

# OR 22 Access Management Plan in Mill City



Prepared for



**ODOT &  
City of Mill City**

Prepared by

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The contents of this document do not necessarily reflect views or policies of the State of Oregon.

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## 1. INTRODUCTION

The goal of this *Access Management Plan* is to identify short-, medium-, and long-range strategies for access management along OR 22 (North Santiam Highway) within the city limits of Mill City, Oregon that promote safe and efficient roadway operation. Access management is the practice of balancing access and mobility based on a roadway's functional classification while also preserving the safety and efficiency of the transportation system. For instance, few access points are provided along interstate freeways to provide for high-speed travel while numerous access points are provided on local streets as entry points to residential properties.

The statewide Transportation Planning Rule provides the following access management definition:

*“Access Management” means measures regulating access to streets, roads and highways from public roads and private driveways. Measures may include but are not limited to restrictions on the siting of interchanges, restrictions on the type and amount of access to roadways, and use of physical controls, such as signals and channelization including raised medians, to reduce impacts of approach road traffic on the main facility.”<sup>1</sup>*

Research has shown that effective access management can provide the following benefits<sup>2</sup>:

- Up to 50-percent reduction of crashes
- 23- to 45-percent increase in roadway capacity
- 40- to 60-percent reduction in travel time and delay

This section provides the study area, project background to date, and project objectives. This *Access Management Plan* includes a summary of the applicable statutes, rules, plans, and policies, existing conditions (roadway, land use, approaches, and traffic), and access management strategies for the short-, medium- and long-range.

### 1.1. Study Area

OR 22 within the city limits of Mill City (Milepost 29.46 through 30.59) is the primary study corridor as illustrated in Figure 1. Secondary study roadways that intersect or parallel OR 22 are also included in the study area because they directly and indirectly impact the operations of the highway. The characteristics of these study area roadways are described in Section 3.1.

<sup>1</sup> Oregon Administrative Rule 660-012 (*Division 12- Transportation Planning*). Oregon Land Conservation and Development Department. March 15, 2007.

<sup>2</sup> *Access Management Manual*. Transportation Research Board, National Academy of Sciences, 2003.

# MILL CITY, OREGON

Figure 1 - Study Area

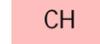
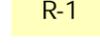
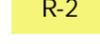
*OR 22  
Access Management Plan*

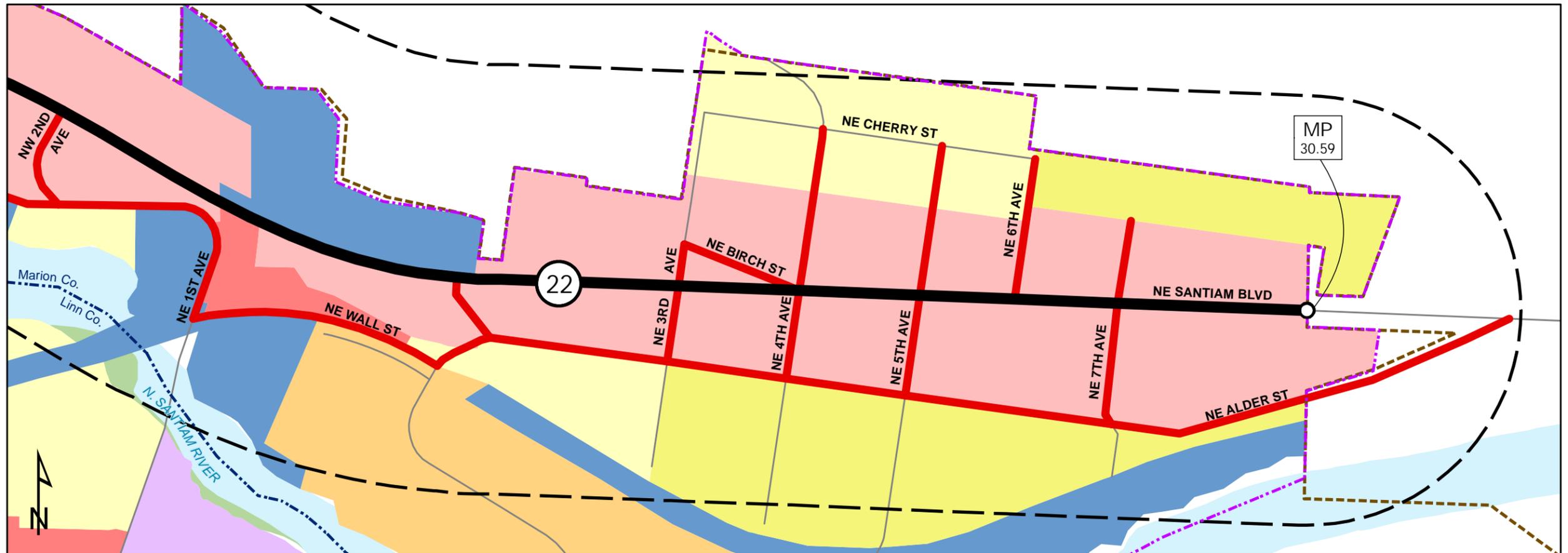
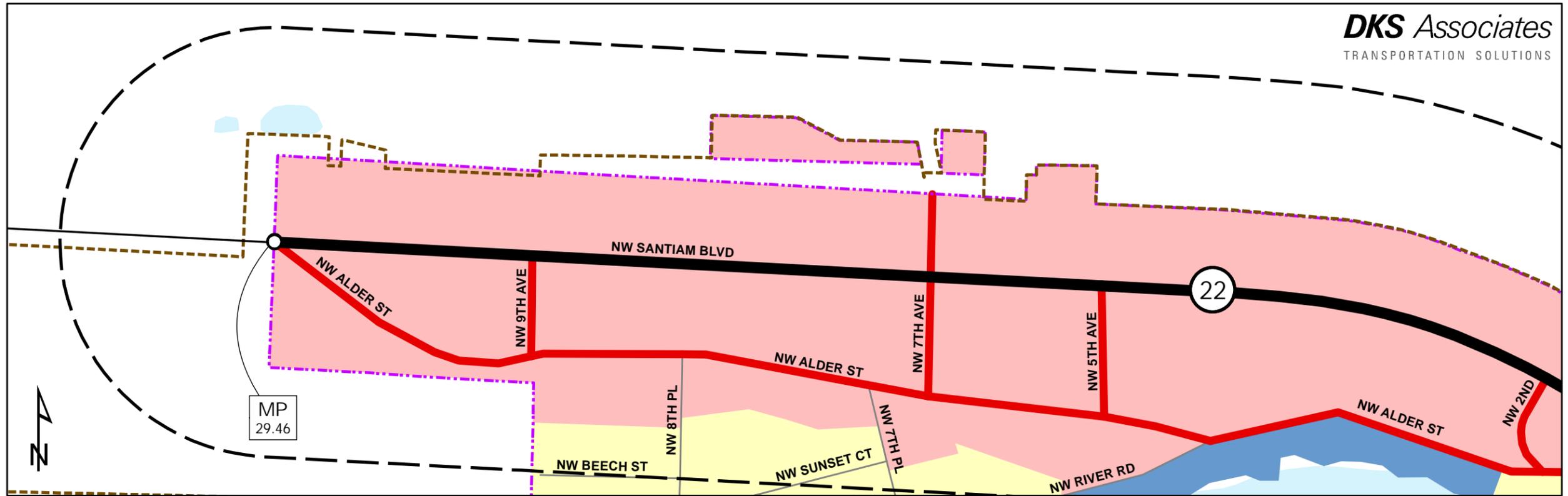
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## Legend

-  Study Corridor
-  Secondary Study Roadways
-  Streets
-  500' Proximity to Study Corridor

## ZONING

-  CC Central Commercial
-  CH Highway Commercial
-  IND Industrial
-  PUB Public
-  R-1 Residential Single
-  R-2 Residential Multiple
-  SPD Special Planned District
-  City Limits
-  County Boundary
-  Mill City Urban Growth Boundary



## 1.2. Project Background

This *Access Management Plan* documents the efforts of the Oregon Department of Transportation (ODOT)<sup>3</sup> and the City of Mill City who have been working together to develop access management strategies for OR 22 within the city limits. Since OR 22 is a state facility under ODOT's jurisdiction, ODOT is responsible for reviewing and approving access permits for the highway. Mill City is responsible for developing land use zoning throughout the City, including the land directly abutting OR 22, and for reviewing and approving the land uses (including site plans and circulation) along OR 22. The City of Mill City and ODOT proposed the development of this *Access Management Plan* to address the following issues using strategies that benefit the City, ODOT, and property owners along OR 22:

- **Access Points:** Years of uncontrolled access along OR 22 and adjacent local streets has resulted in many driveway approaches that do not have ODOT access permits and that are not constructed to current ODOT standards (e.g. location, width, turning radii). This has resulted in numerous conflict points along the corridor.
- **Parking:** Although parking is not allowed along OR 22 a number of motorists park on the shoulders when accessing property uses along OR 22. Performing parking maneuvers (e.g. backing into a traffic lane) along OR 22 poses safety risks to those parking and to through traffic on OR 22.
- **Pedestrian and Bicycle Circulation:** A need has been identified to plan for pedestrian and bicycle circulation along OR 22 and to provide connectivity between OR 22 and Mill City's downtown and residential areas.
- **Local Street Network:** Local traffic could use Alder Street as a parallel route to OR 22 if it is improved along with its access points at OR 22. This is particularly important during summer and winter weekends when traffic volumes on OR 22 are at their highest. These improvements would also allow highway traffic to use Alder Street as an alternate route in the event of a traffic incident or major emergency on OR 22 in Mill City.
- **Clear Standards and Guidelines:** Since strict adherence to current ODOT access spacing standards does not support existing land uses, this plan is needed to provide clear standards and guidelines to property owners and developers while also supporting the City's future development vision.

### 1.2.1. Public Involvement

Collaboration with the public is a key component of this *Access Management Plan*. In order to gather input and meet the current and future needs of its citizens, property owners, and business owners the City of Mill City held the following public forums during the past three years:

- June 8, 2004: Planning Commission Workshop/Open House
- February 10, 2005: Concept Plan Open House
- March 3, 2005: Concept Plan Open House
- March 15, 2005: Public Hearing
- May 23, 2007: City Council and Planning Commission Open House/Public Hearing
- June 20, 2007: City Council and Planning Commission Public Hearing

In addition to these open forums and public hearings, City staff met with individual property owners to discuss the impacts of the draft *Access Management Plan's* impact on specific driveways and property development. The Mill City Planning Commission also reviewed and discussed various components of the *Access Management Plan*, including the preliminary

<sup>3</sup> Mill City is located within ODOT Region 2.

engineering concept plan, streetscape elements, and the zoning and subdivision code amendments during its regularly scheduled monthly meetings from January 2005 to June 2007. The Commission invited and considered testimony from its consultants and from interested citizens during those regular meetings.

