

TECHNICAL MEMORANDUM

DATE: May 20, 2021
TO: ODOT Region 2, City of Gearhart, and the Stakeholder/Technical Advisory Committees
FROM: Ryan Farncomb (Parametrix), Carl Springer (DKS)
SUBJECT: REVISED Tech Memo #7: Summary of Corridor Issues, Opportunities & Constraints
PROJECT NUMBER: 274-2395-110
PROJECT NAME: US 101 Gearhart Facility Plan

This memorandum reviews how the corridor today performs with respect to the Facility Plan goals established previously in Technical Memorandum #3 (March 25, 2021) and summarizes the issues, opportunities, and constraints in the US 101 Gearhart study corridor. This memo also identifies policy and legal constraints and briefly reviews potential funding sources for future improvement projects. The findings in this memorandum are derived from prior technical memoranda and feedback from the Stakeholder Advisory Committee (SAC), Technical Advisory Committee (TAC), and from public outreach conducted in winter 2021. This memo will be used by the project team to inform development of alternative infrastructure solutions for the corridor and the overall recommendations that will be included in the Facility Plan.

The study area for the Gearhart US 101 Facility Plan is shown in Figure 1.



Figure 1. Study Area

CORRIDOR PERFORMANCE

This section evaluates how the corridor performs today and is expected to perform under a future “no-build” scenario (i.e., the corridor in the future assuming status quo conditions continue) with respect to the goals established previously in the process. The summary provided here is brief; for more information, see Land Use and Transportation System Inventory Memo (March 2021) and the Future Conditions Memo (April 2021).

The goals are included below with an explanation below describing performance.

1. **Ensure that the US 101 corridor is safe and comfortable for everyone using the highway, including drivers, freight, and people who walk, cycle, use mobility devices, or take transit.**

The corridor today does not feel safe for all users, especially those that walk, cycle, or use mobility devices. There is a lack of separated cycling and walking facilities, as well as very few marked crossings in the corridor today. Prior crash history in the corridor has also been noted by local stakeholders as a concern. These conditions are not expected to change significantly in the future.

2. **Design, operate, and maintain the US 101 corridor to align highway function with the evolving character of the surrounding community.**

The US 101 corridor in Gearhart does not meet the design guidance provided by the Blueprint for Urban Design (BUD), which places greater emphasis on mobility of people cycling and walking. The corridor in the future is expected to have continued growth in commercial and residential uses, creating more traffic overall, including more pedestrian, cycling, transit, and motor vehicle trips. Increasing activity is expected to intensify the misalignment between the highway function and character of the surrounding community.

3. **Address stormwater and flooding issues in the corridor that create hazards for all users.**

Stormwater and flooding issues are major concerns brought up by stakeholders that are ongoing in the corridor.

4. **Balance corridor travel needs so people and goods can affordably, reliably, and efficiently reach their destinations across all modes of travel.**

Currently, motor vehicles and freight movement are prioritized in the corridor over other modes. A greater balance between uses in the corridor is needed to meet this goal.

5. **Ensure that the US 101 corridor is convenient and accessible and connects people to destinations throughout Gearhart and beyond.**

US 101 currently serves a major role in regional traffic and will continue to serve that role in the future. The corridor is not convenient and is less accessible for people walking, cycling, or taking transit. The lack of marked crossings creates an access barrier for these users.

6. **Reduce transportation-related disparities and barriers along the US 101 corridor.**

The corridor today lacks safe and comfortable cycling, walking, and transit facilities. Since communities of concern and historically disadvantaged communities rely on these modes of transportation disproportionately more so than other groups, the corridor may not serve all needs of these communities today.

7. **Protect the natural, cultural, and built environments with context-sensitive design solutions.**

This goal is most applicable to the future conceptual design solutions and not the corridor as it exists today or in the “no-build” future condition.

ISSUES, CONSTRAINTS, AND OPPORTUNITIES SUMMARY

Table 1 describes the major opportunities and constraints in the corridor with respect to potential improvements that would be considered during the Facility Plan process.

