KITTELSON & ASSOCIATES
851 SW 6th Avenue, Suite 600
Portland, OR 97204
P 503.228.5230

Technical Memorandum

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To: Grace Cho and Monica Krueger, PE, Metro
600 NE Grand Avenue
Portland, OR 97232

From: Russ Doubleday, AICP, Sam Godon, Max Heller, Camilla Dartnell, PE, and Hermanus Steyn, PrEng, PE

RE: 2028-30 Regional Flexible Funds Allocation Risk Assessment

Summary tables of the risk assessment scoring by project can be found on page 6 (for projects seeking project development funding only) and on page 7 (for project seeking funding through construction). Individual project risk summaries can be found starting on page 8 and are listed in order by project type (project development and construction) and in alphabetical order by jurisdiction name.

Overview

Metro's Regional Flexible Funds Allocation (RFFA) process allows local agencies to apply for federal funding, distributed through the Metro region, for local projects. Metro is evaluating the 2028-2030 RFFA project applications based on how meaningfully they can help the region achieve the five Regional Transportation Plan goals of advancing mobility options, building a safe transportation system, building an equitable transportation network, supporting a thriving economy, and investing in climate action and resilience.

Kittelson & Associates, Inc. (Kittelson) worked with Metro and the local agencies to identify and mitigate project delivery risks through the RFFA application process. Kittelson developed and applied a methodology for evaluating risks for each project application, considering the likelihood of a project being completed on budget and as outlined through the project's scope. After applying the methodology to each application, Kittelson then compiled a list of clarifying questions for each agency to better inform the risk assessment scoring for their application(s). Each agency was able to update their applications or provide clarification to inform the risk assessment. This memorandum summarizes the risk assessment methodology and provides a risk level and summary for each RFFA project application.

Methodology

The following section outlines the risk assessment factors and scoring that Kittelson used to examine each RFFA project application. A complete list of the Project Management and Inherent Risk factors is included in Appendix A.

This section also addresses how the influence of the project development stage the applicant is requesting funding for impacts the project's risks scores. This methodology was based on a review of risk evaluation best practices, the lessons and experiences of the project team from conducting a similar analysis for the 2025-2027 RFFA cycle, updated to reflect changes over the last few years, and applied to the pool of applications received for the 2028-2030 RFFA cycle.

In addition to this risk assessment information, future information regarding a cultural resources review is expected to be made available through Metro. That information should augment this in understanding full complexities and risks that projects may be required to navigate.

Major Risk Considerations

In considering potential risks, the project team divided project risks into two groups.

- The first group, Project Management Risks, are risks that can be accounted for through project budget, with sufficient outreach and coordination, with an adequate project scope, and/or with an appropriate timeline for project completion. For example, for projects that will require Oregon Department of Transportation (ODOT) delivery, the project budget should account for ODOT project delivery fees within the project's cost estimate. If the budget does not anticipate these fees, the project risk level is increased. In short, this risk category captures risks related to project scope, collaboration, and budget development.
- The second group, Inherent Risks, are risks due to project's location, magnitude, and anticipated impact to its surroundings. A project that requires significant utility relocation is inherently riskier than one that requires no utility relocation simply because utility relocation necessitates coordination with utility companies, adds to project complexity, and creates a greater likelihood of something unexpected happening that may impact project delivery. In short, this risk category captures how project location, magnitude, and impact influence a projects risk even when available risk management measures are taken.

These risk categories and their related assessments are explained in more detail in the following sections.

Project Management Risks

The project team evaluated multiple risk assessment factors within the Project Management Risk category. These risks are focused on project scope, budget, and collaboration and are defined below.

Project Scope

The Project Scope assessment measures project understanding and whether the project needs have been considered comprehensively. The further along in scoping or development a project is, the more details have been determined and the lower the likelihood of an unknown risk developing. These assessment factors are based on the current project stage in relation to the stages of project development remaining for completion and the requested funding. To reduce risk, projects requesting funding for construction are expected to have a greater level of previous project development and project understanding than projects only requesting funding for project development. To help inform the scope risk, the Kittelson team considered the following assessment factors:

- Is the scope comprehensive? If relevant, does the scope adequately anticipate tasks like environmental requirements, stormwater treatment, utility relocations, lighting, and other details?
- What is the status of planning and scoping documents?
- What is the status of the preliminary engineering and design phase?
- Is the project's design consistent with Metro's *Designing Livable Streets and Trails Guide*?

