



# **DRAFT FINAL**

# **Land Use and Prime Farmlands**

# **Technical Report**

Lane Transit District  
City of Eugene

In cooperation with  
Lane Council of Governments  
Lane County  
Oregon Department of Transportation

**July 8, 2017**

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# DRAFT FINAL Land Use and Prime Farmlands Technical Report

## *MovingAhead Project*

Prepared in accordance with the  
National Environmental Policy Act of 1969, as amended 42 U.S.C. 4322  
and the  
Federal Transit Act of 1964, as amended 49 U.S.C. 1601 et seq.

***July 8, 2017***

*Prepared for*  
Federal Transit Administration  
Lane Transit District  
City of Eugene

*Prepared by*  
CH2M HILL, Inc.

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## Acronyms, Abbreviations, and Terms

Acronyms and Abbreviations	Definitions
AA	Alternatives Analysis
ADA	Americans with Disabilities Act
API	area of potential impact
approx.	Approximately
BAT	business access and transit
BRT	bus rapid transit
CFR	Code of Federal Regulations
CH2M	CH2M HILL, Inc.
City	City of Eugene
Draft Envision Eugene	<i>Draft Envision Eugene Comprehensive Plan</i> (Envision Eugene, 2016, July)
DU	dwelling unit
EC	Enhanced Corridor Alternative (in some tables)
ECLA	<i>Eugene Comprehensive Lands Assessment</i> (ECONorthwest, 2010, June)
EmX	Emerald Express or EmX Alternative (in some tables)
Eugene TSP	<i>DRAFT Eugene 2035 Transportation System Plan</i> (City of Eugene, 2016; Draft Eugene 2035 TSP)
FPPA	Farmland Protection Policy Act, 7 U.S.C. 4201-4209 and 7 CFR 658
ft <sup>2</sup>	square foot (feet)
FTA	Federal Transit Administration
FTN	Frequent Transit Network
FY	fiscal year
GIS	geographic information systems
Heritage	Heritage Research Associates, Inc.
I-105	Interstate 105
I-5	Interstate 5
LCC	Lane Community College
LCDC	Land Conservation and Development Commission
LCOG	Lane Council of Governments
LTD	Lane Transit District
Metro Plan	<i>Eugene-Springfield Metropolitan General Area Plan</i> (LCOG et al., 2015, December 31)
MMA	Michael Minor and Associates
MPO	Metropolitan Planning Organization
MTIP	<i>Metropolitan Transportation Improvement Program Federal FY 2015 to Federal FY 2018</i> (Central Lane MPO, adopted 2014, October, as amended)
N/A	not applicable

<b>Acronyms and Abbreviations</b>	<b>Definitions</b>
ND	nodal development
NEPA	National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321-4347
OAR	Oregon Administrative Rules
OR	Oregon
RFFA	reasonably foreseeable future action
ROW	right of way
RTP	<i>Regional Transportation Plan</i> (Central Lane MPO, 2011, December)
TD	transit-oriented development (City of Eugene Overlay Zone designation)
TOD	transit-oriented development
TPR	Transportation Planning Rule
TransPlan	<i>TransPlan, The Eugene-Springfield Transportation System Plan</i> (LCOG, 2002, September)
TSI	Transportation System Improvement
U.S.C.	United States Code
UGB	Urban Growth Boundary
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 U.S.C. 4601 et. seq., 49 CFR Part 24
WEEE	West Eugene EmX Extension

<b>Terms</b>	<b>Definitions</b>
Accessibility	The extent to which facilities are barrier free and useable for all persons with or without disabilities.
Agricultural/Forest/Natural Resource	AG, EFU-25, EFU-30, EFU-40, F-1, F-2, and NR
Chambers Special Area Zone	S-C
City of Eugene Zoning Classifications	Industrial (I-2 and I-3), Commercial (C-3), Mixed-Use (C-1, C-2, GO, S-C, S-CN, S-DR, S-DW, S-E, S-F, S-HB, S-JW, S-RN, S-W, and S-WS), Single-Family Residential (R-1), Multi-Family Residential (R-2 and R-3), Institution (PL and PRO), Agricultural/Forest/Natural Resource (AG, EFU-25, EFU-30, EFU-40, F-1, F-2, and NR), Office (E-1 and E-2), Special Area Zone (Non-Mixed Use) (S-H and S-RP), Downtown Westside Special Area Zone (S-DW), Chambers Special Area Zone (S-C)
Commercial	C-3
Downtown Westside Special Area Zone	S-DW
Industrial	I-2 and I-3
Institution	PL and PRO
Jefferson Westside Special Area Zone	S-JW

<b>Terms</b>	<b>Definitions</b>
Metro Plan Designations	Commercial, Commercial/Mixed Use, Government and Education, Heavy Industrial, High Density Residential/Mixed-Use, High Density Residential, Light-Medium Industrial, Low Density Residential, Medium Density Residential, Medium Density Residential/Mixed-Use, Mixed-Use, Parks and Open Space, Major Retail Center, Campus Industrial, University Research
Mixed-Use	C-1, C-2, GO, S-C, S-CN, S-DR, S-DW, S-E, S-F, S-HB, S-JW, S-RN, S-W, and S-WS
Multi-Family Residential	R-2 and R-3
Office	E-1 and E-2
Single-Family Residential	R-1
Special Area Zone (Non-Mixed Use)	S-H and S-RP
Whiteaker Special Area Zone	S-W

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## Land Use and Prime Farmlands Summary

This Land Use and Prime Farmlands Technical Report presents the results of the land use and prime farmlands assessment for the Lane Transit District (LTD) and the City of Eugene’s MovingAhead Project in Eugene, Oregon (OR). The purpose of the MovingAhead Project is to determine which high-capacity transit corridors identified in the adopted Emerald Express (EmX) System Plan, *Lane Transit District Long-Range Transit Plan* (LTD, 2014) and the Frequent Transit Network (FTN) are ready to advance to capital improvements programming in the near term. LTD and the City of Eugene (City) initiated the MovingAhead Project in 2014 to identify and examine alternatives for improving multimodal safety, mobility, and accessibility in key transit corridors in the City. A main theme of the City’s vision is to concentrate new growth along and near the City’s key transit corridors and core commercial areas while protecting neighborhoods and increasing access to services for everyone. LTD and the City are jointly conducting the project to facilitate a more streamlined and cost-efficient process through concurrent planning, environmental review, and design and construction of multiple corridors.

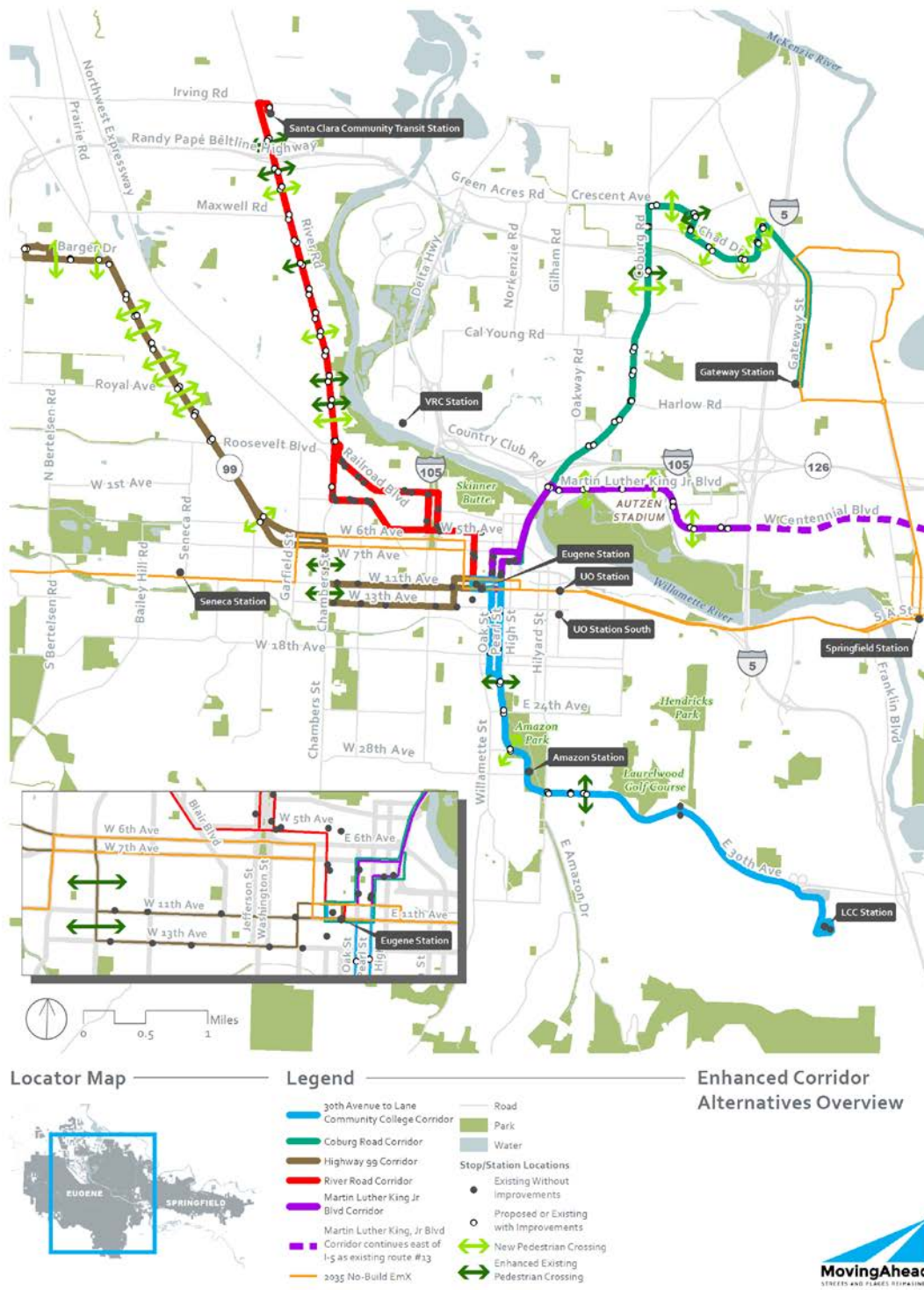
LTD and the City of Eugene examined multimodal transit alternatives in five key transit corridors identified in the *Draft Envision Eugene Comprehensive Plan* (Envision Eugene, 2016, July) and the *DRAFT Eugene 2035 Transportation System Plan* (City of Eugene, 2016; Draft Eugene 2035 TSP), the region’s highest growth centers, and downtown Eugene:

- Highway 99 Corridor
- River Road Corridor
- 30th Avenue to Lane Community College (LCC) Corridor
- Coburg Road Corridor
- Martin Luther King, Jr. Boulevard Corridor

No-Build, Enhanced Corridor, and EmX Alternatives were developed for each corridor, except the Martin Luther King, Jr. Boulevard Corridor, for which only No-Build and Enhanced Corridor Alternatives were developed. Each proposed corridor location is shown on Figures S.1-1 and S.1-2 for the Enhanced Corridor Alternatives and the EmX Alternatives, respectively. The *MovingAhead Level 2 Definition of Alternatives* (CH2M HILL, Inc. [CH2M] et al., 2016) contains a detailed description of the project alternatives. The following is a summary of the project alternatives evaluated.

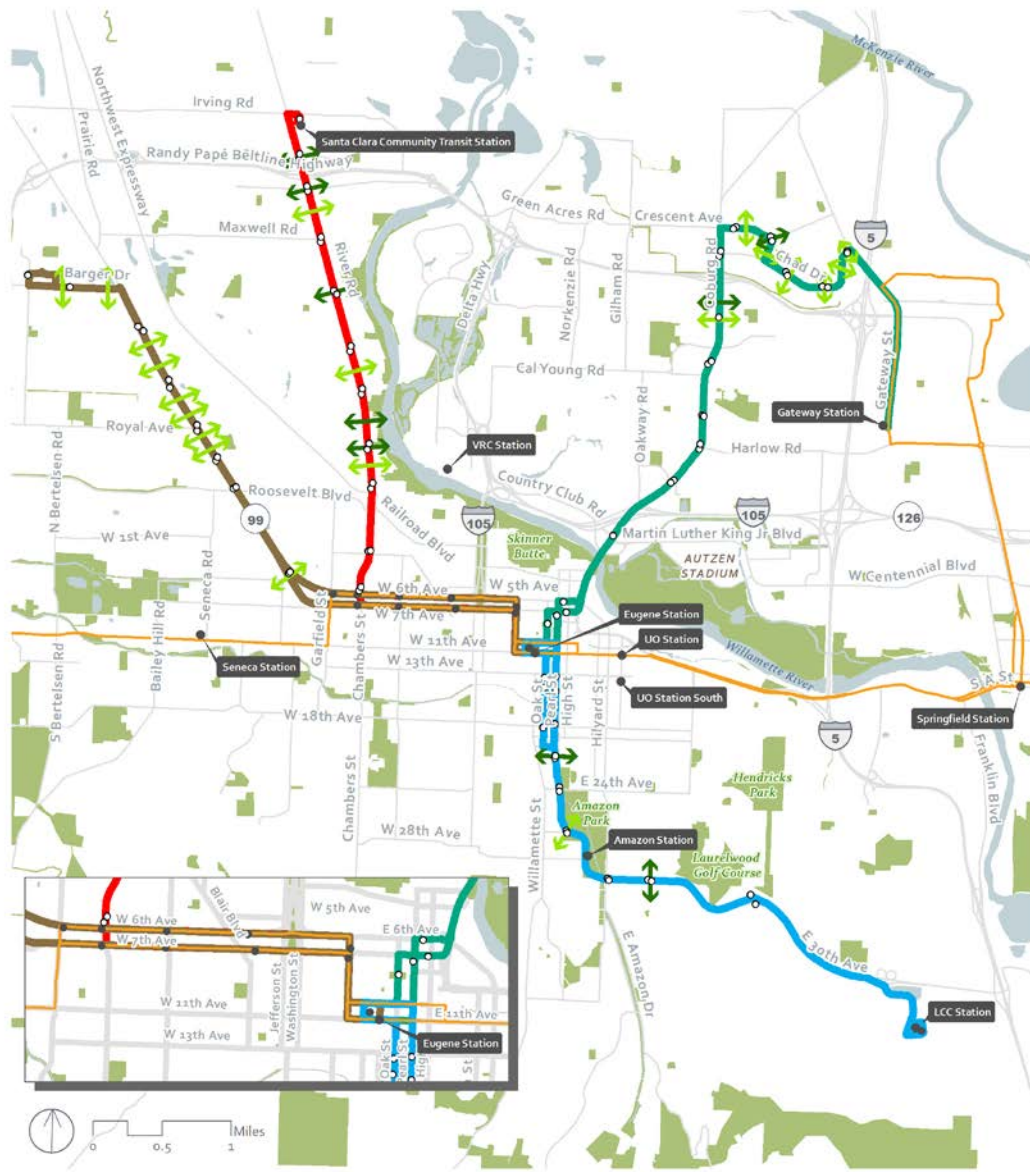
- The **No-Build Alternatives** serve as a reference point to gauge the benefits, costs, and effects of the Enhanced Corridor and EmX Alternatives in each corridor. Each No-Build Alternative is based on the projected conditions in 2035. Capital projects are derived from the financially constrained project lists in the Draft Eugene 2035 TSP, the *Lane County Transportation System Plan* (Lane County Public Works, Engineering Division Transportation Planning, 2004, update in progress), the *Lane Transit District Capital Improvement Plan* (LTD, 2015), and the *Lane Transit District Long-Range Transit Plan* (LTD, 2014b).
- **Enhanced Corridor Alternatives** are intended to address the project’s Purpose, Need, Goals, and Objectives without major transit capital investments, instead focusing on lower-cost capital improvements, operational improvements, and transit service refinements, including 15-minute service frequency. Features can include transit queue jumps (lanes for buses that allow the bus to “jump” ahead of other traffic at intersections using a separate signal phase), stop consolidation, and enhanced shelters. These features can improve reliability, reduce transit travel time, and increase passenger comfort, making transit service along the corridor more attractive.

**Figure S.1-1. Enhanced Corridor Alternatives Overview**





**Figure S.1-2. EmX Alternatives Corridor Overview**



**Locator Map**



**Legend**

- 30th Avenue to Lane Community College Corridor
  - Coburg Road Corridor
  - Highway 99 Corridor
  - River Road Corridor
  - Road
  - Park
  - Water
- Stop/Station Locations**
- Existing Without Improvements
  - Proposed or Existing with Improvements
  - ↔ New Pedestrian Crossing
  - ↔ Enhanced Existing Pedestrian Crossing
  - 2035 No-Build EmX

**EmX Alternatives Overview**

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- **EmX Alternatives** are characterized by sections of exclusive guideway, branded multi-door 60-foot-long bus rapid transit (BRT) vehicles, and enhanced stations with level boarding platforms instead of bus stops; off-board fare collection; transit signal priority; wider stop spacing; and 10-minute service frequencies. In general, EmX is a transit mode positioned between fixed-route bus service operating in mixed traffic and urban-rail service operating in a separate right of way. EmX service is intended to improve transit speed, reliability, and ridership.

Figure S.1-1 shows the proposed corridors for the Enhanced Corridor Alternatives and Figure S.1-2 shows the proposed corridors for the EmX Alternatives.

This technical report, prepared to support the MovingAhead Project Alternatives Analysis (AA), addresses potential adverse and beneficial effects that the project alternatives would have on land uses, including prime farmlands. The potential effects include changes in allowable uses of parcels in the present and in the foreseeable future. This report also addresses applicable land use laws, regulations, policies, and plans, and the methods used for the investigations.

This report was prepared in compliance with the National Environmental Policy Act (NEPA) and applicable state environmental policy legislation, as well as local and state planning and land use policies and design standards.

## S.1. Affected Environment

### S.1.1. Regional Context

The MovingAhead Project's five corridors are primarily located within the City of Eugene, with a portion of the River Road and 30th Avenue to LCC Corridors and the River Road Corridor located within unincorporated Lane County, and a portion of the Coburg Road Corridor located in the City of Springfield.

Beginning in 2010 with a robust community visioning effort, Eugene embarked on a 5-year planning and strategy refinement process to adopt a unique comprehensive plan, Draft Envision Eugene, to support the community's vision and local planning goals consistent with statewide regulations. Eugene is anticipated to grow by 34,000 people and 37,000 jobs by 2032 (Envision Eugene, 2016). The City will need approximately 960 acres of land to accommodate this projected population and employment growth.

Draft Envision Eugene outlines a path forward to meet current and future needs under one unified community vision. This vision consists of seven pillars that reflect Eugene's community values. These pillars are economic opportunities, affordable housing, climate change/energy resiliency, compact urban development and efficient transportation options, neighborhood livability, natural resources, and adaptable/flexible/collaborative implementation. The City identified investment in public transportation along Key Transit Corridors as an opportunity to assist in achieving its vision.

The City will adopt the Envision Eugene plan and its community vision in four phases to implement local goals and policies. The first phase, which will expand the City's Urban Growth Boundary (UGB) in the Santa Clara community and Clear Lake area, includes nearly 1,000 acres of land for new employment opportunities, district schools, and community parks. The UGB expansion will also include adopted overlay zones to support public health, stormwater quality, and wetland preservation. Once adopted, Envision Eugene will replace the *Eugene-Springfield Metropolitan General Area Plan* (Lane Council of Governments [LCOG] et al., 2015, December 31; Metro Plan) as the City's local comprehensive plan.



### S.1.2. Existing Land Use

Land uses in Eugene generally align with the existing comprehensive land use and zoning designations. Existing uses typically do not realize the full potential of development densities, building heights, and mass that local zoning and development codes allow.

The area that encompasses the MovingAhead Project corridors begin in the Central Business District at Eugene Station. downtown Eugene is characterized by dense commercial development supportive of vibrant economic activities and uses. The outer area of the Central Business District transitions to dense residential development. Existing land use for each of the five MovingAhead corridors is described as follows:

- **Highway 99 Corridor.** Near downtown Eugene, the Highway 99 Corridor is characterized by high-density residential areas. Farther north and west, land use transitions to industrial and commercial uses west of Garfield Street along Highway 99, and then to areas of commercial and multi-family residential along Barger Drive.
- **River Road Corridor.** Land use on the River Road Corridor, outside of downtown Eugene and north of the Northwest Expressway, consists primarily of commercial, single-family residential, and service uses, interspersed with apartments and townhomes.
- **30th Avenue to LCC Corridor.** South of downtown Eugene along the 30th Avenue to LCC Corridor, existing land uses consist primarily of small-scale offices, retail, and apartments, which transition south of W. 18th Avenue to single-family homes, parklands, athletic fields, vacant lands, and woodlands.
- **Coburg Road Corridor.** Along the Coburg Road Corridor, outside of downtown Eugene on the north side of the Ferry Street Bridge near the I-105 intersection, existing land uses are primarily mid-rise office buildings and automobile dealerships. North of the I-105 intersection, common land uses on the Coburg Road Corridor include commercial retail, parking areas, office buildings, single-family residences, and areas of vacant land.
- **Martin Luther King, Jr. Boulevard Corridor.** As the Martin Luther King, Jr. Boulevard Corridor crosses the Ferry Street Bridge exiting downtown Eugene, it passes a mixture of auto dealerships and hotels south of I-105. As the corridor travels east past Leo Harris Parkway, it passes Autzen Stadium and other University of Oregon sports fields along the south side of Martin Luther King, Jr. Boulevard. Government buildings (such as the Lane County District Court) and the National Alliance mental health clinic are on the north side of the boulevard. The eastern segment of the corridor consists primarily of multi-family apartment buildings and some single-family residences.

Existing land uses in Eugene generally match the current Metro Plan land use designations. Existing uses typically do not realize the full potential of densities, height, and building mass that comprehensive plans or zoning allow.

### S.1.3. Zoning

Zoning in all MovingAhead Project corridors generally falls within City of Eugene and Lane County zoning classifications. Lane County classifications generally consist of areas zoned for agricultural and forest uses. The following zoning classifications are located within the APIs of the MovingAhead corridors:

- Industrial (I-2 and I-3)
- Commercial (C-3)
- Mixed-Use (C-1, C-2, GO, S-C, S-CN, S-DR, S-DW, S-E, S-F, S-HB, S-JW, S-RN, S-W, and S-WS)
- Single-Family Residential (R-1)

- Multi-Family Residential (R-2 and R-3)
- Institution (PL and PRO)
- Agricultural/Forest/Natural Resource (AG, EFU-25, EFU-30, EFU-40, F-1, F-2, and NR)
- Office (E-1 and E-2)
- Special Area Zone (Non-Mixed Use) (S-H and S-RP)

#### **S.1.4. Prime Farm, Agricultural, and Forest Lands**

Portions of the Highway 99 Corridor northwest of the northern corridor terminus, the Coburg Road Corridor east of N. Game Farm Road, and the 30th Avenue to LCC Corridor east of Spring Boulevard contain lands subject to the Farmland Protection Policy Act, 7 United States Code (U.S.C.) 4201-4209 and 7 Code of Federal Regulations (CFR) 658 (FPPA) and/or lands protected under Oregon Statewide Planning Goals 3 (Agricultural Lands) and 4 (Forest Lands). The majority of the area surrounding the MovingAhead Project corridors consists of lands located within the UGB or urbanized areas that do not include any prime farmland and other agricultural or forest resources that state land use laws protect.

#### **S.1.5. Protected Lands**

Refer to separate MovingAhead Project technical documents such as the Cultural Resources Technical Report (Heritage Research Associates and CH2M, 2017); Ecosystems Technical Report (Environmental Associates, Inc., 2017); Parklands, Recreation, and Section 6(f) Resources Technical Report (CH2M, 2017c); and Section 4(f) Resources Technical Report (CH2M, 2017d) for more information on lands protected under federal laws and regulations. The City of Eugene has also identified and zoned resources of local significance for protection. Local zoning designations and overlays considered “protective” of certain lands are present in the corridors and include one or more of the following depending on the corridor alternative: Natural Resources; Park, Recreation, and Open Space; Historic; Waterside Protection Overlay; Water Resources Conservation Overlay; Wetland Buffer Overlay; the Willamette River Greenway Overlay; and Agricultural and Forest lands located outside of UGBs.

#### **S.1.6. Transit-Oriented Development Areas**

Policies adopted by the City of Eugene, the Central Lane Metropolitan Planning Organization (MPO), and the State of Oregon support the concept of nodal development (also called mixed-use centers and transit-oriented development [TOD]). TOD is a form of community development that includes a mixture of housing, office, retail, and/or other amenities integrated into a walkable neighborhood and located in close proximity to quality public transportation (Reconnecting America, 2016). Nodal development is defined in the City of Eugene Code as a mixed-use pedestrian-friendly land use pattern that seeks to increase concentrations of population and employment in well-defined areas with good transit service, a mix of diverse and compatible land uses, and public and private improvements designed to be pedestrian- and transit-oriented. Key Transit Corridors, as identified in Draft Envision Eugene, would provide frequent transit service to core commercial areas that are intended to accommodate large-scale retail development and TOD where zoning would allow.

The City uses the term “nodal development” synonymously with the term TOD. These terms serve the same intent by identifying development related to public transit service that support mixed-use centers. The term TOD is used throughout this Technical Report to refer to nodal development and mixed-use centers.

## S.2. Environmental Consequences

Direct land use impacts would occur where the project would convert land from its existing and designated use to a transportation-related use. Although these impacts would occur prior to construction, given the long-term impact, these are considered operational impacts. Overall, direct impacts are limited for all MovingAhead build alternatives, because the proposed improvements in each corridor are located primarily within existing transportation ROWs. For each corridor and alternative, Table S.2-1 provides information on the acres of designated zoned land that potentially would be converted to a transportation-related use. Overall, the total area converted is minor compared to the total land available in the City of Eugene. The project would not result in any direct impacts to prime farmlands, or agricultural or forest uses subject to Oregon Statewide Planning Goals 3 (Agricultural Lands) or 4 (Forest Lands).

Operation of the project also has the potential to contribute to beneficial indirect impacts as a result of TOD. Greater areas of Mixed-Use and Multi-Family Residential zoning contribute to a greater likelihood that TOD would occur within a given corridor and alternative area of potential impact (API). Any new development or redevelopment would need to be consistent with existing zoning and to comply with any requirements associated with overlays.

The land use analysis API for the project is 300 feet from the centerline of affected street corridors, a 0.25-mile radius from fixed-route stops (for the Enhanced Corridor Alternatives), and a 0.5-mile radius from proposed EmX stations for the EmX Alternatives. The 300-foot API is where direct impacts would occur and the 0.25-mile API around existing and proposed fixed-route stops and the 0.5-mile API around proposed EmX stations are assessed for indirect and cumulative impacts to each respective corridor. The 0.25-mile API around proposed fixed-route stops and the 0.5-mile API around proposed EmX stations are based on the maximum reasonable distances bus and EmX customers are likely to walk to reach transit. These are the locations that MovingAhead build alternatives are most likely to affect the land use market and market conditions related to infill and redevelopment. For the Enhanced Corridor and EmX Alternatives, preliminary stop and station locations have been identified. However, stop and station locations could be altered during design refinement.

### S.2.1. No-Build Alternatives

The No-Build Alternatives would include existing roadway, bicycle, pedestrian, and transit facilities in each corridor, as well as planned multi-modal transportation corridor improvements identified in the Eugene TSP. The No-Build Alternatives would include construction of the West Eugene EmX, Santa Clara Community Transit Center, and other transportation improvements within the City of Springfield UGB. The No-Build Alternatives would have no additional major bus capital improvements.

The No-Build Alternatives would be inconsistent with many local, regional, and state land use and transportation policies because they would not institute an EmX transit system connecting the region's highest growth centers. In addition, the No-Build Alternatives would not be consistent with the Eugene TSP, the Metro Plan, *TransPlan*, *The Eugene-Springfield Transportation System Plan* (LCOG, 2002, September; *TransPlan*), and *Envision Eugene: A Community Vision for 2032* (Envision Eugene, 2012, March) – documents that encourage increased density and TOD along Key Transit Corridors.

**Table S.2-1. Potential Permanent Conversion of Land to Transportation-Related Use (Acres by Zoning Classification)**

Alternative	Commercial	Industrial	Office	Institution	Single-Family Residential	Multi-Family Residential	Agriculture/Forest/Natural Resources	Mixed-Use	Special Area Zone (Non-Mixed Use)	Total Acres (approx.) <sup>a</sup>	Total TOD Supportive Lands (approx.) <sup>b</sup>
<b>Highway 99 Corridor</b>											
EC	0	< 0.1	0	0.3	0.1	< 0.1	0	0.9	0	1.3	1.0
EmX	0	< 0.1	0	0.3	0.1	< 0.1	0	1.2	0	1.6	1.3
<b>River Road Corridor</b>											
EC	0	0	0	0	< 0.1	0	0	1.2	0	1.3	1.2
EmX	0	0	< 0.1	< 0.1	< 0.1	< 0.1	0	2.2	0	2.2	2.2
<b>30th Avenue to LCC Corridor</b>											
EC	0	0	0	0.4	0	< 0.1	0	< 0.1	0	0.4	0.2
EmX	0	0	0	0.5	< 0.1	< 0.1	0	0.1	0	0.6	0.2
<b>Coburg Road Corridor</b>											
EC	0	0	< 0.1	0	0.2	0.2	0	0.5	0	1.0	0.7
EmX	< 0.1	0	0.1	< 0.1	0.6	0.7	0	2.4	0	4.0	3.1
<b>Martin Luther King, Jr. Boulevard Corridor</b>											
EC	0	0	0	0	< 0.1	< 0.1	0	< 0.1	0	< 0.1	0.2

Note: Potential impacts are based on current conceptual designs. Design refinements could change the total amount converted and the zoning category.

EC = Enhanced Corridor Alternative; EmX = EmX Alternative

<sup>a</sup> Total may be greater or less than the sum of the parts due to rounding.

<sup>b</sup> Lands zoned Mixed-Use and Multi-Family Residential would likely be supported to a greater degree by transportation improvements proposed under the build alternatives and have been grouped together as "TOD Supportive Lands"

Beneficial indirect impacts associated with TOD would not likely occur within corridor APIs under the No-Build Alternatives because these alternatives would provide less transit investment than the Enhanced Corridor or EmX Alternatives. It is not anticipated that the No-Build Alternatives would have any cumulative land use impacts. Redevelopment of vacant and underutilized lands within corridor APIs could possibly occur.

### **S.2.2. Build Alternatives**

Key Transit Corridors served under each build alternative are described in each corridor's respective environmental consequences section. Key Transit Corridors identified for transit service are shown in Appendix F of the Eugene TSP.

#### **S.2.2.1. Enhanced Corridor Alternatives**

No direct impacts to prime farmland subject to the FPPA would occur under an Enhanced Corridor Alternative for any corridor.

Under the Enhanced Corridor Alternatives, partial acquisitions of multiple parcels would be required throughout all corridors to facilitate roadway widening and enhanced multimodal improvements.

Indirect impacts associated with TOD could occur within corridor APIs under the Enhanced Corridor Alternatives, but potentially not to the same degree or intensity as with the EmX Alternatives. Areas that local ordinances and zoning have identified as appropriate for TOD include downtown Eugene, which is proposed for transit enhancement under the Enhanced Corridor Alternatives for all corridors.

Generally, the Enhanced Corridor Alternatives for all corridors would be consistent with the goals and policies of the Metro Plan, *Regional Transportation Plan* (Central Lane MPO, 2011, December; RTP), TransPlan, Draft Envision Eugene, and the Eugene TSP. (These documents identify the need to improve multi-modal transportation in these corridors.) These alternatives would not be fully consistent with the RTP (Transportation System Improvement [TSI] Transit Policy #2) and the Metro Plan (Policy F.19) because the Enhanced Corridor Alternatives would not implement a BRT system. However, the Enhanced Corridor Alternatives would implement lower capital-cost transit improvements to MovingAhead Project corridors consistent with the intent of these goals and policies.

#### **S.2.2.2. EmX Alternatives**

No direct impacts to prime farmland subject to the FPPA would occur under an EmX Alternative for any corridor.

Under the EmX Alternatives for all corridors, more partial acquisitions of property would be required than under the Enhanced Corridor Alternatives. The presence of EmX and the increased volume of persons able to travel in all corridors proposed for EmX would support more development, decrease the need for automobile parking, and support a wider mix of uses.

Compared to the No-Build and Enhanced Corridor Alternatives, the EmX Alternatives would better support and foster accelerated rates of TOD implementation in places that local and regional land use planning documents have designated for mixed-use and multi-family residential development. Areas that local ordinances and zoning have identified as appropriate for TOD include downtown Eugene, which is proposed for transit enhancement under the EmX Alternatives for all corridors. Lands zoned Mixed-Use and Multi-Family Residential along the MovingAhead Project corridors would be more likely to develop or redevelop to their allowable development densities at a faster rate with the transportation improvements proposed under this alternative.

The EmX Alternatives would be consistent with existing local, regional, and state land use and transportation policies because they would institute an EmX transit system connecting the region's highest growth centers. The goals and policies of the Metro Plan, TransPlan, RTP, the Eugene TSP, and *Envision Eugene: A Community Vision for 2032* identify the need to implement improved multi-modal transportation in the MovingAhead Project corridors.

### **S.2.3. Highway 99 Corridor Environmental Consequences**

The Enhanced Corridor Alternative and EmX Alternative would both serve the Highway 99 Key Transit Corridor.

#### **S.2.3.1. Enhanced Corridor Alternative**

The Enhanced Corridor Alternative would also serve the W. 7th Avenue Key Transit Corridor.

#### **Direct Impacts**

This alternative would convert 1.3 acres of acquired property to a transportation use; most of this land is zoned Mixed-Use (0.9 acre). Zoning for the remaining areas to be acquired is presented in Table S.2-1.

#### **Indirect Impacts**

Indirect beneficial effects associated with potential for development of TOD under the Enhanced Corridor Alternative would be greater than under the No-Build Alternative, but lower than under the EmX Alternative due to less land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses under this alternative.

#### **S.2.3.2. EmX Alternative**

#### **Direct Impacts**

This alternative would convert 1.6 acres of acquired property to a transportation use; most of this land is zoned Mixed-Use (1.2 acres). Zoning for the remaining areas to be acquired is presented in Table S.2-1.

#### **Indirect Impacts**

Indirect beneficial effects associated with potential for development of TOD under the EmX Alternative would be greater than under the No-Build Alternative and the Enhanced Corridor Alternative due to a larger amount of, and potential for development of, land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses.

### **S.2.4. River Road Corridor Environmental Consequences**

The Enhanced Corridor Alternative and EmX Alternative would both serve the River Road Key Transit Corridor.

#### **S.2.4.1. Enhanced Corridor Alternative**

##### **Direct Impacts**

This alternative would convert 1.3 acre of acquired property to a transportation use; nearly all of this land is zoned Mixed-Use (1.2 acre). Zoning for the remaining areas to be acquired is presented in Table S.2-1.

##### **Indirect Impacts**

Indirect beneficial effects associated with potential for development of TOD under the Enhanced Corridor Alternative would be greater than under the No-Build Alternative, but lower than under the EmX Alternative due to less land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses under this alternative.

#### **S.2.4.2. EmX Alternative**

##### **Direct Impacts**

This alternative would convert 2.2 acre of acquired property to a transportation use; nearly all of this land is zoned Mixed-Use. Zoning for the remaining areas to be acquired is presented in Table S.2-1.

##### **Indirect Impacts**

Indirect beneficial effects associated with potential for development of TOD under the EmX Alternative would be greater than under the No-Build Alternative and the Enhanced Corridor Alternative due to a larger amount of, and potential for development of, land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses. In addition, the EmX Alternative would serve the Downtown Westside Special Area Zone (S-DW), which promotes high-density residential development and the redevelopment of existing residential with provisions for small commercial uses. This alternative would also serve the Chambers Special Area Zone (S-C), which promotes a general increase of dense residential and commercial developments.

#### **S.2.5. 30th Avenue to Lane Community College Corridor Environmental Consequences**

The Enhanced Corridor Alternative and EmX Alternative would both serve the Amazon Parkway/Willamette Street Key Transit Corridor.

#### **S.2.5.1. Enhanced Corridor Alternative**

##### **Direct Impacts**

This alternative would convert 0.4 acre of acquired property to a transportation use; most of this land is zoned Institution (0.4 acre). Zoning for the remaining areas to be acquired is presented in Table S.2-1.

##### **Indirect Impacts**

Indirect beneficial effects associated with potential for development of TOD under the Enhanced Corridor Alternative would be greater than under the No-Build Alternative, but lower than under the EmX Alternative due to less land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses under this alternative.

### **S.2.5.2. EmX Alternative**

#### **Direct Impacts**

This alternative would convert 0.6 acre of acquired property to a transportation use, most of which is zoned Institution (0.5 acre). Zoning for the remaining areas to be acquired is presented in Table S.2-1.

#### **Indirect Impacts**

Indirect beneficial effects associated with potential for development of TOD under the EmX Alternative would be greater than under the No-Build Alternative and the Enhanced Corridor Alternative due to a larger amount of, and potential for development of, land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses.

### **S.2.6. Coburg Road Corridor Environmental Consequences**

The Enhanced Corridor Alternative and EmX Alternative would both serve the Coburg Road Key Transit Corridor.

#### **S.2.6.1. Enhanced Corridor Alternative**

##### **Direct Impacts**

This alternative would convert 1.0 acre of acquired property to a transportation use, half of which is zoned Mixed-Use (0.5 acre). Zoning for the remaining areas to be acquired is presented in Table S.2-1.

##### **Indirect Impacts**

Indirect beneficial effects associated with potential for development of TOD under the Enhanced Corridor Alternative would be greater than under the No-Build Alternative, but lower than under the EmX Alternative due to less land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses under this alternative.

#### **S.2.6.2. EmX Alternative**

##### **Direct Impacts**

This alternative would convert 4.0 acres of acquired property to a transportation use; 2.4 acres of this land is zoned Mixed-Use. Zoning for the remaining areas to be acquired is presented in Table S.2-1.

##### **Indirect Impacts**

Indirect beneficial effects associated with potential for development of TOD under the EmX Alternative would be greater than under the No-Build Alternative and the Enhanced Corridor Alternative due to a larger amount of, and potential for development of, land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses.

### **S.2.7. Martin Luther King, Jr. Boulevard Corridor Environmental Consequences**

The Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative would serve a segment of the Coburg Road Key Transit Corridor.



### **S.2.7.1. Enhanced Corridor Alternative**

#### **Direct Impacts**

The Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative would convert less than 0.1 acre of acquired property from areas zoned Mixed-Use, Single-Family Residential, and Multi-Family Residential (Table S.2-1).

#### **Indirect Impacts**

Indirect beneficial effects associated with potential for development of TOD under the Enhanced Corridor Alternative would be greater than under the No-Build Alternative due to higher potential for development of land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses under this alternative.

## **S.3. Short-Term Construction-Related Impacts**

### **S.3.1. Common to Most or All Alternatives**

Planned and proposed projects under all alternatives would require construction activities resulting in temporary noise, dust, vibration, and interference with access to properties located along the corridors. Construction activities would not likely cause a permanent change to the existing or future use of the land as a result of existing businesses leaving and the land use becoming vacant because construction would be short-term in nature and the project would include measures to maintain access and reduce construction-related impacts. The construction sequencing will be determined through coordination between the contractor and local residents, businesses, and property owners regarding construction scheduling preferences. It is expected that for each major segment the work would start at one end of the segment and progress to the other end of the segment. Construction is expected to be completed in two construction seasons.

Construction of the build alternatives might require temporary construction easements beyond the property acquisition needed to construct the alternatives, which could result in additional impacts on properties located along the corridors. These easements are temporary and the areas affected would be returned to preconstruction conditions upon completion. Additional information about compensation for any temporary easements is addressed in the *Acquisitions and Displacements Technical Report*.

### **S.3.2. No-Build Alternatives**

Under the No-Build Alternatives, corridors that projects outlined in the *Metropolitan Transportation Improvement Program Federal FY 2015 to Federal FY 2018* (Central Lane MPO, adopted 2014, October, as amended; MTIP) could potentially affect MovingAhead Project corridors. Projects outlined in the MTIP would cause short-term construction-related impacts that could include temporary noise, dust, vibration, and interference with access to properties located along the corridors. It is not likely that those construction activities along affected corridors would cause a permanent change to the existing or future use of the land as a result of existing businesses leaving and the land becoming vacant. Such construction would be short-term and each planned project would include measures to maintain access and reduce construction-related impacts.

### S.3.3. Enhanced Corridor Alternatives

The Enhanced Corridor Alternatives would have greater construction-related impacts than the No-Build Alternatives for all corridors. Dedicated transit lanes and infrastructure improvements systemwide would require greater acquisitions of right-of-way for roadway widening. Therefore, they would have more impacts both inside and outside of the existing public ROW than the No-Build Alternatives.

### S.3.4. EmX Alternatives

The EmX Alternatives would have greater construction-related impacts than the Enhanced Corridor and No-Build Alternatives for all corridors because dedicated transit lanes and EmX stations would require greater roadway widths. Therefore, they would have more impacts both inside and outside of the existing public ROW.

## S.4. Mitigation Options

Based on the evaluation of potential impacts described in this report, no specific mitigation measures related to land use or prime farmlands are required. The MovingAhead Project *Noise and Vibration Technical Report* (Michael Minor and Associates [MMA] and CH2M, 2017a), *Air Quality Technical Report* (MMA and CH2M, 2017b), *Visual and Aesthetic Resources Technical Report* (CH2M, 2017g), and *Transportation Technical Report* (DKS Associates and CH2M, 2017) identify proposed mitigation measures that could be implemented to address potential construction impacts. Refer to the *Acquisitions and Displacements Technical Report* (CH2M, 2017h) for measures that would be implemented to address the acquisition of property needed to construct and operate the project.

## S.5. Conclusion Summary

Table S.5-1 summarizes land use and prime farmlands environmental consequences by corridor and alternative.

**Table S.5-1. Summary of Land Use and Prime Farmlands Environmental Consequences by Corridor and Alternative**

Corridor	No-Build Alternative	Enhanced Corridor Alternative	EmX Alternative
<b>Highway 99 Corridor</b>			
Temporary/Short-Term Construction-Related Impacts/Benefits	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Temporary increases in noise, dust, vibration, and temporary property access disturbance</li> </ul>	<ul style="list-style-type: none"> <li>Temporary increases in noise, dust, vibration, and temporary property access disturbance</li> </ul>
Long-Term Direct Impacts/Benefits	<ul style="list-style-type: none"> <li>Inconsistent with adopted goals and policies</li> <li>Transit would not serve all Key Transit Corridors in a manner consistent with local and regional planning policy</li> </ul>	<ul style="list-style-type: none"> <li>Generally consistent with most area plans and local land use regulations</li> <li>Beneficial effects include transit serving Key Transit Corridors in a manner consistent with local and regional planning policy</li> <li>Conversion of up to approximately 1.3 acres to a transportation-related use</li> <li>No prime farmlands impacts</li> </ul>	<ul style="list-style-type: none"> <li>Consistent with area plans and local land use regulations</li> <li>Beneficial effects include transit serving Key Transit Corridors in a manner consistent with local and regional planning policy</li> <li>Conversion of up to approximately 1.6 acres to a transportation-related use</li> <li>No prime farmlands impacts</li> </ul>
Indirect and Cumulative Effects	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>No negative cumulative effects are anticipated</li> <li>TOD could occur under this alternative, but potentially not to the same degree or intensity as with the EmX Alternative</li> <li>Transit-supportive lands in the corridor consist of land zoned Mixed-Use (561 acres) and Multi-Family Residential (177 acres) and vacant lands zoned Mixed-Use (19 acres) and Multi-Family Residential (6 acres)</li> </ul>	<ul style="list-style-type: none"> <li>Beneficial effects include transit supporting vacant land development</li> <li>The EmX Alternative would better support and foster accelerated rates of TOD implementation in places that local and regional land use planning documents have designated for Mixed-Use and Multi-Family Residential development than the No-Build Alternative or Enhanced Corridor Alternative</li> <li>Transit-supportive lands in the corridor consist of land zoned Mixed-Use (947 acres) and Multi-Family Residential (353 acres) and vacant lands zoned Mixed-Use (43 acres) and Multi-Family Residential (31 acres)</li> </ul>
Mitigation Measures	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>No measures specific to land use and prime farmlands</li> <li>Design modifications could minimize property acquisition and conversion of land uses to a transportation-related use</li> </ul>	<ul style="list-style-type: none"> <li>No measures specific to land use and prime farmlands</li> <li>Design alterations could minimize property acquisition and conversion of land uses to a transportation-related use</li> </ul>
Unavoidable Adverse Impacts	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>

**Table S.5-1. Summary of Land Use and Prime Farmlands Environmental Consequences by Corridor and Alternative**

Corridor	No-Build Alternative	Enhanced Corridor Alternative	EmX Alternative
<b>River Road Corridor</b>			
Temporary/Short-Term Construction-Related Impacts/Benefits	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Temporary increases in noise, dust, vibration, and temporary property access disturbance</li> </ul>	<ul style="list-style-type: none"> <li>Temporary increases in noise, dust, vibration, and temporary property access disturbance</li> </ul>
Long-Term Direct Impacts/Benefits	<ul style="list-style-type: none"> <li>Inconsistent with adopted goals and policies</li> <li>Transit would not serve all Key Transit Corridors in a manner consistent with local and regional planning policy</li> </ul>	<ul style="list-style-type: none"> <li>Generally consistent with most area plans and local land use regulations</li> <li>Beneficial effects include transit serving Key Transit Corridors in a manner consistent with local and regional planning policy</li> <li>Conversion of up to approximately 1.3 acre to a transportation-related use</li> <li>No prime farmlands impacts</li> </ul>	<ul style="list-style-type: none"> <li>Consistent with area plans and local land use regulations</li> <li>Beneficial effects include transit serving Key Transit Corridors in a manner consistent with local and regional planning policy</li> <li>Conversion of up to approximately 2.2 acre to a transportation-related use</li> <li>No prime farmlands impacts</li> </ul>
Indirect and Cumulative Effects	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>No negative cumulative effects are anticipated</li> <li>TOD could occur under this alternative, but potentially not to the same degree or intensity as with the EmX Alternative</li> <li>Transit-supportive lands in the corridor consist of land zoned Mixed-Use (421 acres) and Multi-Family Residential (167 acres) and vacant lands zoned Mixed-Use (37 acres) and Multi-Family Residential (8 acres)</li> </ul>	<ul style="list-style-type: none"> <li>Beneficial effects include transit supporting vacant land development</li> <li>The EmX Alternative would better support and foster accelerated rates of TOD implementation in places that local and regional land use planning documents have designated for Mixed-Use and Multi-Family Residential development than the No-Build Alternative or Enhanced Corridor Alternative</li> <li>Transit-supportive lands in the corridor consist of land zoned Mixed-Use (978 acres) and Multi-Family Residential (389 acres) and vacant lands zoned Mixed-Use (59 acres) and Multi-Family Residential (32 acres)</li> </ul>
Mitigation Measures	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>No measures specific to land use and prime farmlands</li> <li>Design modifications could minimize property acquisition and conversion of land uses to a transportation-related use</li> </ul>	<ul style="list-style-type: none"> <li>No measures specific to land use and prime farmlands</li> <li>Design alterations could minimize property acquisition and conversion of land uses to a transportation-related use</li> </ul>
Unavoidable Adverse Impacts	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>

**Table S.5-1. Summary of Land Use and Prime Farmlands Environmental Consequences by Corridor and Alternative**

Corridor	No-Build Alternative	Enhanced Corridor Alternative	EmX Alternative
<b>30th Ave to Lane Community College Corridor</b>			
Temporary/Short-Term Construction-Related Impacts/Benefits	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Temporary increases in noise, dust, vibration, and temporary property access disturbance</li> </ul>	<ul style="list-style-type: none"> <li>Temporary increases in noise, dust, vibration, and temporary property access disturbance</li> </ul>
Long-Term Direct Impacts/Benefits	<ul style="list-style-type: none"> <li>Inconsistent with adopted goals and policies</li> <li>Transit would not serve all Key Transit Corridors in a manner consistent with local and regional planning policy</li> </ul>	<ul style="list-style-type: none"> <li>Generally consistent with most area plans and local land use regulations</li> <li>Beneficial effects include transit serving Key Transit Corridors in a manner consistent with local and regional planning policy</li> <li>Conversion of up to approximately 0.4 acre to a transportation-related use</li> <li>No prime farmlands impacts</li> </ul>	<ul style="list-style-type: none"> <li>Consistent with area plans and local land use regulations</li> <li>Beneficial effects include transit serving Key Transit Corridors in a manner consistent with local and regional planning policy</li> <li>Conversion of up to approximately 0.6 acre to a transportation-related use</li> <li>No prime farmlands impacts</li> </ul>
Indirect and Cumulative Effects	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>No negative cumulative effects are anticipated</li> <li>TOD could occur under this alternative, but potentially not to the same degree or intensity as with the EmX Alternative</li> <li>Transit-supportive lands in the corridor consist of land zoned Mixed-Use (174 acres) and Multi-Family Residential (100 acres) and vacant lands zoned Mixed-Use (3 acres) and Multi-Family Residential (1 acre)</li> </ul>	<ul style="list-style-type: none"> <li>Beneficial effects include transit supporting vacant land development</li> <li>The EmX Alternative would better support and foster accelerated rates of TOD implementation in places that local and regional land use planning documents have designated for Mixed-Use and Multi-Family Residential development than the No-Build Alternative or Enhanced Corridor Alternative</li> <li>Transit-supportive lands in the corridor consist of land zoned Mixed-Use (367 acres) and Multi-Family Residential (268 acres) and vacant lands zoned Mixed-Use (12 acres) and Multi-Family Residential (4 acres)</li> </ul>
Mitigation Measures	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>No measures specific to land use and prime farmlands</li> <li>Design modifications could minimize property acquisition and conversion of land uses to a transportation-related use</li> </ul>	<ul style="list-style-type: none"> <li>No measures specific to land use and prime farmlands</li> <li>Design alterations could minimize property acquisition and conversion of land uses to a transportation-related use</li> </ul>
Unavoidable Adverse Impacts	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>

**Table S.5-1. Summary of Land Use and Prime Farmlands Environmental Consequences by Corridor and Alternative**

Corridor	No-Build Alternative	Enhanced Corridor Alternative	EmX Alternative
<b>Coburg Road Corridor</b>			
Temporary/Short-Term Construction-Related Impacts/Benefits	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Temporary increases in noise, dust, vibration, and temporary property access disturbance</li> </ul>	<ul style="list-style-type: none"> <li>Temporary increases in noise, dust, vibration, and temporary property access disturbance</li> </ul>
Long-Term Direct Impacts/Benefits	<ul style="list-style-type: none"> <li>Inconsistent with adopted goals and policies</li> <li>Transit would not serve all Key Transit Corridors in a manner consistent with local and regional planning policy</li> </ul>	<ul style="list-style-type: none"> <li>Generally consistent with most area plans and local land use regulations</li> <li>Beneficial effects include transit serving Key Transit Corridors in a manner consistent with local and regional planning policy</li> <li>Conversion of up to approximately 1.0 acre to a transportation-related use</li> <li>No prime farmlands impacts</li> </ul>	<ul style="list-style-type: none"> <li>Consistent with area plans and local land use regulations</li> <li>Beneficial effects include transit serving Key Transit Corridors in a manner consistent with local and regional planning policy</li> <li>Conversion of up to approximately 4.0 acres to a transportation-related use</li> <li>No prime farmlands impacts</li> </ul>
Indirect and Cumulative Effects	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>No negative cumulative effects are anticipated</li> <li>TOD could occur under this alternative, but potentially not to the same degree or intensity as with the EmX Alternative</li> <li>Transit-supportive lands in the corridor consist of land zoned Mixed-Use (395 acres) and Multi-Family Residential (138 acres) and vacant lands zoned Mixed-Use (23 acres) and Multi-Family Residential (28 acres)</li> </ul>	<ul style="list-style-type: none"> <li>Beneficial effects include transit supporting vacant land development</li> <li>The EmX Alternative would better support and foster accelerated rates of TOD implementation in places that local and regional land use planning documents have designated for Mixed-Use and Multi-Family Residential development than the No-Build Alternative or Enhanced Corridor Alternative</li> <li>Transit-supportive lands in the corridor consist of land zoned Mixed-Use (627 acres) and Multi-Family Residential (320 acres) and vacant lands zoned Mixed-Use (32 acres) and Multi-Family Residential (48 acres)</li> </ul>
Mitigation Measures	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>No measures specific to land use and prime farmlands</li> <li>Design modifications could minimize property acquisition and conversion of land uses to a transportation-related use</li> </ul>	<ul style="list-style-type: none"> <li>No measures specific to land use and prime farmlands</li> <li>Design alterations could minimize property acquisition and conversion of land uses to a transportation-related use</li> </ul>
Unavoidable Adverse Impacts	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>

**Table S.5-1. Summary of Land Use and Prime Farmlands Environmental Consequences by Corridor and Alternative**

Corridor	No-Build Alternative	Enhanced Corridor Alternative	EmX Alternative
<b>Martin Luther King, Jr. Boulevard Corridor</b>			
Temporary/Short-Term Construction-Related Impacts/Benefits	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Temporary increases in noise, dust, vibration, and temporary property access disturbance</li> </ul>	
Long-Term Direct Impacts/Benefits	<ul style="list-style-type: none"> <li>Inconsistent with adopted goals and policies</li> <li>Transit would not serve all Key Transit Corridors in a manner consistent with local and regional planning policy</li> </ul>	<ul style="list-style-type: none"> <li>Generally consistent with most area plans and local land use regulations</li> <li>Beneficial effects include transit serving Key Transit Corridors in a manner consistent with local and regional planning policy</li> <li>Conversion of up to approximately less than 0.1 acre to a transportation-related use</li> <li>No prime farmlands impacts</li> </ul>	
Indirect and Cumulative Effects	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>No negative cumulative effects are anticipated</li> <li>TOD could occur under this alternative, but potentially not to the same degree or intensity as with the EmX Alternative</li> <li>Transit-supportive lands in the corridor consist of land zoned Mixed-Use (259 acres) and Multi-Family Residential (118 acres) and vacant lands zoned Mixed-Use (14 acres) and Multi-Family Residential (12 acres)</li> </ul>	Not applicable
Mitigation Measures	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>No measures specific to land use and prime farmlands</li> <li>Design modifications could minimize property acquisition and conversion of land uses to a transportation-related use</li> </ul>	
Unavoidable Adverse Impacts	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	

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# 1. Introduction

## 1.1. MovingAhead Technical Reports

A total of 20 technical reports have been prepared for the MovingAhead Project. The technical reports have been prepared to support the selection of preferred alternatives for the MovingAhead Project and subsequent environmental documentation. The technical reports assume that any corridors advanced for environmental review will require a documented categorical exclusion under the National Environmental Policy Act (NEPA). Any corridors requiring a higher level of environmental review would be supported by the technical evaluation but might not be fully covered by the technical evaluation.

