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The Dalles Transportation System Plan

Technical Memo #2: Goals, Objectives and Evaluation Criteria

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To: The Dalles TSP Advisory Committee Members

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PURPOSE AND INTRODUCTION

This memorandum presents goals, objectives and a draft set of evaluation criteria for the City of The Dalles Transportation System Plan (TSP) update. The goals and objectives will help guide the TSP update to ensure key issues are addressed within this process. The evaluation criteria will be used to set policies and identify “preferred alternatives”, which will comprise the list of recommended projects and associated policy, code amendments, and funding actions in the TSP.

This document is organized as follows:

- Background: This section describes the changes in The Dalles following adoption of the 1999 TSP and 2006 update.
- Goals: The desired project goals address transportation deficiencies and needs that support the city’s vision for the next 20 years. The project goals were developed based on an evaluation of the goals in the 1999 TSP, the transportation element of the City’s Comprehensive Plan, the Transportation Growth Management (TGM) grant application submitted by the City and conversations with City and ODOT staff.
- Evaluation Criteria: The evaluation criteria were developed to measure and respond to the objectives and ultimately to the project goals.

BACKGROUND

The existing City of The Dalles Transportation System Plan was adopted in 1999, and had minor updates made in 2006 to incorporate Transportation Planning Rule (TPR) requirements. Since that time, the City has completed many projects in the previous TSP and others are no longer a priority due to changes in traffic patterns, land use assumptions and available budget. Significant changes in The Dalles have also

contributed to the need to reassess network operations and identify opportunities to improve the transportation facilities to accommodate growth over the next 20 years. Specific events and elements that will influence the TSP update include:

- The City has annexed approximately 850-acres of residential and industrial land since 2005 and desires to develop an integrated transportation system to support growth in these areas.
- ODOT transferred jurisdiction of several miles of roadways (W 6th Street and W 2nd Street) to the The Dalles and the City desires to upgrade the facilities to current City and ADA standards, including provision for pedestrian and bicycle facilities.
- The City has completed many projects on the Capital Improvement Plan (CIP) and desires to update the CIP with currently planned and new transportation projects.
- The City has updated its Land Use and Development Ordinances (LUDO) including the street classifications, development standards and design standards.
- The Chenoweth Interchange Area Management Plan (IAMP) was adopted in July 2010 and revised in 2011. It should be acknowledged and integrated into the TSP to increase the life of the interchange and promote economic development in the interchange influence area. The Supplemental Transportation System Development Charge (STSDC) intended to finance transportation improvements in the vicinity of the I-84 Chenoweth Interchange has not been approved and should be revisited.
- The City desires to update the current transportation system development charge (TSDC) and list of SDC-eligible projects. These updates will provide developers with an understanding of fees and credits (removing uncertainty that is a common barrier of development) and funding critical infrastructure items.
- The Port of The Dalles is making investments in transportation infrastructure and the City wants to acknowledge and build upon this momentum to spur investment in the developable land within the Port.
- The City and ODOT have discussed the need to increase capacity at the Webber Street interchange and whether an IAMP is necessary to avoid major construction in the long-term. The City has identified several opportunities to utilize existing infrastructure to increase the life of the facility and/or delay the need for improvements. These strategies should be integrated with other local improvements in the TSP to promote optimal use of the various transportation system components and thereby minimize the need for major infrastructure project investments.
- A new community transit center is planned on Chenoweth Loop near W 6th Street. The City would like to plan active transportation facilities to support community access to the transit center and assess localized intersection operations.
- The forthcoming Columbia River Gorge Bike Trail will enhance the need for bicycle connections and infrastructure.
- Transportation patterns and modal needs have changed with the construction of a new community transit center and bicycle connections and infrastructure anticipated with the

forthcoming Columbia River Gorge Bike Trail. The Dalles Marine Terminal became operational in the summer of 2013. This new facility allows passenger ships to dock and encourages tourism.

- The planning horizon of the current TSP (2015) is now shorter than the buildout year of some private development projects and master plans being proposed in the community, including anticipate master plan updates for North Wasco County School District 21 and Mid-Columbia Medical Center.

GOALS AND OBJECTIVES

The TSP goals and objectives will help guide the update process and serve as a basis for the development and evaluation of transportation system alternatives and the selection of a preferred alternative. The evaluation criteria associated with the goals and objectives will be used to compare, select, and prioritize projects for the TSP update.

The goals and objectives presented below are based on an evaluation of the goals in the 1999 City of The Dalles TSP, the transportation element of the current Comprehensive Plan, the Transportation Growth Management (TGM) grant application submitted by the City, and direction provided by the City and ODOT staff.

