

Volume 1

US 26 / Glencoe Road Interchange Area Management Plan

North Plains, Oregon

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North Plains, Oregon

Prepared For:

The Oregon Department of Transportation

Region 1

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Preface

The preparation of this plan was guided by the Project Development Team (PDT) and the Stakeholder Working Group (SWG) identified below.

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The PDT and SWG members devoted a substantial amount of time and effort to the development of the US 26/Glencoe Road IAMP, and their participation was instrumental in the development of the recommendations that are presented in this report.

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Section 1

Introduction / Background

Introduction / Background

PURPOSE AND INTENT

An Interchange Area Management Plan (IAMP) is a strategic transportation plan that is design to protect the long-term function of an interchange. Oregon Administrative Rule (OAR) 734-051 and the Oregon Highway Plan (OHP) require the preparation of an IAMP for new or significantly reconstructed interchanges. As outlined in the following sections, the existing US 26/Glencoe Road interchange will require future reconstruction to ensure that it can continue to support long-term access to/from the US 26 corridor.

PROBLEM STATEMENT

The US 26/Glencoe Road interchange is a locally and regionally significant interchange along the US 26 corridor. In its present condition, the interchange is limited in its ability to support sustained traffic growth, both from the adjacent City of North Plains and the larger regional vicinity which includes the Cities of Hillsboro, Cornelius, and Forest Grove. In addition to the projected long-term capacity deficiencies, sight distance on the overpass is poor and it lacks sidewalks and bicycle lanes. As such, an Interchange Area Management Plan (IAMP) has been developed for the US 26/Glencoe Road interchange. Encompassing a wide variety of components, the US 26/Glencoe Road IAMP documents the land use planning, transportation planning, access management, public involvement and preliminary design work that went into the recommendations for a new interchange and bridge structure.

INTERCHANGE FUNCTION AND CLASSIFICATION

The primary function of the US 26/Glencoe Road interchange is to facilitate statewide inter-urban and inter-regional travel to/from the US 26 corridor. A secondary function is to provide north-south connectivity across US 26 for the City of North Plains and the surrounding rural land uses. US 26 is a major east-west travel route within the State of Oregon, that within the western portion of the state, provides the primary means of access between the Portland metropolitan area and the northern Oregon coast. US 26 is classified as a Statewide Highway by the OHP and designated as an Expressway and Statewide Freight Route. Glencoe Road runs north-south and connects the City of Hillsboro to the US 26 corridor and the City of North Plains. Glencoe Road is a Washington County classified Arterial that is also classified as a Through-Truck Route and Urban/Rural Bikeway.

INTERCHANGE AREA MANAGEMENT PLAN (IAMP) STUDY AREA

The study area for the US 26/Glencoe Road IAMP was selected based on a review of the surrounding roadway network, land use patterns, and existing ODOT access management policies associated with major freeway interchange projects. From these sources, the study area centers on the existing US 26/Glencoe Road interchange and includes all roadway infrastructure located within 1,320 feet of the eastbound and westbound US 26/Glencoe Road interchange ramp terminals. This distance corresponds with the ¼-mile access spacing standard outlined in the OAR 734-051 for interchange ramps. In addition to the ¼-mile access spacing standard, the study area has been extended along Glencoe Road north to the NW Commercial Street – West Union Road corridor. From these general parameters, Figure 1-1 illustrates the existing conditions study area boundary.

Project Goals & Objectives

The IAMP process is intended to protect the long-term function and safety of interchanges. As stated in Policy 3C of the OHP, “it is the policy of the State of Oregon to plan for and manage grade-separated interchange areas to ensure safe and efficient operation between connecting roadways.” From this definition, the generalized goals and objectives of the Highway 26/Glencoe Road IAMP are to:

- Develop a new Glencoe Road interchange form through a collaborative effort involving design professionals, jurisdictional representatives, local citizens and business owners.
- Ensure that the interchange form meets projected long-term travel demands and continues to support local economic development.
- Protect the long-term function of the interchange through access management techniques and the development of a planned, supporting, local roadway infrastructure.

A more specific set of project goals and objectives were developed by the project team and members of the PDT and SWG. These specific goals and objectives are outlined below:

Goal 1: Transportation and Access

- Design for the projected 2030 traffic volumes
- Reduce congestion and improve traffic flow in the interchange area.
- Provide transportation improvements that are safe and effectively serve all travel modes including bicycles, pedestrians, motor-vehicles, and freight mobility.
- Meet sound engineering practices and safety requirements.
- Provide reasonable access to the interchange area businesses.
- Provide a median treatment that will accommodate emergency vehicles.

Goal 2: Land Use

- Minimize impacts to designated “Exclusive Farm Use Lands”
- Provide predictability (through the IAMP process) for local businesses and property owners with a collaborative decision-making process for ODOT, the County, and North Plains.
- Develop measures to protect the operational integrity of the project solution from unintended land use impacts.

