Appendix C: Factors and Evaluation Criteria

Oregon State Rail Plan - Implementation Plan

March 2023

Oregon Department of Transportation

TABLE OF CONTENTS

LIST OF TABLES

1 Purpose

The Oregon Department of Transportation (ODOT) is working to analyze and prioritize rail projects across the state, in alignment with the Oregon State Rail Plan 2020. To understand the needs and benefits of the projects, a range of criteria will be evaluated.

2 Factors and Evaluation Criteria

The following terms and definitions describe the different steps in the methodology development and process.

Factors: categories used to express agency and project values considered in the prioritization process which contain groups of variables with similar characteristics.

Evaluation Criteria: characteristics that can be measured and organized under each factor.

To select prioritization factors and evaluation criteria, the Oregon State Rail Plan 2020 was reviewed. Additionally, input was sought from the project team of internal stakeholders and consultant team as well as the Rail Advisory Committee (RAC) Sub-Committee Working Group and the Technical Advisory Committee (TAC). See Section 6 for membership and affiliation of each.

Guidance was also provided through the Oregon Transportation Commission and ODOT Strategic Action Plan (SAP) adopted in October 2020. The SAP establishes the three strategic priorities to guide ODOT's work and decision-making, and identified specific outcomes that ODOT will be held accountable for a three-year period (2021-23). The priorities from the SAP are:

Equity – Prioritize diversity, equity and inclusion by identifying and addressing systemic barriers to ensure all Oregonians benefit from transportation services and investments

Modern Transportation System – Build, maintain and operate a modern, multimodal transportation system to serve all Oregonians, address climate change, and help Oregon communities and economies thrive

Sufficient and Reliable Funding – Seek sufficient and reliable funding to support a modern transportation system and a fiscally sound ODOT.

The OSRP and overarching Oregon Transportation Plan are the official policy documents that inform the OSRP Implementation prioritization process, and the SAP priorities and goals help refine and inform the evaluation criteria that establish ODOT's near-term rail implementation priorities. Table 1 provides a summary of the selected factors and evaluation criteria, along with brief notes of each. Table 3 relates the evaluation criteria and the applicable goals of ODOT's SAP.

Table 1: Evaluation Criteria by Factor

Factors	Evaluation Criteria	Notes
Mobility	• Travel time • Travel reliability • Capacity improvements • Multimodal connectivity	These criteria will prioritize the improvement the Project will provide to the transportation system, across all modes interacting with the Project.
Economic	• Shipping costs • Operating costs • Regional and local economic impact (qualitative)	These criteria consider the incremental changes in costs, including local and statewide economic effects, that could occur with the implementation of the Project.
Environment	• Air quality and Greenhouse gases • Natural resources, • Climate and seismic resiliency • Cultural or historic resources • Congestion mitigation	These criteria consider the potential impact to the physical and built environment that are anticipated as a result of the Project's implementation.
Safety	• Change in operator and maintenance staff safety • Change in passenger safety • Change in Road User safety • Level of stress (active transportation users)	These criteria consider anticipated improvements to safety related to Project operation and impacts experienced by other transportation users due to Project operation or impacts.
Readiness	• Funding Leverage • Community support status • Project development status • Right-of-Way status	These criteria reflect qualitive assessment of the Project to proceed based on: technical documents completed, owner buy-in/support, permits identified and/or received, regulatory and environmental approvals, known existing or pending funding, political support, and identified required approvals.
Equity	• Transportation Disadvantaged Populations Index (TDPI) • Expanding Economic Equity (qualitative)	These criteria reflect Project impacts in census areas with high numbers of transportation disadvantaged residents and environmental justice communities

3 Evaluation Criteria Scoring

Table 2 describes how the evaluation criteria will correlate with a Project's overall scoring. The definition of each criteria score are unique to each evaluation criteria and are defined in the following Evaluation Criteria Scoring Methodology chapter.

Table 2: Evaluation Criteria Scoring

Criteria Score	Criteria Score Description
0	Major negative change expected
1	Minor negative change expected
2	No expected change
3	Minor positive change expected
4	Major positive change expected

4 Evaluation Criteria Scoring Methodology

This section provides a description and data needs for each evaluation criteria and their relationship with the ODOT Strategic Action Plan (SAP) goals. This has been discussed and revised with the Project Team and Working Groups. The scoring methods shown have been developed to allow a straightforward, consistent, and easily applied approach to the evaluation.

