Beaver-Hunsaker Corridor Plan

August 2017

Planning Study to determine transportation needs and solutions within the area of Beaver Street and Hunsaker Lane, between Division Avenue and River Road, and between Beaver Street and Wilkes Drive.

Acknowledgements

Special Thanks to the Following Stakeholders for their Involvement and Leadership:

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Chapter 1 – Introduction

This chapter provides a summary of the study purpose, funding, process, and results.

Project Purpose

Prior planning studies have identified the need for transportation improvements to the Beaver Street – Hunsaker Lane and Beaver Street – Wilkes Drive corridors. Although these prior studies identified improvements in concept, none of the studies included a detailed analysis of the multimodal transportation needs nor did they consider specific design alternatives to meet those needs. With all of the planning activities underway in the area, Lane County requested and received Surface Transportation Program – Urban (STP-U) funds to embark on a study to help inform transportation needs in these corridors

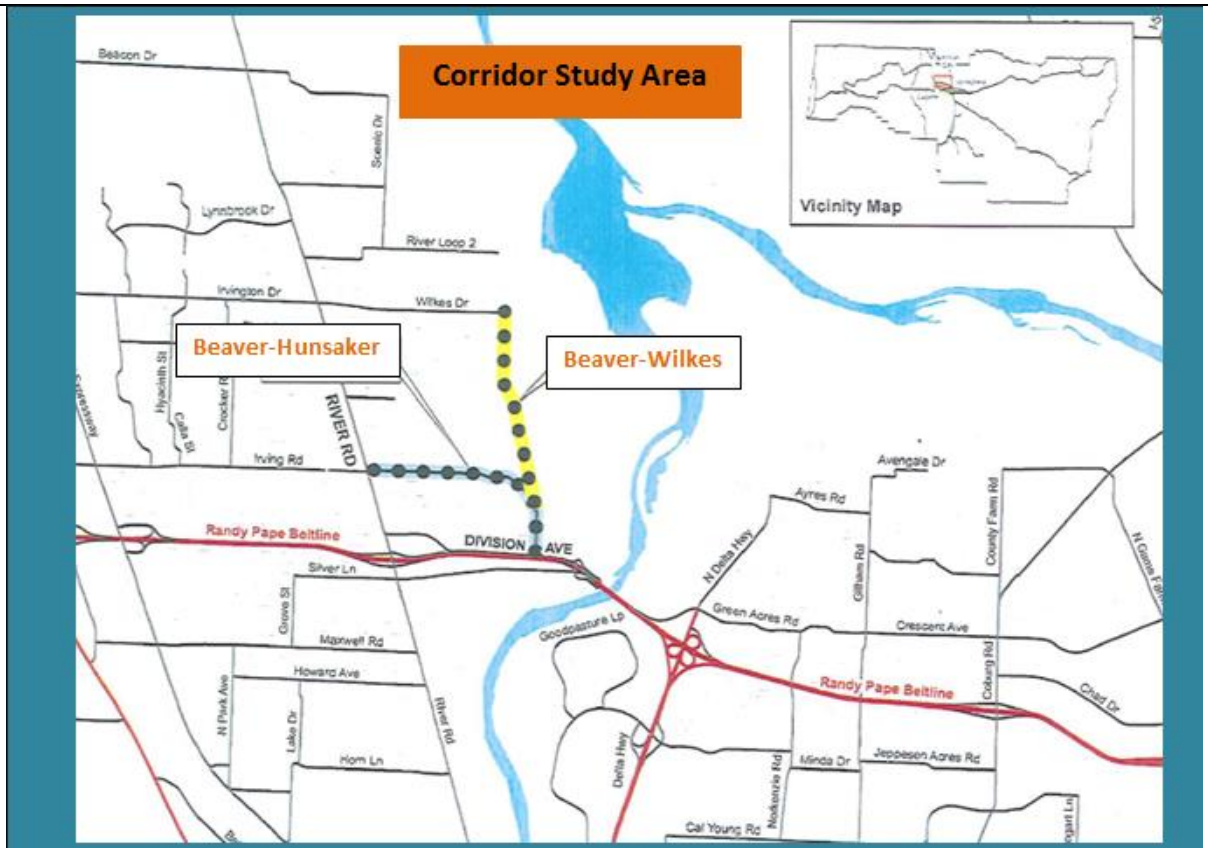
This study identifies transportation improvements in the Beaver Street – Hunsaker Lane and Beaver Street – Wilkes Drive corridors that are convenient, comfortable, and safe for all modes of transportation and minimize impacts to adjacent properties and the environment. The study recommendations were shaped by technical analysis, policy considerations and significant community input, and are intended to provide clarity to the County, the City of Eugene and the Oregon Department of Transportation (ODOT) as part of current and upcoming transportation planning and public works projects. The study will also enable the County to begin to seek funding sources for the design and construction of the multimodal improvement recommendations detailed herein.

Collaborative Process

The County initiated the study by conducting a series of stakeholder interviews with local residents, neighborhood associations, business owners, and staff from the City of Eugene, ODOT and the Lane Transit District (LTD) to identify the key issues for the study to address, the opportunities and constraints associated with potential design options for the two corridors, and the status of other technical work being conducted on ongoing planning projects in the area.

Following the stakeholder interviews, Lane County, in collaboration with the City of Eugene, ODOT and LTD initiated the technical aspects of the project. Representatives from each agency served on the Project Management Team to help guide the technical work, and to ensure consistency with other planning activities in the study area.

Figure 1. Study Area



Interrelated Projects

At the time the study was initiated, a number of planning projects were also in-process by the County, City, ODOT and LTD. The Beaver Street – Hunsaker Lane corridor plays an essential role in meeting the transportation needs in several of these multi-agency planning efforts, including: ODOT's Beltline Facility Plan, LTD's MovingAhead, Eugene's Transportation System Plan (TSP) and Envision Eugene, and Lane County's update of its TSP.

Both the Beltline Facility Plan and the Eugene TSP recommend the construction of a new "local arterial" bridge across the Willamette River to the north of the Beltline Highway. This bridge would connect motorists, transit, pedestrians and cyclists to the commercial, employment and homes on both sides of the river north of the highway. East of the river, the new bridge is envisioned to connect to the Green Acres Road/Delta Highway intersection. On the west side, it will connect to the Beaver Street corridor. The Beaver Street – Hunsaker Lane Corridor Study recommendations are consistent with both the TSP and the Beltline Facility Plan efforts conducted to-date. At the time the Beaver Street – Hunsaker Lane Corridor Study was prepared, ODOT was beginning to review potential design options at a number of City and County intersections as well as along the Beltline Highway. The County will continue to be integrally involved in the Beltline Highway planning efforts to ensure continued coordination.

LTD is also investigating the feasibility of developing the property in the southeast quadrant of the Hunsaker Lane/River Road intersection. Future development could include a new transit station to help, in part, improve access to transit for the diverse housing types in the vicinity (e.g., assisted-care and affordable housing). Providing pedestrian and bicycle facilities that connect the residential neighborhoods with the potential transit station would be integral to its development. Given that the LTD station has not been designed or funded, the Beaver Street – Hunsaker Lane Corridor Study recommendations do not include detailed frontage or intersection recommendations associated with the station's development. At the time of future development, LTD will work with the County to ensure that appropriate intersection and site frontage improvements are provided to ensure convenient, safe and efficient operations for all modes of travel.

Corridor Study Recommendations & Next Steps

The recommended transportation improvements in the Beaver Street – Hunsaker Lane and Beaver Street – Wilkes Drive corridors are provided within the context of the ongoing planning work and applicable land use laws as well as the goals of providing equity and accessibility for the vulnerable and disadvantaged population, and minimizing impacts to properties and the environment. The recommendations herein are a balanced approach to meeting these objectives.

The recommendations of this study are the outcome of both technical analysis and feedback gathered through numerous community engagement activities. The technical analysis is detailed in **Chapter 2 - Existing Conditions**, which includes findings regarding safety, connectivity, operations, and land use context. The community engagement is detailed in **Chapter 3 Public Involvement**, which describes the many outreach tools, activities, and overall process needed to inform the recommendations.

Chapter 4 - Recommendations includes the alternative corridor designs considered by agency staff and the public and the resulting recommendations. Central to these recommendations is the need to have safe, comfortable and convenient bicycle and pedestrian facilities for all users in both corridors. Not only is driving too costly for many families, it is not an option for those who are too young or are mobility challenged and cannot drive. Low-cost travel options like public transportation, biking and walking need to be made equally available to area residents to remove the significant barrier of access to a safe, reliable multimodal transportation system.

Some of the key pedestrian and bicycle recommended in this study include:

- Sidewalks and bicycle lanes on both sides of Hunsaker Lane.
- Bicycle lanes on both sides of the street on Beaver Street with sidewalks on the south/west side only and a multi-use path on the north/east side adjacent to the Delta Sand and Gravel property.
- Raised mid-block crossings at key locations along the corridor with pedestrian-activated flashing beacons.
- Pedestrian crossings at key intersections, such as:

- *River Road/Hunsaker Lane intersection:* improvements likely to be incorporated as part of LTD station development; and,

- *Beaver Street/Division Avenue:* Pending the final design option selected, improvements should be made when the "local arterial" Beltline Bridge connection is constructed.

- The construction of an off-street pathway along the UGB between Beaver Street and Wilkes Drive.

The study recommendations also include corridor treatments aimed at reducing vehicle speeds while still meeting the needs of future motorists.

The results of the Corridor Study will help the County begin to seek funding to construct the recommended improvements. The County will collaborate with ODOT and the City of Eugene, as part of other ongoing studies, to provide detailed designs for the Study Recommendations. These more detailed designs for both the Beaver Street – Hunsaker Lane corridor as well as for ODOT's Beltline Highway improvements will enable Lane County to seek federal and state funding as well as to leverage funding resources from future improvements associated with partner agency projects. Lane County is committed to serve and respond to the transportation needs of all the people of the County.

Chapter 2 – Existing Conditions

This chapter describes the land use and transportation conditions present in the vicinity of both corridors today. This information is presented to help understand the opportunities and trade-offs of potential design options for the corridors.

Land Use

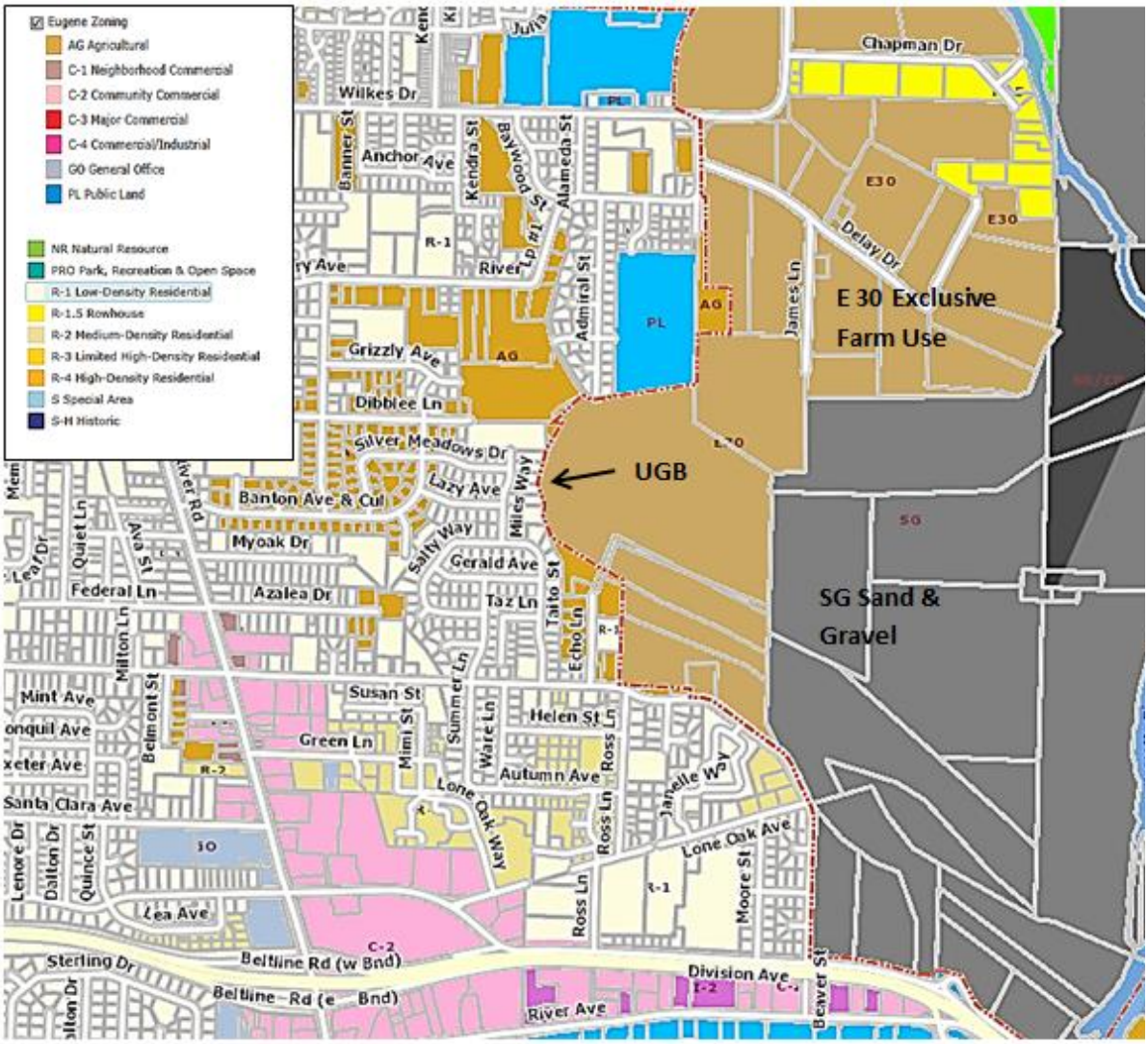
The area's development patterns have been shaped by the river, the Beltline Highway, and the presence of the Eugene Urban Growth Boundary (UGB). As illustrated in Figure 2, the study area is predominantly residential (shown in yellow), with a node of commercial clustered around River Road and the Beltline Highway (shown in pink). The unincorporated properties (shown in brown and grey) are resource lands for farm, agriculture, and sand and gravel uses. The map reflected in Figure 2 is for illustrative purposes only and is not an official zoning map for regulatory purposes.

Schools

The Eugene 4J School District owns two properties in the study area (shaded in blue in Figure 2). On the north side of Wilkes Drive is Madison Middle School. To the south of Wilkes Drive and east of Admiral Street, 4J owns vacant land for a future elementary school. There is a separated bicycle/pedestrian path north of Wilkes Drive, between River Road and Madison Middle School; however, there are no walking or biking facilities on the south side of the street. The Eugene TSP identifies the need to upgrade Wilkes Drive to include on-street bike lanes and sidewalks on both sides of the street.

At the time the Corridor Study was prepared, 4J District staff indicated that existing elementary schools in the area have capacity for future enrollment growth, and that the existing schools would likely be expanded before building a new school on the vacant property. Depending on future needs and funding, the 4J District may consider a "land swap" or a partial sale of the property for residential development. Although several streets currently terminate at the vacant school site, extending those streets could compromise the ability to effectively develop a school site at this location. In lieu of this option, 4J District staff indicated a preference for providing an abutting street to the back yards of adjacent residences. In this case, future development of the District's property could conceivably include a row of residences adjacent to the east property boundary, abutting a new street connection along the northeast portion of the site.