Appendix A includes materials (e.g. notices, agendas, and minutes) from the public involvement process.

### **1.3. Project Objectives**

The objectives of this *Access Management Plan* include the following:

- Improve safety, mobility and operating efficiency of OR 22 consistent with its designation as a state Freight Route.
- Comply with state policies, administrative rules (OAR 734, Division 51, Highway Approaches, Access Control, Spacing Standards and Medians), and roadway design standards; and comply with local standards, plans, and policies.
- Bridge the gap between the access permitting and land use approval processes conducted by ODOT and Mill City.
- Identify access management strategies in the project area for all modes (vehicles, bicycles, and pedestrians) that provide safe access to local streets and properties and that support existing and future land uses.
- Improve the access to and use of Alder Street as a parallel route to OR 22 for local trips.
- Identify parking improvements that support existing land uses and that deter motorists from parking along OR 22.
- Involve local citizens and affected property/business owners in the access management process.
- Incorporate this *Access Management Plan* as a part of the Mill City *City Code*.
- Clearly identify future improvements and funding strategies that can be used to guide new development along OR 22 and to obtain funding for needed public roadway improvements.

## 2. STATUTES, RULES, PLANS, AND POLICIES

A primary goal of this *Access Management Plan* is to conform to state and local statutes, rules, plans, and policies already in place. This section includes a summary of relevant state, county, and city documents that were consulted during the development of this plan.

### 2.1. Oregon Statutes and Rules

Oregon state law pertaining to transportation is included in the Oregon Revised Statutes (ORSs) and the Oregon Administrative Rules (OARs). The ORSs consist of statutes, often referred to as laws, and the OARs include rules that are standards or regulations meant to interpret or prescribe the statutes. Table 1 highlights the statutes and rules that pertain to access management.

**Table 1. Oregon Access Management Statutes and Rules**

Statute/Rule	Access Management Content
<b>ORS 374:</b> Control of Access to Public Highways <sup>4</sup>	Addresses access control of approaches on highways: Intergovernmental agreements for public county/city approaches Permits for private approaches
<b>OAR 660-012:</b> Transportation Planning Rule (TPR) <sup>5</sup>	Requires all transportation system plans include access control measures that are consistent with a roadway's functional classification e.g. spacing standards, median control guidelines
<b>OAR 734-051:</b> Highway Approaches, Access Control, Spacing Standards, and Medians <sup>6</sup>	Key sections within Division 51, whose purpose is to provide a safe and efficient transportation system by using access management practices: 0035: Administration of Rules 0115: Access Management Spacing Standards for Approaches 0155: Access Management Plans & Interchange Area Mgmt Plans 0275: Removal of Approaches 0285: Project Delivery

It is important to note that the Oregon statutes and rules are not intended to deny reasonable access to any property abutting a state highway or to affect existing grandfathered approaches unless there are safety hazards or proposed changes in land use that impact the function of the approach or the property has reasonable alternative access off the state highway.

The location, size, and placement of approaches to the state highway system are determined through the permitting process. Administrative rule as defined by OAR 734-051 provides guidance and approval criteria for access permits. Additionally, conditions of approval of an approach road permit may be necessary and may require mitigation measures. The need for mitigation measures is based on anticipated safety or operational characteristics associated with the site-generated traffic and the permitted turning movements.

<sup>4</sup> *Oregon Revised Statute Chapter 374 (Control of Access to Public Highways)*. Legislative Counsel Committee of the Oregon Legislative Assembly. 2005 ed.

<sup>5</sup> *Oregon Administrative Rule 660-012 (Division 12- Transportation Planning)*. Oregon Land Conservation and Development Department. March 15, 2007.

<sup>6</sup> *Oregon Administrative Rule 734-051 (Division 51- Highway Approaches, Access Control, Spacing Standards, and Medians)*. Oregon Department of Transportation. March 15, 2007.

## 2.2. Oregon Department of Transportation Plans

ODOT provides statewide guidance on access management in two of their plans, which are discussed in this subsection: the *Oregon Transportation Plan* and the *Oregon Highway Plan*.

### 2.2.1. Oregon Transportation Plan (OTP)

The *Oregon Transportation Plan*<sup>7</sup> provides a framework for planning, development, and management of an integrated statewide multi-modal transportation network that includes highways, bicycles, pedestrians, aviation, public transportation, and railways. One of the capacity and operational efficiency strategies in the *OTP* includes the use of access management to protect the integrity of statewide transportation corridors. More specific guidance on implementing this strategy is included in the *Oregon Highway Plan* and local plans discussed herein.

### 2.2.2. Oregon Highway Plan (OHP)

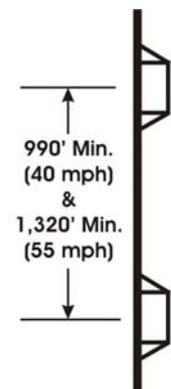
The *Oregon Highway Plan*<sup>8</sup>, which is an element of the *OTP*, provides a refinement of the *OTP* goals and policies with respect to the state highway system over the next 20 years. Goal 3, one

of the five main goals in the *OHP*, focuses solely on access management. It includes policies on highway classification, spacing standards, median placement, interchange access, deviations to standards, and appeals. The *OHP* classifies OR 22 as a statewide rural highway on the national highway system within the study area. It also identifies it as both a state freight route and a federally designated truck route.



Key access management policies in the *OHP* that apply to the study area include the following:

- OR 22 should provide for the high-speed, continuous flow of through traffic.
- Direct access to abutting properties is a minor objective.
- Access rights should be purchased as the opportunity arises.
- Minimum spacing between unsignalized approaches is 990 feet where the posted speed is 40 mph and 1,320 feet where the posted speed is 55 mph.
- Spacing standards do not apply to legal approaches until redevelopment, change of use, or highway construction/reconstruction/modernization occurs.
- Avoid conditions that warrant the installation of a traffic signal.



<sup>7</sup> *Oregon Transportation Plan*. Oregon Department of Transportation, Planning Section, Transportation Development Division. Adopted Sept. 20, 2006.

<sup>8</sup> *1999 Oregon Highway Plan Including Amendments November 1999 through January 2006*. Oregon Department of Transportation. Aug. 2006.

- Consider the installation of non-traversable medians where safety could be improved (e.g. locations with inadequate sight distance).

### 2.3. Marion County Policies and Standards

Marion County includes access management policies and standards in the following documents:

- *Marion County Rural Transportation System Plan*<sup>9</sup>: Includes access spacing standards and other access management practices (e.g. approach consolidation).
- *Marion County Comprehensive Plan*<sup>10</sup>: Includes general development and access policies.
- *Ordinance No. 651*: Ordains requirements for access permits, engineering design, maintenance, and fees.
- *Engineering Standards*<sup>11</sup>: Includes standards on access location, surfacing, width, slope, and drainage.

Marion County's access management guidelines apply to county roadways, including NE Alder Street in Mill City until such time jurisdiction for NE Alder Street is transferred to the City of Mill City. In particular, Marion County provides the following minimum spacing standards between an approach and any intersection with a state highway: 300 feet for major collectors, 200 feet for minor collectors, and 150 feet for local roads.

### 2.4. City of Mill City Policies and Standards

The City of Mill City provides driveway access standards and horizontal alignment and spacing standards between intersections in its adopted *Public Works Design Standards*. Section 2.14 ("Horizontal Alignments") of the *Design Standards* includes intersection spacing and alignment requirements that apply to all roadways under the City's jurisdiction. Standards for driveway widths, spacing, and design are included in Sections 2.28 and 2.29 of the *Design Standards*. Key City standard requirements include the following:

- Driveways for corner properties shall be located on the lowest classification street and as far from the intersection as possible.
- Residential driveways shall be located a minimum of 30 feet from an intersection or one-half the lot frontage, whichever is greater.
- Commercial driveways shall be located a minimum of 20 feet from an intersection with a minor street and a minimum of 30 feet from an intersection with a collector or arterial street.
- Commercial driveways shall have a minimum 22-foot separation between driveways.

Once this *Access Management Plan* is adopted, the City Engineer recommends the City of Mill City amend its *Public Works Design Standards* to require compliance with this *Access Management Plan* and require driveways to be closed or located per the Implementation Plan (Section 5).

<sup>9</sup> *Marion County Rural Transportation System Plan*. Marion County Public Works. Chapter 10. Dec. 21, 2005.

<sup>10</sup> *Draft Marion County Comprehensive Plan, Transportation Element*. Marion County Public Works. Feb. 2006.

<sup>11</sup> *Marion County Public Works Engineering Standards*. Adopted by Marion County Board of Commissioners. April 11, 1990.

### 3. EXISTING CONDITIONS

This section includes an overview of the study area existing conditions and includes roadway characteristics, land use characteristics, an approach inventory, and traffic characteristics.

#### 3.1. Roadway Characteristics

This section provides an overview of the roadway characteristics of OR 22 and its cross-streets within the project area. OR 22 and the NW 2<sup>nd</sup>/1<sup>st</sup> Avenue connector to the 1<sup>st</sup> Avenue North Santiam River bridge falls within ODOT's jurisdiction. All of the cross-streets and NW Alder Street are the responsibility of Mill City. NE Alder Street is under Marion County's jurisdiction. All of the intersections along OR 22 are stop-controlled on the cross-street. No traffic signals or stop signs are used to control traffic on OR 22.

##### 3.1.1. OR 22

OR 22<sup>12</sup>, also called North Santiam Highway or Santiam Boulevard, is an east-west roadway classified as a Statewide Highway by ODOT<sup>13</sup> and classified as a Rural Principal Arterial per the federal functional classification system<sup>14</sup>. It extends from western Oregon (US 101 in Hebo) to central Oregon (US 20 at the Santiam Junction) and provides access to collectors and local streets in northern Mill City within the project area. Key characteristics of OR 22 in the project area include the following:

- Three-lane roadway with one travel lane in each direction and a center two-way left-turn lane through most of study area:
  - West of NW 9<sup>th</sup> Ave to East of NW 2<sup>nd</sup> Ave
  - NE Alder St (west) to east of NE 7<sup>th</sup> Ave
- Two-lane roadway with one travel lane in each direction in rest of project area
- Dedicated eastbound right turn lane at NW 2<sup>nd</sup> Avenue
- No on-street parking
- No curbs or sidewalks
- No clear delineation of public roadway or private property approach (driveway) limits where they abut OR 22
- Bicycles are accommodated on the shoulder
- Sub-standard line of sight and rockfall safety zone on OR 22 between approximate MP 30.0 and 30.2
- Gradual "S"-curve between NW 5<sup>th</sup> Avenue and NE Alder Street (west)
- No significant grades or vertical curvature of the roadway
- Guardrail on the south side of OR 22 where the embankment drops off steeply between NW 2<sup>nd</sup> Avenue and NE Alder Street (west)



Looking West at OR 22 from NE 7<sup>th</sup> Ave

<sup>12</sup> Although locals often refer to OR 22 as Highway 22, ODOT refers to the section of OR 22 within the project area as Highway 162 for internal record keeping purposes.