Table 3: Evaluation Criteria Scoring Methodology

Mobility Factor			
Evaluation Criteria/Description	**ODOT SAP Relationship**	**Data Needs**	**Method**
Travel Time **Evaluates the time savings given the Project is implemented.**	Develop practical solutions to transportation problems in order to address community needs and ensure system reliability and resiliency	Travel time savings evaluation	0 Travel times increase for freight rail and passenger rail. 1 Travel times increase for passenger or freight rail. 2 Travel times remain the same for passenger and freight rail. 3 Travel times decrease for passenger or freight rail. 4 Travel times decrease for freight rail and passenger rail.
Travel Reliability **Evaluates the on-time performance of services using the project.**	Develop practical solutions to transportation problems in order to address community needs and ensure system reliability and resiliency	On-time performance evaluation	0 Capacity bottlenecks increase and system redundancy decreases. 1 Either capacity bottlenecks increase or system redundancy decrease. 2 No anticipated change in travel reliability. 3 Capacity bottlenecks decrease or system redundancy increases. 4 Capacity bottlenecks decrease and system redundancy increases.

Mobility Factor			
Evaluation Criteria/Description	**ODOT SAP Relationship**	**Data Needs**	**Method**
Capacity Improvements **Evaluates the capacity (or throughput "velocity") changes of the transportation system using capital and technologies given the build and no-build scenarios.**	Preserve, maintain, and operate Oregon's multimodal transportation system and achieve a cleaner environment. Develop practical solutions to transportation problems in order to address community needs and ensure system reliability and resiliency. Invest in and integrate technologies to improve transportation services and operations throughout Oregon.	Traffic data	0 Capacity/velocity of track and size of train decrease. 1 Capacity/velocity of track or size of train decrease. 2 No anticipated change in track capacity/velocity and size of train. 3 Capacity/velocity of track or size of train increase. 4 Capacity/velocity of track and size of train increase.
Multimodal and Intermodal Connectivity **Passenger Rail: Evaluates how many destinations can be reached by these services.** **Freight Rail: Evaluates rail connectivity to ports and intermodal facilities (IMF)**	Provide greater transportation access and a broader range of mobility options for Oregonians while addressing climate change	Origin-destination pairs, Connected services, Train frequency, Port and Intermodal Facility locations	0 No improvement to connectivity. 1 Passenger: improves connectivity to one destination. Freight: improves connectivity to one port/IMF. 2 Passenger: improves connectivity to two destinations. Freight: improves connectivity two port/IMF's. 3 Passenger: improves connectivity to three destinations. Freight: Improves connectivity to three ports/IMFs. 4 Passenger: improves connectivity to four or more six destinations. Freight: Improves connectivity to four or more ports/IMF's.

Economic Factor			
Evaluation Criteria/Description	**ODOT SAP Goals Relationship**	**Data Needs**	**Method**
Shipping Costs **Evaluates the changes in shipping costs (preservation of rail system efficiency) as a result of the Project.**	Preserve, maintain, and operate Oregon's multimodal transportation system and achieve a cleaner environment.	Build and no-build shipping costs	0 Increase in shipping costs. 2 No change in shipping costs. 4 Decrease in shipping costs.
Operating Costs **Evaluates the incremental change in operating costs resulting from the implementation of the Project, including the project's ability to maintain a state of good repair.**	Preserve, maintain, and operate Oregon's multimodal transportation system and achieve a cleaner environment.	Operating costs per unit of service for both build and no-build scenarios	0 Increase in crew and infrastructure (track/row/station/ structures/vehicle) incremental operating costs. 1 Increase in crew or infrastructure (track/row/station/ structures/vehicle) incremental operating costs. 2 No change in incremental operating costs. 3 Decrease in crew or infrastructure (track/row/station/ structures/vehicle) incremental operating costs. 4 Decrease in crew and infrastructure (track/row/station/ structures/vehicle) incremental operating costs.

