

# TECHNICAL MEMORANDUM #3

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July 14, 2026

Project# 27003.058

To: John Lazur, Oregon Department of Transportation (ODOT) Project Manager  
From: Brandon Tucker, Katie Popp, PE, and Nicholas Gross, Kittelson & Associates  
RE: Cape Arago Highway Corridor Plan – Final Goals, Objectives, and Evaluation Criteria

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## Goals, Objectives, and Evaluation Criteria Memorandum

### Introduction

This memorandum presents the vision, goals, objectives, and evaluation criteria that will guide the development and assessment of the Cape Arago Highway Corridor Plan (the “Project”). The purpose of this memorandum is to (1) present the goals, objectives, and evaluation criteria based on review of applicable state, regional, and local plans and policies, and to (2) identify the appropriate highway context for the study segment of Cape Arago Highway (OR 540) based on its land use and roadway characteristics, consistent with the *Oregon Department of Transportation (ODOT) Highway Design Manual (HDM)*.

The vision, goals, objectives, and evaluation criteria documented in this memorandum establish a framework to inform decision-making and guide the development and evaluation of alternatives, which will be presented and assessed in Technical Memorandums (TMs) #8 and #9. They also support related planning activities, like public involvement, by providing a clear and consistent basis for communicating project priorities and evaluating tradeoffs throughout the planning process.

### Project Background

Cape Arago Highway serves as a critical regional corridor connecting the City of Coos Bay with the unincorporated communities of Charleston and Barview and nearby coastal destinations. The corridor serves a mix of local, regional, and recreational travel, including people biking on the Oregon Coast Bike Route, and supports access to residential areas, businesses, and tourism-related destinations. Recent planning efforts at the local, regional, and state levels have identified the need to improve connectivity and safety for people walking, biking, and using transit, both to better serve local residents and to support the area’s coastal tourism economy. As a state highway under ODOT jurisdiction, there is an opportunity to better align transportation planning with surrounding land uses and access needs along the corridor.

The Cape Arago Highway Corridor Plan aims to develop a preferred transportation improvement strategy that supports a safe, efficient, and well-connected multimodal network. The Project focuses on identifying and prioritizing improvements that enable residents and visitors to access destinations along and near the corridor, while preserving the function and capacity of the state highway and supporting economic activity. The preferred solution will be developed through an alternatives analysis and evaluation of potential alternatives with key criteria that are described in this memorandum to support decision-making. The outcomes of this Project are intended to guide transportation decision-making and context-sensitive corridor improvements over a 20-year planning horizon.

## PROJECT STUDY AREA

The Cape Arago Highway Corridor Plan study area includes roadway facilities within the state right-of-way along Cape Arago Highway (OR 540) from mile point (MP) 4.49 near the City of Coos Bay limits to MP 8.2 at the eastern extent of the South Slough Bridge (Figure 1).

Land uses along the corridor vary and include residential neighborhoods, local commercial uses, tribal lands, public and institutional facilities, and access points to coastal recreation areas. The corridor also provides important connections to areas such as the Empire District, the Coquille Tribe's Kilkich property, and the unincorporated communities of Charleston and Barview. This mix of land uses and access needs influences travel patterns and emphasizes the need for context-sensitive transportation solutions that balance multimodal access, safety, and the function of the state highway within the study area.

**Figure 1. Project Study Area**



## Establishing the Urban Context

The HDM establishes an urban context framework for defining how roadway design should consider surrounding land use, development patterns, and expected roadway users. Urban context is determined based on corridor characteristics such as land use, multimodal activity, and adjacent development (e.g., building density and off-street parking). Identifying this context helps in understanding the relative need of each type of user and the “intensity of use” that can be expected within each urban context and supports context-sensitive design. Establishing the appropriate context early in the planning process helps inform design decisions that align with both current conditions and the long-term vision of the corridor.

Table 1 summarizes the six types of land use contexts as described in the HDM.