1999 TSP Goals (2006 Update)

The 1999 City of The Dalles TSP, updated in 2006, includes four goals to achieve the overall transportation goal to develop an urban area transportation system that enhances the livability of The Dalles and accommodates growth and development through careful planning and management of existing and future transportation facilities. The four goals include:

1. Enhance Transportation User Safety,
2. Enhance Transportation Mobility,
3. Increase the Use of Alternative Transportation Modes Through Improved Safety and Service, &
4. Develop a Transportation System that Supports Planned Land Uses.

The Safety goal addresses transportation user safety by developing cross sections that are inclusive of all modes, prioritizing pavement maintenance/rehabilitation and maintaining appropriate roadway width and turning radii for the safe passage of vehicles while integrating bicycle and pedestrians. The Mobility Goal addresses an integrated transportation system that provides additional local access routes, collector and arterial roads to accommodate future growth and improves access to downtown. The mobility goal also incorporates improved intersection operations and planning for the increased air, barge and truck freight traffic in the transportation system. The Increased Use of Alternative Transportation Modes Goal addresses development of a bicycle and pedestrian network that accommodates all users and encourages and provides adequate transit service. The Integration with Planned Land Uses goal identifies steps to preserve rights-of-way and maintain adequate traffic circulation to serve undeveloped areas.

1994 Comprehensive Land Use Plan (Amended May 2011)

The transportation goal of the Comprehensive Land Use Plan is to provide a transportation system that supports the safety and mobility needs of local residents, business and industry, affords choice between transportation modes, is convenient and affordable to use, and supports planned land uses. It states that the transportation plan shall (1) consider all modes of transportation including mass transit, air, water, pipeline, rail, highway, bicycle and pedestrian; (2) be based upon an inventory of local, regional and state transportation needs; (3) consider the social consequences that would result from utilizing differing combinations of transportation modes; (4) avoid principal reliance upon any one mode of transportation; (5) minimize adverse social, economic and environmental impacts and costs; (6) conserve energy; (7) meet the needs of the transportation-disadvantaged by improving transportation services, (8) facilitate the flow of goods and services so as to strengthen the local and regional economy; and (9) conform with local and regional comprehensive land use plans.¹

Proposed TSP Update Goals

The 1999 TSP goals were reviewed and refined to align with the changes and needs that have occurred or been identified since the 1999 plan. As a result, the following four goals are proposed to help guide the development of the City of The Dalles TSP update, including Safety, Access, Integration, and Economic Development.

1. **Safety and Mobility:** Ensure a safe and efficient transportation system in a state of good repair for all users.
2. **Accessibility and Connectivity:** Expand affordable, accessible and multimodal options to improve connections for all users of the transportation system to jobs, services and activity centers.
3. **Integration:** Integrate land use, financial, and environmental planning to prioritize strategic transportation investments and preserve The Dalles' identity.
4. **Economic Development:** Build and maintain the transportation system to support economic vitality in the City.

An overarching goal of the TSP update is to satisfy the requirements of the OAR 660-012, or the Transportation Planning Rule (TPR). To ensure that the required elements of The Dalles TSP are reflective of the community, the process will include collaborating with plan area residents and transportation users through the City Council, Planning Commission, public open houses, key participant workshops, and the project website. It also includes ensuring compliance with the TSP

¹ These plan objectives are distinct from the twelve Transportation Goal (Goal 12) policies that are part of the adopted Comprehensive Plan. The City's adopted transportation policies will be replaced or updated by the TSP update process.

content requirements of the TPR and consistency with the Oregon Transportation Plan (OTP), Oregon Highway Plan (OHP), adopted local, regional and state plans, and ODOT's TSP guidelines.

Objectives

The following objectives were developed based on the Goals for the TSP update.

Goal #1: Safety and Mobility

The Safety goal recognizes the importance of a safe transportation system that is reliable and in a state of good repair. Objectives include:

- 1A. Reduce the number of fatal and serious crashes in the plan area.
- 1B. Develop a multi-modal transportation system that incorporates safety and operational improvements for bicyclists and pedestrians.
- 1C. Satisfy applicable City and/or State operational performance measures.
- 1D. Preserve and maintain the existing transportation system in a state of good repair.
- 1E. Improve safety and operational components of existing transportation facilities not meeting agency standards or industry best practices.

Goal #2: Accessibility and Connectivity

The Accessibility and Connectivity goal focuses on providing a transportation system available to all users, regardless of mode of choice, ability, or economic status. It also works to improve the local circulation system to reduce the community's reliance on State Highways to travel to local destinations. Objectives include:

- 2A. Plan and design an integrated transportation system that includes additional local, collector, and arterial roads, based on future land use needs, that accommodate all users of the transportation system.
- 2B. Plan and design transportation facilities that complete a route by connecting other existing routes, filling a gap in an existing route, or providing connectivity between modes.
- 2C. Support transit service to target populations and encourage transit service for The Dalles urban area.
- 2D. Consider impacts and transportation affordability to low income or minority populations when assessing the impacts of transportation infrastructure projects.

