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

Memorandum

November 2, 2021

Project# 23021.015

To: Matt Novak; Oregon Department of Transportation
Karla Antonini; City of Hillsboro

From: Nick Gross; Amy Griffiths; Sophia Semensky; Phill Worth; Kittelson & Associates, Inc.

RE: TM#3: Criteria and Evaluation Memorandum
OR8: SW Adams Ave. SE 10th Ave and SE Baseline – SE Maple St. (K18004)

Purpose

The purpose of this memorandum is to articulate the evaluation criteria and performance measures that will be used to develop and evaluate alternatives that are intended to fulfill the Corridor Vision and Desired Outcomes for the OR8: Oak/Baseline/10th Avenue Corridor Study. Understanding and executing a performance-based approach with clear, actionable, and measurable evaluation criteria enables project teams to make informed decisions about the performance trade-offs of alternative solutions that best suit the Corridor Vision based on the facility purpose, urban context, and needs of the intended users. The Oregon Department of Transportation (ODOT) defines the highway purpose and works collaboratively with the City of Hillsboro to establish the corridor context and relative need of the intended users through guidance provided in the Blueprint for Urban Design (BUD – Reference 1).

Corridor Vision and Desired Outcomes

The primary purpose of the OR8: Oak/Baseline/10th Avenue Corridor Study is to identify opportunities for improvements along this section of OR Highway 8 (OR8) through Downtown Hillsboro. The study focuses on increasing safety for people walking, biking, rolling, and accessing transit, while improving connections to the surrounding neighborhoods and existing community assets, thereby supporting the community's vision of redevelopment as the Regional Center envisioned in Metro's 2040 Plan. The vision for the corridor according to the Oak/Baseline/10th Avenue Corridor Vision Statement (Reference 2) is as follows:

> *The Oak/Baseline/10th Avenue Corridor positively contributes to the identity and sense of place, as desired by residents, workforce, business owners, and visitors to Downtown Hillsboro. People of all ages and abilities feel safe and comfortable along and across the corridor, which ultimately contributes to a vibrant and livable community through intentionally designed facilities and amenities that reflect the values of the community.*
>
> *The size, mix, and speed of transportation facilities (sidewalks, bike lanes, motor vehicle travel lanes, and transit amenities) are well-suited to the adjacent land uses and character of each corridor segment. Motorist speeds are managed to optimize pedestrian and bicycle activity, keeping decibel levels low enough for pedestrian conversations. While mobility for motor vehicles and freight are necessary to the function of this corridor, along this segment, the comfort, safety, and appropriate accommodation of alternative modes of transportation is a priority.*

Criteria and Performance Measures

The goals and policy guidance from the City and regional background planning documents, including the Comprehensive Plan, Transportation System Plan (TSP), Downtown Framework Plan, 2035 Community Plan, and Metro's 2040 Plan have been reviewed and considered in the development of the evaluation criteria for the OR8: Oak/Baseline/10th Avenue Corridor Study.

These criteria align with the Corridor Vision and Desired Outcomes for OR8. The performance measures provide a performance-based decision framework for the selection of a preferred alternative. Aligning with guidance from the BUD, the performance measures are designed to be understandable, consistent, measurable, capable of differentiating alternatives, and specific to this project.

CRITERIA FOR ALTERNATIVES DEVELOPMENT & EVALUATION

Ten criteria will be used to comparatively evaluate and measure the performance of future alternatives (occurring in Task 7). More than 20 performance measures are contemplated to support the evaluation process. Table 1 provides the name and description of the evaluation criteria and corresponding performance measures for the OR8: Oak/Baseline/10th Avenue Corridor Study.

- **Criteria** are specific characteristics of the corridor vision and desired outcomes developed for the OR8: Oak/Baseline/10th Avenue Corridor Study.
- **Description** includes the purpose and explanation of the criteria, connecting the criteria to specific community values, vision, and desired outcomes.

