over Highway 217 as an important connection linking the Tigard Triangle and Downtown Tigard. In a Memorandum of Understanding executed in November of 2018, TriMet and the City of Tigard agreed that the Southwest Corridor Light Rail Project will pursue designs to accommodate bicycle and pedestrian travel, establishing an active transportation connection over Highway 217. While not included in the Southwest Corridor Light Rail Project scope, the multi-use path is advancing as a betterment to be realized through additional funding opportunities.

If awarded grant funding, the Red Rock Creek Trail Implementation Project will help realize key trail segments that support the Southwest Corridor Light Rail project as betterments. We believe that this endeavor is important for Tigard's continued and future livability.

Sincerely,

A handwritten signature in blue ink, appearing to read "Steve Witter". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Steve Witter
Executive Director
Engineering & Construction



TUALATIN RIVERKEEPERS.

11675 SW Hazelbrook Road, Tualatin, Oregon 97062

503-218-2580 • tualatinriverkeepers.org

info@tualatinriverkeepers.org

June 20, 2019

Attn: Dan Kaempff, Principal Transportation Planner, Metro
600 NE Grand Ave
Portland, OR
97232

Dear RFFA Grant Selection Committee,

Tualatin Riverkeepers (TRK) is a community-based organization that protects and restores the Tualatin River watershed and its tributaries such as Red Rock Creek. We build watershed stewardship through engagement, advocacy, restoration, access, and education. I write to support the City of Tigard's application for a 2022-2024 Regional Flexible Funds Allocation (RFFA) Project Development grant for development of the Red Rock Creek Trail Implementation Plan.

If awarded grant funding, this project will provide the necessary planning and design development readiness for the trail's implementation through related planning and development activities underway within the Red Rock Creek watershed, including the Tigard Triangle Urban Renewal Plan, SW Corridor Light Rail Transit, Red Rock Creek Stormwater Capital Improvement Plan and private development within the Tigard Triangle District and the Hunziker Core industrial area.

We believe that this endeavor is important for Tigard's continued and future livability, and strongly endorse the grant application to invest in well-designed access to nature within the urbanizing Red Rock Creek watershed.

Sincerely,

Kris Balliet

Executive Director

Kris@tualatinriverkeepers.org



June 21, 2019

Dan Kaempff
Metro
600 NE Grand Avenue
Portland, OR 97232

RE: City of Tigard's Red Rock Creek Trail Implementation Plan Regional Flexible Funds Allocation

Dear Dan Kaempff,

Washington County Coordinating Committee (WCCC), which consists of representatives from Washington County and the cities in Washington County, is pleased to submit this letter of support for the City of Tigard's Regional Flexible Funds (RFFA) grant application. The City is seeking \$314,055 in RFFA funding for development of the Red Rock Creek Trail Implementation Plan in the Tigard Triangle area.

The proposed two-mile Red Rock Creek Trail system would connect the Fanno Creek Regional Trail with future Southwest Corridor light rail, and improve access to employment centers in Tigard Triangle and Hunziker Industrial Core. The WCCC voted to commit \$35,945 in matching funds from the countywide Major Streets Transportation Improvement Program (MSTIP) Opportunity Fund for this project at their June 17 meeting.

The WCCC is encouraged this grant opportunity will help expand the regional trail network in Washington County, supporting a safe and seasonally reliable multimodal transportation solution, improving access to jobs and households, and connecting key destinations.

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

Sincerely,

Roy Rogers, Chair, Washington County Coordinating Committee

cc: Gary Pagenstecher, City of Tigard Project Planner
Washington County Board of Commissioners
Stephen Roberts, Interim Director of Land Use & Transportation

Board of County Commissioners
155 N. First Avenue, Suite 300, MS 22 Hillsboro, OR 97124-3072
Phone: (503) 846-8681 * fax: (503) 846-4545

Clifford Higgins

From: Gary Pagenstecher
Sent: Monday, June 17, 2019 3:19 PM
To: Daniel Kaempff; MANN Prescott E
Subject: RE: Fields Ped Bridge Onsite Diagnostic Meeting Request

Dan,
Thank you for that clarification on ODOT coordination.