Technical reports have been prepared for the following disciplines:

- Acquisitions and Displacements
- Air Quality
- Capital Cost Estimating
- Community Involvement, Agency and Tribal Coordination
- Community, Neighborhood, and Environmental Justice
- Cultural Resources
- Ecosystems (Biological, Fish Ecology, Threatened and Endangered Species, Wetlands and Waters of the U.S. and State)
- Energy and Sustainability
- Geology and Seismic
- Hazardous Materials
- Land Use and Prime Farmlands
- Noise and Vibration
- Operating and Maintenance Costs
- Parklands, Recreation Areas, and Section 6(f)
- Section 4(f)
- Street and Landscape Trees
- Transportation
- Utilities
- Visual and Aesthetic Resources
- Water Quality, Floodplain, and Hydrology

In general, each technical report includes the following information for identifying effects:

- Relevant laws and regulations
- Contacts and coordination
- Summary of data sources and analysis methods described in the *MovingAhead Environmental Disciplines Methods and Data Report* (CH2M HILL, Inc. [CH2M] et al., 2015)
- Affected environment
- Adverse and beneficial effects including short-term, direct, indirect and cumulative
- Mitigation measures
- Permits and approvals
- References

## 1.2. Land Use and Prime Farmlands Technical Report and Purpose

This technical report presents the results of the land use and prime farmlands impact assessment for the MovingAhead corridor alternatives. Potential impacts to land use and prime farmlands resulting from civil construction within corridor areas of potential impact (APIs) are assessed in this technical report. The purpose of the report is to acknowledge direct, short-term construction-related, indirect, and cumulative impacts, and the potential mitigation measures for these impacts. Zoning has been categorized and generalized in this report to demonstrate potential opportunities for transit-oriented development (TOD) resulting from transit investment along affected street corridors.

## 1.3. Discipline Experts

Table 1.3-1 identifies those discipline experts who contributed to the preparation of this report, including their area of expertise, affiliated organization, title, and years of experience.

**Table 1.3-1. Discipline Experts**

Discipline	Technical Expert	Affiliated Organization	Title/Years of Experience
Land Use and Prime Farmlands	Scott Bucklin	CH2M	Transportation Planner/3 years
Editors	Ryan Farncomb	CH2M	Senior Transportation Planner/7 years
	Lynda Wannamaker	Wannamaker Consulting	President/33 years
	Rob Rodland	CH2M	Project Manager/20 years
	Scott Richman	CH2M	Senior Project Manager/24 years
	Sasha Luftig	LTD	Development Project Manager/9 years
	Zach Galloway	City of Eugene	Senior Planner/10 years

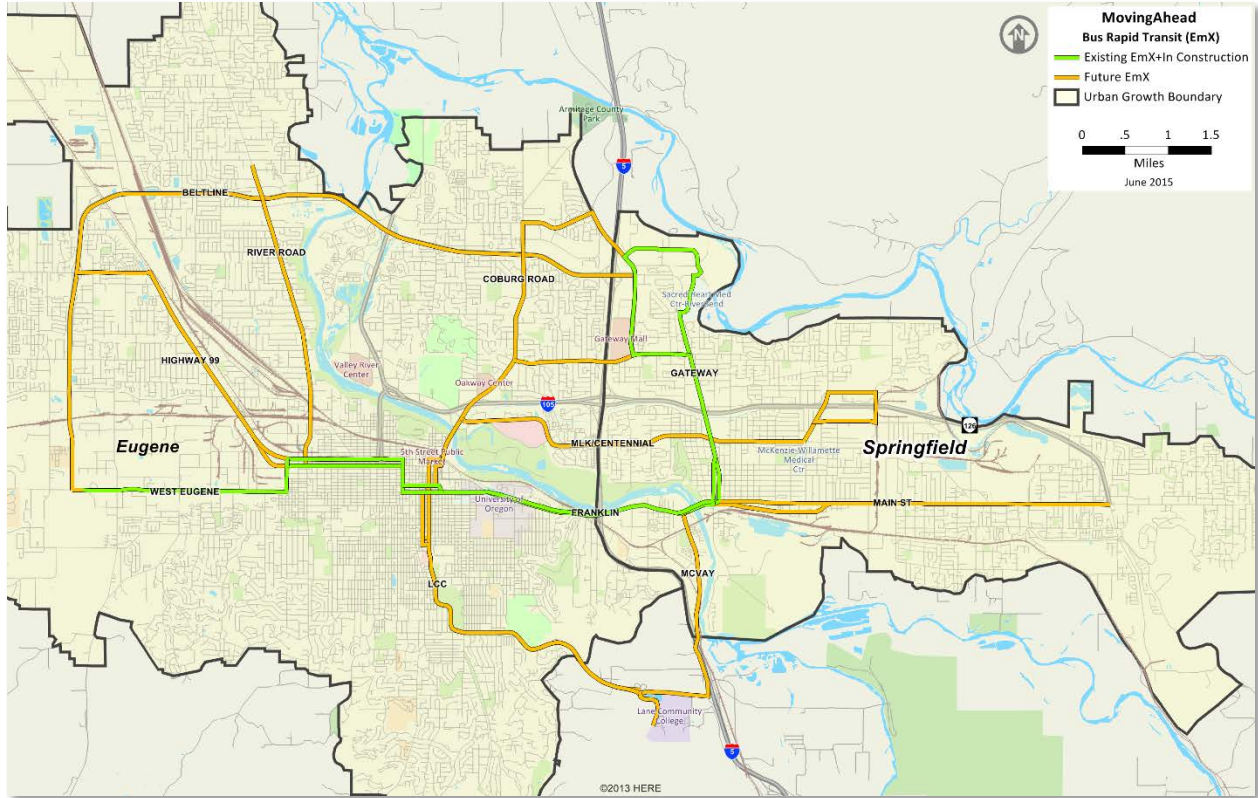
Source: MovingAhead Project Team. (2017).

## 1.4. Study Background

The purpose of the MovingAhead Project is to determine which high-capacity transit corridors identified in the adopted *Central Lane Metropolitan Planning Organization Regional Transportation Plan* (Lane Council of Governments [LCOG], 2011, December; RTP) and the *Lane Transit District Long Range Transit Plan* (Lane Transit District [LTD], 2014) as part of the Frequent Transit Network (FTN) are ready to advance to capital improvements programming in the near term. The study is being conducted jointly with the City of Eugene and LTD to facilitate a streamlined and cost-efficient process through concurrent planning, environmental review, and design and construction of multiple corridors. The study area includes Eugene and portions of unincorporated Lane County.

The *Lane Transit District Long-Range Transit Plan* (LTD, 2014) identifies the full Martin Luther King, Jr. Boulevard/Centennial Boulevard Corridor as a future part of the FTN. Initially, MovingAhead considered options on Centennial Boulevard to serve Springfield as part of this corridor. Because Springfield does not have the resources available to consider transit enhancements on Centennial Boulevard at this time, MovingAhead will only develop Emerald Express (EmX) and Enhanced Corridor Alternatives within Eugene. Figure 1.4-1 presents LTD's existing and future bus rapid transit (BRT) system.

**Figure 1.4-1. Lane Transit District's Bus Rapid Transit (BRT) System**



Source: LTD. (2015, Amended 2015, June).

## 1.5. Screening and Evaluation of Multimodal Options

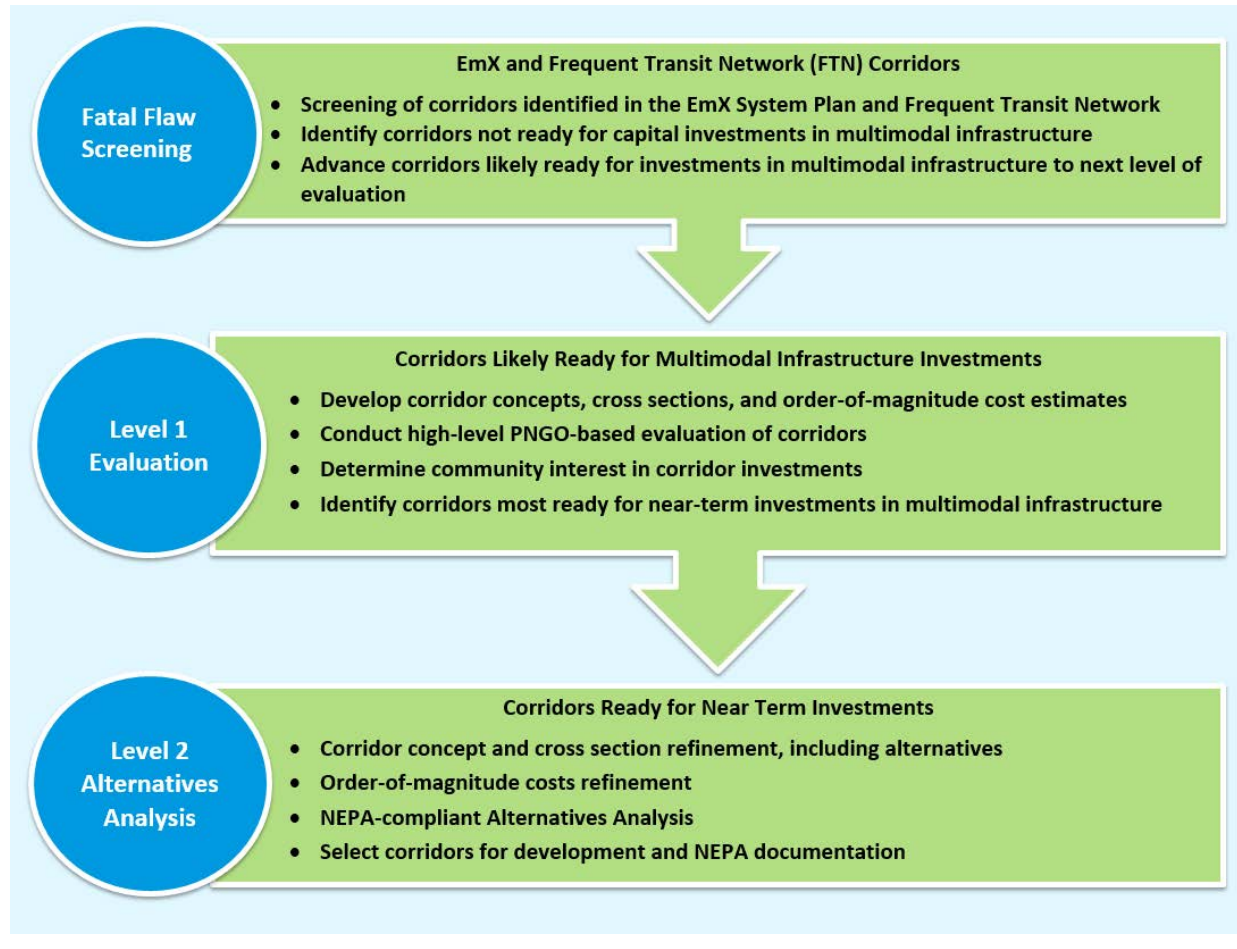
The MovingAhead Project process includes two phases. This first phase has three discrete but closely related tasks: identifying transit improvements; identifying improvements for bicyclists, pedestrians, and users of mobility devices; and preparing a NEPA-compliant evaluation of alternatives focused on the region's transportation system. Corridor options identified as part of the first phase were developed using multimodal cross sections that include variations on automobile, truck, and bus travel lanes; bicycle lanes; landscaping strips; and sidewalks. At the end of the first phase, the City of Eugene and LTD will select the corridors that are most ready for near-term capital improvements and prioritize improvements for funding. The selected corridors will be advanced to the second phase, which will focus on preparing NEPA environmental reviews (Documented Categorical Exclusions), and initiating the Federal Transit Administration (FTA) project development process.

### 1.5.1. Fatal Flaw Screening

The project team conducted a fatal flaw screening in February 2015 to identify which of the 10 corridors should not move forward to the Level 1 Screening Evaluation (Figure 1.5-1). This high-level evaluation used criteria based on MovingAhead's Purpose, Need, Goals, and Objectives (LTD, 2015, Amended 2015, June) and existing data to determine which corridors were not ready for capital investment in BRT or multimodal infrastructure in the next 10 years. The screening was conducted with local, regional, and state agency staff. Of the 10 corridors identified, the following three corridors were not advanced from

the fatal flaw screening to the Level 1 Screening Evaluation: 18th Avenue, Bob Straub Parkway, and Randy Papé Beltline Highway. Table 1.5-1 shows the results of the fatal flaw screening.

**Figure 1.5-1. MovingAhead Phase 1 Steps**



Source: Wannamaker Consulting. (2015).

Although originally advanced from the fatal flaw screening, the Main Street-McVay Highway Corridor was also not advanced to the Level 1 Screening Evaluation because the Springfield City Council (on May 18, 2015) and LTD Board (on May 20, 2015) determined that the corridor is ready to advance to a study to select a locally preferred transit solution. At the time (May 2015), the Main Street-McVay Highway Corridor was on a schedule ahead of the MovingAhead Project schedule. If the Main Street-McVay Highway Corridor study schedule is delayed and its progress coincides with this project, the corridor could be reincorporated back into MovingAhead.

**Table 1.5-1. Results of the Fatal Flaw Screening**

<b>Corridor</b>	<b>Advanced to Level 1</b>	<b>Consider Later</b>
Highway 99	✓	
River Road	✓	
Randy Papé Beltline		✓
18th Avenue		✓
Coburg Road	✓	
Martin Luther King Jr. Boulevard/Centennial Boulevard	✓	
30th Avenue to Lane Community College	✓	
Main Street-McVay Highway	✓	
Valley River Center	✓	
Bob Straub Parkway		✓

Source: LTD and City of Eugene. (2015).

The six remaining multimodal corridors were advanced to the Level 1 Screening Evaluation to determine how they compared with each other in meeting the Purpose, Need, Goals, and Objectives.

### 1.5.2. Level 1 Screening Evaluation

The Level 1 Screening Evaluation assessed how each corridor would perform according to the Purpose, Need, Goals, and Objectives of MovingAhead. The Level 1 Screening Evaluation used existing studies and readily available data to evaluate each corridor. Based on community input and technical analysis, the following corridors and alternatives were advanced from the Level 1 Screening Evaluation to the Level 2 Alternatives Analysis (AA) (Table 1.5-2):

- No-Build Alternatives: all corridors
- Enhanced Corridor and EmX Alternatives:
  - Highway 99 Corridor
  - River Road Corridor
  - 30th Avenue to Lane Community College (LCC) Corridor
  - Coburg Road Corridor
- Enhanced Corridor Alternative:
  - Martin Luther King Jr. Boulevard Corridor

The Valley River Center Corridor received the least public support during public outreach and was not carried forward to the Level 2 AA.



**Table 1.5-2. Corridors and Transit Alternatives Advanced to the Level 2 Alternatives Analysis**

Corridor	No-Build	Enhanced Corridor	EmX
Highway 99	✓	✓	✓
River Road	✓	✓	✓
30th Avenue to Lane Community College	✓	✓	✓
Coburg Road	✓	✓	✓
Martin Luther King, Jr. Boulevard	✓	✓	

Source: CH2M. (2016).

For a detailed discussion of alternatives and design options considered for each corridor, but not carried forward to the Level 2 AA, please refer to the *Alternatives and Design Options Considered but Eliminated Technical Memorandum* (CH2M, 2016).

### 1.5.3. Level 2 Alternatives Analysis

To guide the Level 2 AA, LTD prepared new ridership forecasts and related evaluation measures using the LCOG regional model. Base-year and future-year forecasts were prepared for corridor alternatives based upon updated inputs and transit networks specific to each corridor. The planning horizon year used for the Level 2 AA is 2035. The built and natural environments, transit operations, traffic, finance, historical resources, and other areas were also evaluated as part of the Level 2 AA. The findings from the Level 2 AA will aid LTD and the City of Eugene in determining how corridors should be prioritized for capital investments over the next 5 years. Selected corridors will be advanced to Phase 2.

## 1.6. Purpose and Need

The prioritization of capital investments in multimodal transit corridors is a powerful tool for implementing local and regional comprehensive land use and transportation plans, agency strategic plans, and other community planning documents. Capital investments in multimodal transit corridors can have a substantial impact on patterns of growth and development. By coordinating the timing of, and prioritizing the funding for, strategic multimodal capital investments, the MovingAhead Project (a multimodal transit corridor study) helps ensure that future development is consistent with our region's plans and vision.

The Purpose and Need Statement was refined based on public and agency input.

### 1.6.1. Purpose

The purpose of the MovingAhead Project is to:

- Develop a Capital Improvements Program that forecasts and matches projected revenues and capital needs over a 10-year period
  - Balance desired multimodal transit corridor improvements with the community's financial resources
  - Ensure the timely and coordinated construction of multimodal transit corridor infrastructure
  - Eliminate unanticipated, poorly planned, or unnecessary capital expenditures

- Identify the most economical means of financing multimodal transit corridor capital improvements
- Establish partnerships between LTD, City of Eugene, and other local agencies that prioritize multimodal transit infrastructure needs and promote interagency cooperation
- Ensure that multimodal transit corridor investments are consistent with local comprehensive land use and transportation plans

### 1.6.2. Need

The need for the MovingAhead Project is based on the following factors:

- LTD's and the region's commitment to implementing the region's vision for BRT in the next 20 years consistent with the RTP that provides the best level of transit service in a cost-effective and sustainable manner.
- Need for streamlined environmental reviews to leverage systemwide analysis.
- Need to build public support for implementation of the systemwide vision.
- Selection of the next EmX/FTN corridors is based on long-range operational and financial planning for LTD's service.

### 1.6.3. Goals and Objectives

#### **Goal 1: Improve multimodal transit corridor service**

- Objective 1.1: Improve transit travel time and reliability
- Objective 1.2: Provide convenient transit connections that minimize the need to transfer
- Objective 1.3: Increase transit ridership and mode share in the corridor
- Objective 1.4: Improve access for people walking and bicycling, and to transit
- Objective 1.5: Improve the safety of pedestrians and bicyclists accessing transit, traveling in and along the corridor, and crossing the corridor

#### **Goal 2: Meet current and future transit demand in a cost-effective and sustainable manner**

- Objective 2.1: Control the increase in transit operating cost to serve the corridor
- Objective 2.2: Increase transit capacity to meet current and projected ridership demand
- Objective 2.3: Implement corridor improvements that provide an acceptable return on investment
- Objective 2.4: Implement corridor improvements that minimize impacts to the environment and, where possible, enhance the environment
- Objective 2.5: Leverage funding opportunities to extend the amount of infrastructure to be constructed for the least amount of dollars

#### **Goal 3: Support economic development, revitalization, and land use redevelopment opportunities for the corridor**

- Objective 3.1: Support development and redevelopment as planned in other adopted documents
- Objective 3.2: Coordinate transit improvements with other planned and programmed pedestrian and bicycle projects
- Objective 3.3: Coordinate transit improvements with other planned and programmed roadway projects
- Objective 3.4: Minimize adverse impacts to existing businesses and industry
- Objective 3.5: Support community vision for high capacity transit in each corridor
- Objective 3.6: Improve transit operations on state facilities in a manner that is mutually beneficial to vehicular and freight traffic flow around transit stops and throughout the corridor
- Objective 3.7: Improve transit operations in a manner that is mutually beneficial to vehicular traffic flow for emergency service vehicles

#### 1.6.4. Evaluation Criteria

Evaluation criteria will be used during the Trade-off Analysis, which is part of the Level 2 AA, to aid in determining how well each of the corridor alternatives would meet the project’s Purpose, Need, Goals, and Objectives. The evaluation criteria require a mix of quantitative data and qualitative assessment. The resulting data will be used to measure the effectiveness of each proposed corridor alternative and to assist in comparing and contrasting the alternatives and options. In Table 1.6-1, evaluation criteria are listed for each of the project’s objectives. Some objectives have only one criterion for measuring effectiveness, while others require several criteria.

**Table 1.6-1. Evaluation Criteria**

Goals and Objectives		Evaluation Criteria
<b>Goal 1: Improve multimodal transit corridor service</b>		
Objective 1.1:	Improve transit travel time and reliability	<ul style="list-style-type: none"> <li>• Round trip p.m. peak transit travel time between select origins and destinations</li> <li>• On-time performance (no more than 4 minutes late) of transit service</li> </ul>
Objective 1.2:	Provide convenient transit connections that minimizes the need to transfer	<ul style="list-style-type: none"> <li>• Number of transfers required between heavily used origin-destination pairs</li> </ul>
Objective 1.3:	Increase transit ridership and mode share in the corridor	<ul style="list-style-type: none"> <li>• Average weekday boardings on corridor routes</li> <li>• Transit mode share along the corridor</li> <li>• Population within 0.5 mile of transit stop</li> <li>• Employment within 0.5 mile of transit stop</li> </ul>
Objective 1.4:	Improve access for people walking and bicycling, and to transit	<ul style="list-style-type: none"> <li>• Connectivity to existing pedestrian facilities</li> <li>• Connectivity to existing bicycle facilities</li> </ul>
Objective 1.5:	Improve the safety of pedestrians and bicyclists accessing transit, traveling in and along the corridor, and crossing the corridor	<ul style="list-style-type: none"> <li>• Opportunity to provide a safe and comfortable environment for pedestrians and bicyclists in the corridor</li> </ul>
<b>Goal 2: Meet current and future transit demand in a cost-effective and sustainable manner</b>		
Objective 2.1:	Control the increase in transit operating cost to serve the corridor	<ul style="list-style-type: none"> <li>• Cost per trip</li> <li>• Impact on LTD operating cost</li> <li>• Cost to local taxpayers</li> </ul>
Objective 2.2:	Increase transit capacity to meet current and projected ridership demand	<ul style="list-style-type: none"> <li>• Capacity of transit service relative to the current and projected ridership</li> </ul>
Objective 2.3:	Implement corridor improvements that provide an acceptable return on investment	<ul style="list-style-type: none"> <li>• Benefit/cost assessment of planned improvements</li> </ul>
Objective 2.4:	Implement corridor improvements that minimize impacts to the environment and, where possible, enhance the environment	<ul style="list-style-type: none"> <li>• Results of screening-level assessment of environmental impacts of transit solutions</li> </ul>



**Table 1.6-1. Evaluation Criteria**

Goals and Objectives		Evaluation Criteria
Objective 2.5:	Leverage funding opportunities to extend the amount of infrastructure to be constructed for the least amount of dollars	<ul style="list-style-type: none"> <li>• Number and dollar amount of funding opportunities that could be leveraged</li> <li>• Meet the FTA’s Small Starts funding requirements</li> </ul>
<b>Goal 3: Support economic development, revitalization and land use redevelopment opportunities for the corridor</b>		
Objective 3.1:	Support development and redevelopment as planned in other adopted documents	<ul style="list-style-type: none"> <li>• Consistent with the BRT System Plan and FTN concept</li> <li>• Consistent with the <i>Regional Transportation System Plan</i> (Central Lane Metropolitan Planning Organization [MPO], 2007)</li> <li>• Consistent with local comprehensive land use plans</li> </ul>
Objective 3.2:	Coordinate transit improvements with other planned and programmed pedestrian and bicycle projects	<ul style="list-style-type: none"> <li>• Capability of transit improvement to coordinate with other planned and programmed pedestrian and bicycle projects identified in adopted plans and Capital Improvements Programs</li> </ul>
Objective 3.3:	Coordinate transit improvements with other planned and programmed roadway projects	<ul style="list-style-type: none"> <li>• Capability of transit improvement to coordinate with other planned and programmed roadway projects identified in adopted plans and Capital Improvements Programs</li> </ul>
Objective 3.4:	Minimize adverse impacts to existing businesses and industry	<ul style="list-style-type: none"> <li>• Impacts to businesses along the Corridor measured in number and total acres of properties acquired, parking displacements, and access impacts.</li> <li>• Impact on freight and delivery operations for Corridor businesses</li> </ul>
Objective 3.5:	Support community vision for high capacity transit in corridor	<ul style="list-style-type: none"> <li>• Community vision includes high capacity transit in corridor</li> </ul>
Objective 3.6:	Improve transit operations on state facilities in a manner that is mutually beneficial to vehicular and freight traffic flow around transit stops and throughout the corridor	<ul style="list-style-type: none"> <li>• Impact on current and future year intersection level of service (LOS) on state facilities</li> <li>• Impact on current and future year p.m. peak hour auto/truck travel times on state facilities</li> </ul>
Objective 3.7:	Improve transit operations in a manner that is mutually beneficial to vehicular traffic flow for emergency service vehicles	<ul style="list-style-type: none"> <li>• Qualitative assessment of potential impacts to emergency service vehicle traffic flow and access</li> </ul>

Source: LTD and City of Eugene. (2015).

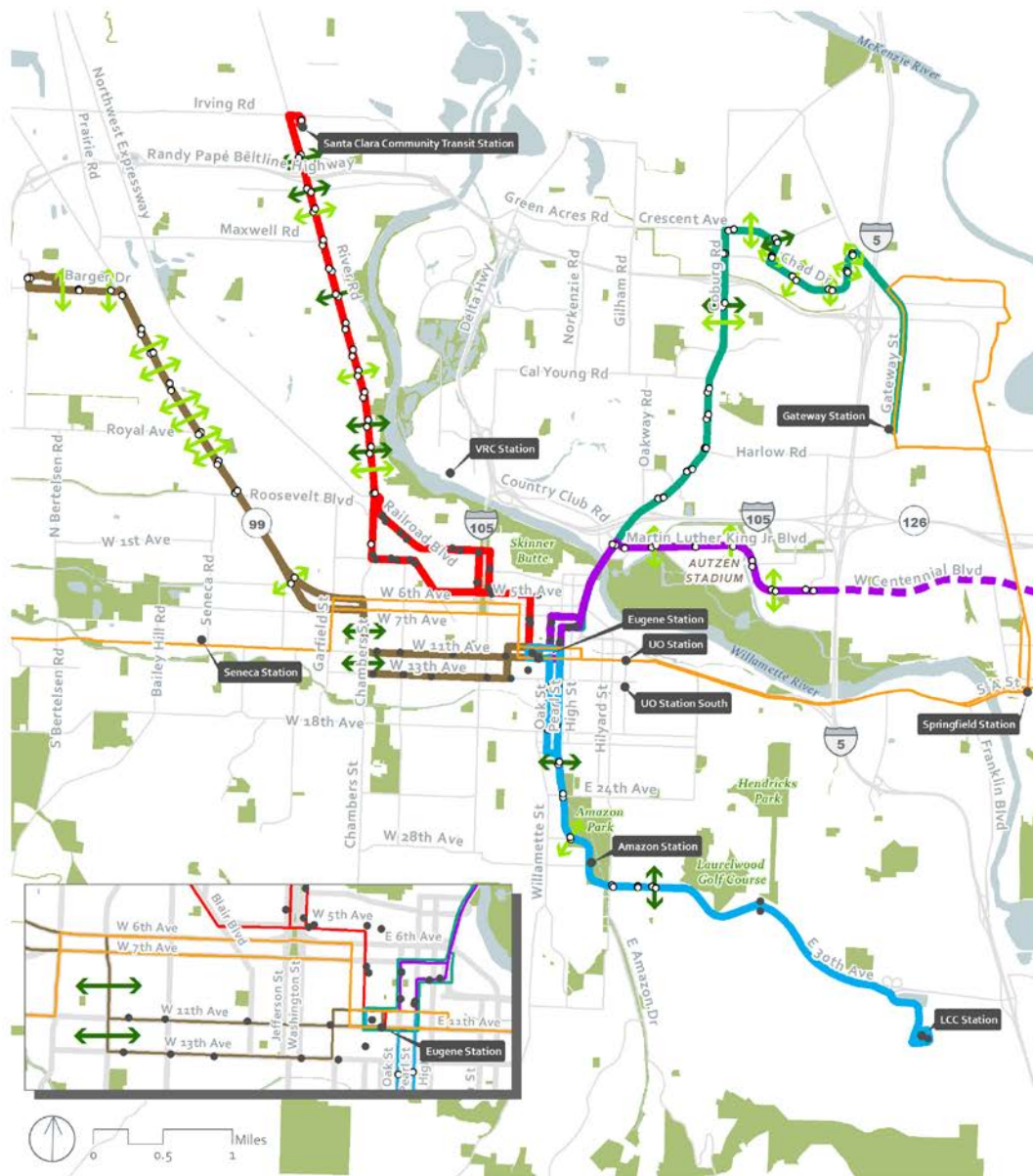
LOS = level of service

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## 2. Alternatives Considered

This section briefly reviews the major features of the alternatives considered in the Level 2 AA. For full details on each alternative and the five corridors described in this technical report – Highway 99, River Road, 30th Avenue to LCC, Coburg Road, and Martin Luther King, Jr. Boulevard – refer to the *MovingAhead Level 2 Definition of Alternatives* (CH2M et al., 2016). Each corridor location is shown on Figures 2.1-1 and 2.1-2 for the Enhanced Corridor Alternatives and the EmX Alternatives, respectively.

**Figure 2.1-1. Enhanced Corridor Alternatives Overview**



**Locator Map**



**Legend**

- 30th Avenue to Lane Community College Corridor
- Coburg Road Corridor
- Highway 99 Corridor
- River Road Corridor
- Martin Luther King Jr Blvd Corridor
- Martin Luther King, Jr Blvd Corridor continues east of I-5 as existing route #13
- 2035 No-Build EmX
- Road
- Park
- Water
- Stop/Station Locations
- Existing Without Improvements
- Proposed or Existing with Improvements
- ↔ New Pedestrian Crossing
- ↔ Enhanced Existing Pedestrian Crossing

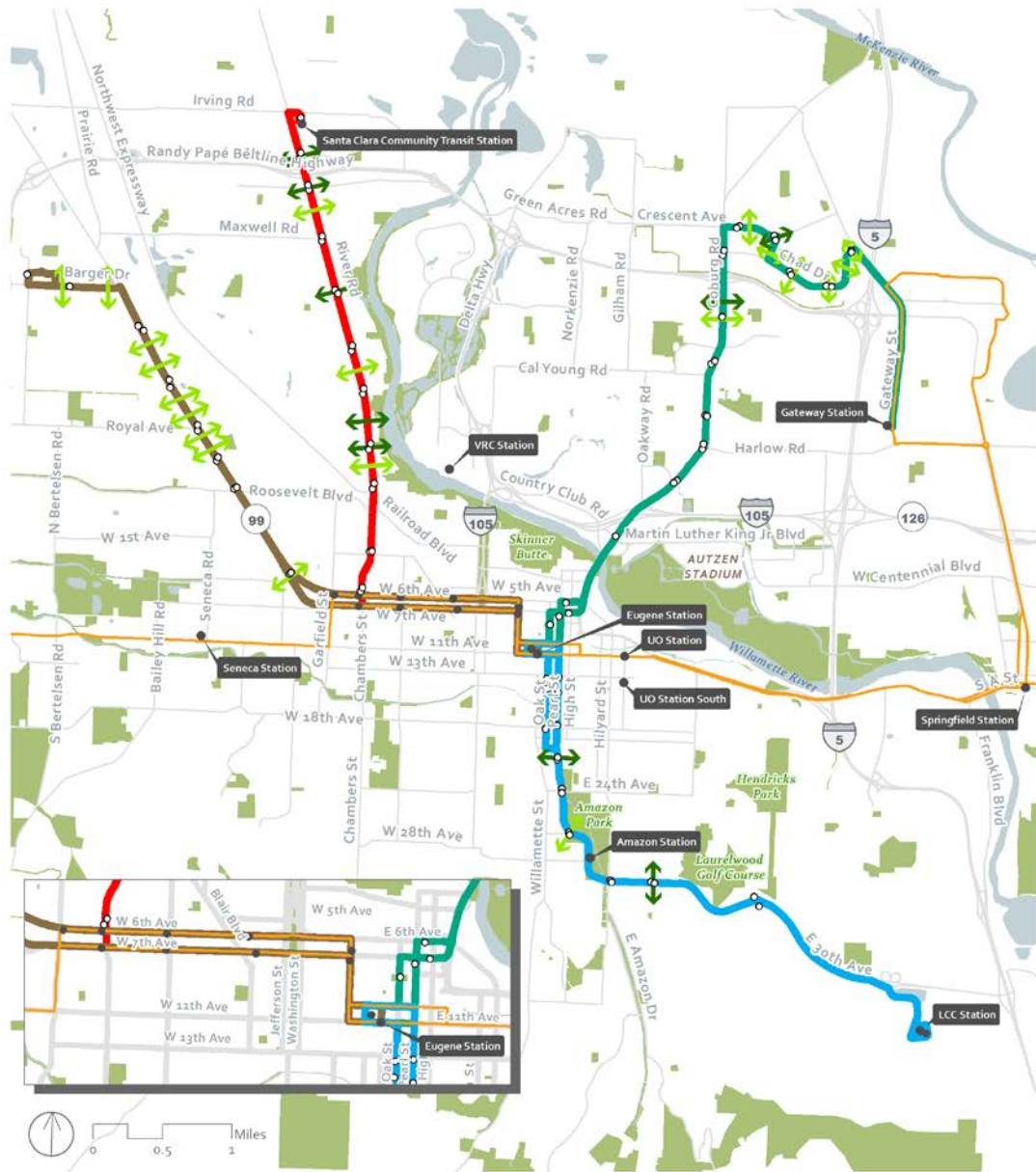
**Enhanced Corridor Alternatives Overview**



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**Figure 2.1-2. EmX Alternatives Overview**



**Locator Map**



**Legend**

- 30th Avenue to Lane Community College Corridor
  - Coburg Road Corridor
  - Highway 99 Corridor
  - River Road Corridor
  - Road
  - Park
  - Water
- 
- Existing Without Improvements
  - Proposed or Existing with Improvements
  - ↔ New Pedestrian Crossing
  - ↔ Enhanced Existing Pedestrian Crossing
  - 2035 No-Build EmX

**EmX Alternatives Overview**



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## 2.1. No-Build Alternative Transit Network

This section describes the No-Build Alternative transit network, which is based on projected conditions in the year 2035, the project's environmental forecast year. For each corridor, the No-Build Alternative serves as a reference point to gauge the benefits, costs, and effects of the build alternatives.

### 2.1.1. Capital Improvements

Under the No-Build Alternative, the following capital improvements are anticipated by 2035:

- **West Eugene EmX Extension.** Currently under construction, the West Eugene EmX Extension (WEEE) project and its associated capital improvements will be completed in 2017.
- **Santa Clara Community Transit Center.** The existing River Road Station is located at the southeast corner of the River Road/Randy Papé Beltline Highway interchange between the eastbound on-ramp and River Avenue. To meet growing demand and avoid the impacts of increasing congestion, LTD plans to relocate the River Road Station to a site north of the Randy Papé Beltline Highway at the southeast corner of River Road and Hunsaker Lane. Once relocated to the new site, the River Road Station would be renamed the Santa Clara Community Transit Center. This new transit center is planned to include a mix of uses including a park and ride lot, residential housing, community space, and commercial uses. The River Road Station relocation to the new site is anticipated to be completed by the end of 2018.
- **Main Street EmX Extension.** Included in the RTP and currently under study, the extension of the existing Franklin EmX line on Main Street from Springfield Station to Thurston Station and associated capital improvements (e.g., stations, bicycle and pedestrian facilities, and signal modifications) is anticipated to be completed within the 20-year planning horizon (2035). The No-Build Alternative transit network assumes EmX service on Main Street. However, the outcome of this study, and the ultimate improvements chosen, are uncertain at this time.
- **McVay Highway Enhanced Corridor.** Included in the RTP and currently under study, Enhanced Corridor service from Springfield Station on McVay Highway to LCC and associated capital improvements (e.g., improved stops, transit queue jumps, and improved bicycle and pedestrian crossings) is anticipated to be completed within the 20-year planning horizon (2035).

### 2.1.2. Transit Operations

The No-Build Alternatives for each corridor include changes to transit service anticipated as a result of the WEEE project, Main Street EmX Extension project, development of the Santa Clara Community Transit Center, and other changes to fixed route service. The following changes to the existing 2016 fixed route services are anticipated by 2035:

- **Eliminated routes:**
  - Route 11 (replaced by Main Street EmX service)
  - Route 32 (replaced by WEEE service)
  - Route 76 (replaced by WEEE service)
  - Route 85 (replaced by Enhanced Corridor service on the McVay Highway)
  - Route 43 (replaced by WEEE service)
- **Other route modifications:**
  - Add WEEE service (replaces Route 43 service on W. 11th Avenue) as extension of existing EmX service



- Add Main Street EmX service from Springfield Station to Thurston Station
- Add Route 2 with service from Barger Drive/Echo Hollow Road to Eugene Airport
- Add Route 16 to connect north and south of Main Street with EmX service
- Add Enhanced Corridor service on McVay Highway from Springfield Station to LCC (replaces Route 85)
- Reroute Route 33 and extend to Amazon Parkway
- Reroute Route 36 to extend north of W. 11th Avenue to Barger Drive (replaces Route 43)
- Reroute Route 41 via Highway 99/Royal Avenue/W. 11th Avenue
- Reroute Route 40 via Royal Avenue/Elmira Road/Roosevelt Boulevard/Chambers Street/W. 2nd Avenue/Oak and Pearl Streets
- Add Route 44 paralleling Route 40 above to serve West Eugene
- Reroute Route 55 to extend to Santa Clara Community Transit Center
- Reroute Route 93 with service continuing to Eugene Station via Seneca Station and service terminating at the WEEE terminus
- Change in service frequencies:
  - Increase service on Route 24 from 30-minute peak frequencies to 15-minute peak frequencies
  - Increase service on Route 28 from approximately 30-minute peak frequencies (varying 20- to 30-minute intervals) to 15-minute peak frequencies
  - Increase service on Route 41 from 30- and 15-minute peak frequencies to 15-minute peak frequencies
  - Increase service on Route 51 from 60-minute off-peak frequencies to 30-minute off-peak frequencies
  - Increase service on Route 52 from 60-minute off-peak frequencies to 30-minute off-peak frequencies
  - Increase service on Route 66 from 30- and 15-minute weekday a.m. peak, off-peak, and p.m. peak frequencies to 15-minute weekday a.m. peak, off-peak, and p.m. peak frequencies
  - Increase service on Route 67 from approximately 30-minute weekday a.m. peak, off-peak, and p.m. peak frequencies to 15-minute weekday a.m. peak, off-peak, and p.m. peak frequencies
  - Increase service on Route 78 from approximately 60-minute frequencies from 8 a.m. to 6 p.m. to 30-minute weekday a.m. peak, off-peak, and p.m. peak frequencies
  - Increase service on Route 79x from 30-minute peak frequencies to 10-minute peak frequencies, and modify off peak frequencies to 15 minutes from between 10 and 30 minutes currently
  - Decrease a.m. peak service on Route 93 from 60-minute frequencies to 120-minute frequencies during a.m. peak hours, and increase from no service between Veneta and the WEEE terminus to 120-minute frequencies during p.m. peak hours (off-peak service is 120-minute frequencies between Veneta and the WEEE terminus)
  - Decrease a.m. peak service on Route 96 from 30-minute frequencies to 60-minute frequencies, and increase off-peak service from no service between 8:20 a.m. and 3:40 p.m. to 60-minute off-peak frequencies

Key transportation improvements specific to each corridor are described under each corridor's No-Build Alternative.

## 2.2. Enhanced Corridor Alternatives

Enhanced Corridor Alternatives are intended to address the project's Purpose, Need, Goals, and Objectives without major transit capital investments, instead focusing on lower-cost capital improvements, operational improvements, and transit service refinements. Features could include

transit queue jumps (lanes for buses that allow the bus to “jump” ahead of other traffic at intersections using a separate signal phase), stop consolidation, enhanced shelters, and redesigned service to improve cross-town connectivity. These features improve reliability, reduce transit travel time, and increase passenger comfort.

Enhanced Corridor service would run from 6:45 a.m. to 11:30 p.m. weekdays, 7 a.m. to 11 p.m. Saturdays, and 8 a.m. to 8 p.m. Sundays. Service frequencies are assumed to be 15 minutes during all periods.

### 2.3. EmX Alternatives

EmX (BRT) Alternatives are characterized by exclusive guideways (business access and transit lanes [BAT] or bus-only lanes); branded, multi-door 60-foot-long BRT vehicles; enhanced stations with level boarding platforms instead of stops; off-board fare collection; signal priority; wider stop spacing; and frequent and redesigned service to improve cross-town connectivity.

EmX service is assumed to run from 6:45 a.m. to 11:30 p.m. weekdays, 7 a.m. to 11 p.m. Saturdays, and 8 a.m. to 8 p.m. Sundays. Service frequencies are assumed to be 10 minutes during all periods.

### 2.4. Highway 99 Corridor

The Highway 99 Corridor begins at the Eugene Station, travels through downtown, then extends northwest along Highway 99 to Barger Drive, turning west at Barger Drive to terminate on Cubit Street north of the intersection of Barger Drive and Cubit Street east of the Randy Papé Beltline Highway. This corridor is approximately 10.5 round-trip miles.

#### 2.4.1. No-Build Alternative

The Highway 99 Corridor No-Build Alternative includes existing roadway, bicycle, pedestrian, and transit facilities in the corridor, as well as planned improvements in the *DRAFT Eugene 2035 Transportation System Plan* (City of Eugene, 2016; Draft Eugene 2035 TSP). The No-Build Alternative would not include capital improvements on Highway 99. As part of the Draft Eugene 2035 TSP, the following transportation improvements are planned along or adjacent to the corridor:

- Upgrade Bethel Drive, from Highway 99 to Roosevelt Boulevard, to a two-lane urban facility with sidewalks on both sides of the road, bicycle lanes, and planting strips
- Widen Barger Drive immediately west of the Randy Papé Beltline Highway interchange to include an additional travel lane in each direction
- Add a shared-use path on the west side of Highway 99 from Roosevelt Boulevard south to the intersection of W. 7th Avenue and Garfield Street (the section of this project from Roosevelt to W. 5th Avenue has been completed)
- Add bicycle lanes on Garfield Street from Roosevelt Boulevard south to W. 6th Avenue
- Add a bicycle lane on W. 6th Avenue from Garfield Street to W. 5th Avenue
- Complete the sidewalk network on Highway 99 from Roosevelt Boulevard south to Garfield Street
- Add a shared-use path on Roosevelt Boulevard from Maple Street to Highway 99
- Add a bicycle lane on Roosevelt Boulevard from Highway 99 east to railroad tracks

Under the No-Build Alternative, Highway 99 Corridor service would remain at 15-minute headways during peak periods and 30-minute headways during off-peak periods and evenings. Under the No-Build



Alternative, a slight change is also made to Route 93, which would stop at the Pearl Buck Center in the absence of Route 44.

#### **2.4.2. Enhanced Corridor Alternative**

Capital improvements under the Highway 99 Corridor Enhanced Corridor Alternative would include enhanced bicycle and pedestrian crossings; improvements to existing bus stops and the construction of new stops; construction of queue jumps at some intersections; traffic signal reconstruction; construction of bus-only left turn lanes; and roadway widening at some locations in the corridor.

Existing conventional fixed-service routes would remain the same as with the No-Build Alternative, with the exception of the elimination of Route 41. Service west of WinCo would also remain the same or be improved.

#### **2.4.3. EmX Alternative**

The Highway 99 Corridor EmX Alternative would include creating BAT lanes on segments of W. 7th Avenue and Highway 99; reconstructing the Highway 99/Roosevelt Boulevard intersection (traffic signal, turn lanes, and queue jump); completing other intersection modifications in the corridor; roadway widening at some locations; and constructing nine new enhanced pedestrian and bicycle crossings, new sidewalks, and a pedestrian bridge across the railroad line from Highway 99 to the Trainsong neighborhood. Four existing bus stop locations would be improved to EmX stations, in addition to constructing new stations. Some existing EmX stations would be used for the Highway 99 Corridor EmX service.

Route 44 is a conventional service line added to this alternative only, providing coverage on 11th and 13th Avenues as well as service to the Pearl Buck Center on W. 1st Avenue, with 30-minute headways during all periods. This would be a decrease in service for the 11th and 13th Avenue corridors that currently have 15-minute peak service. Route 44 is primarily intended to replace conventional service lost with the removal of the existing Route 41. Route 41 would be replaced with the Highway 99 Corridor EmX service described in this alternative.

