HIGHWAY 126 FERN RIDGE CORRIDOR PLAN

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Prepared for

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Prepared by

DKS

HIGHWAY 126 FERN RIDGE CORRIDOR PLAN

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- **Lane County**

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Section 1. Introduction

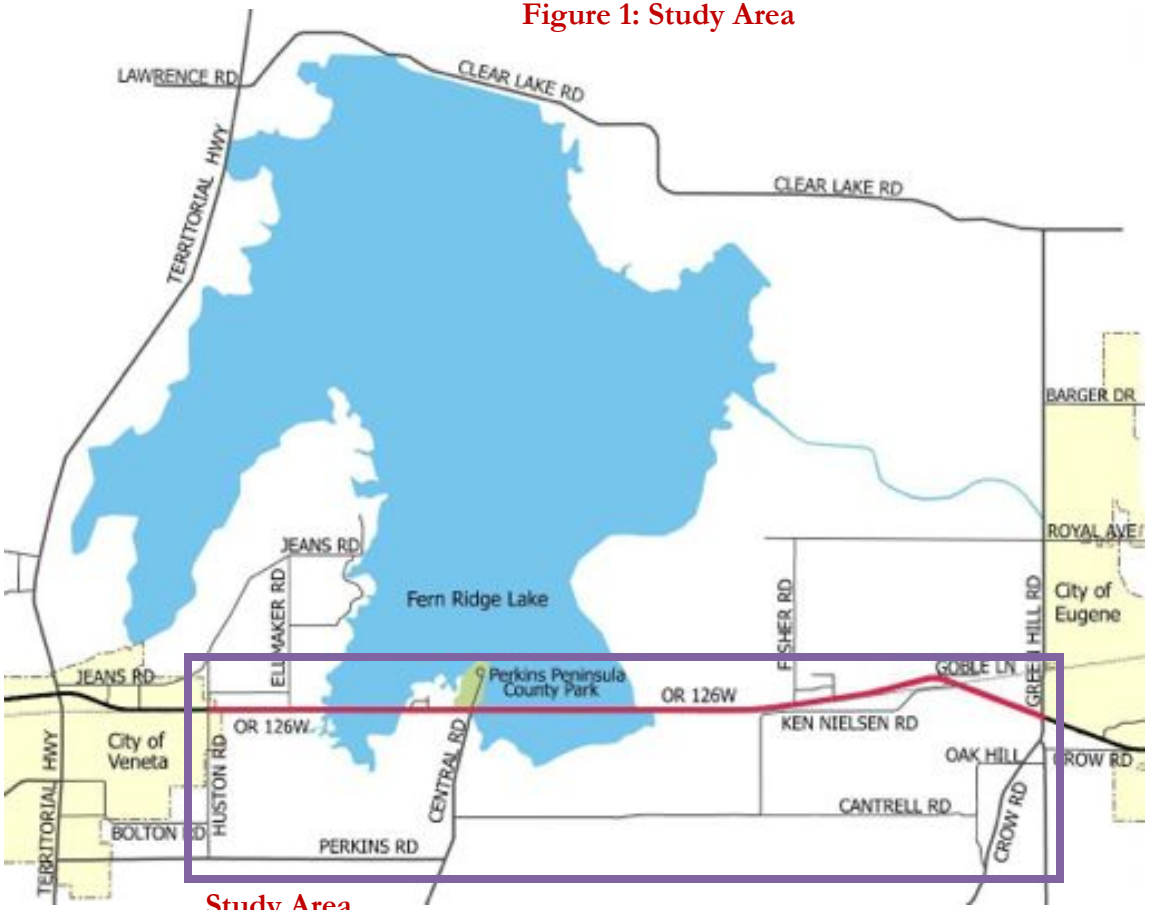
The Highway 126 Fern Ridge Corridor Plan identifies improvement needs and develops solutions to address highway safety and mobility needs for all transportation system users of the six-mile corridor between the cities of Veneta and Eugene. The highway is an important regional connection for commuters, freight, residents, and tourists traveling between the two cities and to the Oregon Coast.

OR 126W is designated as a Statewide Highway and freight route and has a posted speed of 55 miles per hour through the project study area. The highway is intersected by numerous county roads and private driveways that access directly onto the highway. There are limited turn lanes from the highway to these side streets and driveways, and passing opportunities are limited during the peak periods due to heavy traffic volumes. The highway travels through an environmentally sensitive area and has limited connectivity and available right-of-way due to the adjacent railroad tracks and Fern Ridge Lake.

This plan is the first of what may be several phases required to construct improvements along the corridor. Subsequent phases would consist of Phase 2 - environmental documentation to meet National Environmental Policy Act (NEPA) requirements and to select a preferred alternative, Phase 3 - preparation of construction plans, and Phase 4 – construction of improvements. This corridor plan is intended to:

- Develop a problem statement, purpose, needs, goals and objectives for the corridor
- Develop an understanding and inventory of the transportation and environmental conditions through the corridor
- Identify facility deficiencies and opportunities
- Create and evaluate conceptual alternative solutions
- Recommend the most viable solutions that can be implemented

Figure 1: Study Area



Study Area

The study area extends along OR 126W from Huston Road on the west to Green Hill Road on the east, generally covering the rural area between the Urban Growth Boundaries for the cities of Veneta and Eugene (see Figure 1). This section of the highway has received little detailed analysis, unlike roadways within Veneta and Eugene where transportation system plans have been prepared. The Corridor Plan considered several alternatives along three potential routes, including the:

- OR 126W route from Huston Road to Green Hill Road
- Perkins Road, Central Road, Cantrell Road, and Crow Road route between Huston Road and Green Hill Road
- Territorial Highway, Clear Lake Road, and Green Hill Road route around Fern Ridge Lake

The outcome of this Corridor Plan was a set of preferred improvements to address operational and safety issues in the project study area.

Project Purpose

The primary purpose of the Highway 126 Fern Ridge Corridor Plan was to identify corridor improvement options to safely and efficiently accommodate the needs of all roadway users, including pedestrians, bicyclists, motorists, freight and transit.

Goals and Objectives

A set of goals and objectives was developed to outline how the project purpose would be realized:

1. **Transportation Goal:** Provide a multi-modal transportation system from Veneta to Eugene to meet existing and future safety and mobility needs for all transportation system users.
   - *Objective A. Improve safety for pedestrians, bicyclists, motor vehicles, freight, and transit*
   - *Objective B. Encourage use of alternative transportation modes*
   - *Objective C. Maintain/enhance motor vehicle/freight mobility and traffic flow*
   - *Objective D. Support freight mobility along the corridor*
   - *Objective E. Improve safety and efficiency at railroad crossings*
   - *Objective F. Avoid or minimize impacts to the railroad*
   - *Objective G. Improve reliability for emergency vehicles*
   - *Objective H. Provide a facility that meets future growth in the corridor*
   - *Objective I. Where appropriate support opportunities in the corridor for future rail transit service*
2. **Environmental Goal:** Minimize the impacts to local environmental and community resources while incorporating opportunities to enhance those resources.
   - *Objective A. Avoid or minimize adverse impacts to local environmental, visual, and community resources*
   - *Objective B. Support/seek opportunities for enhancements to local environmental and community resources*
3. **Social and Economic Goal:** Support the economic viability of the region including industrial, commercial, recreational, and tourist activities; protect the livability and integrity of the residential areas; provide a financially viable project.
   - *Objective A. Support and enhance multi-modal access for the residential, commercial, recreational, and tourist areas*
   - *Objective B. Improve freight movement throughout the corridor*
   - *Objective C. Enhance transportation facilities which are accessible to all members of the community*
   - *Objective D. Support adopted economic plans*
   - *Objective E. Minimize capital costs while meeting project objectives*
   - *Objective F. Minimize disruption to the community resulting from highway construction and operation*
   - *Objective G. Maximize the cost effectiveness of transportation system investments*
   - *Objective H. Minimize impacts to private properties and farmland*
   - *Objective I. Support rail related freight opportunities for Veneta's industrial areas*
4. **Community Values Goal:** Be consistent with the adopted long term goals and policies of the community and the region.
   - *Objective A. Support community/regional facilities*
   - *Objective B. Consistent with adopted state, county, regional, and local Transportation System Plans and policies*

The Evaluation Criteria

A variety of criteria was used to evaluate and compare the alternatives proposed for the Highway 126 Fern Ridge Corridor Plan. The individual evaluation measures for each criteria were derived from the project goals and objectives. For more information on the project goals, objectives, and evaluation criteria, see Appendix C and Appendix F.

Transportation Goal: Eleven measures used in this goal focused on minimizing conflict points; increasing motor vehicle, freight and emergency vehicle mobility; minimizing impacts to railroad service; and providing safe and accessible pedestrian, bicycle, transit, and motor vehicle facilities.

Environmental Goal: Seven measures were evaluated within this goal. These measures focused on minimizing adverse impacts to natural, historical, cultural, and visual resources; improving access to recreational areas; and supporting regional modal alternatives to the motor vehicle.

Social and Economic Goal: Nine measures were evaluated within this goal that focused on improving access to residential, commercial, and recreational areas; providing accessible transportation facilities; limiting project costs and property related impacts; supporting freight and rail travel; and maintaining consistency with local economic development plans.

Community Values Goal: The ten measures used in this goal focused on consistency with state and local plans.

Section 2. Existing Conditions and Demonstrated Needs

OR 126W between Eugene and Veneta is a two-lane highway where the existing multi-modal, safety, and operational needs are expected to worsen over time. The highway is an important regional connection for commuters, freight, residents and tourists traveling between the two cities and to the Oregon Coast. The highway also crosses an environmentally sensitive area and has limited connectivity and available right-of-way due to the adjacent railroad tracks and Fern Ridge Lake.