Goal #3: Integration

The Integration goal ensures compatibility with local and regional land use plans or programs while promoting environmental stewardship and financial responsibility. Objectives include:

- 3A. Develop transportation investments in coordination with local land use, comprehensive and regional plans.
- 3B. Incorporate Transportation Demand Management (TDM) strategies to reduce the number of single occupancy vehicles, maximize the use of existing infrastructure and reduce parking demands.
- 3C. Prioritize transportation projects that provide the most benefit for the cost.
- 3D. Maintain and develop an environmentally sensitive transportation system.
- 3E. Incorporate new technologies to enhance the transportation system and extend the useful life of the existing facilities.

Goal #4: Economic Development

The Economic Development goal seeks to leverage the transportation system as a catalyst for economic vitality in the City. Objectives include:

- 4A. Improve the movement of goods and delivery of services throughout the City while balancing the needs of all users with a variety of travel modes.
- 4B. Prioritize efficient freight movement on identified freight routes.
- 4C. Develop a transportation system that supports connections to air, rail, marine, or freight transportation, including services provided by the Columbia Gorge Regional Airport, the Port of The Dalles, and The Dalles Marine Terminal.
- 4D. Identify lower-cost alternatives, phasing opportunities, and/or funding mechanisms for transportation improvements that serve planned development.
- 4E. Program transportation improvements to facilitate the orderly development of planned land uses.

EVALUATION CRITERIA

Evaluation criteria were developed to provide a qualitative process to evaluate alternatives relative to the TSP goals and objectives. The rating method used to evaluate the alternatives is described below.

- Most Desirable: The concept addresses the criterion and/or makes substantial improvements in the criteria category. (+2)
- Moderately Desirable: The concept partially addresses the criterion and/or makes some improvements in the criteria category. (+1)

- No Effect: The criterion does not apply to the concept or the concept has no influence on the criteria. (0)
- Least Desirable: The concept does not support the intent of and/or negatively impacts the criteria category. (-1)

During the alternative evaluations screening, the criteria will not be weighted; the ratings will be used to inform discussions about the benefits and tradeoffs of each alternative.

Table 1 presents the evaluation matrix that will be used to qualitatively evaluate the recommendations and alternatives developed through the TSP update.

Table 1: Evaluation Matrix

Criteria Number	Evaluation Criteria	Evaluation Measures
Goal 1: Safety and Mobility - Ensure a safe and efficient transportation system for all users in a state of good repair.		
1A1	Estimated number of fatal or serious injury crashes.	To what extent does the alternative reduce the estimated frequency of fatal and serious injury crashes? Whenever possible, estimate the change in predicted crash frequency using Safety Performance Functions from the Highway Safety Manual calibrated for Oregon and/or crash modification factors (CMFs) approved by ODOT for use in the All Roads Transportation Safety (ARTS) program
1A2	Estimated number of bicycle and pedestrian related crashes.	To what extent does the alternative reduce the estimated frequency of pedestrian and bicycle related crashes? Whenever possible, measure using reliable crash modification factors (CMFs) for estimating relative change in predicted crash frequency.
1B1	Number of conflict points between all modes of travel including crossing points for pedestrians and bicyclists along major arterials and vehicular at-grade rail crossings.	To what extent does the alternative increase safety by reducing vehicle to vehicle, vehicle to rail, vehicle to pedestrian/bicycle, or pedestrian/bicycle to pedestrian/bicycle conflict points? Measured as relative impact between alternatives in regards to reducing the number of conflict between modes and speed differential. For example, installing raised medians to provide a physical barrier between modes at intersections.
1B2	Intersection visibility and sight distances available to motorists, pedestrians, and bicyclists at intersections and key decision points.	To what extent does the alternative improve sight distance for all system users, increasing available time to identify and react to potential conflicts? Measured as relative impact between alternatives for providing adequate sight distance based on desired operating speeds.
1C1	Percent of study intersections meeting applicable operational performance measures.	To what extent does the alternative mitigate or improve operational performance relative to applicable targets and standards? Measured by the degree to which an alternative mitigates a failing condition or improves operations.
1D1	Percentage of acceptable pavement conditions based on roadway classification or extended lifespan of pavement.	To what extent will the project preserve or extend the life of the existing pavement condition? Measured by whether or not the project improves the pavement condition index.
1E1	Compliance with agency standards or implementation of industry best practices.	To what extent does the alternative improve the transportation facility to meet or comply with agency design standards or implement an industry best practice? Measured by whether or not an alternative improves the transportation facility to meet or comply with agency design standards or implements an industry best practice.
Goal 2: Expand affordable, accessible and multimodal options to improve connections for all users of the transportation system to jobs, services and activity centers		
2A1	Potential impact on bicycle and pedestrian volumes.	To what degree may the alternative increase pedestrian and bicyclist travel on appropriately-designed facilities? Measured by potential increase in pedestrian and bicyclist volume relative to baseline conditions.
2A2	Compliance with "Complete Streets" concept within urban areas, and appropriate locations within the urban fringe.	To what extent does the alternative provide a "Complete Street" within urban areas, and appropriate locations within the urban fringe? Measured by whether or not an alternative adopts a "Complete Street" approach or incorporates "Complete Street" components within urban areas, and appropriate locations within the urban fringe?
2B1	Impact on system-wide connectivity and availability of more direct routes for each mode of transportation.	To what extent does the alternative improve the connectivity of the existing transportation system or provide a more direct route? Measured by the extent each alternative increases connectivity and provides facilities for each mode. Connectivity includes filling a gap in an existing route and designing new facilities that provide continuous routes between key destinations.