### **2.5. River Road Corridor**

The River Road Corridor begins at the Eugene Transit Center, travels through downtown and then north to the Santa Clara Community Transit Center (intersection of Hunsaker Lane and River Road). This corridor is approximately 10.3 round-trip miles.

#### **2.5.1. No-Build Alternative**

The River Road Corridor No-Build Alternative would include existing roadway, bicycle, pedestrian, and transit facilities in the corridor, as well as planned improvements in the Draft Eugene 2035 TSP. There would be no additional major bus capital improvements under the No-Build Alternative.

As part of the Draft Eugene 2035 TSP, the following transportation improvements are planned adjacent to and along the River Road Corridor:

- Upgrade the Hunsaker Lane/Beaver Street intersection to urban collector standards, including two travel lanes, a center turn lane, bicycle lanes, sidewalks on both sides of the road, and planting strips from River Road to Division Avenue
- Provide bicycle boulevards on Ruby Avenue, Horn Lane, Arbor Drive, and Park Avenue

- Include sidewalks on Hunsaker Lane, Howard Avenue, and Hilliard Lane
- Provide protected bicycle lanes on River Road from the Northwest Expressway to Division Avenue

Under the No-Build Alternative, River Road Corridor service would remain at 30-minute headways for both Routes 51 and 52 (which together effectively provide 15-minute service during peak periods) and off-peak periods. After 6:15 p.m., there is no longer a combined 15-minute frequency, and headways return to 30 minutes.

### **2.5.2. Enhanced Corridor Alternative**

Capital improvements constructed as part of the River Road Corridor Enhanced Corridor Alternative would include BAT lanes on River Road approaching the Randy Papé Beltline Highway and other roadway improvements, like traffic signal reconstruction at certain locations along the corridor. Improvements to existing bus stops and the construction of new stops would also occur.

Routes 51 and 52 would be eliminated, and Enhanced Corridor service for River Road includes a split alignment in order to serve portions covered by those routes at 30-minute headways. In this arrangement, the area from Railroad Boulevard to W. 1st Avenue is served by one Enhanced Corridor service as a replacement for the Route 51 service, while the area along Blair Boulevard and W. 2nd Avenue is served by the other alignment to replace service lost with removal of Route 52. Those alignments meet at Railroad Boulevard and River Road to serve the River Road Corridor with consistent 15-minute headways.

### **2.5.3. EmX Alternative**

New construction under the River Road Corridor EmX Alternative would include lane repurposing on River Road for BAT lanes, constructing short sections of exclusive bus lanes near the Randy Papé Beltline Highway, reconstructing traffic signals and intersections at several locations, constructing new bicycle and pedestrian crossings, improving existing stops to EmX stations, and constructing new stations. Some existing EmX stations would be used with the River Road EmX service.

Transit service changes would also include modifying headways on Route 40 during the a.m. and p.m. peak hours to 15 minutes, developing a new Route 50 “River Road Connector” with 30-minute headways all day, and eliminating Routes 51, 52, and 55. These replacements ensure no loss in existing coverage or service.

## **2.6. 30th Avenue to Lane Community College Corridor**

The 30th Avenue to LCC Corridor begins at Eugene Station and travels south along Pearl Street (outbound) to Amazon Parkway, then on E. 30th Avenue to its terminus at the LCC Station. The return trip travels on Oak Street (inbound), which is the northbound couplet to Pearl Street. This corridor is approximately 10.2 round-trip miles.

### **2.6.1. No-Build Alternative**

The 30th Avenue to LCC Corridor No-Build Alternative would include existing roadway, bicycle, pedestrian, and transit facilities in the corridor, as well as planned improvements in the Draft Eugene 2035 TSP. There would be no additional major bus capital improvements to the 30th Avenue to LCC Corridor under the No-Build Alternative.

The Draft Eugene 2035 TSP identifies the following transportation improvements along or adjacent to the corridor:

- Bicycle boulevard on Alder Drive

For the portion of E. 30th Avenue in unincorporated Lane County, Lane County does not plan to improve bicycle facilities along the road.

Under the No-Build Alternative, 30th Avenue to LCC Corridor service would remain at 30-minute headways on Route 81. The Route 82 service would remain at 10-minute headways during the a.m. peak, 15-minute headways during off-peak periods, and 20-minute headways during the p.m. peak, with no weekend service.

### **2.6.2. Enhanced Corridor Alternative**

Capital improvements as part of the 30th Avenue to LCC Corridor Enhanced Corridor Alternative would include the construction of new bus stops, capital improvements to some existing bus stops, a new traffic signal on Amazon Parkway at E. 20th Avenue, and new bike facilities on Oak and Pearl Streets.

Under the 30th Avenue to LCC Corridor Enhanced Corridor Alternative, service to LCC provided by Routes 81 and 82 would be eliminated and replaced by Enhanced Corridor service. The direct connection between LCC and the University of Oregon Station along Route 81 would be eliminated. It would be replaced by connecting the 30th Avenue to LCC Corridor Enhanced Corridor Alternative to the Franklin EmX line with a transfer at Eugene Station.

### **2.6.3. EmX Alternative**

The 30th Avenue to LCC Corridor EmX Alternative would include repurposing parking and general-purpose lanes to BAT lanes on Oak and Pearl Streets, constructing queue jumps, extending E. 20th Avenue, adding a new traffic signal on Amazon Parkway, and adding a new cycle track on High Street. In addition to constructing new EmX stations, existing bus stops would be improved to EmX stations in certain locations.

Service to LCC provided by Routes 81 and 82 would be replaced with EmX service. The direct connection between LCC and the University of Oregon Station along Route 81 would be eliminated. It would be replaced by connecting the 30th Avenue to LCC Corridor EmX Alternative to the Franklin EmX line with a transfer at Eugene Station.

## **2.7. Coburg Road Corridor**

The Coburg Road Corridor begins at Eugene Station and continues to Coburg Road using the Ferry Street Bridge. The corridor continues north on Coburg Road to Crescent Avenue, east on Crescent Avenue and Chad Drive to N. Game Farm Road, and south on N. Game Farm Road and Gateway Street to the existing Gateway Station at the Gateway Mall. Although service extends from N. Game Farm Road to the Gateway Station, capital improvements for the corridor terminate at Interstate 5 (I-5). This corridor is approximately 11.2 round-trip miles.

### **2.7.1. No-Build Alternative**

The Coburg Road Corridor No-Build Alternative includes existing roadway, bicycle, pedestrian, and transit facilities in the corridor, as well as planned improvements in the Draft Eugene 2035 TSP. There

would be no additional major transportation improvements to the Coburg Road Corridor under the No-Build Alternative.

Under the No-Build Alternative, the Coburg Road Corridor service would remain at 15-minute headways on Routes 66 and 67 at all weekday times, 30-minute headways on Saturdays, and 60-minute headways on Sundays.

### **2.7.2. Enhanced Corridor Alternative**

The Coburg Road Corridor Enhanced Corridor Alternative would include new traffic signal construction, intersection reconstruction at several locations on Coburg Road, the addition of queue jumps, and the addition of BAT lanes south of the Interstate 105 (I-105) interchange. New crossings for bicyclists and pedestrians would be constructed. Existing bus stops would be improved and new stops would also be constructed.

Route 12 would be altered to serve Valley River Center and Marcola Road. A new route (Route 60) would be added to serve Valley River Center, and Routes 66 and 67 would be eliminated. This change would provide new service and coverage to the Cal Young neighborhood and along Hayden Bridge Way in Springfield. It would require current passengers along Harlow Road to transfer in order to get downtown.

### **2.7.3. EmX Alternative**

Improvements to the corridor under the Coburg Road Corridor EmX Alternative would include construction of exclusive transit lanes at several locations on Coburg Road and intersection reconstruction at multiple locations. New bicycle and pedestrian crossings and EmX stations would be constructed, and some existing bus stops would be improved to EmX stations.

As in the Coburg Road Corridor Enhanced Corridor Alternative, Route 12 would be altered to serve Valley River Center and Marcola Road, and Route 60 would be added to serve Valley River Center, while Routes 66 and 67 would be eliminated. This change would provide new service and coverage to the Cal Young neighborhood and along Hayden Bridge Way in Springfield. It would require current passengers along Harlow Road to transfer in order to get downtown.

## **2.8. Martin Luther King, Jr. Boulevard Corridor**

The Martin Luther King, Jr. Boulevard Corridor begins at Eugene Station and travels through downtown Eugene on Oak and Pearl Streets and on 7th and 8th Avenues. The corridor uses the Ferry Street Bridge to reach Martin Luther King, Jr. Boulevard and continues east on Martin Luther King, Jr. Boulevard past Autzen Stadium to Centennial Boulevard. Although transit service continues along Centennial Boulevard, capital improvements for the corridor terminate at I-5. The corridor is approximately 6.0 round-trip miles.

### **2.8.1. No-Build Alternative**

The Martin Luther King, Jr. Boulevard Corridor No-Build Alternative includes existing roadway, bicycle, pedestrian, and transit facilities in the corridor, as well as planned improvements in the Draft Eugene 2035 TSP. The Draft Eugene 2035 TSP identifies the following transportation improvements along or adjacent to the Martin Luther King, Jr. Corridor:

- Add a center turn lane along sections of Martin Luther King, Jr. Boulevard from Club Road to Leo Harris Parkway

Under the No-Build Alternative, the Martin Luther King, Jr. Boulevard Corridor service would remain at 30-minute headways.

### **2.8.2. Enhanced Corridor Alternative**

Capital improvements associated with the Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative would include reconstructing traffic signals at the intersections of Coburg Road and Martin Luther King, Jr. Boulevard and of Martin Luther King, Jr. Boulevard and Centennial Loop; repurposing existing outside general-purpose lanes to BAT lanes on Martin Luther King, Jr. Boulevard; adding a new traffic signal at the intersection of Martin Luther King, Jr. Boulevard and Leo Harris Parkway; enhancing pedestrian crossings; constructing new bus stops; and improving existing bus stops. Existing Route 13 would be eliminated.

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### 3. Methods and Data

This chapter describes the analysis methodologies and data used to complete the land use and prime farmlands evaluation for the MovingAhead Project.

#### 3.1. Relevant Laws, Regulations, and Policies

Relevant laws and regulations include federal requirements, state plans and laws governing land use and transportation planning, and local plans and policies adopted by the City of Eugene, Lane County and the Central Lane MPO. Statewide goals are implemented by local plans, which are implemented by development regulations. These local plans, ordinances, and policies provided direction for the data needed to analyze the project's potential adverse impacts and beneficial effects. Some laws and regulations provided a context and legislative intent for local plans and codes but did not guide the data gathering for this report. The following sections describe laws, regulations, and policies that were used in the land use impacts analysis. Appendix C provides detailed descriptions of relevant federal, state, and local laws and policies, and Appendix D describes the consistency of the alternatives with relevant land use goals, objectives, and policies of regional and local plans.

##### 3.1.1. Federal

- National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321-4347 (NEPA)
- Farmland Protection Policy Act, 7 U.S.C. 4201-4209 and 7 CFR 658 (FPPA)
- Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 U.S.C. 4601 et. seq., 49 CFR Part 24 (Uniform Act)

##### 3.1.2. State

- *Oregon Statewide Planning Goals*, Oregon Administrative Rules (OAR) 660-15-0000 (1-15) (Oregon Department of Land Conservation and Development)
- *Transportation Planning Rule*, OAR Chapter 660, Division 12 (Oregon Land Conservation and Development Commission, 2007)
- State of Oregon Statewide Planning Goal 14, Urbanization
- State of Oregon Statewide Planning Goal 12, Transportation
- State of Oregon Statewide Planning Goal 5, Natural Resources, Scenic and Historic Areas, and Open Spaces
- State of Oregon Statewide Planning Goal 4, Forest Lands
- State of Oregon Statewide Planning Goal 3, Agricultural Lands

##### 3.1.3. Local

The following are Local plans applicable to the MovingAhead Project:

- *Envision Eugene: A Community Vision for 2032* (Envision Eugene, 2012, March)
- *Draft Envision Eugene Comprehensive Plan* (Envision Eugene, 2016, July; Draft Envision Eugene)
- *Regional Transportation Plan* (Central Lane MPO, 2011, December; RTP)
- *Metro Plan, Eugene-Springfield Metropolitan Area General Plan* (LCOG et al., 1987, as updated in 2015, December 31; Metro Plan)
- *TransPlan, The Eugene-Springfield Transportation System Plan* (LCOG, 2002, September; TransPlan)

- Draft Eugene 2035 Transportation System Plan (City of Eugene, 2016, May; Draft Eugene 2035 TSP)
- City of Eugene Growth Management Policies (*Resolution No. 4554*) (City Council of the City of Eugene, 1998, February 2)
- Eugene Code – Chapter 9, Land Use Code (City of Eugene, current through 2016)
- Metropolitan Transportation Improvement Program Federal FY 2015 to Federal FY 2018 (Central Lane MPO, adopted 2014, October; MTIP)
- *Springfield Development Code* (City of Springfield, current through 2016, June)
- City of Eugene Refinement Plans

The City of Eugene has 29 refinement plans to support the city’s planning goals and objectives. Refinement plans consist primarily of subarea plans, master plans, and special studies. The following refinement plans apply to lands within the project’s API.

- *Bethel Danebo Refinement Plan* (Active Bethel Citizens’ Planning Team et al., 1982)
- *Bethel Danebo Neighborhood Refinement Plan Phase 2 – West Eugene Industrial Study and Roosevelt Extension & Drainage Facility* (City Council of the City of Eugene, 1979)
- *Eugene Commercial Lands Study* (City of Eugene et al., 1992, October)
- *Eugene Downtown Plan* (Eugene City Council et al., 2004, April 12)
- *EWEB Riverfront Master Plan* (Rowell Brokaw Architects, 2010, June)
- *Jefferson/Far West Refinement Plan* (Jefferson/Far West Planning Team and City of Eugene Planning Department, 1983, January 12)
- *River Road Santa Clara Urban Facilities Plan* (LCOG, 1987, September)
- *Riverfront Park Study* (City of Eugene, 1986, January)
- *South Hills Study* (City of Eugene, 1974, March)
- *South Willamette Subarea Study* (City of Eugene, 1988, January)
- *West Eugene Wetlands Plan* (City of Eugene and Lane County, 2004, May)
- *West University Refinement Plan* (City of Eugene, 1982)
- *Westside Neighborhood Plan* (Westside Neighborhood Planning Team, 1987, January)
- *Whiteaker Plan* (City of Eugene, 1994, August)
- *Willakenzie Area Plan* (City of Eugene, 1992, September)

### 3.2. Area of Potential Impact

The land use API for the project is defined as all properties located partially or wholly within 300 feet on either side of the centerline of each project corridor. This area was selected because project construction and operation have the greatest probability for directly affecting corridor land uses within this proximity to proposed improvements. Indirect impacts were also considered for a 0.25-mile radius from fixed-route stops (for the Enhanced Corridor Alternatives) and for a 0.5-mile radius from proposed EmX stations (for the EmX Alternatives). Generally, the 0.25-mile API around existing and proposed fixed-route stops and the 0.5-mile API around proposed EmX stations are based on the maximum reasonable expectation of distance that bus and BRT customers are likely to walk in sufficient numbers to affect the land use market of nearby lands, the spacing of bus stops and BRT stations along the corridor, and local market conditions related to infill and redevelopment. For the Enhanced Corridor and EmX Alternatives, preliminary stop and station locations have been identified, however, stop and station locations could be altered during various stages of design refinement.



### 3.3. Data Collection

In addition to the documents identified in Section 3.1, primary data sources included existing geographic information systems (GIS) data collected from the City of Eugene, City of Springfield, and LCOG planning staff for zoning data. Soils data were collected from the U.S. Department of Agriculture Natural Resource Conservation Service (Oregon State University Institute for Natural Resources, 2016) to identify prime farmlands located in the non-urbanized areas of the corridors. The analysis also used aerial photography to determine existing land uses in the corridors.

For the land use analysis, zoning was generalized into eight categories to allow for land use data to be presented consistently among the corridors. The following generalized zoning categories are based on and developed using information from the Eugene Code: Industrial (I-2 and I-3), Commercial (C-3), Mixed-Use (C-1, C-2, GO, S-C, S-CN, S-DR, S-DW, S-E, S-F, S-HB, S-JW, S-RN, S-W, and S-WS), Single-Family Residential (R-1), Multi-Family Residential (R-2 and R-3), Institution (PL and PRO), Agricultural/Forest/Natural Resource (AG, EFU-25, EFU-30, EFU-40, F-1, F-2, and NR), Prime Farmland (EFU-25 acre, EFU-30, EFU-40), Office (E-1 and E-2), and Special Area Zone (Non-Mixed Use) (S-H and S-RP).

### 3.4. Impact Analysis

The land use and prime farmlands analysis is a quantitative and qualitative review of the potential adverse impacts and beneficial effects on existing and reasonably foreseeable future land uses as a result of construction and operation of proposed project corridors' alternatives:

- The direct impact analysis includes a quantitative review to determine the potential for conversion from existing uses and/or prime farmland to a transportation-related use. The analysis for direct impacts on land use includes zoning because this represents a loss in how the land could be used.
- The analysis includes a review of the applicable plans and the goals and policies and the consistency of the alternatives with the goals and polices.
- The potential for indirect impacts is qualitatively reviewed and includes the potential for development within 0.25 mile of Enhanced Corridor stop areas, and within 0.5-mile of EmX station areas based on existing zoning.
- Cumulative impacts are qualitatively analyzed using land uses within the API, transportation elements that are components of all build alternatives, and potential effects to reasonably foreseeable future projects.
- Possible measures to mitigate significant adverse impacts during construction or operation are identified including references to other technical reports that include mitigation measures related to land use.
- Beneficial effects of the build alternatives on land use within the API.
- Consistency with *Envision Eugene: A Community Vision for 2032* and Draft *Envision Eugene*.

The project might affect the current use of the property and potentially adjacent properties. However, unless the property were rendered unsuitable for any allowed use, that activity would not be considered a significant land use effect. A significant adverse impact on land use would result if one or more of the following occurred:

- The alternative impacted multiple property owners who were unable to use their land for an existing or allowed use
- The alternative was not consistent with relevant regulations and plans
- The alternative induced land use that was not compatible with existing plans

A significant adverse impact on prime farmlands would occur if the project directly or indirectly caused the irreversible conversion of farmland to a non-agricultural use.

Impacts to other aspects of property (such as loss of some parking, economic hardship caused by construction activities, and loss of vegetation) are covered in other technical reports. The direct impacts of the following factors, all of which might affect the character and value of the land, are discussed in separate technical reports:

- *Acquisitions and Displacements Technical Report* (CH2M, 2017h)
- *Transportation Technical Report* (CH2M, 2017h)
- *Street and Landscape Trees Technical Report* (CH2M, 2017i)
- *Socioeconomics, Environmental Justice, Neighborhoods, Community Facilities, and Public Services Technical Report* (CH2M, 2017j)
- *MovingAhead Cultural Resources Technical Report* (Heritage Research Associates and CH2M, 2017)
- *Parklands, Recreation Areas, and Section 6(f) Technical Report* (CH2M, 2017c)
- *Ecosystems Technical Report* (Environmental Science & Assessment, LLC, and CH2M, 2017)
- *Water Quality and Hydrology Technical Report* (CH2M, 2017k)
- *Hazardous Materials Technical Report* (CH2M, 2017f)
- *Geology and Seismic Technical Report* (CH2M, 2017e)
- *Visual and Aesthetic Resources Technical Report* (CH2M, 2017g)
- *Utilities Technical Report* (CH2M, 2017b)
- *Energy, Sustainability, and Greenhouse Gas Emissions Technical Report* (DKS Associates, Inc., 2017)
- *Noise and Vibration Technical Report* (MMA and CH2M, 2017a)
- *Air Quality Technical Report* (MMA and CH2M, 2017b).

It is not the purpose of the land use analysis to quantify future effects of the project alternatives on the use of the land for every property. This analysis addresses the potential effects this project might have on current and zoned land uses in aggregate; the impacts on planned projects and facilities; and the consistency of the proposed project alternatives with adopted plans and policies.

## 4. Affected Environment

This section presents a summary of existing land uses and current zoning within the APIs for each of the corridors. Information is also provided on the overlay zones located within each corridor in the City of Eugene.

### 4.1. Regional Context

The MovingAhead Project's five corridors and associated alternatives are primarily located within the City of Eugene, with a portion of the 30th Avenue to LCC Corridor and the River Road Corridor located within unincorporated Lane County, and a portion of the Coburg Road Corridor located in the City of Springfield.

The dominant residential development pattern in the region is single-family residential. Multi-family residential in Eugene is concentrated primarily in broad areas around the University of Oregon and downtown Eugene, along the major transportation corridors of W. 11th Avenue, Highway 99, Coburg Road, Martin Luther King, Jr. Boulevard, and Willamette Street.

The downtown Eugene and university areas have the highest concentrations of residential density in the region. The University of Oregon is located east of downtown Eugene near the Willamette River. The University of Oregon has more than 60 major buildings on 295 acres. As of fall 2015, the University of Oregon had 24,125 students enrolled.

Beginning in 2010 with a robust community visioning effort, Eugene embarked on a 5-year planning and strategy refinement process to adopt a unique comprehensive plan, Draft Envision Eugene, to support the community's vision and local planning goals consistent with statewide regulations. Eugene is anticipated to grow by 34,000 people and 37,000 jobs by 2032 (Envision Eugene, 2016). The City will need approximately 900 acres of land to accommodate this projected population and employment growth.

Draft Envision Eugene outlines a path forward to meet current and future needs under one unified community vision. This vision consists of seven pillars that reflect Eugene's community values. These pillars are economic opportunities, affordable housing, climate change/energy resiliency, compact urban development and efficient transportation options, neighborhood livability, natural resources, and adaptable/flexible/collaborative implementation. The City identified investment in public transportation along Key Transit Corridors as an opportunity to assist in achieving its vision.

The City will adopt the Envision Eugene plan and its community vision in four phases to implement local goals and policies. The first phase, which will expand the City's Urban Growth Boundary (UGB) in the Santa Clara community and Clear Lake area, includes nearly 1,000 acres of land for new employment opportunities, district schools, and community parks. The UGB expansion will also include adopted overlay zones to support public health, stormwater quality, and wetland preservation. Once adopted, Envision Eugene will replace the Metro Plan as the City's local comprehensive plan.

### 4.2. Existing Land Use

All project build alternatives would begin in the Central Business District at Eugene Station. downtown Eugene is characterized by dense commercial development supportive of vibrant, economic activities

and uses. The outer area of the Central Business District transitions to include dense residential development. Existing land use for each of the five MovingAhead corridors is described as follows:

- **Highway 99 Corridor.** Near downtown Eugene, the Highway 99 Corridor is characterized by high-density residential areas. Farther north and west, land use transitions to industrial and commercial uses west of Garfield Street along Highway 99, and then to areas of commercial and multi-family residential along Barger Drive.
- **River Road Corridor.** Land use on River Road Corridor, outside of downtown Eugene and north of the Northwest Expressway, consists primarily of commercial, single-family residential, and service uses, interspersed with apartments and townhomes.
- **30th Avenue to LCC Corridor.** South of downtown Eugene along the 30th Avenue to LCC Corridor, existing land uses consist primarily of small-scale offices, retail, and apartments, which transition south of W. 18th Avenue to single-family homes, parklands, athletic fields, vacant lands, and woodlands.
- **Coburg Road Corridor.** Along the Coburg Road Corridor, outside of downtown Eugene on the north side of the Ferry Street Bridge near the I-105 intersection, existing land uses are primarily mid-rise office buildings and automobile dealerships. North of the I-105 intersection, common land uses on the Coburg Road Corridor include commercial retail, parking areas, office buildings, single-family residences, and areas of vacant land.
- **Martin Luther King, Jr. Boulevard Corridor.** As the Martin Luther King, Jr. Boulevard Corridor crosses the Ferry Street Bridge exiting downtown Eugene, it passes a mixture of auto dealerships and hotels south of I-105. As the corridor travels east past Leo Harris Parkway, it passes Autzen Stadium and other University of Oregon sports fields along the south side of Martin Luther King, Jr. Boulevard. Government buildings (such as the Lane County District Court) and the National Alliance mental health clinic are on the north side of the boulevard. The eastern segment of the corridor consists primarily of multi-family apartment buildings and some single-family residences.

Existing land uses in Eugene generally match the current Metro Plan land use designations. Existing uses typically do not realize the full potential of densities, height, and building mass that comprehensive plans or zoning allow.

#### 4.3. Zoning

The Metro Plan land use designations and the City's zoning are generally compatible. Zoning for all MovingAhead corridors is generalized as follows:

- Industrial (I-2 and I-3)
- Commercial (C-3)
- Mixed-Use (C-1, C-2, GO, S-C, S-CN, S-DR, S-DW, S-E, S-F, S-HB, S-JW, S-RN, S-W, and S-WS)
- Single-Family Residential (R-1)
- Multi-Family Residential (R-2 and R-3)
- Institution (PL and PRO)
- Agricultural/Forest/Natural Resource (AG, EFU-25, EFU-30, EFU-40, F-1, F-2, and NR)
- Office (E-1 and E-2)
- Special Area Zone (Non-Mixed Use) (S-H and S-RP)

#### 4.4. Prime Farm, Agricultural, and Forest Lands

Portions of the Highway 99 Corridor northwest of the northern corridor terminus, the Coburg Road Corridor east of N. Game Farm Road, and the 30th Avenue to LCC Corridor east of Spring Boulevard contain lands subject to the FPPA and/or lands protected under Oregon Statewide Planning Goals 3 (Agricultural Lands) and 4 (Forest Lands). The majority of the area surrounding the MovingAhead Project corridors consists of lands located within the UGB or urbanized areas that do not include any prime farmland and other agricultural or forest resources that state land use laws protect.

#### 4.5. Protected Lands

Refer to separate MovingAhead Project technical documents such as the Cultural Resources Technical Report (Heritage, 2017); Ecosystems Technical Report (ESA, 2017); Parklands, Recreation, and Section 6(f) Resources Technical Report (CH2M, 2017c); and Section 4(f) Resources Technical Report (CH2M, 2017d) for more information on lands protected under federal laws and regulations. The City of Eugene has also identified and zoned resources of local significance for protection. Local zoning designations and overlays considered “protective” of certain lands are present in the corridors and include one or more of the following depending on the corridor alternative: Natural Resources; Park, Recreation, and Open Space; Historic; Waterside Protection Overlay; Water Resources Conservation Overlay; Wetland Buffer Overlay; the Willamette River Greenway Overlay; and Agricultural and Forest lands located outside of UGBs.

#### 4.6. Transit-Oriented Development Areas

Policies adopted by the City of Eugene, the Central Lane MPO, and the State of Oregon support the concept of nodal development (also called mixed-use centers and transit-oriented development). TOD is a form of community development that includes a mixture of housing, office, retail and/or other amenities integrated into a walkable neighborhood and located in close proximity to quality public transportation (Reconnecting America, 2016). Nodal development is defined in the City of Eugene Code as a mixed-use pedestrian-friendly land use pattern that seeks to increase concentrations of population and employment in well-defined areas with good transit service, a mix of diverse and compatible land uses, and public and private improvements designed to be pedestrian- and transit-oriented. Key Transit Corridors, as identified in Draft Envision Eugene, would provide frequent transit service to core commercial areas that are intended to accommodate large-scale retail development and TOD where zoning would allow.

The City uses the term “nodal development” synonymously with the term TOD. These terms serve the same intent by identifying development related to public transit service that support mixed-use centers. The term TOD is used throughout this Technical Report to refer to nodal development and mixed-use centers.

#### 4.7. Projected Growth

##### 4.7.1. Eugene Comprehensive Lands Assessment

The City undertook a buildable lands assessment – the *Eugene Comprehensive Lands Assessment* (ECONorthwest, 2010, June; ECLA). The State of Oregon required this assessment (Oregon House Bill 3337, Enacted 2007) to identify changes in land use designations or zoning that might be necessary

to accommodate the City’s forecasted growth in the 20-year period from 2011 to 2031. The ECLA results suggest the following projections and assumptions.

Within the City of Eugene, the population is expected to increase by almost 34,000 people and employment (retail, commercial, industrial, and government) is expected to increase by about 37,000 jobs. Employment (retail, commercial, industrial, and government) will grow at an average rate of 1.4 percent per year.

Share of employment by type:

- Industrial at 18 percent
- Commercial at 54 percent
- Retail at 13 percent
- Government at 14 percent

Employment redevelopment will occur in the following percentages, by type:

- Industrial at 10 percent
- Commercial at 15 percent
- Retail at 35 percent

Based on projected population and employment growth, the City of Eugene will need about 960 acres of land to accommodate this projected growth. This acreage could be accommodated through UGB expansion or inside the current UGB through various land use efficiency measures.

#### 4.7.2. Urban Growth Boundary Expansion

In 2007, the State of Oregon mandated (Oregon House Bill 3337/Oregon Revised Statute 197.296) that Eugene and Springfield each establish independent UGBs to accommodate projected population and employment growth. The proposed expansion areas are located northeast of the River Road Corridor terminus (which is an expansion for park uses) and northwest of the Highway 99 Corridor terminus (which is an expansion of employment, parks, and school lands). Section 4.1 describes the UGB expansion and state regulations in greater detail.

#### 4.8. Reasonably Foreseeable Future Actions

Table 4.8-1 provides information on the reasonably foreseeable future actions (RFFAs) in the API.

**Table 4.8-1. Reasonably Foreseeable Future Actions in the Area of Potential Impact**

Project Name	Location	Facility Size/ # of Dwelling Units	Stage of Development
<b>Highway 99</b>			
McKenzie Brewing	W. 6th Avenue/Garfield Street	24,000 ft <sup>2</sup>	Permitting
<b>River Road</b>			
McKenzie Brewing	W. 6th Avenue/Garfield Street	24,000 ft <sup>2</sup>	Permitting

**Table 4.8-1. Reasonably Foreseeable Future Actions in the Area of Potential Impact**

Project Name	Location	Facility Size/ # of Dwelling Units	Stage of Development
<b>30th Avenue to LCC</b>			
Civic Stadium	Amazon Parkway/Willamette Street	5-court gym, 2,000-seat stadium	Concept
Coughlin redevelopment	Hillyard Street/E. 32nd Avenue	5-story Mixed-Use: 110 DUs above retail	Concept
<b>Coburg Road</b>			
VA Clinic	Chad Drive	126,000 ft <sup>2</sup> (260 employees)	Complete
Fairway Loop Condos	Fairway Loop/ Country Club Road	30 DUs	Concept
Whole Foods (downtown Eugene)	E. 8th Avenue/Mill Street	38,000 ft <sup>2</sup>	Complete
Hyatt Place Hotel/ Mixed-Use development	Oakway Center	7 stories: hotel on parking pedestal with 1-story retail wrap	Construction
Stone Bridge Apartments	89345 Old Coburg Road	150 DUs	Construction
Crescent Place Apartments	Coburg Road/Crescent Avenue	256 DUs	Permitting
33 Broadway	E. Broadway/Oak Street	5-story (office above retail)	Permitting
Obie Redevelopment	NE corner, Oak Street and E. 6th Avenue	Multi-story (approximately 100 market rate units, first floor retail)	Concept
6th + Oak (HACSA)	NW corner, Oak Street and E. 6th Avenue	60 affordable housing units, minimal first floor retail	Concept
<b>Martin Luther King, Jr. Boulevard</b>			
Multi-story office	Centennial Loop	25,000 ft <sup>2</sup>	Concept

Source: CH2M. (2017a).

ft<sup>2</sup> = square feet; DU = dwelling unit

The *Metropolitan Transportation Improvement Program* (Central Lane MPO, adopted 2014, October, as amended; MTIP) includes projects and transportation improvements scheduled over federal fiscal years (FYs) 2015 to 2018 within the Central Lane MPO. Table 4.8-2 outlines projects located within the corridors' APIs that might affect, or be affected by, the MovingAhead Project. The regional roadway system is comprised of streets with a functional classification of arterial or collector.

**Table 4.8-2. Metropolitan Transportation Improvement Program Projects  
(Federal Fiscal Years 2015-2018)**

Project	Key Number	Jurisdiction	Mode	Functional Class	Proposed Corridor Potentially Affected
I-5 Beltline Interchange Unit 4 Eugene/Springfield	16861	ODOT	Modernization	Other Urban Freeways and Expressways/Urban Interstate	Coburg Road
Hunsaker Lane/Beaver Street Corridor Study (Lane County)	18790	Lane County	Planning	Urban Collector	River Road
I-105 Willamette River Connectors & 1st to 7th Avenue Viaducts	18577	ODOT	Preservation	Urban Interstate	River Road
River Road/Maxwell Road Pavement Preservation (Lane County)	18798	Lane County	Preservation	Other Urban Principal Arterial/Urban Minor Arterial	River Road

Source: *MTIP Project Location Map* (Central Lane MPO, adopted 2014, October, as amended).

#### 4.9. Land Use, Zoning, and Developable Lands

The following sections provide information on the existing land uses and current zoning, and (where applicable) Metro Plan designations in the API for each of the corridors and build alternatives. All corridors, except portions of 30th Avenue to LCC, River Road, and Coburg Road Corridors, are within Eugene. Corridors with APIs that stretch beyond UGBs include Highway 99, 30th Avenue to LCC, and Coburg Road. The River Road Corridor API is located within the UGB but with segments located outside of the Eugene city limits. Only the 30th Avenue to LCC, Coburg Road, and Highway 99 Corridor APIs include areas that could be considered prime farmland, agricultural (Goal 3), and forested lands (Goal 4) subject to applicable federal and state regulations. Soils identified as containing the characteristics of prime farmlands are located within the API of all corridors (*Oregon Explorer* [Oregon State University Institute for Natural Resources, 2016]). However, because soils within designated U.S. Census Bureau urbanized areas are exempt, many of these soils are not applicable to the FPPA.

MovingAhead build alternatives begin in the Central Business District at Eugene Station. Dense commercial development characterizes downtown Eugene. This development supports vibrant economic activities and uses that encourage a diverse downtown area. The outer area of the Central Business District transitions to include dense residential development. Outside of the Central Business District, the corridors proposed for Enhanced Corridor or EmX service have unique neighborhood characters and a mix of uses that increased transit service would support.

Overlay zones provide special regulations and standards that supplement the base zone and special area zone regulations and standards. In addition to the current zoning designations, the API has a number of overlay zones within each corridor. Table 4.9-1 provides information on the overlay zones within each corridor.



**Table 4.9-1. City of Eugene Overlay and Special Area Zones within Corridors**

Overlay Zone	Highway 99		River Road		30th Ave to LCC		Coburg Road		MLK Jr. Blvd	
	EC	EmX	EC	EmX	EC	EmX	EC	EmX	EC	EmX
Broadway (BW)	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A
Urbanized Land (UL)		✓	✓	✓	✓	✓	✓	✓	✓	N/A
Planned Unit Development (PD)	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A
Site Review (SR)	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A
Water Quality (WQ)	✓	✓	✓	✓		✓	✓	✓	✓	N/A
Water Resource (WR)	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A
Waterside Protection (WP)		✓								N/A
Nodal Development (ND)		✓	✓	✓		✓	✓	✓	✓	N/A
Transit-Oriented Development (TD)	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A
Willamette River Greenway (WG)		✓	✓	✓		✓	✓	✓	✓	N/A
Commercial Airport Safety (CAS)	✓	✓								N/A

EC = Enhanced Corridor Alternative; EmX = EmX Alternative; N/A = not applicable

Overlay zones that assist in promoting TOD include:

- **Planned Unit Development (PD) Overlays** – This overlay zone allows flexibility in development and encourages a mixture of land uses.
- **Transit Oriented Development (TD) Overlay** – The TD overlay zone is intended to promote the creation and retention of mixed land uses in areas with high potential for enhanced transit and pedestrian activity.
- **Nodal Development (ND) Overlay** – The ND overlay zone is intended to direct and encourage development that is supportive of nodal development and to protect identified nodal development areas from incompatible development prior to adoption of nodal development plans and implementing land use regulations.

Overlay zones that might restrict TOD include the Water Resource (WR) and Water Quality (WQ) overlays, which allow public facilities to be constructed within the overlay, but is restrictive to other forms of development such as residential and commercial uses.

#### 4.9.1. Highway 99 Corridor

The Highway 99 Corridor Enhanced Corridor Alternative and the EmX Alternative would follow the same alignment from Chambers Street west to the corridor terminus. Within this area existing land uses in the corridor include single-family residential and multi-family residential and industrial uses. The alignment for the Enhanced Corridor and EmX Alternatives differ between Eugene Station and Chambers Street.

West of downtown Eugene, there are higher density residential and industrial uses toward River Road and Highway 99. Highway 99 north to Barger Drive is characterized by industrial and commercial uses, transitioning to primarily residential along Barger Drive near the Highway 99 Corridor terminus. Most residential uses on the corridor are located near the Central Business District. Commercial and industrial uses adjacent to the Highway 99 Corridor include suburban strip commercial centers, large scale commercial supermarkets, warehouses and storage facilities, automobile dealerships, and automobile

parking areas. Key uses in the corridor include Willamette High School near the Barger Drive terminus of the corridor and the Lane Event Center on W. 13th Avenue.

A sizeable portion of the Enhanced Corridor Alternative west of downtown Eugene between W. 11th and W. 13th Avenues is located within the Jefferson Westside Special Area Zone (S-JW). The S-JW zone is also located within the EmX Alternative API. This zone promotes mixed, dense, developments that promote affordable housing for mixed incomes and mixed land uses close to the downtown Eugene urban core. The S-JW zone could promote equitable housing and mixed-use along the transit corridor.

Appendix E includes figures that illustrate the generalized land use and Metro Plan designations.

Metro Plan designations within the API of both alternatives include Commercial, Commercial/Mixed-Use, Government and Education, Heavy Industrial, High Density Residential/Mixed-Use, High Density Residential, Light-Medium Industrial, Low Density Residential, Medium Density Residential, Medium Density Residential/Mixed-Use, Mixed-Use, and Parks and Open Space.

#### **4.9.1.1. Enhanced Corridor Alternative**

There are 1,676 acres in the Highway 99 Corridor Enhanced Corridor Alternative API, with 561 acres zoned Mixed-Use (33.5 percent of total API land) and 177 acres zoned Multi-Family Residential (10.6 percent of total API land). Areas zoned Industrial comprise 21.1 percent of the API. Of the 123 acres of vacant parcels, 19 acres are zoned Mixed-Use (15.4 percent) and 6 acres are zoned Multi-Family Residential (4.9 percent of total API land). The majority of the vacant parcels are zoned for Industrial-related uses. Land uses in the API are regulated by seven overlay zones (Table 4.9-1).

#### **4.9.1.2. EmX Alternative**

There are 3,641 acres in the Highway 99 Corridor EmX Alternative API, with 947 acres zoned Mixed-Use (26.0 percent of total API land) and 353 acres zoned Multi-Family Residential (9.7 percent of total API land). Areas zoned Industrial comprise 27.1 percent of the API. There are 287 acres of vacant parcels, which include 43 acres zoned Mixed-Use (15.0 percent of total API land) and 31 acres zoned Multi-Family Residential (10.8 percent of total API land). Similar to the Enhanced Corridor Alternative, the majority of the vacant parcels are zoned for Industrial-related uses. Land uses in the API are regulated by 11 overlay zones (Table 4.9-1).

Metro Plan designations specific to the Highway 99 Corridor EmX Alternative API include Agriculture.

#### **4.9.2. River Road Corridor**

The River Road Corridor Enhanced Corridor Alternative and the EmX Alternative would follow the same alignment from the Northwest Expressway to the corridor terminus at Santa Clara Community Transit Center. Within this area, existing land uses in the corridor include single-family residential and multi-family residential, with commercial area located at the intersection of River Road and the Randy-Papé Beltline Highway.

Key uses on the corridor include the commercial center at the River Road and Randy Papé Beltline interchange, which is surrounded by medium density housing and the local high school.

Metro Plan designations within the API of both alternatives include Commercial, Commercial/Mixed-Use, Government and Education, Heavy Industrial, High Density Residential/Mixed-Use, High Density Residential, Light-Medium Industrial, Low Density Residential, Major Retail Center, Medium Density Residential/Mixed-Use, Medium Density Residential, Mixed-Use, and Parks and Open Space.

#### **4.9.2.1. Enhanced Corridor Alternative**

River Road Corridor Enhanced Corridor Alternative API land uses consist primarily of commercial, retail and office, single-family residential, general services, and occasional multi-family apartments and big box retailers. Specific service and industrial uses throughout the corridor include automobile shops, warehouses, and storage.

There are 1,740 acres in the River Road Corridor Enhanced Corridor Alternative API, with 421 acres zoned Mixed-Use (24.2 percent of total API land) and 167 acres zoned Multi-Family Residential (9.6 percent of total API land). Areas zoned Single-Family Residential comprise the largest area (34.5 percent of total API land). The API contains 194 acres of vacant parcels, with 37 acres zoned Mixed-Use (19.1 percent of total API land) and 8 acres zoned Multi-Family Residential (4.1 percent of total API land). The majority of the vacant parcels are zoned for Industrial-related uses.

Land uses in the Enhanced Corridor API are regulated by nine overlay zones (Table 4.9-1). Transit-oriented overlays such as TD (transit-oriented development) and ND (nodal development) are located in downtown Eugene, along the southern segment of River Road, and at the River Road/Randy Papé Beltline interchange.

#### **4.9.2.2. EmX Alternative**

Existing land use within the River Road Corridor EmX Alternative API consists primarily of retail, single-family residential, and general services uses. Other common uses throughout the corridor include automobile shops, parking, hotels, and mid-size multi-family residential.

There are 3,614 acres in the River Road Corridor EmX Alternative API, with 978 acres zoned Mixed-Use (27.1 percent of total API land) and 389 acres zoned Multi-Family Residential (10.8 percent of total API land). Areas zoned Single-Family Residential comprise the largest area of the API (32.5 percent of total API land). Of the 377 acres of vacant parcels, 59 acres are zoned Mixed-Use (15.6 percent of total API land) and 32 acres are zoned Multi-Family Residential (8.5 percent of total API land). The majority of the vacant parcels are zoned for Industrial-related uses. Land uses in the River Road Corridor EmX Alternative API are regulated by nine overlay zones (Table 4.9-1). In addition, the EmX Alternative API includes the Downtown Westside Special Area Zone (S-DW), which promotes high-density residential development and the redevelopment of existing residential with provisions for small commercial uses. It also includes the Chambers Special Area Zone (S-C), which promotes a general increase of dense residential and commercial developments.

Metro Plan designations specific to the EmX Alternative API include Agriculture.

#### **4.9.3. 30th Avenue to Lane Community College Corridor**

The 30th Avenue to LCC Corridor Enhanced Corridor and EmX Alternatives are located within the same roadway footprint and alignment, however, the Enhanced Corridor Alternative and EmX Alternative APIs are different and are therefore described separately.

Key land uses on the 30th Avenue to LCC Corridor common to both alternatives consist of the Lane Community College, Amazon Park, and woodland areas located in Lane County. The corridor contains the Civic Stadium site, which is currently undergoing redevelopment.

Within both corridor APIs, lands zoned for Forest and Agricultural uses are located outside the City's UGB along the southern end of the corridor. Lands located outside the City of Eugene UGB in Lane County are subject to Oregon Statewide Planning Goals 3 (Agricultural Lands) and 4 (Forest Lands).

Metro Plan designations within the API of both corridors include Agriculture, Commercial, Commercial/Mixed-Use, Forest Land, Government and Education, High Density Residential/Mixed-Use, High Density Residential, Low Density Residential, Medium Density Residential/Mixed-Use, Medium Density Residential, Parks and Open Space, and Rural Residential.

#### **4.9.3.1. Enhanced Corridor Alternative**

Existing land uses consist primarily of offices, commercial centers, and multi-family residential near the Central Business District, before transitioning to lower density residential south of West 18th Avenue, and sparsely developed single-family residential and vacant undeveloped lands east of Spring Boulevard. The southern segment of this corridor is comprised of single-family homes, and parks and open space as it travels toward the Eugene UGB.

There are 1,197 acres in the 30th Avenue to LCC Corridor Enhanced Corridor Alternative API, with 174 acres zoned Mixed-Use (14.5 percent of total API land) and 100 acres zoned Multi-Family Residential (8.4 percent of total API land). Areas zoned Single-Family Residential and Agricultural comprise 44.4 percent of the API. Of the 149 acres of vacant land within this alternative API, the majority is associated with areas zoned Agricultural and Single-Family Residential, with 1 acre of this land zoned Multi-Family Residential (less than 1 percent of total API land). Vacant areas zoned Mixed-Use comprise just 3 acres (2 percent of total API land). The Enhanced Corridor Alternative land uses are regulated by six overlay zones (Table 4.9-1).

#### **4.9.3.2. EmX Alternative**

The 30th Avenue to LCC EmX Alternative API contains a greater diversity in land uses than the Enhanced Corridor Alternative API. These uses include more single-family residential and multi-family residential homes, and includes additional uses such as fraternal housing, services, and government uses.

There are 2,921 acres in the EmX Alternative API, with 367 acres zoned Mixed-Use (12.6 percent of total API land) and 268 acres zoned Multi-Family Residential (9.2 percent of total API land). Single-Family Residential and Agricultural comprise 58.5 percent of the land in the 30th Avenue to LCC Corridor EmX Alternative API. Of the 608 acres of vacant land within this alternative API, the majority (as with the Enhanced Corridor Alternative), is associated with areas zoned Agricultural and Single-Family Residential. Vacant areas zoned Mixed-Use comprise 12 acres (2 percent of total API land), and 4 acres comprise Multi-Family Residential (0.07 percent of total API land). Land uses in the corridor would be regulated under nine overlay zones (Table 4.9-1).

#### **4.9.4. Coburg Road Corridor**

The Coburg Road Corridor Enhanced Corridor Alternative and EmX Alternative alignments would follow the same alignment from the south side of the Ferry Street Bridge to the corridor terminus at Gateway Station. The alternatives follow different alignments in the downtown Eugene area.

Key land uses throughout the Coburg Road Corridor under both alternatives include the Oakway Center at the intersection of Oakway and Coburg Roads, and the shopping center at the intersection of Willakenzie and Coburg Roads. The recently completed Veterans Affairs Hospital and Crescent Village Mixed-Use development are also located within both APIs. Land uses in both APIs are regulated by nine overlay zones (Table 4.9-1).

Agricultural uses in both build alternative APIs consist of grain and crop farming and agricultural warehousing and storage east of N. Game Farm Road. Both build alternative APIs contain Agricultural

lands located within and outside of the Eugene and Springfield UGBs. Agricultural lands located within the UGB are not subject to Oregon Statewide Planning Goals 3 (Agricultural Lands) or 4 (Forest Lands).

Both build alternative APIs contain the Whiteaker Special Area Zone (S-W) under the Mixed-Use zone. The S-W zone is located north of the Central Business District and promotes economic vitality through a mix of industrial, institution, and commercial uses while also allowing a mix of residential dwellings. City of Springfield and Lane County jurisdictional zoning is located within both corridor alternative APIs.

Metro Plan designations within the API of both corridors include Agriculture, Campus Industrial, Commercial, Commercial/Mixed-Use, Government and Education, High Density Residential/Mixed-Use, High Density Residential, Low Density Residential, Major Retail Center, Medium Density Residential/Mixed-Use, Medium Density Residential, Mixed-Use, Parks and Open Space, and University Research.

#### **4.9.4.1. Enhanced Corridor Alternative**

Existing land uses in the Coburg Road Enhanced Corridor Alternative API consist primarily of single-family residential, multi-family residential, offices less than three stories tall, commercial areas, and retail areas.

There are 1,516 acres in the Enhanced Corridor Alternative API, with 395 acres zoned Mixed-Use (26.1 percent of total API land) and 138 acres zoned Multi-Family Residential (9.1 percent of total API land). Areas zoned Single-Family Residential and Agricultural comprise 44.4 percent of the API. There are 172 acres of vacant parcels in the alternative, of which 23 acres are zoned Mixed-Use (13.4 percent of total API land). The majority of the vacant parcels are zoned Single-Family Residential (15.1 percent of total API land), Multi-Family Residential (16.3 percent of total API land), and Office (41.3 percent of total API land).

#### **4.9.4.2. EmX Alternative**

The Coburg Road Corridor EmX Alternative API contains more offices, single-family homes, and vacant lands than the Enhanced Corridor Alternative API.

There are 3,341 acres in the Coburg Road Corridor EmX Alternative API, with 627 acres zoned Mixed-Use (18.8 percent of total API land) and 320 acres zoned Multi-Family Residential (9.6 percent of total API land). Areas zoned Single-Family Residential and Agricultural comprise 42.0 percent of the API. There are 407 acres of vacant parcels; areas zoned Mixed-Use comprise 32 acres of the vacant parcels (7.9 percent of total API land). The majority of the vacant parcels are zoned Single-Family Residential, Office, and Institution. Vacant lands zoned Multi-Family Residential comprise 48 acres (11.8 percent of total API land).

### **4.9.5. Martin Luther King, Jr. Boulevard Corridor**

#### **4.9.5.1. Enhanced Corridor Alternative**

Existing land uses consist primarily of retail, general services, government, and recreation. Uses along the corridor consist primarily of government buildings (Lane County Juvenile Court, Lane County Circuit Court, City of Eugene, etc.), and recreational facilities and parking areas. Key land uses in the corridor are the UO's Autzen Stadium, UO student housing (Duck Village), Papé Field, PK Baseball Park, Lane County Juvenile Court, and Alton Baker Park. The corridor contains commercial areas located primarily in downtown Eugene and near the intersection of Martin Luther King, Jr. Boulevard and Coburg Road.