OR 126W is under ODOT jurisdiction and is classified as a Statewide Highway. It is also part of the National Highway System, and is a state freight route and a federally designated truck route. Between Huston Road and Green Hill Road, the width and layout of OR 126W varies. The typical layout of the street is configured as follows and shown in Figure 2:

- One 12-foot travel lane in each direction
- Paved shoulders ranging in width from four to ten feet
- Left-turn lanes at major intersections
- No sidewalks or bike lanes

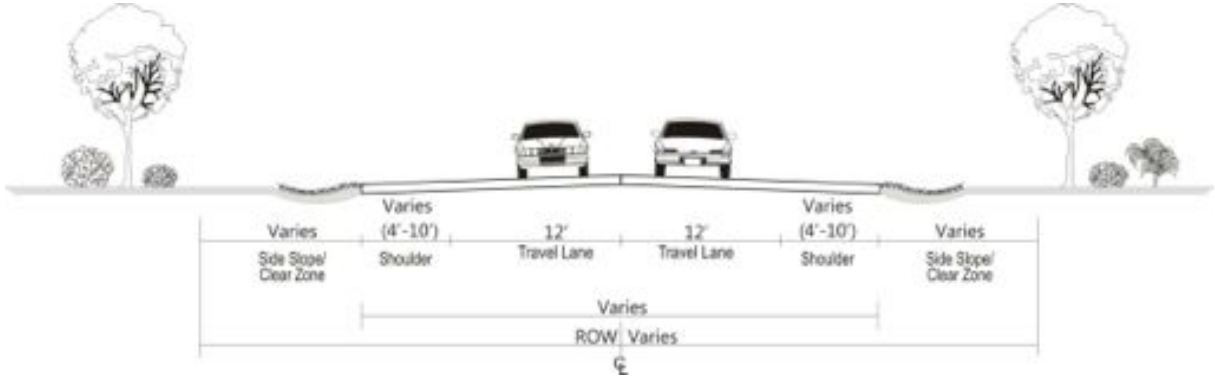


Figure 2: Typical Section of OR 126W Today

Multi-modal Considerations

The existing paved shoulders on OR 126W range from four to ten feet and could be used by cyclists; however, due to the high vehicle travel speeds along the corridor (often more than 55 miles per hour), there are no comfortable accommodations for pedestrian or bicyclists between the cities of Veneta and Eugene.

Along OR 126W, there are several places that attract walking and biking trips (activity generators. These include:

- Fern Ridge Lake
- Fern Ridge Trail System
- Fern Ridge Wildlife Area
- Perkins Peninsula County Park
- Bird watching
- Transit stops at Green Hill Road, Fisher Road, Central Road, Ellmaker Road and Huston Road
- Businesses between Huston Road and Ellmaker Road

Multi-modal Needs

Overall, the following multi-modal needs were identified along the OR 126W study corridor (for more information on the multi-modal needs in the study area, see Appendix B):

- A walking connection between Veneta and Eugene, with access to activity generators between the two cities
- A biking connection between Veneta and Eugene, and to activity generators between the two cities
- Accessible bus stops
- Improved bus stop amenities, such as bus pullouts, shelters, lighting, or park-and-rides

Safety Considerations

OR 126W is a two-lane rural highway that lacks pedestrian and bicycle facilities. On an average day, the highway carries approximately 14,500 vehicles, increasing to nearly 18,000 vehicles per day in the peak summer months. The posted speed is 55 miles per hour; however, most drivers travel at or below speeds of 62 miles per hour.[1]

The OR 126W corridor between Veneta and Eugene also has an above average crash rate compared to other similar highways in Oregon (between 2005 and 2009); and the highway has averaged two fatalities or debilitating injuries per year over the past 15 years (see Figure 3). The following factors could be contributing to the high collision frequency along the corridor:

- Narrow shoulders
- Railroad alignment along the south side
- Fern Ridge Lake on both sides of the middle section
- Numerous closely spaced driveways at the western end
- Pavement ruts

In addition, there are several unsignalized streets and driveways that access the corridor but have no left- or right-turn lanes. Drivers attempting to turn at these locations are often forced to stop or slow in the travel lanes, which causes queuing and increases the potential for rear-end collisions. The collision evaluation showed that the access density along the corridor has contributed to increased collisions.

Pedestrians or bicyclists have been involved in five collisions along the OR 126W study corridor over the past 15 years. The lack of pedestrian and bicycle facilities could be contributing factors and could also limit use of the corridor by walkers and bikers.

Although safety issues have been identified, there are no locations along the study corridor that rank among the top ten percent of state highways in Oregon for collision frequency or severity (no top 10% SPIS sites).

Safety Needs

Overall, the following safety needs were identified along the OR 126W study corridor (for more information on the safety needs in the study area, see Appendix B):

- Reduce the collision potential
- Create safe passing opportunities
- Establish more reliable emergency response times
- Manage access points by consolidating driveways to adjacent properties
- Provide left- and right-turn lanes at major streets and driveways
- Accommodate all users

[1] As determined by the 85th percentile speed for the corridor, which is defined as the speed below which 85 percent of the vehicles are traveling.

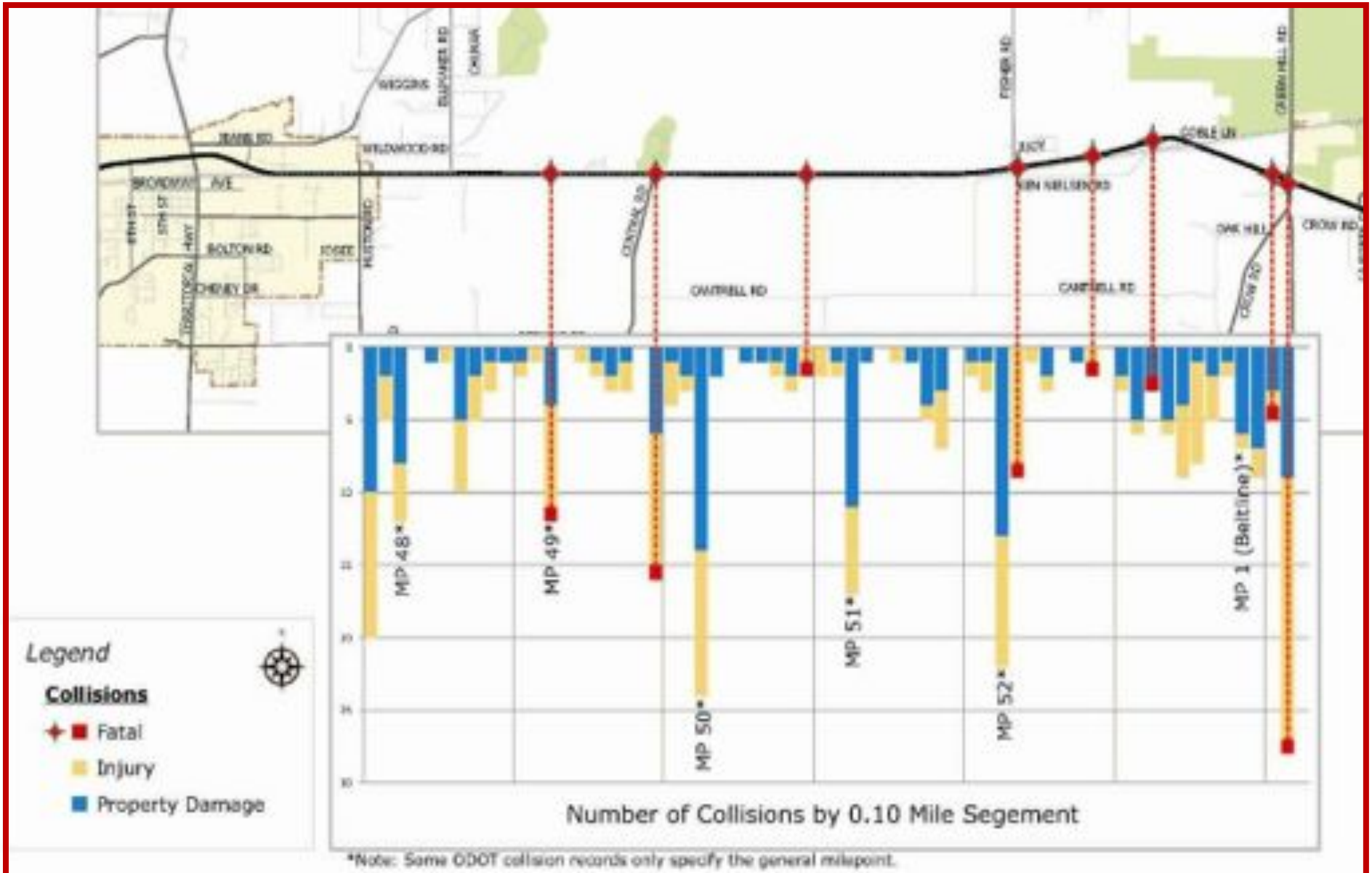


Figure 3: Collision Locations and Frequency (1994 to 2009)

Operational Considerations

Today, intersections along the OR 126W corridor meet ODOT's target for intersection operations.[2] But by 2035, increased vehicular volumes are expected to cause several intersections to become substandard (not meeting the intersection volume to capacity target). The large through traffic volumes on OR 126W would generally be expected to increase the delay drivers experience at side street approaches to the highway. Drivers will require more time to find an acceptable gap in traffic to make a left turn onto the highway, thereby, reducing the lane capacity of the side street. The following intersections are expected to be substandard by 2035 (see Figure 4):

- OR 126W/Green Hill Road
- OR 126W/Huston Road
- OR 126W/Shady Rest Drive
- OR 126W/Lake Side Drive
- OR 126W/Central Road
- OR 126W/Fisher Road
- OR 126W/Richmond Street
- OR 126W/Ken Nielsen Road

In addition to the intersection-level analysis of the corridor, a segment-level traffic operations analysis was conducted on OR 126W between Ellmaker Road to Green Hill Road. This analysis also indicated that the corridor is expected to be substandard by the year 2035. Additional through capacity is needed on OR 126W to accommodate higher traffic volumes and support the continued growth of Veneta, Eugene, and the Oregon Coast.

Operational Needs

Overall, the following operational needs were identified along the OR 126W study corridor (for more information on the operational needs in the study area, see Appendix B and Appendix D):

- Increase roadway capacity to accommodate through traffic volumes during the summer
- Design an accessible and adaptable roadway that accommodates users with varying travel patterns and driving characteristics including local, commuter, freight, and recreational trips

Figure 4: OR 126W Operational Needs

Roadway Segment above Target

- Intersection over capacity (over v/c 1.0)
- Intersection more than 15% above Target
- Intersection less than 15% above Target
- Intersection below Target

[2] ODOT Freight Route on a Statewide Highway, with a maximum volume to capacity ratio of 0.80 for stop-controlled side streets, and 0.70 for the mainline; and 0.80 for signalized intersections. Oregon Highway Plan, Table 6, August 2005.

Environmental and Other Considerations

OR 126W travels through environmentally sensitive areas and the roadway has limited connectivity and available right-of-way due to its proximity to the parallel Coos Bay rail line and Fern Ridge Lake.

The design of project alternatives within the study area was guided by regulatory requirements and considerations for avoiding and minimizing impacts to the following sensitive resources and features (see Figure 5):

- Wetlands and other water resources
- Fern Ridge Lake
- Fern Ridge Wildlife Area
- Perkins Peninsula County Park
- Willamette daisy, Fender's blue butterfly and Kincaid's lupine critical habitat
- Coos Bay rail line
- Potential historic structures
- Hazardous material sites

Additional information relating to environmental constraints within the study area is provided in Appendix H.