Prescott,
I will use this email as a record of ODOT/Tigard coordination in the subject Red Rock Creek Trail Implementation Plan and reference it in the RFFA application. Thank you for your responsiveness and look forward to working with you over the summer as the bridge project takes shape.
Regards,
Gary

From: Daniel Kaempff <Daniel.Kaempff@oregonmetro.gov>
Sent: Monday, June 17, 2019 3:03 PM
To: Gary Pagenstecher <Garyp@tigard-or.gov>; MANN Prescott E <Prescott.E.MANN@odot.state.or.us>
Subject: RE: Fields Ped Bridge Onsite Diagnostic Meeting Request

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Hi Gary,

Thanks for checking in on this question. In applications for project funding where rail facilities would be crossed or adjoined, we're asking for an indication from all relevant parties that they are aware of the project and agree to coordinate in development of it. In this particular instance, since Tigard is requesting project development funds, a signature from ODOT rail simply indicates that there has been contact from the city and that both sides are willing to work together to design a project acceptable to all.

It appears that this email chain indicates such cooperation exists, so in the signature line of the application you can put "see attached email" or similar language to reference this.

Regards,
Dan

Dan Kaempff -- Principal Transportation Planner (he/him/his)
Resource Development Section
Planning and Development Department

Office: 503.813.7559 | Mobile: 503.702.4691 | daniel.kaempff@oregonmetro.gov
Metro | 600 NE Grand Avenue | Portland Oregon USA 97232

From: Gary Pagenstecher [<mailto:Garyp@tigard-or.gov>]
Sent: Monday, June 17, 2019 14:33
To: MANN Prescott E

Cc: Daniel Kaempff

Subject: RE: Fields Ped Bridge Onsite Diagnostic Meeting Request

Thank you, Prescott. I will inquire from Metro staff reviewing the applications, which format is preferred.

Dan,
The proposed Red Rock Creek Trail Implementation Plan RFFA project development grant application (approved by WCCC this afternoon for MSTIP Opportunity Fund matching funds) includes a trail section over the Pacific and Western Rail Road yard southeast of Hall Blvd.

The RFFA application requires a signature by ODOT Rail, if applicable. I want to account for the coordination efforts already undertaken by the city with ODOT Rail in support of the grade-separated MUP crossing. What would be the best representation of this effort- signature, letter of acknowledgement of the project, the following email, or other?

Thanks,
Gary

From: MANN Prescott E <Prescott.E.MANN@odot.state.or.us>
Sent: Monday, June 17, 2019 2:03 PM
To: Gary Pagenstecher <Garyp@tigard-or.gov>
Cc: SHANKLE Richard A <Richard.A.SHANKLE@odot.state.or.us>
Subject: RE: Fields Ped Bridge Onsite Diagnostic Meeting Request

Hi Gary, yes I remember our diagnostic meeting last year and we (ODOT Rail and Public Transit) are aware of the project. As we discussed at the time, a Crossing Application will be required once funding is received and the project seems imminent.

Does this email provide the support you need for the application or do you need separate letter or signature on page 9.

Thanks Gary, I will provide whatever you need.

Thanks

Prescott

Prescott Mann

Rail Compliance Specialist

Rail Crossing Safety Section

555 13th St NE Ste 3

Salem OR 97301-4179

Ph: 503-986-4322

Fax: 503-986-3183

From: Gary Pagenstecher <Garyp@tigard-or.gov>
Sent: Monday, June 17, 2019 11:43 AM
To: MANN Prescott E <Prescott.E.MANN@odot.state.or.us>
Cc: Scott Nettleton <Scott.Nettleton@otak.com>
Subject: RE: Fields Ped Bridge Onsite Diagnostic Meeting Request

Prescott,

The city is beginning a design development process to 30 percent design for the proposed Fields ped/bike RR bridge we discussed last year. A diagnostic meeting was held at the city July 18, 2018 at which you were present. Please see the attached aerial, schematic, and visualization that represent the location and preliminary concept for the crossing. I will be sending out an invitation for a stakeholders meeting soon in connection with this process.