Figure 2. Land Use



Parks

There are two existing parks within the study area: Terra Linda Park, located on the north side of River Loop 1; and Lone Oak Park, located on the south side of Lone Oak Avenue. The City also is proposing to expand the UGB abutting Madison Middle School for future parkland.

As part of the public engagement for the Corridor Study, area residents inquired about whether Lone Oak Avenue would be extended to Edgewood Drive as part of future improvements to Lone Oak Park. This future extension is supported by City staff.

At the time the Corridor Study was prepared, City parks staff was developing a Eugene Trails Plan. This plan shows a future shared-use path along the Beaver Street – Wilkes Drive corridor and identifies the Beaver Street – Hunsaker Lane corridor as a "key on-street connection" for bicycles and pedestrians. This on-street connection is envisioned as a neighborhood greenway, in which the

transportation system is part of the recreational experience, with wider planter strips and sidewalks that are at least eight feet wide. The Trails Plan notes that the city's ability to build and maintain the proposed trail projects is unlikely over the next decade due to funding limitations.

The Rivers to Ridges – Metropolitan Regional Parks and Open Space Study Vision Map, endorsed by the Lane County Board of Commissioners, Eugene City Council, Springfield City Council, and Willamalane Park and Recreation District Board, identifies a non-motorized trail opportunity along the west bank of the Willamette River.

Delta Sand & Gravel

The future paths envisioned in the River to Ridges and Eugene Trails Plan would occur on lands currently owned by Delta Sand and Gravel. Some of their affected lands are used for existing gravel operations whereas others are agricultural lands outside of the UGB. In the past, Delta Sand & Gravel has expressed a desire to expand their existing operations onto the agricultural lands. As part of the Corridor Plan stakeholder interviews, Delta Sand and Gravel's general manager indicated that they may seek a future change in the Comprehensive Plan designation of the agricultural lands to allow for sand and gravel use. If they are successful in that endeavor, they will collaborate with the County on exploring the potential for a pathway/trail connection through their property.

Commercial

The Santa Clara Square is located on the north side of Division Avenue. Today, the Square includes a grocery store (Albertsons), fast food restaurants, retail, and personal services (including a bank). A Fred Meyer store is located south of Division Avenue. There are no convenient pedestrian connections between the residential areas to the east and this commercial hub.

The vacant, commercial properties located between Hunsaker Lane and Green Lane just to the east of River Road are owned by LTD, with the intent of relocating the existing park and ride station south of the Beltline Highway to this site. LTD may also make some portion of the property available for retail and residential use. A station at this location would support River Road's role as a corridor for enhanced transit service (per their *MovingAhead* project).

Residential

There are both low and medium-density residential properties south of the Beaver Street – Hunsaker Lane corridor that have developed with a mix of housing types. Some of the medium-density properties include: Lone Oak Assisted Living, Laurel Court of Eugene Nursing Home, Green Leaf Village Apartments, Apple Orchard affordable housing apartments, and another affordable housing complex owned by Saint Vincent de Paul. The low-density residential properties include a manufactured dwelling park and several single-family dwellings. The residential lands to the north of the corridor are predominately developed with single-family dwellings.

Farm/Agriculture

Today, there are agricultural lands within the UGB that will be rezoned for low-density residential use when annexation occurs. Outside the UGB, the agricultural lands are protected by Statewide Planning Goal 3. These agricultural lands are predominantly high-value farmland soils (Class 1), which is the highest priority for retention. The City of Eugene is not considering these lands in any future UGB

expansion scenario (i.e. the 20-year supply for Envision Eugene and the 50-year reserve analysis) in order to protect these high value resources.

As previously noted, the River to Ridges and Eugene Trails Plan identifies a future path on the agricultural lands outside the UGB. Per Oregon's Transportation Planning Rule (TPR), trails and pathways are allowed outside the UGB without state review whereas the construction of a street outside the UGB to serve urban purposes requires a "Goal Exception." The specific provisions for transportation improvements on rural lands are documented in Oregon Administrative Rule (OAR) 660-012-0065 and 660-012-0070. The state reviews all proposed streets outside the UGB requiring a Goal Exception for adherence to these criteria.

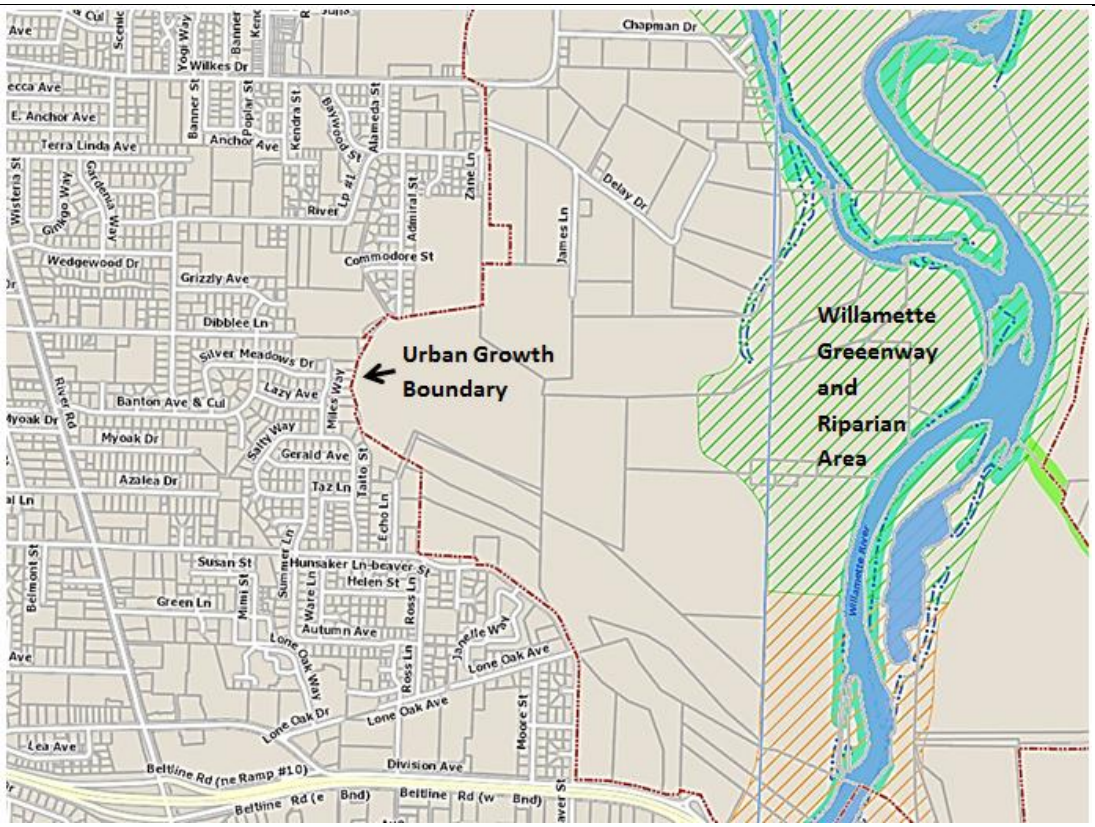
Natural Resources

The Natural Resources information referenced in this study is based on available County geographic information system (GIS) data. This type of data can be used for planning purposes but is not reflective of field reconnaissance or other more precise survey work. For the corridor study, the GIS data can help identify potential natural resource implications that warrant additional research. Prior to the construction of any recommended transportation facilities, a more detailed review of environmental impacts will occur, as needed, in accordance with the National Environmental Policy Act (NEPA) or other applicable regulations.

Willamette River

The predominant natural feature in the study area is the Willamette River, which is a major tributary of the Columbia River. Within the corridor area, the Willamette River flows northward, under the Beltline Highway and along the east boundary of the Delta Sand and Gravel property. The Beaver Street – Hunsaker Lane and Beaver Street – Wilkes Drive corridors are located outside of the Willamette River's Greenway Boundary and Riparian Area (see Figure 3).

Figure 3. Willamette Greenway/Riparian Corridor

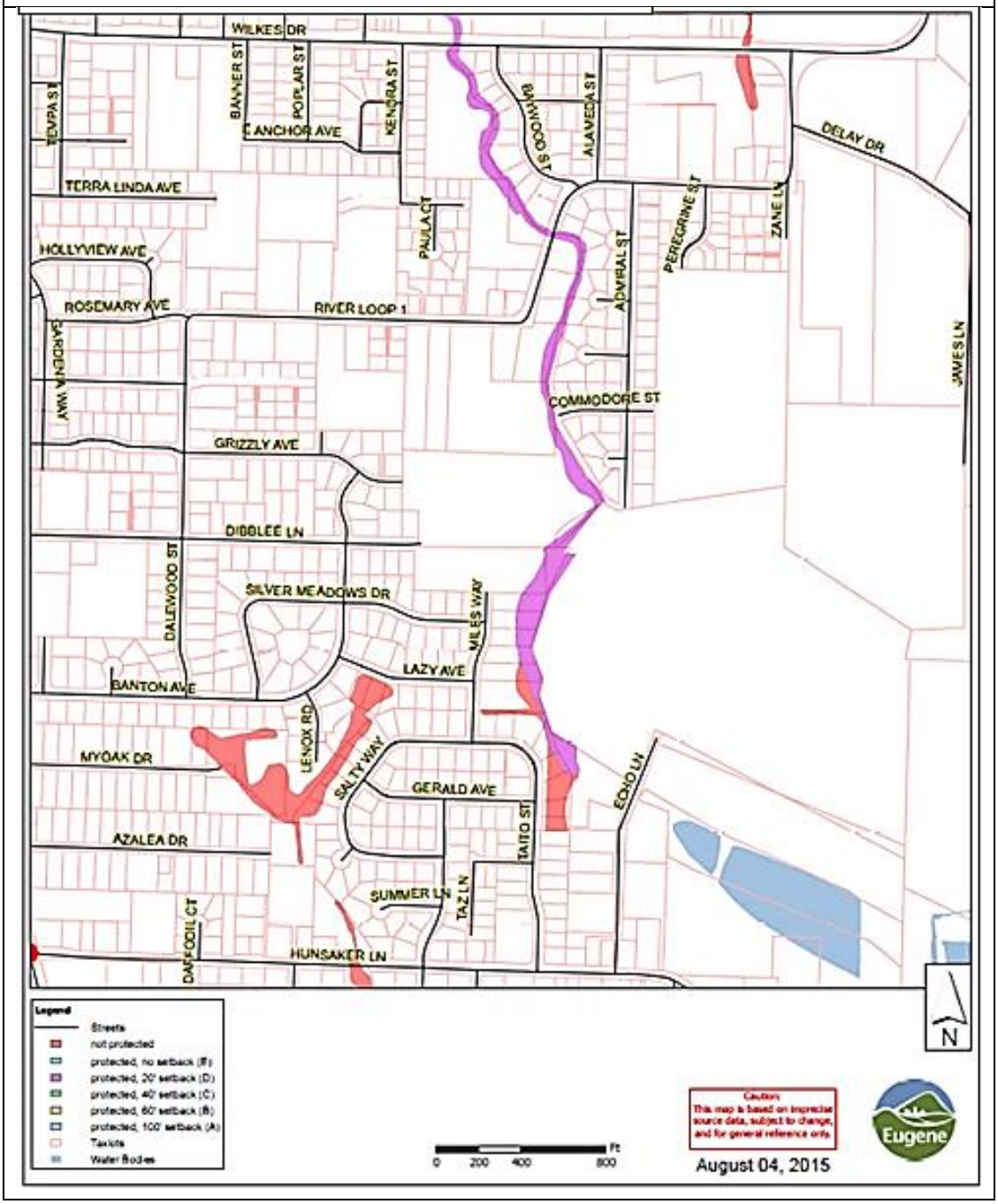


Water Resources

Per the City of Eugene's Goal 5 Inventory, there is an unprotected riparian area around a culvert crossing under Hunsaker Lane. This is a remnant drainage area (see red shading in Figure 4). Although transportation improvements in this area would not require additional Goal 5 review by the City of Eugene, a determination of wetlands would need to be confirmed with Division of State Lands (DSL).

The open drainage way that runs along the UGB is a protected Goal 5 Water Resource (see magenta shading in Figure 4). The conservation area for this drainage way includes a 20-foot riparian setback. Construction of low impact trails with no impervious surface and that are no more than three feet in width are permitted in the water resource conservation area, based on Eugene Code 9.4930(2)(h). Beyond that, transportation facilities would need to be located outside the 20-foot setback or subject to Standards Review approval, which is a Type II land use application involving public notice and the opportunity for appeals. The approval criteria include standards to minimize and mitigate impacts. This needs further investigation if improvements are determined to be needed in this area.

Figure 4. Eugene Goal 5 Inventory

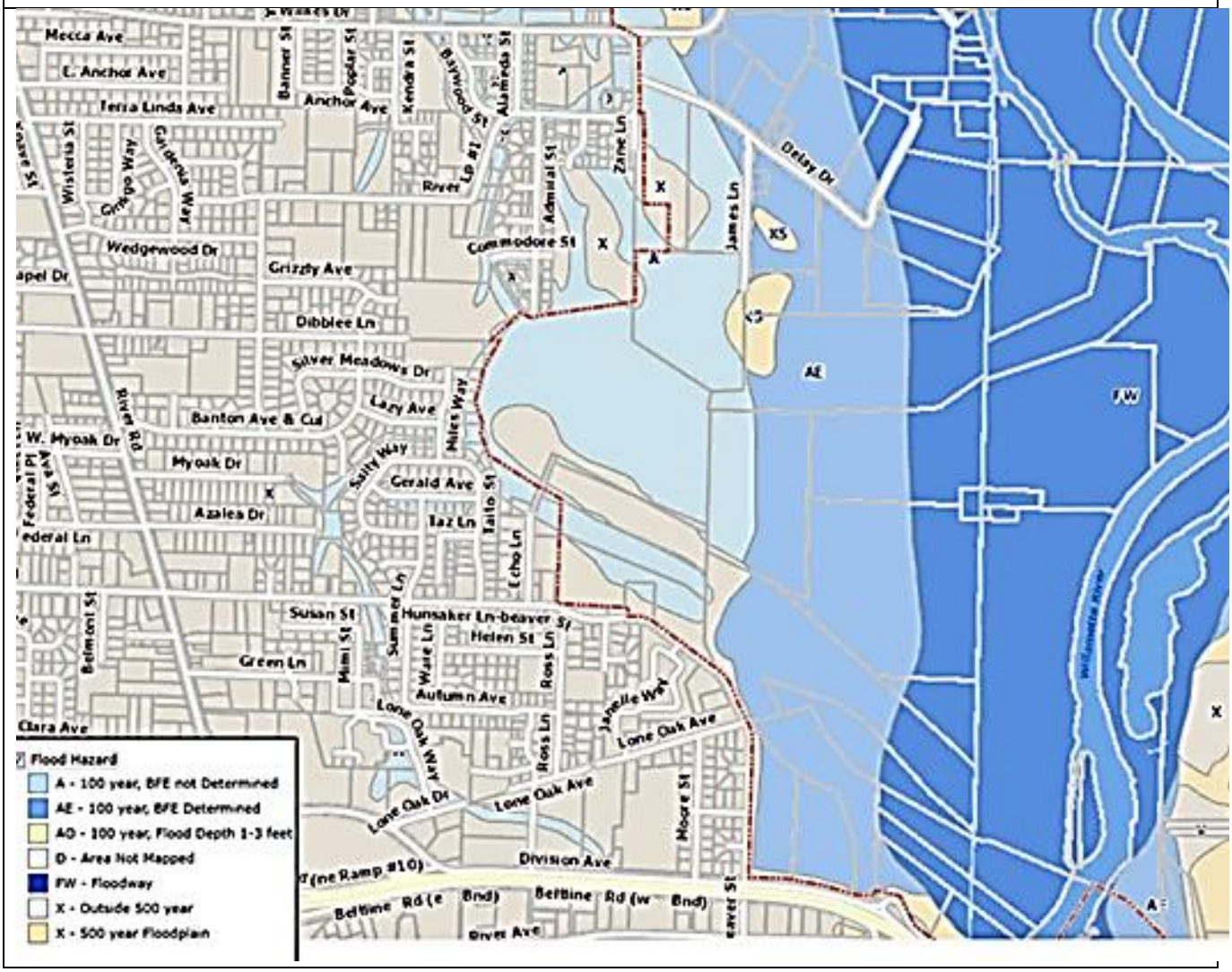


Floodway and Floodplain

The study area is within the Upper Willamette Watershed, west of the Willamette River. The transportation corridors are located outside of the floodway (darkest blue shading shown in Figure 5), but they are within the 100-year floodplain (lighter blue shadings in Figure 5). Any future transportation improvements would be subject to floodplain development permits. These permits are administered by the City of Eugene Public Works Department inside the UGB and by Lane County

Land Management outside the UGB. Both the City and the County act as the regulatory agents of the Federal Emergency Management Agency (FEMA) in implementing the National Flood Insurance Program (NFIP). Figure 5 is only an illustrative interpretation of the NFIP maps. All of the information shown in the figure, as well as the official FEMA maps, requires on-site verification as part of the permitting process. Further, the official maps and associated regulations are likely to change in the near future, as FEMA works on addressing the Endangered Species Act.