Goal 3: Social/Economics

- Minimize displacements to existing businesses and residences in the interchange area.
- Minimize the impacts to the livability, quality, and integrity of established residences. Where impacts are unavoidable, provide mitigation as appropriate.

Goal 4: Aesthetics

- Consider aesthetics in the design of the interchange.

Goal 5: Natural and Cultural Resources

- Avoid or minimize impacts to habitat systems including streams and water bodies, riparian zones, and wetlands. Where impacts are unavoidable, provide effective mitigation.
- Avoid impacting cultural sites and resources where practicable. Where impacts are unavoidable, provide recordation, salvage, and/or mitigation as appropriate.
- Minimize and mitigate adverse impacts to surface and groundwater resources within the project-influence area.

Goal 6: Project Development

- Consider project affordability, sources of funding, and cost-effectiveness of the project solution.
- Interchange should not preclude widening of the Sunset Highway in the future.
- Provide a timely and cost-effective project solution that performs as designed throughout its expected design-life.

DEVELOPMENT OF THE US 26/GLENCOE ROAD IAMP

The Highway 26/Glencoe Road IAMP was guided by the Project Development Team (PDT), a technical review committee made up of representatives from the Oregon Department of Transportation (ODOT), the City of North Plains, Washington County, and Federal Highway Administration. In addition to the PDT, a group of local citizens, property owners, and business owners made up the Stakeholder Working Group (SWG), a special advisory committee to the PDT. The PDT and SWG roster list is provided in the Preface of this document and in Section 1. The PDT and SWG convened throughout the course of the project to review and guide the technical analysis prepared by the consultant team. A summary of the individual PDT and SWG meetings is provided in Appendix “A” of the *US 26/Glencoe Road IAMP Technical Appendices*.

Public Involvement

In addition to the technical review work provided by the PDT and SWG, the project team also met with interested citizens and adjacent property/business owners on a regular basis providing them with opportunities to comment on the future interchange design and supporting local circulation network. Summaries of the public meetings are also provided in Appendix “A” of the *US 26/Glencoe Road IAMP Technical Appendices*.

Highway 26/Glencoe Road IAMP Outline

The development of the US 26/Glencoe Road IAMP began in 2006 when the project team first met with the PDT and SWG committees. Since then, these groups have undergone an extensive process involving a review of existing and future transportation conditions, future land use analyses, interchange alignment and design, and supporting local access and circulation planning. Technical memorandums documenting this extensive work effort have been prepared throughout the course of the project and are provided in the *US 26/Glencoe Road IAMP Technical Appendices*. In an effort to summarize this process, the remainder of this document provides an overview of the following sections of the IAMP:

- **Section 2** outlines the existing transportation facilities within the IAMP study area;
- **Section 3** documents the future no-build land use and transportation conditions and how they were addressed by the study effort;
- **Section 4** provides a description of the transportation planning efforts involving the selection of a preferred interchange form and alignment as well as the supporting local access and circulation network;
- **Section 5** documents the US 26/Glencoe Road IAMP and the associated transportation improvement projects that are necessary to ensure the continued long-term safety and function of the interchange;
- **Section 6** describes the implementation process for the US 26/Glencoe Road IAMP;
- **Section 7** documents how the US 26/Glencoe Road IAMP complies with the Oregon Administrative Rules for the development of an interchange area management plan; and
- **Section 8** documents the intergovernmental agreement between ODOT, the City of North Plains, and Washington County regarding the phased improvements and buildout of the new interchange.

Section 5

US 26/Glencoe Road
Interchange Area
Management Plan

Interchange Area Management Plan

An IAMP is a strategic transportation plan that is design to protect the long-term function of an interchange. As outlined in the following sections, the existing US 26/Glencoe Road interchange will require future reconstruction to ensure that it can continue to support long-term access to/from the US 26 corridor. The US 26/Glencoe Road IAMP provides a detailed description of the future transportation infrastructure required to maintain the operation, integrity, safety, and function of the Glencoe Road interchange and surrounding influence area.

The IAMP describes the future transportation network, necessary short/medium and long-term transportation improvements, street cross-section elements, traffic control, and site access locations within the study area. Through adoption by the City of North Plains, Washington County, and ODOT, implementation of the IAMP improvements will ensure that the US 26/Glencoe Road interchange will maintain its functional integrity over time and that viable access will be provided to all existing and future land uses. Finally, the action items contained within the plan will ensure proper coordination between the various stakeholders and that the IAMP will remain a dynamic transportation planning tool.