The city is also applying for Regional Flexible Funds Allocation (RFFA) funding for the Red Rock Creek Trail Implementation Plan, of which the RR Bridge is a part.

The RFFA grant requires that ODOT Rail sign the application or provide a letter stating their awareness of the project that may affect the railroad. The grant submittal deadline is this Thursday. A DRAFT and incomplete copy of the application is attached for your review. Page 9 is the signature page which asks for affected agencies to sign, where applicable. Since the project is just beginning design development, I think a statement from ODOT Rail would just indicate that the Agency is aware of the project and coordination has begun. Please let me know if you have any questions.

Thank you,
Gary

From: Gary Pagenstecher

Sent: Tuesday, January 22, 2019 4:15 PM

To: SHANKLE Richard A <Richard.A.SHANKLE@odot.state.or.us>; MANN Prescott E <Prescott.E.MANN@odot.state.or.us>

Subject: RE: Fields Ped Bridge Onsite Diagnostic Meeting Request

Richard,

Yes, now I remember Prescott had been assigned. Thank you for the information on the form and process. I'll will coordinate with Prescott as we move ahead with the project.

Regards,
Gary

Gary Pagenstecher, AICP CUD

Project Planner
Community Development
City of Tigard
13125 SW Hall Blvd.
Tigard, OR 97223

Phone: 503-718-2434
Email: garyp@tigard-or.gov

From: SHANKLE Richard A <Richard.A.SHANKLE@odot.state.or.us>
Sent: Tuesday, January 22, 2019 4:04 PM
To: Gary Pagenstecher <Garyp@tigard-or.gov>; MANN Prescott E <Prescott.E.MANN@odot.state.or.us>
Subject: RE: Fields Ped Bridge Onsite Diagnostic Meeting Request

Prescott Mann is my staff member that has been assigned to work with the city on this project.

The crossing application does not have a specific line item to check for grade-separated ped crossings. Please check the box for line item #8, as this is closest that is applicable. The formal (signed) application must include engineered drawings per Oregon Administrative Rules (OAR) 741-200-0050. This OAR describes what the drawings must include. We typically begin working with the applicant on a draft application, which should include at a minimum 60% engineered plans (drawings). Prescott will work with the city to ensure that all required items are in the application before the final is signed and submitted. The official (signed) application must include at a minimum 90% engineered plans.

The attached document explains the crossing Order process, and provides a potential time line. Please understand that the timelines noted in the document are if all parties are in agreement early in the process. The longer it takes to get to an agreed of the design, the longer the process may take.

Rick Shankle
Manager, Crossing Safety Unit
ODOT, Rail & Public Transit Division
503-986-4273



Safety should never be an afterthought!

From: Gary Pagenstecher <Garyp@tigard-or.gov>
Sent: Tuesday, January 22, 2019 8:47 AM
To: SHANKLE Richard A <Richard.A.SHANKLE@odot.state.or.us>
Subject: RE: Fields Ped Bridge Onsite Diagnostic Meeting Request

Good Morning Richard,
I'm making progress on the Fields Peg Bridge project. The Rail Order Xing application that I've found on your website [Railroad-Highway Public Crossing Safety Application](#) doesn't seem to include a grade-separated ped option. Also, that

application does seem to require engineering drawings at the time of application. If that is the case, the design would need to be completed prior to application. If the rail order must be reviewed sequentially, then the review timeline for the rail order will be critical.

Could you please send a link to the applicable application for the project we discussed last July, a grade-separated ped/bike overcrossing at aprox MP 33 in Tigard?

Also, what is ODOT's review process and schedule for RR Xing Orders that I can use to develop a critical path schedule for the project?

Thank you,
Gary

From: SHANKLE Richard A <Richard.A.SHANKLE@odot.state.or.us>

Sent: Tuesday, July 10, 2018 7:28 AM

To: Gary Pagenstecher <Garyp@tigard-or.gov>

Cc: SMITH David R <David.R.SMITH@odot.state.or.us>; Donald Seil (donald.seil@gwrr.com) <donald.seil@gwrr.com>; Batty, Sean (BattyS@trimet.org) <BattyS@trimet.org>; GOODMAN Cary <Cary.GOODMAN@odot.state.or.us>

Subject: RE: Fields Ped Bridge Onsite Diagnostic Meeting Request

Gary,

I can only estimate from the schematic that the proposed over-crossing is near railroad MP 33, on the Portland & Western Railroad (PNWR) Oregon Electric (OE) line. This area is also identified as the PNWR Tigard yard. The PNWR would be able to provide a more accurate MP.