It is anticipated that ODOT will obtain federal funds to implement improvements recommended in the Highway 126 Fern Ridge Corridor Plan. Therefore, the project would be required to comply with the National Environmental Policy Act (NEPA) and other relevant federal, state, and local laws and regulations.

The Corridor Plan will be used by ODOT to identify the type of NEPA environmental documentation (Class 1, 2 or 3) that is ultimately required when selecting a preferred alternative. The Corridor Plan will also support development of NEPA documentation in the project's next phase.

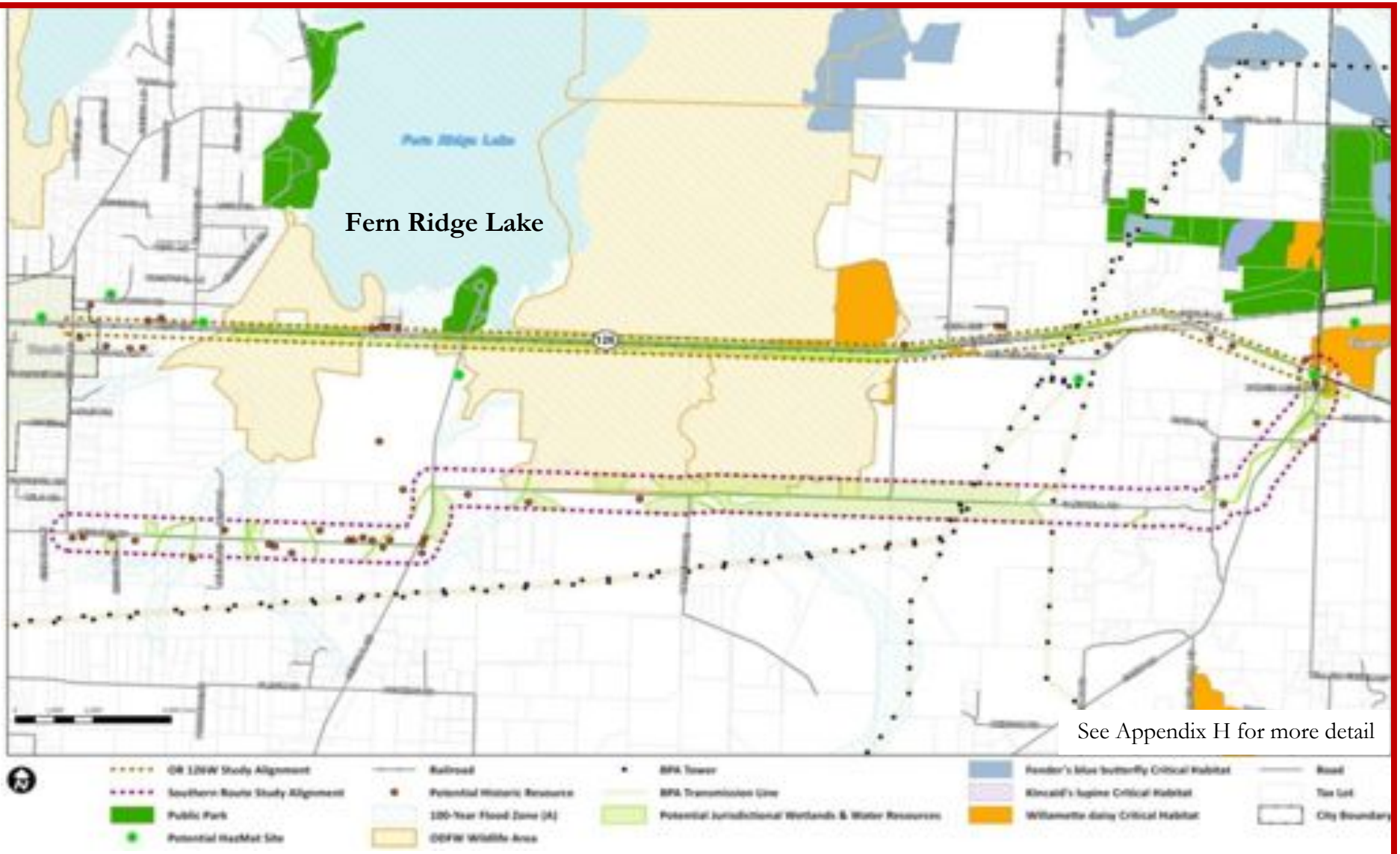


Figure 5: OR 126W Study Area Constraints

Section 3. Public Process

The Highway 126 Fern Ridge Corridor Plan was a collaborative process among various public agencies, key stakeholders and the community. Throughout this project, the project team took time to understand multiple points of view, obtain fresh ideas and resource materials, and encourage participation from the community.

Project staff conducted individual interviews, hosted small focus group meetings and regular meetings with decision makers, and conversed informally with members of the community. At key stages, project staff also held three public workshops (or community forums) that gave residents an opportunity to learn about the study and contribute their concerns on how the corridor might be improved. This section summarizes this public process and the ideas generated by the community at the three community forums. For more information on the public process, see Appendix I.

Community involvement played a key role in the development of the Corridor Plan

Stakeholder Interviews/Focus Groups

Key project issues and potential transportation solutions were brainstormed

Community Forum #1

The community provided feedback on the project alternatives

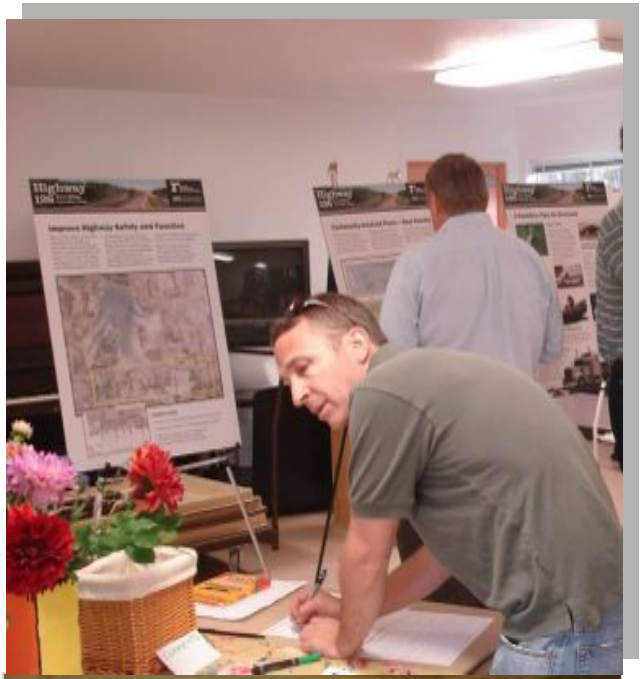
Community Forum #2

The community provided feedback on the first screening process (tier 1)

Community Forum #3

The community provided feedback on the second screening process (tier 2)

Corridor Plan



What Issues Matter to the Community?

Between May and August 2011, forty stakeholder interviews were conducted to help identify the following key project issues:

- Address the needs of all corridor users
- Improve safety and accessibility
- Support economic viability
- Enhance environmental conditions
- Minimize impacts to property owners, residents, and businesses
- Improve multi-modal options and access

Stakeholders helped to identify four specialized focus groups with concerns in the corridor, including:

- Focus Group #1: Corridor users, such as commuters, tourists, and freight truck drivers who travel through the corridor
- Focus Group #2: Multi-modal users and planners for the corridor, such as bicycle advocates and transit service providers
- Focus Group #3: Non-profit and agency organizations with environmental programs or regulatory authority in the corridor, such as conservation groups and federal and state natural resource agencies
- Focus Group #4: People who live and / or work along the corridor, such as residents and business owners

The focus groups met between June and September 2011. These groups provided feedback on the project's goals and objectives and on the needs and deficiencies of the OR 126W corridor, and they brainstormed solutions to address roadway safety and congestion. Their input guided the project team in developing transportation solutions.

Community Forum #1

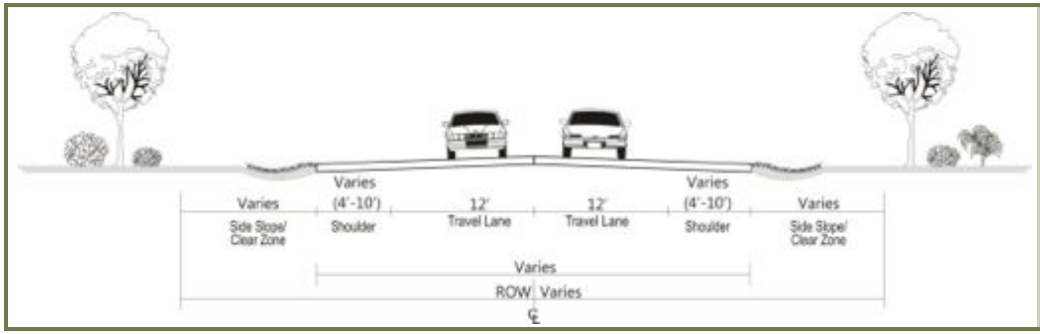
On October 6, 2011, the first of three community forums was held. At this first community forum, the project team presented an overview of the project, opportunities and constraints information and possible project options. Participants commented on the project's problem statement, purpose and need statement, goals and objectives, and several alternatives.

Eight alternatives (summarized in Figure 7a and Figure 7b) along three potential routes were presented at Community Forum #1 (for more information on project alternatives, see Appendix E):

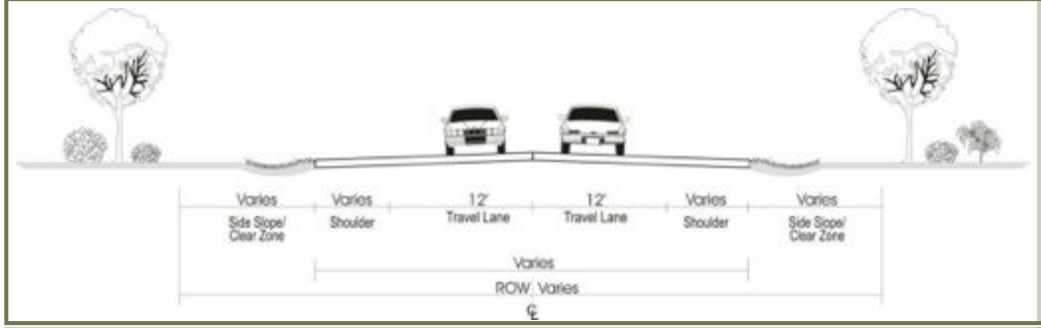
- **OR 126W Route:** The five alternatives considered along the OR 126W route from Huston Road to Green Hill Road (see Figure 6) were doing nothing (No Build), transportation system management improvements, spot improvements, and roadway widening to three or four lanes.
- **Southern Route:** Two alternatives considered along the Perkins Road, Central Road, Cantrell Road, and Crow Road route between Huston Road and Green Hill Road (see Figure 6) were widening various segments of this route to three travel lanes and widening portions of the shoulder as appropriate or adding a multi-use trail for pedestrian and bicycle travel.
- **Northern Route:** One alternative was considered along the Territorial Highway, Clear Lake Road, and Green Hill Road route around Fern Ridge Lake (see Figure 6). This alternative would widen various segments of this route to three lanes and widen portions of the shoulder as appropriate.