**Table 1. ODOT Urban Context Matrix (Table 200-5 in the HDM)**

| Land Use Context                                             | Setbacks                                               | Building Orientation                               | Land Use                                                         | Building Coverage                                               | Parking                                                | Block Size                                                 |
|--------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------|
|                                                              | <i>Distance from the building to the property line</i> | <i>Front doors accessed from a pedestrian path</i> | <i>Existing or future mix of land uses</i>                       | <i>Percent of area with buildings, as opposed to other uses</i> | <i>Location of parking in relation to building(s)</i>  | <i>Average size of blocks adjacent to the right-of-way</i> |
| <b>Traditional Downtown/ Central Business District (CBD)</b> | Shallow/ none                                          | Yes                                                | Mixed (Residential Commercial, Park/ Recreation)                 | High                                                            | On-street/ garage/ shared in back                      | Small, consistent block structure                          |
| <b>Urban Mix</b>                                             | Shallow                                                | Some                                               | Commercial fronting, Residential behind or above                 | Medium                                                          | Mostly off-street/single row in front/in back/ on side | Small to medium blocks                                     |
| <b>Commercial Corridor</b>                                   | Medium to large                                        | Sparse                                             | Commercial, Institutional, Industrial                            | Low                                                             | Off-street/ in front                                   | Large blocks, not well defined                             |
| <b>Residential Corridor</b>                                  | Shallow                                                | Some                                               | Residential                                                      | Medium                                                          | Varies                                                 | Small to medium blocks                                     |
| <b>Suburban Fringe</b>                                       | Varies                                                 | Varies                                             | Varied, interspersed development                                 | Low                                                             | Varies                                                 | Large blocks, not well defined                             |
| <b>Rural Community</b>                                       | Shallow/ none                                          | Some                                               | Mixed (Residential, Commercial, Institutional, Park/ Recreation) | Medium                                                          | Single row in front/in back/ on side                   | Small to medium blocks                                     |

Based on a preliminary assessment by ODOT, the segment of Cape Arago Highway in the Project Area is classified as Suburban Fringe based on existing conditions. This context typically represents the transition between rural highways and lower-speed urban areas, where development is more intermittent and land uses are mixed. Within the Project Area, conditions along Cape Arago Highway are consistent with this context, with generally low-intensity development that varies in use, medium to large setbacks (i.e., few buildings are at the roadway or right-of-way edge), limited building coverage, and parking that is primarily off-street or undefined.

Land use patterns vary along the corridor. The northern segment, from Wisconsin Avenue to Kellogg Lane near the Coos Bay city limits, includes more commercial uses that are accessed directly from the corridor. South of Kellogg Lane, development is more residential, with driveways and neighborhood streets directly accessing the highway. The Coos County Zoning Map defines land uses adjacent to the Project Area segment of the corridor, which include Urban Residential, Controlled Development (i.e., potential to convert from Residential to Commercial), and small Recreational parcels, which is consistent with a Suburban Fringe context.

Table 2 summarizes the relative importance of considering the need of each user type to support planning and design decisions. Based on the Suburban Fringe context for the corridor, the general modal considerations for bicyclist and pedestrians are “Low,” and the considerations for transit may vary.

**Table 2. General Modal Consideration in Different Urban Contexts (Table 200-6 in the HDM)**

| Land Use Context                | Motorist    | Freight     | Transit       | Bicyclist  | Pedestrian |
|---------------------------------|-------------|-------------|---------------|------------|------------|
| <b>Traditional Downtown/CBD</b> | Low         | Low         | High          | High       | High       |
| <b>Urban Mix</b>                | Medium      | Low         | High          | High       | High       |
| <b>Commercial Corridor</b>      | High        | High        | High          | Medium     | Medium     |
| <b>Residential Corridor</b>     | Medium      | Medium      | Low           | Medium     | Medium     |
| <b>Suburban Fringe</b>          | <b>High</b> | <b>High</b> | <b>Varies</b> | <b>Low</b> | <b>Low</b> |
| <b>Rural Community</b>          | Medium      | Medium      | Varies        | High       | High       |

**High:** Highest level facility should be considered and prioritized over other modal treatments.

**Medium:** Design elements should be considered; trade-offs may exist based on desired outcomes and user needs.

**Low:** Incorporate design elements as space permits.

Although bicyclist and pedestrian considerations are identified as Low in this context, Suburban Fringe areas are often in the process of developing. These areas are typically located at the edge of urban development and may experience future growth. Where development is expected, the HDM recommends that roadway designers consider applying approaches that may be more consistent with Residential Corridor, Commercial Corridor, or Urban Mix contexts to better support future conditions. The Rural Community design approach will also be considered, especially due to the presence of the Coquille Indian Tribe’s Killich community adjacent to the study area.