Economic Factor			
Evaluation Criteria/Description	**ODOT SAP Goals Relationship**	**Data Needs**	**Method**
Regional and Local Economic Impact (qualitative) **Evaluates the potential positive or negative impact associated with a project's implementation.**	Preserve, maintain, and operate Oregon's multimodal transportation system and achieve a cleaner environment. Build a diverse workforce, supported by equitable operations and policies, and establish an informed culture that delivers authentic inclusivity. Promote economic opportunity for Oregonians through transportation investments, including working with businesses owned by Black, Indigenous, People of Color (BIPOC), women, and others who have been historically and/ or are currently marginalized.	Qualitative description of the anticipated benefits to the local and regional economy as a result of the project. Also any potential negative economic impacts of not undertaking the project.	0 If the Project isn't implemented, job losses and/or industry reduction. 1 If the Project isn't implemented, loss in new investment opportunities. 2 No economic impacts. 3 If the Project is implemented, gain in new investment opportunities. 4 If the Project is implemented, gain in new jobs and/or industry expansion.

Environment Factor			
Evaluation Criteria/Description	**ODOT SAP Goals Relationship**	**Data Needs**	**Method**
Air Quality and Greenhouse Gases **Evaluates the air quality (particulates) and greenhouse gases (emissions) impacts related to the implementation and operation of the Project.**	Invest in the protection of marginalized communities from environmental hazards. Preserve, maintain, and operate Oregon's multimodal transportation system and achieve a cleaner environment.	Air quality data, such as CO2, NOx, Ozone and greenhouse gases, such as fuel usage and VMT (reduction)	0 If the Project has a negative impact on air quality and greenhouse gases. 1 If the Project has a negative impact on air quality or greenhouse gases. 2 If the Project has no impact on air quality and greenhouse gases. 3 If the Project has benefits on air quality or greenhouse gases. 4 If the Project has benefits to air quality and greenhouse gases.
Natural Resources **Minimize, mitigate or avoid impacts to waterways and sensitive areas**	Preserve, maintain, and operate Oregon's multimodal transportation system and achieve a cleaner environment.	Required permitting, EIS air quality and climate change and biological resources and wetlands chapters	0 If the Project disrupts or impacts natural resources without mitigation. 2 If the Project disrupts or impacts natural resources with mitigation. 4 If the Project does not impact or improves natural resources.
Climate and Seismic Resiliency **Minimize, mitigate or avoid impacts to natural hazards (likely to get worse over time) and increase resiliency (e.g.to landslides, wildfires, erosion, extreme heat, sea level rise)**	Develop practical solutions to transportation problems in order to address community needs and ensure system reliability and resiliency Invest in the protection of marginalized communities from environmental hazards	High-risk index (mapping from ODOT), Encouragement of resiliency (qualitative, no requirements or thresholds), EIS air quality and climate change chapter	0 The Project does not incorporate climate resilience. 2 The Project incorporates some climate resilience 4 The Project addresses an imminent climate change-related threat to rail infrastructure.

Environment Factor			
Evaluation Criteria/Description	**ODOT SAP Goals Relationship**	**Data Needs**	**Method**
Cultural or Historic Resources **Evaluates cultural or historic resources which conflict with the Project.**	Utilize the viewpoints of those who reside in the communities ODOT serves and who are likely to be affected by the decisions ODOT makes.	Evaluation of benefit or negative impact to cultural or historic resources related to the Project.	0 The Project is anticipated to have unmitigable impacts on cultural and historic resources. 2 The Project is anticipated to have no impacts on cultural or historic resources or acceptable mitigation. 4 The Project is anticipated to actively conserve cultural and historic resources.
Congestion Mitigation **Evaluates the changes in removing trucks and passenger vehicles from roadways, and localized grade-grossing improvements**	Invest in a comprehensive congestion management strategy for the Portland metropolitan region to benefit all Oregonians. Implement system and operational innovations to reduce traffic congestion throughout Oregon.	Modal switch from truck to freight rail, results of travel demand forecasting, traffic impact reports.	0 Decrease in modal share for passenger and freight rail 1 Decrease in modal share for passenger or freight rail. 2 No modal share change for passenger and freight rail. 3 Increase in modal share for passenger or freight rail. 4 Increase in modal share for passenger and freight rail.