Figure 6: Routes Considered for Improvements

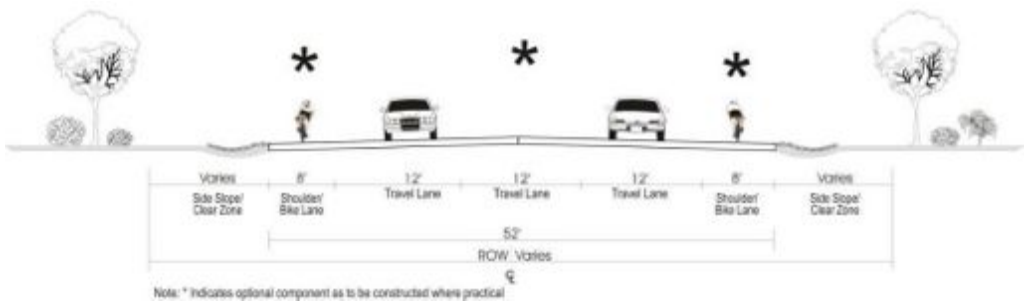
Figure 7a: The Eight Alternatives



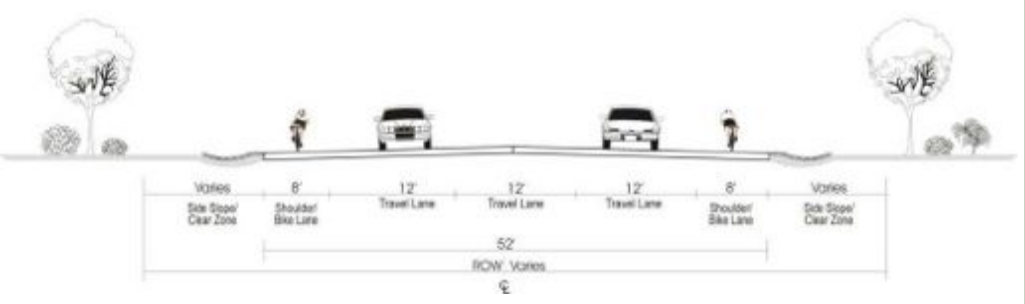
OR 126W Route No-Build Alternative would construct no improvements. OR 126W would maintain one travel lane in each direction, with left-turn lanes where they currently exist. The shoulders would continue to vary in size.



OR 126W Route Transportation System Management Alternative would include no roadway widening (OR 126W would maintain the existing cross-section). Lower cost improvements would be implemented such as improved signing and roadway striping, alternate mobility standards or transit and access management enhancements.



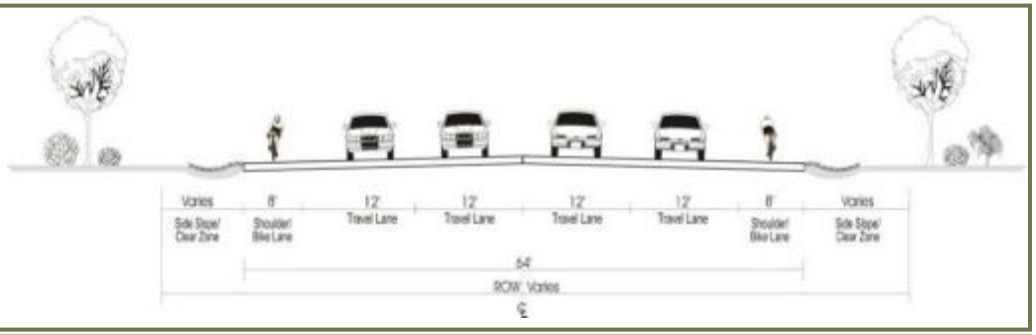
OR 126W Route Spot Improvement Alternative would modify OR 126W where practical to include additional turn lanes, intersection improvements and shoulder widening. The shoulders would continue to vary in size and the roadway would transition between two and three lanes.



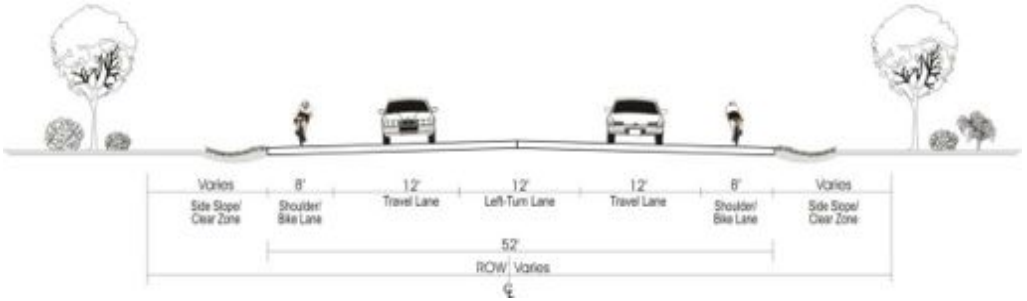
OR 126W Route Three Lane Alternative would widen OR126W to include one travel lane in each direction and a center lane for either turning or passing as appropriate. The shoulders would be widened to eight feet.

Figure 7b: The Eight Alternatives

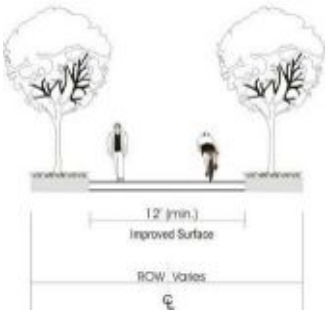
OR 126W Route Four Lane Alternative would widen OR126W to include two travel lanes in each direction. The shoulders would be widened to eight feet. Dedicated left-turn lanes would be added where appropriate.



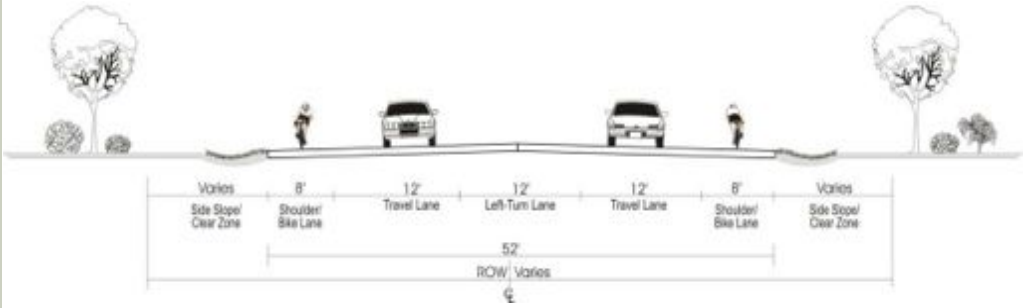
Southern Route Two/Three Lane Alternative would modify Perkins and Cantrell Roads where needed to include additional turn lanes and widened shoulders. The roadways would transition between two and three lanes.

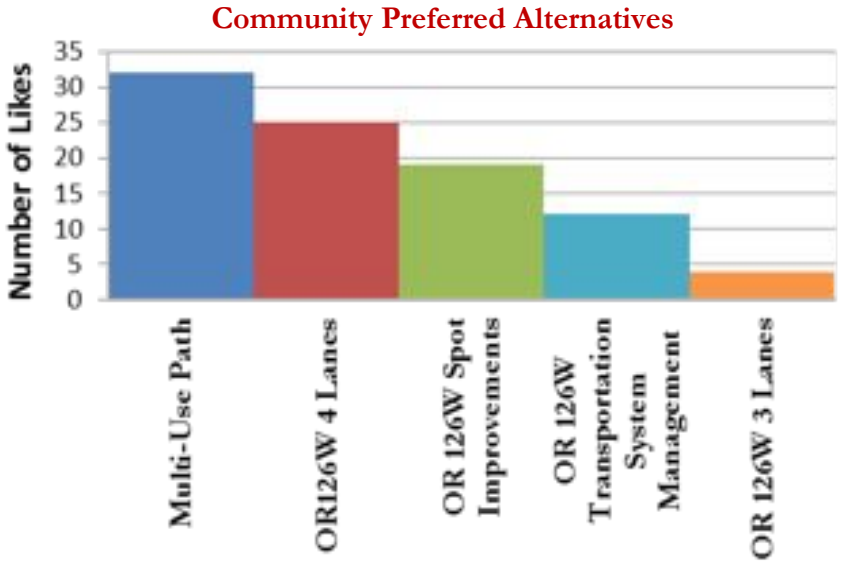


Southern Route Multi-use Path Alternative would construct a multi-use path for pedestrian and bicycle travel between Huston Road and Green Hill Road generally near the Perkins and Cantrell Road alignments. No additional roadway improvements would be constructed (OR 126W would maintain the existing cross-section).



Northern Route Alternative would modify Territorial Highway, Clear Lake, and Green Hill Roads where needed to include additional turn lanes and widened shoulders. The roadways would transition between two and three lanes.





Community Preferred Alternatives

At Community Forum #1, project staff asked community members to fill out a survey indicating which alternative they prefer. The majority of respondents said they liked the OR 126W Route Four Lane Alternative or the OR 126W Route Spot Improvements Alternative. The alternatives for Transportation System Management and three lanes along the OR 126W Route were also preferred by a few community members.

The separated multi-use path alternative was favored by most community members in attendance, but only if this alternative was combined with another alternative that would improve OR 126W (such as widening to four lanes). Ultimately, all of the alternatives were advanced for further refinement and community review.

Community Forum #2

On January 24, 2012, the second of three community forums was held where the results of the first screening and evaluation process was presented. Participants commented on the project alternatives and design options recommended for further study in Community Meeting #1.