Performance Measures are qualitative and quantitative measures to assess the alternatives in achieving the desired criteria outcomes.

Table 1: Criteria and Evaluation Measures

Criteria	Description	Performance Measures
Diversity, Equity, & Inclusion (DE&I)	The alternative is supported by historically underrepresented populations and those most directly affected by proposed investments. The alternative prioritizes investments that directly benefit historically underrepresented neighborhoods.	▪ Community Feedback (from adjacent businesses and property owners, nearby residential neighborhoods, business groups, and historically underrepresented populations in the area) ▪ Spatial Analysis (of transportation investments that better serve historically underrepresented populations in the area)
Safety	The alternative reduces risk for people walking, biking, rolling, accessing transit, and driving.	▪ Crash Reduction Factors ▪ Crossing Distance Exposure (length of marked crossing) at uncontrolled intersections ▪ Queuing into Active Rail Crossing (freight or passenger)
User Comfort[1]	The alternative provides dedicated, comfortable, and separated facilities for people walking, biking, accessing transit, and driving; regardless of age and ability.	▪ Pedestrian facility width, level of separation (horizontal and vertical) from other modes, and adjacent vehicular speeds ▪ Bicycle facility width, level of separation (horizontal and vertical) from other modes, and adjacent vehicular speeds ▪ Proximity of transit stop to enhanced crossings and provision of amenities suited to desired transit use ▪ Vehicular facility width, level of separation (horizontal and vertical) from other modes
Aesthetics	The alternative improves the look and sensory experience of OR8 users through increases to landscaping and placemaking opportunities.	▪ Width and Treatment (e.g., street furnishings, landscaping, outdoor dining, pedestrian scale lighting, art installations, etc.) of the Transition Realm ▪ Undergrounding Utilities
Connectivity	The alternative improves connectivity and circulation to existing active transportation facilities and destinations.	▪ Directness of Route (along the corridor people walking, biking, and accessing transit) ▪ Frequency of Enhanced Crossings
Freight Accommodation	The alternative considers the vertical and horizontal clearances of OR 8 (ORS 366.215). The alternative improves freight loading zone accessibility on City streets within the study area.	▪ Impacts to Vertical and Horizontal Clearance (Reduction Review Route (RRR) – ORS 366.215) ▪ Freight Loading Zone Curb Space and Frequency
Implementation Feasibility & Cost Effective	The alternative considers ease of incremental implementation, potential impacts, and cost.	▪ Ease of Incremental Implementation (e.g., utility, right-of-way, business disruption, Historic or Environmental Justice property impacts) ▪ Planning Level Cost Estimate
Convenience	The alternative maintains capacity for vehicular parking and increases opportunity for bicycle and micro-mobility parking. The alternative provides reasonable travel times for all modes while emphasizing priority for active transportation users.	▪ Number of Public Parking Stalls (vehicular, bicycle, micro-mobility) ▪ Corridor Travel Time (by mode)
Livability	The alternative reduces the potential for neighborhood cut-through traffic and provides traffic management mitigation strategies.	▪ Diversion & Cut-Through Traffic ▪ Neighborhood Traffic Management Mitigation
Environmental	The alternative considers greenhouse gas (GHG) emissions, manages vehicular noise, and increases pervious surface area.	▪ System Vehicular Emissions (estimated based on motor vehicle delay) ▪ Vehicular Noise (Posted Speed) ▪ Pervious Surface

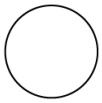
[1] Performance measures relies on guidance provided in Blueprint for Urban Design (BUD) Traditional Downtown/Central Business District: https://www.oregon.gov/odot/Engineering/Documents_RoadwayEng/Blueprint-for-Urban-Design_v1.pdf

SCORING AND EVALUATION

Alternatives are evaluated based on the extent to which each performs well, as measured against the criteria. Criteria will be applied to the entire corridor (rather than by segment or intersection) for each alternative developed in *Task 7.1 Development of Design Concepts*.