There are 884 acres in the Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative API, with 259 acres zoned Mixed-Use (29.3 percent of total API land) and 118 acres zoned Multi-Family Residential (13.3 percent of total API land). Areas zoned Institution comprise the largest area (38.3 percent of total API land) in the API. Of the 76 acres of vacant land within the alternative, the majority is associated with areas zoned Institution and Single-Family Residential. Vacant areas zoned Mixed-Use comprise 14 acres (18.4 percent of total API land), and vacant Multi-Family Residential lands comprise 12 acres (15.8 percent of total API land). Land uses in the API are regulated by nine City of Eugene overlay zones (Table 4.9-1).

Metro Plan designations within the Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative API include Commercial, Commercial/Mixed-Use, Government and Education, High Density Residential/Mixed-Use, High Density Residential, Low Density Residential, Major Retail Center, Medium Density Residential/Mixed-Use, Medium Density Residential, Mixed-Use, Parks and Open Space, and University Research.

## 5. Environmental Consequences Common to All Corridors

This section discusses the potential direct and indirect impacts associated with construction and operation of the MovingAhead Project to land uses for all corridors within the API. It is anticipated that the impacts would be minor and would not change existing land use patterns because the corridors are primarily within existing transportation ROWs and direct land use impacts are adjacent to and along the corridors. Draft Envision Eugene promotes compact urban development and efficient transportation options, which the MovingAhead Project would support. The effects to existing structures and activities, natural resources, vegetation, and other site attributes are addressed in other technical reports prepared for the MovingAhead Project.

The Farmland Mapping and Monitoring Program does not apply to soils in urbanized areas (CFR 523.10[B][2]). Therefore, most of the Agricultural areas or soils within these corridors are not considered prime farmland. In areas outside of the urbanized area, no areas of prime farmland would be acquired. No impacts to prime farmlands would occur as a result of any of the proposed alternatives.

### 5.1. Direct Impacts

The direct impact analysis includes a quantitative review to determine the potential for conversion from existing and designated zoned uses to a transportation-related use. The analysis includes a qualitative review of the applicable plans and policies and the consistency of the alternatives with these plans and policies. Appendix D describes the consistency of the alternatives with relevant land use goals, objectives, and policies of regional and local plans.

Acreages estimated for conversions from their existing use to a transportation use are based on preliminary design and might be altered during design refinement (Table 5.1-1). The build alternatives for all corridors described in the environmental consequences sections of this technical report would convert more land to a transportation-related use than the No-Build Alternatives. The amount of land for all corridors that would be converted to a transportation-related use is minor compared to the total land available in the City of Eugene where most of the conversion would occur. The conversion of these lands to a transportation use would not alter the future development potential of the City in any corridor under any alternative.

#### 5.1.1. No-Build Alternatives

The No-Build Alternatives would include existing roadway, bicycle, pedestrian, and transit facilities in each corridor, as well as planned improvements identified in the Eugene TSP. The No-Build Alternatives would include construction of the West Eugene EmX and Main Street EmX extensions, the Santa Clara Community Transit Center, and the McVay Highway Enhanced Corridor. The No-Build Alternatives would have no additional major bus capital improvements.

The No-Build Alternatives would not displace any residences or businesses. They would have no direct impacts on land uses, comprehensive plan designations, or zoning designations.

Impacts to existing land uses would include the construction of the new Santa Clara Community Transit Center on lands that are currently vacant. LTD purchased this land prior to the proposed construction of the transit center. Actions included in the No-Build Alternatives would be reviewed for potential acquisitions; displacement; environmental justice and social effects; and land use impacts under separate environmental review processes.

**Table 5.1-1. Potential Permanent Conversion of Land to Transportation-Related Use (Acres by Zoning Classification)**

Alternative	Commercial	Industrial	Office	Institution	Single-Family Residential	Multi-Family Residential	Agriculture/Forest/Natural Resources	Mixed-Use	Special Area Zone (Non-Mixed Use)	Total Acres (approx.)
<b>Highway 99 Corridor</b>										
EC	0	< 0.1	0	0.3	0.1	< 0.1	0	0.9	0	1.3
EmX	0	< 0.1	0	0.3	0.1	< 0.1	0	1.2	0	1.6
<b>River Road Corridor</b>										
EC	0	0	0	0	< 0.1	0	0	1.2	0	1.3
EmX	0	0	< 0.1	< 0.1	< 0.1	< 0.1	0	2.2	0	2.2
<b>30th Avenue to LCC Corridor</b>										
EC	0	0	0	0.4	0	< 0.1	0	< 0.1	0	0.4
EmX	0	0	0	0.5	< 0.1	< 0.1	0	0.1	0	0.6
<b>Coburg Road Corridor</b>										
EC	0	0	< 0.1	0	0.2	0.2	0	0.5	0	1.0
EmX	< 0.1	0	0.1	< 0.1	0.6	0.7	0	2.4	0	4.0
<b>Martin Luther King, Jr. Boulevard Corridor</b>										
EC	0	0	0	0	< 0.1	< 0.1	0	< 0.1	0	< 0.1

Note: Potential impacts are based on current conceptual designs. Design refinements could change the total amount converted and the zoning category.

EC = Enhanced Corridor Alternative; EmX = EmX Alternative; approx. = approximately



#### **5.1.1.1. Consistency with Area Plans**

The No-Build Alternatives would be inconsistent with many local, regional, and state land use and transportation policies because they would not institute an EmX transit system connecting the region's highest growth centers. In addition, the No-Build Alternatives would not be consistent with the Eugene TSP, the Metro Plan, TransPlan, and Draft Envision Eugene – documents that encourage increased density and TOD along Key Transit Corridors. Appendix D provides information about the No-Build Alternatives' inconsistencies related to applicable land use goals, objectives, and policies of regional and local plans.

#### **5.1.2. Enhanced Corridor Alternatives**

Under the Enhanced Corridor Alternatives, partial acquisitions from multiple properties would be required throughout all corridors to widen the public ROW in certain locations to construct pedestrian improvements, build queue jumps at signalized intersections, construct fixed-route stops, and improve pedestrian sidewalks and bicycle lanes. Table 5.1-1 provides information on the amount of land that could be converted to transportation use within each corridor under the Enhanced Corridor Alternatives. The Highway 99 and Coburg Road Corridors Enhanced Corridor Alternatives would convert more area to transportation-related uses than the other corridors. Areas zoned Mixed-Use would realize the greatest conversion when aggregated among all corridors under these alternatives.

#### **5.1.2.1. Consistency with Area Plans**

Generally, the Enhanced Corridor Alternatives for all corridors would be consistent with the goals and policies of the Metro Plan, RTP, TransPlan, Draft Envision Eugene, and the Eugene TSP. (These documents identify the need to implement improved transportation systems). Transportation system improvements consistent with these area plans for all corridors primarily involve implementing public transit, pedestrian, and bicycle improvements. The City's vision identifies the need for efficient transportation options in the seven pillars of Draft Envision Eugene. Unlike the No-Build Alternatives, the Enhanced Corridor Alternatives for all corridors would provide these transportation options. The Enhanced Corridor Alternatives would not be fully consistent with the RTP (TSI Transit Policy #2) and the Metro Plan (Policy F.19) because the Enhanced Corridor Alternatives would not implement a BRT system. However, the Enhanced Corridor Alternatives would implement lower capital-cost transit improvements to Key Transit Corridors consistent with the intent of these goals and policies. The Enhanced Corridor Alternatives would provide pedestrian, bicycle, and transit improvements throughout all corridors. Beneficial impacts would include an improved transportation system when compared to the No-Build Alternatives. Appendix D describes the consistency of the Enhanced Corridor Alternatives with applicable land use goals, objectives, and policies of regional and local plans.

#### **5.1.3. EmX Alternatives**

Under the EmX Alternatives, partial acquisition of multiple properties would be required throughout all corridors to widen the public ROW in certain locations to construct pedestrian improvements, queue jumps at signalized intersections, stations, pedestrian islands, bicycle waiting areas and lanes, BAT lanes, and new turn lanes.

Table 5.1-1 provides information on the amount of land that might be converted to transportation use within all corridors under the EmX Alternatives. The Coburg Road Corridor would convert more area to a transportation-related use than the other corridors under this alternative. Areas zoned Mixed-Use would also realize the greatest conversion to a transportation-related use when aggregated among all

corridors. The amount of land that would be converted to a transportation use would be minor compared to the total land available in the City of Eugene, where most of the conversion would occur.

#### **5.1.3.1. Agriculture, Farm, and Forest Lands**

The Highway 99, Coburg Road, and 30th Avenue to LCC Corridor APIs under the EmX Alternatives contain soils that meet the definition of prime farmlands. Although these corridors contain soils subject to prime farmland regulations, no direct impacts would occur to these lands under the EmX Alternatives.

#### **5.1.3.2. Consistency with Area Plans**

The EmX Alternatives would be consistent with existing local, regional, and state land use and transportation policies because they would institute an EmX system connecting the region's highest growth centers. The goals and policies of the Metro Plan and RTP identify the need to implement improved transportation and further expansion of the EmX system. Transportation system improvements consistent with these plans include EmX, other public transit, pedestrian facilities, and bicycle improvements. Appendix D describes the consistency of the EmX Alternatives with applicable land use goals, objectives, and policies of regional and local plans. The City's vision also identifies the need for efficient transportation options in the seven pillars of Draft Envision Eugene. The EmX Alternatives provide higher capacity transit with greater frequency consistent with Draft Envision Eugene when compared to the No-Build Alternatives or Enhanced Corridor Alternatives. The EmX Alternatives would provide pedestrian, bicycle, and transit improvements throughout the five corridors, which are identified as Key Transit Corridors for transit improvements.

The EmX Alternatives could support denser urban development within the existing UGB consistent with growth management policies. The EmX Alternative would likely support increased housing and commercial densities along the corridor within station areas, which could potentially reduce future pressure to expand the UGB for housing and/or commercial lands.

### **5.2. Indirect and Cumulative Effects**

Indirect impacts are caused by the project action and occur later in time or are farther removed in distance, but are still reasonably foreseeable.

Indirect impacts on land use would be associated with TOD. TOD is defined as a mixed-use pedestrian-friendly land use pattern that seeks to increase concentrations of population and employment in well-defined areas with good transit service, a mix of diverse and compatible land uses, and public and private improvements designed to be pedestrian and transit-oriented. The *City of Eugene Growth Management Policies* identify the need for dense mixed-use development within the UGB to deter from accommodating residential, commercial, or capital needs through UGB expansion. It should be noted that, often, having areas zoned Mixed-Use and identified within TOD overlay zones is not enough for TOD to occur. Typically, the location of the transit service in relation to the areas zoned Mixed-Use and Multi-Family Residential, along with active real estate markets are required to ensure the success of TOD.

Cumulative impact analyses focus on those impacts resulting from the incremental impact of the action when added to other past, present, and RFFAs, regardless of which agency or person undertakes such other actions.

### 5.2.1. No-Build Alternatives

While redevelopment of vacant and underutilized lands within corridor APIs could occur under the No-Build Alternatives, indirect impacts and benefits associated with TOD would not likely occur within corridor APIs under the No-Build Alternatives, because investment in transit would be less than with the Enhanced Corridor or EmX Alternatives.

It is not anticipated that the No-Build Alternatives would have any cumulative land use impacts. However, any planned projects under the No-Build Alternatives in combination with the MTIP projects would help improve mobility uses and areas identified through local policy and zoning as transit supportive. These improvements would not be as extensive as those under the Enhanced Corridor or EmX Alternatives.

### 5.2.2. Enhanced Corridor Alternatives

Indirect impacts associated with TOD could occur within corridor APIs under the Enhanced Corridor Alternatives, but potentially not to the same degree as under the EmX Alternatives. Areas that local ordinances and zoning have identified as appropriate for TOD include the downtown Eugene area, which is proposed for transit enhancement under this alternative for all corridors. Vacant and underutilized lands within corridor APIs would likely remain undeveloped within their respective zones and would not develop to the capacity allowed by local zoning and development regulations. By improving transit access to residential, commercial, and office properties, the demand for and desirability of these developments could increase. Compared to the No-Build Alternatives, lands zoned Mixed-Use and Multi-Family Residential would likely be supported to a greater degree by transportation improvements proposed under this alternative. It is not likely that improved public transportation would support redeveloped industrial lands to the same degree as it would support mixed-use properties because zoning does not typically allow transit-supportive Mixed-Use development opportunities in active industrial areas.

Improved multimodal systems would support greater multi-family and mixed-use land intensities under the Enhanced Corridor Alternative if development were to occur. Greater areas of Mixed-Use zoning and Multi-Family Residential along affected street corridor APIs would indicate the potential for TOD within the corridor.

It is not anticipated that any negative cumulative impacts would result from an Enhanced Corridor Alternative on any of the corridors. However, any planned projects under the Enhanced Corridor Alternatives in combination with some of the MTIP projects (Tables 4.8-1 and 4.8-2) would improve mobility and access to areas that local policy and zoning have identified as appropriate for TOD, though not to the same degree as the EmX Alternatives. In locations where transit stops would be added or enhanced, increases in ridership would be supported. The Enhanced Corridor Alternatives would provide more transit service along Key Transit Corridors than the No-Build Alternatives, but would not implement EmX service.

### 5.2.3. EmX Alternatives

Converting lands described in Section 5.1.3 would not negatively affect or inhibit future development within corridor EmX APIs. Compared to the No-Build and Enhanced Corridor Alternatives, the EmX Alternatives would better support TOD in places local and regional land use planning documents have designated for mixed-use development. Areas that local ordinances and zoning have designated as appropriate for TOD include the downtown Eugene area, which is proposed for transit enhancement

under these alternatives for all corridors. Like other forms of rapid transit, BRT has the potential to promote transit-supportive land development, greater accessibility, employment prospects, and economic opportunities by concentrating development and increasing property values. EmX Alternatives would serve existing land use and could accommodate higher density mixed-use and multi-family residential development within the corridors consistent with local planning and zoning regulations (Breakthrough Technologies Institute, 2008, April). By improving transit access to residential, commercial, and office properties, the demand for and desirability of these developments could increase. Compared to the No-Build and Enhanced Corridor Alternatives, transportation improvements proposed under the EmX Alternatives could serve higher intensity development on lands zoned Mixed-Use and Multi-Family Residential. It is not likely that the EmX Alternatives would support the redevelopment of industrial lands to the same degree as it would support mixed-use development opportunities because zoning does not typically allow transit-supportive mixed-use development opportunities in active industrial areas.

Implementation of the EmX Alternatives would provide an opportunity for the City of Eugene to implement regional policies related to high-capacity transit and plans for increased densities and TOD, which local and regional planning documents support. EmX service would support the potential to develop to densities that local zoning allows, especially for lands zoned Mixed-Use and Multi-Family Residential.

It is not anticipated that the EmX Alternatives would have any negative indirect or cumulative effects for any corridors. However, the RFFAs would, in combination with the EmX Alternatives, yield beneficial cumulative effects. Tables 4.8-1 and 4.8-2 identify RFFAs within corridor APIs.

### **5.3. Short-Term Construction-Related Impacts**

The following sections provide information on the short-term construction-related impacts and identify any differences among the alternatives.

#### **5.3.1. No-Build Alternatives**

Under the No-Build Alternatives, projects outlined in the MTIP would cause short-term construction-related impacts such as temporary noise, dust, vibration, and interference with access to properties located along the corridors. It is not likely that those construction activities along affected corridors would cause a permanent change to the existing or future use of the land as a result of existing businesses leaving and the land becoming vacant. Such construction would be short-term and each planned project would include measures to maintain access and reduce construction-related impacts.

#### **5.3.2. Enhanced Corridor Alternatives**

The Enhanced Corridor Alternatives for all corridors would require construction activities resulting in temporary noise, dust, vibration, and interference with access to properties located along the corridors. Construction activities would not likely cause a permanent change to the existing or future use of the land as a result of existing businesses leaving and the land becoming vacant. Such construction would be short-term and the Enhanced Corridor Alternative projects would include measures to maintain access and reduce construction-related impacts.

The Enhanced Corridor Alternatives would have greater construction-related impacts than the No-Build Alternatives for all corridors. Construction of transit stops, dedicated transit lanes, and other infrastructure would require greater roadway work. Therefore, the Enhanced Corridor Alternatives

would have more impacts both within and outside of the existing public ROW than the No-Build Alternatives.

Construction of any of the Enhanced Corridor Alternatives might require temporary construction easements beyond the property acquisition needed to construct the alternative. This could cause additional impacts to properties located along the corridors. These easements would be temporary and the areas affected would be returned to preconstruction conditions upon completion. Additional information about compensation for any temporary easements is addressed in the *Acquisitions and Displacements Technical Report* (CH2M, 2017h).

### 5.3.3. EmX Alternatives

The EmX Alternatives for all corridors would require construction activities resulting in temporary noise, dust, vibration, and interference with access to properties located along the corridors. Construction activities would not likely cause a permanent change to the existing or future use of the land as a result of existing businesses leaving and the land becoming vacant. Such construction would be short-term and the EmX Alternative projects would include measures to maintain access and reduce construction-related impacts.

The EmX Alternatives would have greater construction-related impacts than the Enhanced Corridor and No-Build Alternatives for all corridors due to the greater amount of construction required. Therefore, they would have more impacts both within and outside of the existing public ROW.

Construction of any of the EmX Alternatives might require temporary construction easements beyond the property acquisition needed to construct the alternative. This could cause additional impacts to properties located along the corridors. These easements would be temporary and the areas affected would be returned to preconstruction conditions upon completion. Additional information about compensation for any temporary easements is addressed in the *Acquisitions and Displacements Technical Report* (CH2M, 2017h).

## 5.4. Potential Mitigation Measures

The following sections provide information related to potential mitigation measures. Mitigation measures would be the same for all corridors.

### 5.4.1. No-Build Alternatives

Mitigation measures for proposed separate actions from the MovingAhead Project that are included under the No-Build Alternatives would need to be addressed in separate environmental review processes for those separate actions.

### 5.4.2. Enhanced Corridor Alternatives

No mitigation related to land use would be required during the construction or operation of the Enhanced Corridor Alternatives.

The *Acquisitions and Displacements Technical Report* (CH2M, 2017h) identifies potential measures that could be implemented to address the temporary and permanent acquisition of property. The *Noise and Vibration Technical Report* (MMA and CH2M, 2017a), *Air Quality Technical Report* (MMA and CH2M, 2017b), *Visual and Aesthetic Resources Technical Report* (CH2M, 2017g), and *Transportation Technical*

*Report* (CH2M, 2017h) identify potential mitigation measures that could be implemented to minimize construction impacts on adjacent land uses.

#### **5.4.3. EmX Alternatives**

No mitigation related to land use would be required during construction or operation of the EmX Alternatives.

The *Acquisitions and Displacements Technical Report* (CH2M, 2017h) identifies potential measures that could be implemented to address the temporary and permanent acquisition of property. The *Noise and Vibration Technical Report* (MMA and CH2M, 2017a), *Air Quality Technical Report* (MMA and CH2M, 2017b), *Visual and Aesthetic Resources Technical Report* (CH2M, 2017g), and *Transportation Technical Report* (CH2M, 2017h) identify potential mitigation measures that could be implemented to minimize construction impacts on adjacent land uses.

## **6. Highway 99 Corridor Environmental Consequences**

### **6.1. Affected Environment**

Figures 6.1-1 and 6.1-2 show zoning and overlay zoning within the Highway 99 Corridor's Enhanced Corridor Alternative and its EmX Alternative APIs, respectively.

### **6.2. Direct Impacts**

The following section provides information on specific direct impacts related to the Highway 99 Corridor for all alternatives. The converted area under both build alternatives includes the pedestrian bridge connecting the Trainsong neighborhood to Highway 99.

#### **6.2.1. No-Build Alternative**

Direct impacts under the Highway 99 Corridor No-Build Alternative are described in Section 5.1.1.

#### **6.2.2. Enhanced Corridor Alternative**

Table 5.1-1 provides information on the amount of land that might be converted to transportation use within the Highway 99 Corridor Enhanced Corridor Alternative. The alternative would convert more areas zoned Mixed-Use (0.9 acre) to a transportation use than any other zoning designation.

#### **6.2.3. EmX Alternative**

Table 5.1-1 provides information on the amount of land that might be converted to transportation use within the Highway 99 Corridor EmX Alternative. The alternative would convert more areas zoned Mixed-Use (1.2 acres) to a transportation use than any other zoning designation.

### **6.3. Indirect and Cumulative Effects**

The proposed RFFA would not be adversely affected by actions proposed under any of the build alternatives (Tables 4.8-1 and 4.8-2). The alternatives would not change land use or the potential RFFA development within the Highway 99 Corridor.

#### **6.3.1. No-Build Alternative**

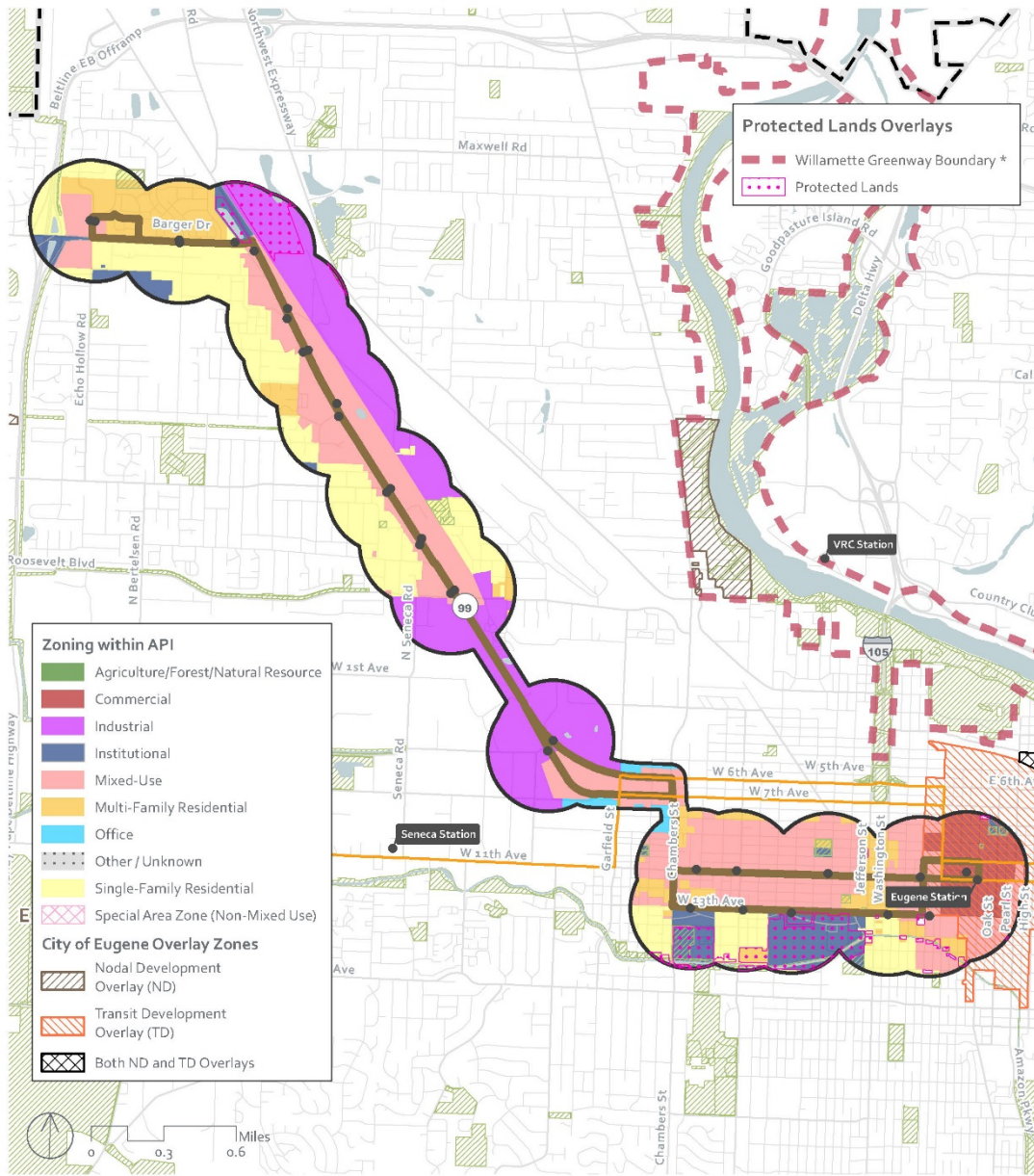
Indirect and cumulative effects under the Highway 99 Corridor No-Build Alternative are described in Section 5.2.1.

#### **6.3.2. Enhanced Corridor Alternative**

Indirect beneficial effects associated with TOD under the Enhanced Corridor Alternative would be greater than under the No-Build Alternative, but lower than under the EmX Alternative due to less land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses under this alternative.



**Figure 6.1-1. Highway 99 Corridor Enhanced Corridor Alternative Generalized Zoning**

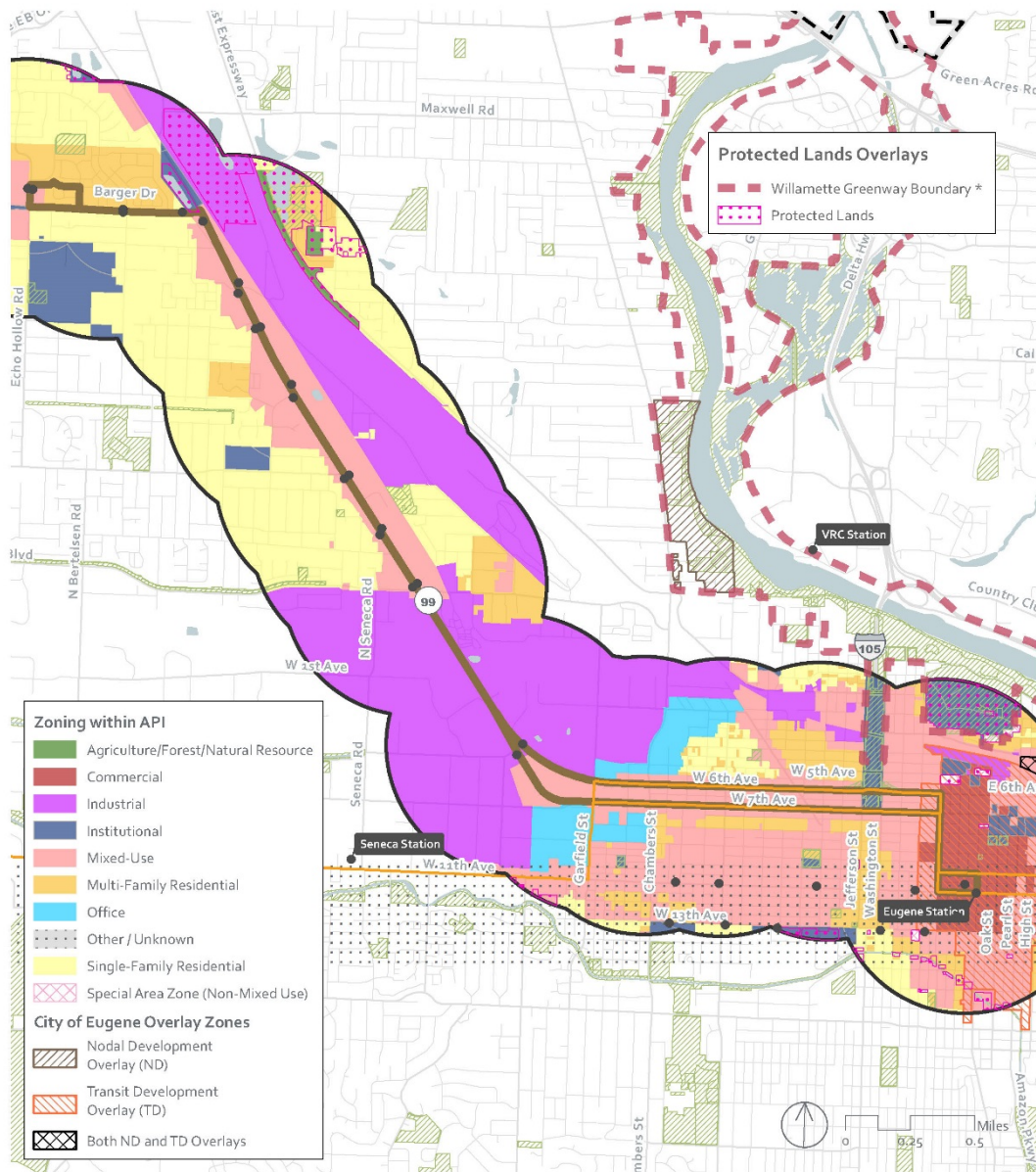


Data Sources: City of Eugene, Lane Transit District (2014, 2016); City of Eugene, Planning Division (2016)  
 Document Path: \\PDX\FPP01\Proj\Lane Transit District\657958\EugeneBRT\GIS\MapFiles\Level\_2\Environmental\_Analysis\Land-Use-Farmlands\Level\_2\_Corridor\_EnviroAnalysis\_Lancuse\_Corridor\Extent\ZoningBySEC.mxd





**Figure 6.1-2. Highway 99 Corridor EmX Alternative Generalized Zoning**



**Legend**

- Stop/Station Location
- Highway 99 Corridor
- 2035 No-Build EmX
- Road
- Area of Potential Impacts (API)
- Urban Growth Boundary (UGB)
- Water
- Park

**Generalized Zoning**  
Highway 99 Corridor EmX Alternative

\* Disclaimer: Caution -- Willamette Greenway Boundary is based on imprecise source data, subject to change, and for general reference only. For use in "LTD Moving Ahead Environmental Analysis data - ad hoc 1771". Source: City of Eugene, Planning Div., Nov 2106

Data Sources: City of Eugene, Lane Transit District (2014, 2016); City of Eugene, Planning Division (2016)  
 Document Path: \\PDX\PP01\Proj\Lane Transit District\657958\EugeneBR\GIS\MapFiles\Level\_21\Environmental\_L\_Analysis(Land-Use-Farmlands)\Level\_2\_Corridor\_EnviroAnalysis\_LandUse\_Corridor\2016\2035\99\EmX.mxd

### **6.3.3. EmX Alternative**

Indirect beneficial effects associated with TOD under the EmX Alternative would be greater than under the No-Build Alternative and the Enhanced Corridor Alternative due to a larger amount and potential for development of land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses.

## **6.4. Short-Term Construction-Related Impacts**

The following items provide information on the short-term construction-related impacts and identify any differences among the Highway 99 Corridor alternatives.

### **6.4.1. No-Build Alternative**

Short-term construction-related impacts under the Highway 99 Corridor No-Build Alternative are described in Section 5.3.1.

### **6.4.2. Enhanced Corridor Alternative**

Short-term construction-related impacts under the Highway 99 Corridor Enhanced Corridor Alternative are described in Section 5.3.2.

### **6.4.3. EmX Alternative**

Short-term construction-related impacts under the Highway 99 Corridor EmX Alternative are described in Section 5.3.3.

## **6.5. Potential Mitigation Measures**

The following items provide information on potential mitigation measures. Mitigation measures would be the same for all corridors.

### **6.5.1. No-Build Alternative**

Mitigation measures under the Highway 99 Corridor No-Build Alternative are described in Section 5.4.1.

### **6.5.2. Enhanced Corridor Alternative**

Mitigation measures under the Highway 99 Corridor Enhanced Corridor Alternative are described in Section 5.4.2.

### **6.5.3. EmX Alternative**

Mitigation measures under the Highway 99 Corridor EmX Alternative are described in Section 5.4.3.

## **7. River Road Corridor Environmental Consequences**

### **7.1. Affected Environment**

Figures 7.3-1 and 7.3-2 show zoning and overlay zoning within the River Road Corridor's Enhanced Corridor Alternative and its EmX Alternative APIs, respectively.

### **7.2. Direct Impacts**

The following section provides information on specific direct impacts related to the River Road Corridor for all alternatives.

#### **7.2.1. No-Build Alternative**

Direct impacts under the River Road Corridor No-Build Alternative are described in Section 5.1.1.

#### **7.2.2. Enhanced Corridor Alternative**

Table 5.1-1 provides information on the amount of land that might be converted to transportation use within the River Road Corridor Enhanced Corridor Alternative. These estimates are based on preliminary design and might be altered during design refinement. The alternative would convert more areas zoned Mixed-Use (1.2 acre) to a transportation use than any other zoning designation.

#### **7.2.3. EmX Alternative**

Table 5.1-1 provides information on the amount of land that might be converted to transportation use within the River Road Corridor EmX Alternative. Areas zoned Mixed-Use would be impacted the greatest (2.2 acre) by being converted to a transportation-related use.

### **7.3. Indirect and Cumulative Effects**

The proposed RFFA identified in Tables 4.8-1 and 4.8-2 would not be adversely affected by actions proposed under any of the River Road Corridor alternatives. The alternatives would not change land use or the potential RFFA development within the corridor.

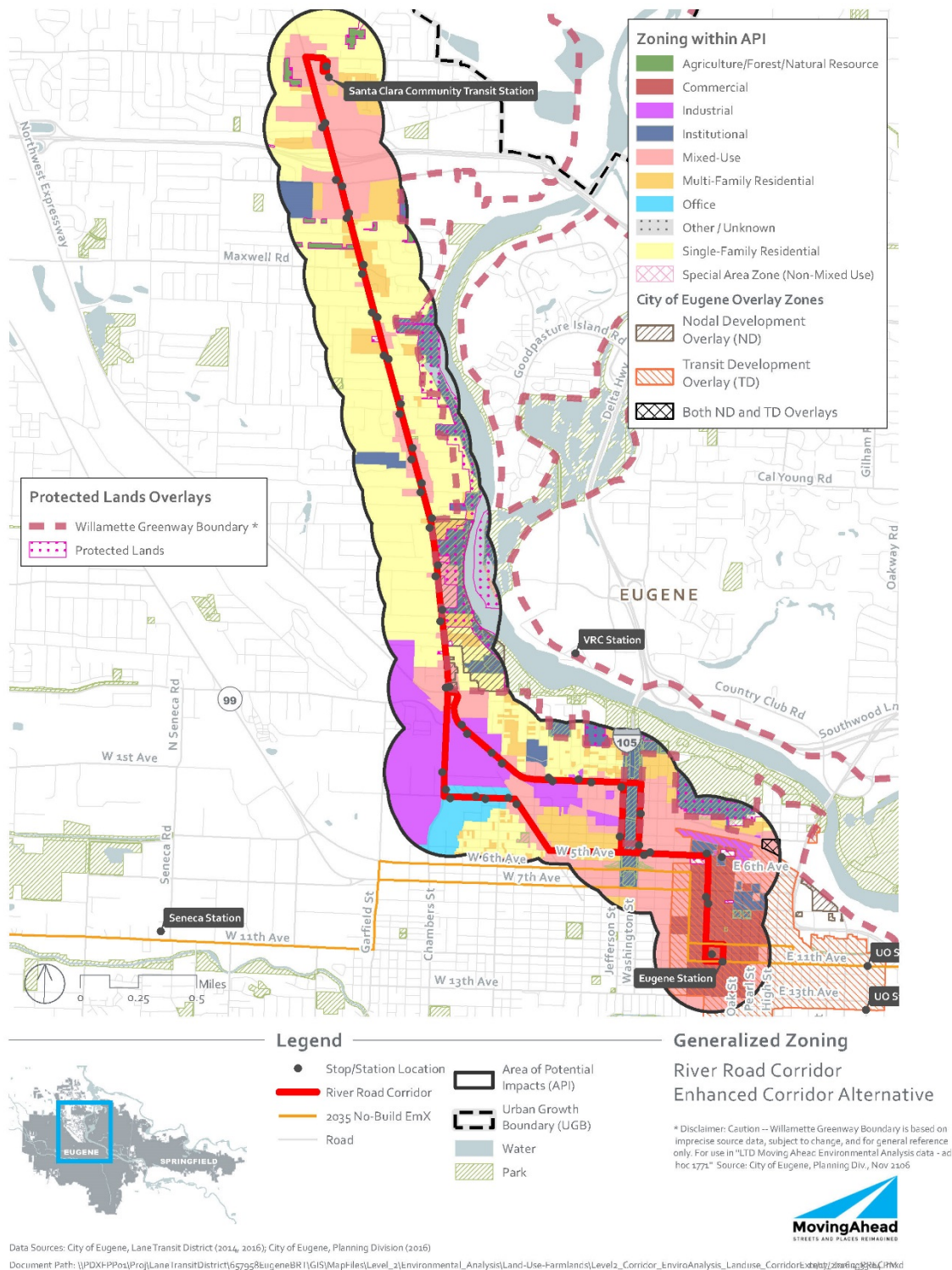
#### **7.3.1. No-Build Alternative**

Indirect and cumulative effects under the River Road Corridor No-Build Alternative are described in Section 5.2.1.

#### **7.3.2. Enhanced Corridor Alternative**

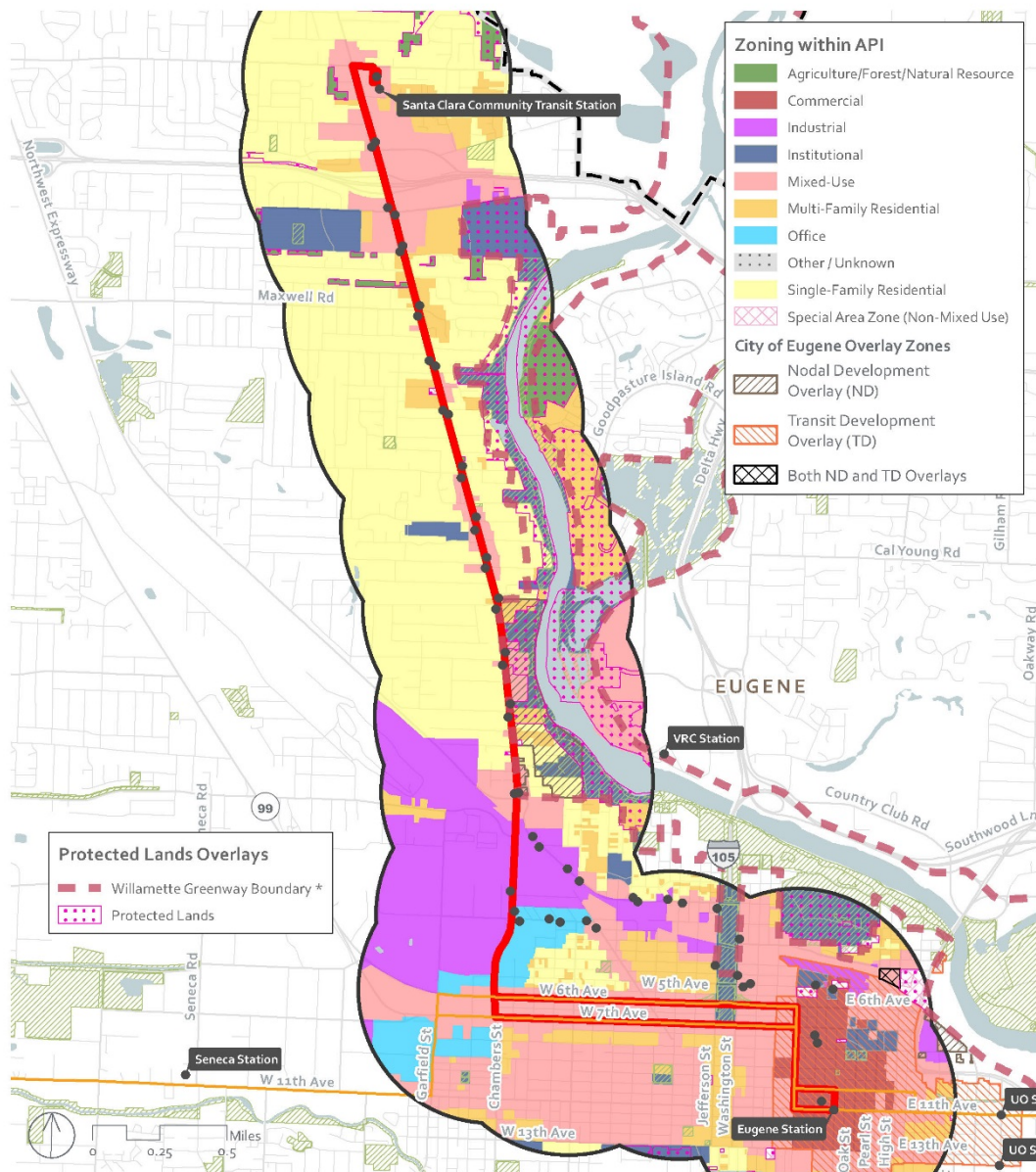
Indirect beneficial effects associated with TOD under the Enhanced Corridor Alternative would be greater than under the No-Build Alternative, but lower than under the EmX Alternative due to less land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses under this alternative.

**Figure 7.3-1. River Road Corridor Enhanced Corridor Alternative Generalized Zoning**





**Figure 7.3-2. River Road Corridor EmX Alternative Generalized Zoning**



**Legend**

- Stop/Station Location
- ▬ River Road Corridor
- ▬ 2035 No-Build EmX
- ▬ Road
- ▭ Area of Potential Impacts (API)
- ▭ Urban Growth Boundary (UGB)
- ▭ Water
- ▭ Park

**Generalized Zoning**

River Road Corridor  
EmX Alternative

\* Disclaimer: Caution -- Willamette Greenway Boundary is based on imprecise source data, subject to change, and for general reference only. For use in "LTD Moving Ahead: Environmental Analysis data - ad hoc 1771." Source: City of Eugene, Planning Div., Nov 2106

Data Sources: City of Eugene, Lane Transit District (2014, 2016); City of Eugene, Planning Division (2016)  
 Document Path: \\PDX\PP\Proj\Lane Transit District\657958\EugeneBR\GIS\MapFiles\Level\_3\Environmental\_Analysis\Land-Use-Farmlands\Level\_2\_Corridor\_EnviroAnalysis\_LandUse\_Corridor\2035\2035EmX.mxd

### **7.3.3. EmX Alternative**

Indirect beneficial effects associated with TOD under the EmX Alternative would be greater than under the No-Build Alternative and the Enhanced Corridor Alternative due to a larger amount of, and potential for development of, land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses. In addition, the EmX Alternative would serve the Downtown Westside Special Area Zone (S-DW), which promotes high-density residential development and the redevelopment of existing residential with provisions for small commercial uses. This alternative would also serve the Chambers Special Area Zone (S-C), which promotes a general increase of dense residential and commercial developments.

## **7.4. Short-Term Construction-Related Impacts**

The following items provide information on the short-term construction-related impacts and identify any differences among the River Road Corridor alternatives.

### **7.4.1. No-Build Alternative**

Short-term construction-related impacts under the No-Build Alternative are described in Section 5.3.1.

### **7.4.2. Enhanced Corridor Alternative**

Short-term construction-related impacts under the River Road Corridor Enhanced Corridor Alternative are described in Section 5.3.2.

### **7.4.3. EmX Alternative**

Short-term construction-related impacts under the River Road Corridor EmX Alternative are described in Section 5.3.3.

## **7.5. Potential Mitigation Measures**

The following provides information on potential mitigation measures. Mitigation measures would be the same for all River Road Corridor alternatives.

### **7.5.1. No-Build Alternative**

Mitigation measures under the River Road Corridor No-Build Alternative are described in Section 5.4.1.

### **7.5.2. Enhanced Corridor Alternative**

Mitigation measures under the River Road Corridor Enhanced Corridor Alternative are described in Section 5.4.2.

### **7.5.3. EmX Alternative**

Mitigation measures under the River Road Corridor EmX Alternative are described in Section 5.4.3.

## **8. 30th Avenue to Lane Community College Corridor Environmental Consequences**

### **8.1. Affected Environment**

Figures 8.3-1 and 8.3-2 show zoning and overlay zoning within the 30th Avenue to LCC Corridor's Enhanced Corridor Alternative and EmX Alternative APIs, respectively.

### **8.2. Direct Impacts**

The following section provides information on specific direct impacts related to the 30th Avenue to LCC Corridor for all alternatives.

#### **8.2.1. No-Build Alternative**

Direct impacts under the 30th Avenue to LCC Corridor No-Build Alternative are described in Section 5.1.1.

#### **8.2.2. Enhanced Corridor Alternative**

Table 5.1-1 provides information on the amount of land that might be converted to transportation use within the 30th Avenue to LCC Corridor Enhanced Corridor Alternative. The alternative would convert more areas zoned Institution (0.4 acre) to a transportation use than any other zoning designation.

#### **8.2.3. EmX Alternative**

Table 5.1-1 provides information on the amount of land that might be converted to transportation use within the 30th Avenue to LCC Corridor EmX Alternative. Areas zoned Institution would be impacted the greatest (0.5 acre) by being converted to a transportation-related use.

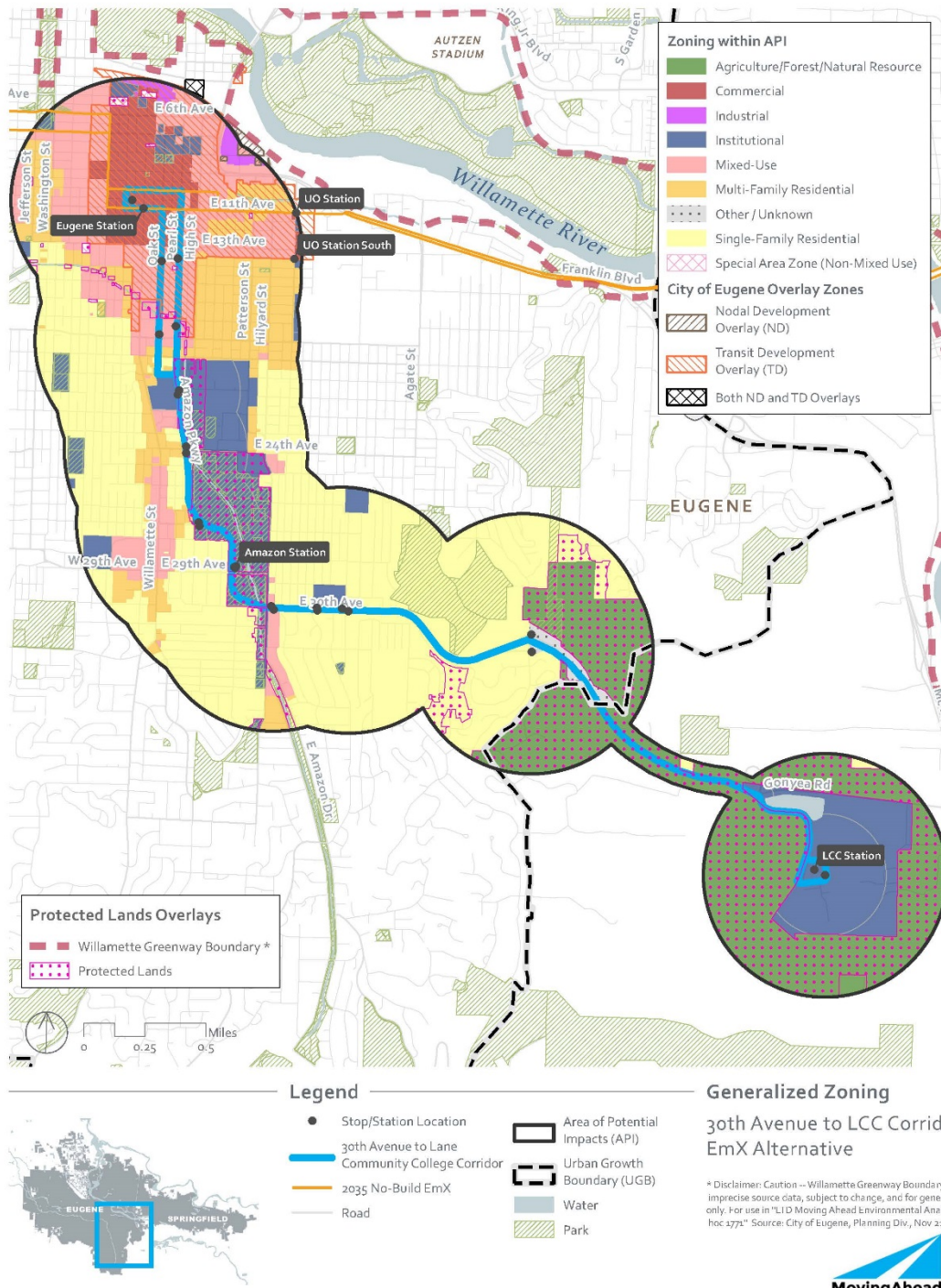
### **8.3. Indirect and Cumulative Effects**

The proposed RFFAs would not be adversely affected by actions proposed under the alternatives. The stadium and Mixed-Use developments would benefit the most by increased transportation opportunities proposed under both build alternatives (Tables 4.8-1 and 4.8-2). The alternatives would not change land use or the potential RFFA development within the 30th Avenue to LCC Corridor.

#### **8.3.1. No-Build Alternative**

Indirect and cumulative effects under the 30th Avenue to LCC Corridor No-Build Alternative are described in Section 5.2.1.