Several design options were developed to supplement the eight project alternatives under consideration:

- **A separated multi-use path:** Providing a separated multi-use path for pedestrian and bicycle travel would be beneficial when compared to the same alternative without that option. It was also evident based on public input that a separated multi-use path would be preferred to bicycle facilities adjacent to the highway. For the purposes of comparing project alternatives, the project team developed a separated multi-use path design option (see Figure 8) that could be constructed either adjacent to OR 126W or along the southern route (via Cantrell and Perkins Roads) and that could be added to any alternative. This option would more comfortably and safely accommodate pedestrian and bicycle modes.
- **OR 126W Causeway Options**: Widening the highway under the three- or four-lane alternative would require modifying the existing dike across Fern Ridge Lake. Two causeway options were considered, as shown in Figure 9, including widening the existing dike to support the expanded roadway or replacing the dike with support piers to improve water flow under the roadway. Since subtle differences would be expected between the two causeway options for most evaluation criteria, they were evaluated as separate design options. Therefore, the three- and four-lane alternatives for OR 126W were each evaluated with a causeway on a dike and a causeway on piers.

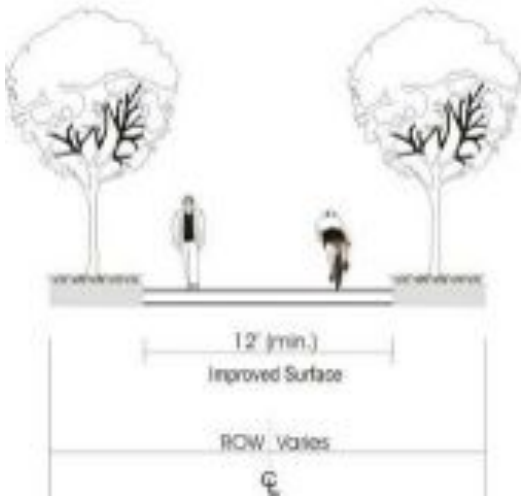


Figure 8: Multi-use Path Design Option

Figure 9: OR 126W Causeway Design Options

Screening and Evaluation Process (Tier 1)

Each alternative was evaluated with a high-level Tier 1 screening process (see Figure 10) that determined how well each achieved the measures of the criteria. The alternatives were scored on a scale from one (poor) to three (good). The individual evaluation criteria scores were added up for each goal (see "The Evaluation Criteria" section earlier in this document), helping to distinguish among alternatives.

The "Transportation" criteria resulted in noticeable differences. Three- and four-lane roadways were favored over smaller cross-sections, though this meant a greater impact to properties and resources. The three- and four-lane alternatives would also be expected to greatly enhance multi-modal safety, mobility, and accessibility through the corridor. In addition, any alternative that provided a separated multi-use path for pedestrian and bicycle travel would be preferable to the same alternative without that option; however, the separated multi-use path would also greatly impact property and environmental resources and be more costly to implement.

Two alternatives (Multi-Use Path Only and Northern Route via Clear Lake Road) were determined to have fatal flaws under the "Transportation" criteria. The Multi-Use Path Only Alternative would not address motor vehicle operational and safety factors on OR 126W. The Northern Route Alternative would require too much out-of-direction travel to serve as a viable parallel route and, therefore, would not improve vehicle operational and safety factors on OR 126W. Due to these fundamental flaws, these two alternatives were not recommended for further evaluation. For more information on the first screening and evaluation process, see Appendix F and Appendix H.

Figure 10: Result of Tier 1 Screening and Evaluation Process

Goals	OR 126W- No Build	OR 126W- Transportation System Management	OR 126W- Spot Improvements	Design Option: Spot Improvements with Multi-Use Path	OR 126W- 3 lanes w/ Causeway on Dike	Design Option: 3 lanes w/ Causeway on Piers	OR 126W- 4 lanes w/ Causeway on Dike	Design Option: 4 lanes w/ Causeway on Piers	Southern Route- Perkins and Cantrell Roads	Southern Route- Multi-Use Path Only	Northern Route (Clear Lake Road)
Transportation	15	16	17	21	26	27	29	30	21	FF	FF
Environmental	18	18	19	15	12	15	11	15	13	-	-
Social and Economic	11	11	13	18	18	18	20	20	15	-	-
Community Planning	14	14	15	21	18	19	20	21	16	-	-
Total Raw Score	58	59	64	75	74	79	80	86	65	FF	FF
Ranking of Alternative	6	5	-	**3**	-	**2**	-	**1**	4	FF	FF

OR 126W Route | Southern Route | Northern Route

FF = Fatal Flaw

Alternatives Advancing to the Second Screening Process

Overall, the top three alternatives from the Tier 1 screening determined to have the greatest likelihood to meet the project goals and objectives were advanced to the second screening process (Tier 2):

- OR 126W Route Four-Lane Alternative with Causeway on Dike
- OR 126W Route Three-Lane Alternative with Causeway on Dike
- OR 126W Route Spot Improvements

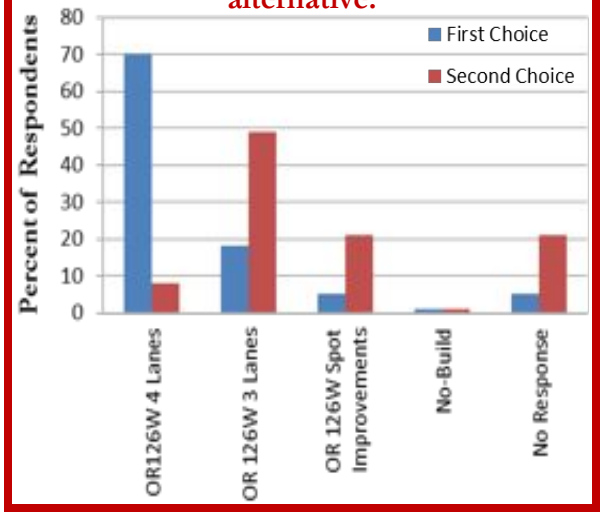
The No-Build Alternative, although ranked the lowest in meeting the project goals and objectives, was required to be advanced and compared to the improvement alternatives throughout the project development and NEPA documentation process.

The OR 126W Spot Improvements offer short-term modifications that would be consistent if either the three- or four-lane improvement alternative is chosen as a long-term solution for the corridor. The southern route alternative along Perkins and Cantrell Roads would have a moderate effect on mobility and safety through the OR 126W corridor; however, this alternative would not effectively supplement a long-term solution along the OR 126W corridor.

Therefore, the third alternative recommended for advancement to the second screening process was the OR 126W Route Spot Improvements. The following design options were also evaluated with the alternatives that advanced to the second screening process:

- A separated multi-use path
- Causeway on piers

The community overwhelmingly prefers the OR 126W 4 lane alternative, followed by the OR 126W 3 lane alternative.



Community Forum #3

On May 8, 2012, the third community forum was held. At this community forum, the result of the Tier 2, screening and evaluation process was presented (see Figure 11). Participants commented on whether they agreed with the recommended project alternatives and design options that were derived from the Tier 2 screening and evaluation process.

Figure 11: Result of Tier 2 Screening and Evaluation Process

	OR 126W- No Build	OR 126W- Spot Improvements	OR 126W- 3 lanes with Causeway on Dike	OR 126W- 4 lanes with Causeway on Dike
Transportation	19	39	42	48
Environmental	30	28	24	19
Social and Economic	13	21	33	37
Community Planning	17	39	40	41
Total Score	**79**	**127**	**139**	**145**
Ranking of Alternative	**4**	**3**	**2**	**1**

OR 126W Route

How did the Alternatives Compare to One Another?

In the Tier 2 screening evaluation, each alternative was evaluated and rated based on how well it achieved the measures set for each of the criteria; scoring was on a scale from one (poor achievement) to five (best achievement). The Tier 2 screening involved a more detailed evaluation of each alternative that included conceptual drawings, traffic operations and capacity, cost estimates, and constructability. The evaluation was intended to help distinguish differences between the alternatives and aid decision makers in determining which alternative best met the various project criteria.

Overall, the alternative determined to have the greatest likelihood of meeting the project goals and objectives was the OR 126W Four-Lane Alternative. The OR 126W Three-Lane Alternative ranked a close second. The Spot Improvements and the No Build Alternative were ranked a distant third and fourth, respectively.

Corridor Operation Comparison

The OR 126W Four-Lane Alternative performed the best with all study intersections meeting mobility targets through 2035. The No Build, Three-Lane and Spot Improvement Alternatives had several study intersections that would not meet mobility targets through 2035.

Walking and Biking Comparison

All alternatives assumed a separated multi-use path along one of two alignments, either adjacent to OR 126W or via Cantrell and Perkins Roads.

Cost Comparison

OR 126W Spot Improvements with separated multi-use path: $15 million

OR 126W Three-Lane Alternative with separated multi-use path

- Causeway on Dike: $95 million
- Causeway on Piers: $145 million

OR 126W Four-Lane Alternative with separated multi-use path

- Causeway on Dike: $130 million
- Causeway on Piers: $195 million

Outcome of the Tier 2 Screening Process

The following improvements, derived from the more rigorous Tier 2 screening process, are recommended for the Highway 126 Fern Ridge Corridor (for more information on the Tier 2 screening and evaluation process, see Appendix G and Appendix H):

- **OR 126W Four-Lane Alternative:** This alternative was determined to have the greatest likelihood to meet project goals and objectives and is the preferred alternative by the community.

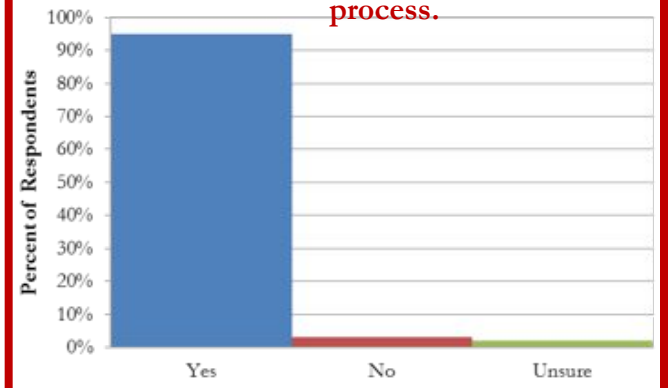
  This alternative could be accomplished either by widening the existing dike to support the expanded roadway or replacing the dike with support piers to improve water flow under the roadway. The selection of the causeway design option will likely be determined through the NEPA and Project Development process.

- **Spot Improvements Alternative as an interim solution**: This alternative could serve as an interim solution to achieve some of the project goals and objectives in the short-term due to the higher construction costs of the OR 126W Four-Lane alternative.

- **Separated Multi-use Path Design Option**: It is recommended that the separated multi-use path design option along Perkins Road, Cantrell Road and Ken Nielsen Road be advanced. Since there were negligible differences between the two pathway options, the multi-use path adjacent to OR 126W should also be moved forward for further evaluation.