SHORT/MEDIUM-TERM TRANSPORTATION IMPROVEMENTS

It is recognized that a reconstruction of the US 26/Glencoe Road interchange is likely to be a long-term project as there is currently no fully identified funding source. As such, the US 26/Glencoe Road IAMP short/medium-term transportation improvement projects primarily include those critical local circulation improvements that will help prepare the interchange area for the eventual interchange reconstruction. This includes projects such as a limited expansion of Glencoe Road north of Pacific Street and the establishment of parallel local circulation roads on the east and west sides of Glencoe Road. Table 5-1 and Figure 5-1 provide a detailed description and illustration of these specific short/medium-term transportation improvement projects, the estimated costs to complete the projects, and potential funding sources for each.

LONG-TERM TRANSPORTATION IMPROVEMENTS

The US 26/Glencoe Road IAMP long-term transportation improvements focus on the reconstruction of the US 26/Glencoe Road interchange and the supporting modifications to Glencoe Road. This includes right-of-way acquisition for the interchange, acquisition of some access rights within the immediate vicinity of the interchange ramps, and construction of the new interchange. Table 5-2 along with Figures 5-3 and 5-4 provide a detailed description and illustration of the required long-term transportation improvement projects, implementation thresholds for each project, the estimated costs to complete the projects, and potential funding sources for each.

**Table 5-1
Short/Medium-Term Transportation Improvement Project Summary**

Improvement Reference # on Figure 5-1	Improvement Description	Implementation Threshold	Estimated Cost ¹	Potential Funding Sources ²
1 Glencoe Road / Pacific Street Upgrade	Option 1A – Widen the Glencoe Road/Pacific Street intersection in order to accommodate the future Highway 26/Glencoe Road interchange reconstruction. These improvements include separate left-turn and shared through/right-turn lanes on all approaches, sidewalks, and bike lanes.	– Constructed in conjunction with the local street improvements to establish the west side loop (see Project #2) and before the US 26/Glencoe Road interchange reconstruction.	\$1,460,000	– STIP – MSTIP
	Option 1B – Construct a single-lane roundabout. The roundabout would be constructed consistent with the ultimate widening of Glencoe Road and sized to accommodate large semi-trucks.	– Constructed before the US 26/Glencoe Road interchange reconstruction.	\$2,730,000	– STIP – MSTIP
2 West Side Loop (309 th Avenue, Pacific Street, & Highland Court)	– Construct a new north/south Collector Street between the residential and commercial properties west of Glencoe Road from NW Pacific Street to NW Highland Court. Improve portions of Highland Court and Pacific Street to full Collector street standards.	– Constructed in conjunction with the Glencoe Road/Pacific Street improvements (Option 1A only) and before the US 26/Glencoe Road interchange reconstruction.	\$4,450,000	– Street Fund – MSTIP – SDC – LID
3 Upgrade Glencoe Road (north of Pacific Street)	– Widen Glencoe Road north of Pacific Street to just north of West Union Road. The widening will consist of one travel lane in each direction, a center left-turn lane, and pedestrian and bicycle facilities.	– As funding becomes available and/or as part of the redevelopment of adjacent properties.	\$3,800,000	– MSTIP
4 New North/South Collector Street (306 th Avenue)	– Construct a new north/south Collector Street located east of 307 th Avenue from Pacific Street to Highland Court. This project will involve easterly extensions of Pacific Street and Highland Court and a minor realignment of a portion of 307 th Avenue.	– As funding becomes available and/or as part of the redevelopment of adjacent properties.	\$4,500,000	– Street Fund – SDC – LID
5 Upgrade Pacific Street	– Upgrade Pacific Street (east of Glencoe Road) to its full Collector Street standard.	– As funding becomes available and/or as part of the redevelopment of adjacent properties.	\$3,000,000	– Street Fund – SDC – LID
6 Upgrade Highland Court	– Upgrade Highland Court (east of Glencoe Road) to its full Collector Street standard.	– As funding becomes available and/or as part of the redevelopment of adjacent properties.	\$3,500,000	– Street Fund – SDC – LID

¹ The reported project costs are conceptual level planning estimates that are reflective of 2008 dollars.

² Street Fund = North Plains fund that consists of revenue from the State Highway Tax, County Gas Tax and other miscellaneous revenue.