Table 1. Issues, Constraints, and Opportunities

Subject	Issues, Constraints, and Opportunities
Motor vehicle mobility and safety	<p>Issue 1: The segment north of the Pacific Way intersection and much of the segment south of Shamrock Road lacks a median and/or center turn lane, and the posted speed exceeds the BUD target speed guidance (BUD recommends 25 to 35 MPH, existing is 40 to 55 MPH). Opportunity: Reduce the speed limit following BUD guidance and reconfigure the existing pavement to 3-lane cross section with a center-turn lane/median. This would improve safety for all users, by removing left-turning vehicles from the through travel lane, and also allows for pedestrian refuge to reduce crossing distance. Constraint: Reconfiguration reduces capacity and could increase delay for vehicles and trucks along US 101, and limits locations for vehicles to pass one another in Gearhart. A change in traffic control will require an Intersection Control Evaluation (ICE) report to consider all concepts such as signals, roundabouts, and other appropriate measures.</p> <p>Issue 2: High percentage of non-local travelers. Opportunity: Provide better traveler information to help non-local drivers (e.g., tourists) better navigate through the highway. Constraint: Capital investment cost.</p> <p>Issue 3: Speeding has been noted by Gearhart Police Department as a top safety concern in the corridor. Opportunity: Apply intelligent transportation system (ITS) techniques, such as roadside speed detection and warning devices, to reduce speeding. Constraint: Capital investment cost.</p> <p>Issue 4: Safety concern at the intersection of US 101 and Gearhart Lane which has a crash rate that exceeded the 90th percentile crash rate. Turning movement crashes were most common here. Drivers must cross three lanes of traffic to complete a left turn onto US 101 from Gearhart Lane. Opportunity: Reduce the speed limit at this segment of US 101 from 45 to 35 mph to improve opportunities for turning traffic. Conduct a signal warrant study to see if a signal or other intersection improvement could be constructed at this intersection to improve safety and operations. Constraint: Reduced travel speed may cause increase vehicle delay along US 101. An additional traffic signal may contribute to increased rear end crashes. Speed zones are not set for spot locations, such as an intersection, so must apply to a broader segment.</p> <p>Issue 5: Under future 2040 no-build condition, side street delay at a few unsignalized intersections is expected to be high, with the G Street-Oster Road and Gearhart Lane approaches to US 101 expected to operate with a LOS F. Opportunity: Implement roadway improvements and conduct a speed study to potentially reduce US 101 speed limits in line with BUD guidance. Conduct a signal warrant study to see if signals or other intersection improvements could be constructed. Constraint: Reduced travel speed may cause increase vehicle delay along US 101. An additional traffic signal may contribute to increased rear end crashes.</p>