<sup>13</sup> 1999 Oregon Highway Plan, Including Amendments November 1999 through January 2006. Oregon Department of Transportation, Aug. 2006.

<sup>14</sup> Functional Classification and National Highway System Status on Oregon State Highways. Oregon Department of Transportation, Road Inventory and Classification Services Unit, June 23, 2006.

- Posted speed of 40 mph from west of NW 7<sup>th</sup> Ave to east of NE 7<sup>th</sup> Ave
- Posted speed of 55 mph west and east of 40 mph zone

### 3.1.2. OR 22 Cross-Streets

The cross-streets along OR 22 in the project area are typically two lane roadways with one lane in each direction. The City of Mill City classifies NW 2<sup>nd</sup> Avenue as a Rural Major Collector and NE Alder Street as a Minor Collector<sup>15</sup>. All of the other cross-streets are classified as Local Roads. The posted speed is generally 25 mph on the cross-streets.

### 3.2. Land Use Characteristics

Although many of the properties within the study area have already been developed, assigned land use designations are useful for determining access requirements for vacant or underdeveloped properties or for when property redevelopment occurs. Property fronting on OR 22 is zoned as Highway Commercial (CH) on both sides of the roadway throughout the entire study area (see Figure 1 in the Introduction section for zoning along and nearby OR 22). Uses permitted outright or conditionally under Single-Family Residential (R-1) or Multi-Family Residential (R-2) zoning and single-family dwellings occupied by personnel that support commercial establishments on the same property are permitted outright under CH zoning<sup>16</sup>. Commercial uses permitted under Central Commercial (CC) zoning are permitted under CH zoning based on a site plan review.

Mill City is currently in the process of updating their *City Code* to require properties zoned as CH to conform to this *Access Management Plan* and to require City review of the following uses and actions<sup>17</sup>:

- Zoning or plan amendment designation changes.
- Construction of new buildings.
- Addition of existing buildings by more than 600 square feet.
- Division or consolidation of property boundaries.
- Proposed changes in land use, development, or site circulation (including changes in inter-parcel circulation).
- Reestablishment of a property's use after discontinuance for two years or more.

### 3.3. Approach Inventory

A total of 12 public approaches and 71 private approaches are included in the study area and 50 of the 71 private approaches are located on OR 22. Private approaches on cross-streets were included for properties that abut both OR 22 and a cross-street. The public approaches provide connections to both commercial and residential land uses. Approximately 25 percent of the private approaches on OR 22 provide access to residential land uses.<sup>18</sup> Additional residential properties are located along OR 22 but gain access to the transportation network via city cross-streets instead of the highway. The other 75 percent of private approaches on OR 22 provide access to commercial properties with a variety of uses such as:

<sup>15</sup> *Oregon Transportation Map Showing Functional Classification of Roads, City of Mill City*. Oregon Department of Transportation, Geographic Information Services, Map Distribution Unit, 2004.

<sup>16</sup> *Mill City City Code*, Title 17: Zoning.

<sup>17</sup> Siegel, Scot (Siegel Planning, LLC). Memorandum regarding "Mill City Code Assistance – Access Management Plan Draft Comprehensive Plan and Code Amendments" addressed to Dave Kinney (Mill City), Steve Oulman (ODOT TGM), and Sue Geniesse (ODOT TGM). Feb. 9, 2007.

<sup>18</sup> As noted in Section 3.2, these residential properties are zoned CH and as such, are subject to potential redevelopment for commercial use.

- Dining
- Real Estate
- Retail (sporting goods, lumber, furniture, art, convenience items)
- Fueling/Auto Services
- Moose Lodge
- Banking
- Laundromat

Appendix B includes a detailed inventory of the existing study area approaches and includes details such as location, width, material, ownership, associated land use, permit status, and right-of-way reservations. All approaches are required to have an approach permit except for approaches that are considered grandfathered. Grandfathered approaches include those constructed prior to 1949 and may also include those allowed to remain open per the ODOT Region Manager as part of an ODOT improvement project prior to April 1, 2000. In the study area approximately 30 percent of the approaches have legal approach permits (with or without access deviations) and the other 70 percent are either grandfathered or illegal.

ODOT’s spacing requirements (990 feet for 40 mph and 1,320 feet for 55 mph) are not met along OR 22 in the study area. OR 22 has an approach density of approximately 30 approaches per mile on the north side and 27 approaches per mile on the south side, which equates to an average approach spacing of 175 feet and 195 feet on the north and south sides, respectively. Some approaches are located closer together than these averages. There should only be approximately five approaches per mile, or 6 approaches for the entire study area, for OR 22 to comply with ODOT’s spacing requirements. Table 2 lists the existing spacing between public approaches in the study area. Not considering private approaches there is only one segment between public approaches that currently meets ODOT’s spacing standards and another three segments are within 10 percent of the spacing standards. Private approaches are located throughout almost all of the public approach segments.

**Table 2. Public Approach Spacing in Study Area**

OR 22 Segment	Segment Distance	Posted Speed (mph)	ODOT Access Spacing Standards Met?		
			Required	Difference	Met?
NW Alder St to NW 9 <sup>th</sup> Ave	570'	40	990'	-420'	No
NW 9 <sup>th</sup> Ave to NW 7 <sup>th</sup> Ave	925'			-65'	
NW 7 <sup>th</sup> Ave to NW 5 <sup>th</sup> Ave	405'			-585'	
NW 5 <sup>th</sup> Ave to NW 2 <sup>nd</sup> Ave	1,055'			+65'	Yes
NW 2 <sup>nd</sup> Ave to NE Alder St	925'			-65'	No
NE Alder St to NE 3 <sup>rd</sup> Ave	620'			-370'	
NE 3 <sup>rd</sup> Ave to NE 4 <sup>th</sup> Ave	295'			-695'	
NE 4 <sup>th</sup> Ave to NE 5 <sup>th</sup> Ave	275'			-715'	
NE 5 <sup>th</sup> Ave to NE 6 <sup>th</sup> Ave	220'			-770'	
NE 6 <sup>th</sup> Ave to NE 7 <sup>th</sup> Ave	235'			-755'	
NE 7 <sup>th</sup> Ave to NE Alder St	915'	40/55	1,320'	-75'	

Note: This table does not take into account private approaches located along each segment.

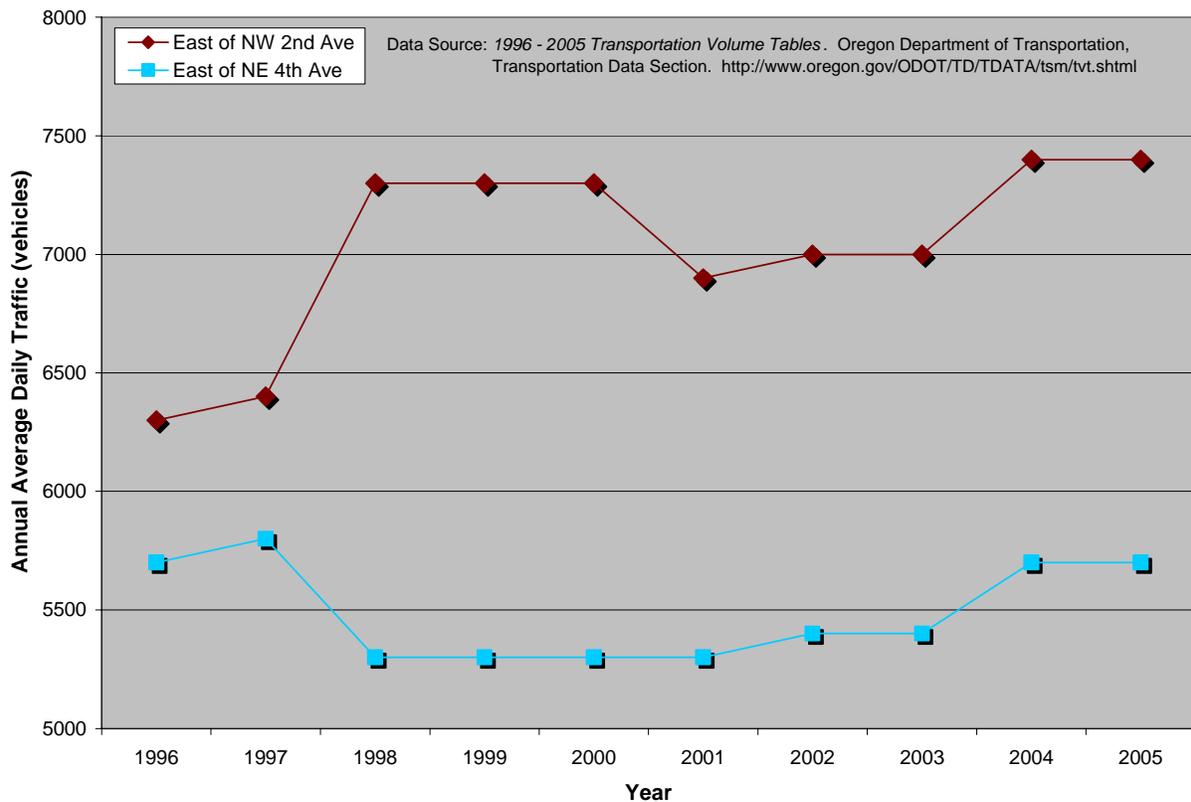
### 3.4. Traffic Characteristics

Traffic volume and crash data were compiled to determine the traffic characteristics of the study area. These characteristics play a key role in evaluating access management strategies so that mobility and safety can be preserved and/or enhanced.

### 3.4.1. Traffic Volumes

Figure 2 illustrates the annual average daily traffic (AADT) volumes on OR 22 from 1996 through 2005. The most recent data from 2005 indicates that OR 22 carries approximately 7,400 vehicles (two-way total) east of NW 2<sup>nd</sup> Avenue and 5,700 vehicles (two-way total) east of NE 4<sup>th</sup> Avenue. Over the 10-year period from 1996 to 2005 the AADT grew at approximately 1.6 percent per year east of NW 2<sup>nd</sup> Avenue and stayed fairly constant east of NE 4<sup>th</sup> Avenue.

Based on historical trends ODOT expects the AADT on OR 22 to reach 8,300 vehicles (two-way total) east of NW 2<sup>nd</sup> Avenue and 5,800 vehicles (two-way total) east of NE 4<sup>th</sup> Avenue by year 2025<sup>19</sup>. This correlates to a growth rate of less than one percent over the 20-year period from 2005 to 2025.



**Figure 2. Annual Average Daily Traffic Volumes on OR 22**

A permanent automatic traffic recorder (ATR) station is located on OR 22 approximately three miles east of Mill City. The data at this ATR indicates the following trends on OR 22 in 2005<sup>20</sup>:

- The average weekday traffic is approximately 80 percent of the average daily traffic, which indicates traffic volumes are higher on the weekend.
- Traffic volumes are highest between May and September, with July peaking at approximately 162 percent of the average daily traffic.