The methodology provides for a qualitative scoring scale ranging from poor to good, as shown below. The Project Management Team (PMT), Technical Advisory Committee (TAC), and Planning Advisory Committee (PAC) may use this information during the preferred alternative selection process.

Evaluation Matrix Legend



Poor

Alternative has a negative impact on measure.

Fair

Alternative has a moderately positive or neutral impact on measure.

Good

Alternative has substantially positive impact on measure.

The proposed methodology for evaluating each performance measure is summarized in Table 2. Qualifying terms, such as "moderate", "substantial", and "some" will be defined with respect to the other alternatives during the alternative's evaluation.

Table 2: Proposed Scoring Methodology

Evaluation Criterion	Performance Measure	Scoring Scale: ○ Poor	◐ Fair	● Good
Diversity, Equity, & Inclusion (DE&I)	Community Feedback	The alternative is **not supported** by the community, the historically underrepresented populations, and those most directly affected by proposed investments	The alternative is **neutrally supported** by the community, the historically underrepresented populations, and those most directly affected by proposed investments	The alternative is **strongly supported** by the community, historically underrepresented populations, and those most directly affected by proposed investments
	Spatial Analysis (TSP Demographic Data)	The alternative **does not** prioritize investments that directly benefit historically underrepresented populations	The alternative **partially** prioritizes investments that directly benefit historically underrepresented populations	The alternative **strongly** prioritizes investments that directly benefit historically underrepresented populations
Safety	Crash Reduction Factors	The alternative **increases** the potential for crashes to occur	The alternative has **no influence on** the potential for crashes to occur	The alternative **reduces** the potential for crashes to occur
	Crossing Distance Exposure	The alternative **does not** reduce crossing distance exposure for people crossing OR8	The alternative has **no influence on** crossing distance exposure for people crossing OR8	The alternative **reduces** total crossing distance exposure for people crossing OR8
	Queuing into Active Rail Crossings	The alternative **increases** queues extending into active rail crossings	The alternative has **no influence** on queue extensions into active rail crossings	The alternative **reduces** queue extensions into active rail crossings
User Comfort[2]	Pedestrian facility width, level of separation (horizontal and vertical) from other modes, and adjacent vehicular speeds	The alternative is **not consistent** with the recommended BUD guidance for the pedestrian realm	The alternative is **partially consistent** with the recommended BUD guidance for the pedestrian realm	The alternative is **fully consistent** with the recommended BUD guidance for the pedestrian realm
	Bicycle facility width, level of separation (horizontal and vertical) from other modes, and adjacent vehicular speeds	The alternative is **not consistent** with the recommended BUD guidance for the transition realm	The alternative is **partially consistent** with the recommended BUD guidance for the transition realm	The alternative is **fully consistent** with the recommended BUD guidance for the transition realm
	Proximity of transit stop to enhanced crossings and provision of amenities suited to desired transit use	The alternative is **not consistent** with the recommended guidance for transit-supportive facilities	The alternative is **partially consistent** with the recommended guidance for transit-supportive facilities	The alternative is **fully consistent** with the recommended guidance for transit-supportive facilities
	Vehicular facility width, level of separation (horizontal and vertical) from other modes	The alternative is **not consistent** with the recommended cross section for the travelway realm	The alternative is **partially consistent** with the recommended cross section for the travelway realm	The alternative is **fully consistent** with the recommended cross section for the travelway realm
Aesthetics	Width and Treatment of the Transition Realm	The alternative **reduces** the amount of space within the transition realm	The alternative has **no impact** on the amount of space within the transition realm	The alternative **increases** the amount of space within the transition realm
	Undergrounding Utilities	The alternative **increases** the number of utilities aboveground	The alternative **maintains** the number of utilities aboveground	The alternative **reduces** the number of utilities above ground