The crossing application is not required prior to the parties meeting to discuss the project. I would suggest a meeting with the appropriate parties (City of Tigard, PNWR, TriMet, ODOT Rail) prior to filling out the crossing application. Based on the discussions in the meeting, the parties may also want to hold a diagnostic prior to the submission of the application.

The initial parties to the process are identified below, and copied on this e-mail. These initial parties may end up passing the project onto someone else within their organizations.

- Cary Goodman, ODOT Rail – ODOT Rail owns some of the ROW in this area, and Cary manages this ROW.
- David Smith, ODOT Rail – Lead staff member for all crossing projects.
- Donald Seil, PNWR – Public project manager for the railroad
- Sean Batty, TriMet – Director of projects

Rick Shankle
Manager, Crossing Safety Unit
ODOT, Rail & Public Transit Division
503-986-4273

From: Gary Pagenstecher <Garyp@tigard-or.gov>
Sent: Monday, July 9, 2018 7:04 PM
To: SHANKLE Richard A <Richard.A.SHANKLE@odot.state.or.us>
Subject: Fields Ped Bridge Onsite Diagnostic Meeting Request

Richard,

Thank you for explaining the application review process for the proposed pedestrian bridge over the RR Yard between SW Hall Blvd and SW Bonita Road.

I have attached a schematic showing the bridge site location and elevations relative to the site we discussed. It would be helpful if you can tell me the RR line mile marker or RR location identifier for future reference.

I will review the application for an ODOT Rail Order and the BNSR/UPRR design guidelines for pedestrian bridges.

I hope to have an onsite diagnostic meeting scheduled as soon as possible. I assume an application will be needed first.

Please advise.

Thank you,

Gary

Gary Pagenstecher, AICP CUD
Project Planner
Community Development
City of Tigard
13125 SW Hall Blvd.
Tigard, OR 97223

Phone: 503-718-2434

Email: garyp@tigard-or.gov

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Clifford Higgins

From: Steve Hursh <Steve.Hursh@pgn.com>
Sent: Wednesday, May 29, 2019 10:36 AM
To: Gary Pagenstecher
Subject: RE: Fields ped bike RR Bridge
Attachments: 20190529100545000.pdf

Follow Up Flag: Flag for follow up
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Good morning Gary:

You should be able to determine the bridge type with the following information:

1. The proposed bridge will be located near our transmission pole number 7223; the exact location hasn't been determined. The lowest point in the span is about 42.4 feet above the existing grade (ground). The clearance will increase as the bridge is moved closer to the pole; the clearance at the pole is 50 ft.
2. PGE's standard for the minimum vertical clearance for a 115 kV transmission line over bridges is 16.5 ft.

Please let me know if you have any questions or need additional information.

Thanks



Steve Hursh | Manager, Design & Project Management
Portland General Electric
2213 SW 153rd Drive | Beaverton | OR | 97003
503-672-5409 | steve.hursh@pgn.com

From: Gary Pagenstecher <Garyp@tigard-or.gov>
Sent: Tuesday, April 09, 2019 4:30 PM
To: Steve Hursh <Steve.Hursh@pgn.com>
Subject: RE: Fields ped bike RR Bridge

*****Please take care when opening links, attachments or responding to this email as it originated outside of PGE.*****

Thanks, Steve.

The clearances guidelines seem to explicitly exempt application to bridges (installations). Are bridges addressed in another document or am I just not seeing it. Also, I believe you had noted the pole height and probably the lowest wire attachment height at the pole. This may be relevant because the bridge will be closer to the pole than the sag line.

Gary

From: Steve Hursh <Steve.Hursh@pgn.com>
Sent: Tuesday, April 9, 2019 4:17 PM
To: Gary Pagenstecher <Garyp@tigard-or.gov>
Subject: RE: Fields ped bike RR Bridge

Good afternoon Gary:

Hopefully, the following is the information you need to determine the bridge type.