<sup>19</sup> 2025 Highway Future Volume Table. Oregon Department of Transportation, Transportation Development Division, Planning Section. <http://www.oregon.gov/ODOT/TD/TP/TADR.shtml>. Accessed April 9, 2007.

<sup>20</sup> 2005 ATR Trend Summary. Oregon Department of Transportation, Transportation Data Section, Traffic Monitoring.

- Traffic volumes are lowest in January.
- The 30<sup>th</sup> highest hour is approximately 23 percent of the average daily traffic.
- Passenger cars comprise approximately 90 percent of the traffic and heavy vehicles comprise approximately 10 percent (3.5 percent single unit trucks, 5 percent single trailer trucks, and 0.5 percent double trailer trucks).

The following trends may be inferred about the project area based on the ATR data:

- The ADT on OR 22 east of NW 2<sup>nd</sup> Avenue was approximately 12,000 vehicles (two-way total) in July 2005 and is expected to reach approximately 13,500 vehicles (two-way total) by July 2025.
- The 30<sup>th</sup> highest hour on OR 22 east of NW 2<sup>nd</sup> Avenue in 2005 included approximately 1,700 vehicles (two-way total).

### 3.4.2. Crash History

The crash data for OR 22 in the study area from 2001 through 2005 are listed in Table 3. A total of three crashes resulting in injuries occurred along the 1.13 mile section of OR 22 within Mill City during that five-year time frame. This is equivalent to a crash rate of 0.26 crashes per million vehicle miles, which is less than the 2005 statewide crash rate of 0.90 for rural principal arterials in rural cities.

The study area does not include any ODOT-designated Safety Priority Index System (SPIS) sites with rankings within the state's top ten percent. In order for a site to receive the SPIS classification there must have been three or more crashes or one or more fatalities at the same location during the previous three years. Once identified as a SPIS site, ODOT scores each site based on crash frequency, crash rate, and crash severity. The top 10 percent SPIS sites are then evaluated to determine potential improvements that will reduce crashes while also meeting ODOT's benefit-to-cost requirements.

**Table 3. OR 22 Crash Data in Study Area for 2001 – 2005**

Collision Type	Number of Crashes by Year <sup>21</sup>						Crash Rate (per million vehicle miles)	
	2001	2002	2003	2004	2005	Total	OR 22 in Study Area	2005 Statewide Average (Rural Principal Arterial) <sup>22</sup>
PDO	0	0	0	0	0	0	0.26	0.90
Injury	0	0	1	1	1	3		
Fatality	0	0	0	0	0	0		
Total	0	0	1	1	1	3		

PDO = Property Damage Only

Table 4 provides a summary of the three crashes that occurred from 2001 to 2005 in the study area. All three crashes took place at a public or private approach and two of them happened on a section of OR 22 where a center two-way left turn lane is not currently provided.

<sup>21</sup> PRC Report for North Santiam Hwy #162 (Route 22) from MP 29.46 to MP 30.59. Oregon Department of Transportation, Transportation Data Section, Crash and Analysis Reporting Unit, March 15, 2007.

<sup>22</sup> 2005 State Highway Crash Rate Tables. Oregon Department of Transportation, Transportation Data Section, Crash Analysis and Reporting Unit, Aug. 2006.

**Table 4. OR 22 Crash Details for 2001 - 2005**

Crash Location	# of Injuries	Crash Details
Driveway (MP 30.16)	4	Motorist turned left from highway in front of oncoming vehicle who had the right-of-way*
Driveway (MP 30.17)	1	Motorist improperly tried to pass a vehicle under unsafe conditions*
NE 4 <sup>th</sup> Avenue	1	Motorist ran off road and hit a legally parked car on NE 4 <sup>th</sup> Avenue

\* This crash occurred on a section of OR 22 that does not have a center two-way left turn lane for vehicle refuge.

### **3.5. OR 22/NW 2<sup>nd</sup> Avenue Traffic Operations**

A study, which is included in Appendix C, was conducted in 2004 to evaluate the existing and future traffic operations of the OR 22/NW 2<sup>nd</sup> Avenue intersection<sup>23</sup>. NW 2<sup>nd</sup> Avenue is classified as a Rural Major Collector whereas all the other cross-streets in the study area are Minor Collectors or Local Roads. Additionally, NW 2<sup>nd</sup> Avenue is the closest access point to N 1<sup>st</sup> Avenue, which is the only roadway in the City that crosses the North Santiam River. Downtown and the majority of Mill City’s residential neighborhoods are located south of the Santiam River.

The key recommendation from the study is to install a merge divider on OR 22 at NW 2<sup>nd</sup> Avenue to reduce conflicts and lower the volume-to-capacity ratio of the intersection. Although existing and design hour volumes for year 2022 meet traffic signal Warrant 1- Case B at this intersection the installation of an isolated traffic signal in a rural area disrupts driver expectancy and increases safety concerns. The study recommends the following design features for the merge divider based on year 2022 traffic conditions<sup>24</sup>:

- 200-foot westbound left turn lane
- 200-foot northbound left turn lane
- 660-foot westbound acceleration lane to accommodate northbound left turns

Another alternative for improving traffic operations at this intersection that may be considered during project development would include the construction of a roundabout on OR 22 at the intersection with NW 2<sup>nd</sup> Avenue. A preliminary analysis conducted by ODOT staff of a three-leg, single-lane roundabout at this location indicated that such an improvement could provide for acceptable operation through the year 2027.

When considering this alternative, it should be recognized that the right-of-way needs associated with a roundabout may be very different than those previously identified for the proposed highway improvements and that the ability of the assumed 140-foot diameter roundabout with associated 25 mph design speed to adequately accommodate freight movement must still be verified. Also, ODOT roadway design standards may change during the period prior to project development.

<sup>23</sup> Springer, Carl and Sean Kennedy (DKS Associates). Memorandum regarding “Mill City Traffic Analysis Study” addressed to Steve Ward (Westech Engineering). Feb. 24, 2004.

<sup>24</sup> These design values do not include required taper lengths or reverse curve lengths.

### 3.6. Existing Conditions Summary

Findings for the existing conditions along OR 22 in Mill City include the following:

- A center two-way left turn lane currently provides refuge throughout most of the study area for vehicles turning from or onto OR 22.
- The existing land uses along OR 22 are consistent with Mill City's *City Code*.
- The spacing between existing approaches on OR 22 falls significantly short of ODOT's access spacing standards for a rural statewide highway. There should only be a maximum of 6 approaches spaced at a minimum of 990 feet (or 1,320 feet at the east end) per ODOT's standards instead of 62 approaches (12 public, 50 private).
- In 2005 the AADT on OR 22 was measured at 7,400 vehicles (two-way total) east of NW 2<sup>nd</sup> Avenue and 5,700 vehicles (two-way total) east of NE 4<sup>th</sup> Avenue. The traffic volume on OR 22 is approximately 60 percent higher than the AADT during the month of July. The AADT is expected to grow less than one percent per year between 2005 and 2025.
- The crash rate on OR 22 in the study area was 0.26 crashes per million vehicle mile for 2001 to 2005, which is less than the 2005 statewide crash rate of 0.90 for similar facilities.
- A 2004 study recommended the installation of a merge divider at the OR 22/NW 2<sup>nd</sup> Avenue intersection that provides westbound and northbound left turn lanes and a westbound acceleration lane for northbound traffic turning left. ODOT staff is also willing to consider a roundabout or other design alternatives at this intersection to improve traffic operations and traffic safety.

## 4. ACCESS MANAGEMENT STRATEGIES

ODOT, the City of Mill City, and the public developed short-, medium-, and long-range access management strategies for OR 22 in Mill City that support the project objectives listed in Section 1.3 and are consistent with the City's development vision of OR 22 as a gateway to the community that supports traveler services. By identifying a set of phased strategies now, it will help ODOT and Mill City gradually improve roadway operation and safety through the implementation of these strategies in future years as funding opportunities arise. This section includes a description of the OR 22 access management strategies.

### 4.1. Short-Range Strategies (0 – 5 Years)

The short-range strategies, which are intended for the next five years, work with the existing property uses or will require property redevelopment. Public funding is not currently anticipated for the implementation of short-range strategies. These strategies include the following:

- Maintain existing approaches on OR 22 that are necessary to support existing land uses and businesses.
- Maintain existing approaches on OR 22 for properties that are otherwise land-locked (lack alternative reasonable access off the state highway).
- Close approaches on OR 22 when property redevelops if one of the following conditions is met:
  - ◆ Alternative reasonable access can be taken from a lower classification roadway, or
  - ◆ A land-locked property has more than one existing approach, or
  - ◆ A shared approach may be used with an abutting property in conjunction with inter-parcel circulation.
- Approaches allowed to remain open until property redevelops are considered “temporary” since they are not ideal locations for “permanent” approaches. Since redevelopment may occur during the short-, medium-, or long-range this strategy applies to all cases. The approximate locations of combined or relocated approaches are shown in the Implementation Plan section. The final location of driveway approaches will be determined at the time of property (re)development.

### 4.2. Medium-Range Strategies (5 – 10 Years)

Medium-range strategies are aimed at improvements on City roadways over the next five to ten years so that the City can allocate local funding as a part of their *Capital Improvement Program (CIP)*. These strategies include the following:

- Strive toward meeting Marion County's access spacing standards for the nearest approach to OR 22 on all cross-streets: 300 feet on major collectors, 200 feet on minor collectors, and 150 feet on local roads. Due to the short length of the cross streets, all driveway approaches may not be able to meet these standards, but should be located at the most optimal location to meet access spacing standards, improve sight distance, and enhance pedestrian and vehicular safety.
- Limit properties to one approach on all OR 22 cross-streets.
- Improve east-west connectivity on City roadways to improve circulation and provide local traffic with alternates to using OR 22.