Project Budget

The Project Budget assessment examines the project budget for completeness and appropriate cost projections. It is the responsibility of the applicant agency to cover the excess costs for projects which run

over budget. As such, an inadequate project budget can put at risk the ability to deliver the full scope of a project or to deliver a project at all. It is therefore crucial that initial cost estimates are as accurate as possible to increase the likelihood of successful and complete project delivery. Kittelson considered the inclusion and adequacy of the following budget assessment factors, as relevant based on project phases requested for funding, to determine budget-related risks:

- Have escalation costs been included adequately?
- Is there adequate budget contingency?
- Is community engagement appropriately budgeted?
- Does the budget include adequate project management delivery costs, including ODOT project administration and/or coordination costs?
- Are permitting costs included adequately?
- Are mobilization and traffic control during construction costs included in construction estimates?
- Are construction easement or other right-of-way acquisitions costs included in construction estimates?
- Do the project costs align with industry trends?
- Has the jurisdiction secured local funding match for the project?

Recent trends related to inflation and escalation have significantly affected project delivery across the country, including in the Portland Metro region. In evaluating whether escalation costs were adequately included, the project team compared escalation indices included in each cost estimate to ODOT's current estimated escalation index. Inflation indices similar to or higher than ODOT's inflation index were considered "low risk," inflation indices lower than ODOT's inflation index were consider "medium risk," and projects with no inflation applied were considered "high risk" for that factor. This assessment was intended to identify relative project risk with regards to escalation, however, the project team acknowledges that future inflation and escalation may differ than the amounts anticipated in the index.

Project Coordination

The Project Coordination assessment investigates the degree to which the applicant has identified and communicated with the primary external project parties. Minimally, primary external project parties should consist of the agencies and jurisdictions who own the facilities and any adjacent or intersecting facilities (including but not limited to transit and water resources agencies, railroads, utility providers, parks departments, etc.). The purpose of this evaluation is to mitigate the potential issues that arise when external coordination efforts are not incorporated early in the project development and scoping process. For example, if an applicant has identified that their project will include construction through a railroad crossing, the applicant should have initiated communications and documented approval from the railroad facility owner to mitigate potential risk (and receive a low score). Kittelson considered the following assessment factors related to project coordination:

- Will an outside agency be delivering the project and has the applicant made contact with that agency?
- Are there other jurisdictions or major partners involved and has the applicant coordinated with these partners?
- Does the project impact an existing railroad and has the applicant addressed this appropriately (made contact, completed permits, etc.)?

Inherent Risks

Inherent Risks are risks related to project's location, magnitude, and anticipated impact to its surroundings. While Project Management Risks (prior section) are also affected by these same factors, Project Management Risks can be mitigated and budgeted for. Inherent Risks are measured based on whether

and to what extent they exist within each project; a more complex project in terms of its complex surroundings and magnitude will have a higher Inherent Risk score compared with a simpler project, regardless of the risk management measures taken.

Project Complexity

The Project Complexity assessment aims to identify potential implementation challenges that could impact the project and are beyond the control of the applicant agency. These challenges included physical impact complexities like needing to acquire right-of-way or working in environmentally sensitive areas, as well as outside coordination related complexities, such as needing to coordinate with a railroad or working with a large number of stakeholders. In some cases, the same criteria may seem to be considered in both the Project Management and Inherent Risks evaluations, but the criteria is judged differently. For instance, if a project is expected to impact a railroad, the extent to which the applicant has already made contact or involved the railroad is considered within the Project Management assessment, and the extent of the impact to the railroad is included in the Project Complexity assessment.

Kittelson considered the following assessment factors within the Project Complexity category:

Physical Impact Complexities

- How many right-of-way acquisitions will be needed and what level of controversy is anticipated for these parcels?
- To what extent will the project create environmental impacts and what is the anticipated level of environmental permitting needed?
- Will major utilities need to be relocated?
- Are there major or complex water quality or water quantity treatment needs?

Outside Coordination Complexities

- Will an outside agency be delivering the project?
- How many other jurisdictions or major partners will need to be involved?
- Are there other coordination needs (i.e., transit agencies) that will be required?
- Is the project anticipated to impact a railroad or require railroad support or approval?
- Is there local community support?
- Is there governing body support?
- Are there other important complexities or impacts that have not previously been covered?

Project Development Stage Considerations

In reviewing the RFFA Step 2 project applications, Kittelson distinguished between projects at different project development stages. Some projects seek funding for project development (planning, preliminary engineering, or design) activities, while others seek funding mainly for construction activities, and some projects seek funding for a combination of these stages. It is important to acknowledge the differing amounts of inherent risk associated with each of these project development stages. To address this, Table 2 and Table 3, which outline the identified project risks, are summarized separately for projects requesting funding for project development only activities and those requesting funding through construction to better compare projects requesting funding for similar phases.