Figure 5. Floodway/Floodplain

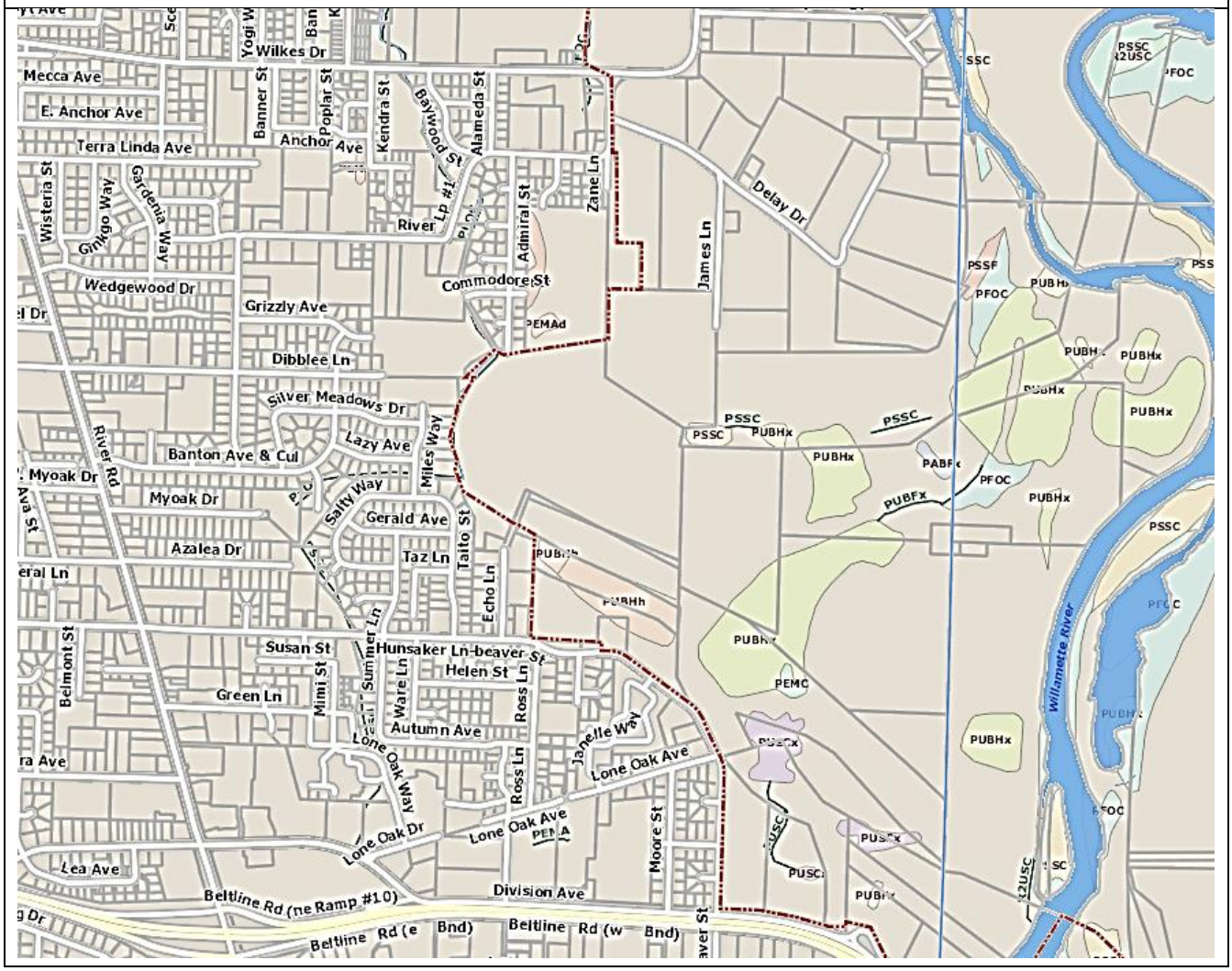


Wetlands

Potential wetlands in the corridor areas are shown in Figure 6. The information shown is based on an illustrative interpretation of the National Wetland Inventory obtained through air photos and historical information collected at the national level. Determination and designation of recognized wetlands requires field verification, subject to concurrence by Division of State Lands (DSL). Only wetlands included on locally-adopted Goal 5 inventories are regulated locally.

The Department of State Lands (DSL) evaluates the impacts of any proposed improvements to wetlands in the following hierarchy: avoidance, minimization, and mitigation. Wetland fill permits require approval by the Army Corps of Engineers and DSL. The identification of any wetland-related impacts could increase transportation improvement project costs and timelines.

Figure 6. Potential Wetlands



Transportation Network

Within the corridor area, the transportation network is primarily built for vehicular travel today. A number of arterials, such as Beltline Highway, Division Avenue, and River Road, all provide for local and regional travel and carry higher traffic volumes and have higher speeds. Beaver Street, Hunsaker Lane and Wilkes Drive are all collector streets and connect neighborhoods to the arterial street system. Many of the streets in the area are local residential streets.

Many of the streets in the overall area do not have sidewalks or bike lanes and/or have only limited sections with any type of pedestrian or cyclist facilities. As such, the corridor area needs additional comfortable, convenient and safe pedestrian and bicycle facilities to connect area residents to commercial uses, schools, and transit stops.

LTD provides bus service on River Road and a portion of Wilkes Drive. School buses operate on Beaver Street – Hunsaker Lane, River Road, and Wilkes Drive. More information is provided below.

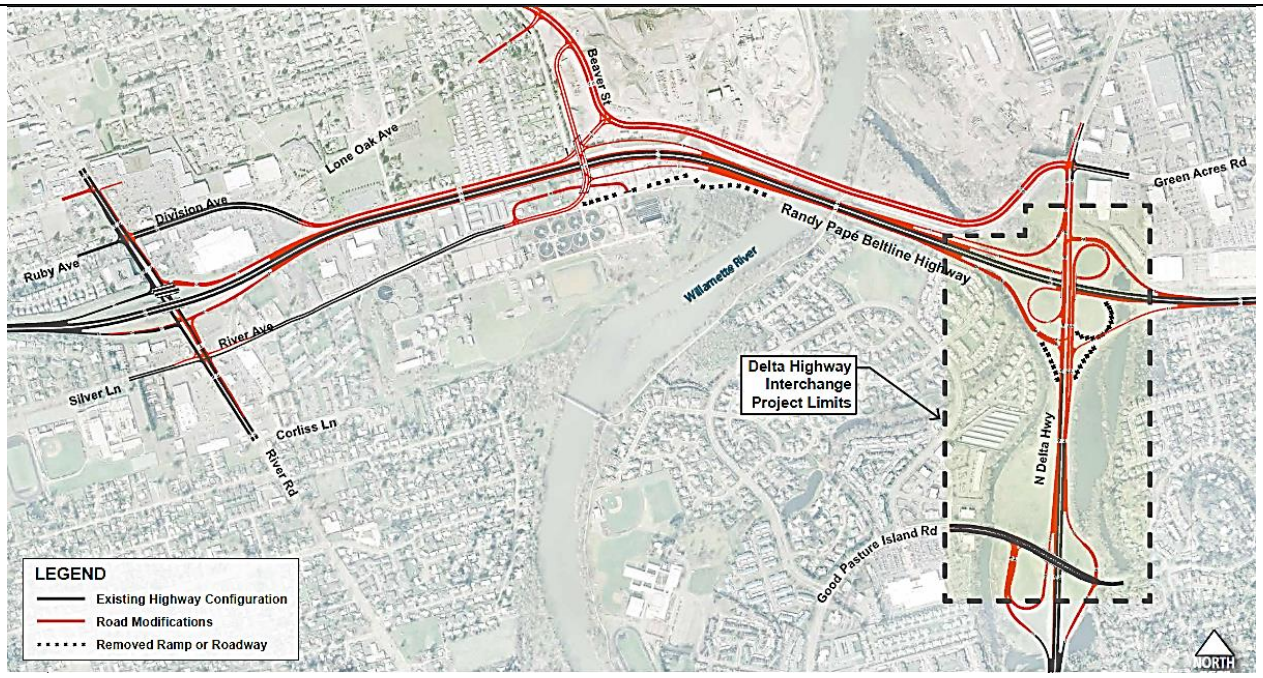
Arterial Streets

Randy Pape Beltline Highway is an ODOT facility that provides east-west connectivity between Interstate 5 (I-5), Highway 99 and Highway 126. Lane County constructed the highway in the 1960s to serve the largely rural land uses and suburban areas. The highway was transferred to ODOT in 1978. Since then, the surrounding community has grown beyond the capacity of the highway, which is now part of the National Highway System and Freight Route.

To address this capacity concern, ODOT developed a Facility Plan (March 2014) for long-range functional improvements to the Beltline corridor between Coburg Road and River Road. Eugene, Lane County, and the Central Lane Metropolitan Policy Committee will each be asked to adopt the Facility Plan as part each agency's respective Transportation System Plan (TSP). These agency endorsements are needed prior to adoption by the Oregon Transportation Commission, which is a precursor for proceeding with the National Environmental Policy Act (NEPA) review process. The NEPA review includes a rigorous analysis of project impacts needed to establish eligibility for federal funding.

As shown in Figure 7, the Facility Plan identifies a "local arterial" bridge that would directly connect Green Acres Road to Beaver Street, omitting any merging of traffic with the Beltline Highway. The new road would have on-street bike lanes and sidewalks.

Figure 7. Beltline Highway Facility Plan: Delta Highway to River Road

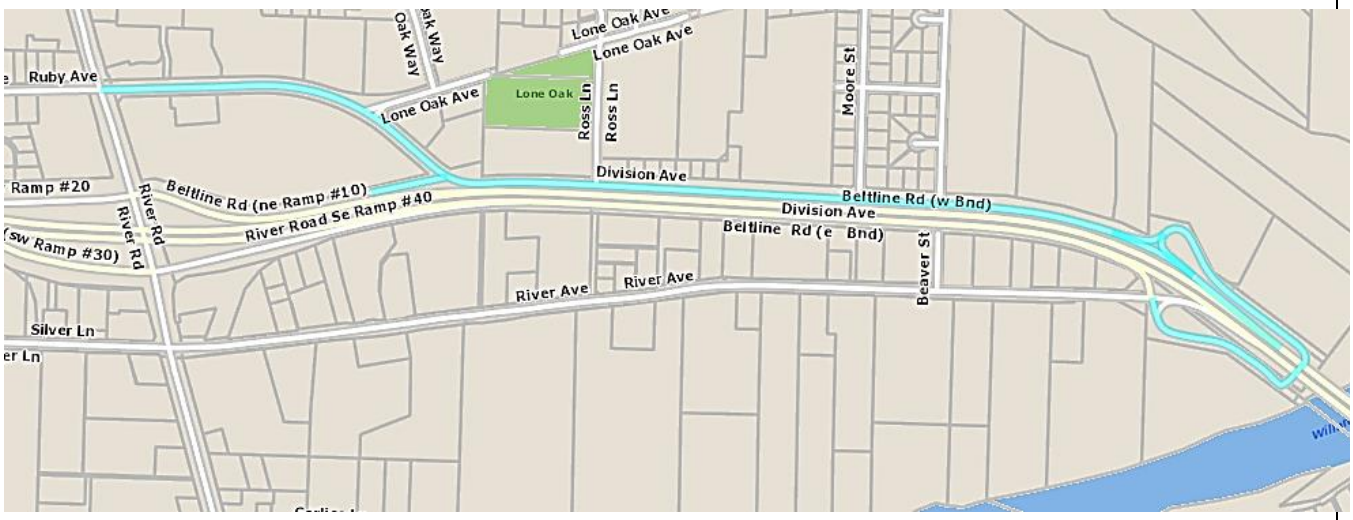


Source: ODOT

Division Avenue parallels the Beltline Highway (see blue line in Figure 8) and provides a vehicular connection between River Road and the Beltline Highway/River Avenue/Division Avenue interchange

ramps. The interchange ramps under ODOT's jurisdiction, whereas Division Avenue is owned and operated by the City of Eugene.

Figure 8. Division Avenue



As shown in Figure 9, eastbound Division Avenue traffic is diverted to Beaver Street whereas westbound traffic can continue along Division Avenue or can use Beaver Street.