  The selection of the multi-use pathway design option will likely be determined through the next phase of the overall project.

Of the 61 respondents at Community Forum #3, 95 percent strongly support the outcome of the Tier 2 screening process.



Section 4. Recommended Corridor Plan

The recommendation for the Highway 126 Fern Ridge Corridor Plan is the Four-lane Alternative. Based on the stakeholder interviews, specialized input group discussions and feedback from the community forums, this alternative offers a vision for OR 126W that best meets the diverse needs of all users of the corridor.

Long Term Recommendation

The OR 126W Four-Lane Alternative was determined to have the greatest likelihood to meet the project goals and objectives and is recommended as the long-term design for the corridor. The separated multi-use path design option, either adjacent to OR 126W or along the southern route (via Cantrell and Perkins Roads) is also recommended with the long-term plan. This path is planned to connect Veneta with the end of the existing Fern Ridge Trail just north of the OR 126W/Green Hill Road intersection. Under both alignments, the separated multi-use path could run adjacent to OR 126W or along the railroad tracks between Ken Neilsen Road and Green Hill Road.

Two typical roadway section designs were developed for OR 126W, including designs for constrained (Figure 12) and very constrained right-of-ways (Figure 13). Note that the typical sections show an adjacent multi-use path; however, the ultimate alignment (adjacent to OR 126W or along the southern route via Cantrell and Perkins Roads) will likely be determined through the NEPA and Project Development process.

The recommended corridor design and the associated typical section can be seen in Figures 14a to 14g. The multi-use path design option adjacent to OR 126W can also been seen in Figures 14a to 14g. The multi-use path design option along the southern route (via Cantrell and Perkins Roads) can be seen in Figure 15.

Figure 12: Constrained 4-Lane Section with adjacent Multi-Use Path

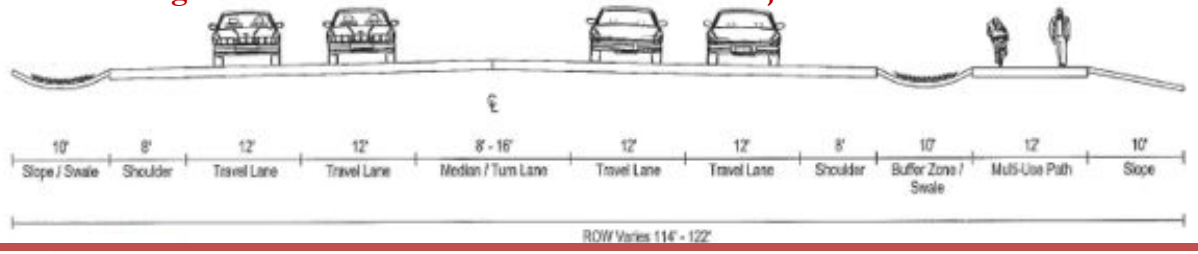


Figure 13: Very Constrained 4-Lane Section with adjacent Multi-Use Path

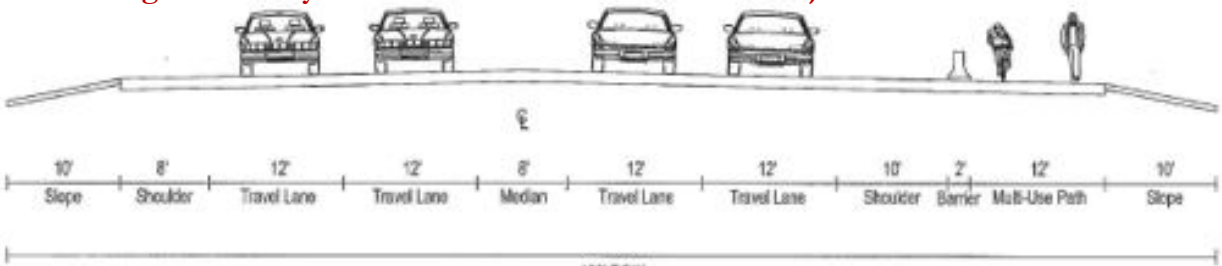
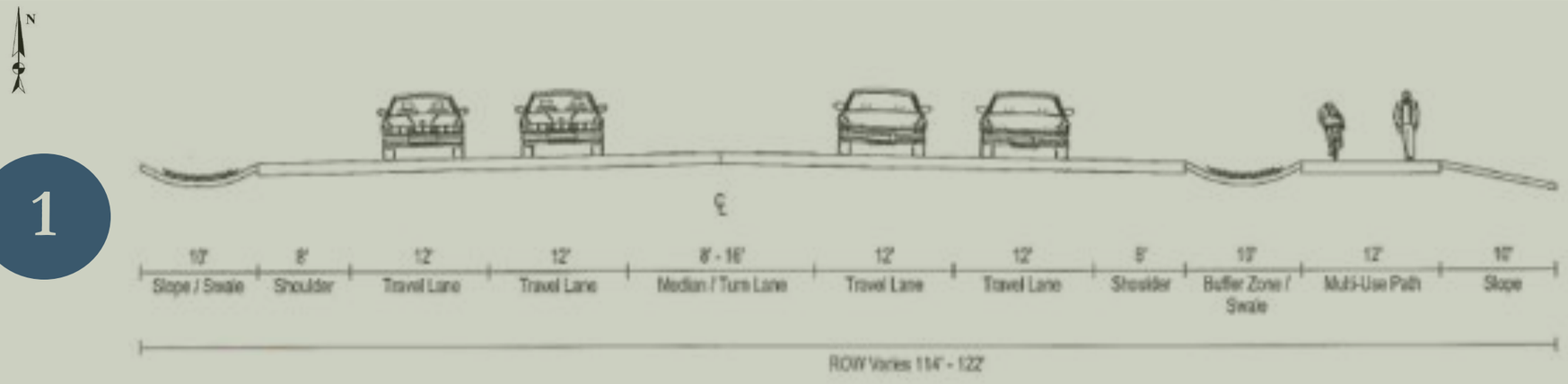


Figure 14a: Recommended Corridor Plan: Huston Road to Ellmaker



Legend

- Proposed Edge of Pavement
- Proposed Lane Striping
- Proposed Multi-Use Path
- Railroad
- Tax Lot

\# Indicates the applicable street design:
1= Constrained Section
2= Very Constrained Section

Figure 14b: Recommended Corridor Plan: Ellmaker Road to Shady Rest Drive

Legend

- Proposed Edge of Pavement
- Proposed Lane Striping
- Proposed Multi-Use Path
- Railroad
- Tax Lot

\# Indicates the applicable street design:
1= Constrained Section
2= Very Constrained Section

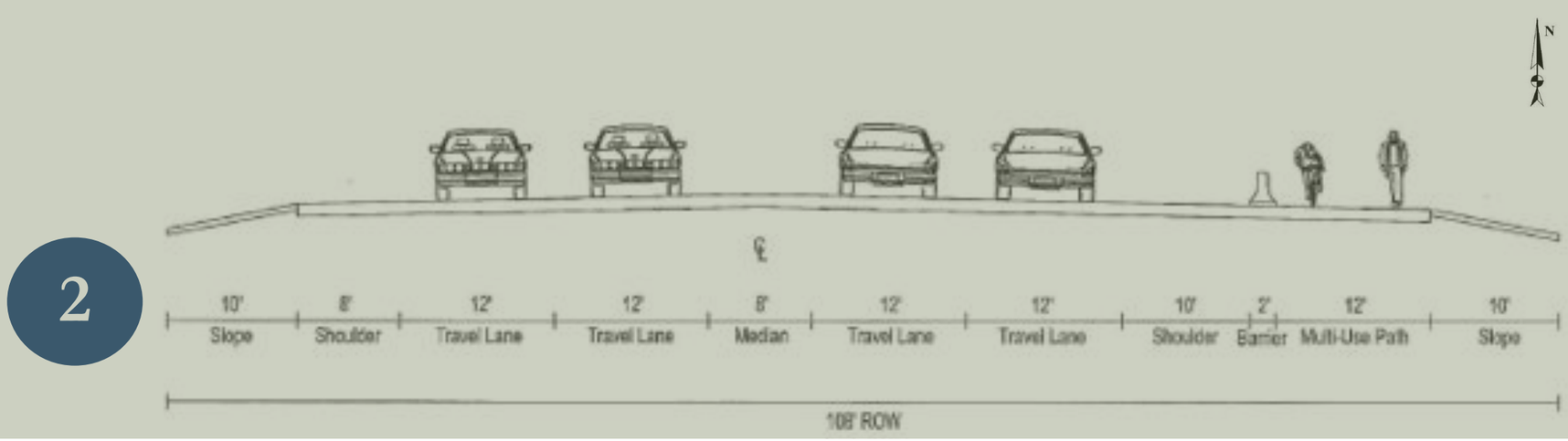


Figure 14c: Recommended Corridor Plan: Shady Rest Drive to Central Road

Figure 14d: Recommended Corridor Plan: Central Road to Coyote Creek

Legend

- Proposed Edge of Pavement
- Proposed Lane Striping
- Proposed Multi-Use Path
- Railroad
- Tax Lot