Additionally, screening criteria might not apply to all project development stages; mobilization costs and right-of-way acquisitions, for example, apply to construction projects but not to planning or preliminary engineering projects. Each risk assessment factor was assigned to a project development stage and was only assessed if the applicant was seeking Regional Flexible Funds for that stage. As a result, all of the assessment factors within the Project Management Risk category and the Inherent Risk category apply to projects that are going through construction, while only a subset of these assessment factors apply to

applicants seeking funding up to preliminary engineering or planning. Screening criteria which were not applicable to a given project were not counted against that project.

Project Scoring

Every pertinent risk assessment factor was judged on a low-, medium-, and high-risk scale based on a standard definition of what constituted each level of risk for each assessment factor. The team also assigned different scoring weights to each assessment factor based on the likely severity of the risk.

Table 1 below shows sample risk categories, their relative risk severity weightings, and the scores associated with each level of risk. Appendix A provides all assessment factors and weights.

Table 1. Sample Risk Categories and Associated Scoring

Assessment Factor	Weight	Low Risk Definition	Low Risk Point Allocation	Medium Risk Definition	Medium Risk Point Allocation	High Risk Definition	High Risk Point Allocation
Project Management Risks							
Consistency with Designing Livable Streets and Trails Guide	Low	Consistent	0	Approaching Consistency	2	Inconsistent	4
Quality of Project Scope	Medium	High	0	Developing	4	Low	8
Railroad Impact and Mitigations	Low	None or yes, and has been mitigated	0	Yes, and mitigations in process 2	2	Yes, and minimal documented mitigations	4
Inherent Risks							
Complexity of Right-of-Way Acquisitions	High	Complete, unnecessary, or fewer than 10 *TCEs	0	More than 10 *TCEs; 5 or fewer permanent acquisitions, no anticipated building acquisitions or impacts	8	More than 5 permanent acquisitions or any anticipated building acquisitions	16
Railroad Impact	Medium	None	0	Minor impact	4	Major impact	8

*TCEs: Temporary Construction Easements

Based on the results of the evaluation, each RFFA project application received a Project Management Risk score and an Inherent Risk score, as well as a combined total score. As shown in the table above, lower scores represent lower overall risk.

Overview of Project Risks

Kittelson evaluated each Regional Flexible Fund Step 2 project application based on the identified assessment factors. For consistency, each project was assigned a score for each assessment factor, and the sum of these scores was used to determine overall risk level.

Project applications received a risk level ranging from "low" to "medium-high". No projects were identified as having a risk level of "high" because the amount of risk posed by each project was found to be lower than in previous RFFA cycles. This is likely due to federal aid process project delivery educational efforts and support provided by Metro. For this RFFA cycle, Metro provided agencies with consulting support for preparation or review of applications and the ability for applicants to revise their applications to address identified project delivery risks.

Risk Summary for All Projects by Project Type

This section provides a summary of the risk ratings for each project application depending on the project stage for which the applicant agency is seeking funding. Included with the overall rating are the scores by risk type (i.e. Project Management, Inherent) as well as the combined total. Table 2 provides the risk summary for projects seeking funding for project development activities only. Table 3 provides the risk summary for projects seeking funding through construction.

Projects requesting funding for only project development received relatively low risk scores, partially due to the smaller number of complexities that can impact a project development project, while projects requesting funding through construction received risks that varied from "low" to "medium-high".

Table 2. Project Development (Planning through Preliminary Engineering) Risk Overview

Project	Applicant	Requested Amount	Project Management Risks	Inherent Risk	Total Risk	Risk Level
Lakeview Blvd - Jean Rd to McEwan Rd	Lake Oswego*	$983,000	14	8	22	Low-Medium
Railroad Ave Multiuse Path: 37th Ave to Linwood Ave	Milwaukie*	$2,707,217	4	8	12	Low
NE 223rd Ave: NE Glisan St to NE Marine Dr Safety Corridor Planning	Multnomah County	$897,300	10	4	14	Low
OR 99E (McLoughlin Blvd) 10th St. to Tumwata Village: Shared-Use Path and Streetscape Enhancements Project Development	Oregon City*	$3,832,341	6	8	14	Low
SW 175th Design: SW Condor Ln to SW Kemmer Rd	Washington County	$2,593,196	4	22	26	Low-Medium

* This applicant received support from Kittelson in the preparation of their RFFA application.