Subject	Issues, Constraints, and Opportunities
Motor vehicle access	<p>Issue 6: All segments of US 101 through Gearhart currently have more driveway and public street approaches than allowed, based on ODOT highway access spacing standards. Some of the US 101 segments have more than double the number of existing driveways allowable under the access spacing standards. A high density of access points increases the risk of collisions from turning vehicles and also decreases safety for pedestrians or cyclists in the corridor. Opportunity: Identify and implement appropriate access management techniques such as exclusive turning lanes, median treatment to better control access to US 101. Or implement policy to revise and consolidate access over time as properties redevelop. Constraints: Capital investment cost of revising corridor access points. If access control revisions are contingent on new development, this may take considerable time.</p>
Bicycle and pedestrian mobility and safety	<p>Issue 7: Though cyclists and pedestrians can legally use the highway, conditions are not comfortable, and safety is a concern, especially with respect to crossings. Opportunity: Develop safe and comfortable cycling and walking facilities throughout the corridor that match the design recommendations of the Blueprint for Urban Design, with new marked or enhanced crossings at key locations. Constraints: Capital investment cost.</p>
Public transportation	<p>Issue 8: Transit stops in the corridor today have few amenities. Opportunity: Develop more amenities such as shelters and benches at stops. Constraints: Capital investment cost.</p> <p>Issue 9: Lack of improved pedestrian crossings near current transit stops can encourage unsafe crossing behavior. Opportunity: Consider moving transit stops or locating crossings to better facilitate crossings of US 101 to serve transit riders. Constraints: Capital investment cost; any potential impact to transit operations.</p>
Freight access and mobility	<p>Issue 10: US 101 is a Federal Truck Route and Reduction Review Route for freight. Opportunity: Consider truck size while developing facility designs (e.g., intersection turning radius and freight access lane width). Constraint: A review of potential reduction of vehicle carrying capacity is required for all proposed actions on Reduction Review Routes.</p>
Gateways	<p>Issue 11: Lack of welcoming “gateway” treatments along US 101. Opportunity: Construct gateway treatments such as signage, landscaping, or other features that provide clear indication to drivers that they are entering the City of Gearhart and that would also enhance place-making. Constraints: Capital investment cost; availability of sufficient right-of-way or land to develop gateway treatments; gateway treatments must meet ODOT parameters and will require maintenance.</p>
Regional Trails	<p>Issue 12: The Oregon Coast Trail (OCT) and Oregon Coast Bike Route (OCBR) are both present in the corridor, and the corridor is identified as a “critical need” area by the OCBP Plan. Opportunity: Develop pedestrian and bicycle treatments that address this corridor gap for both recreational routes. Constraint: Capital investment cost.</p>

Subject	Issues, Constraints, and Opportunities
Streetscape	Issue 13: The current streetscape lacks “Main Street” qualities such as street trees, landscaping, lighting, and infrastructure that increase aesthetic appeal and support place-making. Opportunity: Incorporate streetscape elements such as trees and landscaping to increase visual appeal of the corridor. Constraint: Capital investment cost; long-term maintenance of vegetation. If available ROW is limited, then tradeoff decisions may need to be made regarding some street elements.
Stormwater/Flooding	Issue 14: Ongoing stormwater and flooding issues at several points in the corridor; lack of water quality treatment. Opportunity: Reconstruct roadway and add drainage facilities to convey and treat stormwater; replace failed or failing culverts. Constraint: Capital cost is the central constraint. Anecdotally, the roadway lacks a crown in places which exacerbates flooding. This may require costly roadway reconstruction to remedy.
Natural, Historic, and Built Environment Resources	Issue 15: There are multiple protected resources in the corridor, including wetlands immediately adjacent to US 101 and likely Section 4(f) properties (e.g., parks, wildlife areas, historic and cultural sites). Constraint: Future improvements should avoid impacting resources including wetlands and their buffers, in addition to avoiding impact to other resources including waterways, endangered species, and historic and cultural resources.

POLICY AND LEGAL CONSTRAINTS

This section covers potential policy or legal constraints that should be considered when developing conceptual improvements for the Gearhart US 101 corridor.

The project team previously conducted an inventory and analysis of existing conditions in the corridor, including inventory of environmental resources. Provided there is federal “nexus,” (i.e., federal funding for the project, or need for a federal permit, or the project is on federal property), the provisions of the National Environmental Policy Act (NEPA) and other federal environmental laws such as the Coastal Zone Management Act (CZMA), section 4(f) of the Department of Transportation Act of 1966, Section 6(f) of the Land and Water Conservation Act, and the Endangered Species Act (among others) would all be applicable. These federal laws are not constraints per se on future corridor improvements, but will influence project design so as to avoid impacts to resources that are the focus of these laws.

State land use planning laws and the provisions of Oregon Administration Rule (OAR) 660-012 (the “Transportation Planning Rule”) are also applicable. These rules were previously reviewed in the Plan and Policy Review Technical Memorandum (December 10, 2020). The main constraint relevant to the Transportation Planning Rule is that the US 101 Gearhart Facility Plan must comply with the Oregon Transportation Plan (OTP) and the mode and topic plans that are nested within the OTP. Notably, all intersections under state jurisdiction must meet volume to capacity (v/c) ratios in the Oregon Highway Plan. OHP v/c targets are typically based on highway classification and posted speeds during the 30th highest hour traffic conditions; however, the Oregon Transportation Commission has adopted alternative mobility targets for the US 101 corridor through Gearhart

based on average weekday conditions. These standards require that a v/c ratio of 0.85 be maintained during an average weekday, with a peak-hour factor of 1.0.