# Indicates the applicable street design:
1= Constrained Section
2= Very Constrained Section

2

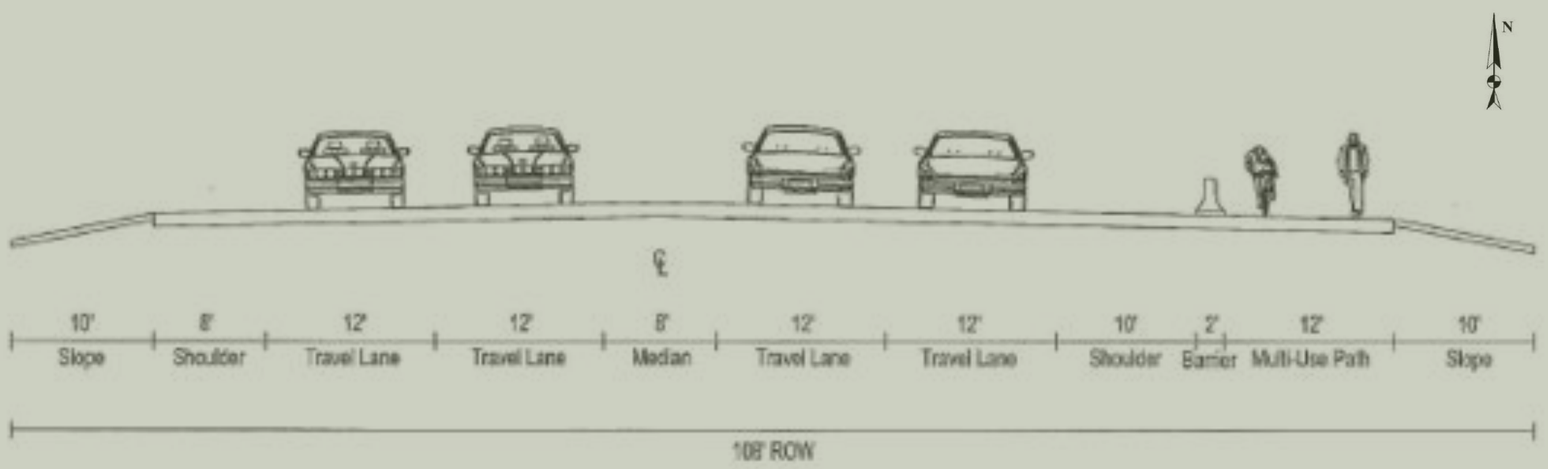
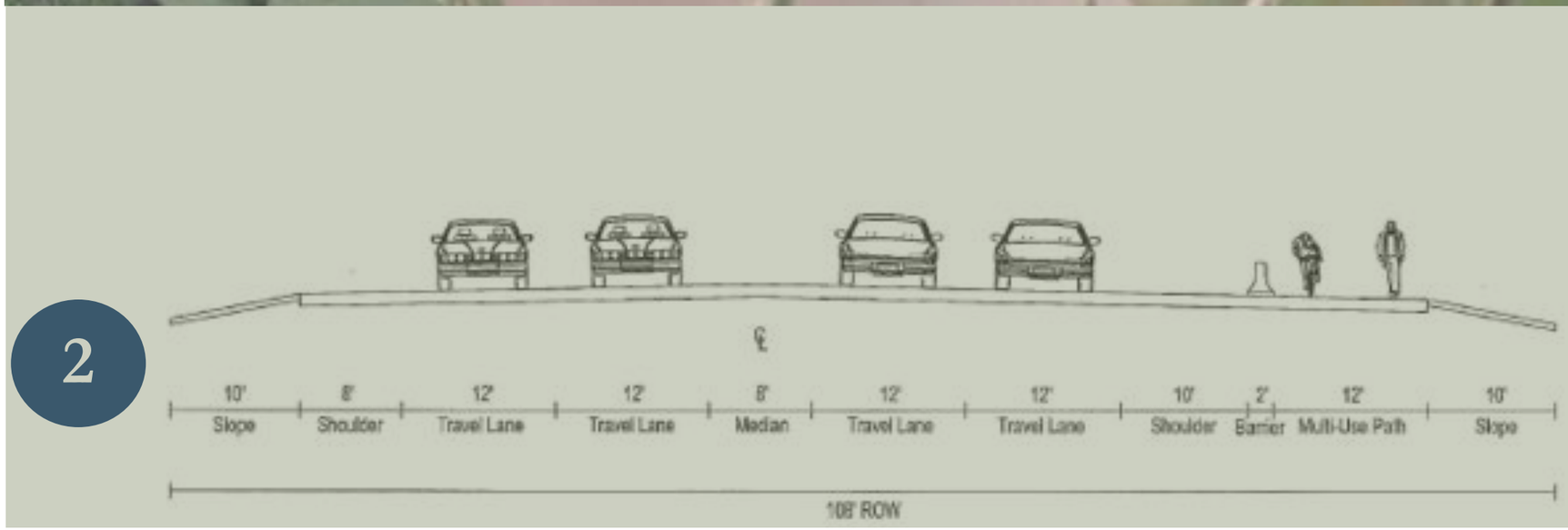


Figure 14e: Recommended Corridor Plan: Coyote Creek to west of Fisher Road



Legend

- Proposed Edge of Pavement
- Proposed Lane Striping
- Proposed Multi-Use Path
- Railroad
- Tax Lot

\# Indicates the applicable street design:
1= Constrained Section
2= Very Constrained Section

Figure 14f: Recommended Corridor Plan: West of Fisher Road to east of Richmond Street

Legend

- Proposed Edge of Pavement
- Proposed Lane Striping
- Proposed Multi-Use Path
- Railroad
- Tax Lot

\# Indicates the applicable street design:
1= Constrained Section
2= Very Constrained Section

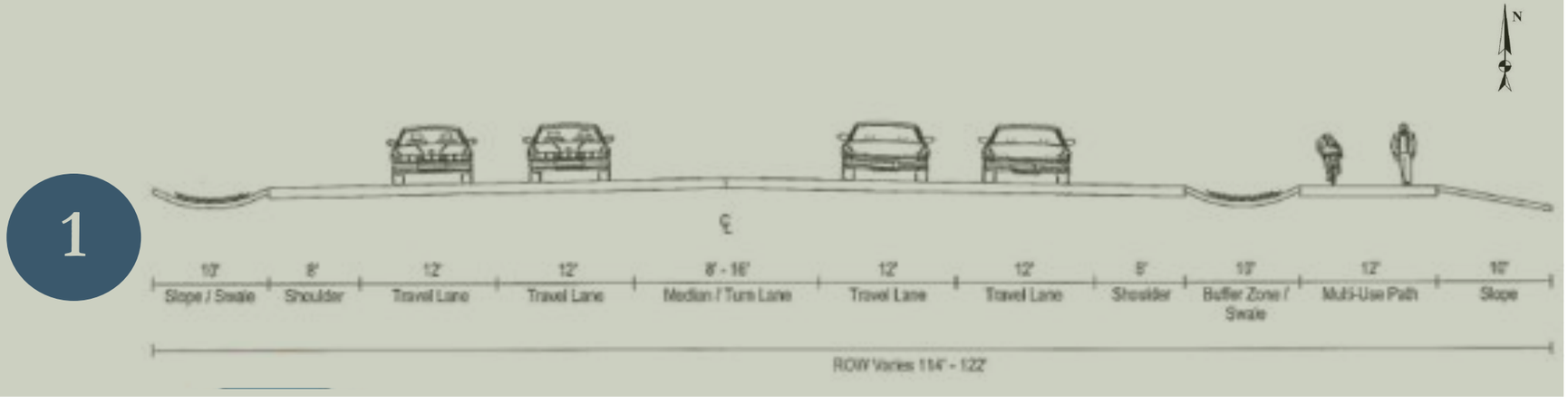


Figure 14g: Recommended Corridor Plan: East of Richmond Street to Greenhill Road

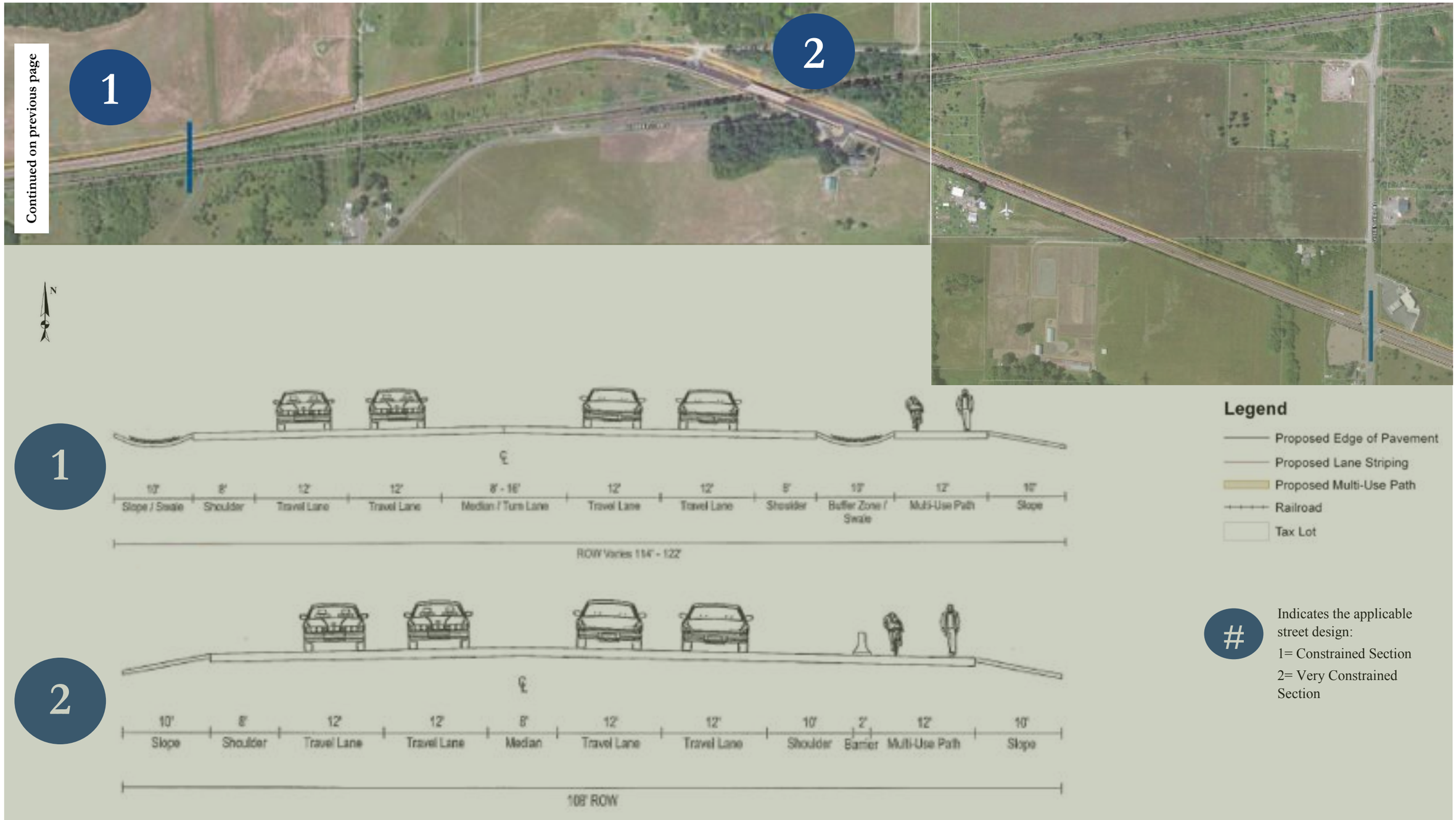
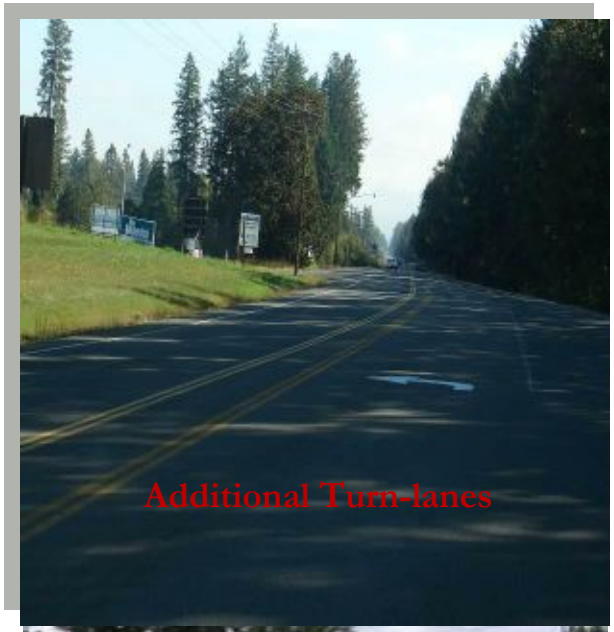


Figure 15: Recommended Corridor Plan: Separated Multi-Use Path Design Option along the Southern Route


Additional Turn-lanes


Example of a Bus Pull-out

Image source: WSDOT

Short-term Recommendations

The Spot Improvements Alternative was recommended as an interim solution to achieve some of the project goals and objectives in the short-term due to the higher construction costs of the OR 126W Four-Lane Alternative. As shown in Figures 16a and 16b, the short-term recommendations include walking and biking, transit, and motor vehicle safety and capacity enhancements.