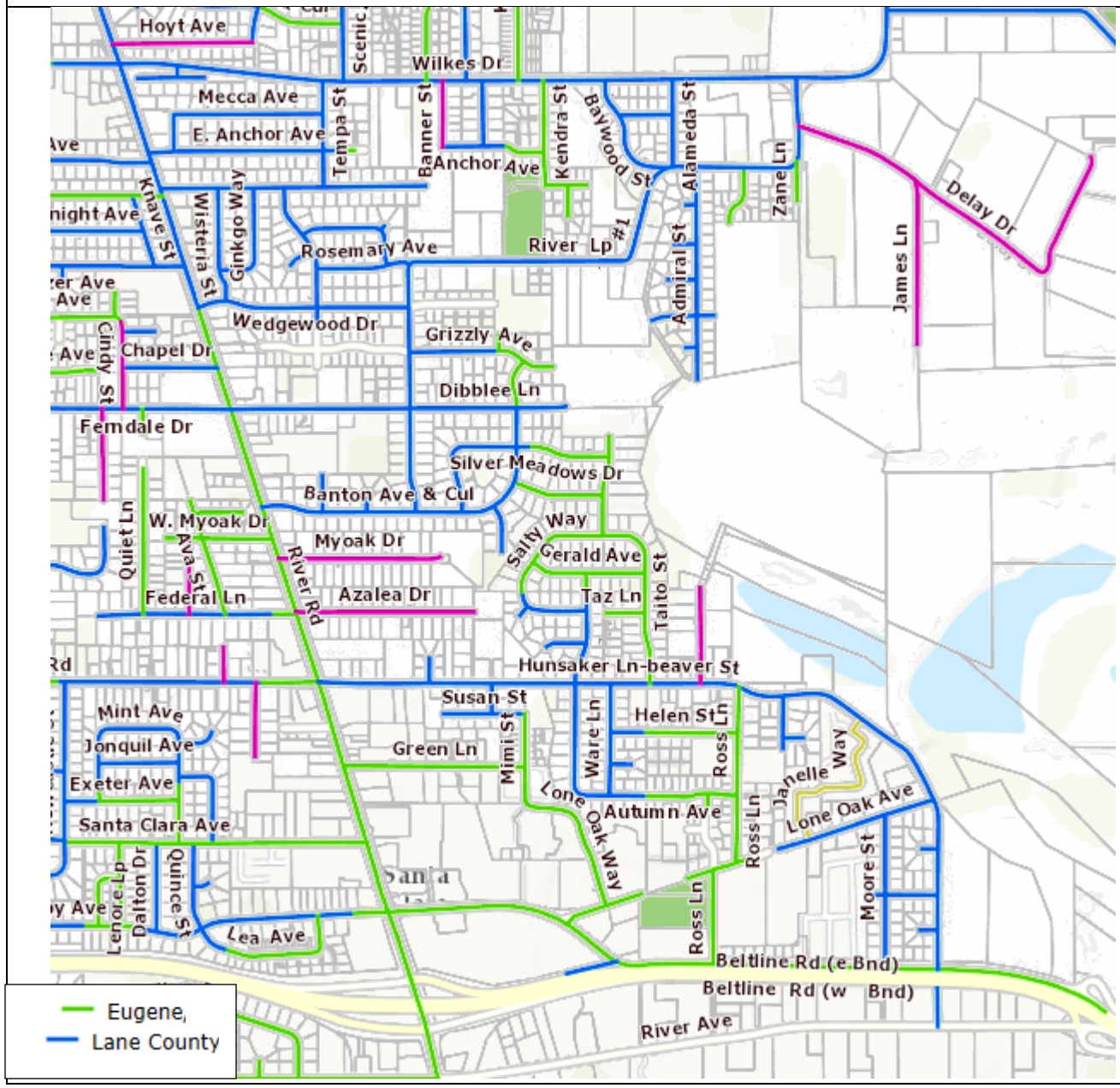
Today, there is a bike path along the Willamette River that terminates at the Division Avenue/Beaver Street intersection.

Figure 9. Division Avenue at Beaver Street (looking west)

River Road defines the west boundary of the corridor study area, connects downtown Eugene to the edge of the UGB, and is the "backbone" of the transportation system serving the River Road and Santa Clara neighborhoods. The neighborhoods have been actively involved with the City of Eugene and Lane County to improve infrastructure services and planning coordination.

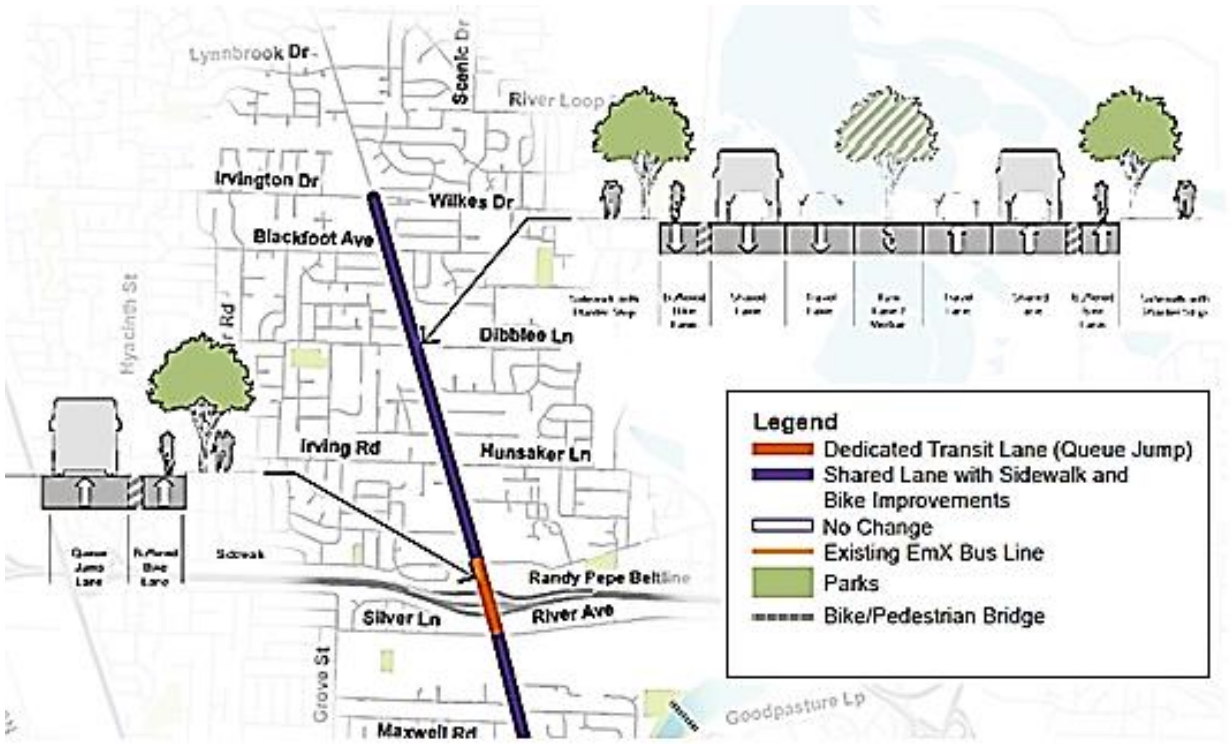
Decades of small annexations into the City limits have created a patchwork of incorporated and unincorporated parcels within the corridor area. As such, the segment of River Road between Wilkes Drive and Wedgwood Drive is in Lane County's jurisdiction whereas, south of Wedgwood Drive, it is under the City's jurisdiction. This is reflected in Figure 10.

Figure 10. Area Roadway Jurisdiction



The entire segment of River Road within the study area has been built to urban standards, with on-street bike lanes and setback sidewalks. It is also a transit corridor that is being considered for enhancement as part of the *MovingAhead* project by LTD and the City of Eugene. Figure 11 illustrates an enhanced corridor concept.

Figure 11. *MovingAhead*: River Road Corridor – Enhanced Corridor Example



Source: Lane Transit District

ODOT has identified the intersection of River Road and Hunsaker Lane as being eligible for safety funding through the *All Roads Transportation Safety* (ARTS) program. This intersection is shown in Figure 12. The intersection improvements have yet to be designed, but the concept includes left turn lanes approaching River Road from both Hunsaker Lane and Irving Road. LTD, Eugene, and Lane County will coordinate with ODOT on future improvements to the intersection.

Figure 12. Hunsaker Lane at River Road (looking west)

Collector Streets

Beaver Street/Hunsaker Lane is the heart of the study area. Beaver Street is the north-south portion of the roadway that connects to Division Avenue. The roadway curves into an east-west alignment, and becomes Hunsaker Lane, which connects to River Road. A photo of the curve and roadway name change is shown in Figure 13. Beaver Street – Hunsaker Lane is within Eugene's UGB for eventual incorporation, but has not yet been annexed and is currently under Lane County's jurisdiction.

Figure 13. Beaver Street – Hunsaker Lane (looking northwest)

The roadway is built to rural standards, with one travel lane in each direction and narrow shoulders. Most of the corridor is lined with single-family dwellings. Throughout the public engagement activities on this study, residents expressed safety concerns with walking, biking, and accessing mailboxes. As shown in Figure 14, there are narrow shoulders along the roadway that are blocked by parking and by refuse containers on garbage pick-up days.

Figure 14. Beaver Street – Hunsaker Lane (northwest bound)

As shown in Figure 15, the street is about 25 feet wide. The right-of-way width extends beyond the pavement and varies between 40 and 60 feet throughout the corridor. The area between the paved roadway and right-of-way is predominately used by abutting residents for vehicle parking, but there are also fence and vegetation encroachments throughout the corridor.

Figure 15. Hunsaker Lane (looking west)

Between 1974 and 2014, the daily traffic volumes have nearly doubled on Beaver Street – Hunsaker Lane. In 2014, Lane County measured traffic volumes along the roadways of approximately 6,200 daily vehicles. The overall volumes are indicative of and consistent with the road's classification as a "major collector" street.

A number of area residents expressed concerns about vehicle speeds along the corridor. In 2016, Lane County recorded speeds along the corridor that corresponded to an average throughout the day of 26 miles per hour (mph). The State of Oregon is responsible for setting speed limits on the roadway and uses the recorded "85th percentile speed". Based on the Lane County data, the 85th percentile speed in the corridor is 36 mph. With a posted speed of 35 mph, the data shows that most people are obeying the posted speed, although occasional speed violations are concerning.

Data analysis is only a part of the evaluation process; the experience of people living along the corridor is also an important consideration. Throughout the corridor study, several area residents continued to express interest in a design that can help slow vehicle speeds.

Wilkes Drive defines the north boundary of the study area and is a Lane County road built to rural standards. In the future, Wilkes Drive and the adjacent properties will be annexed into the City. Figure 16 shows the current roadway cross-section of Wilkes Drive.

Today, traffic volumes along Wilkes Drive are consistent with a local street, despite its collector street designation. In 2011, Lane County measured average daily traffic volume of 3,650 along Wilkes Drive. These low volumes are likely indicative of its close proximity to the UGB and the low-density nature of the surrounding residential properties.

Madison Middle School is located on the north side and at the east end of Wilkes Drive. The school entrance aligns with Alameda Street, to the south, and includes a marked and signed crosswalk. In the future, the visibility of the crosswalk could be enhanced with a pedestrian-activated flashing beacon.

Between the school access and River Road, there is an asphalt path, approximately eight feet wide, for walking and biking that is setback about ten feet north of Wilkes Drive. The path is interrupted by numerous driveways for the residential dwellings that abut the roadway. There is no path on the south side of the street. Area residents feel that the roadway shoulders are too narrow for the comfort and safety of people who want to walk and bike along the roadway and that sidewalks and bike lanes are needed on Wilkes Drive.

Figure 16. Wilkes Drive (looking east)

Local Streets

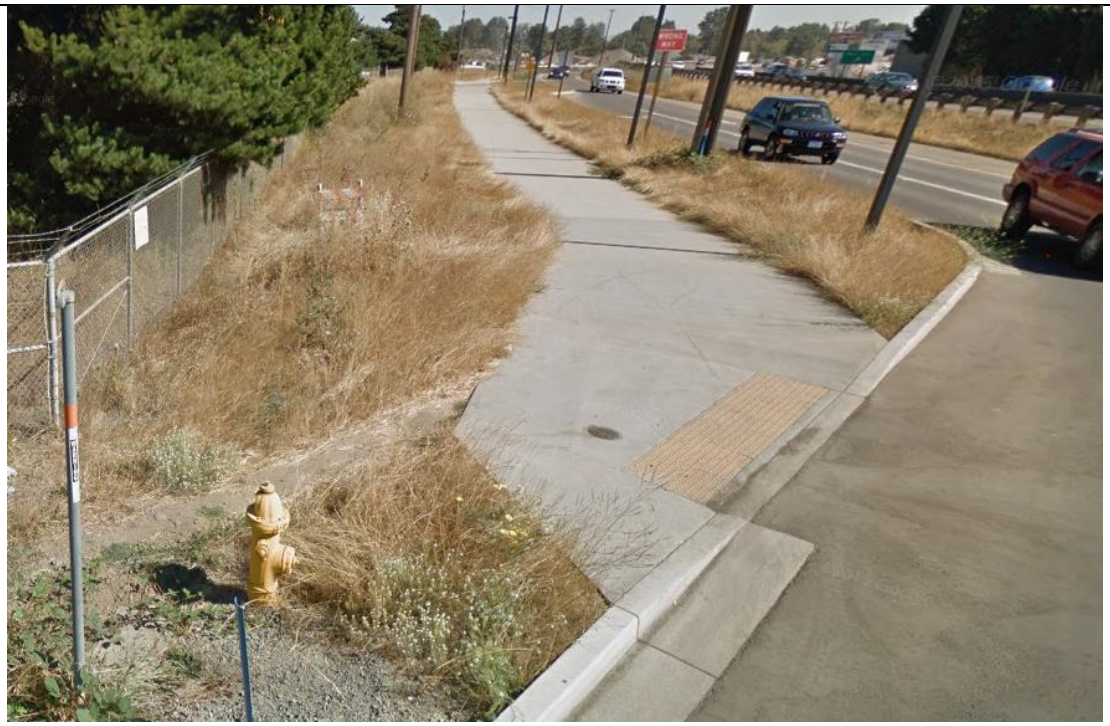
The local street network primarily serves residential neighborhoods as well as the commercial development in the southwest portion of the corridor area (see Figure 2). Some of the local streets are under City jurisdiction whereas others are owned by the County (see Figure 10). In general, the local street network lacks connectivity, with several streets terminating at property boundaries. As part of future annexation into the City and potential redevelopment, many of those properties have the potential to be further subdivided, which would eventually result in street extensions and connections.

Bicycle and Pedestrian Facilities

Being able to safely and comfortably walk and bicycle provides mobility for people who do not drive, such as the elderly and children, expands transportation options for people who choose not to drive, and promotes public health through physical activity. The corridor area lacks multimodal facilities that would promote more walking and bicycling. Only River Road has on-street bike lanes; bicycles share the roadway with vehicles on the other streets. Most of the streets in the study area lack sidewalks. The lack of street connectivity also limits the ability to bicycle and walk in the study area.

Southeast of the corridor area is a popular shared-use path adjacent to the west bank of the Willamette River. This path terminates at the Beaver Street/Division Avenue intersection (see Figure 17).