### 4.3. Long-Range Strategies (10 – 20 Years)

OR 22 is the focus of the long-range strategies, which are most likely to occur during the next ten to twenty years and should be considered for funding allocation as part of ODOT's *Statewide Transportation Improvement Program (STIP)*. These strategies include the following:

- Strive toward meeting ODOT's access spacing standards along OR 22: 990 feet where the posted speed is 40 mph (west of NW 7<sup>th</sup> Ave to east of NE 7<sup>th</sup> Ave) and 1,320 feet where the posted speed is 55 mph (remaining project corridor).
- Restrict turning movements off of and onto OR 22 to reduce the number of conflict points along the project corridor.
- Consider alternate operational improvements to avoid the installation of any traffic signals on OR 22, such as u-turn refuge lanes.
- Improve traffic operations and safety of the intersection of NW 2<sup>nd</sup> Avenue and OR 22. During future ODOT project development, the Project Development Team (PDT) will consider alternate intersection design improvements at this intersection. Design alternatives may include, but are not limited to, a roundabout or median controlled turn refuges with a westbound merge lane. Local stakeholders will have input on the evaluation of these design alternatives in public meetings conducted by ODOT.
- Improve capacity, traffic operations and safety of OR 22 throughout the city limits with the installation of non-traversable medians at such locations in addition to the OR 22/NW 2<sup>nd</sup> Avenue intersection as deemed warranted by the ODOT PDT<sup>25</sup>. The inclusion of medians in a modernization project on OR 22, other than those needed for the safe operation of the OR 22/NW 2<sup>nd</sup> Avenue intersection, will be subject to consideration of further input by city stakeholders regarding design, timing of installation and business operations at a public meeting(s) conducted by the PDT.
- Relocate approaches from OR 22 to cross streets when access can be taken from a lower classification roadway.
- Prohibit more than one approach on OR 22 to properties that are land-locked or that cannot reasonably take access from a lower classification roadway.
- Replace individual property approaches with a shared approach centered on the tax lot line of abutting properties.
- Relocate approaches to the most optimal location on a property frontage to best meet spacing standards or enhance safety (e.g. optimal sight distance).

## 5. IMPLEMENTATION PLAN

An implementation plan was developed using the access management strategies discussed in the previous section and by obtaining public input through a series of open houses and public hearings. Since strict adherence to the existing access management standards may adversely affect or limit access to existing land uses and businesses, it was extremely important to work individually with each property owner to meet their access needs. Figure 3 (3A through 3F) depicts the access management plan for the entire study area. Appendix D lists the recommended access improvements and improvement timeframe (short, medium, or long) by individual approach and Appendix E illustrates the phasing plan for improvements. This section also includes a general description of the implementation actions for the short-, medium- and long-range.

<sup>25</sup> ODOT Project Development Teams include staff from the affected local jurisdictions such as, but not limited to, the city manager, public works director and fire department.

The inclusion of an action in the medium-range or long-range plans should not preclude it from being considered in earlier implementation stages and some short-range actions may take longer to occur than assumed in this plan. It should be recognized that the timeframes shown for recommended actions are for planning purposes only and that all actions should be pursued as opportunities arise.

The City and ODOT have agreed to work together to implement this plan. Each party recognizes conditions that exist in 2007 will change as traffic volumes increase and properties adjacent to OR 22 are developed or redeveloped. Consequently, the short-range, medium-range, and long-range strategies proposed provide both the City and ODOT with some flexibility. The City and ODOT will work together to implement those strategies that will improve highway safety and functionality while enhancing the OR 22 corridor in Mill City as a viable commercial district.

### **5.1. Short-Range Implementation Plan (0 – 5 Years)**

The focus of the short-range implementation plan is the closure of approaches on OR 22 as property redevelops and improvements at the west and east entries to the community. Short-range implementation actions and projects include the following:

- Adopt City land use and engineering standards to implement this *Access Management Plan*. This includes adoption of implementation measures to the zoning and subdivision sections of the *City Code* and the adoption of amendments to the City's *Public Works Design Standards* for streetscape improvements.
- Install "Welcome to Mill City" entry signs and add streetscaping at the west and east city limits on OR 22.
- Construct local cross-street improvements if funding is available.

In addition to the improvements cited above that will be required by the City development permit process, ODOT may require developers to install traffic control measures, such as medians, as part of the OR 22 approach permitting process. The City and ODOT recognize that, to the extent such improvements are funded by grants and/or an ODOT OR 22 modernization project, private developers will be relieved of the financial burden of paying for improvements required by the City and ODOT development permit processes.

It should be noted that ODOT may defer mitigation measures identified through the approach road permitting process until a highway improvement project is constructed. The adoption of this *Access Management Plan* may provide some flexibility with mitigation measures. This Plan includes recommendations for the installation of medians and traffic separators that would be consistent with mitigation measures associated with access permitting/and or a highway modernization project.

Though mitigation measure could be deferred by ODOT prior to the construction of a highway improvement project, it may be necessary for developers to mitigate for traffic impacts. The need for mitigation measures would be based on anticipated safety or operational characteristics associated with the site-generated traffic for the permitted turning movements. Common mitigation measures may include one or more of the following items: striping, signing, non-traversable medians, traffic separators, and turn lanes.

In 2007, ODOT awarded the City of Mill City a Small Cities Allotment grant to improve NW 9<sup>th</sup> Avenue, one of the local cross-streets. Funding for additional public improvements is not

anticipated to be available over the next five years unless grant funding can be obtained by the City.

**5.2. Medium-Range Implementation Plan (5 – 10 Years)**

The medium-range implementation plan includes the relocation and combination of approaches on OR 22 cross-streets and connectivity improvements on City roadways that may be funded through the City’s *CIP* or other sources during the next five to ten years. Due to the large extent of the study area, the medium-range implementation plan will likely need to be constructed in phases to minimize disruptions to the City roadway network and to obtain adequate funding. Implementation of the improvements shown in Figure 3 is recommended in the following phasing order, which is also depicted in Appendix E:

<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>	<u>Phase 5</u>
■ NW 2 <sup>nd</sup> Ave/ N 1 <sup>st</sup> Ave	■ NE Alder St ■ NE 3 <sup>rd</sup> Ave ■ NE 5 <sup>th</sup> Ave ■ NE 7 <sup>th</sup> Ave ■ NE Alder St Cul-de-sac	■ NW Alder St (2 <sup>nd</sup> to 5 <sup>th</sup> ) ■ NW 5 <sup>th</sup> Ave	■ NW Alder St (5 <sup>th</sup> to 9 <sup>th</sup> ) ■ NW 7 <sup>th</sup> Ave	■ NE Wall St ■ NE Birch St Cul-de-sac

The phasing order may be reorganized as opportunities arise, but it should be kept in mind that the improvements at NW Alder Street/NW 9<sup>th</sup> Avenue, NW 2<sup>nd</sup> Avenue/N 1<sup>st</sup> Avenue, and NE Alder Street/NE 7<sup>th</sup> Avenue are most critical to supporting the long-range implementation plan.

The medium-range implementation plan anticipates the City and ODOT will cooperatively identify funding alternatives for street improvement projects that conform to this plan, such as streetscape, bikeway and pedestrian improvements on both OR 22 and local streets. Such project(s) conforming to the plan can be funded with grants and constructed prior to a long-range *STIP* modernization project. They will enhance the commercial vitality of the Mill City corridor and encourage private investment by calming traffic, enhancing pedestrian and bicycle safety, improving the appearance of the community, and creating a stronger sense of place for residents and the traveling public. Project funding will also avoid incremental implementation that would occur through the City’s and ODOT’s development permitting process.

**5.3. Long-Range Implementation Plan (10 – 20 Years)**

Improvements to OR 22 and the approaches on OR 22 are the focus of the long-range implementation plan (10 – 20 year timeframe) and funding for these improvements should be requested as part of the *STIP*. It would be ideal to construct all improvements to OR 22 at one time to minimize disruptions to through traffic and local traffic. If the improvements to OR 22 must be phased due to funding restrictions, the first phase should concentrate on improvements between NW 5<sup>th</sup> Avenue and NE 4<sup>th</sup> Avenue since this section includes the OR 22/NW 2<sup>nd</sup> Avenue intersection that is most critical to connectivity between OR 22 and downtown Mill City. The phasing order of the sections west of NW 5<sup>th</sup> Avenue and east of NE 4<sup>th</sup> Avenue is less critical after the first phase has been completed. This section includes a description of the improvements recommended to OR 22, OR 22 public approaches, and OR 22 private approaches.

### 5.3.1. Recommended OR 22 Roadway Improvements

The following improvements shown in Figure 3 are recommended to improve access along OR 22:

- Replace the center two-way left turn lane on OR 22 between the west city limits and NE 3rd Avenue with a non-traversable median. Include breaks in the median accompanied by left turn lanes at the following locations:
  - NW 9<sup>th</sup> Avenue
  - NW 7<sup>th</sup> Avenue
  - NW 5<sup>th</sup> Avenue
  - NW 2<sup>nd</sup> Avenue
  - NE Alder Street (west): westbound lefts only
- Maintain the center two-way left turn lane on OR 22 from NE 3<sup>rd</sup> Avenue to east of NE 7<sup>th</sup> Avenue due to short spacing between public approaches.
- Install intersection improvements at the OR 22/NW 2<sup>nd</sup> Avenue intersection. Viable options include a merge divider or a roundabout. The merge divider design alternative at OR 22/NW 2<sup>nd</sup> Avenue will allow northbound vehicles on NW 2<sup>nd</sup> Avenue to turn left and head westbound on OR 22 into their own lane without having to wait for a gap in westbound OR 22 traffic. The additional westbound lane from NW 2<sup>nd</sup> Avenue through NE 7<sup>th</sup> Avenue will provide adequate acceleration and weaving distance. Maintain the dedicated eastbound right turn lane at NW 2<sup>nd</sup> Avenue.

During public hearings in 2005 and 2007, property owners and local emergency service providers expressed concerns that medians may have a negative impact on business activity, emergency response, and access to individual properties. Consequently, this plan anticipates that the ODOT PDT will hold public planning meetings and work closely with the community to identify the specific location and length of medians prior to their installation. City officials recognize the ODOT PDT design staff will consider, in addition to community input, a variety of factors in evaluating and placing medians on OR 22, including operational safety, ODOT roadway design standards and capacity.

Non-traversable medians may be installed:

- As a requirement of an ODOT approach permit, pursuant to OAR 734, Division 51, or
- Concurrently with a *STIP* modernization or resurfacing project for the entire Mill City OR 22 corridor, or
- Concurrently with intersection improvements at NW 2<sup>nd</sup> Avenue, or
- After a modernization of the Mill City corridor in order to improve traffic safety, or
- As needed to increase or preserve capacity of the roadway.