Table 3. Construction Projects

Project	Applicant	Requested Amount	Project Management Risks	Inherent Risk	Total Risk	Risk Level
Beaverton Downtown Loop: SW Hall Blvd – 3rd St to 5th St	Beaverton*	$4,649,687	4	8	12	Low
Clackamas Industrial Area Improvements: SE Jennifer St Multi-use Path	Clackamas County	$7,228,290	10	34	44	Medium-High
Gladstone Historic Trolley Trail Bridge Construction	Gladstone*	$8,721,932	16	36	52	Medium-High
NE Halsey St Complete Street: 192nd Ave - 201st Ave	Gresham*	$9,420,793	8	20	28	Low-Medium
NW Division St Complete Street: Gresham-Fairview Trail – Birdsdale Ave	Gresham	$4,067,496	6	12	18	Low-Medium
OR 212/224 Sunrise Hwy Phase 2: Bike/Pedestrian Facilities and Interchange Improvements	Happy Valley*	$12,026,118	10	28	38	Medium
Smart SW 185th Ave ITS and Better Bus Project	Hillsboro	$4,572,738	2	12	14	Low
Westside Trail Segment 1 - King City	King City*	$7,841,343	8	24	32	Medium
NE Glisan St: 82nd Avenue Multimodal Safety and Access	PBOT	$7,577,698	6	12	18	Low-Medium
NE MLK Jr Blvd Safety and Access to Transit	PBOT	$4,879,517	8	2	10	Low
NE Prescott St: 82nd Ave Multimodal Safety and Access	PBOT	$7,732,932	4	14	18	Low-Medium
Outer Halsey and Outer Foster (ITS Signal Improvements)	PBOT	$4,416,999	6	4	10	Low
W Burnside Green Loop Crossing	PBOT	$3,938,250	4	2	6	Low
Red Electric Trail East of SW Shattuck Rd	Portland Parks & Recreation	$7,677,446	16	10	26	Low-Medium
Cedar Creek/Ice Age Tonquin Trail: Roy Rogers - OR 99W	Sherwood*	$8,860,030	14	26	40	Medium
Bridge Crossing of Hwy. 26 by the Westside Trail	THPRD*	$6,000,000	6	38	44	Medium-High
North Dakota St (Fanno Creek) Bridge Replacement	Tigard*	$8,000,000	8	44	52	Medium-High
Beaverton Creek Trail: Merlo Road Improvements	Washington County	$6,640,700	16	24	40	Medium
Cedar Mill Better Bus and Access to Transit Enhancements	Washington County	$5,252,300	2	20	22	Low-Medium

* This applicant received support from Kittelson in the preparation of their RFFA application.

Risk Summary for Individual Projects by Project Type

The following tables provide additional information regarding the risk assessment for each project application. The Applicant, Amount Requested, Project Phase(s), and Project Overview sections provide context for understanding the nature of the Regional Flexible Fund Step 2 application. The Risk Scoring section includes both the qualitative risk level and the numerical result of the risk scoring process. The Risk Overview section identifies the riskiest components of each project that contributed the most to the project's Inherent Risk or Project Management Risk score.

Note: Tables are arranged alphabetically by applicant within each category.

Development Projects (Planning through Preliminary Engineering)

Project name:	**Lakeview Boulevard - Jean Road to McEwan Road**
Applicant:	Lake Oswego
Amount requested:	$983,000
Project phase(s):	Planning & preliminary engineering
Project overview:	Requested funds to design 3,500 feet long widening of Lakeview Blvd for two 14-foot shared use lanes with an 8-foot sidewalk on one side separated by stormwater planter and curb.
Risk scoring	**Low-Medium** (22)
Risk overview	The project will require outside delivery. There is potential for complexities or neighborhood concerns related to design of roadway corridor widening in an area with mature trees. As currently envisioned, the project does not meet bicycle design requirements identified in Metro's Designing Livable Streets and Trails Guide. Additionally, contingency and ODOT delivery fees may be insufficiently budgeted.

Project name:	Railroad Avenue Multiuse Path: 37th Avenue to Linwood Avenue
Applicant:	Milwaukie
Amount requested:	$2,707,217
Project phase(s):	Preliminary engineering
Project overview:	Develop buffered bike/pedestrian multiuse path adjacent to Railroad Ave from 37th Ave to Linwood Ave in Milwaukie. Multiuse path will connect existing sidewalks at 37th Ave, Linwood/Harmony Ave, and intersecting side streets.
Risk scoring	**Low** (12)
Risk overview	This project will require outside delivery. Additionally, it is in the vicinity of a railroad, but it is scoped to avoid the need for major railroad approval.