[2] Performance measures relies on guidance provided in Blueprint for Urban Design (BUD) Traditional Downtown/Central Business District: https://www.oregon.gov/odot/Engineering/Documents_RoadwayEng/Blueprint-for-Urban-Design_v1.pdf

Evaluation Criterion	Performance Measure	Scoring Scale: ○ Poor	◐ Fair	● Good
Connectivity	Directness of Route	The alternative **does not** provide direct routes and connections for people walking, biking, and rolling to essential destination.	The alternative provides or improves **some** direct routes or connections for people walking, biking, and rolling to essential destinations	The alternative provides **or improves** direct routes and connections for people walking, biking, and rolling to essential destinations
	Frequency of Enhanced Crossing	The alternative **does not** provide enhanced crossings	The alternative provides **some** enhanced protected crossings	The alternative provides **many** enhanced protected crossings
Freight Accommodation	Impacts to Vertical and Horizontal Clearance	The alternative **reduces** the vertical or horizontal clearance along OR8 below the constraining pinch points in the overall system	The alternative **reduces** the vertical and horizontal clearance within the study area, but the clearance is maintained above pinch points in the overall system	The alternative has **no impact** to vertical or horizontal clearance along OR8
	Freight Loading Zone Curb Space and Frequency	The alternative **reduces** access to freight loading zone curb space and frequency	The alternative **maintains** access to freight loading zone curb space and frequency	The alternative **increases** access to freight loading zone curb space and frequency
Implementation Feasibility & Cost Effectiveness	Ease of Implementation	The alternative requires **substantial** impacts	The alternative requires **minor** impacts	The alternative requires **no** impacts
	Planning Level Cost Estimate	The alternative has a relatively **low** planning level cost estimate (compared to other alternatives)	The alternative has a relatively **neutral** planning level cost estimate (compared to other alternatives)	The alternative has a relatively **high** planning level cost estimate (compared to other alternatives)
Convenience	Number of Public Parking Stalls	The alternative **reduces** the number of parking stalls for vehicles, bicycles, and micro-mobility	The alternative **maintains** the number of parking stalls for vehicles, bicycles, and micro-mobility	The alternative **increases** the number of parking stalls for bicycles and micro-mobility and **maintains** the number of parking stalls for vehicles
	Corridor Travel Time	The alternative **increases** forecast corridor travel times when compared to the baseline forecast	The alternative **maintains** forecast corridor travel times when compared to the baseline forecast.	The alternative **improves** forecast corridor travel times when compared to the baseline forecast
Livability	Diversion & Cut-Through Traffic	The alternative **increases** cut-through traffic onto neighborhood streets	The alternative has **no impact** on cut-through traffic onto neighborhood streets	The alternative **reduces** cut-through traffic onto neighborhood streets
	Neighborhood Traffic Management Mitigation	**Many** new Neighborhood traffic management mitigation strategies anticipated to be needed	**Some** new Neighborhood traffic management mitigation strategies anticipated to be needed	**No** new Neighborhood traffic management mitigation strategies anticipated to be needed
Environmental	System Vehicular Emissions	The alternative **increases** system emissions	The alternative has **no impact** on system emissions	The alternative **reduces** system emissions
	Vehicular Noise	The alternative has the potential to **increase** vehicular noise along the corridor	The alternative **maintains** the relative vehicular noise along the corridor	The alternative has the potential to **reduce** vehicular noise along the corridor
	Impervious Surface	Alternative **reduces** pervious surface area	The alternative **maintains** the pervious surface area	The alternative **increases** pervious surface area

Next Steps

The criteria and performance measures described in this memorandum will be used to evaluate build and no-build alternatives.

References

1. Blueprint for Urban Design. January 2020.
2. *Final Corridor Vision Statement.*
3. *Final TM #2: Existing Conditions and Future No Build.*
4. *Trimet Bus Stops Guidelines. July 2010.*