Figure 17. Multi-Use Path (looking east at Division Avenue & Beaver Street)

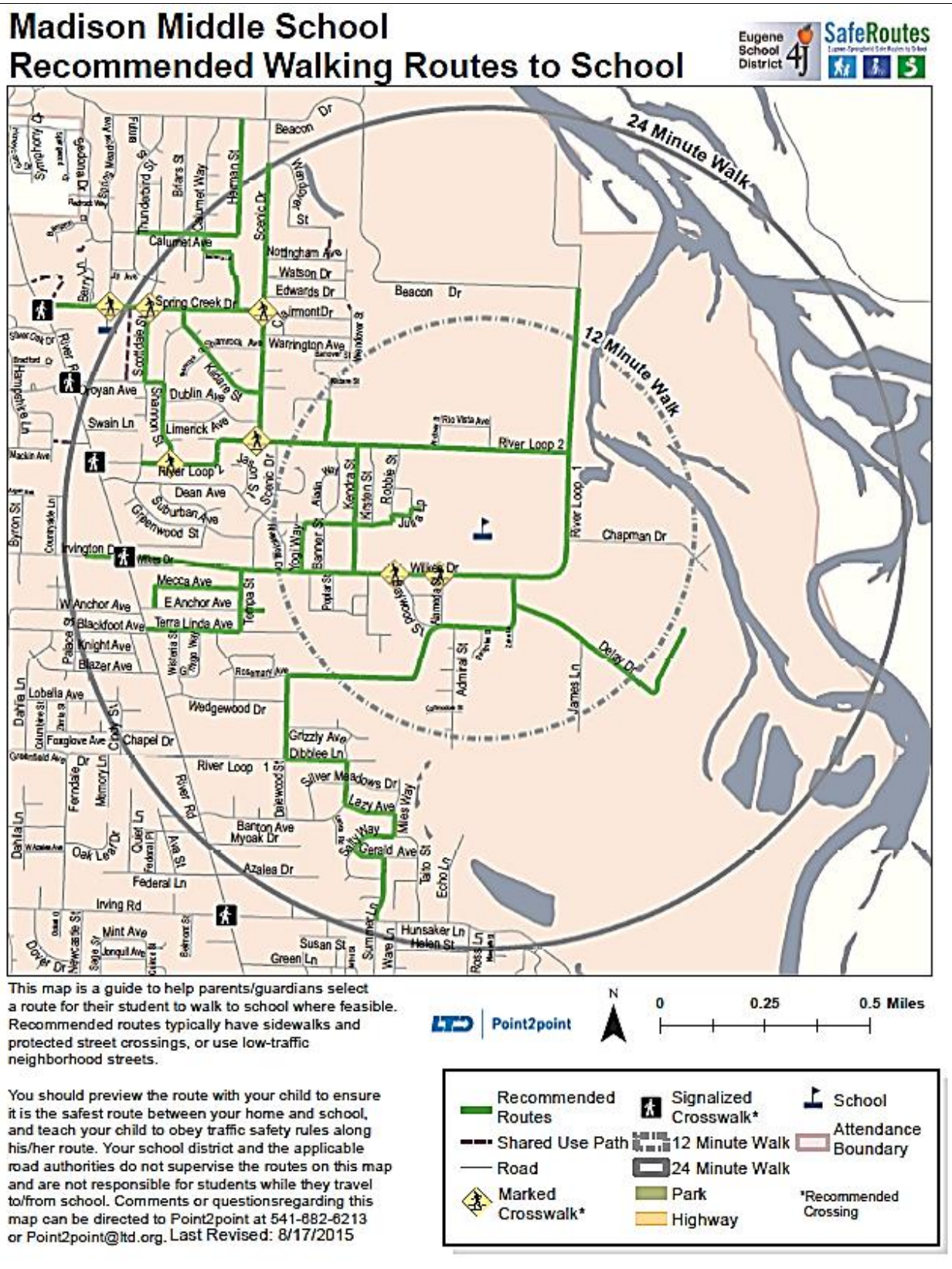


The lack of infrastructure to support safe, accessible, comfortable, and active travel for people of all ages and abilities is of particular concern for the vulnerable populations. The area southwest of Beaver Street – Hunsaker Lane includes affordable housing and assisted-living facilities; these residents may have limited transportation options, often without a car or the ability to drive.

Area children are bused to the elementary and high schools whereas a number walk to Maddison Middle School. The north half of the study area (between Wilkes Drive and the southern terminus of Admiral Street) is within a 12-minute walk to the Middle School whereas from Hunsaker Lane, it is a 24-minute walk.

The Safe Routes to Schools (SRTS) program has developed a map to guide parents in selecting a route for their students to walk or bike to Madison Middle School (see Figure 18). The walking route includes several segments of roadway that lack sidewalks and crosswalks. River Loop 1 is somewhat of an out-of-direction means of travel for school children who live to the southeast of the school. Further development of some intervening lands should improve street connectivity, as discussed previously.

Figure 18. Safe Routes to School Map



Legal Requirements related to Cycling

Under state law, bicyclists are allowed on all streets and every street must safely accommodate bicyclists. To ensure the safety of cyclists, both Federal and State legislation require that when major collectors or arterials are constructed or reconstructed, bikeways and sidewalks must be provided as part of the street improvements within the right-of-way. Bikeways include on-street provision for bicycles, such as striped lanes or shared use of lanes by motor vehicles and bicycles where traffic characteristics allow such use.

It is the City's policy to require bike lanes on all major collector streets as part of reconstruction or through upgrade projects. On all streets, the city requires sidewalks and minimal paved travel width to reduce overall impervious surface area.

Operational Analysis

To help inform potential roadway constraints, existing and projected year 2035 traffic volumes were analyzed and compared to estimated capacity levels at a number of locations within the corridor area. Given the conceptual nature of the study, the analysis of street capacity is more appropriate than a detailed intersection analysis. When the recommendations are funded and being designed for construction, more detailed analyses will be performed to help inform the design.

The roadway capacity analysis presented herein is based on a combination of roadway segment counts collected by Lane County in 2014, the Beltline Facility Plan, outputs from the Lane County Council of Governments Travel Demand Model, and post-processing procedures using the NCHRP 255 forecasting methodology.

Current Conditions

In general, the area roadways are carrying traffic volumes consistent with their design and at levels that meet City and County standards. Both Division Avenue near River Road and River Road, in the vicinity of the area commercial uses, are carrying traffic volumes that may indicate the need for future capacity improvements (See Figure 19).

Future Conditions

As shown in Figure 20, in the future, Hunsaker Lane near River Road is also expected to carry traffic volumes that may indicate the need for future improvements. As discussed previously, LTD, in collaboration with the City and County, will be evaluating the operations of the Hunsaker Lane/River Road intersection when it proceeds with its plans to relocate the transit station to this location.

Figure 19. Existing Traffic Volume-to-Capacity Measurements (2014)

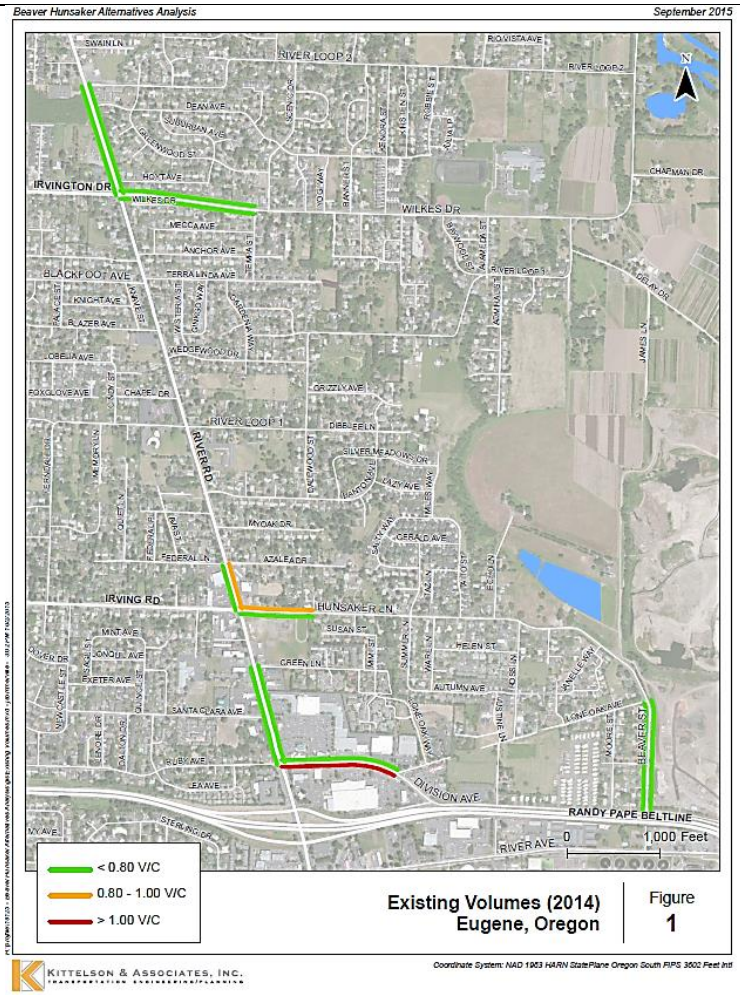
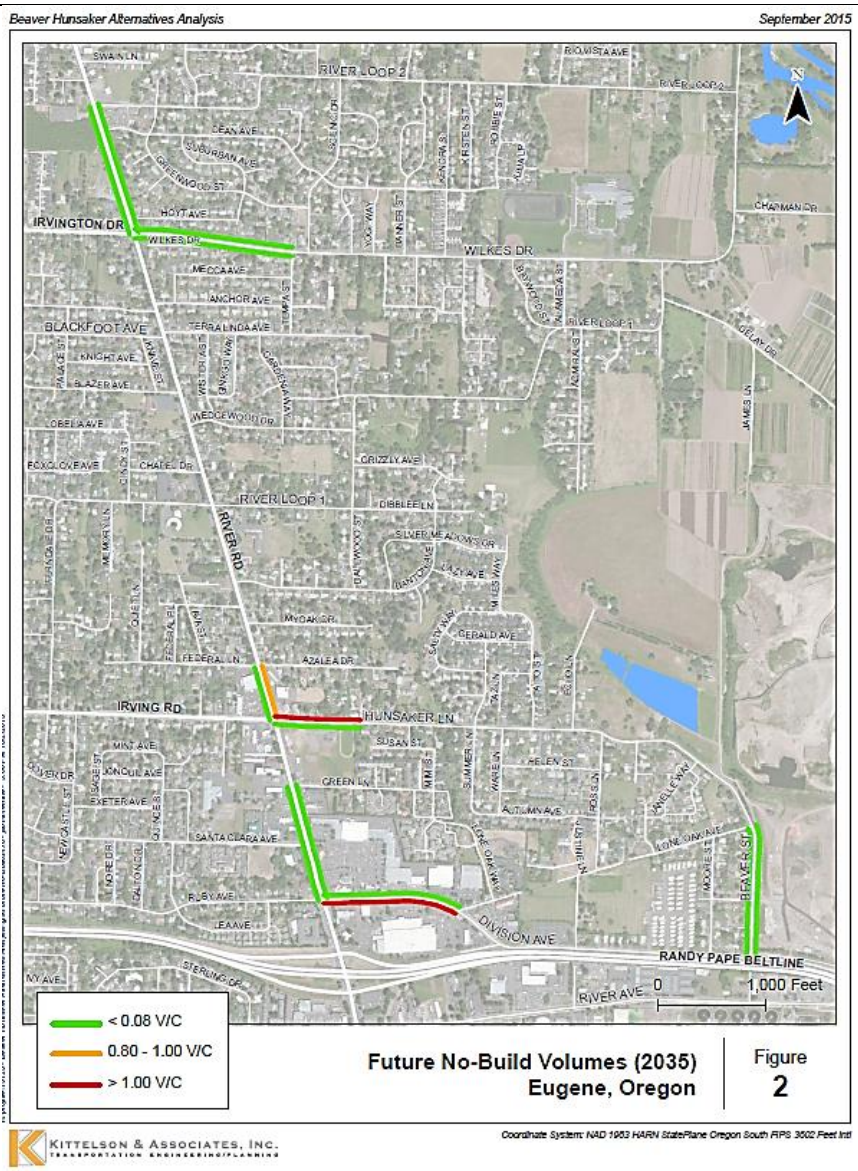


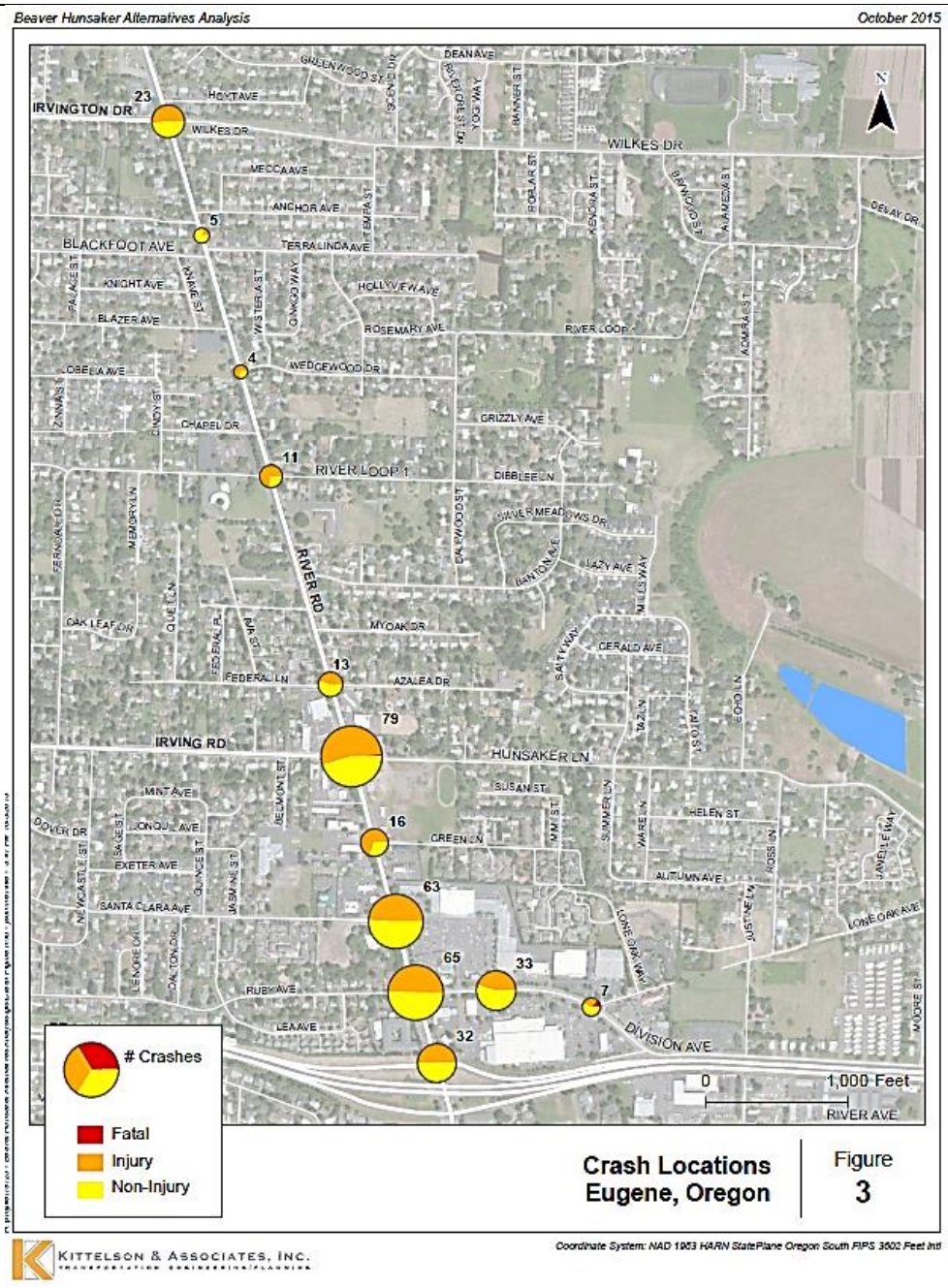
Figure 20. Future Traffic Volume-to-Capacity Estimates (2035)



Safety Analysis

ODOT provided information on the reported crashes from 2009 – 2013 along key roadways in the corridor area. A summary of the frequency of crashes is shown in Figure 21. As shown, the highest frequency of crashes during this period occurred along River Road between Hunsaker Lane and the Beltline Highway. This section of River Road generally has higher volumes and more density of access points than sections to the north.