SDC = System Development Charge

LID = Local Improvement District

MSTIP = Washington County Major Street Transportation Improvement Program

STIP = ODOT Statewide Transportation Improvement Program

**Table 5-2
Long-Term Transportation Improvement Project Summary**

Improvement Reference # on Figures 5-3 & 5-4	Improvement Description	Implementation Threshold	Estimated Cost ¹	Potential Funding Sources ²
<p>7 New US 26 / Glencoe Road Interchange</p>	<ul style="list-style-type: none"> - Construct a new Highway 26/Glencoe Road interchange. This improvement will include the following: <ul style="list-style-type: none"> a. Reconstruct the eastbound and westbound Highway 26 on and off ramps. See projects #8 & #9 for details on the interchange ramp terminals. b. Construct a new 5-lane interchange bridge (two southbound through lanes, side-by-side left-turn lanes, and one northbound through lane). c. Reconstruct the Glencoe Road approaches to match the new bridge structure (see projects #10, #11, & #14 for details). 	<ul style="list-style-type: none"> - When STIP funding becomes available. 	<p>\$44,500,000</p>	<ul style="list-style-type: none"> - STIP
<p>8 New Eastbound Ramp Terminal</p>	<ul style="list-style-type: none"> - Provide a northbound right-turn deceleration lane onto the eastbound Highway 26 on-ramp. - Provide a southbound left-turn lane onto the eastbound Highway 26 on-ramp. - Provide separate eastbound left- and right-turn lanes from the eastbound off-ramp onto Glencoe Road. - Signalize the intersection with protected left-turn phasing. 	<ul style="list-style-type: none"> - As part of the US 26/Glencoe Road interchange reconstruction project (Project #7). 	<p>Cost included as part of Project #7</p>	<ul style="list-style-type: none"> - STIP
<p>9 New Westbound Ramp Terminal</p>	<p>9A (Initial Phase)</p> <ul style="list-style-type: none"> - Provide a northbound left-turn lane onto the westbound Highway 26 on-ramp. - Provide dual westbound left-turn lanes and a separate right-turn lane from the westbound off-ramp onto Glencoe Road. - Provide two southbound approach lanes (one through lane and one shared through/right-turn lane). - Signalize the intersection with protective left-turn phasing. 	<ul style="list-style-type: none"> - As part of the US 26/Glencoe Road interchange reconstruction project (Project #7). 	<p>Cost included as part of Project #7</p>	<ul style="list-style-type: none"> - STIP
	<p>9B (2nd Phase)</p> <ul style="list-style-type: none"> - Modify the southbound approach striping to include a third advance queuing lane for traffic destined to the left-turn lane at the eastbound on-ramp. 	<ul style="list-style-type: none"> - When the intersection safety or capacity triggers from project #12B are met. 	<p>\$10,000</p>	<ul style="list-style-type: none"> - STIP
<p>10 Glencoe Road (north of Highway 26)</p>	<ul style="list-style-type: none"> - Realign and widen Glencoe Road from the new interchange to Pacific Street. Widening will provide one northbound travel lane, two southbound travel lanes, a raised median, sidewalks, and bike lanes. 	<ul style="list-style-type: none"> - As part of the US 26/Glencoe Road interchange reconstruction project (Project #7). 	<p>Cost included as part of Project #7</p>	<ul style="list-style-type: none"> - STIP

Improvement Reference # on Figures 5-3 & 5-4	Improvement Description	Implementation Threshold	Estimated Cost ¹	Potential Funding Sources ²
<p>11 Glencoe Road Median</p>	<ul style="list-style-type: none"> - Provide a raised median from the new interchange to Pacific Street with a gap allowing full turn movements at Highland Court. As outlined in Project #12B, the median opening at Highland Court will be modified when safety or operational triggers are met. - South of US 26, provide a raised median from the eastbound ramp terminal to a point approximately 700 feet south of Beach Road. 	<ul style="list-style-type: none"> - As part of the US 26/Glencoe Road interchange reconstruction project (Project #7). 	<p>Cost included as part of Project #7</p>	<ul style="list-style-type: none"> - STIP
<p>12 Highland Court Intersection</p>	<p>12A (Initial Phase)</p> <ul style="list-style-type: none"> - Reconstruct and re-grade the intersection to match the interchange reconstruction project. A median break will allow full turning movements to/from Highland Court as outlined in Project #11. 	<ul style="list-style-type: none"> - As part of the US 26/Glencoe Road interchange reconstruction project (Project #7). 	<p>Cost included as part of Project #7</p>	<ul style="list-style-type: none"> - STIP
	<p>12B (2nd Phase)</p> <ul style="list-style-type: none"> - Modify the median opening at Highland Court to restrict turning movements to eastbound and westbound right-in/right-out and southbound left-in. 	<ul style="list-style-type: none"> - When or if the v/c ratio at the westbound interchange ramp terminal reaches 0.65; or - When the 95th percentile queue exceeds 100 feet for the northbound left-turn at the Glencoe Road/Highland Court intersection; or - If the southbound 95 percentile queue at the Glencoe Road/WB ramp terminal intersection backs up to the Glencoe Road/Highland Court intersection; or - If there are more than two crashes in a 12-month period at the Glencoe Road/Highland Court intersection involving the left-hand turn movements or vehicles crossing Glencoe Road.; or - If more than one northbound lane is constructed along Glencoe Road 	<p>\$50,000</p>	<ul style="list-style-type: none"> - Street Fund
	<p>12C (3rd Phase)</p> <ul style="list-style-type: none"> - Close the median opening for the southbound left-turn movement, allowing only eastbound and westbound right-in/right-out movements to/from Highland Court. 	<ul style="list-style-type: none"> - If there is more than two crashes in a 12-month period for three consecutive years and the crashes are attributed to the southbound left-turn movement; or - When the east side north/south collector street is constructed as documented in Project #4. 	<p>\$50,000</p>	<ul style="list-style-type: none"> - Street Fund