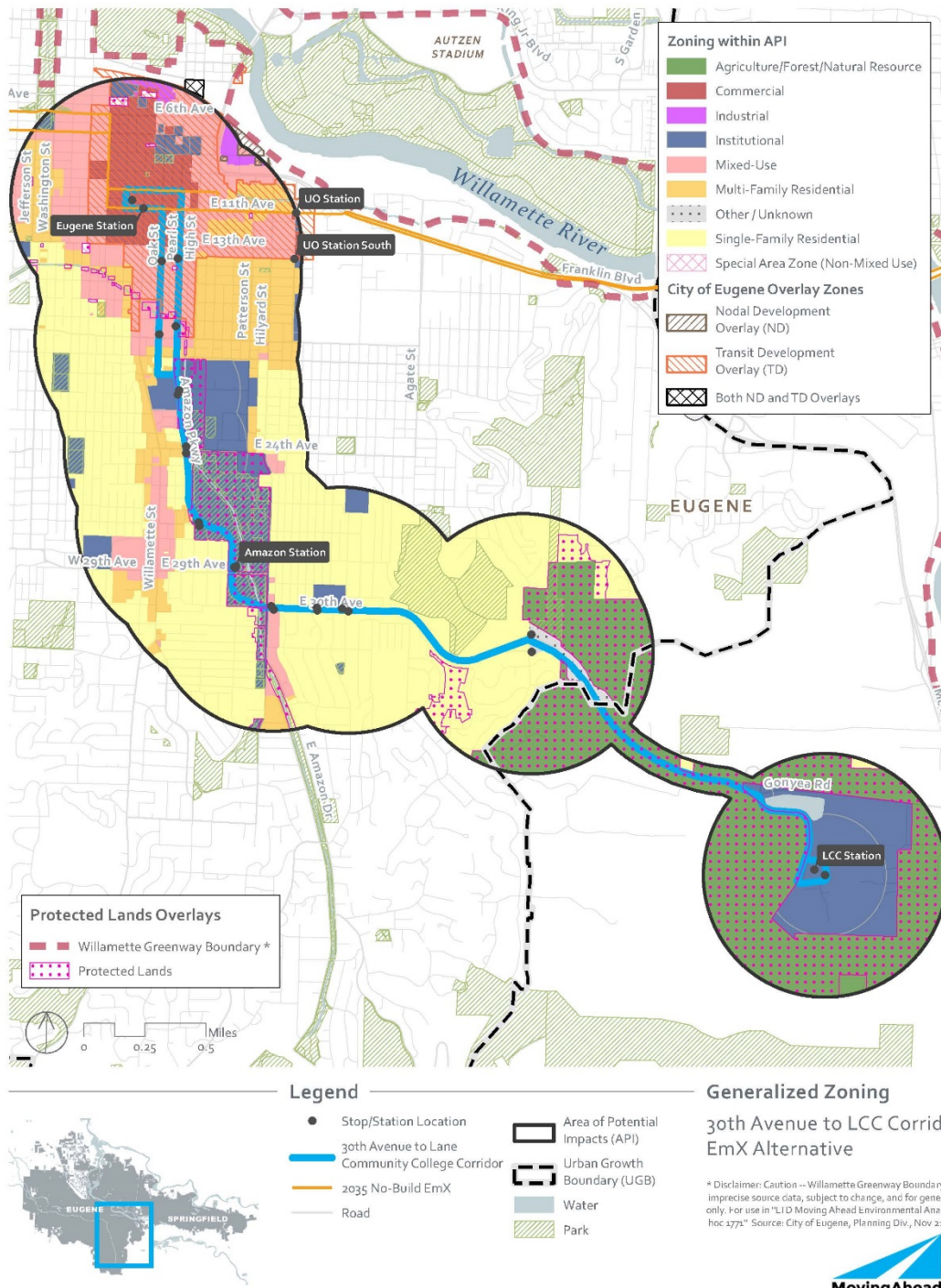
**Figure 8.3-1. 30th Avenue to Lane Community College Corridor Enhanced Corridor Alternative Generalized Zoning**



Data Sources: City of Eugene, Lane Transit District (2014, 2016); City of Eugene, Planning Division (2016)  
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**Figure 8.3-2. 30th Avenue to Lane Community College Corridor EmX Alternative Generalized Zoning**



### **8.3.2. Enhanced Corridor Alternative**

Indirect beneficial effects associated with TOD under the Enhanced Corridor Alternative would be greater than under the No-Build Alternative, but lower than under the EmX Alternative due to less land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses under this alternative.

### **8.3.3. EmX Alternative**

Indirect beneficial effects associated with TOD under the EmX Alternative would be greater than under the No-Build Alternative and the Enhanced Corridor Alternative due to a larger amount of, and potential for development of, land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses.

## **8.4. Short-Term Construction-Related Impacts**

The following items provide information on the short-term construction-related impacts and identify any differences among the 30th Avenue to LCC Corridor alternatives.

### **8.4.1. No-Build Alternative**

Short-term construction-related impacts under the 30th Avenue to LCC Corridor No-Build Alternative are described in Section 5.3.1.

### **8.4.2. Enhanced Corridor Alternative**

Short-term construction-related impacts under the 30th Avenue to LCC Corridor Enhanced Corridor Alternative are described in Section 5.3.2.

### **8.4.3. EmX Alternative**

Short-term construction-related impacts under the 30th Avenue to LCC Corridor EmX Alternative are described in Section 5.3.3.

## **8.5. Potential Mitigation Measures**

The following provides information on potential mitigation measures. Mitigation measures would be the same for all 30th Avenue to LCC Corridor alternatives.

### **8.5.1. No-Build Alternative**

Mitigation measures under the 30th Avenue to LCC Corridor No-Build Alternative are described in Section 5.4.1.

### **8.5.2. Enhanced Corridor Alternative**

Mitigation measures under the 30th Avenue to LCC Corridor Enhanced Corridor Alternative are described in Section 5.4.2.

### **8.5.3. EmX Alternative**

Mitigation measures under the 30th Avenue to LCC Corridor EmX Alternative are described in Section 5.4.3.

## 9. Coburg Road Corridor Environmental Consequences

### 9.1. Affected Environment

Figures 9.3-1 and 9.3-2 show zoning and overlay zoning within the Coburg Road Corridor's Enhanced Corridor Alternative and its EmX Alternative APIs, respectively.

### 9.2. Direct Impacts

The following section provides information on specific direct impacts related to the Coburg Road Corridor for all alternatives.

#### 9.2.1. No-Build Alternative

Direct impacts under the Coburg Road Corridor No-Build Alternative are described in Section 5.1.1.

#### 9.2.2. Enhanced Corridor Alternative

Table 5.1-1 provides information on the amount of land that might be converted to transportation use within the Coburg Road Corridor Enhanced Corridor Alternative. The alternative would convert more areas zoned Mixed-Use (0.5 acre) to a transportation use than any other zoning designation. Although there are Agricultural lands and prime farmland located beyond the UGB east of N. Game Farm Road, the Enhanced Corridor Alternative would not directly affect these lands.

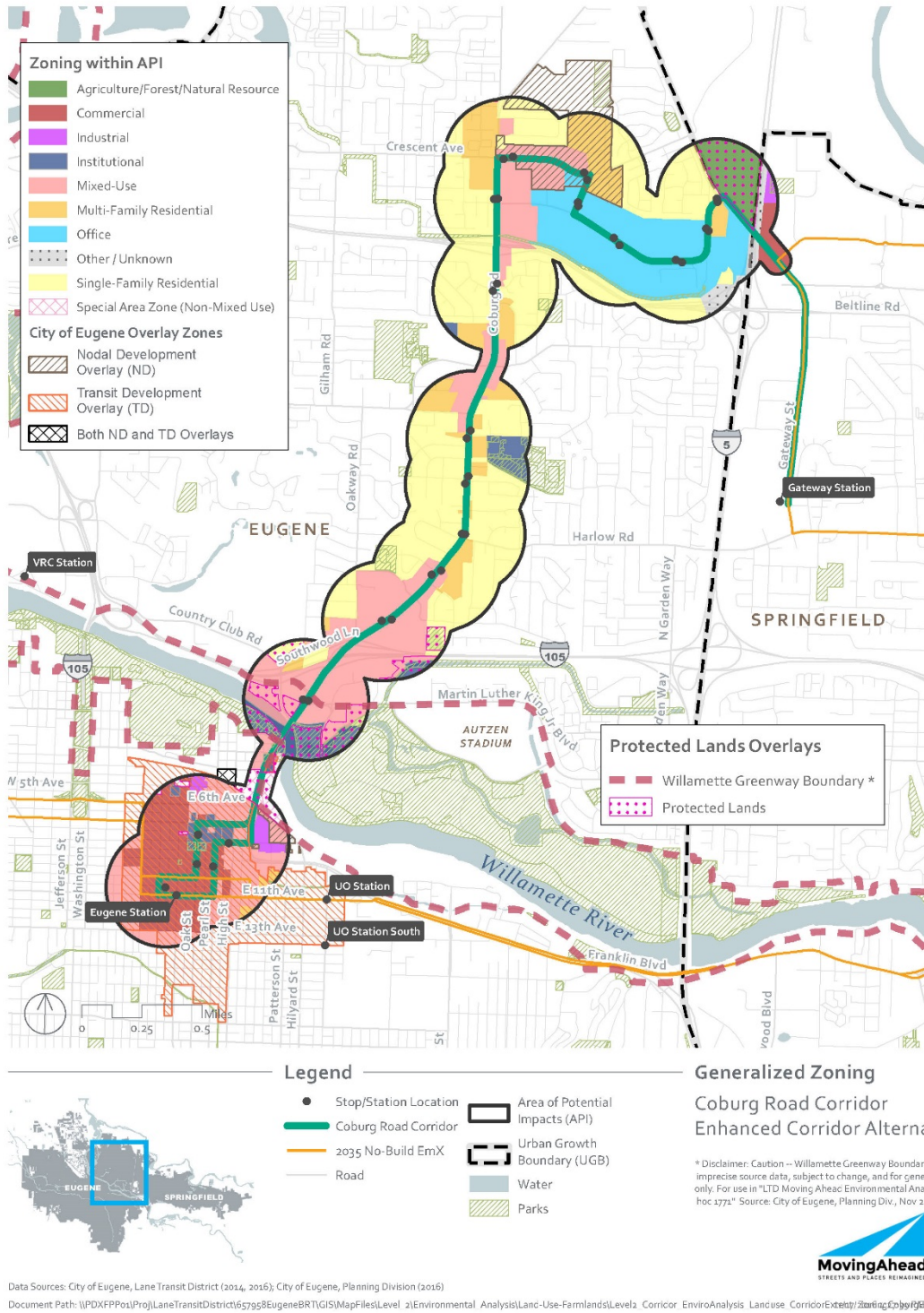
#### 9.2.3. EmX Alternative

Table 5.1-1 provides information on the amount of land that might be converted to transportation use within the Coburg Road Corridor EmX Alternative. Areas zoned Mixed-Use would be impacted the greatest (2.4 acres) by being converted to a transportation-related use. Although Agricultural lands and prime farmland are located beyond the UGB east of N. Game Farm Road, the EmX Alternative would not directly affect these lands.

### 9.3. Indirect and Cumulative Effects

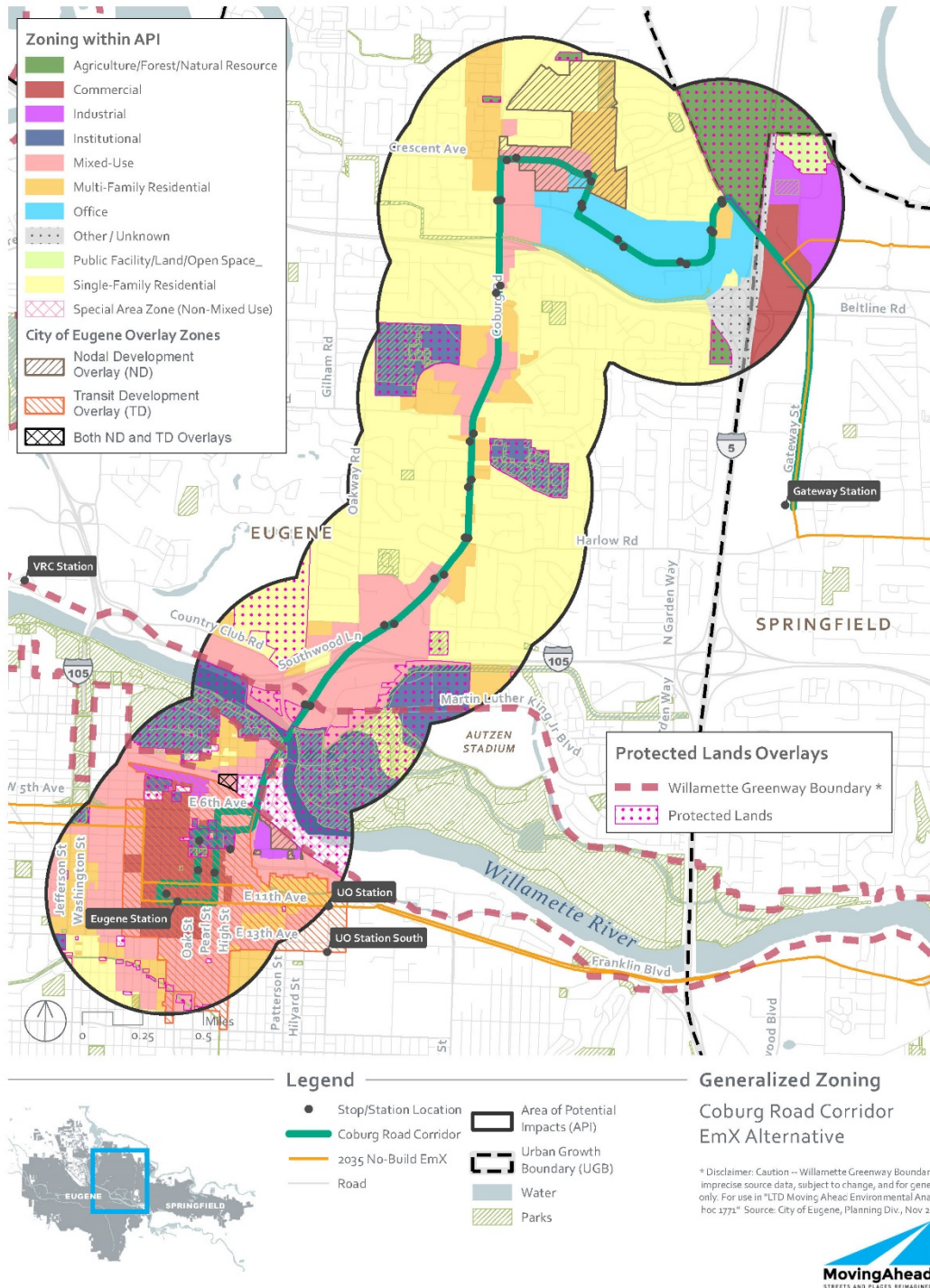
The proposed RFFAs would not be adversely affected by actions proposed under any of the Coburg Road Corridor alternatives. Affordable housing and Mixed-Use developments would benefit the most by increased transportation opportunities proposed under the build alternatives (Tables 4.8-1 and 4.8-2). The alternatives would not change land use or the potential RFFA development within the corridor.

**Figure 9.3-1. Coburg Road Corridor Enhanced Corridor Alternative Generalized Zoning**





**Figure 9.3-2. Coburg Road Corridor EmX Alternative Generalized Zoning**



Data Sources: City of Eugene, Lane Transit District (2014, 2016); City of Eugene, Planning Division (2016)

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### **9.3.1. No-Build Alternative**

Indirect and cumulative effects under the Coburg Road Corridor No-Build Alternative are described in Section 5.2.1.

### **9.3.2. Enhanced Corridor Alternative**

Indirect beneficial effects associated with TOD under the Enhanced Corridor Alternative would be greater than under the No-Build Alternative, but lower than under the EmX Alternative due to less land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses under this alternative.

### **9.3.3. EmX Alternative**

Indirect beneficial effects associated with TOD under the EmX Alternative would be greater than under the No-Build Alternative and the Enhanced Corridor Alternative due to a larger amount of, and potential for development of, land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses.

## **9.4. Short-Term Construction-Related Impacts**

The following items provide information on the short-term construction-related impacts and identify any differences among the Coburg Road Corridor alternatives.

### **9.4.1. No-Build Alternative**

Short-term construction-related impacts under the Coburg Road Corridor No-Build Alternative are described in Section 5.3.1.

### **9.4.2. Enhanced Corridor Alternative**

Short-term construction-related impacts under the Coburg Road Corridor Enhanced Corridor Alternative are described in Section 5.3.2.

### **9.4.3. EmX Alternative**

Short-term construction-related impacts under the Coburg Road Corridor EmX Alternative are described in Section 5.3.3.

## **9.5. Potential Mitigation Measures**

The following items provide information on potential mitigation measures. Mitigation measures would be the same for all Coburg Road Corridor alternatives.

### **9.5.1. No-Build Alternative**

Mitigation measures under the Coburg Road Corridor No-Build Alternative are described in Section 5.4.1.

### **9.5.2. Enhanced Corridor Alternative**

Mitigation measures under the Coburg Road Corridor Enhanced Corridor Alternative are described in Section 5.4.2.

### **9.5.3. EmX Alternative**

Mitigation measures under the Coburg Road Corridor EmX Alternative are described in Section 5.4.3.

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## **10. Martin Luther King, Jr. Boulevard Corridor Environmental Consequences**

### **10.1. Affected Environment**

Figure 10.3-1 shows zoning and overlay zoning within the Martin Luther King, Jr. Boulevard Corridor's Enhanced Corridor Alternative API.

### **10.2. Direct Impacts**

The following section provides information on specific direct impacts related to the Martin Luther King, Jr. Boulevard Corridor for both alternatives.

#### **10.2.1. No-Build Alternative**

Direct impacts under the Martin Luther King, Jr. Boulevard Corridor No-Build Alternative are described in Section 5.1.1.

#### **10.2.2. Enhanced Corridor Alternative**

Table 5.1-1 provides information on the amount of land that might be converted to transportation use within the Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative. The alternative would convert areas zoned Mixed-Use, Single-Family, and Multi-Family Residential about the same by converting less than 0.1 acre to a transportation use from each zoning designation.

### **10.3. Indirect and Cumulative Effects**

The proposed 25,000-square-foot (ft<sup>2</sup>) multi-story office RFFA would not be adversely affected by actions proposed under either of the Martin Luther King, Jr. Boulevard Corridor alternatives (Table 4.8-1). The alternatives would not change land use or the potential development of the RFFA within the corridor.

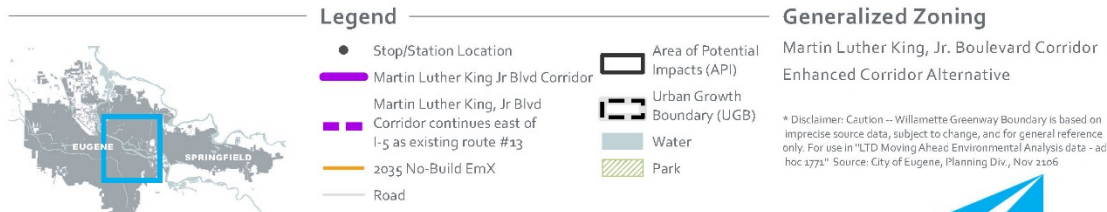
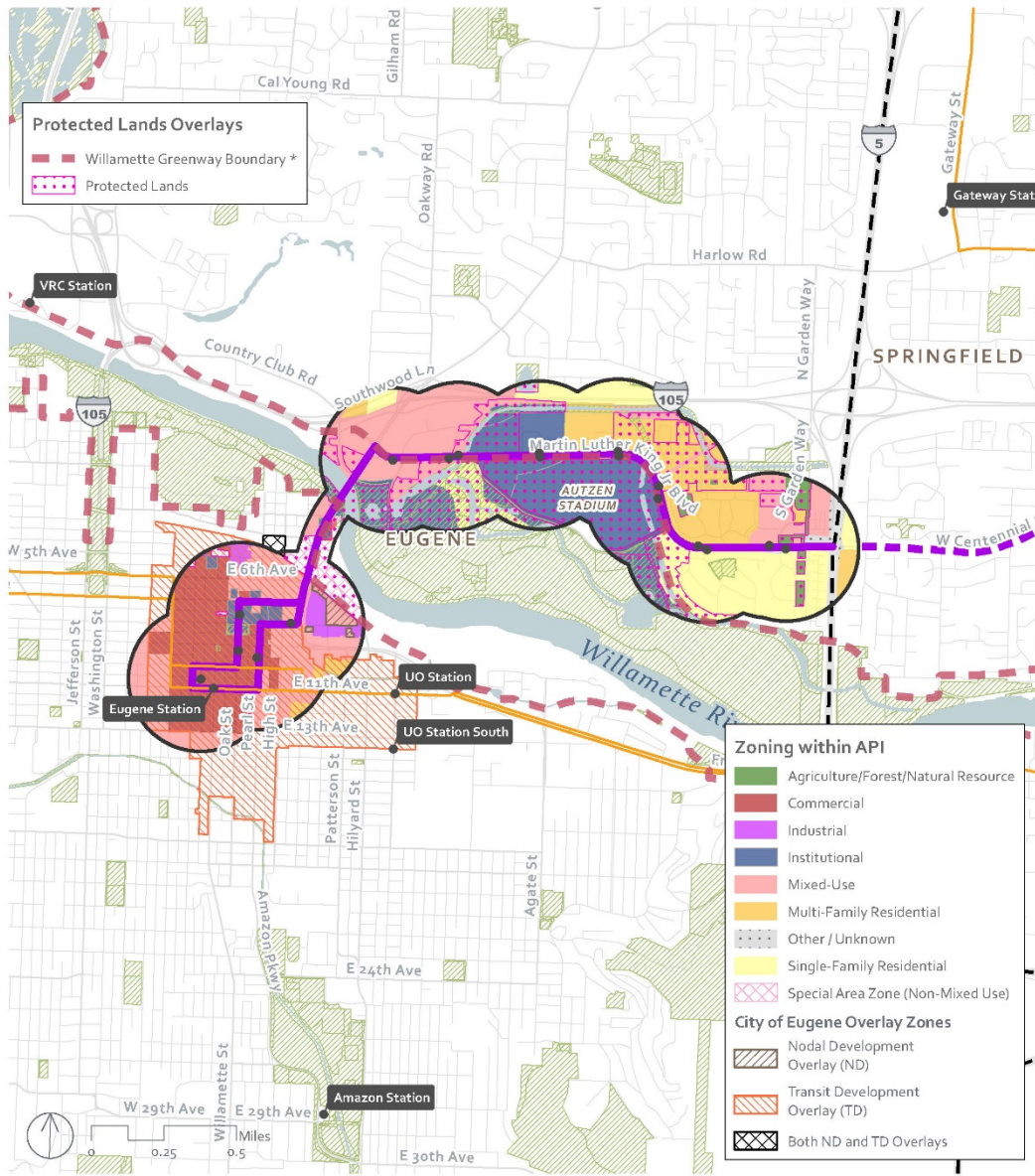
#### **10.3.1. No-Build Alternative**

Indirect and cumulative effects under the Martin Luther King, Jr. Boulevard Corridor No-Build Alternative are described in Section 5.2.1.

#### **10.3.2. Enhanced Corridor Alternative**

Indirect beneficial effects associated with TOD under the Enhanced Corridor Alternative would be greater than under the No-Build Alternative due to higher potential for development of land zoned Mixed-Use Multi-Family Residential, including vacant land zoned for these TOD-supportive uses under this alternative.

**Figure 10.3-1. Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative**



Data Sources: City of Eugene, Lane Transit District (2014, 2016); City of Eugene, Planning Division (2016)  
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## **10.4. Short-Term Construction-Related Impacts**

The following items provide information on the short-term construction-related impacts and identify any differences between the Martin Luther King, Jr. Boulevard Corridor alternatives.

### **10.4.1. No-Build Alternative**

Short-term construction-related impacts under the Martin Luther King, Jr. Boulevard Corridor No-Build Alternative are described in Section 5.3.1.

### **10.4.2. Enhanced Corridor Alternative**

Short-term construction-related impacts under the Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative are described in Section 5.3.2.

## **10.5. Potential Mitigation Measures**

The following provides information on potential mitigation measures. Mitigation measures would be the same for all Martin Luther King, Jr. Boulevard Corridor alternatives.

### **10.5.1. No-Build Alternative**

Mitigation measures under the Martin Luther King, Jr. Boulevard Corridor No-Build Alternative are described in Section 5.4.1.

### **10.5.2. Enhanced Corridor Alternative**

Mitigation measures under the Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative are described in Section 5.4.2.

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## 11. Permits and Approvals

This section lists the potential land use permits for project implementation. The following permits and approvals might be needed based on preliminary project design:

- Land use permits
  - Site plan review permits
  - Building permits
- Water resource and water quality approvals
- Willamette River Greenway permit
- Waterside Protection, Wetland Buffer Overlay, and Natural Resources Zones
- Variances

Design could change during the refinement process if it is determined that design changes would be beneficial and feasible to avoid impacts that could trigger permits or other approvals. The potential permits and approvals are described in greater detail below. If a permit or approval is required for project actions within the Water Resource, Water Quality, or Willamette River Greenway overlays, a variance from permitting requirements may be required. The variance process and requirements are described in Section 11.4.

### 11.1. Land Use Permits

If the project includes improvements located outside the public ROW, such as site improvements on private property to mitigate the effects of ROW acquisition, these improvements might be subject to zoning conformance review during the building permit and site plan review process. All build alternatives could be subject to land use and building permits if construction is proposed outside of the ROW. The following improvements would likely be subject to all applicable zoning requirements because they are located outside of the public ROW under all build alternatives:

- Highway 99 Corridor pedestrian bridge
- Coburg Road Corridor operator restroom
- Highway 99 Corridor terminus station

### 11.2. Water Resource and Water Quality Approvals

The Water Resource Overlay regulations apply to public improvements, even if located within a public ROW. Construction of proposed project elements would likely be categorized as a public improvement subject to standards review within the Water Resource Conservation Area. These include but are not limited to streets, bridges, paved bikeways and pedestrian paths, and public utilities. These uses would be subject to review if proposed within the boundaries of the Water Resource Overlay area. The Water Resource Overlay is located within the API of all corridors under the Enhanced Corridor and EmX Alternatives.

The Water Quality Overlay permits public improvement projects as long as they are located within the public ROW. Public improvement projects are defined in the Water Quality Overlay code section (Eugene Code 9.4780) as “any improvement which upon construction and acceptance by a public entity shall become the entity’s responsibility to maintain, repair or replace.” Construction of public infrastructure within the public-ROW is considered a permitted activity within the Water Quality Overlay zone. The Water Quality Overlay is located within the following corridors:

- **Enhanced Corridor Alternative**
  - Highway 99
  - River Road
  - Coburg Road
  - Martin Luther King, Jr. Boulevard
- **EmX Alternative**
  - All corridors

### **11.3. Willamette River Greenway Permit**

The Willamette River Greenway boundaries are located within the APIs of all corridors. Intensification of uses, changes in use, or developments require special consideration before being permitted within the boundaries of the Willamette River Greenway. Special consideration is required to implement Oregon Statewide Planning Goal 15, Willamette River Greenway, which is designed to protect, conserve, enhance, and maintain the natural, scenic, historical, agricultural, economic, and recreational qualities of lands along the Willamette River. Urban uses might be allowed but conditions of approval might be imposed as are deemed necessary to carry out the purpose and intent of the Willamette River Greenway goal, and to ensure that any intensification of uses, changes in use, or developments within the Willamette Greenway boundaries are compatible with nearby uses within the Willamette Greenway.

### **11.4. Waterside Protection, Wetland Buffer Overlay, and Natural Resources Zones**

The Waterside Protection and Wetland Buffer Overlay Zones and the Natural Resources Zone were adopted to protect natural resources and water quality in compliance with the State of Oregon’s Goal 5, “Natural Resources, Scenic and Historic Areas, and Open Spaces.” These regulations apply to public improvements, even if located within a public ROW. The Enhanced Corridor Alternatives and EmX Alternatives qualify as a transportation improvement specified in an adopted plan. These ordinances have rather strict requirements for minimizing disturbances, mitigating effects to surface runoff, and preserving native vegetation.

### **11.5. Variances**

Changes to the private properties and improvements within protected lands may conflict with land use regulations and development standards. Permits may be necessary to gain variances or adjustments to the regulations for improvements on private property, where possible. If variances or adjustments are not possible, changes to the land use code may be necessary. Changes to waterside protection zones might require amended Goal 5 analysis pursuant to state regulations.

Variance provisions allow partial or full exemptions from specific land use code standards under special circumstances if the use is not permitted or conditionally permitted in the underlying zone or overlay. Variance provisions are outlined in sections 9.5750(9), 9.6708, and 9.8750 through 9.8760 of the Eugene City Code.

The City will not grant variances for uses not listed in Eugene Code Sections 9.2000 through 9.3915. Minor transit stations or transit-related uses are listed as allowed uses in most zones, with the exception of the Historic, Natural Resources, and Public Land Zones. However, because transit-related uses are not prohibited uses in these zones, they would be eligible for approval under the variance process, if necessary.

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## Appendix A: Glossary and Naming Conventions

This appendix includes a detailed list of acronyms, abbreviations, and technical terms used throughout this report. It also includes naming conventions used in the MovingAhead Project.

### Acronyms and Abbreviations

**Table A-1. Acronyms and Abbreviations**

<b>Acronyms and Abbreviations</b>	<b>Definitions</b>
/H-RCP	Historic Structures or Sites Combine Zone
/WP	Waterside Protection
/WQ	Water Quality
°C	degree(s) Celsius
µg/L	microgram(s) per liter
µg/m <sup>3</sup>	microgram(s) per cubic meter
AA	Alternatives Analysis
AAC	all aluminum conductor
AASHTO	American Association of State Highway and Transportation Officials
AAI	All Appropriate Inquiry
ACS	American Community Survey
ADA	Americans with Disabilities Act
AEO	Annual Energy Outlook
APE	Area of Potential Effect
API	Area of Potential Impact
approx.	approximately
ARTS	All Roads Transportation Safety Program
ATR	Automated Traffic Recording
BAT	business access and transit
BEST	Better Eugene Springfield Transit
BFE	Base Flood Elevation
BMP	best management practice
BPA	Bonneville Power Administration
BRT	bus rapid transit
Btu	British thermal unit
c	circa
CAA	Clean Air Act
CAFE	Corporate Average Fuel Economy
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980

**Table A-1. Acronyms and Abbreviations**

<b>Acronyms and Abbreviations</b>	<b>Definitions</b>
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System
CFR	Code of Federal Regulations
CFU	Colony-Forming Unit
CH2M	CH2M HILL, Inc.
CIG	Capital Investment Grant
CIP	Capital Improvements Program
City	City of Eugene
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
COGP	County Opportunity Grant Program
Corps	U.S. Army Corps of Engineers
CRL	Confirmed Release List
CSZ	Cascadia Subduction Zone
CTR	commute trip reduction
CWA	Clean Water Act
CY	cubic yard
dB	decibel
dba	A-weighted decibel
DBE	Disadvantaged Business Enterprise
DEIS	Draft Environmental Impact Statement. Also referred to as Draft EIS.
DEQ	Oregon Department of Environmental Quality
DKS	DKS Associates
DLS	Donation Land Claim
DOE	Determination of Eligibility
DOGAMI	Oregon Department of Geology and Mineral Industries
DOT	Department of Transportation
Draft EIS	Draft Environmental Impact Statement. Also referred to as DEIS.
Draft Envision Eugene	<i>Draft Envision Eugene Community Vision</i> (Envision Eugene, 2016, July)
Draft Eugene 2035 TSP	<i>Draft Eugene 2035 Transportation System Plan</i> (City of Eugene, 2016)
DSL	Oregon Department of State Lands
DU	dwelling unit
EA	Environmental Assessment or each
EC	City of Eugene Code
EC	eligible contributing

**Table A-1. Acronyms and Abbreviations**

<b>Acronyms and Abbreviations</b>	<b>Definitions</b>
EC	Enhanced Corridor Alternative (in some tables)
ECLA	<i>Eugene Comprehensive Lands Assessment</i> (ECONorthwest, 2010, June)
ECSI	Environmental Cleanup Site Information database (Oregon DEQ, 2016)
EFH	essential fish habitat
EIS	Environmental Impact Statement
EJ	Environmental Justice
EmX	Emerald Express, Lane Transit District’s Bus Rapid Transit System
EmX	EmX Alternative (in some tables)
EOA	Equity and Opportunity Assessment
EPA	U. S. Environmental Protection Agency
ES	eligible significant
ES NR	eligible significant NRHP
ESA	Endangered Species Act or Environmental Site Assessment
ESH	essential indigenous anadromous salmonid habitat
ESU	Evolutionarily Significant Unit
EWEB	Eugene Water & Electric Board
FAST Act	Fixing America’s Surface Transportation Act
FEIS	Final Environmental Impact Statement. Also referred to as Final EIS.
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act of 1974
Final EIS	Final Environmental Impact Statement. Also referred to as FEIS.
FOE	Finding of Effect
FPPA	Farmland Protection Policy Act, 7 U.S.C. 4201-4209 and 7 CFR 658
FRA	Federal Railroad Administration
ft	foot (feet)
ft <sup>2</sup>	square foot (feet)
FTA	Federal Transit Administration
FTN	Frequent Transit Network
FY	fiscal year
GAN	Grant Anticipation Note
GARVEE	Grant Anticipation Revenue Vehicle
GHG	greenhouse gas
GIS	geographic information system
GLO	General Land Office
Heritage	Heritage Research Associates, Inc.

**Table A-1. Acronyms and Abbreviations**

<b>Acronyms and Abbreviations</b>	<b>Definitions</b>
HGM	Hydro-geomorphic
HMTA	Hazardous Materials Transport Act of 1975, with amendments in 1990 and 1994
HOV	high-occupancy vehicle
HPNW	Historic Preservation Northwest
I-5	Interstate 5
I-105	Interstate 105
IOF	Immediate Opportunity Fund
ISA	International Society of Arboriculture
ISTEA	Intermodal Surface Transportation Efficiency Act
kV	kilovolt(s)
LaneACT	Lane Area Commission on Transportation
LCC	Lane Community College
LCDC	Land Conservation and Development Commission
LCOG	Lane Council of Governments
Ldn	day-night sound level
LE	Listed Endangered
LEP	limited English proficiency
$L_{eq}$	equivalent sound level
LF	lineal foot (feet)
LGAC	Local Government Affairs Council
LGGP	Local Government Grant Program
LID	Local Improvement District
$L_{max}$	maximum sound level
$L_{min}$	minimum sound level
LNG	liquefied natural gas
LOS	level of service
LPA	Locally Preferred Alternative
LRAPA	Lane Regional Air Protection Agency
LRFP	LTD's Long-Range Financial Plan
LRT	Light Rail Transit
LRTP	LTD's Long-Range Transit Plan
LT	Listed Threatened
LTD	Lane Transit District
LUST	leaking underground storage tank
LWCF	Land and Water Conservation Fund
m	meter(s)



**Table A-1. Acronyms and Abbreviations**

<b>Acronyms and Abbreviations</b>	<b>Definitions</b>
MAP-21	Moving Ahead for Progress in the 21st Century
MBTA	Migratory Bird Treaty Act
Metro Plan	<i>Metro Plan, Eugene-Springfield Metropolitan Area General Plan</i> (LCOG et al., 1987, as updated on 2015, December 31)
mg/kg	milligram(s) per kilogram
MI	mile(s)
mL	milliliter(s)
MMA	Michael Minor and Associates, Inc.
MOA	Memorandum of Agreement
MOE	Measure of Effectiveness
MPC	Metropolitan Policy Committee
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
MTIP	<i>Metropolitan Transportation Improvement Program Federal FY 2015 to Federal FY 2018</i> (Central Lane MPO, adopted 2014, October, as amended)
Mw	Earthquake moment magnitude
N/A	not applicable
NA	not applicable; no data available
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NAVD88	North American Vertical Datum of 1988
ND	nodal development
NEPA	National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321-4347
NFA	no further action
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO <sub>2</sub>	nitrous dioxide
NO <sub>x</sub>	nitrous oxides
NPDES	National Pollutant Discharge Elimination System
NPMS	National Pipeline Mapping System
NPS	Department of Interior's National Park Service
NR	Natural Resource
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NS	no standard established

**Table A-1. Acronyms and Abbreviations**

<b>Acronyms and Abbreviations</b>	<b>Definitions</b>
NW Natural	Northwest Natural
O <sub>3</sub>	ozone
O&M	operations and maintenance
OAR	Oregon Administrative Rule
OARRA	Oregon Archaeological Records Remote Access
ODA	Oregon Department of Agriculture
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
ODOT	Oregon Department of Transportation
OHP	Oregon Highway Plan
OPA	Oil Pollution Act of 1990
OPRD	Oregon Parks and Recreation Department
OR	Oregon
ORBIC	Oregon Biodiversity Information Center
ORS	Oregon Revised Statutes
OTIB	Oregon Transportation Infrastructure Bank
Pb	lead
PCB	polychlorinated biphenyl
PEM	Palustrine Emergent Wetland
PM	particulate matter
PM <sub>10</sub>	particulate matter – 10 microns in diameter
PM <sub>2.5</sub>	particulate matter – 2.5 microns in diameter
PMT	Project Management Team
ppb	parts per billion
PPE	personal protective equipment
ppm	parts per million
PROS	Parks, Recreation, and Open Space
PUC	Public Utilities Commission
Qls	landslide and debris avalanche deposits
Qtg	terrace and fan deposits
Qty	quantity
RCRA	Resource Conservation and Recovery Act of 1976
RFFA	reasonably foreseeable future action
ROW	right of way
RRFB	Rectangular Rapid Flash Beacon

**Table A-1. Acronyms and Abbreviations**

<b>Acronyms and Abbreviations</b>	<b>Definitions</b>
RTP	<i>Central Lane Metropolitan Planning Organization Regional Transportation Plan</i> (LCOG, adopted 2007, November; 2011, December). (The RTP includes the Financially Constrained Roadway Projects List)
SARA	Superfund Amendments and Reauthorization Act of 1986
SARA III	Emergency Planning and Community Right to Know Act of 1986; part of the SARA amendments
SC	sensitive critical
SCC	Standard Cost Categories
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SDC	Systems Development Charge
SDWA	Safe Drinking Water Act
sec	second(s)
Section 4(f)	Section 4(f) of the Department of Transportation Act of 1966
Section 6(f)	Section 6(f) of the LWCF Act of 1965
Section 106	Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800.5)
SF	square foot (feet)
SHPO	Oregon State Historic Preservation Office
SIP	State Implementation Plan
SMU	Species Management Unit
SO <sub>2</sub>	sulfur dioxide
SOC	species of concern
SSGA	Small Starts Construction Grant Agreement
STA	Special Transportation Area
STIP	Statewide Transportation Improvement Program
SV	Sensitive Vulnerable
SY	square yard(s)
TAP	Transportation Alternatives Program
TAZ	transportation analysis zone
TCE	Temporary Construction Easement
TD	transit-oriented development
TDM	Transportation Demand Management
TEA-21	Transportation Equity Act for the 21st Century
Teoe	siliciclastic marine sedimentary rocks
TESCP	Temporary Erosion and Sediment Control Plan
TIF	Tax Increment Financing
TIP	Transportation Improvement Program
TMDL	total maximum daily load

**Table A-1. Acronyms and Abbreviations**

<b>Acronyms and Abbreviations</b>	<b>Definitions</b>
TOD	transit-oriented development
TPAU	Department of Transportation – Transportation Planning Analysis Unit
TPR	Transportation Planning Rule
TransPlan	<i>Eugene-Springfield Transportation System Plan</i> (City of Eugene et al., adopted 2002, July)
TRB	Transportation Research Board
TSI	Transportation System Improvement
TSM	Transportation System Management
TSP	Transportation System Plan
UGB	Urban Growth Boundary
UMTA	Urban Mass Transit Administration
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 U.S.C. 4601 et. seq., 49 CFR Part 24
URA	Urban Renewal Area
U.S.C.	United States Code
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
v/c	volume-to-capacity
VHT	vehicle hours traveled
VMT	vehicle miles traveled
VOC	volatile organic compound
WEEE	West Eugene EmX Extension
WEG	wind erodibility group
YOE	year of expenditure

## Terms

**Table A-2. Terms**

<b>Terms</b>	<b>Definitions</b>
Accessibility	The extent to which facilities are barrier-free and useable for all persons with or without disabilities.
Action	An “action,” a federal term, is the construction or reconstruction, including associated activities, of a transportation facility. For the purposes of this Handbook, the terms “project,” “proposal,” and “action” are used interchangeably unless otherwise specified. An action may be categorized as a “categorical exclusion” or a “major federal action.”
Agricultural/Forest/Natural Resource	AG, EFU-25, EFU-30, EFU-40, F-1, F-2, and NR
Alignment	Alignment is the street or corridor that the transit project would be located within.
Alternative Fuels	Low-polluting fuels which are used to propel a vehicle instead of high-sulfur diesel or gasoline. Examples include methanol, ethanol, propane or compressed natural gas, liquid natural gas, low-sulfur or "clean" diesel and electricity.
Alternatives Analysis (AA)	The process of evaluating the costs, benefits, and impacts of a range of transportation alternatives designed to address mobility problems and other locally-defined objectives in a defined transportation corridor, and for determining which particular investment strategy should be advanced for more focused study and development. The Alternatives Analysis (AA) process provides a foundation for effective decision making.
Area of Potential Effect	A term used in Section 106 to describe the area in which historic resources may be affected by a federal undertaking.
Area of Potential Impact	An assessment’s Area of Potential Impact for the project is defined separately for each discipline.
Auxiliary Lanes	Lanes designed to improve safety and reduce congestion by accommodating cars and trucks entering or exiting the highway or roadway, and reducing conflicting weaving and merging movements.
Base Fare	The price charged to one adult for one transit ride; excludes transfer charges, and reduced fares.
Base Period	The period between the morning and evening peak periods when transit service is generally scheduled on a constant interval. Also known as "off-peak period."
Boarding	Boarding is a term used in transit to account for passengers of public transit systems. One person getting on a transit vehicle equals one boarding. In many cases, individuals will have to transfer to an additional transit vehicle to reach their destination and may well use transit for the return trip. Therefore, a single rider may account for several transit boardings in one day.
Bus Phase	An exclusive traffic signal phase for buses and/or BRT vehicles.
Bus Rapid Transit (BRT)	A transit mode that combines the quality of rail transit and the flexibility of buses. It can operate on bus lanes, high-occupancy vehicle (HOV) lanes, expressways, or ordinary streets. The vehicles are designed to allow rapid passenger loading and unloading, with more doors than ordinary buses.

**Table A-2. Terms**

<b>Terms</b>	<b>Definitions</b>
Business Access and Transit (BAT) Lane	In general, a BAT lane is a concrete lane, separated from general-purpose lanes by a paint stripe and signage. A BAT lane provides Bus Rapid Transit (BRT) priority operations, but general-purpose traffic is allowed to travel within the lane to make a turn into or out of a driveway or at an intersecting street. However, only the BRT vehicle is allowed to use the lane to cross an intersecting street.
Busway	Exclusive freeway lane for buses and carpools.
Capital Improvements Program (CIP)	A CIP is a short-range plan, usually 4 to 10 years, which identifies capital projects and equipment purchases, provides a planning schedule, and identifies options for funding projects in the program.
Categorical Exclusion (CE)	A CE means a category of actions that do not individually or cumulatively have a significant effect on the human environment and for which, therefore, neither an environmental assessment nor an environmental impact statement is required.
Chambers Special Area Zone	S-C
Charter Tree	A tree defined by the Eugene Charter (City of Eugene, 2002, updated 2008) as “... (a living, standing, woody plant having a trunk 25 inches in circumference at a point 4-½ feet above mean ground level at the base of the trunk) of at least fifty years of age within publicly owned rights of way for streets, roads, freeways, thoroughways, and thoroughfares and within those portions of the city which were in the incorporated boundaries of the city as of January 1, 1915, shall be designated historic street trees and recognized as objects of high historic value and significance in the history of the city and deserving of maintenance and protection.” These trees have special historic importance to the City and require special processes be followed if their removal is proposed, including a public vote on the project proposing the removal.
Charter Tree Boundary	Defined by the Eugene Charter (City of Eugene, 2002, updated 2008) as “...those portions of the city which were in the incorporated boundaries of the city as of January 1, 1915.” Trees within this boundary may, if they meet certain criteria, be granted the special title and protective status of a Charter Tree, defined above.
City of Eugene Zoning Classifications	Industrial (I-2 and I-3), Commercial (C-3), Mixed-Use (C-1, C-2, GO, S-C, S-CN, S-DR, S-DW, S-E, S-F, S-HB, S-JW, S-RN, S-W, and S-WS), Single-Family Residential (R-1), Multi-Family Residential (R-2 and R-3), Institution (PL and PRO), Agricultural/Forest/Natural Resource (AG, EFU-25, EFU-30, EFU-40, F-1, F-2, and NR), Office (E-1 and E-2), Special Area Zone (Non-Mixed Use) (S-H and S-RP), Downtown Westside Special Area Zone (S-DW), Chambers Special Area Zone (S-C)
Clean Air Act Amendments of 1990	The comprehensive federal legislation that establishes criteria for attaining and maintaining the federal standards for allowable concentrations and exposure limits for various air pollutants; the act also provides emission standards for specific vehicles and fuels.
Collector Streets	Collector streets provide a balance of both access and circulation within and between residential and commercial/industrial areas. Collectors differ from arterials in that they provide more of a citywide circulation function, do not require as extensive control of access, and are located in residential neighborhoods, distributing trips from the neighborhood and local street system.
Commercial	C-3

**Table A-2. Terms**

<b>Terms</b>	<b>Definitions</b>
Commuter Rail	Commuter rail is a transit mode that is a multiple car electric or diesel propelled train. It is typically used for local, longer-distance travel between a central city and adjacent suburbs, and can operate alongside existing freight or passenger rail lines or in exclusive rights of way.
Compressed Natural Gas (CNG)	An alternative fuel; compressed natural gas stored under high pressure. CNG vapor is lighter than air.
Conformity	The ongoing process that ensures the planning for highway and transit systems, as a whole and over the long term, is consistent with the state air quality plans for attaining and maintaining health-based air quality standards; conformity is determined by metropolitan planning organizations (MPOs) and the U.S. Department of Transportation (U.S. DOT), and is based on whether transportation plans and programs meet the provisions of a State Implementation Plan.
Congestion Mitigation and Air Quality (CMAQ)	Federal funds available for either transit or highway projects that contribute significantly to reducing automobile emissions, which cause air pollution.
Cooperating Agency	Regulations that implement the National Environmental Policy Act define a cooperating agency as any federal agency, other than a lead agency, which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major federal action significantly affecting the quality of the human environment.
Coordination Plan	Required under Moving Ahead for Progress in the 21st Century (MAP-21), the coordination plan contains procedures aimed at achieving consensus among all parties in the initial phase of environmental review and to pre-empt disagreements that can create delays later on in a project.
Corridor	A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways, and transit route alignments.
Corridor Transit Service Characteristics	The amount of transit service provided in each corridor, measured by daily vehicle hours traveled, daily vehicle miles traveled, and daily place-miles of service.
Demand Responsive	Non-fixed-route service utilizing vans or buses with passengers boarding and alighting at pre-arranged times at any location within the system's service area. Also called "Dial-a-Ride."
Diesel Multiple Unit (DMU)	Each unit carries passengers and can be self-powered by a diesel motor; no engine unit is required.
Documented Categorical Exclusion (DCE)	A DCE means a group of actions that may also qualify as Categorical Exclusions (CEs) if it can be demonstrated that the context in which the action is taken warrants a CE exclusion; i.e., that no significant environmental impact will occur. Thus, these actions are referred to as DCEs. Such actions require some National Environmental Policy Act documentation, but not an Environmental Assessment or a full-scale Environmental Impact Statement.  DCEs documentation must demonstrate that, in the context(s) in which these actions are to be performed, they will have no significant environmental impact or that such impacts will be mitigated.



**Table A-2. Terms**

Terms	Definitions
Downtown Westside Special Area Zone	S-DW
Draft Environmental Impact Statement (DEIS)	The DEIS is the document that details the results of the detailed analysis of all of the projects alternatives. The DEIS contains all information learned about the impacts of a project and alternatives.
Earmark	A federal budgetary term that refers to the specific designation by Congress that part of a more general lump-sum appropriation be used for a particular project; the earmark can be designated as a minimum and/or maximum dollar amount.
Effects	Effects include ecological, aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial. Effects include: (1) direct effects that are caused by the action and occur at the same time and place, and (2) indirect effects that are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use; population density or growth rate; and related effects on air and water and other natural systems, including ecosystems (40 CFR 1508.8).
Electrical Multiple Unit (EMU)	The EMU is heavier than a light rail vehicle, but it is powered in the same way by an overhead electrical system.
EmX	Lane Transit District’s Bus Rapid Transit System, pronounced “MX,” short for Emerald Express.
Environmental Assessment (EA)	A report subject to the requirements of the National Environmental Policy Act (NEPA) demonstrating that an Environmental Impact Statement (EIS) is not needed for a specific set of actions. The EA can lead to a Finding of No Significant Impact (FONSI).
Environmental Impact Statement (EIS)	A comprehensive study of likely environmental impacts resulting from major federally-assisted projects; EISs are required by the National Environmental Policy Act.
Environmental Justice	<p>A formal federal policy on environmental justice was established in February 1994 with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations." There are three fundamental environmental justice principles:</p> <ul style="list-style-type: none"> <li>• To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.</li> <li>• To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.</li> <li>• To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.</li> </ul>
Envision Eugene	The City of Eugene’s Comprehensive Plan (latest draft or as adopted). Envision Eugene includes a determination of the best way to accommodate the community’s projected needs over the next 20 years.