Figure 21. Crash Locations & Frequency (2009-2013)



Of the reported crashes, approximately half were classified by ODOT as involving property damage only and approximately half were classified as non-fatal injury crashes. Two fatalities were recorded (see Figure 22). These include:

- At the intersection of Hunsaker Lane/River Road, a fatal crash involving a cyclist occurred the evening of Monday, August 29, 2011 (which was noted as a clear and dry day). The crash records indicate this was a rear-end collision but did not note the participant at fault.

- At the Division Avenue/Lone Oak Avenue intersection, a fatal crash occurred in the early morning hours of Saturday, April 3, 2010. The crash records indicate that it was a rainy day and involved a fixed object collision with a tree, stump, or shrubs. Excessive speed and alcohol were also cited as factors.

Figure 22. Crash Locations & Severity by Mode (2009-2013)

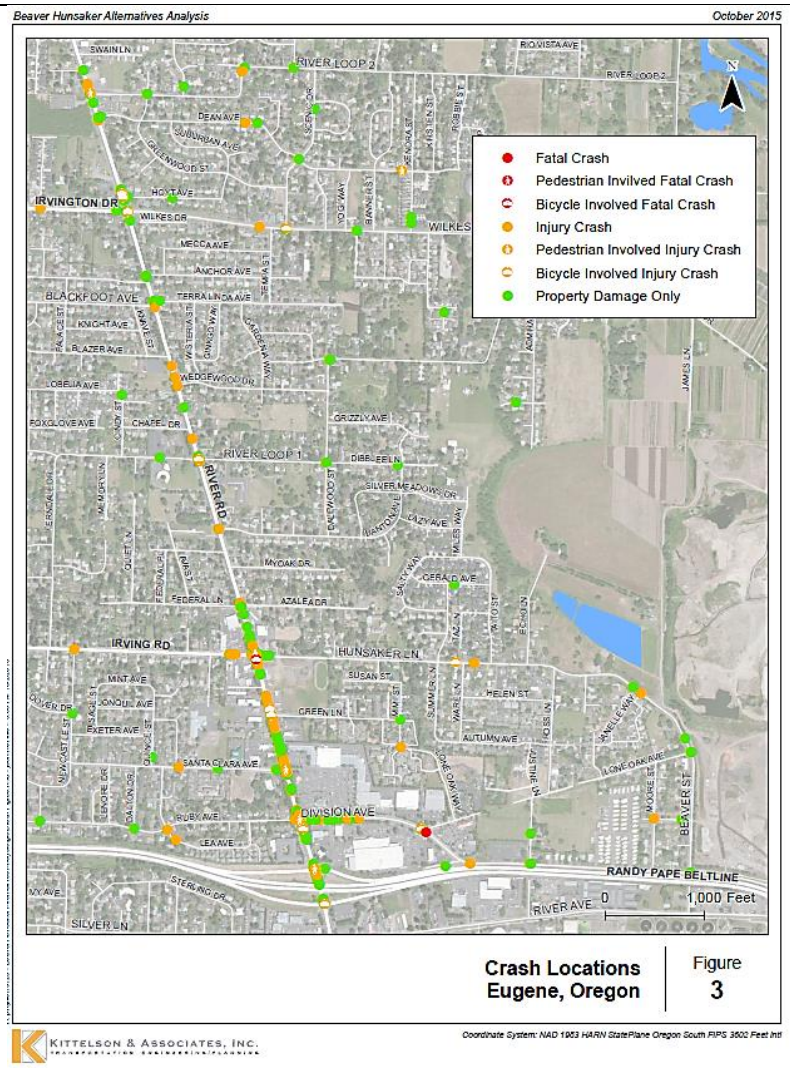
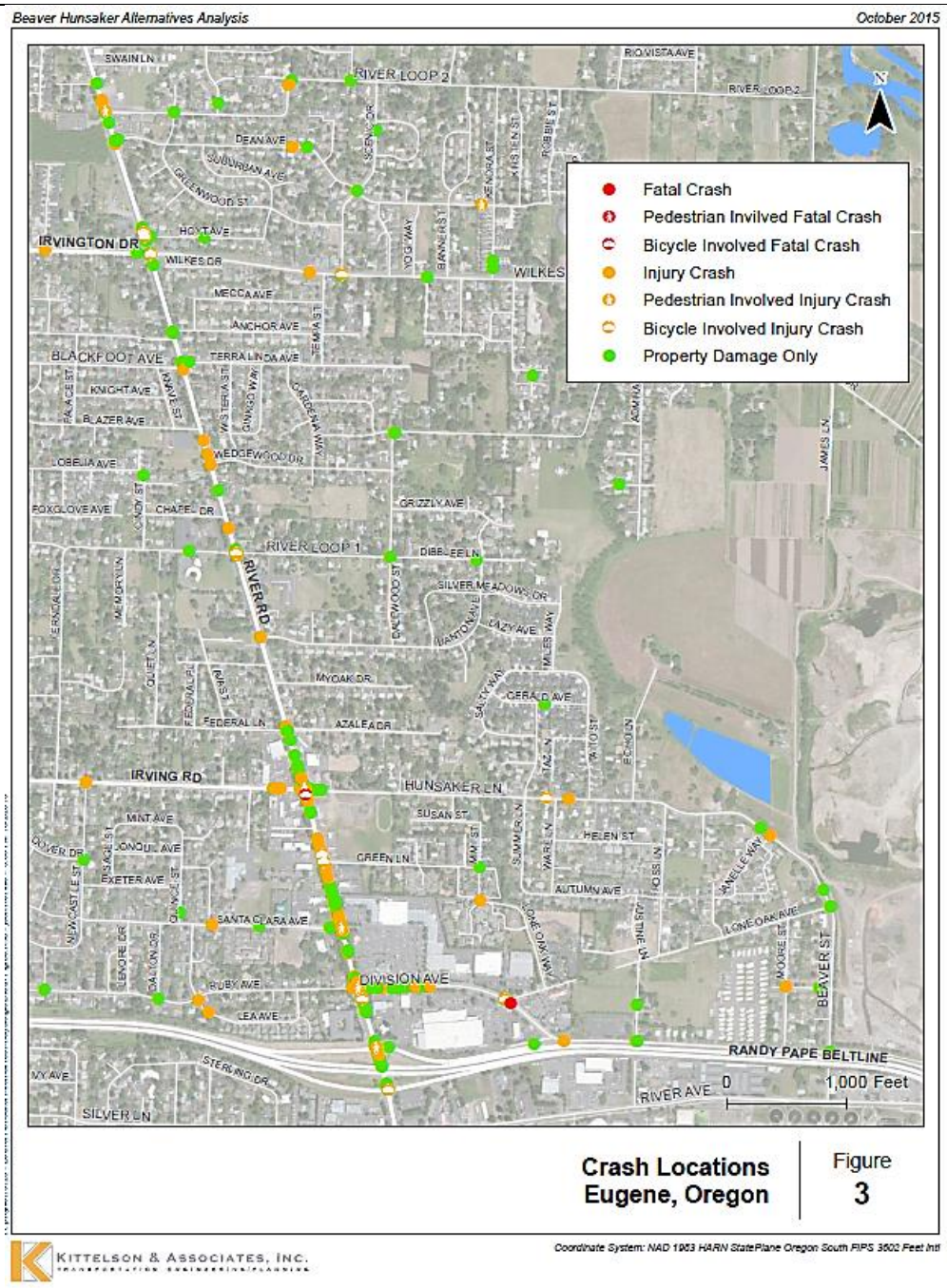


Figure 23 shows the reported crashes that involved pedestrians or bicycles within the corridor area. As shown, the majority of such crashes, including the previously discussed fatal crash involving a cyclist, occurred along River Road between Irving Road/Hunsaker Lane and the Beltline Highway. The cause of crashes varied with no apparent trends. One of the crashes was reported to involve alcohol.

Figure 23. Bike & Ped Crashes (2009-2013)



Summary of Existing Conditions Findings

Overall, the existing conditions assessment revealed the following considerations for the alternatives development:

- *Pedestrian and Bicycle Connectivity Considerations*
    - Many of the roadways in the study area do not have pedestrian or bicycle facilities. Integrating an on-street system with an off-street system can provide multimodal options for travel for users of all ages and abilities. Providing pedestrian and bicycle connections between the homes in the study area and the parks planned adjacent to the Madison Middle School, Lone Oak Park and Terra Linda Park as well as to the commercial areas and to the future transit station, will help provide a more complete neighborhood.
    - Any future pedestrian and bicycle connections should be coordinated with the 4J school district and the Safe Routes to Schools program.
    - The Eugene Trails Plan identifies a neighborhood greenway system in which the transportation system is part of the recreational experience with wider planter strips and sidewalks.
    - The Rivers-Ridges project identified an off-street trail along the west bank of the Willamette River that could be integrated as part of a future pedestrian and bicycle system in the study area.
    - Enhancing/extending the existing shared-use path that terminates at Division Avenue will provide additional connectivity between the neighborhoods both north and south of the Beltline Highway.
    - There may be an opportunity to provide pedestrian and bicycle connectivity through the Delta Sand and Gravel property.
- *Regulatory Review Considerations*
    - Any new roadways contemplated outside of the Eugene UGB would be subject to the goal exception analyses required by OAR 660-012-0065(h). New pedestrian and bicycle facilities outside the UGB would not be subject to the OAR requirements.
    - As part of the detailed design of study recommendations, a more detailed review of the natural resource impacts may need to be conducted. In particular, wetland and floodplain impacts may need further review.
- *Transit Considerations*
    - LTD is contemplating moving their existing transit station south of the Beltline Highway to the property located to the southeast of the Hunsaker Lane/River Road intersection.

Lane County should collaborate with LTD and the City of Eugene to provide convenient and comfortable pedestrian and bicycle connectivity between the neighborhoods and the transit station as well as the future design of the intersection.

- *Street Considerations*

    - The Beaver Street – Hunsaker Lane corridor plays a key role in implementing improvements being considered as part of both the Eugene TSP and the Beltline Facility Plan. The future construction of a local-arterial bridge could connect directly to this corridor and shape the needs of motorists, pedestrians, cyclists and transit riders in the corridor. Lane County should continue collaborate with ODOT and the City on the future efforts related to these improvements.

    - Future improvements to Beaver Street – Hunsaker Lane should consider design options that help reduce vehicular speeds.

    - The only roadway capacity constraints identified for both existing and year 2035 conditions occur along River Road in the south part of the study area. Any vehicular improvements should focus on providing connectivity rather than capacity needs and will likely be considered as part of the Beltline Facility Plan improvements as well.

    - Many of the recorded crashes (including those involving pedestrians and cyclists) occurred along River Road between Irving Road/Hunsaker Lane and the Beltline Highway. Coordination with the city and ODOT on the Beltline NEPA efforts may help identify any improvements that may be needed.

    - Any new street connectivity options should consider the needs of the undeveloped School District property south of Wilkes Drive.

    - In general, the local street network lacks connectivity, with several streets terminating at property boundaries. As part of future annexation into the City and potential redevelopment, many of those properties have the potential to be further subdivided, which would eventually result in street extensions and connections.

Chapter 3 – Public Involvement

The community provided significant input on each aspect and phase of the Corridor Study. This chapter provides a summary of the community's commitment to these efforts and the feedback they provided.

A fundamental goal of the study was to arrive at a community-preferred solution for meeting the transportation needs in the Beaver Street – Hunsaker Lane corridor. The public was engaged in the process through a variety of media and outreach mechanisms, as detailed below.

Stakeholder Interviews

In August/September 2015, the County initiated the corridor study by conducting interviews with 17 representatives of the various neighborhood groups and business owners. The intent of these interviews was to understand the various perspectives on the pedestrian, bicycle, transit, vehicular, and street needs in the corridors. The interviews also highlighted potential land use considerations related to development/redevelopment opportunities in the future. These stakeholder interviews helped the County to shape the areas of technical analysis related to the existing conditions. In general, the interviews provided context on needs, opportunities and constraints associated with future improvements to explore, and to generate interest from the community on remaining engaged in the overall study process.

During this same period, County staff met with representatives of the City of Eugene, ODOT, and LTD to understand the context of this corridor study related to ongoing planning and design efforts by each agency. These meetings also led to the formation of a project management team (PMT) with agency staff from each affected jurisdiction that helped guide and review the technical aspects of all stages of the corridor study. The PMT also participated in the open houses with the community.

Neighborhood Meetings

One of the outcomes of the stakeholder interviews was the need to initiate meetings with the Santa Clara neighborhood association to obtain more detailed insights on existing needs and to get feedback on alternatives being considered. The first meeting occurred in September 2015, shortly after neighborhood board members completed their stakeholder interview with County staff. Throughout the Corridor Study, County staff maintained close connection with the neighborhood, through its representatives, to review technical analyses and potential solutions. A number of members of the neighborhood association were beneficial in helping increase the attendance at the open house for the corridor study as well.

In addition to the Santa Clara Neighborhood Association, County staff also met with the Santa Clara Community Organization throughout the process to obtain feedback, specifically targeted to the employment/commercial needs of the corridor.

Project Webpage

Throughout the process, the County updated a webpage dedicated to the study to enable interested parties to review key documents, be informed about upcoming opportunities to provide in-person

feedback and to establish a County staff member as the primary contact point for the process. Through this information, a number of interested residents and business owners contacted County staff to provide feedback independent of formal meetings or briefings.

Board of County Commissioner Briefings

Lane County Commissioner Jay Bozievich represents District 1, which includes the study area. Commissioner Bozievich was updated and consulted throughout the planning process to discuss specific opportunities and trade-offs and potential design alternatives. Commissioner Bozievich also met with neighborhood representatives to help gather additional information and attended neighborhood meetings to hear public concerns.

Interjurisdictional Meetings

County staff also presented the corridor study opportunities, trade-offs and potential design alternatives to the following partner agency groups to obtain feedback on the potential designs:

- Central Lane Metropolitan Planning Organization: Transportation Options Advisory Committee (September 10, 2015)
- Eugene Bicycle & Pedestrian Advisory Committee (September 10, 2015)
- Lane County Transportation Advisory Committee (September 23, 2015 and May 25, 2016)
- Central Lane Metropolitan Planning Organization: Metropolitan Policy Committee (June 2016)

County staff also met with LTD staff a number of times throughout the study process to understand the potential for future bus traffic on the corridor, when the local arterial bridge is constructed, and the opportunities and needs associated with the potential development of the LTD property in the southeast corner of the River Road/Hunsaker Lane intersection.

Public Workshop

Area residents participated in a public workshop in June 2016 to provide input on designs for improving the safety of Beaver Street and Hunsaker Lane. At this workshop, a series of design options were presented for feedback. At this workshop, each of these attendees provided mark-ups on the drawings illustrating the design options and completed a survey about key questions related to potential corridor solutions. At this workshop, most people support the proposed bike lanes and sidewalks as well as a bike path extension from Beaver Street to Wilkes Drive.