Improvement Reference # on Figures 5-3 & 5-4	Improvement Description	Implementation Threshold	Estimated Cost ¹	Potential Funding Sources ²
13 Pacific Street Intersection	<ul style="list-style-type: none"> - Modify the roundabout to accommodate Glencoe Road widening south of Pacific Street. 	<ul style="list-style-type: none"> - As part of the US 26/Glencoe Road interchange reconstruction project (see Project #7). 	Cost included as part of Project #7	<ul style="list-style-type: none"> - STIP
14 Glencoe Road (south of Highway 26)	<ul style="list-style-type: none"> - Realign and widen Glencoe Road south of Highway 26 in order to accommodate the necessary realignment, widening, and lane transitions. - Construct a raised median from the interchange to a point approximately 700 feet south of Beach Road. 	<ul style="list-style-type: none"> - As part of the US 26/Glencoe Road interchange reconstruction project (Project #7). 	Cost included as part of Project #7	<ul style="list-style-type: none"> - STIP
15 Beach Road/ Glencoe Road Intersection	<ul style="list-style-type: none"> - Restrict Beach Road to right-in/right-out via the raised median outlined in Project #11. 	<ul style="list-style-type: none"> - As part of the US 26/Glencoe Road interchange reconstruction project (Project #7). 	Median cost included as part of Project #7.	<ul style="list-style-type: none"> - STIP

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² North Plains Street Fund = consists of revenue from the State Highway Tax, County Gas Tax and other miscellaneous revenue.

SDC = System Development Charge

LID = Local Improvement District

MSTIP = Washington County Major Street Transportation Improvement Program

STIP – ODOT Statewide Transportation Improvement Program

ACCESS MANAGEMENT PLAN

As part of the US 26/Glencoe Road IAMP, future access locations and public street connections were evaluated for properties located along Glencoe Road within the IAMP management area. Access locations were evaluated based on ODOT's Division 51 Access Management standards, Washington County's access standards, and an assessment of traffic operations and safety as described in Action 3C.3 of the 1999 Oregon Highway Plan. The intent of the Access Management Plan is to identify the location of public streets, existing and future site-access driveways, and internal circulation routes for properties that will be impacted by the future reconstruction of the US 26/Glencoe Road interchange. The plan, as described in the following paragraphs, shall be applied by ODOT, the City of North Plains, and Washington County in future land use decisions involving the properties located within the interchange management area. As with the previously identified transportation improvement projects, the access management plan is outlined under the short/medium-term and long-term time periods.

Short/Medium-Term Access Strategy

Currently, all properties along Glencoe Road have access via individual private roadway approaches. In the short/medium-term time period (prior to the US 26/Glencoe Road interchange reconstruction), the initial access management measures will focus primarily on addressing individual driveway locations as part of any short/medium-term transportation improvements projects or as part of land use actions such as development or redevelopment projects. Table 5-3 and Figures 5-5 and 5-6 summarize the specific short/medium-term access management strategies identified for each of the public and private driveways along the Glencoe Road study corridor.

Access Management as Part of Short/Medium-Term Transportation Improvements

As outlined in the previous section, transportation improvement Projects #1, #2, and #3 summarize short/medium-term projects that involve a widening of portions of Glencoe Road and Pacific Street as well as the accompanying reconstruction (widening or optional roundabout) of the Glencoe Road/Pacific Street intersection. Given that these improvements will likely impact the properties located in the northeast and southeast quadrants of the intersection, the Glencoe Road driveways that serve these properties will need to be closed. Future access to these affected parcels will be provided off of Pacific Street or via cross-over easements with adjacent properties.

Access Management at the Time of Land Use Actions

For all remaining existing driveways along Glencoe Road, the short/medium-term access management strategy is to address the potential closure, consolidation, or sharing of access at the time of a land use action. Specific components of this strategy include the following elements:

- As development or redevelopment occurs on the properties that front Glencoe Road, the access spacing review criteria of OAR 734-051 and/or Washington County's access spacing criteria will be applied to any existing Glencoe Road driveways. Unless there is no reasonable alternative access to/from the property, the driveway(s) will be closed or consolidated with other existing driveways.
- Establish crossover easements on all compatible parcels (considering topography, access, and land use) to consolidate future access between adjoining parcels. Figure 5-7 and the supporting text of Table 5-4 illustrate how this process could, in the long run, minimize the number of access points along the Glencoe Road study corridor.