US 101 is also classified as a Federal Truck Route and a Reduction Review Route subject to the rules described in OAR 731-012. Federal Truck Routes generally require 12-foot travel lanes, while a review of potential reduction of vehicle-carrying capacity is required for all proposed actions on Reduction Review Routes. This last rule is significant in that generally speaking, the freight carrying-capacity of US 101 cannot be reduced through the addition of structures (streetlights, signs, curbs, etc.) that would reduce the horizontal or vertical clearance of the roadway. However, it is important to note that reconfiguring the roadway lane space through revised lane markings or channelization, or adding bicycle lanes, does not constitute a reduction in carrying-capacity according to the rule.

Finally, improvements contemplated by the Facility Plan should reflect the Gearhart TSP (2017). The TSP describes a preferred cross section for US 101 comprised of a three-lane configuration, with additional lanes at intersections as needed. The three-lane configuration shows one travel lane in each direction, a center turn lane, and bike lanes. The preferred cross section also includes a shared-use path on the east side of US 101 through Gearhart.

FUNDING OPPORTUNITIES

This section briefly reviews potential funding sources for future improvements to the US 101 corridor in Gearhart. A more detailed exploration of funding sources will be included with the draft Facility Plan. The purpose of the funding discussion here is to provide a funding “frame” for thinking about future improvement alternatives. At a high level, the project team will consider the funding limits and merit requirements of grant programs, as these are important considerations in developing a project that can be funded in the future.

- **Statewide Transportation Improvement Program (STIP):** The STIP is one of the main funding sources for major transportation projects. STIP projects are funded through a mix of state and federal sources. The STIP is a multi-year funding program with planning currently underway for the 2024-2027 STIP cycle. In general, STIP projects must be of regional or statewide significance, and it is possible that US 101 improvements could be funded under one or more STIP programs. However, STIP funding is very competitive and it will require proactive work on the part of ODOT and local stakeholders to advocate for funding through the STIP.
- **RAISE Grants:** The RAISE program is a competitive federal funding program that was formerly known as “US BUILD” and “TIGER” in previous years. RAISE grants are merit-based and there is approximately \$1 billion available each year nationwide. The maximum grant award is \$25 million with 50% of the funds devoted to rural areas. Capital projects including road, public transit, and freight are eligible. Improvements to US 101 in Gearhart would be eligible for funding; ODOT and local stakeholders would need to consider how the project would perform with respect to RAISE grant criteria, including environmental sustainability, quality of life, safety, state of good repair, and cost-effectiveness. The program is very competitive, but Oregon communities have been successful in procuring these grants recently.
- **Federal Lands Access Program (FLAP):** FLAP is a federal funding program to supplement local and State resources for projects that improve access to, are adjacent to, or are located within federal lands. Lewis and Clark National Historical Park and the National Guard’s Rilea Training Camp are federal lands along the US 101 corridor north of the project area. Project applications are requested and selected by Oregon’s Programming Decision Committee (PDC) at a frequency they determine. A project is more

competitive when it is consistent with existing plans and includes safety improvements and access to high-use sites or economic generators.

- **Leveraging other projects or funds:** There are opportunities to leverage other projects or funding sources, such as the ongoing ODOT program to replace and repair curb ramps to comply with Americans with Disability Act (ADA) standards. These projects represent opportunities to incrementally construct improvements and leverage investments. Additionally, projects such as pavement repair or overlays could also be leveraged to construct other desired improvements in the corridor, e.g., crossing improvements.
- **Other opportunities:** Local funds from the City of Gearhart could help with matching dollars required for most programs, or could be used directly to support improvements by ODOT. Frontage improvements constructed as part of new development in the corridor could also help implement improvements, though these changes would be piecemeal.