Public Hearing

More than 15 area residents and business owners attended the Lane County Transportation Advisory Committee (TrAC) public hearing to share their ideas, experiences, and feedback on the future changes to Beaver Street and Hunsaker Lane, as recommended in the Beaver-Hunsaker Corridor Plan. Most of the public testimony supported the changes to improve safety for pedestrians, cyclists, and local traffic. In response to concerns about property impacts, staff confirmed that a subsequent design process would be necessary, which would involve affect property owners, to determine the alignment of several design elements, such as sidewalks, planter strips, and parking bays. In response to concerns about vehicle speeds, staff confirmed that raised pedestrian crossings and pedestrian-activated flashing beacons are part of the Plan recommendations for the Beaver-Hunsaker corridors; additional funding is needed to complete those design details, such as stormwater management, utility and driveway locations. The need for traffic calming was an emphasis in the approval recommendation by the Transportation Advisory Committee.

Other Outreach Tools

In addition to the each of the meetings, the County also provided a number of outreach materials to help provide area residents and business owners with information about the corridor study. Examples of these materials include:

- A project fact sheet with answers to Frequently Asked Questions about the project;
- Two community newsletters about the project and the results of the Public workshop
- Direct mailings to an interested parties list as well as to abutting properties and interested parties

Environmental Justice and Title VI

Environmental Justice (EJ) and Title VI focus on understanding and addressing the unique needs of different socioeconomic groups, which are vital components to effective transportation decision-making. EJ stems from Title VI of the Civil Rights Act of 1964 and subsequent legislation, particularly the 1994 Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations. The state and federal funds allocated to the study ($174,325 of Surface Transportation Planning – Urban funds) administered through the Central Lane Metropolitan Planning Organization (MPO) require EJ and Title VI compliance. Key components of compliance include:

- Identifying the low-income and minority populations so that their needs can be identified and addressed, and the benefits and burdens of transportation investments can be fairly distributed.

- Evaluate and improve the public involvement process to eliminate participation barriers and engage minority and low-income populations in transportation decision-making.

Potential environmental justice populations include myriad housing types in the area, such as: Lone Oak Assisted Living, Saint Vincent de Paul, Laurel Court Group Care, Oak Leaf, Apple Orchard Affordable Housing, Sierra Oaks Nursing Home, Cornerstone Housing, Green Leaf Village, and mobile home parks. County staff contacted each of these housing complexes via phone, email, and direct mail. Cornerstone Housing engaged in the process, meeting with staff, attending the workshop, and completing a survey indicating support for walking and biking improvements.

Summary of Key Feedback Provided through the Corridor Study

Throughout the Corridor Study public engagement efforts, the County consistently received feedback that changes are needed to improve safety, comfort and convenience for pedestrians, cyclists, traffic local to the neighborhood as well as for traffic that is using the corridor to travel between River Road and the Beltline Highway -- while at the same time, minimizing impacts to adjacent property owners and to the environment. The need for traffic calming was an emphasis in the approval recommendation by the Transportation Advisory Committee, in response to public testimony concerning vehicle speeds and volumes.

Chapter 4 – Alternatives Considered and Corridor Recommendations

This chapter describes the outcome of the planning process.

Alternatives Considered

Following completion of the existing conditions analyses and the stakeholder interviews and initial public engagement efforts, Lane County staff, in collaboration with the Corridor Study PMT, reviewed the opportunities and constraints associated with four distinct alternatives for the corridor. These concepts were shared at the June 2016 public open house as follows:

- A "Traditional Section" that complies with the existing Major Collector standards. This section would require 57 feet of right-of-way and would provide 11-feet travel lanes, sidewalks, bicycle lanes and a landscaping strip on both sides of the road along the entire corridor. This is concept is reflected in Figure 24.

- A "Constrained Right-of-Way" section that would require 46 feet of right-of-way and would provide 10-feet travel lanes, sidewalks, and bicycle lanes on both sides of the road along the entire corridor. This is concept is reflected in Figure 25.

- A "Green Street" section that would require 60 feet of right-of-way and would provide 10-feet travel lanes, sidewalks, bicycle lanes and a rain garden on both sides of the road along the entire corridor. This is concept is reflected in Figure 26.

- A "Constrained Multi-Use Path" section that would require 49 feet of right-of-way and would provide 11.5-feet travel lanes, sidewalk on one-side of the roadway and a rain garden and multi-use path on the other side of the roadway along the entire corridor. This is concept is reflected in Figure 27.

Figure 24. Traditional Section

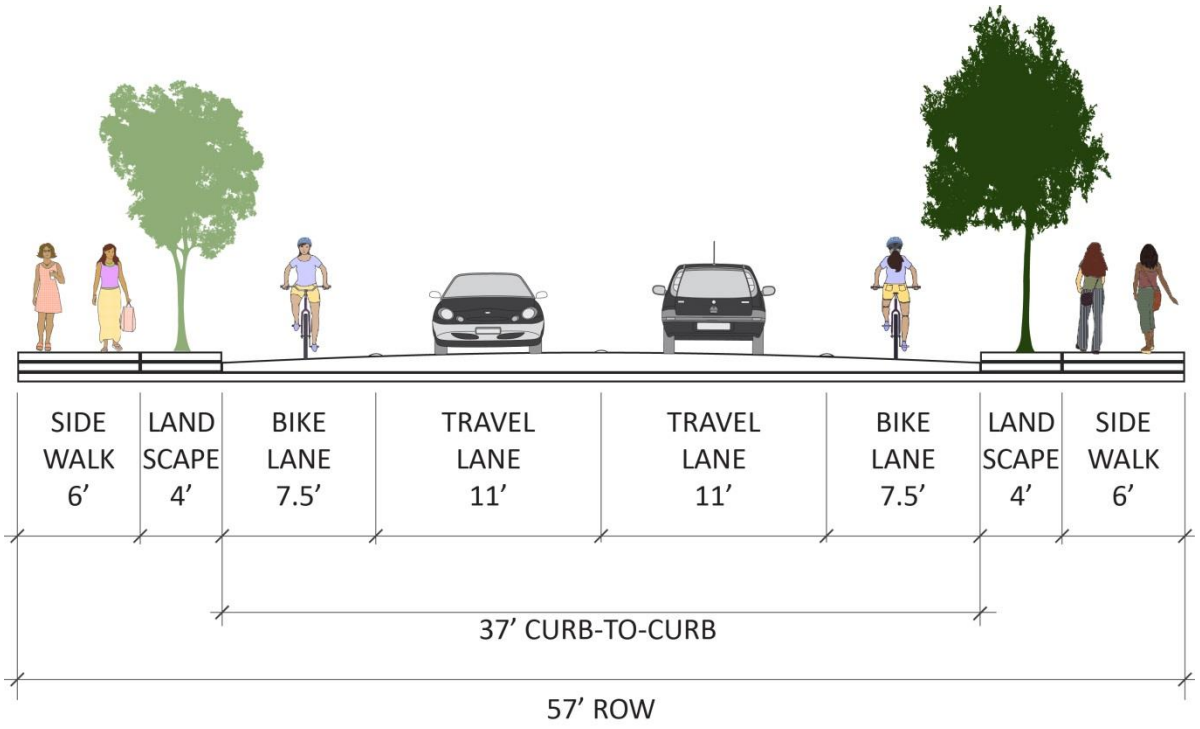


Figure 25. Constrained Right-of-Way

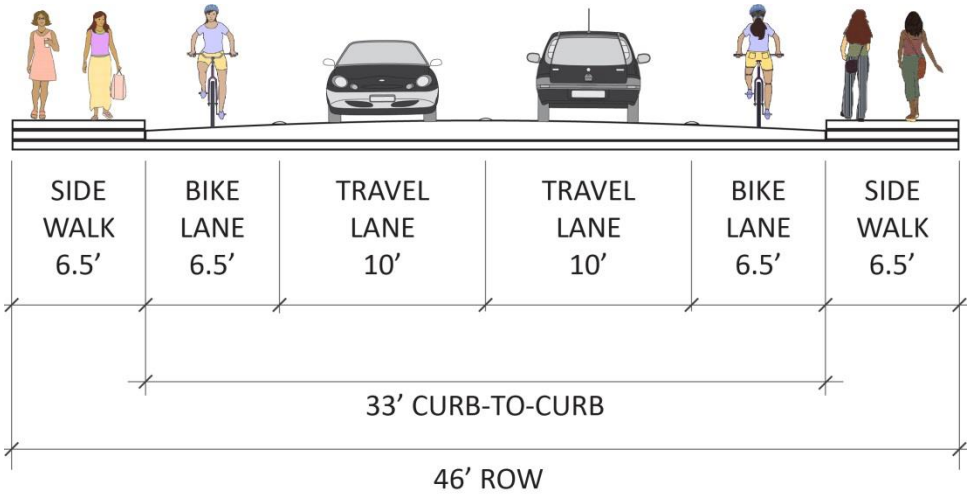


Figure 26. Green Street

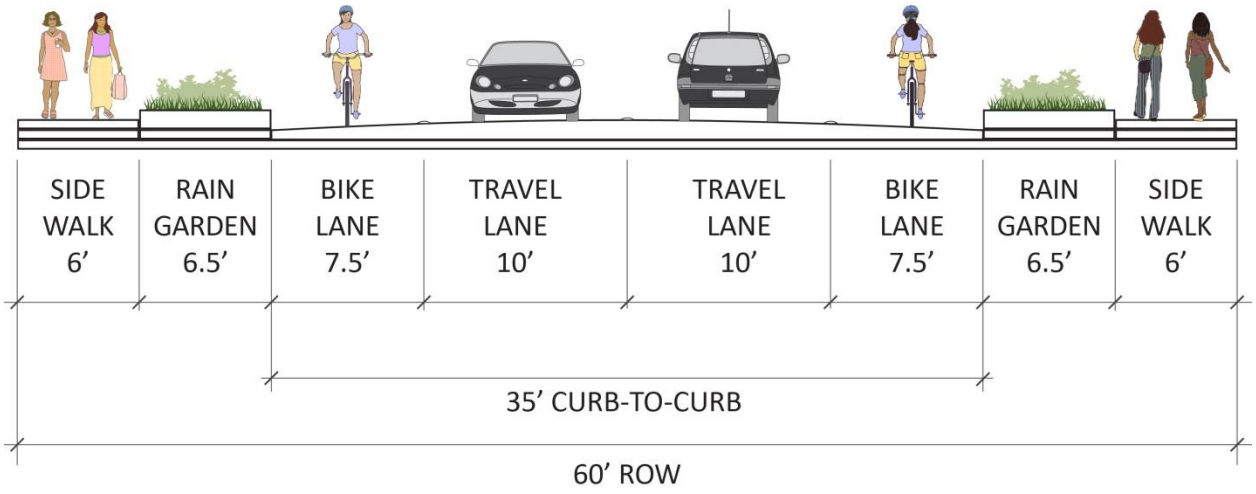
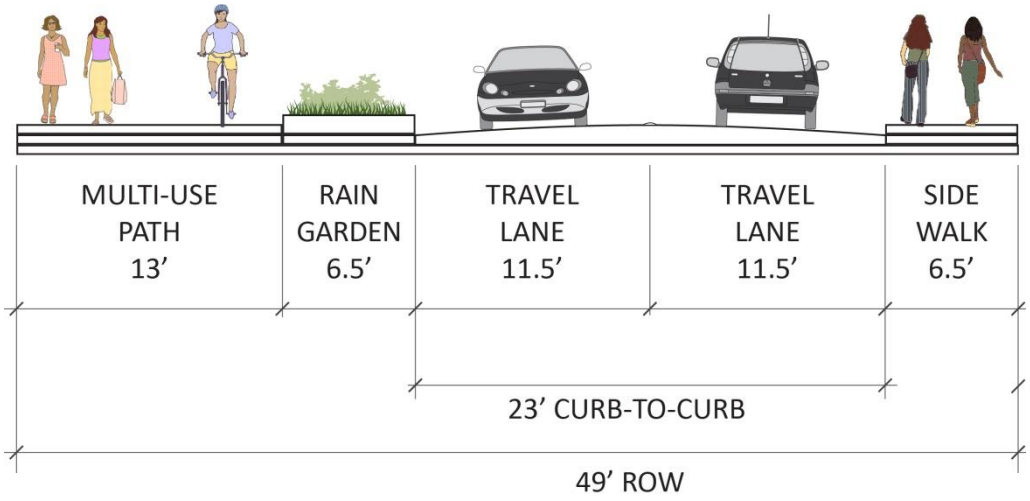


Figure 27. Constrained Multi-Use Path



Recommendations

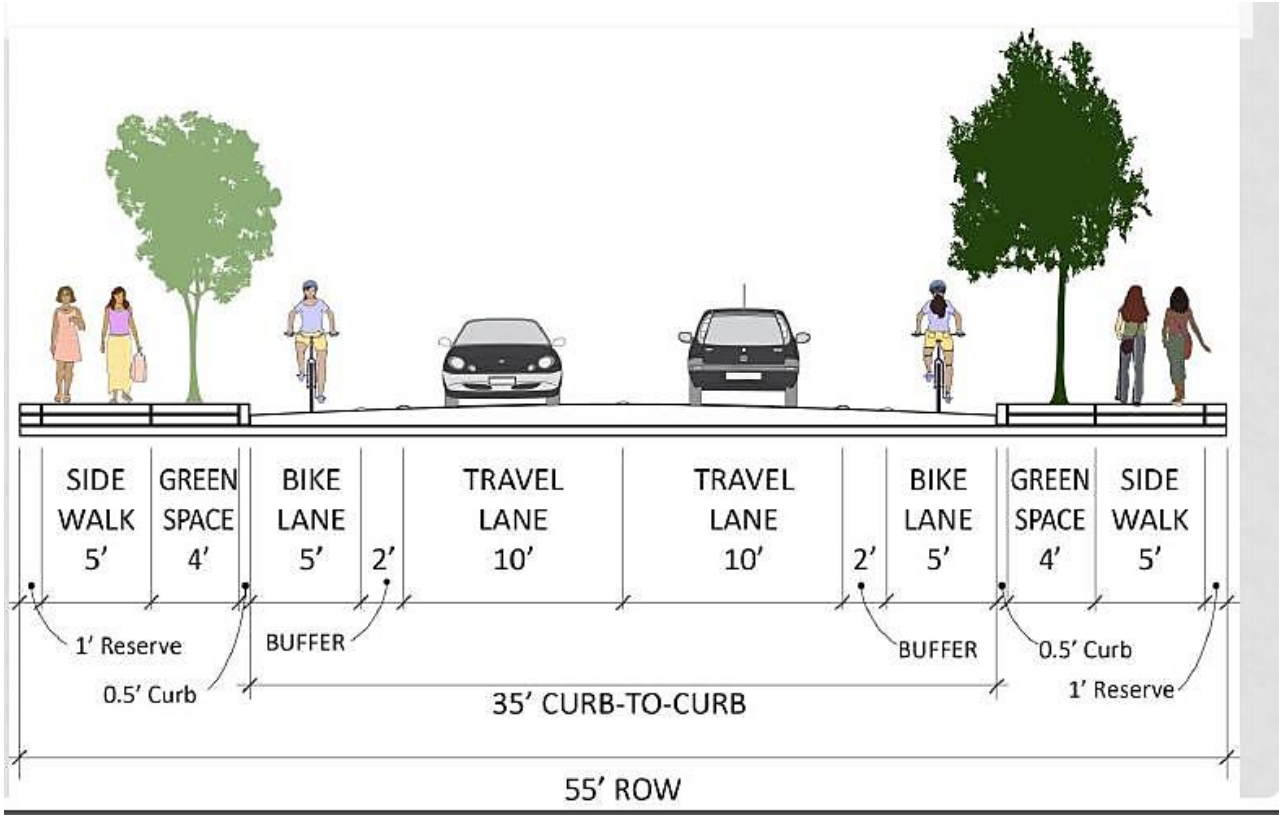
The Beaver-Hunsaker corridor is serving many roles, as expected for its "Major Collector" designation, which includes providing through travel and access to abutting properties. Sidewalks and bike lanes are expected on all collector streets. The lack of sidewalks and bike facilities -- as well as the speed of vehicles -- contributes to an environment that the County and the neighborhood want to see improved. As such, this Plan recommends changes to the corridor that include: the provision of sidewalks, bicycle lanes, multi-use pedestrian/bicycle paths; improved pedestrian crossings at key locations within the corridor; and reducing travel lanes and vehicle speeds throughout the corridor. These recommendations are intended to meet the needs of all users (including the vulnerable and disadvantaged population), minimize impacts to properties and the environment, reduce vehicle speeds, and meet the long-term vehicular travel demand in the corridor.