Walking and Biking

Short-term walking and biking recommendations were:

- Investigate crosswalks and enhanced crossing treatments along OR 126W
- Add sidewalk connections from marked crossings on OR 126W to bus stops
- Add street lighting

Transit

Short-term transit recommendations were:

- Relocate bus stops to the far side of intersections
- Add bus pull-outs, landing pads, benches and shelters at bus stops

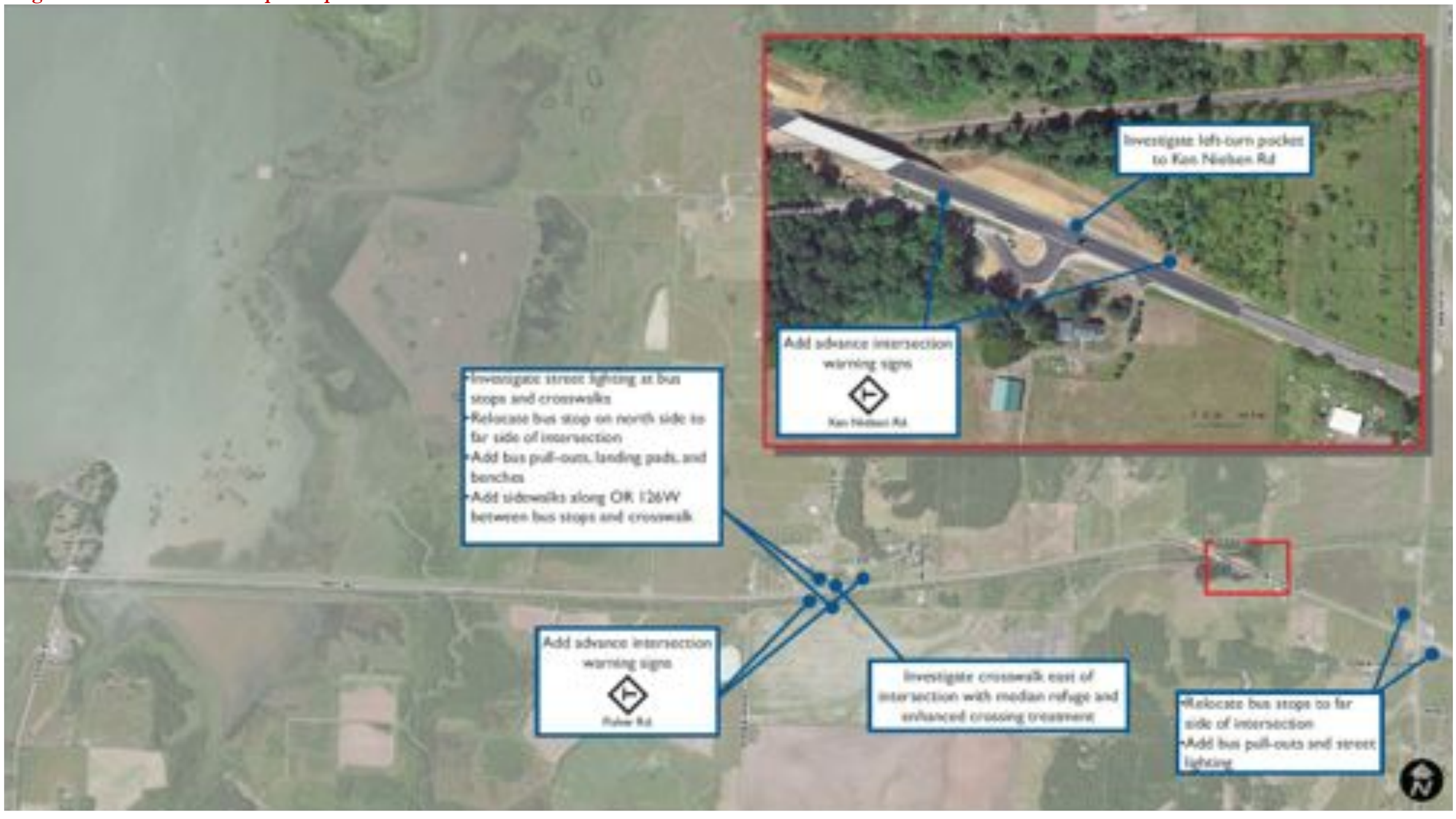
Motor Vehicle Safety and Capacity

Short-term motor vehicle safety and capacity recommendations were:

- Investigate the potential for traffic signals at intersections in close proximity to the railroad crossing
- Add left- and right-turn lanes
- Add advanced intersection warning signs

Figure 16a: Recommended Spot Improvements: Huston Road to Central Road

Figure 16b: Recommended Spot Improvements: Central Road to Green Hill Road



Access Management Plan

A key element of the Highway 126 Fern Ridge Corridor Plan is the long-range preservation of operational efficiency and safety of any proposed improvements in managing access to the highway. Access points- where side roads or driveways intersect the highway- are potential locations for vehicle conflicts. Vehicles frequently stop or slow down at these access points, which can significantly degrade the flow of traffic and reduce the efficiency of the transportation system. By reducing the number of access points and separating them more widely, the impacts of these conflicts can be minimized.

Access Strategies

Short-, medium-, and long-range strategies have been identified for managing access to OR 126W:

Short-Range Strategies

- Implement turn lanes at driveways and intersections
- Install non-traversable medians to restrict turning movements. A short-term solution is to stripe a solid double yellow line with yellow cross-hatching between the lines. In the future, the striped median could be replaced with a physical median or barrier.

Medium-Range Strategies

- Consider sharing or consolidating access points when/if properties are redeveloped in the future
- Reconsider the short-range strategies previously discussed, such as restriping roadways to establish turn lanes or installing non-traversable medians

Long-Range Strategies

- Provide a connection to Wildwood Road for the properties along the north side of OR 126W between Huston Road and Ellmaker Road to connect properties to the local street network that currently depend on OR 126W for access

Section 5. Adoption and Implementation

This section presents the plan elements that are intended to adopt, implement and monitor the Highway 126 Fern Ridge Corridor Plan.

Implementation

It is important to note that the recommended transportation improvements identified in the Four-Lane Alternative are not guaranteed to be funded and implemented during the planning horizon. Consequently, these projects cannot be relied upon to support plan amendments or zone changes and to achieve compliance with Oregon Administrative Rule 660-012-0060 unless or until they are included in the adopted Statewide Transportation Improvement Program (STIP) or a specific funding source is identified and supported by ODOT in writing. The projects recommended in this document simply represent state and local agreement about transportation system needs in the OR 126W project study area that have been identified through extensive analysis.

The transportation improvements identified in the Spot Improvements Alternative are of a type or scale that ODOT believes can be implemented through some combination of state and/or local funds. The Spot Improvements can, therefore, be considered reasonably likely to be completed within the 20-year planning period.

The forecasted 2035 traffic operations are generally expected to exceed mobility targets by less than 15 percent at most intersections (see Appendix D, Table 2), meaning the highway will likely operate well below capacity during the peak period and overall daily operations will be acceptable should the Four-Lane Alternative not be implemented within the planning horizon.

To ensure that the Corridor Plan remains relevant and flexible enough to respond to changes over time, the following steps should be implemented by the affected jurisdictions. At a minimum:

- Lane Area Commission on Transportation (Lane ACT) should acknowledge the Plan.
- Lane County should amend its Transportation System Plan (TSP) to adopt the Highway 126 Fern Ridge Corridor Plan by reference and incorporate its recommendations into a future TSP update.
- ODOT and Lane County should develop an interagency funding strategy outlining improvement prioritization, affected area, agency roles and responsibilities, and necessary condition of approval revisions to previously-approved land uses.
- ODOT and Lane County should review right-of-way and access management needs for the long-term solutions prior to adopting local plan amendments or as part of local land use actions.
- ODOT and Lane County should develop an interagency monitoring program that includes a safety and operational review to determine the need for and timing of improvements.

Corridor Plan Monitoring and Updates

The purpose of the Highway 126 Fern Ridge Corridor Plan is to ensure that safety and operational constraints are addressed for highway users through the 20-year horizon. The corridor plan should remain dynamic and responsive to development and changes to the adopted land use and transportation plans. To accomplish this, Lane County and ODOT should agree on a monitoring process that identifies triggers for reviewing the Corridor Plan and how development within the surrounding area will be reviewed and coordinated with all parties.

Periodically, the program for implementing the Corridor Plan may need to be evaluated to ensure it is meeting the needs of the managing agencies. Events that could trigger a review of the corridor plan include:

- Safety issues that have been identified by periodic review of crash data, statewide ranking and prioritization, and findings from traffic impact studies.
- Mobility failures that have been identified through periodic agency review and findings from traffic impact studies.
- Zone change applications.

Adoption

The adoption sequence will be as follows:

- Send a 35-day notice of adoption intent to the Oregon Department of Land Conservation and Development (DLCD)
- Schedule a county planning commission advisory hearing to obtain public testimony; deliberative hearings may be conducted at the discretion of the planning commission
- Schedule a county commission legislative adoption hearing with coordinated staff report, public testimony, and deliberation
- Schedule the Oregon Transportation Commission adoption hearing for the first available date after local adoption to consider amending the Oregon Highway Plan to include the Highway 126 Fern Ridge Corridor Plan