**Table A-2. Terms**

<b>Terms</b>	<b>Definitions</b>
Evaluation Criteria	Evaluation criteria are the factors used to determine how well each of the proposed multimodal alternatives would meet the project's Goals and Objectives. The Evaluation Criteria require a mix of quantitative data and qualitative assessment. The resulting data are used to measure the effectiveness of proposed multimodal alternatives and to assist in comparing and contrasting each of the alternatives to select a preferred alternative.
Exclusive Right of Way	A roadway or other facility that can only be used by buses or other transit vehicles.
Fatal Flaw Screening	The purpose of a Fatal Flaw Screening is to identify alternatives that will not work for one reason or another (e.g., environmental, economic, community). By using a Fatal Flaw Screening process to eliminate alternatives that are not likely to be viable, a project can avoid wasting time or money studying options that are not viable and focus on alternatives and solutions that have the greatest probability of meeting the community's needs (e.g., environmentally acceptable, economically efficient, implementable).
Finding of No Significant Impact (FONSI)	A document prepared by a federal agency showing why a proposed action would not have a significant impact on the environment and thus would not require preparation of an Environmental Impact Statement (EIS). A FONSI is based on the results of an Environmental Assessment (EA).
Fixed Guideway System	A system of vehicles that can operate only on its own guideway constructed for that purpose (e.g., rapid rail, light rail). Federal usage in funding legislation also includes exclusive right of way bus operations, trolley coaches, and ferryboats as "fixed guideway" transit.
Fixed Route	Service provided on a repetitive, fixed-schedule basis along a specific route with vehicles stopping to pick up and deliver passengers at set stops and stations; each fixed-route trip serves the same origins and destinations, unlike demand responsive and taxicabs.
Geographic Information System (GIS)	A data management software tool that enables data to be displayed geographically (i.e., as maps).
Goals and Objectives	Goals and objectives define the project's desired outcome and reflect community values. Goals and objectives build from the project's Purpose and Need Statement. <ul style="list-style-type: none"> <li>• Goals are overarching principles that guide decision making. Goals are broad statements.</li> <li>• Objectives define strategies or implementation steps to attain the goals. Unlike goals, objectives are specific and measurable.</li> </ul>
Guideway	A transit right of way separated from general purpose vehicles.
Headway	Time interval between vehicles passing the same point while moving in the same direction on a particular route.

**Table A-2. Terms**

<b>Terms</b>	<b>Definitions</b>
Heritage Tree	The <i>City of Eugene Urban Forest Management Plan</i> (City of Eugene Public Works Department Maintenance Division, 1992) defines “Heritage Trees” as: “Any tree of exceptional value to our community based on its size (relative to species), history, location, or species, or any combination of these criteria.” Such a tree cannot be removed “except when otherwise necessary for the public health, safety, or welfare.”
Hydrology	Refers to the flow of water including its volume, where it drains, and how quickly it flows.
Impacts	A term to describe the positive or negative effects upon the natural or built environments as a result of an action (i.e., project).
In-vehicle Travel Time	The amount of time it takes for a transit vehicle to travel between an origin and a destination.
In-vehicle Walk and Wait Travel Time	The amount of in-vehicle travel time plus time spent walking to transit, initial wait time, transfer wait time (if any), and time walking from transit to the destination.
Independent Utility	A project or section of a larger project that would be a usable and reasonable expenditure even if no other projects or sections of a larger project were built and/or improved.
Industrial	I-2 and I-3
Institution	PL and PRO
Intergovernmental Agreement	A legal pact authorized by state law between two or more units of government, in which the parties contract for, or agree on, the performance of a specific activity through either mutual or delegated provision.
Intermodal	Those issues or activities that involve or affect more than one mode of transportation, including transportation connections, choices, cooperation, and coordination of various modes. Also known as "multimodal."
Jefferson Westside Special Area Zone	S-JW
Joint Development	Ventures undertaken by the public and private sectors for development of land around transit stations or stops.
Key Transit Corridors	Key Transit Corridors are mapped in <i>Envision Eugene</i> and are anticipated to be significant transit corridors for the City and the region
Kiss & Ride	A place where commuters are driven and dropped off at a station to board a public transportation vehicle.
Land and Water Conservation Fund (LWCF) Act of 1965	16 U.S.C. 4601-4 et seq. The Land and Water Conservation Fund (LWCF) State Assistance Program was established by the LWCF Act of 1965 to stimulate a nationwide action program to assist in preserving, developing, and providing assurance to all citizens of the United States (of present and future generations) such quality and quantity of outdoor recreation resources as may be available, necessary, and desirable for individual active participation. The program provides matching grants to states and through states to local units of government, for the acquisition and development of public outdoor recreation sites and facilities.
Landscape Tree	A living, standing, woody plant having a trunk that exists on private property.

**Table A-2. Terms**

<b>Terms</b>	<b>Definitions</b>
Lane Regional Air Protection Agency (LRAPA)	LRAPA is responsible for achieving and maintain clean air in Lane County using a combination of regulatory and non-regulatory methods
Layover Time	Time built into a schedule between arrival at the end of a route and the departure for the return trip, used for the recovery of delays and preparation for the return trip.
Lead Agency	The organization that contracts and administers a study. For transit projects, FTA would typically fill this role. The lead agency has the final say about the project's purpose and need, range of alternatives to be considered, and other procedural matters.
Level of Detail	The amount of data collected, and the scale, scope, extent, and degree to which item-by-item particulars and refinements of specific points are necessary or desirable in carrying out a study.
Level of Service (LOS)	LOS is a measure used by traffic engineers to determine the effectiveness of elements of transportation infrastructure. LOS is most commonly used to analyze highways, but the concept has also been applied to intersections, transit, and water supply.
Light Rail Transit (LRT)	Steel wheel/steel rail transit constructed on city streets, semi-private right of way, or exclusive private right of way. Formerly known as "streetcar" or "trolley car" service, LRT's major advantage is operation in mixed street traffic at grade. LRT vehicles can be coupled into trains, which require only one operator and often are used to provide express service.
Limited (or Controlled) Access	Restricted entry to a transportation facility based upon facility congestion levels or operational condition. For example, a limited access roadway normally would not allow direct entry or exit to private driveways or fields from said roadway.
Liquefaction	A phenomenon associated with earthquakes in which sandy to silty, water saturated soils behave like fluids. As seismic waves pass through saturated soil, the structure of the soil distorts, and spaces between soil particles collapse, causing ground failure.
Liquefied Natural Gas (LNG)	An alternative fuel; a natural gas cooled to below its boiling point of 260 degrees Fahrenheit so that it becomes a liquid; stored in a vacuum bottle-type container at very low temperatures and under moderate pressure. LNG vapor is lighter than air.
Local Streets	Local streets have the sole function of providing direct access to adjacent land. Local streets are deliberately designed to discourage through-traffic movements.
Locally Preferred Alternative (LPA)	The LPA is the alternative selected through the Alternatives Analysis process completed prior to or concurrent with National Environmental Policy Act analysis. This term is also used to describe the proposed action that is being considered for New Starts or Small Starts funds.
Low-Income Persons	Those whose median household income is at or below the Department of Health and Human Services poverty guidelines. For a four-person household with two related children, the poverty threshold is \$24,300 (year 2016 dollars).

**Table A-2. Terms**

Terms	Definitions
Maintenance area	An air quality designation for a geographic area in which levels of a criteria air pollutant meet the health-based primary standard (national ambient air quality standard, or NAAQS) for the pollutant. An area may have an acceptable level for one criteria air pollutant, but may have unacceptable levels for others. Maintenance/attainment areas are defined using federal pollutant limits set by EPA.
Maintenance facility	A facility along a corridor used to clean, inspect, repair and maintain bus vehicles, as well as to store them when they are not in use.
Major Arterial	Major arterial streets should serve to interconnect the roadway system of a city. These streets link major commercial, residential, industrial, and institutional areas. Major arterial streets are typically spaced about one mile apart to assure accessibility and reduce the incidence of traffic using collectors or local streets for through traffic in lieu of a well-placed arterial street. Access control, such as raised center medians, is a key feature of an arterial route. Arterials are typically multiple miles in length.
Major Investment Study (MIS)	An alternatives analysis study process for proposed transportation investments in which a wide range of alternatives is examined to produce a smaller set of alternatives that best meet project transportation needs. The purpose of the study is to provide a framework for developing a package of potential solutions that can then be further analyzed during an Environmental Impact Statement process.
Metro Plan Designations	Commercial, Commercial/Mixed Use, Government and Education, Heavy Industrial, High Density Residential/Mixed-Use, High Density Residential, Light-Medium Industrial, Low Density Residential, Medium Density Residential, Medium Density Residential/Mixed-Use, Mixed-Use, Parks and Open Space, Major Retail Center, Campus Industrial, University Research
Metropolitan Planning Organization (MPO)	The organization designated by local elected officials as being responsible for carrying out the urban transportation and other planning processes for an area.
Minimum Operable Segment	A stand-alone portion of the alternative alignment that has independent utility, allowed by FTA to be considered as interim termini for a project. A minimum operable segment (MOS) provides flexibility to initiate a project with available funding while pursuing additional funding to complete the remainder of the project.
Minor Arterial	A minor arterial street system should interconnect with and augment the urban major arterial system and provide service to trips of moderate length at a somewhat lower level of travel mobility than major arterials. This system also distributes travel to geographic areas smaller than those identified with the higher system. The minor arterial street system includes facilities that allow more access and offer a lower traffic mobility. Such facilities may carry local bus routes and provide for community trips, but ideally should not be located through residential neighborhoods.

**Table A-2. Terms**

Terms	Definitions
Minority	<p>A person who is one or more of the following:</p> <ul style="list-style-type: none"> <li>• Black: a person having origins in any of the black racial groups of Africa</li> <li>• Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race</li> <li>• Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent</li> <li>• American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition</li> <li>• Native Hawaiian and Other Pacific Islander: a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands</li> </ul>
Mitigation	<p>A means to avoid, minimize, rectify, or reduce an impact, and in some cases, to compensate for an impact.</p>
Mixed-Use	<p>C-1, C-2, GO, S-C, S-CN, S-DR, S-DW, S-E, S-F, S-HB, S-JW, S-RN, S-W, and S-WS</p>
Modal Split	<p>A term that describes how many people use different forms of transportation. Frequently used to describe the percentage of people using private automobiles as opposed to the percentage using public transportation, walking, or biking. Modal split can also be used to describe travelers using other modes of transportation. In freight transportation, modal split may be measured in mass.</p>
Mode	<p>A particular form or method of travel distinguished by vehicle type, operation technology, and right-of-way separation from other traffic.</p>
Moving Ahead for Progress in the 21st Century (MAP-21)	<p>Moving Ahead for Progress in the 21st Century (MAP-21) was signed by President Obama on July 6, 2012, reauthorizing surface transportation programs through FY 2014. It includes new and revised program guidance and regulations with planning requirements related to public participation, publication, and environmental considerations.</p>
MovingAhead Project	<p>The City of Eugene and LTD are working with regional partners and the community to determine which improvements are needed on some of our most important transportation corridors for people using transit, and facilities for people walking and biking. MovingAhead will prioritize transit, walking, and biking projects along these corridors so that they can be funded and built in the near-term.</p> <p>The project will focus on creating active, vibrant places that serve the community and accommodate future growth. During Phase 1, currently underway, the community will weigh in on preferred transportation solutions for each corridor and help prioritize corridors for implementation. When thinking about these important streets, LTD and the City of Eugene refer to them as corridors because several streets may work as a system to serve transportation needs.</p>
Multi-Family Residential	<p>R-2 and R-3</p>
Multimodal	<p>Multimodal refers to various modes. For the MovingAhead project, multimodal refers to Corridors that support various transportation modes including vehicles, buses, walking and cycling.</p>

**Table A-2. Terms**

<b>Terms</b>	<b>Definitions</b>
National Environmental Policy Act of 1969 (NEPA)	A comprehensive federal law requiring analysis of the environmental impacts of federal actions such as the approval of grants; also requiring preparation of an Environmental Impact Statement for every major federal action significantly affecting the quality of the human environment.
New Starts	Federal funding granted under Section 3(i) of the Federal Transit Act. These discretionary funds are made available for construction of a new fixed guideway system or extension of any existing fixed guideway system, based on cost-effectiveness, alternatives analysis results, and the degree of local financial commitment.
No Action or No-Build Alternative	An alternative that is used as the basis to measure the impacts and benefits of the other alternative(s) in an environmental assessment or other National Environmental Policy Act action. The No-Build Alternative consists of the existing conditions, plus any improvements that have been identified in the Statewide Transportation Improvement Program.
Nonattainment Area	Any geographic region of the United States that the U.S. Environmental Protection Agency (EPA) has designated as not attaining the federal air quality standards for one or more air pollutants, such as ozone and carbon monoxide.
Notice of Intent	A federal announcement, printed in the <i>Federal Register</i> , advising interested parties that an Environmental Impact Statement will be prepared and circulated for a given project
Off-Peak Period	Non-rush periods of the day when travel activity is generally lower and less transit service is scheduled. Also called "base period."
Office	E-1 and E-2
Oregon Statewide Comprehensive Outdoor Recreation Plan (SCORP)	The 2013-2017 Oregon Statewide Comprehensive Outdoor Recreation Plan (SCORP), entitled <i>Ensuring Oregon's Outdoor Legacy</i> (OPRD, No Date), constitutes Oregon's basic 5-year plan for outdoor recreation. The plan guides the use of LWCF funds that come into the state; provides guidance for other OPRD-administered grant programs; and provides recommendations to guide federal, state, and local units of government, as well as the private sector, in making policy and planning decisions.
Park and Ride	Designated parking areas for automobile drivers who then board transit vehicles from these locations.
Participating Agency	A federal or non-federal agency that may have an interest in the project. These agencies are identified and contacted early-on in the project with an invitation to participate in the process. This is a broader category than "cooperating agency" (see Cooperating Agency).
Passenger Miles	The total number of miles traveled by passengers on transit vehicles; determined by multiplying the number of unlinked passenger trips times the average length of their trips.
Peak Hour	The hour of the day in which the maximum demand for transportation service is experienced (refers to private automobiles and transit vehicles).
Peak Period	Morning and afternoon time periods when transit riding is heaviest.
Peak/Base Ratio	The number of vehicles operated in passenger service during the peak period divided by the number operated during the base period.



**Table A-2. Terms**

<b>Terms</b>	<b>Definitions</b>
Place-miles	Place-miles refers to the total carrying capacity (seated and standing) of each bus and is calculated by multiplying vehicle capacity of each bus by the number of service miles traveled each day. Place-miles highlight differences among alternatives caused by a different mix of vehicles and levels of service.
Preferred Alternative	An alternative that includes a major capital improvement project to address the problem under investigation. As part of the decision making process, the Preferred Alternative is compared against the No Action or No-Build Alternative from the standpoints of transportation performance, environmental consequences, cost-effectiveness, and funding considerations.
Purpose and Need	The project Purpose and Need provides a framework for developing and screening alternatives. The purpose is a broad statement of the project's transportation objectives. The need is a detailed explanation of existing conditions that need to be changed or problems that need to be fixed.
Queuing	Occurs when traffic lanes cannot fit all the vehicles trying to use them, or if the line at an intersection extends into an upstream intersection.
Record of Decision (ROD)	A decision made by FTA as to whether the project sponsor receives federal funding for a project. The Record of Decision follows the Draft EIS and Final EIS.
Regulatory Agency	An agency empowered to issue or deny permits.
Resource Agency	A federal or state agency or commission that has jurisdictional responsibilities for the management of a resource such as plants, animals, water, or historic sites.
Revenue Hours	Hours of transit service available for carrying paying riders.
Ridership	The number of people using a public transportation system in a given time period.
Ridesharing	A form of transportation, other than public transit, in which more than one person shares the use of the vehicle, such as a van or car, to make a trip. Also known as "carpooling" or "vanpooling."
Right of Way	Publicly owned land that can be acquired and used for transportation purposes.
Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA-LU)	SAFETEA-LU was passed by Congress July 29, 2005, and signed by the President August 10, 2005. Includes new and revised program guidance and regulations (approximately 15 rulemakings) with planning requirements related to public participation, publication, and environmental considerations. SAFETEA-LU covers FY 2005 through FY 2009 with a total authorization of \$45.3 billion.
Scoping	A formal coordination process used to determine the scope of the project and the major issues likely to be related to the proposed action (i.e., project).
Screening Criteria	Criteria used to compare alternatives.
Section 4(f) of the Department of Transportation Act of 1966	23 U.S.C. 138 and 49 U.S.C. 303. Parks are subject to evaluation in the context of Section 4(f) of the Department of Transportation Act of 1966, which governs the use of publicly-owned/open to the public park and recreation lands, government-owned wildlife lands, and historic resources.
Section 4(f) resources	(i) any publicly owned land in a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or (ii) any land from a historic site of national, state, or local significance

**Table A-2. Terms**

Terms	Definitions
Section 6(f) of the LWCF Act of 1965	The LWCF’s most important tool for ensuring long-term stewardship is its “conversion protection” requirement. Section 6(f)(3) strongly discourages conversions of state and local park, and recreational facilities to other uses. Conversion of property acquired or developed with assistance under the program requires approval of the Department of Interior’s National Park Service (NPS) and substitution of other recreational properties of at least equal fair market value, and of reasonably equivalent usefulness and location.
Section 106	Section 106 of the National Historic Preservation Act of 1966 requires that federal agencies take into account the effect of government-funded construction projects on property that is included in, or eligible for inclusion in, the NRHP.
Shuttle	A public or private vehicle that travels back and forth over a particular route, especially a short route or one that provides connections between transportation systems, employment centers, etc.
Single-Family Residential	R-1
Special Area Zone (Non-Mixed Use)	S-H and S-RP
Springfield 2030	Currently underway, this update to the City of Springfield’s Comprehensive Plan will guide and support attainment of the community’s livability and economic prosperity goals and redevelopment priorities.
Springfield Transportation System Plan (TSP)	The City of Springfield’s Transportation System Plan looks at how the transportation system is currently used and how it should change to meet the long-term (20-year) needs of the City of Springfield’s residents, businesses, and visitors. The Plan, which identifies improvements for all modes of transportation, will serve as the City of Springfield’s portion of the Regional Transportation System Plan prepared by Lane Council of Governments (LCOG). It was prepared in coordination with Oregon Department of Transportation, LCOG, and the Oregon Department of Land Conservation and Development. The TSP was adopted March 11, 2014.
State Implementation Plan (SIP)	A state plan mandated by the Clean Air Act Amendments of 1990 that contains procedures to monitor, control, maintain, and enforce compliance with national standards for air quality.
Strategy	An intended action or series of actions which when implemented achieves the stated goal.
Street Tree	A living, standing, woody plant having a trunk that exists in the public right of way.
Study Area	The area within which evaluation of impacts is conducted. The study area for particular resources will vary based on the decisions being made and the type of resource(s) being evaluated.
Throughput	The number of users being served at any time by the transportation system.
Title VI	This Title declares it to be the policy of the United States that discrimination on the ground of race, color, or national origin shall not occur in connection with programs and activities receiving federal financial assistance and authorizes and directs the appropriate federal departments and agencies to take action to carry out this policy.

**Table A-2. Terms**

<b>Terms</b>	<b>Definitions</b>
Transit Oriented Development (TOD) or Nodal Development	A strategy to build transit ridership, while discouraging sprawl, improving air quality and helping to coordinate a new type of community for residents. TODs are compact, mixed-use developments situated at or around transit stops. Sometimes referred to as Transit Oriented Communities, or Transit Villages.
Transit System	An organization (public or private) providing local or regional multi-occupancy-vehicle passenger service. Organizations that provide service under contract to another agency are generally not counted as separate systems.
Transitway	A Bus Rapid Transit (BRT) priority lane generally with a concrete lane, with or without concrete tracks with grass-strip divider, and a curb separation, traversable by general-purpose vehicles at signalized intersections.
Transportation Demand Management (TDM)	Strategies to attempt to reduce peak period automobile trips by encouraging the use of high occupancy modes through commuter assistance, parking incentives, and work policies that alter the demand for travel in a defined area in terms of the total volume of traffic, the use of alternative modes of travel, and the distribution of travel over different times of the day.
Transportation Improvement Program (TIP)	A program of intermodal transportation projects, to be implemented over several years, growing out of the planning process and designed to improve transportation in a community. This program is required as a condition of a locality receiving federal transit and highway grants.
Travel Shed	Synonymous with "corridor" (see Corridor). A subarea in which multiple transportation facilities are experiencing congestion, safety, or other problems.
urban plaza	An urban plaza is a place that can be used for socializing, relaxation, and/or events.
v/c ratio	Used as a principal measure of congestion. The "v" represents the volume or the number of vehicles that are using the roadway at any particular period. The "c" represents the capacity of a roadway at its adopted level of service (LOS). If the volume exceeds the capacity of the roadway (volume divided by capacity exceeds 1.00), congestion exists.
Vehicle Hours of Delay	Cumulative delay experiences by transit vehicles during high traffic periods.
Water Quality	Refers to the characteristics of the water, such as its temperature and oxygen levels, how clear it is, and whether it contains pollutants.
Whiteaker Special Area Zone	S-W

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## Appendix B: Construction Activities and Methods

### General Construction Methods

The following section describes how construction of the Locally Preferred Alternative (LPA) would likely be staged and sequenced. This description is based on Lane Transit District's (LTD's) experience with the Franklin, Gateway, and West Eugene EmX Corridors. The final plan for construction methods, sequencing, and staging will be determined in coordination with the contractor and permitting authorities.

Utility work will generally be completed before the transportation infrastructure is constructed. Utility work, often conducted by local utility companies, occurs separately from project-related construction. After completing required utility relocation and other preparatory site work, the contractor will begin with construction of new transit lanes, bike lanes, sidewalks, and any other "flatwork." The contractor will modify existing signals or construct new traffic signals as part of this work. In some cases, the contractor may construct the signal footings but install signal arms after initial work is complete. Flatwork for stations, including curbs, ramps, and station footings, will be completed as the work progresses along the alignment. Streets and street segments will be restored to normal operations after this work is complete. The contractor is expected to progress approximately two blocks every 2 weeks, with additional time required – up to 2 weeks – for each enhanced stop or EmX station. Additional time will be required at intersections that require new or substantially modified traffic signals. The construction sequencing will be determined through coordination between the contractor and local residents, businesses, and property owners regarding construction scheduling preferences. It is expected that, for each major segment, the work would start at one end of the segment and progress to the other end of the segment. All flatwork is expected to be completed in two construction seasons.

Stations will be fabricated during the second construction season and installed during the subsequent (final) construction season, along with landscaping, fare machines, real-time passenger information, enhanced stop or EmX station amenities, and other similar items.

The contractor and LTD will coordinate closely with the Oregon Department of Transportation (ODOT) and with the City of Eugene (as appropriate to the jurisdiction) on traffic control. Depending on the segment, ODOT or the City will review and approve traffic plans for construction.

On streets with multiple lanes in each direction (or multiple lanes in one direction for one-way streets), at least one lane of traffic will be open at all times. Flaggers will coordinate travel at intersections and other points of congestion, as necessary. On streets with a single lane, it may be necessary to close one direction of traffic for certain periods. In those situations, flaggers will be used to manage the traffic flow safely. The contractor and LTD will also coordinate with businesses to ensure that the project maintains access for patrons and deliveries.

### Coordination with Businesses and Residents

LTD's Franklin, Gateway, and West Eugene EmX projects demonstrated LTD's commitment to communicating with impacted businesses, residences, and travelers, both before and during construction. As with those projects, LTD will contact all businesses and residents along the alignment well before construction begins to solicit local concerns, issues, and scheduling preferences. Businesses and residents will also be able to communicate with the contractor and LTD during construction. LTD's construction liaison will provide e-mail updates and serve as an ongoing point of contact to address

concerns and to provide information to affected businesses, residents, and other interested persons. LTD will provide a 24-hour hotline to quickly address construction concerns from businesses and residences.

LTD will also work to enhance activity at businesses affected by construction. This can be done through attractive signage, direct communications with the public (e.g., direct mail and advertising), and community events (e.g., street fairs). These techniques succeeded in keeping business areas active during previous EmX projects.

## Appendix C: Relevant Federal, State, and Local Laws and Policies

### Federal Laws and Policies

- **National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321-4347 (NEPA).** ([https://ceq.doe.gov/laws\\_and\\_executive\\_orders/the\\_nepa\\_statute.html](https://ceq.doe.gov/laws_and_executive_orders/the_nepa_statute.html)).
- **Farmland Protection Policy Act, 7 U.S.C. 4201-4209 and 7 CFR 658 (FPPA).** (<https://www.law.cornell.edu/uscode/text/7/chapter-73>). Requires that, before taking or approving any federal action that would result in conversion of farmland, the agency of project jurisdiction must examine the effects of the action using the criteria set forth in the Act, and, if there are adverse effects, must consider alternatives to lessen them in coordination with the Natural Resources Conservation Service.
- **Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 U.S.C. 4601 et. seq., 49 CFR Part 24 (Uniform Act).** (<http://uscode.house.gov/view.xhtml?path=/prelim@title42/chapter61&edition=prelim>). The Uniform Act provides protections and assistance for people affected by the acquisition, rehabilitation, or demolition of real property for Federal or federally funded projects. This law helps ensure that people whose real property is acquired, or who move as a direct result of projects receiving federal funds, are treated fairly and equitably and receive assistance in moving from the property they occupy.

### State Laws and Policies

- **Oregon Department of Land Conservation and Development, Oregon Statewide Planning Goals, OAR 660-15-0000 (1-15).** ([http://www.lcd.state.or.us/LCD/goals.shtml#Statewide\\_Planning\\_Goals](http://www.lcd.state.or.us/LCD/goals.shtml#Statewide_Planning_Goals)). The foundation of Oregon's land use planning program is a set of 19 Statewide Planning Goals. The goals express the state's policies on land use and related topics, such as citizen involvement, housing, and natural resources and are achieved through local comprehensive planning. State law requires each city and county to adopt a comprehensive plan and the zoning and land-division ordinances needed to put the plan into effect. Thus, the Statewide Planning Goals are the foundation of locally adopted plans, which are approved if consistent with Statewide Goals. No data collection or analysis was conducted specifically for the Statewide Goals because they are implemented through local code and plans, which were used to direct the data gathering and analysis. Through reviewing the implementing plans and codes, the Project Team addressed the following: Goal-2 Land Use Planning, Goal-3 Agricultural Lands, Goal-4 Forest Lands, Goal-5 Open Spaces, Scenic and Historic Areas, and Natural Resources, and Goal-14 Urbanization. No data collection or analysis was conducted specifically for these statutes, as they are implemented through local code and plans which were used to direct the data gathering and analysis.
- **Transportation Planning Rule, OAR Chapter 660, Division 12 (Oregon Land Conservation and Development Commission, 2007).** ([http://arcweb.sos.state.or.us/pages/rules/oars\\_600/oar\\_660/660\\_012.html](http://arcweb.sos.state.or.us/pages/rules/oars_600/oar_660/660_012.html)). With adoption of Senate Bill 100 in 1973, the State of Oregon implemented a comprehensive and coordinated system of state and local land use planning. Senate Bill 100 requires all cities and counties to adopt and implement comprehensive plans for their respective jurisdictions. The Oregon Land Conservation and Development Commission (LCDC) reviews the local plans to ensure that they comply with the



statewide goals and guidelines. When a local plan is found to be in compliance, LCDC “acknowledges” the local plan and that plan becomes the controlling document for land use within the geographic area covered by the plan.

The UGB is a key component of Oregon’s land use planning program. Under Statewide Planning Goal 14, every city in the state must establish a UGB to accommodate land needs for the next 20 years. Land inside the UGB is recognized as the appropriate location for urban development and supporting infrastructure, while land outside the UGB is reserved for resource uses (primarily agriculture and forestry), limited rural development, or reserves for future growth. The project contains lands zoned for Agricultural and Forest Lands within corridor APIs, which are protected under Oregon Statewide Planning Goals 3 (Agricultural Lands) and 4 (Forest Lands). Lands protected under these statewide planning goals must be located outside of UGBs.

In 1991, the LCDC adopted the Transportation Planning Rule (TPR) to implement Statewide Planning Goal 12, Transportation, and to strengthen the connection between land use and transportation planning. The TPR requires that local jurisdictions: 1) consider increased densities and a greater mix of land uses as a tool to reduce reliance on the automobile; 2) adopt changes to subdivision and development ordinances to encourage more transit, pedestrian and bicycle-friendly development and street patterns; 3) review proposed amendments to comprehensive plans to assure that the transportation system is adequate to support planned uses; and 4) amend comprehensive plans to allow nodal or transit-oriented developments (TODs) along transit routes.

- **State of Oregon Statewide Planning Goal 14, Urbanization**, states: *To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.*
- **State of Oregon Statewide Planning Goal 12, Transportation**, states: *To provide and encourage a safe, convenient and economic transportation system. A transportation plan shall (1) consider all modes of transportation including mass transit, air, water, pipeline, rail, highway, bicycle and pedestrian; (2) be based upon an inventory of local, regional and state transportation needs; (3) consider the differences in social consequences that would result from utilizing differing combinations of transportation modes; (4) avoid principal reliance upon any one mode of transportation; (5) minimize adverse social, economic and environmental impacts and costs; (6) conserve energy; (7) meet the needs of the transportation disadvantaged by improving transportation services; (8) facilitate the flow of goods and services so as to strengthen the local and regional economy; and (9) conform with local and regional comprehensive land use plans.*
- **State of Oregon Statewide Planning Goal 5, Natural Resources, Scenic and Historic Areas, and Open Spaces**, states: *To protect natural resources and conserve scenic and historic areas and open spaces.*

Local governments shall adopt programs that will protect natural resources and conserve scenic, historic, and open space resources for present and future generations. These resources promote a healthy environment and natural landscape that contributes to Oregon's livability.

- **State of Oregon Planning Goal 4, Forest Lands**, states: *To conserve forest lands by maintaining the forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.*

- **State of Oregon Planning Goal 3, Agricultural Lands**, states: *To preserve and maintain agricultural lands.*

## Local Laws and Policies

The land use and prime farmlands analysis includes an evaluation of the MovingAhead Project with plans and policies. Compatibility and conformance with adopted land use plans and policies were evaluated based on the review of the plans listed below. Specific goals and policies are listed in Appendix D of this report.

- **Envision Eugene: A Community Vision for 2032 (Envision Eugene, 2012, March).**
- **Draft Envision Eugene Comprehensive Plan (Envision Eugene, 2016, July; Draft Envision Eugene).** Draft Envision Eugene addresses the future of Eugene through goals and regulatory policies regarding land use. It also includes the adopted urban growth boundary. These policies guide the City as it develops work programs, conducts long-range planning, prepares budget and capital improvement programs, makes public investments, and develops related investment programs. New land use plans and changes to the City's land use code and land use plans must be consistent with the policies in Draft Envision Eugene. The policies do not apply in approving or denying individual land use applications. The comprehensive plan consists of seven pillars, which include:
  1. Provide ample ECONOMIC OPPORTUNITIES for all community members
  2. Provide HOUSING AFFORDABLE to all income levels
  3. Plan for CLIMATE CHANGE and ENERGY RESILIENCY
  4. Promote COMPACT URBAN DEVELOPMENT and EFFICIENT TRANSPORTATION OPTIONS
  5. Protect, repair and enhance NEIGHBORHOOD LIVABILITY
  6. Protect, restore and enhance NATURAL RESOURCES
  7. Provide for ADAPTABLE, FLEXIBLE and COLLABORATIVE implementation
- **Regional Transportation Plan (Central Lane MPO, 2011, December; RTP).** The Central Lane MPO *Regional Transportation Plan* guides regional transportation system planning and development in the Central Lane MPO metropolitan area. The RTP includes provisions for meeting the transportation demand of residents over a 20- year planning horizon while addressing transportation issues and making changes that can contribute to improvements in the region's quality of life and economic vitality (RTP). The RTP serves as a regional planning document guiding other land use and transportation planning in the City of Eugene.
- **Metro Plan, Eugene-Springfield Metropolitan Area General Plan (LCOG et al., 2015, December 31; Metro Plan).** The Metro Plan is the long-range comprehensive plan for metropolitan Lane County and the cities of Eugene and Springfield. The plan outlines general planning policies and land use allocations and "serves as the sole official long-range comprehensive plan (public policy document) of metropolitan Lane County and the cities of Eugene and Springfield" (Metro Plan).
- **TransPlan, The Eugene-Springfield Transportation System Plan (LCOG, 2002, September; TransPlan).** The TransPlan is the guiding document for regional transportation planning in the Eugene-Springfield metropolitan area. When adopted in 2002, TransPlan served as both the local Transportation System Plan pursuant to the Oregon Transportation Planning Rule and the RTP. The RTP lists BRT as a transportation system improvement policy. The policy states that BRT enables the cities of Eugene and Springfield to: Establish a BRT system composed of frequent, fast transit service along major corridors and neighborhood feeder service that connects with the corridor service and with activity centers, if the system is shown to increase transit mode split along BRT corridors, if

local governments demonstrate support, and if financing for the system is feasible (TransPlan). Additionally, the TransPlan states that the purpose of using BRT is to increase the share of riders who use public transportation, help the region maintain conformity with federal air quality standards, and comply with alternative performance measures for the Transportation Planning Rule.

- **Draft Eugene 2035 Transportation System Plan (City of Eugene, 2016; Eugene TSP).** The Eugene TSP is the transportation element of the *Draft Envision Eugene Comprehensive Plan*. The Eugene TSP is “a policy element within the *Draft Envision Eugene Comprehensive Plan* that provides the City of Eugene with a coordinated guide for changes to its transportation infrastructure and operations over a 20-year period of time. A basic assumption in the development of this policy element is that transportation systems do more than meet travel demand: they have a significant effect on the physical, social, and economic characteristics of the areas they serve.”
- **City of Eugene Growth Management Policies (Resolution No. 4554)** (City Council of the City of Eugene, 1998, February 2). On February 2, 1998, the Eugene City Council adopted 19 growth management policies, which are used by the City to guide the work of the City Manager and staff in formulating proposed changes to the Eugene Code, including potential changes to Eugene Code Chapters 2 (Administration) through 9 (Land Use). The policies are also used by the City to guide other work programs, including such actions as preparation of the budget and revisions to the capital improvement program.
- **Eugene Code – Chapter 9 Land Use Code (City of Eugene, current through 2016).**
- **Metropolitan Transportation Improvement Program Federal FY 2015 to Federal FY 2018 (Central Lane MPO, adopted 2014, October; MTIP).**
- **Springfield Development Code (City of Springfield, current through 2016, June).**
- **City of Eugene Refinement Plans.** The City of Eugene has 29 refinement plans to support the city’s planning goals and objectives. Refinement plans consist primarily of subarea plans, master plans, and special studies. The following refinement plans apply to lands within the project’s API.
  - *Bethel Danebo Refinement Plan* (Active Bethel Citizens’ Planning Team et al., 1982)
  - *Bethel Danebo Neighborhood Refinement Plan Phase 2 – West Eugene Industrial Study and Roosevelt Extension & Drainage Facility* (City Council of the City of Eugene, 1979)
  - *Eugene Commercial Lands Study* (City of Eugene et al., 1992, October)
  - *Eugene Downtown Plan* (Eugene City Council et al., 2004, April 12)
  - *EWEB Riverfront Master Plan* (Rowell Brokaw Architects, 2010, June)
  - *Jefferson/Far West Refinement Plan* (Jefferson/Far West Planning Team and City of Eugene Planning Department, 1983, January 12)
  - *River Road Santa Clara Urban Facilities Plan* (LCOG, 1987, September)
  - *Riverfront Park Study (City of Eugene, 1986, January)*
  - *South Hills Study* (City of Eugene, 1974, March)
  - *South Willamette Subarea Study* (City of Eugene, 1988, January)
  - *West Eugene Wetlands Plan* (City of Eugene and Lane County, 2004, May)
  - *West University Refinement Plan* (City of Eugene, 1982)
  - *Westside Neighborhood Plan* (Westside Neighborhood Planning Team, 1987, January)
  - *Whiteaker Plan* (City of Eugene, 1994, August)
  - *Willakenzie Area Plan* (City of Eugene, 1992, September)

## Appendix D: Relevant Land Use Goals, Objectives, and Policies of Regional and Local Plans

**Table D-1. Relevant Land Use Goals, Objectives, and Policies of Regional and Local Plans**

Goals and Policies	Discussion
<b>Metro Plan, Eugene-Springfield Metropolitan Area General Plan (LCOG et al., 1987, as updated in 2015, December 31; Metro Plan)</b>	
<b><i>Metro Plan Transportation Goals</i></b>	
1) Provide an integrated transportation and land use system that supports choices in modes of travel and development patterns that will reduce reliance on the automobile and enhance livability, economic opportunity, and the quality of life.	<p>The No-Build Alternative would not result in an integrated transit system when compared to the build alternatives.</p> <p>The construction of MovingAhead corridor build alternatives would result in an improved multimodal system integrating existing land use, transit, and Key Transit Corridors. The 30th Ave to LCC Corridor would provide an extensive pedestrian crossing and bicycle system on High Street under the EmX Alternative, among many other key locations throughout the corridors. Additionally, both Highway 99 Corridor build alternatives would construct a pedestrian bridge connecting residents in the Trainsong Neighborhood to transit on Highway 99.</p>
2) Enhance the Eugene-Springfield metropolitan area’s quality of life and economic opportunity by providing a transportation system that is: <ul style="list-style-type: none"> <li>a) Balanced</li> <li>b) Accessible</li> <li>c) Efficient</li> <li>d) Safe</li> <li>e) Interconnected</li> <li>f) Environmentally responsible</li> <li>g) Supportive or responsible</li> <li>h) Supportive of responsible and sustainable development</li> <li>i) Responsive to community needs and neighborhood impacts and</li> <li>j) Economically viable and financially stable (Metro Plan, 2015)</li> </ul>	<p>The No-Build Alternative includes some transit improvements such as the Santa Clara Community Transit Center and West Eugene EmX Extension, however, this alternative is not interconnected or efficient when compared to the build alternatives.</p> <p>The EmX (BRT) system proposed under the EmX Alternatives and transit improvements proposed under the Enhanced Corridor Alternatives would provide multiple modes of travel connecting commercial centers such as the Lower River Road Mixed-Use Center outlined in the Lower River Road Concept Plan. The Enhanced Corridor Alternative and EmX Alternative would reduce reliance on fossil fuels and provide safe transit options.</p>
<b><i>Metro Plan Metropolitan Residential Land Use and Housing Policies</i></b>	
A.8 Require development to pay the cost, as determined by the local jurisdiction, of extending public services and infrastructure. The cities shall examine ways to provide subsidies or incentives for providing infrastructure that support affordable housing and/or higher density housing.	<p>The Enhanced Corridor Alternatives would provide improved transit service when compared to the No-Build Alternatives to lower income residents within ¼ mile of the proposed stations.</p> <p>The EmX Alternatives would provide higher frequency and higher capacity transit service to affordable housing within corridor APIs as compared to the No-Build or Enhanced Corridor Alternatives.</p>

**Table D-1. Relevant Land Use Goals, Objectives, and Policies of Regional and Local Plans**

Goals and Policies	Discussion
<p>A.25 Conserve the metropolitan area’s supply of existing affordable housing and increase the stability and quality of older residential neighborhoods, through measures such as revitalization; code enforcement; appropriate zoning; rehabilitation programs; relocation of existing structures; traffic calming; parking requirements; or public safety considerations. These actions should support planned densities in these areas.</p>	<p>All alternatives would conserve the existing stock of affordable housing. As compared to the No-Build Alternatives, the build alternatives would serve affordable housing with increased transit service. The EmX Alternatives would serve affordable housing within corridor APIs with greater capacity and service frequencies than the Enhanced Corridor Alternatives and No-Build Alternatives.</p>
<p>A.27 Seek to maintain and increase public and private assistance for low- and very low-income households that are unable to pay for shelter on the open market.</p>	<p>The build alternatives would provide more transit service to low- and very low-income households as compared to the No-Build Alternative.</p>
<p>A.30 Balance the need to provide a sufficient amount of land to accommodate affordable housing with the community’s goals to maintain a compact urban form.</p>	<p>Increased transit service proposed under the build alternatives would support higher density development consistent with the community’s affordable housing goals.</p>
<p>A.32 Encourage the development of affordable housing for special needs populations that may include service delivery enhancements on-site.</p>	<p>The build alternatives would provide more transit service to special needs populations as compared to the No-Build Alternatives. The EmX Alternatives would provide an increased capacity service with greater transit frequencies as compared to the Enhanced Corridor Alternatives or No-Build Alternatives.</p>
<p>A.35 Coordinate local residential land use and housing planning with other elements of this plan, including public facilities and services, and other local plans, to ensure consistency among policies.</p>	<p>The Enhanced Corridor Alternatives and EmX Alternatives would both support housing of various incomes by improving transit service, as compared to the No-Build Alternative. All build alternatives are consistent with other applicable goals and policies of the Metro Plan and other applicable local planning documents.</p>
<p><b><i>Metro Plan Land Use Policies</i></b></p>	
<p>F1 Apply the nodal development strategy in areas selected by each jurisdiction that have identified potential for this type of transportation-efficient land use pattern.</p>	<p>The EmX Alternatives and transit improvements proposed under the Enhanced Corridor Alternatives are TOD strategies planned for Key Transit Corridors in the Eugene TSP and Draft Envision Eugene.</p>

**Table D-1. Relevant Land Use Goals, Objectives, and Policies of Regional and Local Plans**

<b>Goals and Policies</b>		<b>Discussion</b>
F3	Provide for transit-supportive land use patterns and development, including higher intensity, transit-oriented development (TOD) along major transit corridors and near transit stations; medium- and high-density residential development within ¼ mile of transit stations, major transit corridors, employment centers, and downtown areas; and development and redevelopment in designated areas that are or could be well served by existing or planned transit.	<p>The No-Build Alternative would not serve Key Transit Corridors or support TOD to the same extent as the build alternatives.</p> <p>The build alternatives would implement an improved transit system under the Enhanced Corridor and EmX Alternatives. Both build alternatives would improve transit service on Key Transit Corridors identified in the Eugene TSP and Draft Envision Eugene.</p> <p>EmX transit stations proposed under the EmX Alternatives would be located along Key Transit Corridors identified for transit development through local policy and zoning. Areas within the vicinity of EmX stations consist of transit-supportive zoning and land uses.</p>
F4	Require improvements that encourage transit, bicycles, and pedestrians in new commercial, public, mixed-use, and multi-unit residential development.	<p>The No-Build Alternatives would implement some multi-modal improvements.</p> <p>Both build alternatives would make greater improvements as compared to the No-Build Alternatives, including new transit service, bicycle lanes, pedestrian crossings, and other transportation system improvements.</p>
F5	Within three years of TransPlan adoption, apply the ND, Nodal Development, designation to areas selected by each jurisdiction, adopt and apply measures to protect designated nodes from incompatible development and adopt a schedule for completion of nodal plans and implementing ordinances.	<p>The No-Build Alternative would not serve areas identified as supportive of TOD in local planning document, when compared to the build alternatives. The build alternatives are located within areas designated for transit development and TOD. More specifically, each EmX Alternative provides more transit service to Key Transit Corridors and transit service to more areas planned for TOD as compared to the Enhanced Corridor and No-Build Alternatives.</p>
<b>Transportation Demand Management</b>		
F6	Expand existing TDM programs and develop new TDM programs. Establish TDM bench marks and if the bench marks are not achieved, mandatory programs may be established.	<p>The multi-modal transportation improvements that comprise the build alternatives will support existing and future TDM programs.</p>
F7	Increase the use of motor vehicle parking management strategies in selected areas throughout the Eugene-Springfield metropolitan area.	<p>None of the alternatives include parking management strategies</p>
F8	Implement TDM strategies to manage demand at congested locations.	<p>The multi-modal transportation improvements that comprise the build alternatives will support existing and future TDM programs.</p>
<b>Metro Plan Transportation System Improvements: Systemwide Policies</b>		
F9	Adopt by reference, as part of the Metro Plan, the 20-Year Capital Investment Actions project lists contained in TransPlan. Project timing and estimated costs are not adopted as policy.	<p>The EmX Alternatives are listed in RTP Table 2a-Financially Constrained Capital Investment Actions: Transit Projects.</p>

**Table D-1. Relevant Land Use Goals, Objectives, and Policies of Regional and Local Plans**

Goals and Policies		Discussion
F10	Protect and manage existing and future transportation infrastructure.	A review of Lane Transit District’s ability to support the existing transit system and the additional transit services proposed under all build alternatives has been completed in other technical reports.
F11	Develop or promote intermodal linkages for connectivity and ease of transfer among all transportation modes.	The build alternatives all include multi-modal improvements that would strengthen linkages among modes.
F12	Preserve corridors, such as rail rights-of-way, private roads, and easements of regional significance, that are identified for future transportation-related uses.	No corridors identified in the policy would be negatively affected by any alternatives.
F13	Support transportation strategies that enhance neighborhood livability.	<p>The No-Build Alternatives would not enhance neighborhood livability to the same extent as the build alternatives. The No-Build Alternative would not improve neighborhood livability because it would not provide an integrated transit system when compared to the build alternatives.</p> <p>The build alternatives would provide stronger multi-modal connections that would enhance livability in all corridors. In the Highway 99 Corridor, the Trainsong Neighborhood would benefit from improved pedestrian access to transit due to construction of a new pedestrian bridge.</p>
<b>Transportation System Improvements: Roadways</b>		
F14	Address the mobility and safety needs of motorists, transit users, bicyclists, pedestrians, and the needs of emergency vehicles when planning and constructing roadway system improvements.	The needs of all users were considered by the project design team in the development of the build alternatives. The project team also consulted with emergency services personnel.
F15	Motor vehicle level of service policy:	
	<ul style="list-style-type: none"> <li>a) Use motor vehicle level of service standards to maintain acceptable and reliable performance on the roadway system. These standards shall be used for: <ul style="list-style-type: none"> <li>i) Identifying capacity deficiencies on the roadway system.</li> <li>ii) Evaluating the impacts on roadways of amendments to transportation plans, acknowledged comprehensive plans and land-use regulations, pursuant to the TPR (OAR 660-012-0060).</li> <li>iii) Evaluating development applications for consistency with the land-use regulations of the applicable local government jurisdiction.</li> </ul> </li> </ul>	Refer to the <i>Transportation Technical Report</i> (CH2M, 2017) for further details.



**Table D-1. Relevant Land Use Goals, Objectives, and Policies of Regional and Local Plans**

Goals and Policies	Discussion
<p>b) Acceptable and reliable performance is defined by the following levels of service under peak hour traffic conditions:</p> <ul style="list-style-type: none"> <li>i) Level of Service F within Eugene’s Downtown Traffic Impact Analysis Exempt Area;</li> <li>ii) Level of Service E within the portion of Eugene’s Central Area Transportation Study (CATS) area that is not within Eugene’s Downtown Traffic Impact Analysis Exempt Area; and</li> <li>iii) Level of Service D elsewhere.</li> </ul>	<p>Refer to the <i>Transportation Technical Report</i> (CH2M, 2017) for further details.</p>
<p>c) Performance standards from the OHP shall be applied on state facilities in the Eugene-Springfield metropolitan area.</p>	<p>Refer to the <i>Transportation Technical Report</i> (CH2M, 2017) for further details.</p>
<p>F17 Manage the roadway system to preserve safety and operational efficiency by adopting regulations to manage access to roadways and applying these regulations to decisions related to approving new or modified access to the roadway system.</p>	<p>The build alternatives may affect access within all corridors. The project team considered safety and operational efficiency during design and will examine access further during design refinement.</p>
<p><b><i>Transportation System Improvements: Transit</i></b></p>	
<p>F18 Improve transit service and facilities to increase the system’s accessibility, attractiveness, and convenience for all users, including the transportation disadvantaged population.</p>	<p>The No-Build Alternatives would not increase transit service and roadway improvements as much as the build alternatives. The build alternatives would provide more multi-modal transportation improvements benefiting transportation disadvantaged individuals.</p> <p>Under both the Enhanced Corridor and EmX Alternatives, the Trainsong neighborhood would be provided increased access to transit on the Highway 99 Corridor through the construction of a pedestrian bridge.</p>
<p>F19 Establish a BRT system composed of frequent, fast transit service along major corridors and neighborhood feeder service that connects with the corridor service and with activity centers, if the system is shown to increase transit mode split along BRT corridors, if local governments demonstrate support, and if financing for the system is feasible.</p>	<p>The No-Build and Enhanced Corridor Alternatives are not fully consistent with this policy because they would not result in additional EmX service. The EmX Alternatives are consistent with this policy.</p>

**Table D-1. Relevant Land Use Goals, Objectives, and Policies of Regional and Local Plans**

<b>Goals and Policies</b>		<b>Discussion</b>
F20	Implement traffic management strategies and other actions, where appropriate and practical, that give priority to transit and other high occupancy vehicles.	The No-Build Alternative would not implement traffic and transportation measures that give priority to high occupancy vehicles when compared to the build alternatives.  The build alternatives would include improvements such as new and reconstructed traffic signals, BAT lanes, queue jumps, transit signal priority, that would give physical priority to buses and BRT vehicles.
F21	Expand the Park-and-Ride system within the metropolitan area and nearby communities.	The No-Build Alternative would include the Santa Clara Community Transit Center and existing park and ride facilities.  Existing park and ride facilities and facilities planned under the No-Build Alternative by the year 2035 would be sufficient to serve the demand generated by the proposed build alternatives. No additional park and ride facilities are proposed under the build alternatives.
<b>Metro Plan Finance Policies</b>		
F35	Set priorities for investment of ODOT and federal revenues programmed in the region’s Transportation Improvement Program (TIP) to address safety and major capacity problems on the region’s transportation system.	The MovingAhead EmX Alternative is listed as Key 19742 in the Oregon Department of Transportation’s 2015-2018 STIP and RTP Table 2a-Financially Constrained Capital Investment Actions: Transit Projects.
F37	Consider and include among short-term project priorities, those facilities and improvements that support mixed-use, pedestrian-friendly nodal development, and increased use of alternative modes.	The No-Build Alternatives would not provide as many multi-modal improvements that support mixed-use, pedestrian-friendly TOD, and increased use of alternative modes as the Enhanced Corridor and EmX Alternatives.
<b>Metro Plan Willamette River Greenway</b>		
<b>Goal:</b> To protect, conserve, and enhance the natural, scenic, environmental, and economic qualities of river and waterway corridors.		The build alternatives are proposed within public rights-of-way within the Willamette River Greenway boundaries. The project has been reviewed for consistency with natural resource, scenic, environmental and economic effects, which are documented in other technical reports.
<b>Policies:</b>		
D2	Land use regulations and acquisition programs along river corridors and waterways shall take into account all the concerns and needs of the community, including recreation, resource, and wildlife protection; enhancement of river corridor and waterway environments; potential for supporting non-automobile transportation; opportunities for residential development; and other compatible uses.	The build alternatives have been reviewed for consistency with these policies and related regulations, which is documented in separate technical reports.