Safety Factor Evaluation Criteria/Description	ODOT SAP Goals Relationship	Data Needs	Method
Change in Operator and Maintenance Staff Safety **Evaluates changes in operation and maintenance staff's safety resulting from the Project's implementation.**	Prevent traffic fatalities and serious injuries and ensure the safety of system users and transportation workers.	Evaluation of safety environment for rail operators and maintenance staff given the build and no-build scenarios.	0 The Project decreases operator and maintenance staff safety. 2 The Project does not change operator and maintenance staff safety. 4 The Project increases operator and maintenance staff safety.
Change in Passenger Safety **Evaluates changes in Passengers' safety resulting from the Project's implementation**	Prevent traffic fatalities and serious injuries and ensure the safety of system users and transportation workers.	Evaluation of safety environment for passengers and of passenger facilities given the build and no-build scenarios	0 The Project reduces passenger safety. 2 The Project does not change passenger safety. 4 The Project increases passenger safety.
Change in Road User Safety **Evaluates changes in safety related to infrastructure conflicting with the Project (grade crossings, active transportation facilities). Grade crossing closures are approved by ODOT Rail Crossing Section. Quiet Zones are approved by the Federal Railroad Administration (FRA).**	Prevent traffic fatalities and serious injuries and ensure the safety of system users and transportation workers.	Crash data, safety data at rail crossings, other available safety data	0 If there has been no coordination with ODOT Rail Crossing Section or FRA (quiet zones). 1 If there has been a pre-application to ODOT Rail Crossing Section or FRA. 2 If there has been an application submitted to the ODOT Rail Crossing Section or FRA . 3 If ODOT Rail Crossing Section has issued a Notice of Proposed Action or FRA Notice of Intent. 4 If ODOT Rail Crossing Section and/or FRA have approved application, or ODOT and FRA approval is not required.

Safety Factor Evaluation Criteria/Description	ODOT SAP Goals Relationship	Data Needs	Method
Safety Factor			
Evaluation Criteria/Description	**ODOT SAP Goals Relationship**	**Data Needs**	**Method**
Level of Stress (active transportation users) **Evaluates level of stress for active transportation users, such as bicyclists and pedestrians, before and after the Project's implementation and evaluates changes associated with the Project**	Prevent traffic fatalities and serious injuries and ensure the safety of system users and transportation workers.	Bike level of traffic stress (BLTS) scores, state roads (ATNI map and Safety map)	0 If BLTS is 4. 1 If BLTS is 3. 2 If BLTS is 2. 3 If BLTS is 1. 4 If BLTS is 0.

Readiness Factor Evaluation Criteria/Description	ODOT SAP Goals Relationship	Data Needs	Method
Funding Leverage **Discusses the opportunities for leveraging additional reliable funding sources; including funding from private entities, State and Federal grant programs.**	Pursue sufficient and reliable funding to enhance multimodal options. Ensure the long-term fiscal health of ODOT by aligning ODOT operational expenditures and revenue. Develop and maintain strong partnerships with system users, local governments, and private sector partners to enhance investment in Oregon's transportation system. Develop public private partnerships, as appropriate, including opportunities to integrate internet connectivity in Oregon's transportation system.	List of committed and potential Project partners, list of upcoming related/relevant grant programs	0 No other sources of funding identified 1 At least one Project partner or grant program identified comprising less than 50% of the budget 2 At least two Project partners or grant programs identified comprising less than 50% of the budget 3 Project partners or grant programs identified with 50% to 75% of overall budget 4 Project partners or grant programs identified and at least 75% of the overall budget
Community Support Status **Discusses the community, stakeholder, and political approvals required for various project attributes, and the current project level of support or opposition**	Utilize the viewpoints of those who reside in the communities ODOT serves and who are likely to be affected by the decisions ODOT makes.	List of public agency or board approval required. Summary of community outreach to date and public statements supporting or opposing the project	0 Through outreach, the Project has known community and political opposition. 1 Through outreach, the Project has known community or political opposition. 2 No outreach has taken place. 3 Through outreach, the project has known community or political support. 4 Through outreach, the Project has known community, and political support.

Readiness Factor Evaluation Criteria/Description	ODOT SAP Goals Relationship	Data Needs	Method
Project Development Status **Discusses the status of design documents, environmental review, and agency agreements completed and required**		Design documents, EA/EIS/FONSI, MOU, IGA, Statewide Transportation Improvement Plan (STIP)	0 None of the options. 1 Only one of the options. 2 Only two of the options. 3 Only three of the options. 4 Four or more of the options. Options Completed in Project Development Status: • Environmental review • Permits • Design • Agency agreements • STIP
Right-of-Way Status **Discusses the status of the property owners approval (railroad, public, or private), status of ROW acquisition, and schedule for completion. Includes discussion on conformance with existing zoning and impacts to existing land-use policies**		Summary of ROW needs, ownership, negotiations status, right-of-way drawings, and zoning data	0 The Project has no owner approval and doesn't conform to existing/adjacent zoning. 1 The Project has no owner approval or doesn't conform to existing/adjacent zoning. 2 The Project has no status on owner approval and existing/adjacent zoning. 3 The Project has owner approval or conforms to existing/adjacent zoning. 4 The Project has owner approval and conforms to existing/adjacent zoning.