**Table 5-3
Glencoe Road Access Management Plan**

Figure 5-5 & 5-6 Access Number	Access Type	Short/Medium-Term Access Strategy	Long-Term Access Strategy
1	Public (West Union Road)	No change.	To remain full access.
2	Private	If a land use action occurs, close the driveway and establish cross-over easement agreements for the use of Access #4.	If a land use action occurs, close the driveway and establish cross-over easement agreements for the use of Access #4.
3	Public (Kaybern Street)	No change.	To remain full access.
4	Private	To remain full access as driveway is already aligned across from Kaybern Street (Public Access #3).	To remain full access as driveway is already aligned across from Kaybern Street (Access #3).
5	Private	If a land use action occurs, close driveway and direct future access to Kaybern Street.	If a land use action occurs, close driveway and direct future access to Kaybern Street.
6	Private	If a land use action occurs, close driveway as property already has access via Access #4.	If a land use action occurs, close driveway as property already has access via Access #4.
7	Private	If a land use action occurs, close driveway and establish future access via Cottage Street.	If a land use action occurs, close driveway and establish crossover easements with adjacent properties.
8	Private	If a land use action occurs, close driveway and align a new access across from Cottage Street (Public Access #9).	If a land use action occurs, close driveway and align a new access across from Cottage Street (Access #9).
9	Public (Cottage Street)	No change.	To remain full access.
10	Private	If a land use action occurs, close the driveway and direct future access via Cottage Street and 309 th Avenue.	If a land use action occurs, close the driveway and direct future access via Cottage Street and 309 th Avenue.
11	Private	If a land use action occurs, close the driveway and direct future access via Pacific Street and 309 th Avenue.	If a land use action occurs, close the driveway and direct future access via Cottage Street and 309 th Avenue.
12	Private	Close driveway as part of Glencoe Road/Pacific Street improvements (Project #1A or #1B). Future property access to be provided via Pacific Street.	N/A
13	Private	Close driveway as part of Glencoe Road/Pacific Street improvements (Project #1A or #1B). Future property access to be provided via Pacific Street.	N/A

Figure 5-5 & 5-6 Access Number	Access Type	Short/Medium-Term Access Strategy	Long-Term Access Strategy
14	Public (Pacific Street)	No change. To remain full access.	First full access north of the US 26/Glencoe Road interchange ramps.
15	Private	Close driveway as part of Glencoe Road/Pacific Street improvements (Project #1A or #1B). Plan future property access off of Pacific Street.	N/A
16	Private	Access #16 & #17 serve the same taxlot. If a land use action occurs, evaluate the potential for closing or consolidating the access with Access #17.	Access restricted to right-in/right-out movements via Glencoe Road raised median (Project #11). If a land use action occurs, evaluate the potential for closing or consolidating the access with Access #17.
17	Private	Access #17 & #16 serve the same taxlot. If a land use action occurs, evaluate the potential for closing or consolidating the access with Access #16.	Access restricted to right-in/right-out movements via Glencoe Road raised median (Project #11). If a land use action occurs, evaluate the potential for closing or consolidating the access with Access #16.
18	Private	If a land use action occurs, evaluate the potential for closing or consolidating the access with other adjacent driveways.	Access restricted to right-in/right-out movements via Glencoe Road raised median (Project #11). If a land use action occurs, evaluate the potential for closing or consolidating the access.
19	Private	If a land use action occurs, evaluate the potential for closing or consolidating the access with other adjacent driveways.	Access restricted to right-in/right-out movements via Glencoe Road raised median (Project #11). If a land use action occurs, evaluate the potential for closing or consolidating the access.
20	Private	If a land use action occurs, evaluate the potential for closing or consolidating the access with other adjacent driveways.	Access restricted to right-in/right-out movements via Glencoe Road raised median (Project #11). If a land use action occurs, evaluate the potential for closing or consolidating the access.
21	Private	If a land use action occurs, close driveway and direct future access to Highland Court.	If a land use action occurs, close driveway and direct future access to Highland Court.
22	Private	If a land use action occurs, evaluate the potential for closing, consolidating, or directing future access via Highland Court.	Access restricted to right-in/right-out movements via Glencoe Road raised median (Project #11). If a land use action occurs, evaluate the potential for closing or consolidating the access.
23	Private	If a land use action occurs, close driveway and direct future access to Highland Court.	If a land use action occurs, close driveway and direct future access to Highland Court.