**Table D-1. Relevant Land Use Goals, Objectives, and Policies of Regional and Local Plans**

Goals and Policies	Discussion
D3 Eugene, Springfield, and Lane County shall continue to cooperate in expanding water-related parks and other facilities, where appropriate, that allow access to and enjoyment of river and waterway corridors.	The build alternatives have been reviewed for consistency with these policies and related regulations, which is documented in separate technical reports.
D11 The taking of an exception shall be required if a non-water-dependent transportation facility requires placing of fill within the Willamette River Greenway setback.	The build alternatives have been reviewed for consistency with these policies and related regulations, which is documented in separate technical reports.
<b>Eugene-Springfield Transportation System Plan (TransPlan, 2002)</b>	
<b><i>TransPlan Policies Related to Land Use</i></b>	
<b>Land Use Policy #1:</b> Nodal Development. Apply the nodal development strategy in areas selected by each jurisdiction that have identified potential for this type of transportation-efficient land use pattern.	The No-Build Alternative would not provide transit service to as many areas identified for TOD as the build alternatives. The build alternatives would increase public transportation to areas identified for TOD through local zoning/overlay policies.
<b>Land Use Policy #2:</b> Support for Nodal Development. Support application of the nodal development strategy in designated areas through information, technical assistance, or incentives.	The build alternatives propose adding improved transit service to areas identified for TOD in local zoning regulations and policies.
<b>Land Use Policy #3:</b> Transit-Supportive Land Use Patterns. Provide for transit supportive land use patterns and development, including higher intensity, TOD along major transit corridors and near transit stations; medium and high-density residential development within ¼ mile of transit stations, major transit corridors, employment centers, and downtown areas; and development and redevelopment in designated areas that are or could be well served by existing or planned transit.	The No-Build Alternative would not provide as much improved transit service or as many multi-modal improvements as the build alternatives; therefore, less TOD would be supported by transit under the No-Build Alternative.
<b>Land Use Policy #4:</b> Multi-Modal Improvements in New Development. Require improvements that encourage transit, bicycles, and pedestrians in new commercial, public, mixed-use, and multi-unit residential development.	The No-Build Alternative would not provide as much improved transit service or as many multi-modal improvements as the build alternatives; therefore, less TOD would be supported by transit under the No-Build Alternative.

**Table D-1. Relevant Land Use Goals, Objectives, and Policies of Regional and Local Plans**

Goals and Policies	Discussion
<b>Eugene Transportation System Plan (Eugene TSP, 2035)</b>	
<p><b>Goal 1:</b> Create an integrated transportation system that is safe and efficient; supports the <i>Draft Envision Eugene Comprehensive Plan</i>, the City of Eugene’s targets for a 50-percent reduction in fossil fuel consumption, and other City land use and economic development goals; reduces reliance on single-occupancy automobiles; and enhances community livability.</p>	<p>The build alternatives would result in an improved multi-modal transportation system with increased service frequency along Key Transit Corridors that would further the goals of reducing fossil fuel consumption, support land use and economic development goals, reduce reliance on single occupant vehicles, and an enhance community livability.</p>
<b>Transit Policies (Potential Actions for Transportation Policies)</b>	
<p>A. The actions anticipated to implement Key Transit Corridors and regional Frequent Transit Networks include the following:</p> <ul style="list-style-type: none"> <li>– Coordinated land use and transportation studies should be conducted for each Key Transit Corridor to determine the appropriate balance of transportation access for each mode of travel, location and density of new development, location of activity centers, right-of-way needs, building setbacks, and locations of major transit stops.</li> </ul>	<p>The No-Build Alternatives would implement EmX service to Franklin Boulevard and W. 6th, W. 7th, and W. 11th Avenues, whereas, the project build alternatives would implement an improved transportation system along the remaining Key Transit Corridors identified for transit development in the Eugene TSP and Draft Envision Eugene.</p>
<ul style="list-style-type: none"> <li>– Design standards should be created for the pedestrian zone and for properties adjacent to the corridor to encourage pedestrian-oriented development and TOD and to provide safe and convenient pedestrian and bicycle access to transit stops.</li> </ul>	<p>The No-Build Alternative would not provide for pedestrian and bike friendly access to transit stops/stations when compared to the build alternatives. The build alternatives would include enhanced and new pedestrian crossings, bike lanes, sidewalks, and pedestrian islands at select intersections. To further enhance pedestrian access for identified environmental justice populations, a pedestrian bridge is proposed to provide access to public transportation proposed on Highway 99.</p>
<b>Equity, Economy, and Community Engagement Policies</b>	
<p>1. Be fair and equitable: ensure that transportation facilities are provided for people of all ages, races, ethnicities, abilities, incomes, and in all neighborhoods</p>	<p>The Enhanced Corridor Alternatives and EmX Alternatives would both provide improved transit service to identified EJ neighborhoods and affordable housing communities when compared to the No-Build Alternatives.</p>
<p>2. Reduce or eliminate disparities between neighborhoods in safety and access to essential destinations. Ensure that the costs and benefits of transportation improvements are equitably shared over time. Favor historically underserved communities if equitable solutions are not possible within a single project or action.</p>	<p>The Enhanced Corridor Alternatives and EmX Alternatives would both improve transit service from Highway 99 to essential destinations such as the Central Business District. The EmX Alternative would provide greater rider capacity and service frequency than the No-Build Alternatives or Enhanced Corridor Alternatives.</p>

**Table D-1. Relevant Land Use Goals, Objectives, and Policies of Regional and Local Plans**

Goals and Policies	Discussion
<b>Eugene Growth Management Policies (Resolution No. 4554)</b>	
<p><b>Policy 1:</b> Support the existing Eugene Urban Growth Boundary by taking actions to increase density and use existing vacant land and under-used land within the boundary more efficiently.</p>	<p>Increased mixed-use and multi-family land use intensities and vacant land development of these zones could occur under the build alternatives at a faster rate than the No-Build Alternatives. The EmX Alternatives would likely increase the intensity of lands zoned for transit-supportive uses at a faster rate than the Enhanced Corridor Alternatives if development were to occur.</p>
<p><b>Policy 2:</b> Encourage in-fill, mixed-use, redevelopment, and higher density development.</p>	<p>The build alternatives would support infill of multi-family residential and mixed-use developments because they are transit-supportive. The EmX Alternative would support higher density development of these areas better than the No-Build or Enhanced Corridor Alternatives.</p>
<p><b>Policy 3:</b> Encourage a mix of businesses and residential uses downtown using incentives and zoning.</p>	<p>The build alternatives would convert more zoned lands into a transportation use than the No-Build Alternatives, however, the City would still have an ample stock of lands zoned for all uses. The build alternatives would assist land development in areas zoned for transit-supportive uses.</p>
<p><b>Policy 6:</b> Increase density of new housing development while maintaining the character and livability of individual neighborhoods.</p>	<p>The build alternatives would support increased intensities of lands zoned for Multi-Family Residential uses more than the No-Build Alternatives. The build alternatives would not result in the displacement of any housing developments.</p>
<p><b>Policy 10:</b> Encourage the creation of transportation-efficient land use patterns and implementation of nodal development concepts.</p>	<p>The No-Build Alternative is not as consistent with this policy as the build alternatives. The build alternatives would support TOD and provide an improved transit system to a greater extent than the No-Build Alternatives.</p>
<p><b>Policy 11:</b> Increase the use of alternative modes of transportation by improving the capacity, design, safety, and convenience of the transit, bicycle, and pedestrian transportation systems.</p>	<p>The build alternatives would provide multi-modal improvements that would increase the use of alternative modes of transportation more than the No-Build Alternatives.</p>
<p><b>Policy 12:</b> Encourage alternatives to the use of single-occupant vehicles through demand management techniques.</p>	<p>The build alternatives would result in multi-modal improvements and would support TDM more than the No-Build Alternatives.</p>
<p><b>Policy 13:</b> Focus future street improvements on relieving pressure on the City’s most congested roadways and intersections to maintain an acceptable level of mobility for all modes of transportation.</p>	<p>The build alternatives would provide more transportation capacity along congested street corridors than the No-Build Alternatives.</p>
<p><b>Policy 14:</b> Development shall be required to pay the full cost of extending infrastructure and services, except that the City will examine ways to subsidize the costs of providing infrastructure or offer other incentives that support higher-density, in-fill, mixed-use, and redevelopment.</p>	<p>The build alternatives include more multi-modal infrastructure improvements funded through public sources that would support higher-density uses, infill, and redevelopment than the No-Build Alternatives.</p>

**Table D-1. Relevant Land Use Goals, Objectives, and Policies of Regional and Local Plans**

Goals and Policies	Discussion
<p><b>Policy 15:</b> Target publicly-financed infrastructure extensions to support development for higher densities, in-fill, mixed-use, and nodal development.</p>	<p>The build alternatives include more multi-modal infrastructure improvements funded through public sources that would support higher-density uses, infill, and redevelopment than the No-Build Alternatives.</p>
<p><b>Policy 17:</b> Protect and improve air and water quality and protect natural areas of good habitat value through a variety of means such as better enforcement of existing regulations, new or revised regulations, or other practices.</p>	<p>The build alternatives are being reviewed for potential impacts to natural areas and habitat values within the vicinity of the corridors, which are documented in separate technical reports.</p>
<p><b>Central Lane Metropolitan Planning Organization Regional Transportation Plan (RTP, 2011)</b></p>	
<p><b>Land Use Policies</b></p>	
<p><b>Land Use Planning Policy 1 (Nodal Development):</b> Apply the nodal development strategy in areas selected by each jurisdiction that have identified potential for this type of transportation-efficient land use pattern.</p>	<p>The build alternatives propose more improved transportation and public transportation options in areas appropriate for TOD than the No-Build Alternatives.</p> <p>The EmX Alternatives would result in an integrated EmX service within four Key Transit Corridors identified as Key Transit Corridors desirable for EmX service utilizing BRT vehicles, whereas, the Enhanced Corridor Alternative would provide service to less linear area of these corridors. The No-Build Alternative would provide service to some Key Transit Corridors (Franklin Boulevard and W. 6th, W. 7th Avenues, and W. 11th Avenues).</p>
<p><b>Land Use Planning Policy 2 (Support for Nodal Development):</b> Support application of the nodal development strategy in designated areas through information, technical assistance, or incentives.</p>	<p>The build alternatives would support a TOD strategy in areas identified for TOD through local and regional goals and policies better than the No-Build Alternatives.</p>
<p><b>Land Use Planning Policy 3 (Transit-Supportive Land Use Policies):</b> Provide for transit-supportive land use patterns and development, including higher intensity, TOD along major transit corridors and near transit stations; medium- and high-density residential development within 0.25 mile of transit stations, major transit corridors, employment centers, and downtown areas; and development and redevelopment in designated areas that are or could be well served by existing or planned transit.</p>	<p>The build alternatives would implement an improved transit system more supportive of higher intensity land uses than the No-Build Alternatives.</p> <p>The EmX and Enhanced Corridor Alternatives would construct transit stations along more Key Transit Corridors identified for transit development through local zoning and policy than the No-Build Alternatives. Areas within the vicinity of EmX stations consist of transit friendly zoning and land uses. EmX (BRT) systems would support development patterns in a manner consistent with this policy.</p>
<p><b>Land Use Planning Policy 5 (Implementation of Nodal Development):</b> Within three years of TransPlan adoption, apply the ND, Nodal Development designation to areas selected by each jurisdiction, adopt and apply measures to protect designated nodes from incompatible development and adopt a schedule for completion of nodal plans and implementing ordinances.</p>	<p>The build alternatives propose more transit service in areas identified through local zoning and ordinances as TOD areas than the No-Build Alternatives. Areas identified as locally adopted TOD zones are shown on zoning and overlay figures in Sections 6 through 10 of this technical report (corridor zoning/overlay figures).</p>

**Table D-1. Relevant Land Use Goals, Objectives, and Policies of Regional and Local Plans**

Goals and Policies	Discussion
<b>TSI Transportation Policies</b>	
<p><b>TSI Transit Policy #1 Transit Improvements:</b> Improve transit service and facilities to increase the system’s accessibility, attractiveness, and convenience for all users, including the transportation disadvantaged population.</p>	<p>The build alternatives would improve more transit service to disadvantaged populations than the No-Build Alternatives. The EmX Alternatives would also result in new and unique BRT vehicles and stations offering more visually attractive features such as real-time electronic signage, raised platforms, marked boarding areas, etc. Both the build alternatives would provide a pedestrian bridge from the Trainsong neighborhood to Highway 99.</p>
<p><b>TSI Transit Policy #2 Bus Rapid Transit:</b> Establish a Bus Rapid Transit (BRT) system composed of frequent, fast transit service along major corridors and neighborhood feeder service that connects with the corridor service and with activity centers, if the system is shown to increase transit mode split along BRT corridors, if local governments demonstrate support, and if financing for the system is feasible.</p>	<p>The No-Build Alternatives include EmX (BRT) service but would not be expanding the service or result in service to all major transportation corridors. The Enhanced Corridor Alternative would not implement EmX service. Therefore, the No-Build would be inconsistent with this policy because it would not implement a transit system connecting all of the regions highest growth centers. The Enhanced Corridor Alternatives would not be entirely consistent with this policy because they would not implement an EmX system connecting all of the regions highest growth centers, however, this alternative would improve transit and multimodal transportation to the region’s major corridors.</p> <p>The EmX Alternatives would result in transit system providing greater service frequencies using BRT vehicles along Key Transit Corridors identified in the Eugene TSP and Draft Envision Eugene. LTD will be seeking Small Starts Grants to help finance the preferred alternative by the grant’s 2017 September application deadline.</p>
<p><b>TSI Transit Policy #3 Transit/High-Occupancy Vehicle (HOV) Priority:</b> Implement traffic management strategies and other actions, where appropriate and practical, that give priority to transit and other HOVs.</p>	<p>The build alternatives are more consistent with this policy than the No-Build Alternatives because they include more transit-related improvements such as bus queue jumps, bus-only lanes, and improved signal timing for transit vehicles. These improvements would prioritize high-occupancy vehicles.</p>
<p><b>TSI Transit Policy #4 Park-and-Ride Facilities:</b> Expand the Park-and-Ride system within the metropolitan area and nearby communities.</p>	<p>The build alternatives do not propose additional park and ride facilities beyond those to be constructed in the No-Build Alternatives. Improvements and transit system changes proposed under the EmX and Enhanced Corridor Alternatives would be adequately supported by the existing and improved park and ride facilities and those to be constructed under the No-Build Alternatives.</p>
<b>TSI Pedestrian Policies</b>	
<p><b>TSI Pedestrian Policy #1 Pedestrian Environment:</b> Provide for a pedestrian environment that is well integrated with adjacent land uses and is designed to enhance the safety, comfort, and convenience of walking.</p>	<p>The build alternatives propose more segments of segregated sidewalks and improved/new pedestrian crossings throughout the project corridors than the No-Build Alternative.</p>



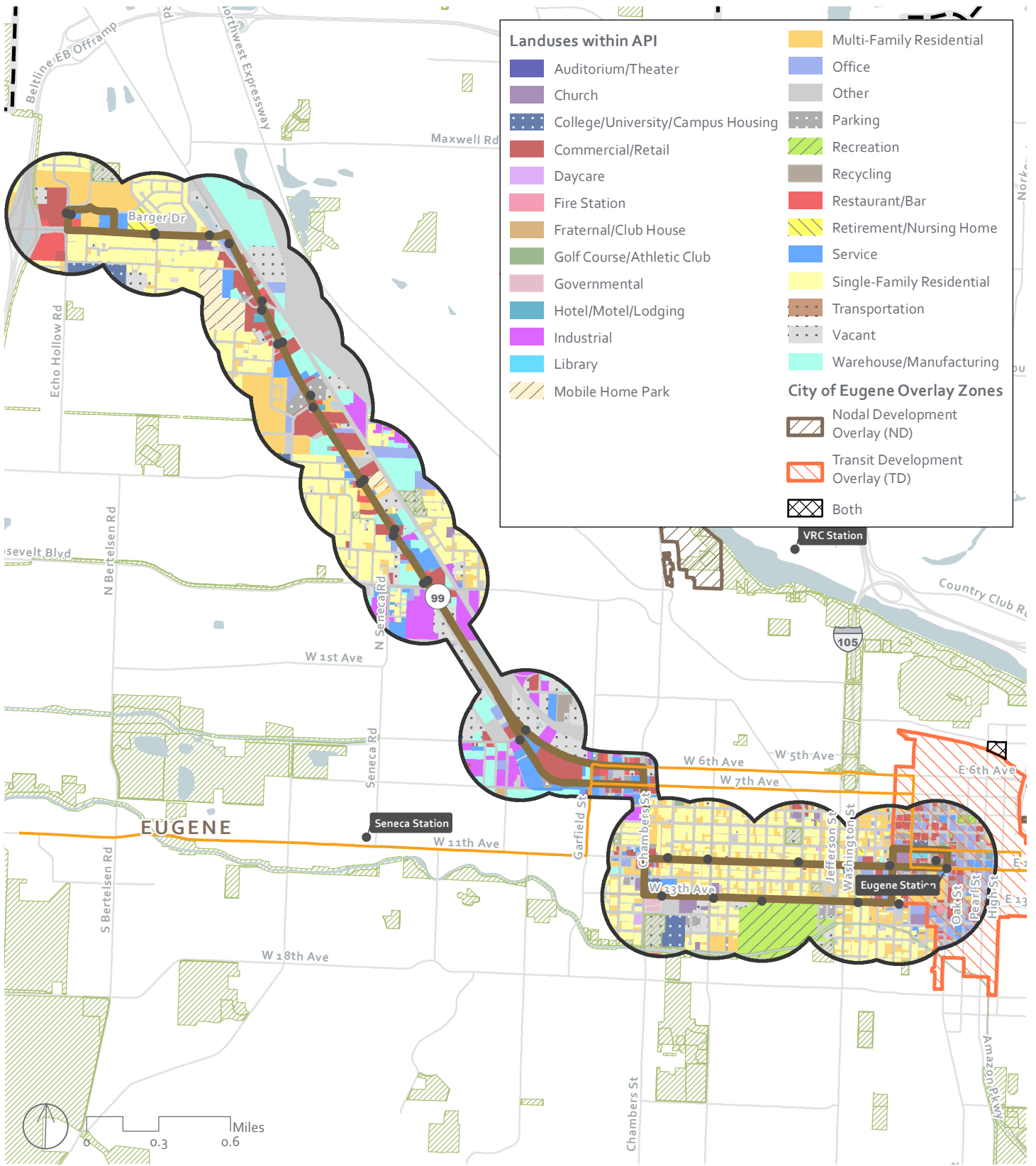
**Table D-1. Relevant Land Use Goals, Objectives, and Policies of Regional and Local Plans**

Goals and Policies	Discussion
<p><b>TSI Pedestrian Policy #2: Continuous and Direct Routes:</b> Provide for a continuous pedestrian network with reasonably direct travel routes between destination points.</p>	<p>The build alternatives provide more pedestrian network than the No-Build Alternative in areas feasible for this type of network.</p>
<p><b>TSI Pedestrian Policy #3 Sidewalks:</b> Construct sidewalks along urban area arterial and collector roadways, except freeways.</p>	<p>The build alternatives propose more sidewalks and pedestrian crossings along corridor arterials than the No-Build Alternatives.</p>
<p><b>TSI Bicycle Policies</b></p>	
<p><b>TSI Bicycle Policy #1 Bikeway System and Support Facilities:</b> Construct and improve the region’s bikeway system and provide bicycle system support facilities for both new development and redevelopment/expansion.</p>	<p>The build alternatives would provide more bike facilities by incorporating new bicycle lanes in specified segments of the corridor alignments than the No-Build Alternatives.</p>
<p><b>TSI Bicycle Policy #2 Bikeways on Arterials and Collectors:</b> Require bikeways along new and reconstructed arterial and major collector streets.</p>	<p>New bike lanes proposed under the build alternatives are located in select locations along the corridors proposed for transit improvements. The build alternatives would provide more bike facilities along these roadways than the No-Build Alternatives.</p>
<p><b>TSI Bicycle Policy #3 Bikeway Connections to New Development:</b> Require bikeways to connect new development with nearby neighborhood activity centers and major destinations.</p>	<p>Bike lanes are proposed under the build alternatives to connect new development with neighborhoods and major destinations. The Enhanced Corridor Alternatives and EmX Alternatives would provide more bikeways than the No-Build Alternatives.</p>
<p><b>TSI Bicycle Policy #4 Implementation of Priority Bikeway Miles:</b> Give funding priority (ideally within the first 3 to 5 years after adoption of TransPlan, subject to available funding) to stand-alone bikeway projects that are Central Lane MPO Regional Transportation Plan December, 2011 Chapter 2, Page 13 included in the definition of “Priority Bikeway Miles” and that increase the use of alternative modes.</p>	<p>LTD would pursue funding for bike facilities proposed throughout the corridors for the build alternatives, if available.</p>
<p><b>Finance Policies</b></p>	
<p><b>Finance Policy #6 Eugene-Specific Finance Policy:</b> The City of Eugene will maintain transportation performance and improve safety by improving system efficiency and management before adding capacity to the transportation system under Eugene’s jurisdiction.</p>	<p>The City and LTD have maintained the existing transportation system prior to proposing the build alternatives. Increases in transit demand and local policy have driven the proposed transit improvements.</p>

## Appendix E: Land Use Figures

- Figure E-1: Generalized Land Use Highway 99 Corridor Enhanced Corridor Alternative
- Figure E-2: Generalized Land Use Highway 99 Corridor EmX Alternative
- Figure E-3: Generalized Land Use River Road Corridor Enhanced Corridor Alternative
- Figure E-4: Generalized Land Use River Road Corridor EmX Alternative
- Figure E-5: Generalized Land Use 30th Avenue to LCC Corridor Enhanced Corridor Alternative
- Figure E-6: Generalized Land Use 30th Avenue to LCC Corridor EmX Alternative
- Figure E-7: Generalized Land Use Coburg Road Corridor Enhanced Corridor Alternative
- Figure E-8: Generalized Land Use Coburg Road Corridor EmX Alternative
- Figure E-9: Generalized Land Use Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative
- Figure E-10: Metro Plan Highway 99 Corridor Enhanced Corridor Alternative
- Figure E-11: Metro Plan Highway 99 Corridor EmX Alternative
- Figure E-12: Metro Plan River Road Corridor Enhanced Corridor Alternative
- Figure E-13: Metro Plan River Road Corridor EmX Alternative
- Figure E-14: Metro Plan 30th Avenue to LCC Corridor Enhanced Corridor Alternative
- Figure E-15: Metro Plan 30th Avenue to LCC Corridor EmX Alternative
- Figure E-16: Metro Plan Coburg Road Corridor Enhanced Corridor Alternative
- Figure E-17: Metro Plan Coburg Road Corridor EmX Alternative
- Figure E-18: Metro Plan Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative

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Landuses within API	
[Blue Box]	Auditorium/Theater
[Purple Box]	Church
[Dotted Box]	College/University/Campus Housing
[Red Box]	Commercial/Retail
[Pink Box]	Daycare
[Light Blue Box]	Fire Station
[Brown Box]	Fraternal/Club House
[Green Box]	Golf Course/Athletic Club
[Light Purple Box]	Governmental
[Teal Box]	Hotel/Motel/Lodging
[Magenta Box]	Industrial
[Light Blue Box]	Library
[Yellow Box]	Mobile Home Park
[Orange Box]	Multi-Family Residential
[Light Blue Box]	Office
[Grey Box]	Other
[Dotted Box]	Parking
[Green Box]	Recreation
[Brown Box]	Recycling
[Red Box]	Restaurant/Bar
[Yellow Box]	Retirement/Nursing Home
[Blue Box]	Service
[Light Yellow Box]	Single-Family Residential
[Brown Box]	Transportation
[Dotted Box]	Vacant
[Cyan Box]	Warehouse/Manufacturing

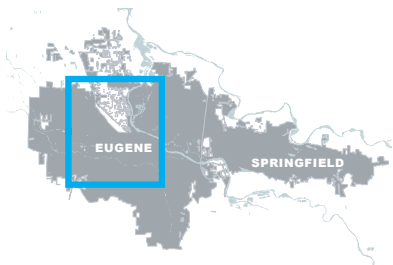
City of Eugene Overlay Zones	
[Hatched Box]	Nodal Development Overlay (ND)
[Orange Hatched Box]	Transit Development Overlay (TD)
[Cross-hatched Box]	Both

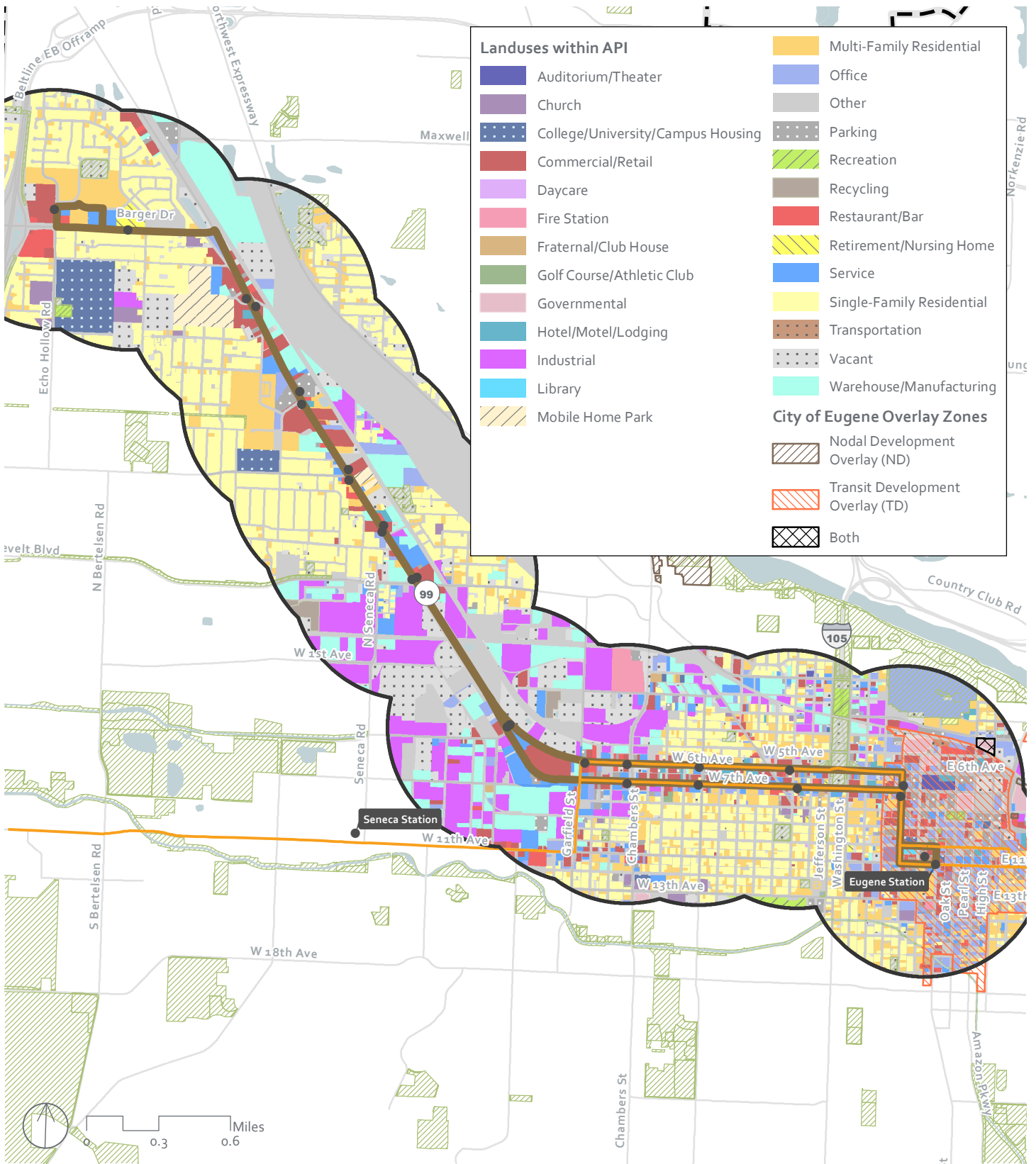
**Legend**

- Stop/Station Location
- ▬ Highway 99 Corridor
- ▬ 2035 No-Build EmX
- ▬ Road
- ▭ Area of Potential Impacts (API)
- ▭ Urban Growth Boundary (UGB)
- ▭ Water
- ▭ Park

**Generalized Land Use**

Highway 99 Corridor  
Enhanced Corridor  
Alternative





**Landuses within API**

- Auditorium/Theater
- Church
- College/University/Campus Housing
- Commercial/Retail
- Daycare
- Fire Station
- Fraternal/Club House
- Golf Course/Athletic Club
- Governmental
- Hotel/Motel/Lodging
- Industrial
- Library
- Mobile Home Park
- Multi-Family Residential
- Office
- Other
- Parking
- Recreation
- Recycling
- Restaurant/Bar
- Retirement/Nursing Home
- Service
- Single-Family Residential
- Transportation
- Vacant
- Warehouse/Manufacturing

**City of Eugene Overlay Zones**

- Nodal Development Overlay (ND)
- Transit Development Overlay (TD)
- Both

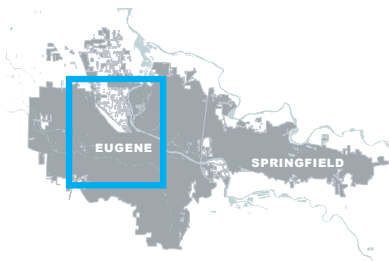
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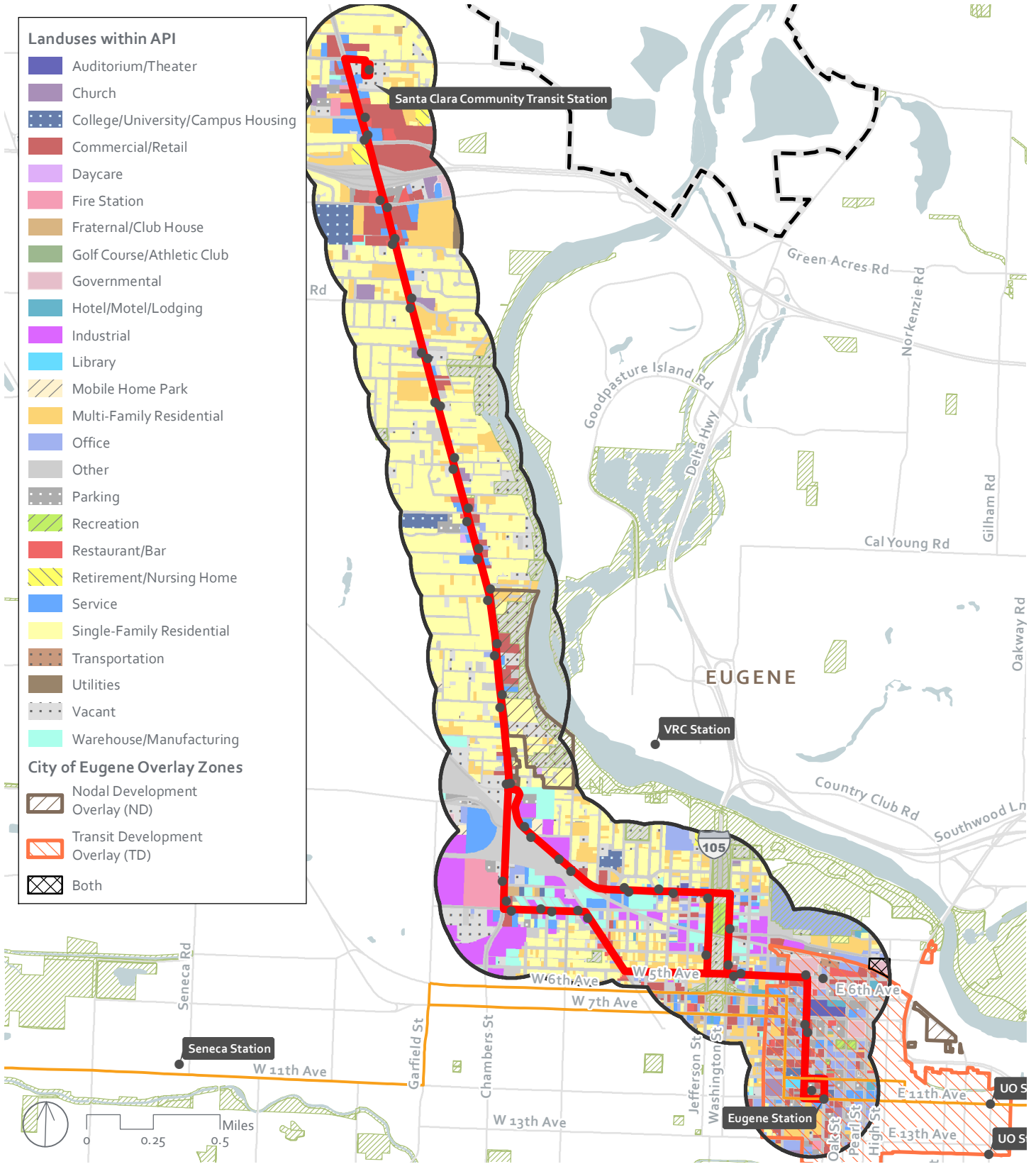
- Stop/Station Location
- Highway 99 Corridor
- 2035 No-Build EmX
- Road
- Area of Potential Impacts (API)
- Urban Growth Boundary (UGB)
- Water
- Park

**Generalized Land Use**

Highway 99 Corridor  
EmX Alternative

E-2





- Landuses within API**
- Auditorium/Theater
  - Church
  - College/University/Campus Housing
  - Commercial/Retail
  - Daycare
  - Fire Station
  - Fraternal/Club House
  - Golf Course/Athletic Club
  - Governmental
  - Hotel/Motel/Lodging
  - Industrial
  - Library
  - Mobile Home Park
  - Multi-Family Residential
  - Office
  - Other
  - Parking
  - Recreation
  - Restaurant/Bar
  - Retirement/Nursing Home
  - Service
  - Single-Family Residential
  - Transportation
  - Utilities
  - Vacant
  - Warehouse/Manufacturing
- City of Eugene Overlay Zones**
- Nodal Development Overlay (ND)
  - Transit Development Overlay (TD)
  - Both

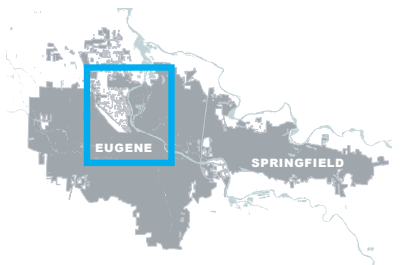
**Legend**

- Stop/Station Location
- River Road Corridor
- 2035 No-Build EmX
- Road
- Area of Potential Impacts (API)
- Urban Growth Boundary (UGB)
- Water
- Park

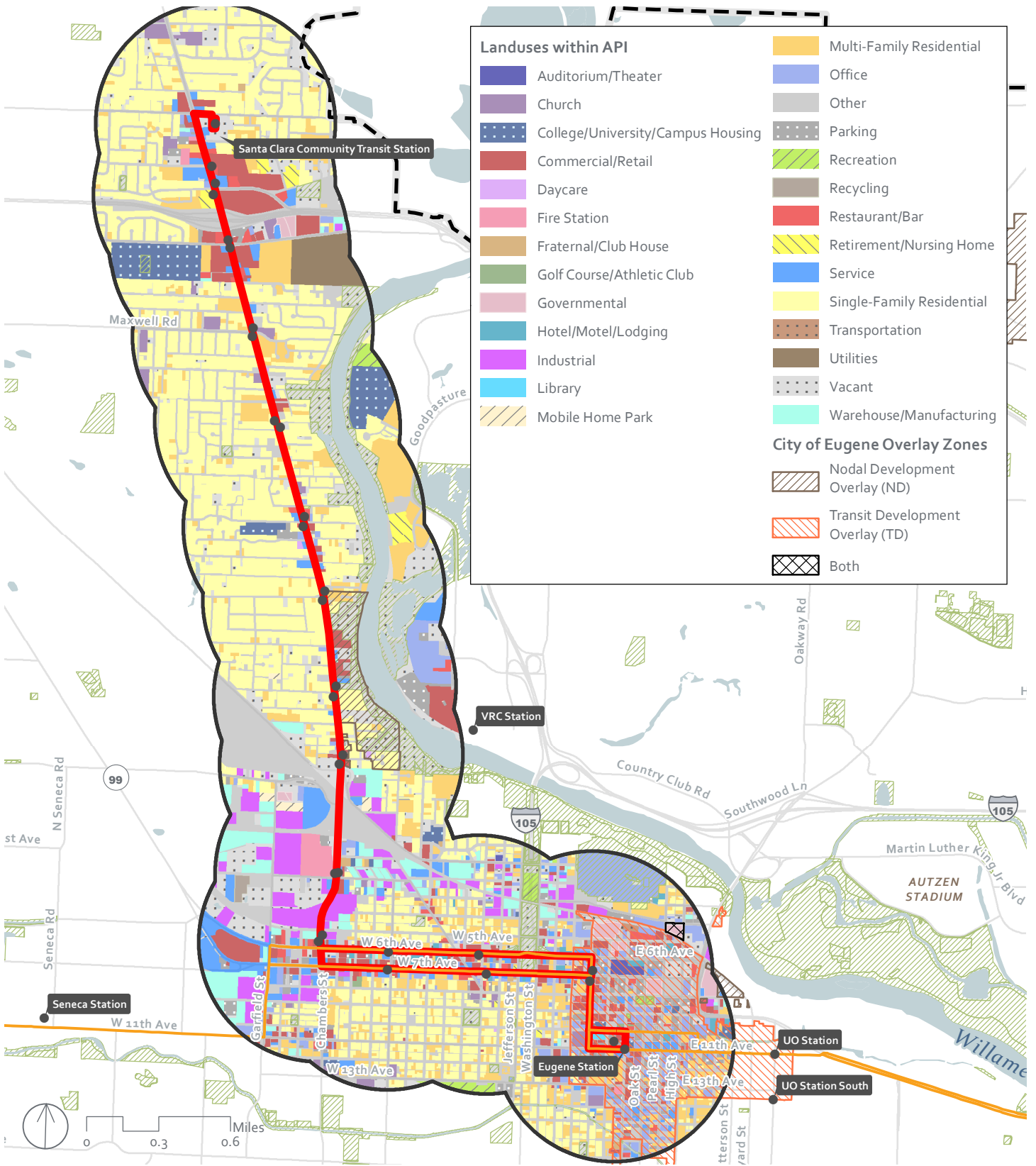
**Generalized Land Use**

River Road Corridor  
Enhanced Corridor  
Alternative

E-3







**Landuses within API**

	Auditorium/Theater		Multi-Family Residential
	Church		Office
	College/University/Campus Housing		Other
	Commercial/Retail		Parking
	Daycare		Recreation
	Fire Station		Recycling
	Fraternal/Club House		Restaurant/Bar
	Golf Course/Athletic Club		Retirement/Nursing Home
	Governmental		Service
	Hotel/Motel/Lodging		Single-Family Residential
	Industrial		Transportation
	Library		Utilities
	Mobile Home Park		Vacant
			Warehouse/Manufacturing

**City of Eugene Overlay Zones**

	Nodal Development Overlay (ND)
	Transit Development Overlay (TD)
	Both

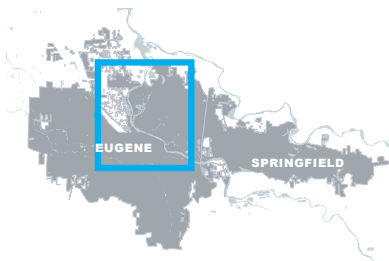
**Legend**

- Stop/Station Location
- River Road Corridor
- 2035 No-Build EmX
- Road
- Area of Potential Impacts (API)
- Urban Growth Boundary (UGB)
- Water
- Park

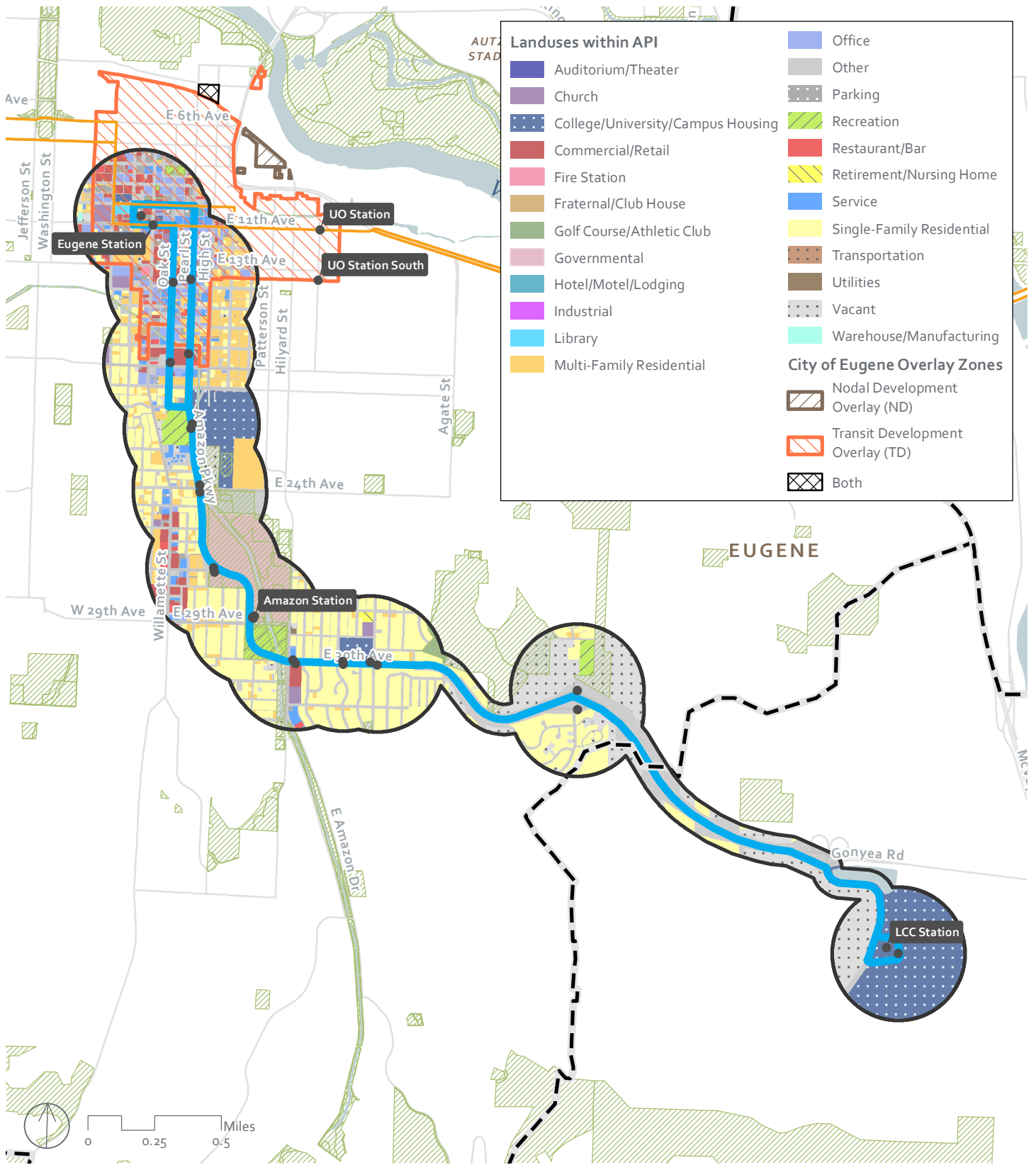
**Generalized Land Use**

River Road Corridor  
EmX Alternative

E-4





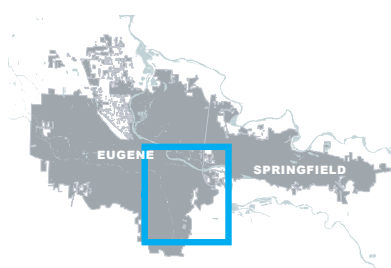


**Legend**

- Stop/Station Location
- 30th Avenue to Lane Community College Corridor
- 2035 No-Build EmX
- Road
- Area of Potential Impacts (API)
- Urban Growth Boundary (UGB)
- Water
- Park

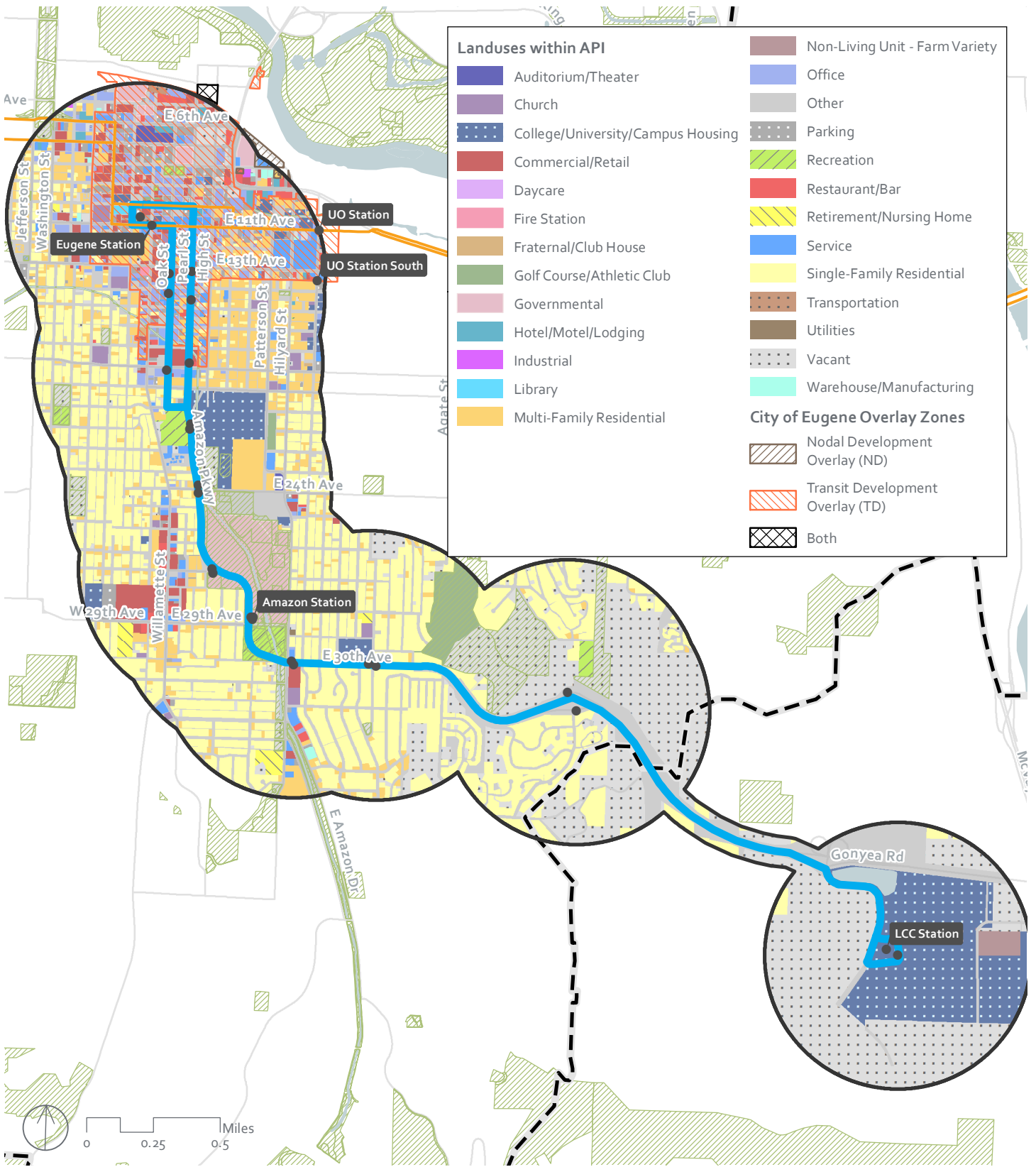
**Generalized Land Use**

30th Avenue to Lane  
Community College Corridor  
Enhanced  
Corridor Alternative