### 5.3.2. Recommended OR 22 Public Approach Improvements

The following public approach improvements shown in Figure 3 are recommended along OR 22:

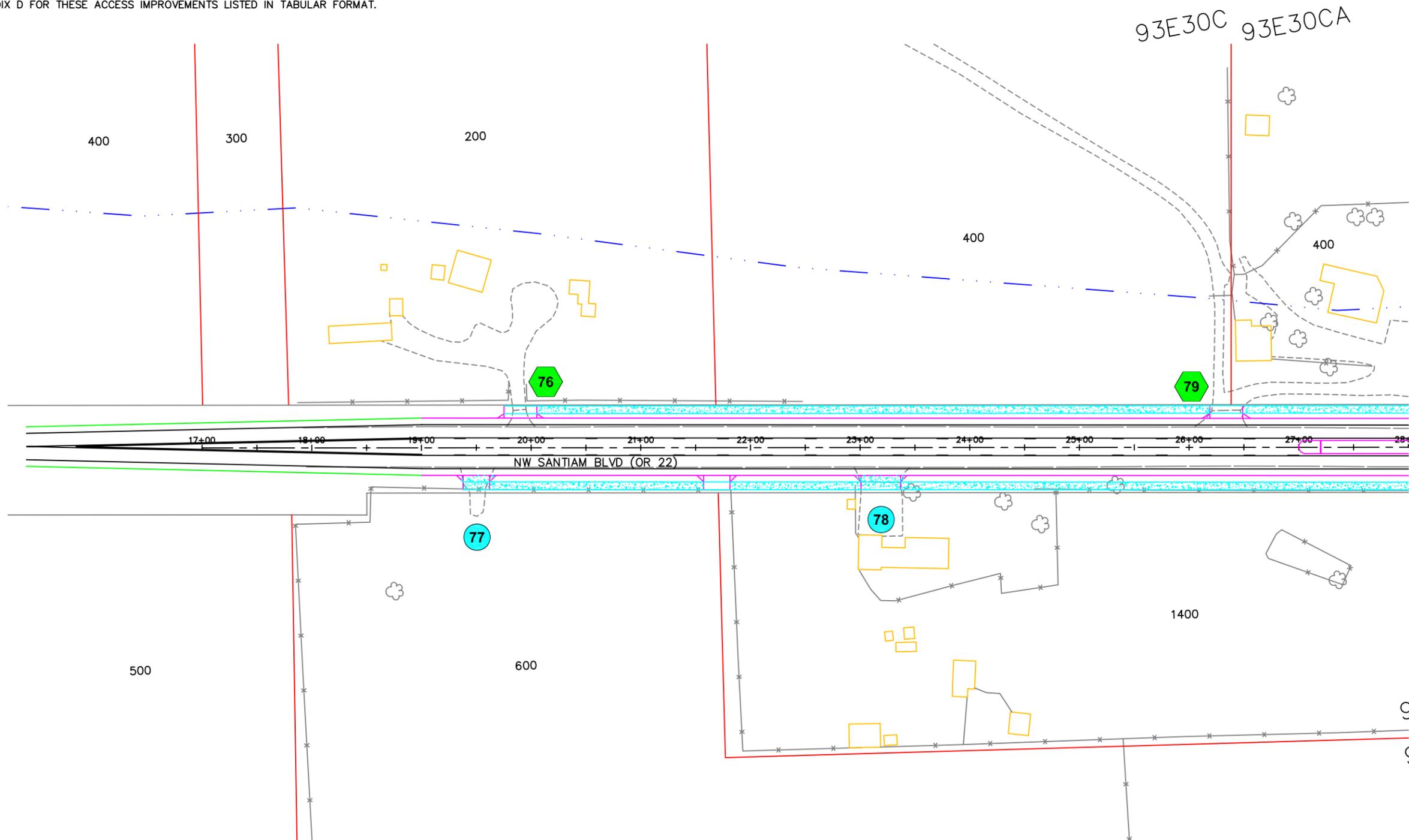
- Improve all public approaches that will remain open to ODOT's engineering standards for roadway design (e.g. turning radii, slope, and drainage). Many approaches do not likely meet the current standards.
- Vacate NE Alder Street approach (west, Sta. 68+75) on tax lot 2900 and change to private approach. NE Alder Street connects to numerous other local roadways that directly access OR 22.
- Vacate NE 6<sup>th</sup> Avenue as a public street and change to a private approach.

### 5.3.3. Recommended OR 22 Private Approach Improvements

The following private approach improvements shown in Figure 3 are recommended along OR 22:

- Improve all private approaches that will remain open to ODOT's, Marion County's, and the City of Mill City's engineering standards for driveway width, surfacing, slope, and drainage.
- Restrict access to right turns only through the use of a non-traversable median between the western city limits and NE 3<sup>rd</sup> Avenue. Provide breaks in the median to allow westbound left turns, but not northbound left turns at the new approach that replaces NE Alder Street (west).
- Close approaches where access is available on another roadway. All study area roadways that intersect OR 22 are of a lower functional classification than OR 22.
- Limit properties without access to other roadways to one approach or a shared approach where feasible. Close additional existing approaches.
- Consolidate approaches into a shared approach centered on a tax lot line where feasible.
- Align private approaches across from public approaches where feasible.
- Close approaches to properties that are currently vacant or unused.

SEE APPENDIX D FOR THESE ACCESS IMPROVEMENTS LISTED IN TABULAR FORMAT.

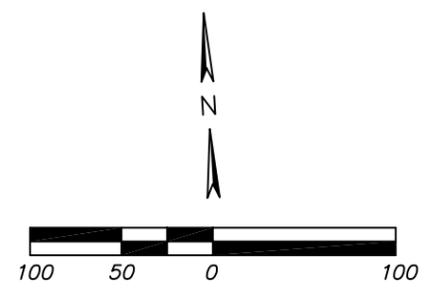


**FEATURES LEGEND**

- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- PROPOSED EDGE OF PAVEMENT
- PROPOSED FACE OF CURB
- PROPOSED APPROACH
- PROPOSED SIDEWALK
- EXISTING TAX LOT LINE
- EXISTING BUILDING
- EXISTING STREAM OR RIVER

**APPROACH LEGEND**

- 00 APPROACH NUMBER
- 00 MAINTAIN APPROACH
- 00 RELOCATE APPROACH
- 00 COMBINE APPROACH WITH ADJACENT APPROACH
- 00 CLOSE APPROACH WHEN PROPERTY REDEVELOPS
- 00 CLOSE APPROACH



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VERIFIED SCALE	DATE: 06-2007
BAR IS ONE-HALF INCH ON ORIGINAL DRAWING	NO.
IF NOT ONE INCH ON SCALES ACCURACELY	DESCRIPTION
DRN. - DKS CAD	DATE
CKD. - JAB	NO.
DSN. - SRH	DATE
FINAL ACCESS MANAGEMENT PLANS	NO.
BY	DESCRIPTION

**WESTTECH ENGINEERING, INC.**  
CONSULTING ENGINEERS AND PLANNERS

3844 Fairview Industrial Dr., S.E., Suite 100, Salem, OR 97302  
Phone: (503) 565-2474 Fax: (503) 565-3866  
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**DKS Associates**  
TRANSPORTATION SOLUTIONS

1400 SW Fifth Avenue, Suite 500 Telephone: (503) 243-3500  
Portland, Oregon 97201-6502 Fax: (503) 243-1834

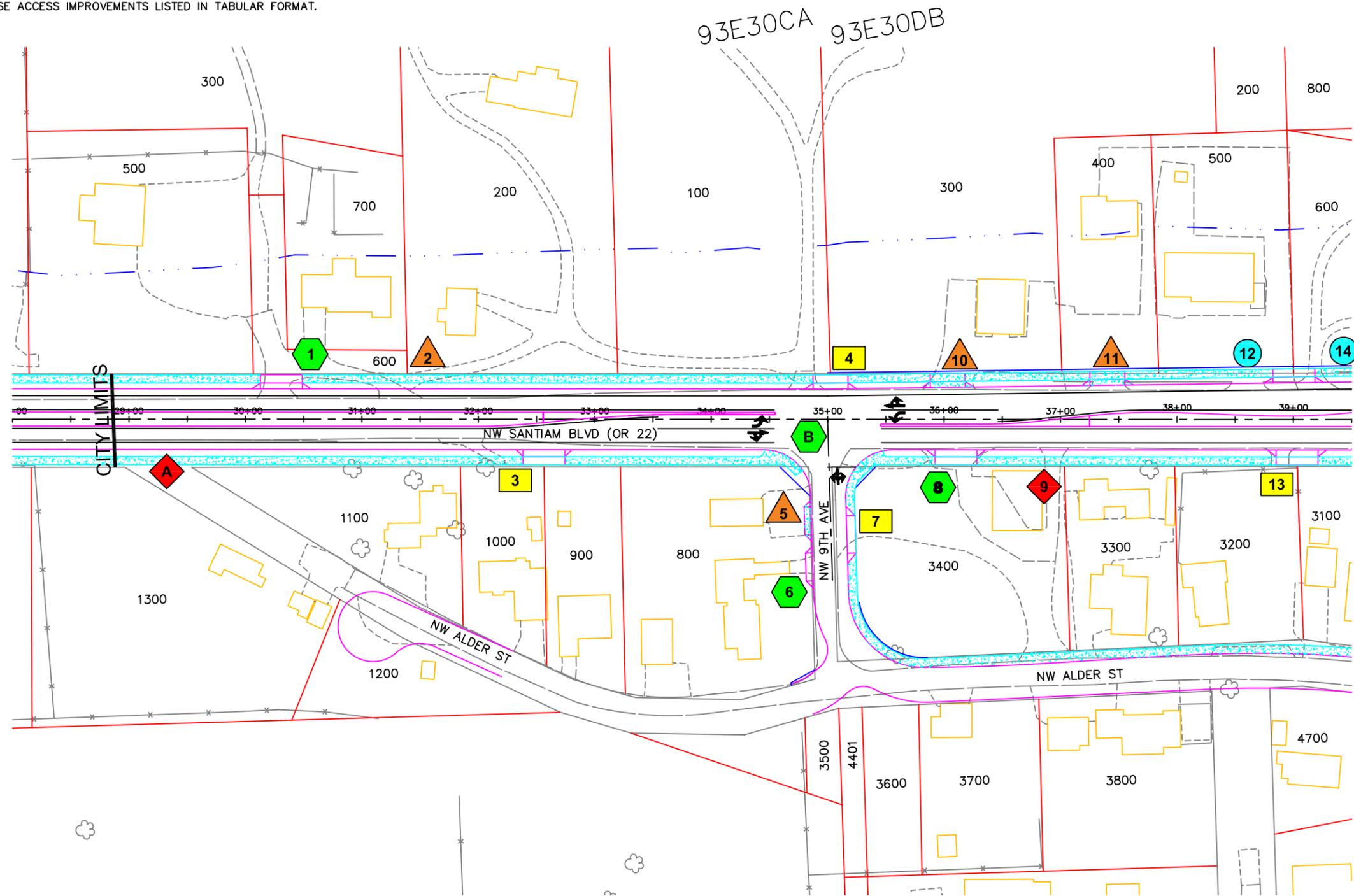
CITY OF MILL CITY, OREGON/OREGON TGM PROGRAM  
OR 22 IMPROVEMENTS

**ACCESS MANAGEMENT PLAN**

FIGURE 3A

JOB NUMBER

SEE APPENDIX D FOR THESE ACCESS IMPROVEMENTS LISTED IN TABULAR FORMAT.