Project name:	NE 223rd Avenue: NE Glisan Street to NE Marine Drive Safety Corridor Planning
Applicant:	Multnomah County
Amount requested:	$897,300
Project phase(s):	Planning & preliminary engineering
Project overview:	On NE 223rd Ave in Fairview and Wood Village, develop a corridor safety plan that inclusively engages the community in identifying priorities and evaluating design alternatives. Advance readiness for priority construction projects to fill complete street gaps and install safety countermeasures.
Risk scoring	**Low** (14)
Risk overview	The project will require coordination with several agencies including Fairview, Wood Village, and ODOT. There are several project budget items that may be low, including contingency and escalation.

Project name:	OR 99E (McLoughlin Boulevard) 10th Street to Tumwata village: Shared-Use Path and Streetscape Enhancements Project Development
Applicant:	Oregon City
Amount requested:	$3,832,341
Project phase(s):	Preliminary engineering
Project overview:	Complete a Type, Size, and Location (TS&L) analysis for the construction of an externally supported shared-use path and complete design for streetscape reconfiguration on McLoughlin Blvd, which will include widened sidewalks, curb extensions, improved crossings, and new green spaces.
Risk scoring	**Low** (14)
Risk overview	Project will require outside delivery, require coordination with other transit agencies, utilities like Water Environmental Services (WES), and require coordination with ODOT, including the ODOT Mobility Advisory Committee. Finally, there are some inherent complexities with proximity to the Willamette River.

Project name:	SW 175th Design: SW Condor Lane to SW Kemmer Road
Applicant:	Washington County
Amount requested:	$2,593,196
Project phase(s):	Preliminary engineering
Project overview:	Project development for SW 175th Ave will include data collection, environmental studies, preliminary engineering, and right-of-way (ROW) identification to realign the roadway between SW Cooper Mountain Ln and SW Siler Ridge Ln.
Risk scoring	**Low-Medium** (26)
Risk overview	The project will require coordination with the City of Beaverton and will identify right-of-way needs including a potential building acquisition (but will not acquire right-of-way in this stage of project development). Additionally, there are minor budget considerations, including a slightly low project contingency budget.

Projects through Construction

Project name:	Beaverton Downtown Loop: SW Hall Boulevard – 3rd Street to 5th Street
Applicant:	Beaverton
Amount requested:	$4,649,687
Project phase(s):	Preliminary engineering, right-of-way, & construction
Project overview:	Design and construct a complete street on SW Hall Blvd between 3rd St and 5th St with raised cycle track, shared bike/pedestrian or island-style bus stop, new marked crosswalks and curb ramps, upgraded signals and street lighting, new inlets and vegetated stormwater management facilities, and pavement grind and inlay.
Risk scoring	**Low** (12)
Risk overview	Minor risk considerations for this project include the amount of existing project development and the coordination with TriMet and Clean Water Services (CWS). The project will require outside delivery.

Project name:	Clackamas Industrial Area Improvements: SE Jennifer Street MUP
Applicant:	Clackamas County
Amount requested:	$7,228,290
Project phase(s):	Preliminary engineering, right-of-way, & construction
Project overview:	Design and construct new multimodal infrastructure to fill in gaps including new sidewalk segments, American with Disability Act (ADA) ramps, and multi-use path to improve access to jobs, destinations, and transitional housing communities in the Clackamas Industrial Area, including Veterans Village and Clackamas Village. Network gaps will be filled along the northern side of SE Jennifer St, from SE 106th Ave to SE 122nd Ave, a small gap along the western edge of SE 122nd Ave, and a small gap on the southern side of SE Jennifer St just west of 120th Ave.
Risk scoring	**Medium-High** (44)
Risk overview	The project will require coordination with the City of Happy Valley and with Clackamas Valley Railway. As currently envisioned, the project does not meet bicycle design requirements identified in Metro's Designing Livable Streets and Trails Guide. Right-of-way needs consist of several permanent easements and property acquisitions. In addition, overhead utilities are present along the corridor and may require relocation. Finally, there is inherent risk around the construction through and near an active railroad facility.

Project name:	Gladstone Historic Trolley Trail Bridge Construction
Applicant:	Gladstone
Amount requested:	$8,721,932
Project phase(s):	Preliminary engineering, right-of-way, & construction
Project overview:	This project rebuilds the historic Trolley Trail Bridge to span the Clackamas River, connecting Gladstone to the north with Oregon City to the south.
Risk scoring	**Medium-High** (52)
Risk overview	The project will require outside delivery and coordination with Oregon City, Water Environmental Services (WES), Clackamas County, Portland General Electric (PGE), as well as several permitting authorities. As it currently stands, the project is not fully funded although additional funding sources are being pursued. Right-of-way needs include permanent easements for the river crossing (from the Oregon Division of State Lands) and for the southern landing of the bridge. The project will have multiple utility impacts including PGE lines and vaults, natural gas lines, and fire hydrant and water meter relocations. The project will also likely be subject to fish passage regulations and face other complexities related to construction across the Clackamas River. There has been some project development to date, and additional Preliminary Engineering will be completed through a separate, previously funded project which may help mitigate these risks. Because that project is just getting underway, it can't yet provide insights into necessary mitigation actions at this point.