## DESIGNING BASED ON CONTEXT AND CLASSIFICATION

The following section describes the guiding principles and design considerations based on the guidance provided in the ODOT HDM for Suburban Fringe. These guiding principles and design considerations align with the Project purpose, goals, and vision. General considerations for Suburban Fringe context include:

*The Suburban Fringe context is generally the transition area from higher speed rural roadways to the lower speed urban section entering communities. The design focus for this context is speed control and communicating to drivers they are entering an urban area or rural community.*

*In a Suburban Fringe area, designers would expect a predominance of vehicles and freight; however, bicyclists and pedestrians are also likely to be present and enhanced facilities are considered for safety and comfort. A roadway in the Suburban Fringe context would typically have higher speeds, and lower levels of traffic delay, but the design elements for the facility will change as it transitions into different urban contexts.*

Table 3 summarizes the consistencies and inconsistencies between the guiding principles and modal considerations described above for Suburban Mix within the study area. Understanding the inconsistencies between the guiding principles and the existing characteristics of the Cape Arago Highway Project Area helps to establish the gaps and deficiencies and eventual alternatives development. These gaps will be evaluated in more detail as part of the Transportation Inventory and Existing Transportation System Conditions assessments in TM #5 and TM #6.

**Table 3. Modal Consideration Comparison**

| Urban Context   | Design Speed/<br>Target Speed<br>Comparison                       | Bicyclist Facility<br>Comparison                                                                                   | Pedestrian Facility<br>Comparison                                                                                                            |
|-----------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Suburban Fringe | <b>Existing:</b><br>35-40 MPH<br><b>Recommended:</b><br>35-40 MPH | <b>Existing:</b><br>Shoulder/shared-use path/none<br><b>Recommended:</b><br>Wide, comfortable, buffered facilities | <b>Existing:</b><br>Shared-use path with varying buffer and separation/none<br><b>Recommended:</b><br>Wide, comfortable, buffered facilities |

## Vision

The vision statement below was developed during the Project scoping phase and has been refined to align with applicable local and regional plans, policies, and guidance. It reflects a shared direction for the corridor that integrates mobility, safety, and access considerations.

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*Support a safe, efficient, and connected corridor that improves walking, biking, and transit access while maintaining vehicle and freight operations and supporting economic growth.*

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Consistent with the Suburban Fringe context, the corridor should balance mobility and freight functions with targeted improvements that enhance safety, access, and connectivity for all users. Over time, these improvements are intended to create a safer, more comfortable, and more cohesive corridor that serves residents and visitors while also supporting the regional economy. Investments should respond to existing conditions while remaining flexible to accommodate future development and evolving land patterns.

## Goals and Objectives

The goals and objectives established herein reflect key priorities identified through the review of relevant planning documents. These goals and objectives provide a framework for advancing the project vision through alternative development and refinement in TM #8 and TM #9.

- **Goals** define the key areas of focus needed to achieve the project vision.
- **Objectives** describe the specific outcomes that support each goal.

The following six goals and objectives were informed by the existing plans and policies reviewed in TM #2 and reflect applicable design guidance for the Suburban Fringe urban context. Goals are presented in bold, and the associated objectives are described below each goal.



### **Safety**

Improve safety for all corridor users by reducing the likelihood of fatal and serious injury crashes.



### **Accessibility**

Provide accessible and convenient transportation options for people of all ages and abilities, with a focus on transit- and transportation-disadvantaged populations.



### **Connectivity**

Improve access between communities, residential areas, and key destinations along and across the corridor, while appropriately managing access along the state highway facility.



### **Livability**

Enhance corridor conditions to support quality of life for people who live, work, and visit the corridor by supporting a variety of transportation options, protecting natural features and historic sites, and minimizing project impacts.



### **Constructability**

The recommended alternative is feasible to construct, minimizes impacts to the built and natural environment, and avoids unnecessary design and construction complexity.

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## Evaluation Criteria

This section describes the evaluation criteria, performance metrics, and scoring framework used to assess how each alternative performs relative to the Project goals. The evaluation framework will also help guide discussions with the public about how alternatives are assessed and refined. These criteria will be applied during alternatives evaluation in TM #8 and TM #9.