Figure 5-5 & 5-6 Access Number	Access Type	Short/Medium-Term Access Strategy	Long-Term Access Strategy
24	Public (Highland Road)	No change.	Restrict access according to the operational and safety triggers as described in transportation improvement Project #12B and #12C.
25	Private	If a land use action occurs, purchase access rights to Glencoe Road, close driveway, and direct future access to Highland Court.	Purchase access rights to Glencoe Road and close driveway at the time of interchange reconstruction. Future access will be provided via Highland Court.
26	Public (WB Ramp Terminal)	No change.	Reconstruct ramp terminals as part of US 26/Glencoe Road interchange reconstruction project.
27	Public (EB Ramp Terminal)	No change.	Reconstruct ramp terminals as part of US 26/Glencoe Road interchange reconstruction project.
28	Private	No change.	Purchase access rights to Glencoe Road and close the driveway as part of the interchange reconstruction project.
29	Private	No change.	Purchase access rights to Glencoe Road and close the driveway as part of the interchange reconstruction project.
30	Private	No change	Purchase access rights to Glencoe Road and close the driveway as part of the interchange reconstruction project.
31	Public (Beach Road)	No change. To remain full access.	Access restricted to right-in/right-out via Glencoe Road raised median (Project #15).
32	Private	No change.	Purchase access rights to Glencoe Road and close the driveway as part of the interchange reconstruction project.
33	Public	No change	Purchase access rights to Glencoe Road and close the driveway as part of the interchange reconstruction project.

**Table 5-4
Example of Crossover Easement / Indenture / Consolidation - Conditional Access Process**

Step	Process
1	EXISTING – Currently Lots A, B, C, and D have site-access driveways that neither meet the access spacing criteria nor align with driveways or access points on the opposite side of the highway. <i>Under these conditions motorists are put into situations of potential conflict (conflicting left turns) with opposing traffic. Additionally, the number of side-street (or site-access driveway) intersections decreases the operation and safety of the highway.</i>
2	REDEVELOPMENT OF LOT B – At the time that Lot B redevelops, the local jurisdiction would review the proposed site plan and make recommendations to ensure that the site could promote future crossover or consolidated access. Next, the local jurisdiction would issue conditional permits for the development to provide crossover easements with Lots A and C, and ODOT would grant a conditional access permit to the lot. <i>After evaluating the land use action, ODOT would determine that LOT B does not have either alternative access, nor can an access point be aligned with an opposing access point, nor can the available lot frontage provide an access point that meets the access spacing criteria for this segment of highway.</i>
3	REDEVELOPMENT OF LOT A – At the time Lot A redevelops, the local jurisdiction and ODOT would undertake the same review process as with the redevelopment of LOT B (see Step 2); however, under this scenario ODOT and the local jurisdiction would use the previously obtained cross-over easement at Lot B to consolidate the access points of Lots A and B. ODOT would then relocate the conditional access of Lot B to align with the opposing access point and provide safe and efficient access to both Lots A and B. <i>The consolidation of site-access driveways for Lots A and B will not only reduce the number of driveways accessing the highway, but will also eliminate the conflicting left-turn movements on the highway by the alignment with the opposing access point.</i>
4	REDEVELOPMENT OF LOT D – The redevelopment of Lot D will be handled in the same manner as the redevelopment of Lot B (see Step 2)
5	REDEVELOPMENT OF LOT C – The redevelopment of Lot C will be reviewed once again to ensure that the site will accommodate crossover and/or consolidated access. Using the crossover agreements with Lots B and D, Lot C would share a consolidated access point with Lot D and will also have alternative frontage access via the shared site-access driveway of Lots A and B. <i>By using the crossover agreement and conditional access permit process, the local jurisdiction and ODOT will be able to eliminate another access point and provide the alignment with the opposing access points.</i>
6	COMPLETE – After Lots A, B, C, and D redevelop over time, the number of access points will be reduced and aligned, and the remaining access points will either meet or move in the direction of the access spacing plan.

Long-Term Access Strategy

The long-term access strategy is primarily associated with the US 26/Glencoe Road interchange reconstruction project, but is also a continuation of the short/medium-term access management strategies that focus of the systematic closure and consolidation of driveways along the Glencoe Road study corridor.

Under ODOT’s current access management policy, the 1999 Oregon Highway Plan stipulates that the desired distance between an interchange ramp terminal and the first full movement approach (public or private) on the crossroad should be 1,320 feet (¼ mile). Within this spacing, the plan also stipulates that the desired distance between an interchange ramp terminal and the first right-in/right-out driveway in urban areas is 750 feet. With the long-term reconstruction of the US 26/Glencoe Road interchange, a number of the existing Glencoe Road public and private accesses will become subject to these regulations. Through the guidance of the US 26/Glencoe Road IAMP, a long-term access plan has been developed that balances the future interchange design, ODOT’s current access management policies, and the existing public infrastructure along Glencoe Road. The long-term components of this plan are summarized in Table 5-3, Figures 5-5 and 5-6, and the paragraphs below.