Project name:	NE Halsey Street Complete Street: 192nd Avenue - 201st Avenue
Applicant:	Gresham
Amount requested:	$9,420,793
Project phase(s):	Preliminary engineering, right-of-way, & construction
Project overview:	Construct new sidewalks and a cycle track on both sides of the street to improve safety for pedestrians and bicyclists. Add center turn lane to create a 3-lane configuration and construct an enhanced mid-block crossing.
Risk scoring	**Low-Medium** (28)
Risk overview	This project will require project development, including outreach, which may impact the scope of the project as outreach to the immediate community has been limited to date. The project will require some utility relocation for likely sub-transmission electrical lines, which should be relocated at the utility's expense. An increase in the impervious surface will require stormwater quality and quantity mitigation, and coordination with Fairview will be necessary.

Project name:	NW Division Street Complete Street: Gresham-Fairview Trail - Birdsdale Avenue
Applicant:	Gresham
Amount requested:	$4,067,496
Project phase(s):	Preliminary engineering & construction
Project overview:	Construct a sidewalk and a cycle track on both sides of the street to improve safety for pedestrians and bicyclists.
Risk scoring	**Low-Medium** (18)
Risk overview	There are several minor risk considerations for this project, including a slightly low mobilization cost and adjustment for inflation, the amount of existing project development and outreach, and the minor impacts to Portland General Electric (PGE) and Ziply Fiber utilities.

Project name:	OR 212/224 Sunrise Highway Phase 2: Bike/Pedestrian Facilities and Interchange Improvements
Applicant:	Happy Valley
Amount requested:	$12,026,118
Project phase(s):	Preliminary engineering, right-of-way, & construction
Project overview:	Construct bike and pedestrian facilities on the south side of OR 212 and construct a second southbound vehicle turn lane at the OR 212/224 junction.
Risk scoring	**Medium** (38)
Risk overview	The project will require outside delivery and coordination with Clackamas County, ODOT, and TriMet. There are risk considerations regarding the amount of previous project development, and as currently envisioned, the project does not meet bicycle design requirements identified in Metro's Designing Livable Streets and Trails Guide. Additional complexities include the anticipated Environmental Assessment, minor utility relocations, and wetland impacts.

Project name:	Smart SW 185th Avenue ITS and Better Bus Project
Applicant:	Hillsboro
Amount requested:	$4,572,738
Project phase(s):	Preliminary engineering, right-of-way, & construction
Project overview:	Construction of an AI-powered interconnected traffic signal and rail controller system implementing Transit Signal Priority and constructing a Better Bus slip lane on the SW 185th Ave and W Baseline Rd intersection.
Risk scoring	**Low** (14)
Risk overview	The project will require outside delivery. There are minor risk considerations, including railroad impacts and coordination with TriMet and Washington County.

Project name:	Westside Trail Segment 1 - King City
Applicant:	King City
Amount requested:	$7,841,343
Project phase(s):	Planning, preliminary engineering, right-of-way, & construction
Project overview:	The Westside Trail Segment 1 project provides a connection between the Tualatin River and Beef Bend Rd, where ultimately, it will connect to other part of the regional trail system, enabling people to walk or bike through a network of trails linking parks and natural areas. Aligned with an existing utility corridor, the project will construct a new multi-use path along with new street connections, and utility improvements and relocations.
Risk scoring	**Medium** (32)
Risk overview	The project will require outside delivery and coordination with Washington County, Clean Water Services (CWS), Portland General Electric (PGE), and Bonneville Power Administration (BPA). There are several minor risk considerations including the amount of existing project development, water quantity/quality mitigation, the status of the right-of-way needs, and uncertainty around the local community support.