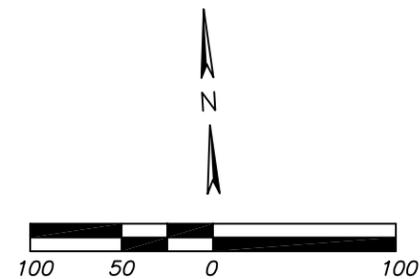


**FEATURES LEGEND**

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- EXISTING EDGE OF GRAVEL
- PROPOSED EDGE OF PAVEMENT
- PROPOSED FACE OF CURB
- PROPOSED APPROACH
- PROPOSED SIDEWALK
- EXISTING TAX LOT LINE
- EXISTING BUILDING
- EXISTING STREAM OR RIVER

**APPROACH LEGEND**

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- MAINTAIN APPROACH
- RELOCATE APPROACH
- COMBINE APPROACH WITH ADJACENT APPROACH
- CLOSE APPROACH WHEN PROPERTY REDEVELOPS
- CLOSE APPROACH

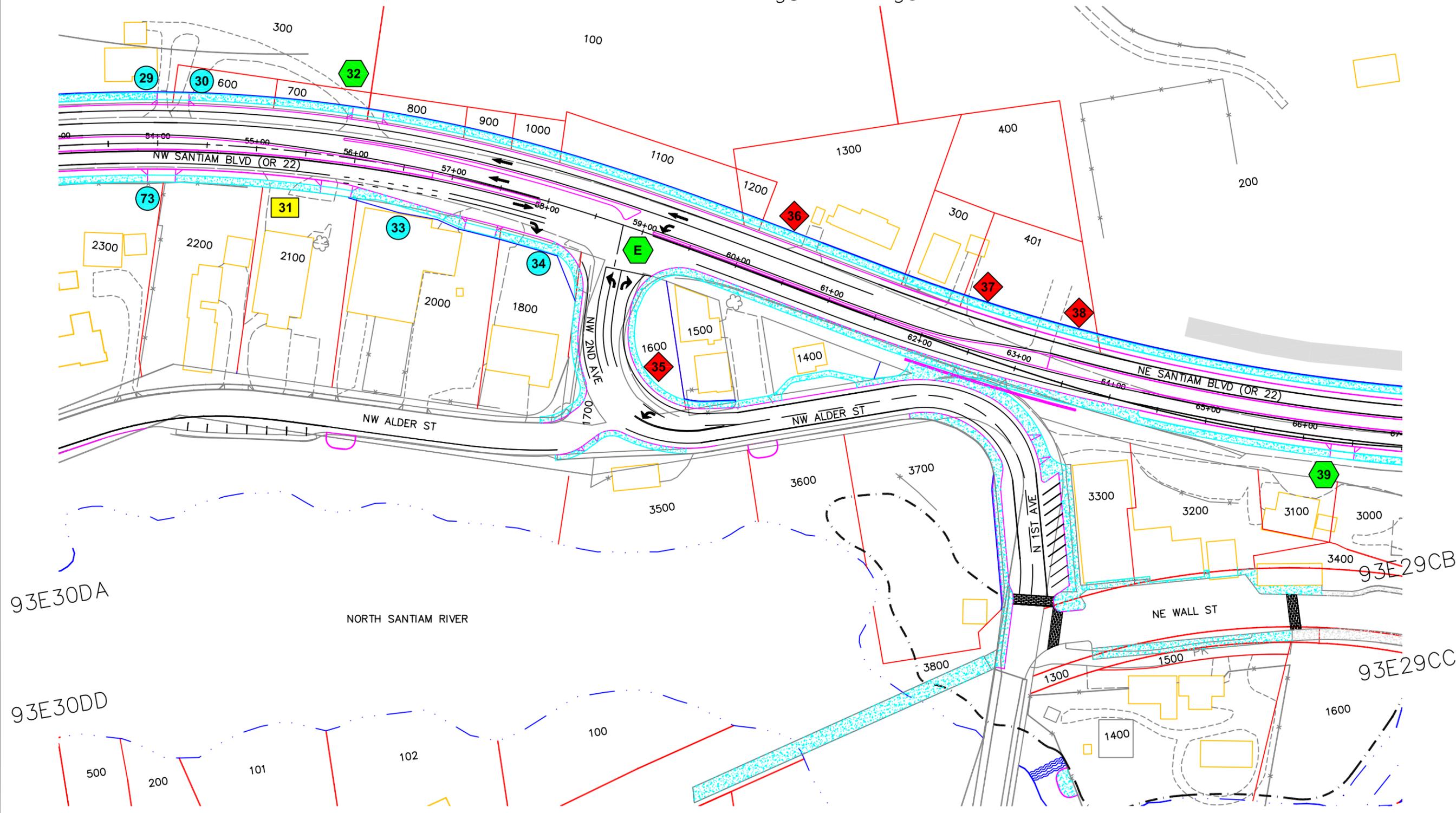


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<p><b>WESTECH ENGINEERING, INC.</b> CONSULTING ENGINEERS AND PLANNERS</p> <p>3844 Fairview Industrial Dr., S.E., Suite 100, Salem, OR 97302 Phone: (503) 585-2474 Fax: (503) 585-3886 E-mail: westech@westech-eng.com</p>	<p><b>DKS Associates</b> TRANSPORTATION SOLUTIONS</p> <p>1400 SW Fifth Avenue, Suite 500 Portland, Oregon 97204-6502 Telephone: (503) 243-3500 Fax: (503) 243-1834</p>	<p>CITY OF MILL CITY, OREGON/OREGON TGM PROGRAM</p> <p>OR 22 IMPROVEMENTS</p> <p><b>ACCESS MANAGEMENT PLAN</b></p>	<p>FIGURE <b>3B</b></p> <p>JOB NUMBER</p>	<p>VERIFY SCALE BAR IS ONE-HALF INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON SCALE, ACCURACY 0</p> <p>DSN: SRH DRN: DKS CAD CKD: JAB DATE: 06-2007</p> <p>FINAL ACCESS MANAGEMENT PLANS DESCRIPTION NO. DATE REVISIONS</p>
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SEE APPENDIX D FOR THESE ACCESS IMPROVEMENTS LISTED IN TABULAR FORMAT.

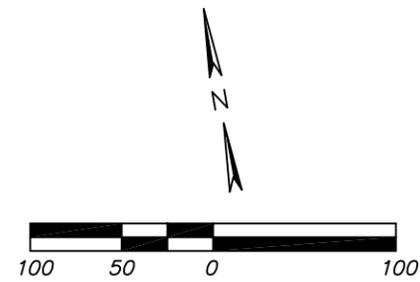


**FEATURES LEGEND**

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- EXISTING EDGE OF GRAVEL
- PROPOSED EDGE OF PAVEMENT
- PROPOSED FACE OF CURB
- PROPOSED APPROACH
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- EXISTING TAX LOT LINE
- EXISTING BUILDING
- EXISTING STREAM OR RIVER

**APPROACH LEGEND**

- APPROACH NUMBER
- MAINTAIN APPROACH
- RELOCATE APPROACH
- COMBINE APPROACH WITH ADJACENT APPROACH
- CLOSE APPROACH WHEN PROPERTY REDEVELOPS
- CLOSE APPROACH

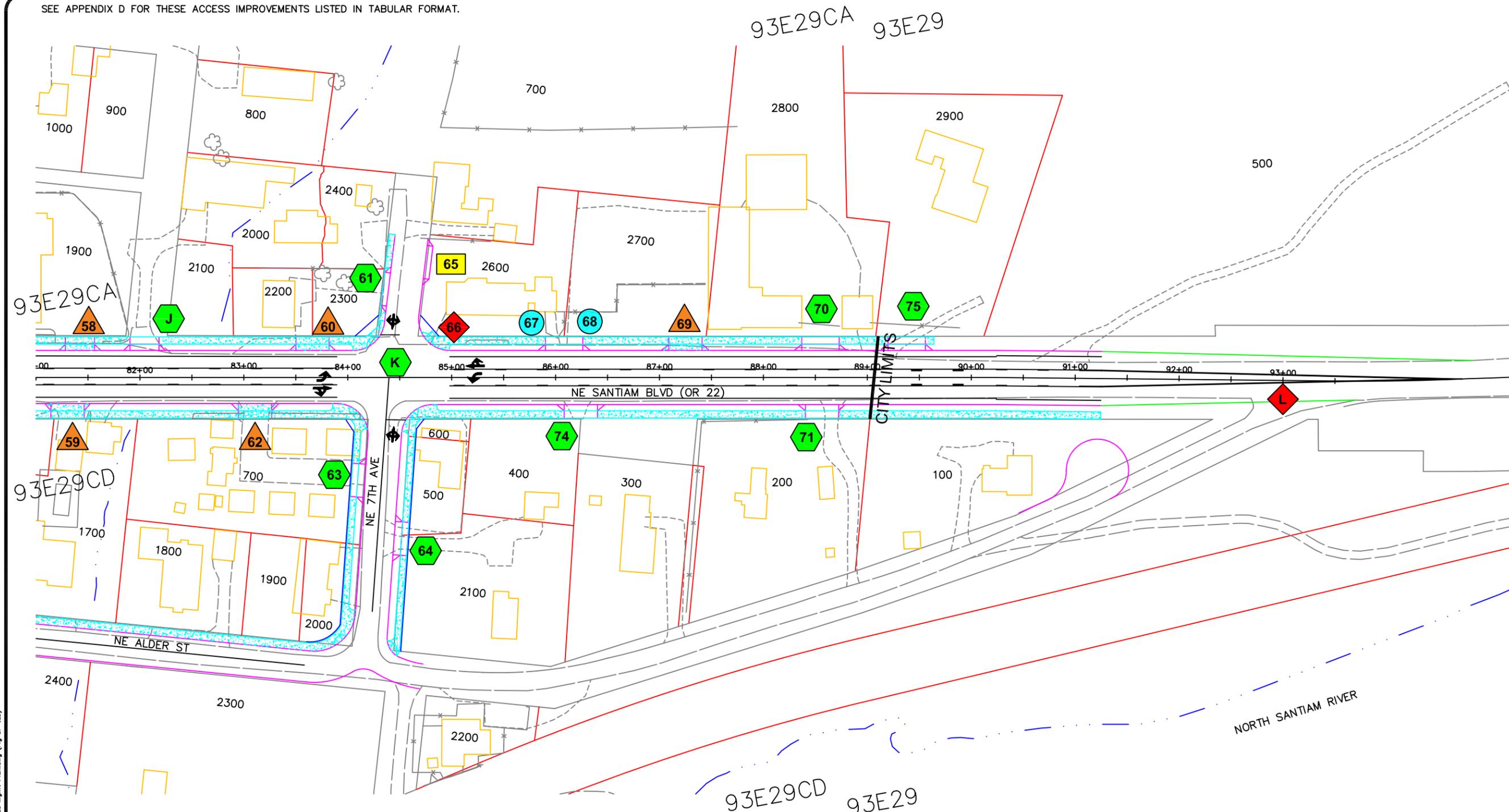


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 <b>WESTECH ENGINEERING, INC.</b> CONSULTING ENGINEERS AND PLANNERS 3844 Fairview Industrial Dr., S.E., Suite 100, Salem, OR 97302 Phone: (503) 585-2474 Fax: (503) 585-3886 E-mail: westech@westech-eng.com	<b>DKS Associates</b> TRANSPORTATION SOLUTIONS 1400 SW Fifth Avenue, Suite 500 Portland, Oregon 97204-6502 Telephone: (503) 243-3500 Fax: (503) 243-1834	CITY OF MILL CITY, OREGON/OREGON TGM PROGRAM OR 22 IMPROVEMENTS <b>ACCESS MANAGEMENT PLAN</b> FIGURE 3D JOB NUMBER	VERIFY SCALE BAR IS ONE-HALF INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON SCALES ACCURACELY	DSN: SRH DRN: DKS CAD CKD: JAB DATE: 06-26-2007 NO. NO. FINAL ACCESS MANAGEMENT PLANS DESCRIPTION REVISIONS BY
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SEE APPENDIX D FOR THESE ACCESS IMPROVEMENTS LISTED IN TABULAR FORMAT.