The evaluation framework is intended to compare design-level tradeoffs and performance differences among the different concept alternatives that will be developed. Evaluation criteria consist of both quantitative and qualitative measures that capture key performance outcomes and design considerations. Each criterion is supported by one or more performance metrics that are used to assign scores. All alternatives are developed to reflect the Project vision and goals and therefore share a baseline level of consistency. The evaluation criteria are intended to differentiate performance and design tradeoffs between alternatives, rather than assess basic alignment with the vision.

**Error! Reference source not found.** presents the evaluation criteria, performance measures, and scoring framework. Each metric will be scored on a scale of 1 to 3, where 1 represents lower performance and 3 represents higher performance. Alternatives will be scored for each performance metric, which will be summed to provide a total alternative score. As the Project advances, the evaluation criteria and metrics may be refined or expanded to better reflect Project priorities and community needs.

## Next Steps

The contents of this memorandum have been reviewed by ODOT staff and will be shared with the Advisory Committee (AC) ahead of the next AC meeting, planned for Summer 2026. Feedback from the AC will be incorporated in a final version of the memorandum.

The evaluation criteria will be used to compare the alternatives developed as part of Task 6: Alternative Development, Analysis, and Preferred Alternative Concept.



**Table 4. Evaluation Criteria and Scoring**

| Goals                | Evaluation Criteria                      | Type         | Performance Measure                                                                 | Scoring                                         |                                      |
|----------------------|------------------------------------------|--------------|-------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------------------|
|                      |                                          |              |                                                                                     | Lower Score                                     | Higher Score                         |
| <b>Safety</b>        | Conflict points                          | Quantitative | # of driveways/new crossings                                                        | Increases conflict points                       | Decreases conflict points            |
|                      | Level of modal separation                | Quantitative | Horizontal and vertical width between users                                         | Less modal separation                           | More modal separation                |
|                      | Potential for crash reduction            | Quantitative | Crash reduction factors                                                             | Lower potential for crash reduction             | Higher potential for crash reduction |
| <b>Accessibility</b> | Ease of access (all modes)               | Qualitative  | Modal consideration alignment with HDM                                              | Limited alignment with HDM modal considerations | Aligns with HDM modal considerations |
|                      | User experience                          | Quantitative | Bicycle & Pedestrian LTS                                                            | Higher LTS                                      | Lower LTS                            |
| <b>Connectivity</b>  | Proximity to key destinations            | Quantitative | Transit stops, existing infrastructure, local business, commercial, and residential | Closer to destinations                          | Further from destinations            |
|                      | Traffic performance                      | Qualitative  | Operational standards <sup>1</sup>                                                  | Exceeds operational standards                   | At or below operational standards    |
| <b>Livability</b>    | Community alignment                      | Qualitative  | Community feedback                                                                  | Negative community feedback                     | Positive community feedback          |
|                      | Compatibility with surrounding land uses | Qualitative  | Consistency with existing and planned land uses and development                     | Less compatible                                 | More compatible                      |

<sup>1</sup> Operational standards will be defined in *Technical Memorandum #4 – Analysis Methods and Assumptions*.

HDM = *ODOT Highway Design Manual*; LTS = level of traffic stress.

| Goals                   | Evaluation Criteria        | Type         | Performance Measure                                       | Scoring                                 |                                        |
|-------------------------|----------------------------|--------------|-----------------------------------------------------------|-----------------------------------------|----------------------------------------|
|                         |                            |              |                                                           | Lower Score                             | Higher Score                           |
| <b>Constructability</b> | Ease of implementation     | Qualitative  | Design complexity                                         | Harder to implement                     | Easier to implement                    |
|                         | Environmental              | Qualitative  | Impacts to natural, historic, and environmental resources | Higher or more impactful impacts        | Fewer or less impactful impacts        |
|                         | Right-of-way               | Qualitative  | Impacts to adjacent properties                            | Higher impacts to adjacent properties   | Lower impacts to adjacent properties   |
|                         | Construction cost          | Quantitative | Relative cost to construct                                | Higher cost to construct                | Lower cost to construct                |
|                         | Operations and maintenance | Qualitative  | Relative cost for operations and maintenance              | Higher operations and maintenance costs | Lower operations and maintenance costs |