Criteria Number	Evaluation Criteria	Evaluation Measures
2B1	Miles of designated facilities for bicyclists and pedestrians provided.	To what extent does the alternative increase the number of miles of pedestrian and bicycle facilities (on-street and off-street)? Measured by potential expansions of the pedestrian and bicycle systems.
2C1	Impact on transit ridership.	To what degree does the alternative promote transit ridership or make transit a more viable option for all users? Measured by whether or not an alternative is able to increase transit ridership.
2D1	Impact of transportation project on low income and minority populations.	To what extent does the alternative affect low income and minority populations? Measured as relative ability of each alternative to spread the impacts and benefits of transportation improvements equitably to all populations.
2D2	Viability of non-auto travel.	To what degree are transportation facilities (transit service, sidewalks, bicycle lanes, separated mixed-use paths, parks) for non-auto travelers integrated into the alternative? Measured relative to facilities and integration present in baseline conditions.
Goal 3: Integration - Integrate land use, financial, and environmental planning to prioritize strategic transportation investments and preserve The Dalles' identity.		
3A1	Compliance with local land use plans, comprehensive plans, and regional transportation plans.	To what extent does the alternative comply with local or regional land use, comprehensive, and transportation plans? Measured by whether or not an alternative is identified or compatible with an adopted plan.
3B1	Incorporation of Transportation Demand Management (TDM) Strategies.	To what extent are TDM strategies being implemented to improve the transportation system? Measured by the use of TDM strategies incorporated into the alternative.
3C1	Cost/benefit analysis and potential impact on forecasted expenditures.	To what degree does the alternative leverage a positive return on investment? Measured by the calculated cost/benefit analysis and alignment with current funding projections.
3D1	Impacts on air quality, environmentally sensitive areas, and water and soil quality.	To what degree does the alternative impact environmentally sensitive areas? Measured by the potential adverse impacts of the alternative to the environment.
3E1	Incorporation of ITS technology.	To what extent is ITS technology being implemented for system improvements? Measured by the use of ITS devices relative to Baseline.
Goal 4: Economic Development - Build and maintain the transportation system to support economic vitality in the City.		
4A1	Roadway geometry accommodates freight movement where it is warranted.	To what extent does the alternative accommodate the design vehicle for designated freight routes? Measured by whether or not an alternative is able to accommodate the design vehicle without potential adverse impacts to other modes.
4B1	Traffic operations performance on designated freight routes.	To what extent does the alternative provide acceptable performance along designated freight routes? Measured by operational performance along freight routes.
4B2	System-wide congestion and travel time.	To what extent does the alternative relieve congestion or reduce travel times on the transportation system? Measured by whether or not an alternative relieves congestion or reduces travel time.
4C1	Impact on intermodal connectivity and availability of air, rail, barge and freight facilities.	To what extent does the alternative improve the intermodal connectivity of the existing transportation system or provide better access to air, rail, barge or freight facilities? Measured by the extent to which each alternative increases intermodal connectivity and provides better connections to air, rail, barge and freight facilities.

Criteria Number	Evaluation Criteria	Evaluation Measures
4D1	External funding opportunities leveraged and financially responsible development proposals.	To what extent does the alternative leverage other private funding sources or include transportation improvements as part of a development proposal? Measured by whether or not an alternative leverages additional funding sources or is included as part of a development proposal.
4E1	Potential increased attraction to desired businesses and developers.	To what extent does the alternative eliminate roadblocks to development caused by the transportation system? Measured by the critical transportation improvements funded relative to Baseline.

CONCLUSIONS

The Dalles TSP update will be developed to support the goals and objectives summarized in this memorandum. The evaluation criteria and evaluation measures will be used to develop and prioritize alternatives to accomplish the goals and objectives. Accordingly, the evaluation process provides clear objective criteria in a framework that allows for thoughtful consideration and evaluation of alternative improvements.