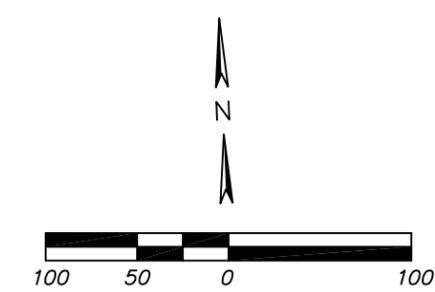


**FEATURES LEGEND**

- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- PROPOSED EDGE OF PAVEMENT
- PROPOSED FACE OF CURB
- PROPOSED APPROACH
- PROPOSED SIDEWALK
- EXISTING TAX LOT LINE
- EXISTING BUILDING
- EXISTING STREAM OR RIVER

**APPROACH LEGEND**

- APPROACH NUMBER
- MAINTAIN APPROACH
- RELOCATE APPROACH
- COMBINE APPROACH WITH ADJACENT APPROACH
- CLOSE APPROACH WHEN PROPERTY REDEVELOPS
- CLOSE APPROACH



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VERIFY SCALE	0"	DSN. SRH	DRN. DKS CAD	NO. DATE	FINAL ACCESS MANAGEMENT PLANS	BY
WESTTECH ENGINEERING, INC. CONSULTING ENGINEERS AND PLANNERS	3844 Fairview Industrial Dr., S.E., Suite 100, Salem, OR 97302	Phone: (503) 565-2474	Fax: (503) 565-3886	E-mail: westtech@westtech-eng.com	DATE: 06-2007	REVISIONS
<b>DKS Associates</b> TRANSPORTATION SOLUTIONS <small>(503) 243-5000 (503) 243-1894</small>						
CITY OF MILL CITY, OREGON/OREGON TGM PROGRAM OR 22 IMPROVEMENTS <b>ACCESS MANAGEMENT PLAN</b>						
FIGURE <b>3F</b>						
JOB NUMBER						

### 5.4. Cost Estimate and Funding

A number of individual projects have been identified based on the phasing discussed in the previous Implementation Plan sections and Table 5 lists each project, its estimated cost, potential funding sources, and recommended phase within its implementation timeframe. Appendix F includes the detailed cost estimates used to arrive at the total project costs included in Table 5.

**Table 5. Project Costs, Funding Sources, and Phasing**

Project #	Project Name	Project Limits	Estimated Cost *	Potential Funding Source	Phase
<b>Medium-Range Projects (5 – 10 Year Timeframe): Local Streets</b>					
1	NW 9 <sup>th</sup> Ave	OR 22 to NW Alder	\$110,000	SCA/City CIP	1
2	NW 7 <sup>th</sup> Ave	OR 22 to NW Alder	\$106,000		4
3	NW 5 <sup>th</sup> Ave	OR 22 to NW Alder	\$120,000	SCA/City CIP	3
4	NW 2 <sup>nd</sup> Ave & N 1 <sup>st</sup> Ave	OR 22 to N. Santiam River	\$480,000		1
5	NE 4 <sup>th</sup> Ave	OR 22 to NE Alder	\$98,000		2
6	NE 5 <sup>th</sup> Ave	OR 22 to NE Alder	\$98,000	SCA/City CIP	2
7	NE 7 <sup>th</sup> Ave	OR 22 to NE Alder	\$124,000		2
8	NW Alder (7 <sup>th</sup> - 9 <sup>th</sup> )	NW 7 <sup>th</sup> to NW 9 <sup>th</sup>	\$386,000		2
9	NW Alder (5 <sup>th</sup> – 7 <sup>th</sup> )	NW 5 <sup>th</sup> to NW 7 <sup>th</sup>	\$180,000		2
10	NW Alder (River Rd – 5 <sup>th</sup> )	River Rd to NW 5 <sup>th</sup>	\$149,000		3
11	NW Alder (2 <sup>nd</sup> – River Rd)	NW 2 <sup>nd</sup> to River Rd	\$121,000		3
12	NE Wall	N 1 <sup>st</sup> to NE Alder	\$145,000		5
13	NE Alder & NE 3 <sup>rd</sup>	End of NE Wall to NE 3 <sup>rd</sup>	\$237,000	SCA/City CIP/ Marion Co. CIP	2
14	NE Alder (3 <sup>rd</sup> to East End)	NE 3 <sup>rd</sup> to NE 7 <sup>th</sup>	\$426,000		2
<b>Total Medium-Range Project Cost:</b>			<b>\$2,780,000</b>		
<b>Long-Range Projects (10 – 20 Year Timeframe): OR 22</b>					
15	OR 22 Reconstruction	West to East City Limits	\$4,987,000	STIP	2
16	Rock Wall Excavation	50,000 CY East of NW 2 <sup>nd</sup>	\$2,500,000	STIP	1
<b>Total Long-Range Project Cost:</b>			<b>\$7,487,000</b>		
<b>TOTAL PROJECT COST:</b>			<b>\$10,267,000</b>		

\* Estimated cost is in Year 2007 dollars. Improvements made as part of property redevelopment will be funded by the developer(s).

SCA = Special City Allotment  
CIP = Capital Improvement Program  
STIP = Statewide Transportation Improvement Program

Full implementation of this *Access Management Plan* is estimated to cost approximately \$10.3 million, which includes approximately \$2.8 million for local street improvements and approximately \$7.5 million for OR 22 improvements. The following alternatives have been identified as potential funding sources for implementing this *Access Management Plan*:

- **Special City Allotment (SCA):** The Oregon Legislature provides \$1,000,000 annually from state gas tax revenue for ODOT to distribute to cities with populations less than 5,000 for city street capacity and/or safety improvements. ODOT works with the League of Oregon Cities to agree on funding allocations. No one project may receive more than \$25,000 from

the SCA and each city must match the SCA funds with funding from the city gas tax revenue.

- City of Mill City Capital Improvement Program (CIP): The Mill City CIP allocates city funds for transportation system improvements.
- Marion County Capital Improvement Program (CIP): The Marion County CIP allocates county funds for transportation system improvements.
- Statewide Transportation Improvement Program (STIP): The STIP is a four-year project scheduling and funding program administered by ODOT for major state and regional transportation systems. The STIP allocates funding from numerous federal and state funding sources and is the ideal funding program for OR 22 improvements.
- Transportation Enhancement (TE) Program: ODOT administers the TE program, which uses federal highway funds to strengthen the cultural, aesthetic, or environmental value of the transportation system. Project elements of this Access Management Plan that are approved TE activities include bicycle and pedestrian facilities and landscaping and other scenic beautification. Approximately \$11 million was awarded to 14 projects for the 2009 – 2011 biennium. The application process for the 2011 – 2013 biennium will likely occur during 2009. If awarded funding the City would have to provide a minimum 10.27-percent funding match.
- Private Developers: Developers must follow the *City of Mill City Code* when developing or redeveloping property. The requirements in the *City Code* (e.g. compliance with this *Access Management Plan*, frontage improvements) will help achieve incremental improvements to properties adjacent to OR 22 and the local street network. The cost estimates in Table 5 should be reduced when private development constructs a portion of any of the projects listed in the table.

## 6. DEVIATIONS

According to OAR 734-051-0040 (19), a deviation is simply defined as, “a departure from the access management spacing standards.” To guide the decision-making process, specific criteria for the approval or denial of a request for a deviation has been provided in OAR 734-051-0135. With each request, ODOT staff must base a decision on this criteria with written findings produced to document the grounds of the approval or denial.

Most deviation requests are the result of property development where only the subject property can be addressed. How the access requested will interact with the surrounding transportation system and other access points over time is often uncertain, as surrounding conditions may change. When an access management plan is developed, there is an opportunity to coordinate corridor-wide improvements, which eliminates the uncertainty associated with a piece meal approach and increases the effectiveness of access management implementation.

Deviations to ODOT access management spacing standards resulting from plan recommendations were documented and reviewed by the ODOT Region 2 Access Management Engineer. While the proposed deviations were approved and the spirit of the plan as reflected in the plan objectives and access management strategies was supported, it was noted that ODOT will reserve the right to amend the access management plan when unanticipated circumstances arise that are deemed by ODOT to create a hazard to the public if the plan were implemented as recommended. A copy of the deviation approval memorandum from ODOT is included in Appendix G.

## 7. STREETScape PLAN

Streetscape not only provides architectural interest to the roadway environment but also typically includes elements that enhance vehicular and pedestrian safety. Appendix H includes the proposed streetscape plans for the study area that addresses the following “zones” and includes various elements such as street trees, landscaped medians, lighting, bicycle racks, benches, and trash receptacles:

- East and West Entry Treatment on OR 22
- OR 22 Transition Zone (City Limits to OR 22 Downtown Core Gateway Zone)
- OR 22 Downtown Core Gateway (NW 5<sup>th</sup> Avenue to NE 4<sup>th</sup> Avenue)
- Alder Street Cross-Section “A” (adjacent to OR 22 Downtown Core Gateway Zone)
- Alder Street Cross-Section “B” (adjacent to OR 22 Transition Zone)
- Avenues

Of note, the OR 22 Transition Zones at the west and east ends of Mill City are intended to alert motorists of the transition from high-speed rural highway environment to lower-speed developed city environment. The medians, street trees, and continuous sidewalks provide visual cues that work in conjunction with the speed reduction signage to remind drivers to reduce their travel speed. Additionally, all of the proposed streetscape for OR 22 includes a planting/furnishing zone adjacent to the curb that provides a buffer between vehicular roadway traffic and sidewalk pedestrian traffic.

## 8. RIGHT-OF-WAY ACQUISITIONS

Right-of-Way (ROW) will need to be acquired by ODOT along OR 22 and by Mill City along the other study area roadways in order to implement the strategies included in this *Access Management Plan*. ROW acquisition will occur only as part of a grant or ODOT OR 22 modernization project. Appendix I includes plans that illustrate the ROW that will need to be acquired as well as the preliminary civil engineering design details used to determine needs.