Equity Factor			
Evaluation Criteria/Description	**ODOT SAP Goals Relationship**	**Data Needs**	**Method**
Transportation Disadvantaged Populations Index (TDPI) **Evaluation uses indexed census data characteristics to prioritize improvements that serve areas with high numbers of transportation disadvantaged residents and environmental justice communities that have been traditionally underserved by ODOT based on rail project location**	Invest in the protection of marginalized communities from environmental hazards.	Spatial data and cumulative index from demographic census data based on each project's location	0 If index 0.0 to 1.0. 1 If index 1.1 to 1.2. 2 If index 1.3 to 1.4. 3 If index 1.4 to 1.6. 4 If index 1.6 to 3.3.
Expanding Economic Opportunity (qualitative) **Evaluates the potential impact to promote economic opportunity through transportation investments associated with a project's implementation**	Build a diverse workforce, supported by equitable operations and policies, and establish an informed culture that delivers authentic inclusivity. Promote economic opportunity for Oregonians through transportation investments, including working with businesses owned by Black, Indigenous, People of Color (BIPOC), women, and others who have been historically and/ or are currently marginalized.	Qualitative understanding of the expected economic impact, specifically for BIPOC and women owned businesses, at the local, regional and/or state level	0 None of the options. 1 One of the options. 2 Two of the options. 3 Three of the options. 4 Four or more of the options. Options for BIPOC and Women Owned Businesses: • Effectively informed of the competitive contracting • Engaged in competitive contracting • Already working on the project or expected team • Project demonstrates ability to meet ODOT contracting goals • Project increases total annual dollars

5 Dynamic Weighting and Prioritization

A dynamic weighting approach can be used for the scoring and ranking of projects to reflect various implementation or funding opportunity requirements for each factor. Dynamic weighting allows for a flexible prioritization plan based on specific opportunities for implementation and available data. This approach can be used to identify which projects would be competitive for specific and differing application requirements and funding opportunities.

Table 4 provides three approaches to the dynamic weighting. The Average Score reflects an approach where each factor is weighted equally. Weighting A reflects where Safety and Readiness weighted higher. Weighting B reflects Equity and Mobility weighted higher.

Table 4: Dynamic Weighting Example

Factor	Average Score (equal weighting of 16.7%)	Weighting A	Weighting B
Mobility	2	5%	30%
Economic	3	10%	0%
Environment	2	15%	15%
Safety	4	30%	15%
Readiness	3	30%	10%
Equity	2	10%	30%
Total	2.67	3.00	2.40

6 Committee and Work Group Membership

Rail Advisory Committee (RAC)

David Arnold, AORTA – Wallowa Union Railroad

Gary Cardwell, Northwest Container Services

Glenn Carey, SMART Union

Bruce Carswell, Jaguar Transport Holdings, LLC

Robert Eaton, Amtrak

John Ficker, Retired, representing businesses

Johan Hellman, BNSF Railway

Aaron Hunt, Union Pacific

Paul Langner, Teevin Bros. Land & Timber Co.

Chris Myron, Brotherhood of Locomotive Engineers & Trainmen

Ivo Trummer, Port of Portland

Rail Advisory Committee (RAC) Working Group

Glenn Carey, SMART Union

Bruce Carswell, Jaguar Transport Holdings, LLC

John Ficker, Retired, representing businesses

Johan Hellman, BNSF Railway

Paul Langner, Teevin Bros. Land & Timber Co.

Technical Advisory Committee (TAC) Working Group

John Boren, ODOT Freight Program

Amy Ramsdell, ODOT Commerce and Compliance Division

Chris Cummings, Business Oregon

Suzanne Carlson, ODOT Climate Office

John Burns, Oregon International Port of Coos Bay

Patrick Sullivan, Amtrak

Robin Wilcox, ODOT Public Transportation Division

Shelly Haack, Prosper Portland

Ivo Trummer, Port of Portland

Rosann O'Laughlin, ODOT

Randy Knapick, Prosper Portland Mobility Consultant