This Plan recommends the following design concepts, based on the culmination of technical analysis and public involvement:

- **Hunsaker Lane:** A modified constrained right-of-way concept, as reflected in Figure 28.
- **Beaver Street**: A modified constrained multi-use concept, as reflected in Figure 29.
- **A new multi-use path along the UGB** to connect Beaver Street and Wilkes Drive, as reflected in Figure 30.

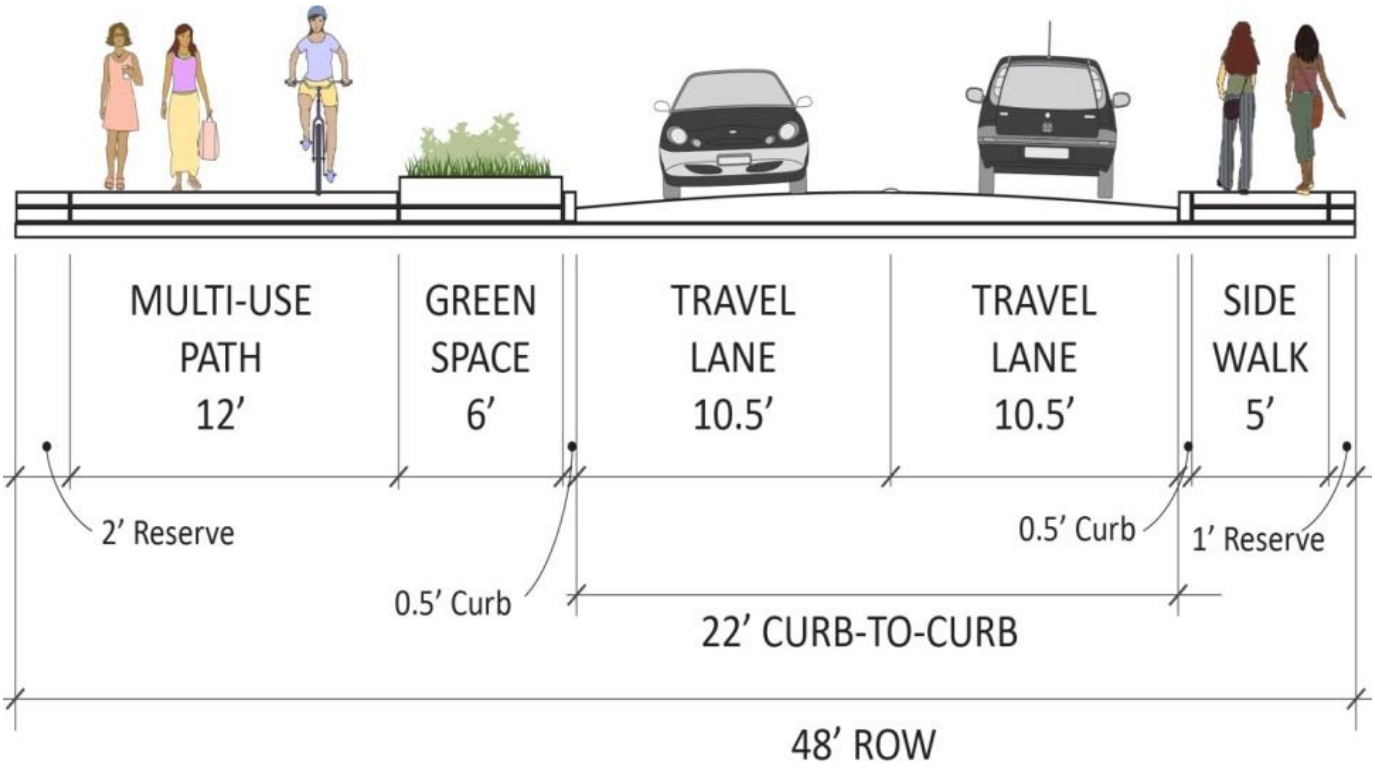
Additional details regarding these recommendations are provided following the figures shown below. These recommendations are design concepts that need to be further refined, which is pending additional funding and public engagement.

Figure 28. Recommendation for Hunsaker Lane



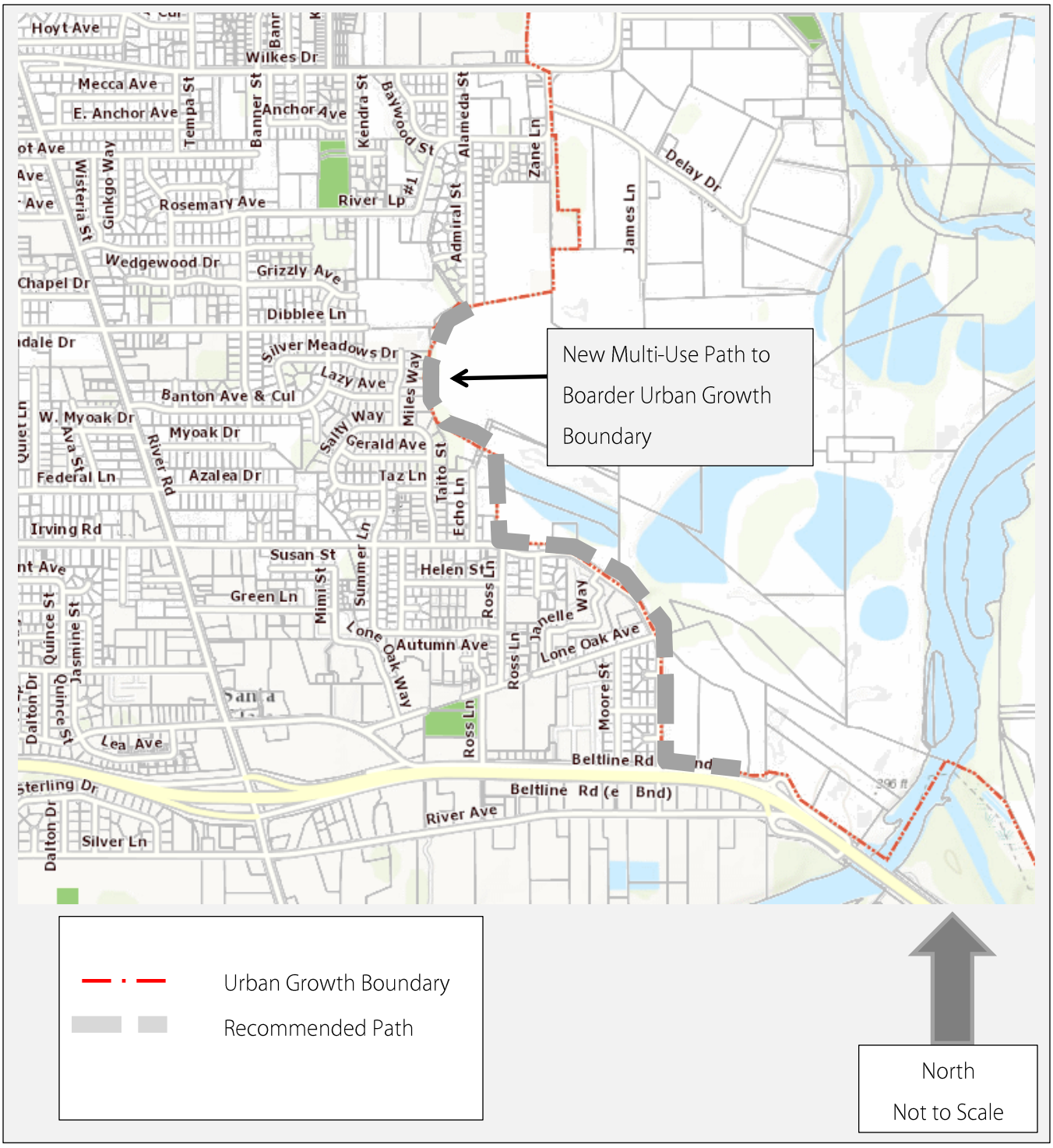
For Hunsaker Lane, sidewalks and bike lanes are recommended on both sides of the street. This is to address the anticipated demand for walking and bicycling facilities along this corridor, particularly to connect the residences that line both sides of the street to the proposed transit station and the existing neighborhood commercial uses on each side of the street at the intersection with River Road. The design recommendation includes a green space to provide a buffer for pedestrians, which could be used for tree plantings and/or stormwater infiltration. While the neighborhood generally supported the concept, several adjacent property owners objected to the green space due to additional property impacts and future maintenance concerns. The green space may be substituted with parking bays or omitted – depending on a subsequent design process which will refine these details with property owners, based on reasonable criteria for minimizing property impacts. For the most part, the recommended design would fit within the existing right-of-way width; under current conditions, there are several private property encroachments within the existing right-of-way. Based on preliminary data, there are only about four properties from which additional six feet right-of-way width would be needed. Right-of-way needs may vary depending on the future design refinement process.

Figure 28. Recommendation for Beaver Street



For Beaver Street, the design recommendation links the corridor to the existing pedestrian and bicycle path along Division Avenue by creating a new pathway adjacent to the Delta Sand and Gravel property. Sidewalks are provided only on the south/west side of the street for the following reasons: to emphasize use of the multi-use path on the north/east side of the street; in recognition that an unbalanced right-of-way need on the north/east side would come from Delta Sand and Gravel, which has indicated support for the path; in acknowledgement that southbound traffic volumes are significantly lower, in which case a buffered bike lane and setback sidewalk would not be as essential to ensure bicycle and pedestrian safety; and to minimize land impacts, particularly an open drainage ditch and transmission lines. The design solution also recognizes the potential to add a north-south off-street pathway from the corridor north to Wilkes Drive. In particular, the design recommends narrowing the existing travel lanes and keeping the roadway to one travel lane in each direction. This is especially important to the neighborhood with regard to ODOT's proposed improvements to Beltline, which could include a new street connecting to Beaver Street. Additional design work is needed to determine the location and type of connection (e.g. a roundabout may be possible) and the transition to this recommended design. In particular, Beaver Street is not envisioned to be widened to accommodate additional travel lanes.

Figure 30. Multi-Use Path for Beaver-Wilkes



New Multi-Use Path for Beaver-Wilkes

The County's technical work revealed that a new north-south street between Beaver Street and Wilkes Drive would not be supported by state law concerning transportation facilities outside urban growth boundaries (see details below). Instead, a new multi-use path is recommended, which is allowed by state law. The path would extend the existing path on Division Avenue to the north, along the north/east side of Beaver Street and the west side of Delta Sand and Gravel, generally east of the urban growth boundary, to Admiral Street, for an eventual connection to Wilkes Drive. North of Wilkes Drive is Madison Middle School and City parkland, both of which have a high demand for walking and bicycling trips. The Santa Clara Neighborhood Organization has been working with Delta Sand and Gravel to clear the area for the future path. Throughout the planning process, Delta has indicated support for the path and a willingness to provide the additional land needed for constructing the path. Details of the path design and alignment require additional work with Delta Sand and Gravel.

Alternatives Considered but Not Recommended

As part of the Corridor Study, community members requested evaluation of a street connection between Beaver Street and Wilkes Drive. This type of connection would occur outside of the existing UGB for the City. After performing an in-depth analysis of local, state and federal policies and requirements, the PMT concluded that a street of this nature was not feasible and consistent with these requirements. Instead, the PMT and the public agreed that a pedestrian-bicycle path should be constructed outside the UGB to connect cyclists and pedestrians between the two corridors. More detail on this review is provided below.

Land Use and Natural Resource Context

The potential Beaver Street – Wilkes Drive corridor is generally located outside the urban growth boundary (UGB). As discussed in Chapter 2 of this study, the lands east of the UGB in this area are designated for agricultural use and are protected by Statewide Planning Goal 3. These agricultural lands are predominantly high-value farmland soils (Class 1), which is the highest priority for retention.

It may be helpful to note that the City of Eugene is not considering these lands in any future UGB expansion scenario (i.e. the 20-year supply for Envision Eugene and the 50-year reserve analysis) in order to protect these high value resources.

Another point to note is that the lands surrounding the UGB in this area are within the floodplain. Although development is currently allowed in the floodplain, subject to special development standards, state and federal requirements are expected to become more stringent in the future. The open waterway that follows the UGB is a protected Goal 5 Natural Resource.

Transportation Improvements on Rural Lands

Oregon's Transportation Planning Rule (TPR) contains specific provisions for transportation improvements on rural lands. These are documented in Oregon Administrative Rule (OAR) 660-012-0065 and 660-012-0070. The state reviews all proposed Goal Exceptions for adherence to these

criteria. However, it is important to note that OAR 660-012-0065 does allow the provision of bikeways, footpaths and recreational trails outside the UGB without a Goal Exception. Otherwise, the OAR is specific that any other transportation improvements are subject to a limited set of conditions; a new road "…serving local travel needs shall be limited to that necessary to support rural land uses…" (Subsection 3o). Any roadways serving urban land uses are subject to the criteria in OAR 660-012-0070.

Neither the Eugene TSP nor TransPlan provide the policy justification for providing a roadway outside the UGB to serve urban uses as required by OAR-660-012-0070. Both of these Plans have strong policy language prioritizing multimodal projects and better management of the existing system first and foremost. Further, both the Eugene TSP and the Beltline Facility Plan identify River Road to the north of Hunsaker as operating within applicable performance standards through the year 2035. Both do identify the potential need to add vehicular capacity at the River Road/Hunsaker Lane intersection (likely through turn lanes). However, this need does not extend to the north.

Instead, as properties continue to develop within the UGB in this area, local connectivity needs can be addressed as part of provision of new streets to serve the new and existing neighborhoods within the UGB.

Next Steps

This Plan is intended to provide some certainty to area residents and affected property owners about the future of the corridors, particularly given the number of concurrent planning efforts underway by ODOT and LTD. Adoption of this Plan by the Lane County Board of Commissioners will provide direction to staff to continue to pursue implementation of the designs recommended in the Plan. This pursuit most immediately involves the need to secure additional funding to complete the design and construct the improvements. The funding has not yet been determined, but Lane County will pursue state, federal, and regional funding sources.