Project name:	NE Glisan Street: 82nd Avenue Multimodal Safety and Access
Applicant:	City of Portland – Bureau of Transportation (PBOT)
Amount requested:	$7,577,698
Project phase(s):	Preliminary engineering, right-of-way, & construction
Project overview:	The project will reorganize travel lanes from 82nd Ave to I-205, add new separated bike lanes from 80th Ave to 102nd Ave, improve bus priority approaching 82nd Ave, and provide enhanced crossings at key intersections to improve safety along the NE Glisan St high crash corridor and improve access to transit and other destinations on 82nd Ave. The project includes enhanced crossings at 84th Ave, 90th Ave, and 92nd Ave, and includes sidewalk widening from 92nd Ave to I-205. The existing bike/pedestrian crossing at 87th Ave will be further enhanced, and the signals at both entrances to I-205 will be modified to allow for better safety and comfort of non-motorized street users.
Risk scoring	**Low-Medium** (18)
Risk overview	There are several risk considerations for this project, including coordination with ODOT at I-205 ramp terminals, coordination with TriMet, and the need for temporary construction easements.

Project name:	NE MLK Jr. Boulevard Safety and Access to Transit
Applicant:	City of Portland – Bureau of Transportation (PBOT)
Amount requested:	$4,879,517
Project phase(s):	Preliminary engineering, right-of-way, & construction
Project overview:	New enhanced crossings and signal modifications along NE MLK Jr Blvd (NE Hancock St to NE Lombard St) at key locations to improve safety for people walking, crossing, and accessing transit along this corridor. In addition to enhanced pedestrian crossings, the project with improve intersection lighting.
Risk scoring	**Low** (10)
Risk overview	There are several minor risk considerations for this project, including limited budget contingency, amount of existing project development, and need to coordinate with TriMet. Of note, there is also a $500,000 discrepancy between the requested funds and the cost estimate. The scope of the project is relatively focused, however, reducing overall risk of scope completion.

Project name:	NE Prescott Street: 82nd Avenue Multimodal Safety and Access
Applicant:	City of Portland – Bureau of Transportation (PBOT)
Amount requested:	$7,732,932
Project phase(s):	Preliminary engineering, right-of-way, & construction
Project overview:	This project will improve safety and access to transit and other destinations on 82nd Ave by redesigning Prescott St. It addressed major infrastructure needs along the project area particularly with regards to crossing access, signals, and bike lanes. It implements a priority project from the Building a Better 82nd Ave Plan currently underway and supports the future 82nd Ave FX (frequent express) transit project.
Risk scoring	**Low-Medium** (18)
Risk overview	This project will require project development, including outreach, which may impact the scope of the project. There will be a need for several temporary construction easements. Additionally, there is a need to coordinate with the City of Maywood Park, ODOT, and TriMet. Finally, there may be complexities due to potential overlap with historic streetcar rail within the project extents.

Project name:	Outer Halsey Street and Outer Foster Road (ITS Signal Improvements)
Applicant:	City of Portland – Bureau of Transportation (PBOT)
Amount requested:	$4,416,999
Project phase(s):	Preliminary engineering & construction
Project overview:	The project will add Intelligent Transportation Systems (ITS) signal improvements along the project area. It will implement speed management timing, freight signal priority, and address safety concerns with implementation of intelligent transportation system technology and signal timing. With upgrades to signal interconnect communication and advanced transportation signal controllers, these signals will be ready for implementation of next generation transit signal priority timing.
Risk scoring	**Low** (10)
Risk overview	There are several minor risk considerations, including low budget contingency and the amount of existing project development. The project may also require some coordination with TriMet and ODOT regarding ODOT owned but PBOT maintained signals.

Project name:	W Burnside Green Loop Crossing
Applicant:	City of Portland – Bureau of Transportation (PBOT)
Amount requested:	$3,938,250
Project phase(s):	Preliminary engineering, right-of-way, & construction
Project overview:	The project will add a signalized crossing for bicyclists and pedestrians (and serving future Green Loop) at Park Ave to connect the North and South Park Blocks, serve food cart pod, and provide access to the Darcelle XV Plaza. Additionally, the project adds a bus and bike lane eastbound from Park Ave to 3rd Ave connecting to the Burnside Bridge, including needed modification at 4th Ave signal to enable retention of protected left turn into Old Town / Chinatown.
Risk scoring	**Low** (6)
Risk overview	This project has a very focused scope, which reduces risk. A minor risk consideration includes the nearby vaulted sidewalks.

Project name:	Red Electric Trail East of SW Shattuck Rd
Applicant:	City of Portland -- Portland Parks & Recreation (PP&R)
Amount requested:	$7,677,446
Project phase(s):	Preliminary engineering & construction
Project overview:	Construction of an off-street paved regional trail between SW Shattuck Rd and SW Fairvale Ct, including improvements for a safer street crossing at SW Shattuck Rd and safe routes to Hayhurst Elementary School and Pendleton Park in Portland
Risk scoring	**Low-Medium** (26)
Risk overview	The project will require outside delivery and coordination with PBOT. The project cost estimate is not itemized and may not reflect the required fees for ODOT coordination or PBOT delivery and was not able to be evaluated for unit cost consistency with industry trends. There are also minor risk considerations regarding street lighting needs.