1. According to the attached profile, the existing transmission line is about 43.8 feet above the existing grade (ground). A survey would need to be completed to determine the actual height of the transmission line.
2. Attached is our information on clearances.

Please let me know if you have any questions or need additional information.

Thanks



Steve Hursh | Manager, Design & Project Management
Portland General Electric
2213 SW 153rd Drive | Beaverton | OR | 97003
503-672-5409 | steve.hursh@pgn.com

From: Gary Pagenstecher <Garyp@tigard-or.gov>
Sent: Tuesday, March 26, 2019 6:55 AM
To: Steve Hursh <Steve.Hursh@pgn.com>
Cc: Chris Jewett <Chris.Jewett@pgn.com>
Subject: RE: Fields ped bike RR Bridge

*****Please take care when opening links, attachments or responding to this email as it originated outside of PGE.*****

Good morning, Steve.

Based on our site visit on February 28, and our phone conversation this morning, I appreciate your efforts to identify PGE's design and logistical issues associated with a bridge at this location. This information will help determine the bridge type and construction mobilization, and easement-related issues. This information is necessary to accurately design and cost the project.

If you have time constraints in providing this information, please let me know.

If there is a better way of communicating with you or other sources of information within PGE, please let me know.

Thank you,
Gary

Gary Pagenstecher, AICP CUD
Project Planner
Community Development

City of Tigard
13125 SW Hall Blvd.
Tigard, OR 97223

Phone: 503-718-2434
Email: garyp@tigard-or.gov
Cell: 503-956-9430

From: Gary Pagenstecher
Sent: Monday, March 18, 2019 7:39 AM
To: 'steve.hursh@pgn.com' <steve.hursh@pgn.com>
Subject: RE: Fields ped bike RR Bridge

Good morning Steve,
Would you please contact me with your findings or a timeline when you expect to have them available?
Thanks,
Gary

From: Gary Pagenstecher
Sent: Thursday, March 7, 2019 7:34 AM
To: 'steve.hursh@pgn.com' <steve.hursh@pgn.com>
Subject: RE: Fields ped bike RR Bridge

Good morning, Steve.
Could you please send your preliminary findings this morning.
Thank you,
Gary

From: Gary Pagenstecher
Sent: Wednesday, March 6, 2019 9:00 AM
To: 'steve.hursh@pgn.com' <steve.hursh@pgn.com>
Subject: RE: Fields ped bike RR Bridge

Steve,
It appears that PGE poles may be within the RR right of way.
If you know which other utilities are on the pole, could you provide that information to me, as well?
Thanks,
Gary

From: Gary Pagenstecher
Sent: Tuesday, March 5, 2019 12:00 PM
To: 'steve.hursh@pgn.com' <steve.hursh@pgn.com>
Subject: RE: Fields ped bike RR Bridge

Steve,

I'm preparing for a meeting on Friday where I would like to fairly represent PGE's design concerns as discussed in the field last week.

Could you point to PGE's clearance standards for the transmission line, pole and easement that would apply in this case and your best assessment, given what you know of the project today, of the permanent impacts for the structure and the temporary construction impacts and mitigations that would be required.

Thank you,

Gary

From: Gary Pagenstecher

Sent: Thursday, February 28, 2019 7:35 PM

To: 'steve.hursh@pgn.com' <steve.hursh@pgn.com>

Subject: Fields ped bike RR Bridge

Steve,

Thanks for meeting with me on site today. Please find attached an aerial and schematic of the site, which identifies the pole we were looking at.

I appreciate your efforts to identify PGE's design and logistical issues associated with a bridge at this location. This information will help determine the bridge type and construction mobilization, and easement-related issues.

Look forward to hearing from you next week with what you have found by then.

Thank you,

Gary

Gary Pagenstecher, AICP CUD

Project Planner

Community Development

City of Tigard

13125 SW Hall Blvd.

Tigard, OR 97223

Phone: 503-718-2434

Email: garyp@tigard-or.gov

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