Glencoe Road North of the Interchange

North of the future interchange, all existing access rights will be purchased and driveways closed between the westbound ramp terminal and Highland Court. In addition, a raised median will be constructed as part of the interchange reconstruction project from the westbound ramp terminals to Pacific Street with Pacific Street being the first full-access intersection. These access management measures work towards ODOT's ¼-mile spacing policies. However, given the proximity of Highland Court and its significance to the City of North Plains circulation system, special access elements were developed. Although only 550 feet (depending upon the final design on the interchange) north of the future westbound ramp terminal, the Glencoe Road/Highland Court intersection will be managed according to the operational and safety triggers. Recognizing the long-term need to protect the function of the interchange, implementation thresholds have been developed that can ultimately restrict the Glencoe Road/Highland Court intersection to right-in/right-out movements. These thresholds are outlined in Table 5-3.

Glencoe Road South of the Interchange

South of the future interchange, all existing private access rights will be purchased within ¼-mile of the future eastbound interchange ramps. A raised median extending south from the eastbound ramp terminal will limit the long-term access at the Glencoe Road/Beach Road intersection to right-in/right-out movements. Although not located 1,320 feet from the eastbound ramp terminal, the median treatment will effectively mitigate traffic movements at this rural, low volume roadway.

Access Management Deviation Process

The long-term access management plan along Glencoe Road works towards the access spacing standards identified in OAR Division 51. However, given the existing roadway infrastructure surrounding the interchange, a formal deviation must be obtained when the standards are not met outright. Under the provisions of OAR 734-51-0135(3), the Region Access Management Engineer may approve a deviation if:

(a) Adherence to spacing standards creates a safety or traffic operation problem;

Response: N/A

(b) The applicant provides a joint approach that serves two or more properties and results in a net reduction of approaches to the highway;

Response: The short/medium-term and long-term access management plan is designed to reduce the number of driveways along the Glencoe Road study corridor through closure, consolidation, and cross-over easement requirements.

(c) The applicant demonstrates that existing development patterns or land holdings make joint use approaches impossible.

Response: N/A

(d) Adherence to spacing standards will cause the approach to conflict with a significant natural or historic feature including trees and unique vegetation, a bridge, waterway, park, archeological area, or cemetery;

Response: N/A

(e) The highway segment functions as a service road;

Response: N/A

(f) On a couplet with directional traffic separated by a city block or more, the request is for an approach at mid-block with no other existing approaches in the block or the proposal consolidates existing approaches at mid-block; or

Response: N/A

(g) Based on the Region Access Management Engineer's determination that:

(A) Safety factors and spacing significantly improve as a result of the approach; and

Response: The long-term access management plan removes all private driveways that are located within the immediate vicinity of the future interchange ramps. At the Highland Court and Beach Road intersections, raised medians will provide limited access to ensure vehicle queues and turning movement conflicts are minimized. All other private driveways north of Highland Court up to Pacific Street will be closed, consolidated, and/or restricted to limited access right-in/right-out movements, further limiting turning movement conflicts.

(B) Approval does not compromise the intent of these rules as set forth in OAR 734-051-0020 (Which states: The purpose of Division 51 rules is to provide a safe and efficient transportation system through the preservation of public safety, the improvement and development of transportation facilities, the protection of highway traffic from the hazards of unrestricted and unregulated entry from adjacent property, and the elimination of hazards due to highway grade intersections.)

Response: The proposed access management plan meets the intent of the Division 51 rules as it consolidates access points and reduces vehicle turning conflicts within the interchange access management area.

Maintaining the 750-foot right-in/right-out and 1,320-foot spacing standard along Glencoe Road (along the urbanized segment north of US 26) would either cut off a number of vital east-west streets (Highland Court and Pacific Street) or necessitate a costly and intrusive realignment of these roadways. With the provision of long-term access restrictions (raised median), the Beach Road and Highland Court intersections are projected to operate safely and efficiently.

It should be noted that these strategies mostly apply to new development or redevelopment in the short/medium-term; existing accesses may be allowed to remain as long as the land use does not change. As a result, access management is a long-term process in which the desired access

spacing to a street slowly evolves over time as redevelopment occurs. It should also be kept in mind that parcels cannot be land-locked, and must have some way of accessing the public street system. This may mean allowing shorter access spacing than would otherwise be allowed.

Access deviations will be reviewed and evaluated to parcels whose frontage, topography, or location would otherwise preclude issuance of a conforming permit and would either have no reasonable access or cannot obtain reasonable alternate access to the public road system. In such a situation, a conditional access permit may be issued by ODOT or Washington County for a single connection to a property that cannot be accessed in a manner that is consistent with the adopted spacing standards. The permit may carry a condition that the access may be closed at such time that reasonable access becomes available to a local public street. Approval conditions might also require a given land owner to work in cooperation with adjacent land owners to provide either joint access points, front and rear crossover easements, or a rear-access upon future development.