Project name:	Cedar Creek/Ice Age Tonquin Trail: Roy Rogers - OR 99W
Applicant:	Sherwood
Amount requested:	$8,860,030
Project phase(s):	Preliminary engineering, right-of-way, & construction
Project overview:	Design and construction of a regional trail between SW Pacific Hwy, SW Edy Rd, and SW Roy Rogers Rd
Risk scoring	**Medium** (40)
Risk overview	This project will require outside delivery and coordination with Clean Water Services (CWS), Sherwood Parks and Recreation, Washington County, and ODOT. There is a discrepancy of approximately $1.36 million between the cost estimate and the application. Permanent and temporary easements will be required to construct the trail. Finally, there are some inherent risks around construction through a wetland and potential impacts to migratory bird habitat.

Project name:	Bridge Crossing of Hwy. 26 by the Westside Trail
Applicant:	Tualatin Hill Parks & Recreation District
Amount requested:	$6,000,000
Project phase(s):	Right-of-way & construction
Project overview:	Construct a 12-foot wide multi-use trail bridge over US 26 eliminating out of direction bike/ped routes along high injury/crash corridors; serving historically marginalized communities & improving safety/access to transit, schools, jobs, & 2040 Centers.
Risk scoring	**Medium-High** (44)
Risk overview	This project has already had extensive project development, helping mitigate risks, but there are still Inherent Risks due to location specific complexities. The project will require outside delivery and coordination with the City of Beaverton, US Army Corps of Engineers, ODOT, and Washington County. The project will require right-of-way dedication or coordination with BPA, City of Beaverton, and Columbia Sportswear. Large overhead transmission lines and nearby wetlands introduce additional complexities. Finally, the project will require additional funding sources (in addition to RFFA) to fund the project through construction.

Project name:	North Dakota Street (Fanno Creek) Bridge Replacement
Applicant:	Tigard
Amount requested:	$8,000,000
Project phase(s):	Construction
Project overview:	This project will replace the existing bridge with a new bridge wide enough to accommodate bicyclists and pedestrians (on both sides) along with motor vehicles. Environmental regulations will require a new bridge to be significantly higher and longer than the current bridge.
Risk scoring	**Medium-High** (52)
Risk overview	The project will require outside delivery and coordination with ODOT, ODOT Rail, and Clean Water Services (CWS). The project will require additional funding sources (in addition to RFFA) to fund the project through construction. There are right-of-way needs including multiple acquisitions, permanent easements, and temporary construction easements. Minor utility impacts have been noted. Additionally, there is inherent risk around both the construction of a bridge through wetlands and the reconstruction of a railroad crossing.

Project name:	Beaverton Creek Trail: Merlo Road Improvements
Applicant:	Washington County
Amount requested:	$6,640,700
Project phase(s):	Preliminary engineering, right-of-way, & construction
Project overview:	Design and construct a multi-use trail on the south side of Merlo Rd between Tualatin Nature Park and 170th Ave to close a key gap in the Beaverton Creek Trail that will provide safe access to transit, schools, and recreation for the Aloha community.
Risk scoring	**Medium** (40)
Risk overview	The project will require coordination with the City of Beaverton, Beaverton School District, Clean Water Services (CWS), TriMet, and The Tualatin Hill Parks and Recreation District (THPRD). Temporary construction easements are expected to be required. There is uncertainty regarding the extent of utility impacts and required water quantity/quality mitigation. Additionally, there are minor budgetary risks, including a slightly low contingency and lack of lighting costs. Lastly, there may be a discrepancy between the required local match and the expected cost reflected in the cost estimate provided by the County.

Project name:	Cedar Mill Better Bus and Access to Transit Enhancements
Applicant:	Washington County
Amount requested:	$5,252,300
Project phase(s):	Preliminary engineering, right-of-way, & construction
Project overview:	The Cedar Mill Safe Access to Priority Transit Corridors project aims to improve bus reliability and provide safe access to transit along Cornell Rd and Barnes Rd within the Cedar Mill Town Center. The scope includes transit signal priority improvements, enhanced pedestrian crossings, and lane reconfigurations to achieve this goal.
Risk scoring	**Low-Medium** (22)
Risk overview	The project will require coordination with the City of Beaverton and TriMet. In addition, the project will require temporary construction easements and minor utility relocations.

Appendix A: Risk Assessment Scoring Sheet