E-5

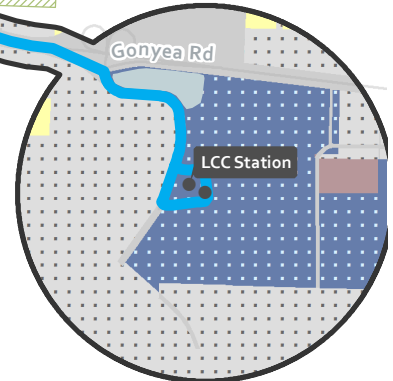
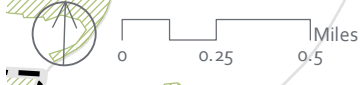




Landuses within API	
	Auditorium/Theater
	Church
	College/University/Campus Housing
	Commercial/Retail
	Daycare
	Fire Station
	Fraternal/Club House
	Golf Course/Athletic Club
	Governmental
	Hotel/Motel/Lodging
	Industrial
	Library
	Multi-Family Residential
	Non-Living Unit - Farm Variety
	Office
	Other
	Parking
	Recreation
	Restaurant/Bar
	Retirement/Nursing Home
	Service
	Single-Family Residential
	Transportation
	Utilities
	Vacant
	Warehouse/Manufacturing

City of Eugene Overlay Zones	
	Nodal Development Overlay (ND)
	Transit Development Overlay (TD)
	Both



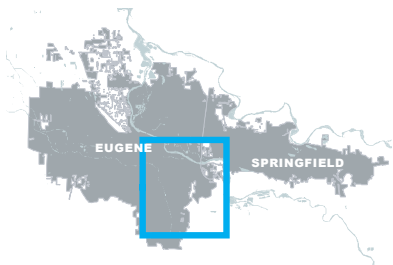
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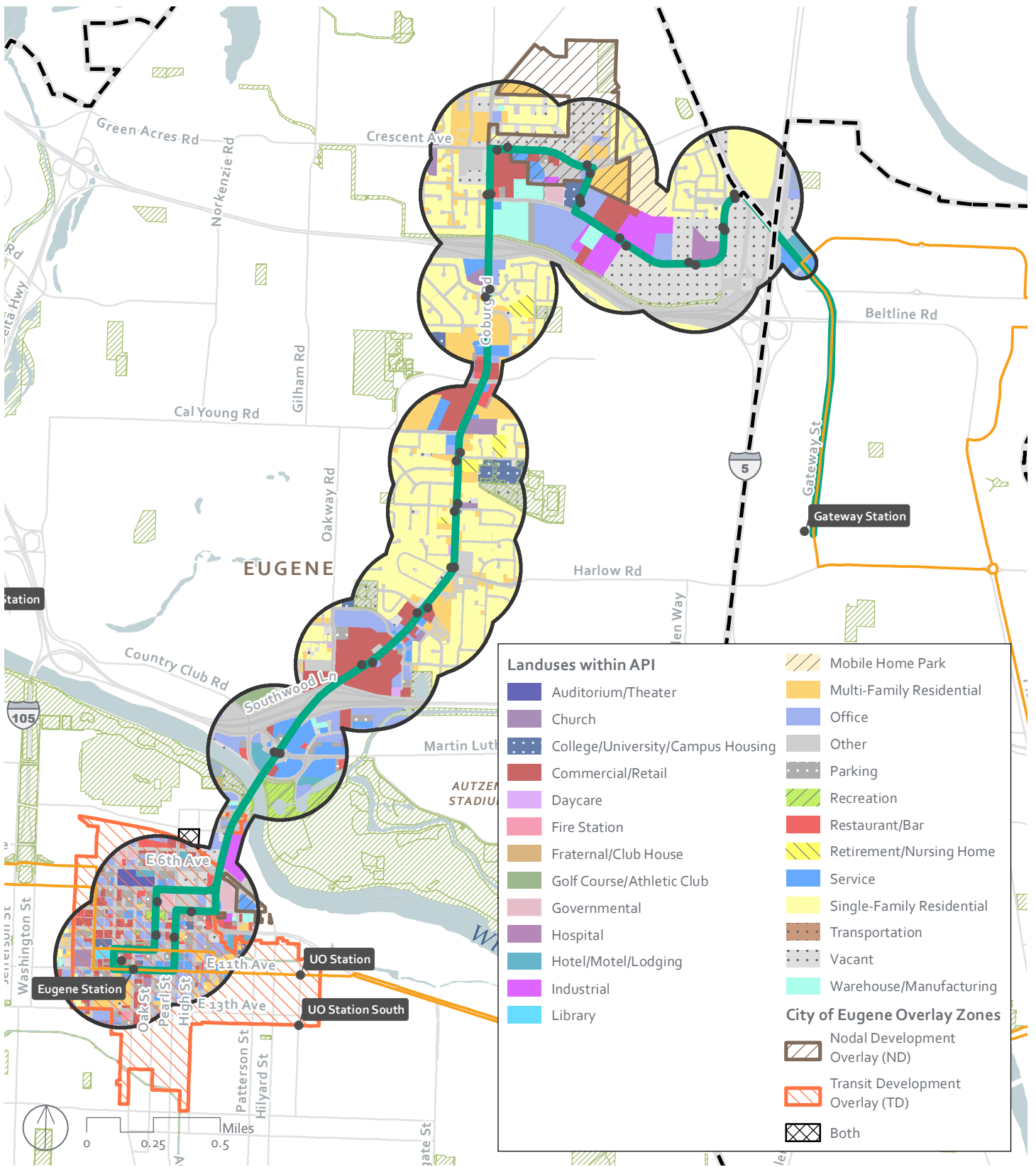
- Stop/Station Location
- 30th Avenue to Lane Community College Corridor
- 2035 No-Build EmX
- Road
- Area of Potential Impacts (API)
- Urban Growth Boundary (UGB)
- Water
- Park

**Generlized Land Use**

30th Avenue to LCC Corridor  
EmX Alternative

E-6

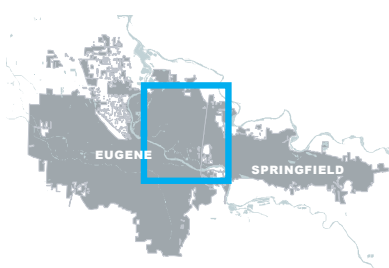


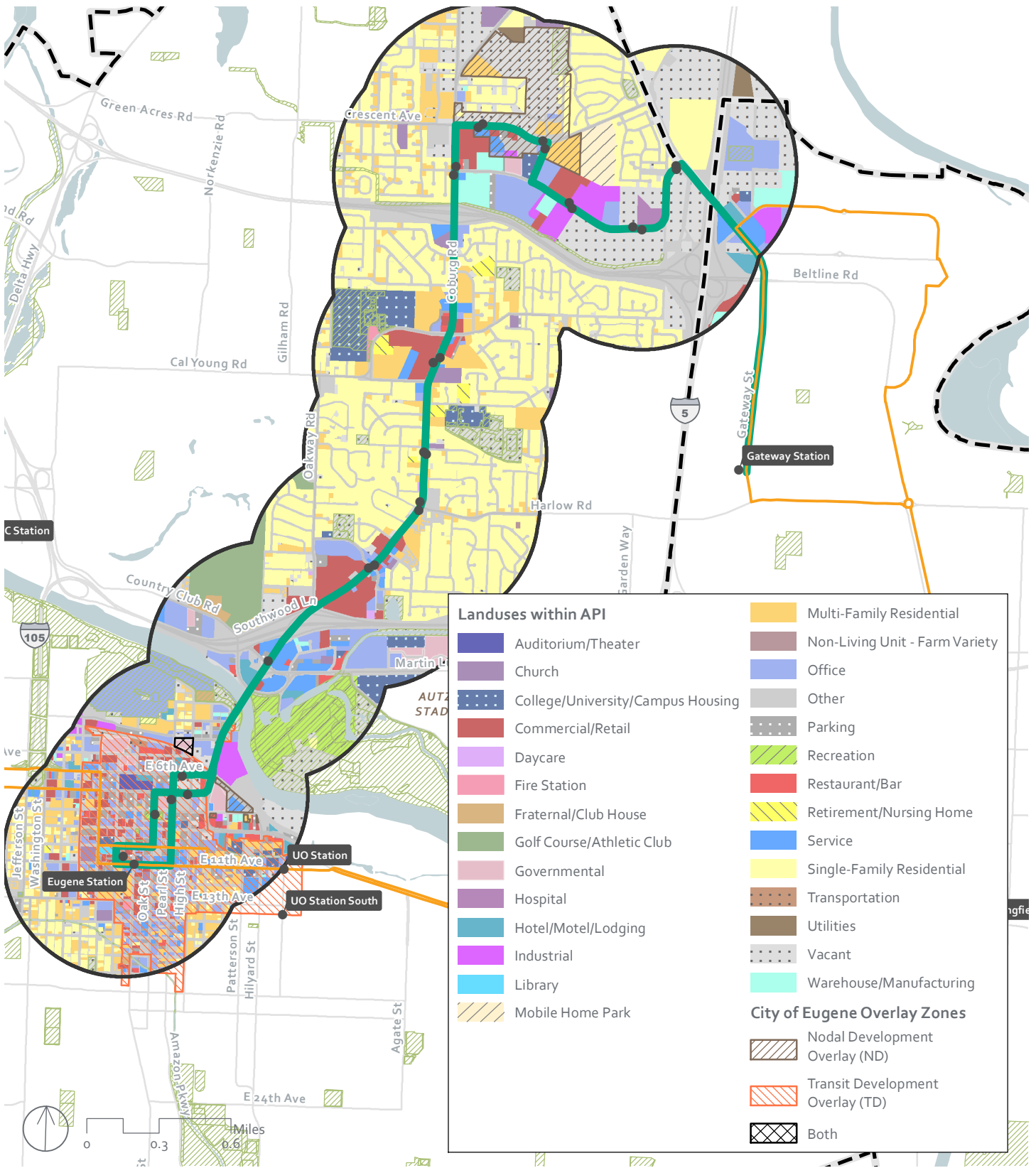


**Legend**

- Stop/Station Location
- ▬ Coburg Road Corridor
- ▬ 2035 No-Build EmX
- ▬ Road
- ▭ Area of Potential Impacts (API)
- ▭ Urban Growth Boundary (UGB)
- ▭ Water
- ▭ Park

**Generalized Land Use**  
Coburg Road Corridor  
Enhanced Corridor  
Alternative





**Legend**

- Stop/Station Location
- Coburg Road Corridor
- 2035 No-Build EmX
- Road
- Area of Potential Impacts (API)
- Urban Growth Boundary (UGB)
- Water
- Park

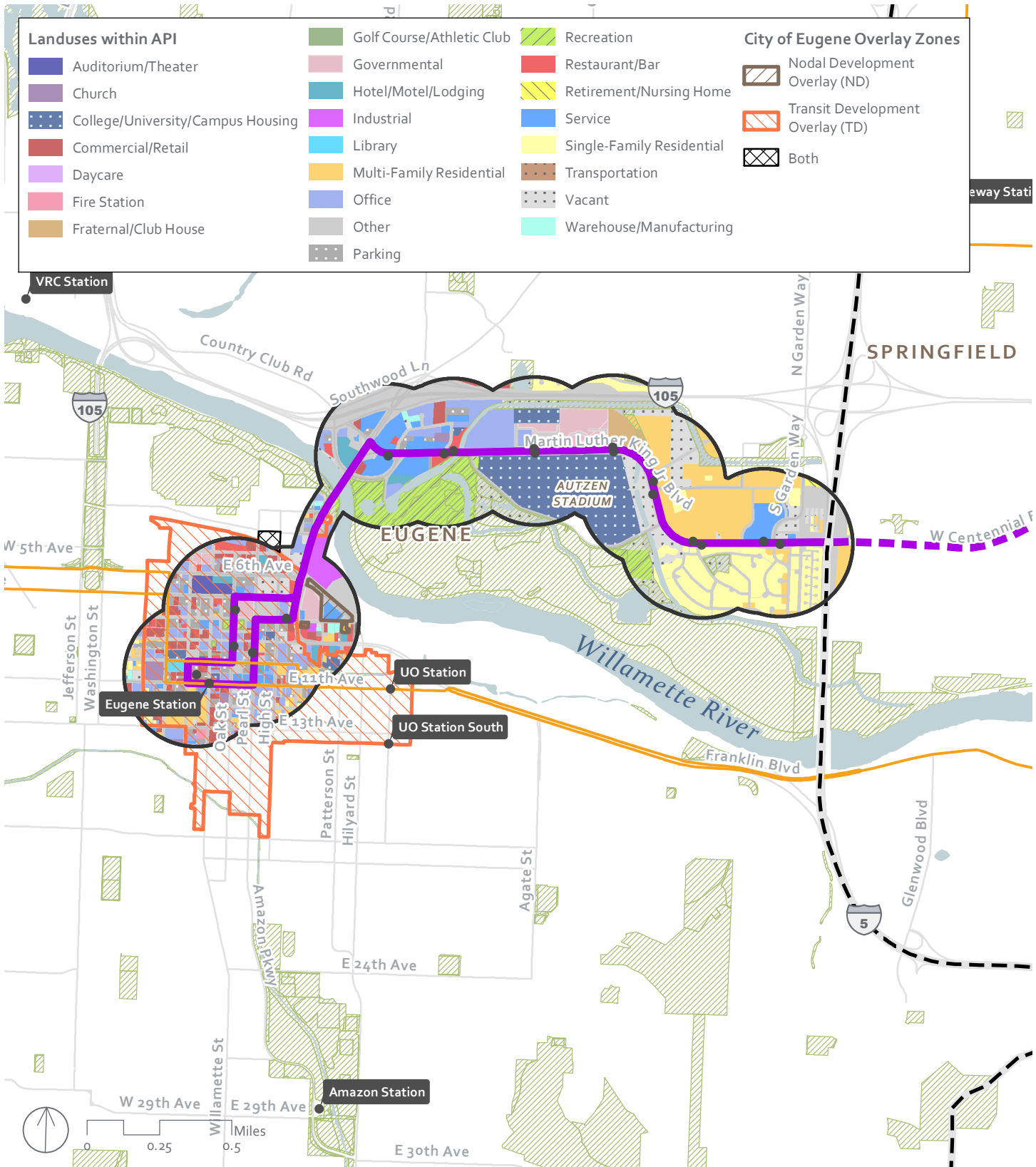
**Generalized Land Use**

**Coburg Road Corridor EmX Alternative**

E-8







**Landuses within API**

- Auditorium/Theater
- Church
- College/University/Campus Housing
- Commercial/Retail
- Daycare
- Fire Station
- Fraternal/Club House
- Golf Course/Athletic Club
- Governmental
- Hotel/Motel/Lodging
- Industrial
- Library
- Multi-Family Residential
- Office
- Other
- Parking
- Recreation
- Restaurant/Bar
- Retirement/Nursing Home
- Service
- Single-Family Residential
- Transportation
- Vacant
- Warehouse/Manufacturing

**City of Eugene Overlay Zones**

- Nodal Development Overlay (ND)
- Transit Development Overlay (TD)
- Both

**Legend**

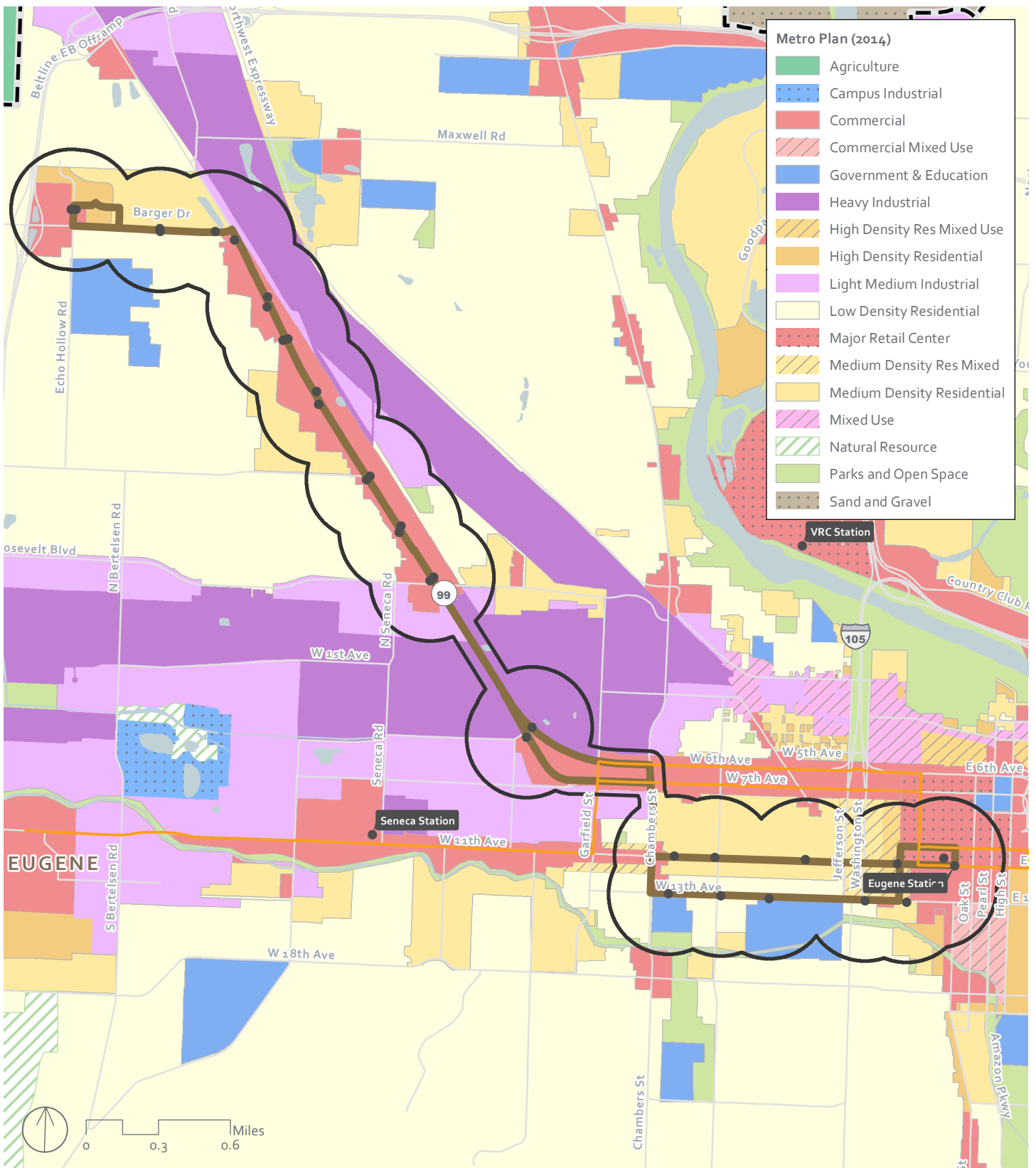
- Stop/Station Location
- Martin Luther King Jr Blvd Corridor
- Martin Luther King, Jr Blvd Corridor continues east of I-5 as existing route #13
- 2035 No-Build EmX
- Road
- Area of Potential Impacts (API)
- Urban Growth Boundary (UGB)
- Water
- Park

**Generalized Land Use**

Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative

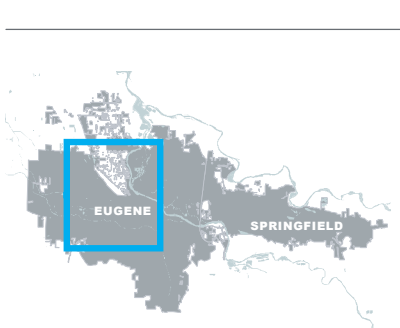
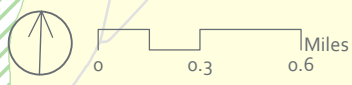
E-9





**Metro Plan (2014)**

[Green Box]	Agriculture
[Blue Box with Dots]	Campus Industrial
[Red Box]	Commercial
[Red Box with Diagonal Lines]	Commercial Mixed Use
[Blue Box]	Government & Education
[Purple Box]	Heavy Industrial
[Orange Box with Diagonal Lines]	High Density Res Mixed Use
[Orange Box]	High Density Residential
[Light Purple Box]	Light Medium Industrial
[Yellow Box]	Low Density Residential
[Red Box with Dotted Pattern]	Major Retail Center
[Orange Box with Diagonal Lines]	Medium Density Res Mixed Use
[Orange Box]	Medium Density Residential
[Pink Box with Diagonal Lines]	Mixed Use
[Green Box with Diagonal Lines]	Natural Resource
[Light Green Box]	Parks and Open Space
[Brown Box with Dotted Pattern]	Sand and Gravel



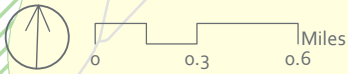
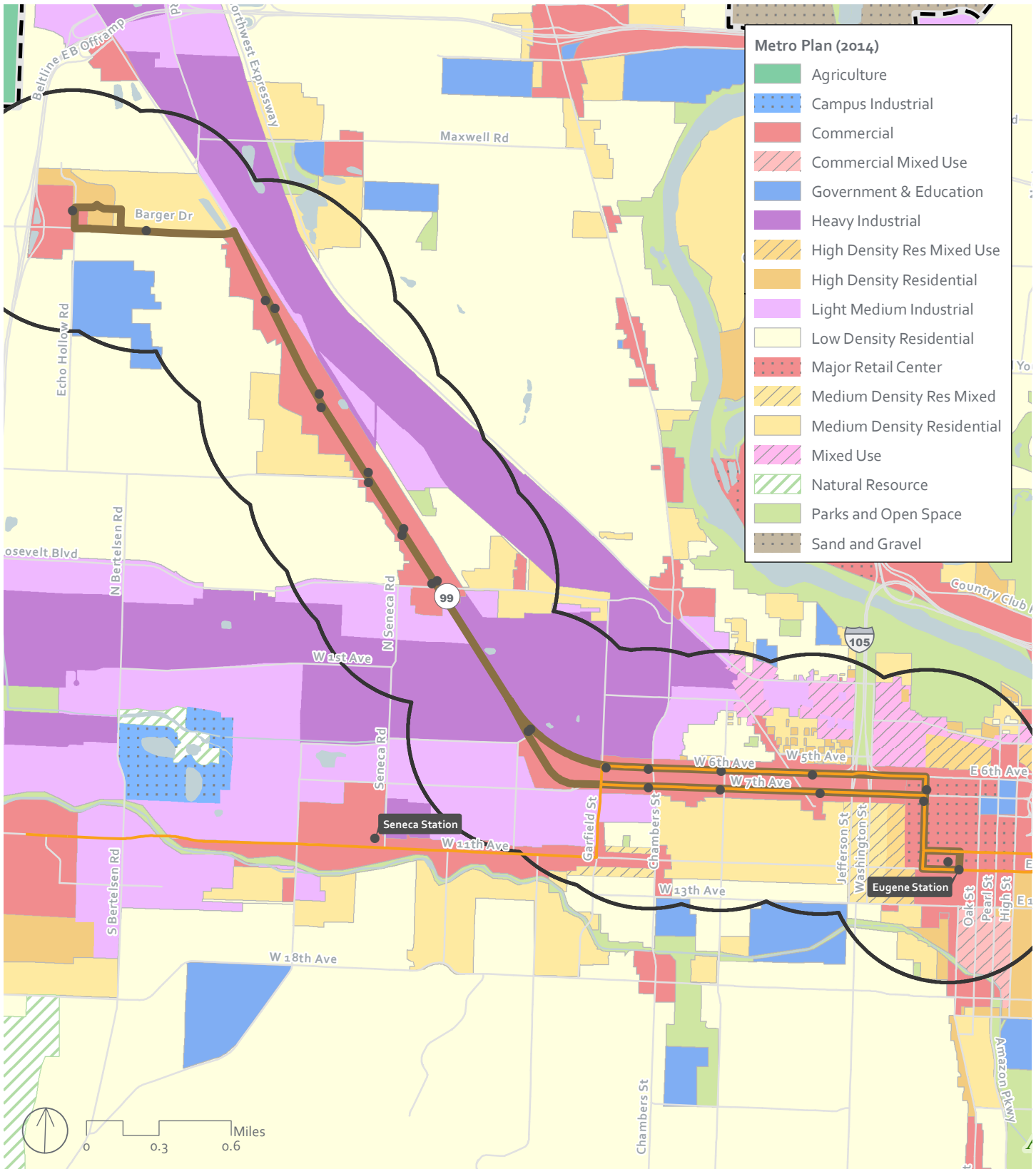
**Legend**

● Stop/Station Location	□ Area of Potential Impacts (API)
— Highway 99 Corridor	□ Urban Growth Boundary (UGB)
— 2035 No-Build EmX	□ Water
— Road	

**Metro Plan**  
 Highway 99 Corridor  
 Enhanced Corridor  
 Alternative

E-10





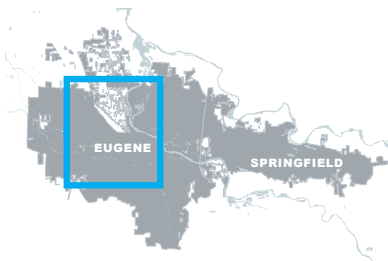
**Legend**

- Stop/Station Location
- ▬ Highway 99 Corridor
- ▬ 2035 No-Build EmX
- ▬ Road
- ▭ Area of Potential Impacts (API)
- ▭ Urban Growth Boundary (UGB)
- ▭ Water

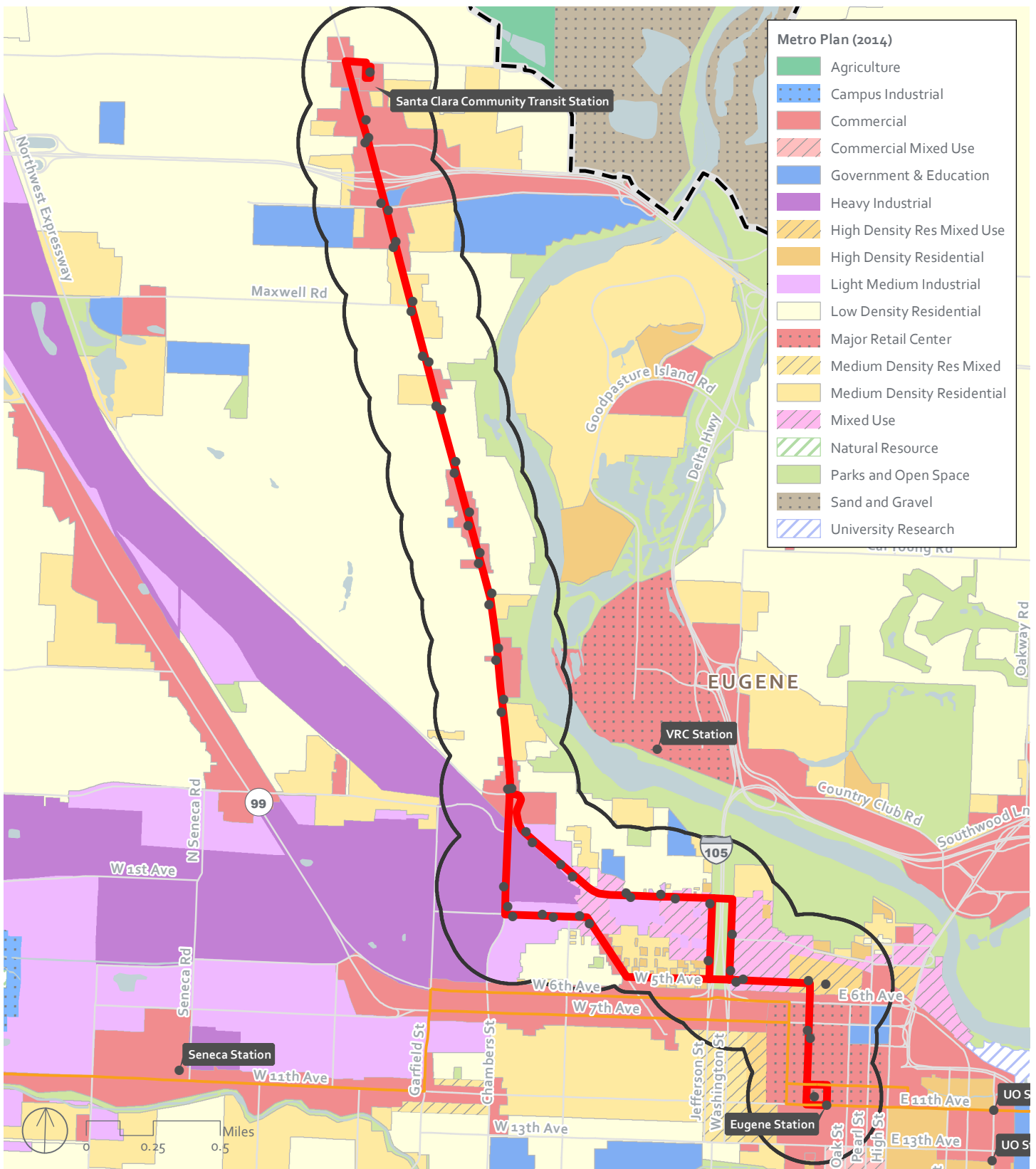
**Metro Plan**

Highway 99 Corridor  
EmX Alternative

E-11







**Metro Plan (2014)**

	Agriculture
	Campus Industrial
	Commercial
	Commercial Mixed Use
	Government & Education
	Heavy Industrial
	High Density Res Mixed Use
	High Density Residential
	Light Medium Industrial
	Low Density Residential
	Major Retail Center
	Medium Density Res Mixed
	Medium Density Residential
	Mixed Use
	Natural Resource
	Parks and Open Space
	Sand and Gravel
	University Research

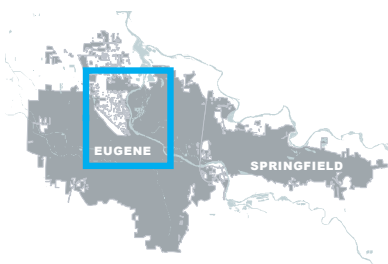
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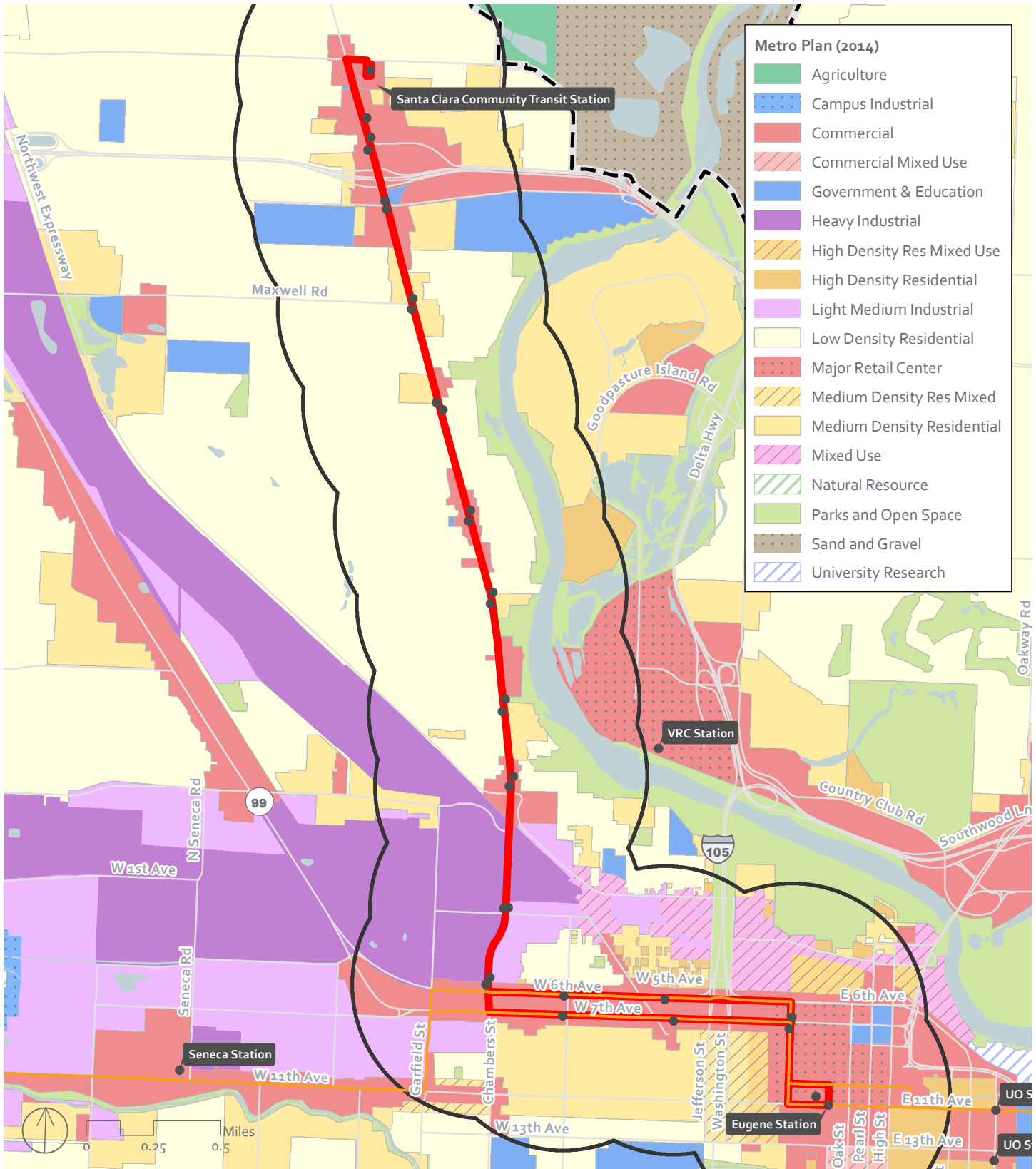
- Stop/Station Location
- River Road Corridor
- 2035 No-Build EmX
- Road
- Area of Potential Impacts (API)
- Urban Growth Boundary (UGB)
- Water

**Metro Plan**

River Road Corridor  
Enhanced Corridor  
Alternative

E-12





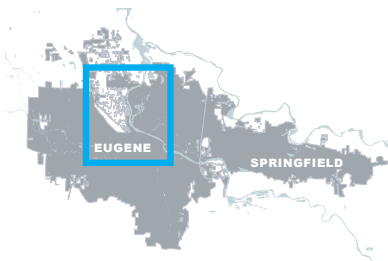
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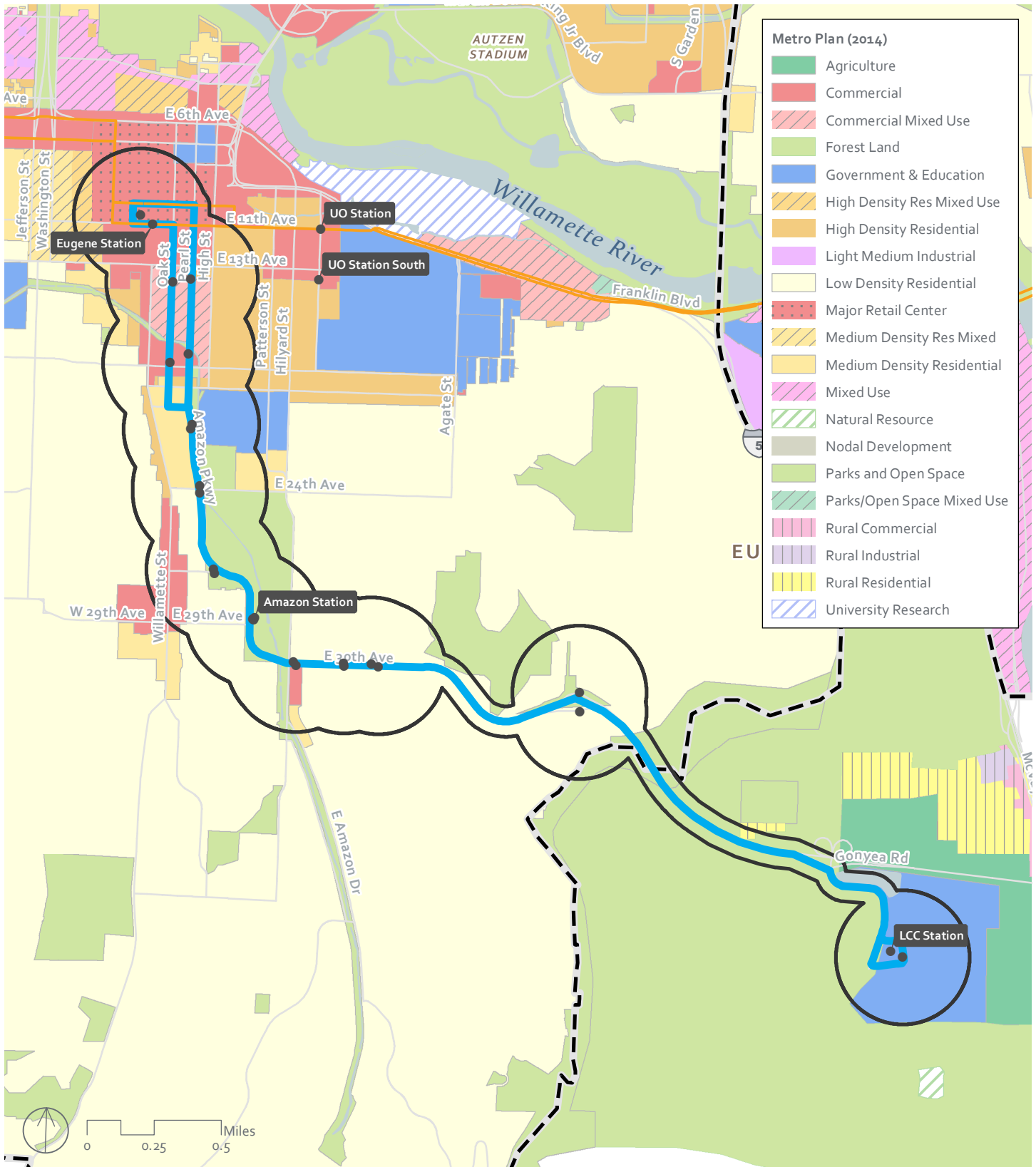
- Stop/Station Location
- ▬ River Road Corridor
- ▬ 2035 No-Build EmX
- ▬ Road
- ▭ Area of Potential Impacts (API)
- ▭ Urban Growth Boundary (UGB)
- ▭ Water

**Metro Plan**

River Road Corridor  
EmX Alternative

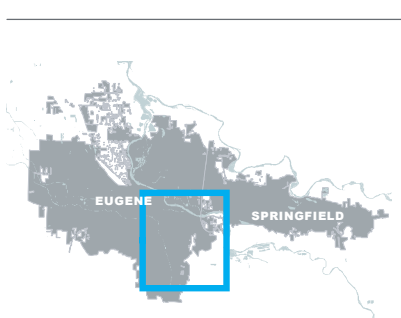
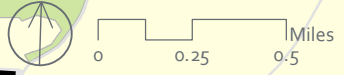
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**Metro Plan (2014)**

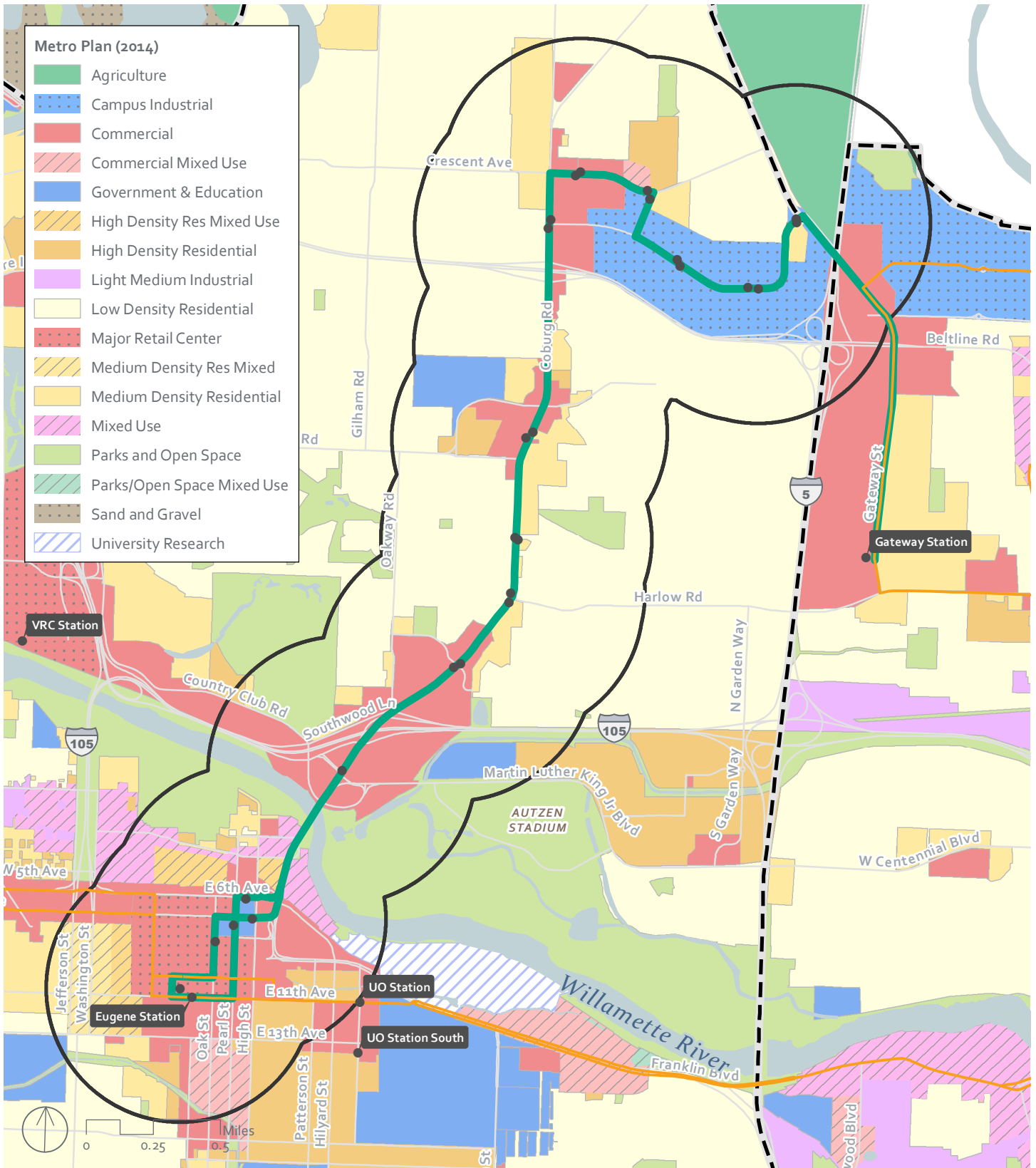
[Green]	Agriculture
[Red]	Commercial
[Pink]	Commercial Mixed Use
[Light Green]	Forest Land
[Blue]	Government & Education
[Orange]	High Density Res Mixed Use
[Yellow]	High Density Residential
[Purple]	Light Medium Industrial
[Light Yellow]	Low Density Residential
[Red with dots]	Major Retail Center
[Orange with dots]	Medium Density Res Mixed
[Yellow with dots]	Medium Density Residential
[Pink with dots]	Mixed Use
[Green with diagonal lines]	Natural Resource
[Grey]	Nodal Development
[Light Green]	Parks and Open Space
[Green with diagonal lines]	Parks/Open Space Mixed Use
[Pink with diagonal lines]	Rural Commercial
[Purple with diagonal lines]	Rural Industrial
[Yellow with diagonal lines]	Rural Residential
[Blue with diagonal lines]	University Research



- Legend**
- Stop/Station Location
  - 30th Avenue to Lane Community College Corridor
  - 2035 No-Build EmX
  - Road
  - Area of Potential Impacts (API)
  - Urban Growth Boundary (UGB)
  - Water

**Metro Plan**  
 30th Avenue to LCC  
 Corridor Enhanced  
 Corridor Alternative





- Metro Plan (2014)**
- Agriculture
  - Campus Industrial
  - Commercial
  - Commercial Mixed Use
  - Government & Education
  - High Density Res Mixed Use
  - High Density Residential
  - Light Medium Industrial
  - Low Density Residential
  - Major Retail Center
  - Medium Density Res Mixed
  - Medium Density Residential
  - Mixed Use
  - Parks and Open Space
  - Parks/Open Space Mixed Use
  - Sand and Gravel
  - University Research

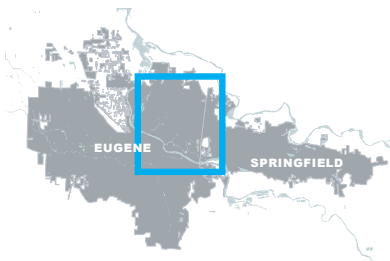
**Legend**

- Stop/Station Location
- Coburg Road Corridor
- 2035 No-Build EmX
- Road
- Area of Potential Impacts (API)
- Urban Growth Boundary (UGB)
- Water

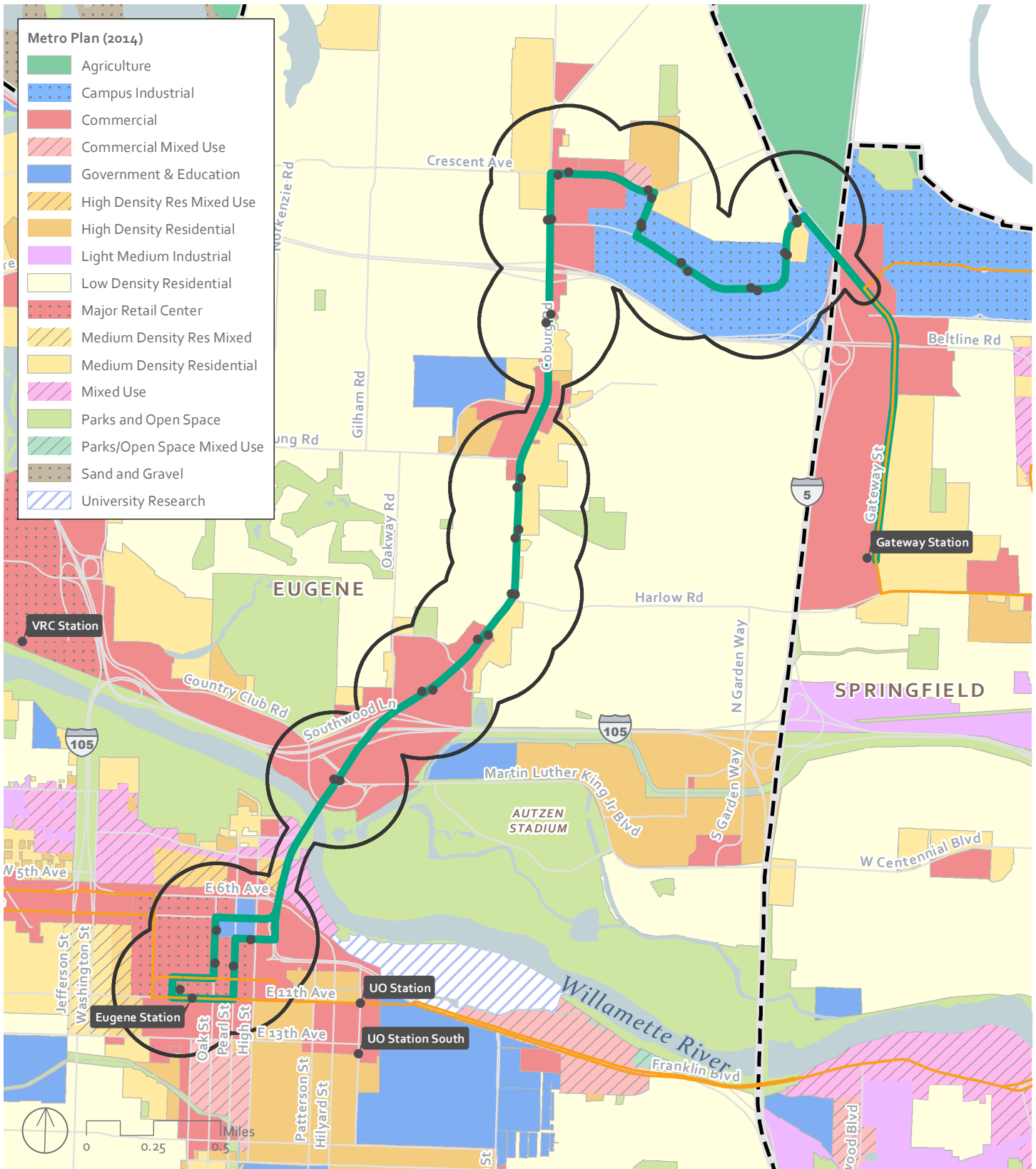
**Metro Plan**

30th Avenue to LCC  
Corridor  
EmX Alternative

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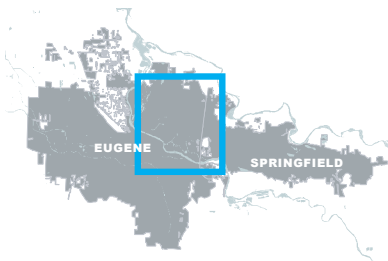
**Legend**

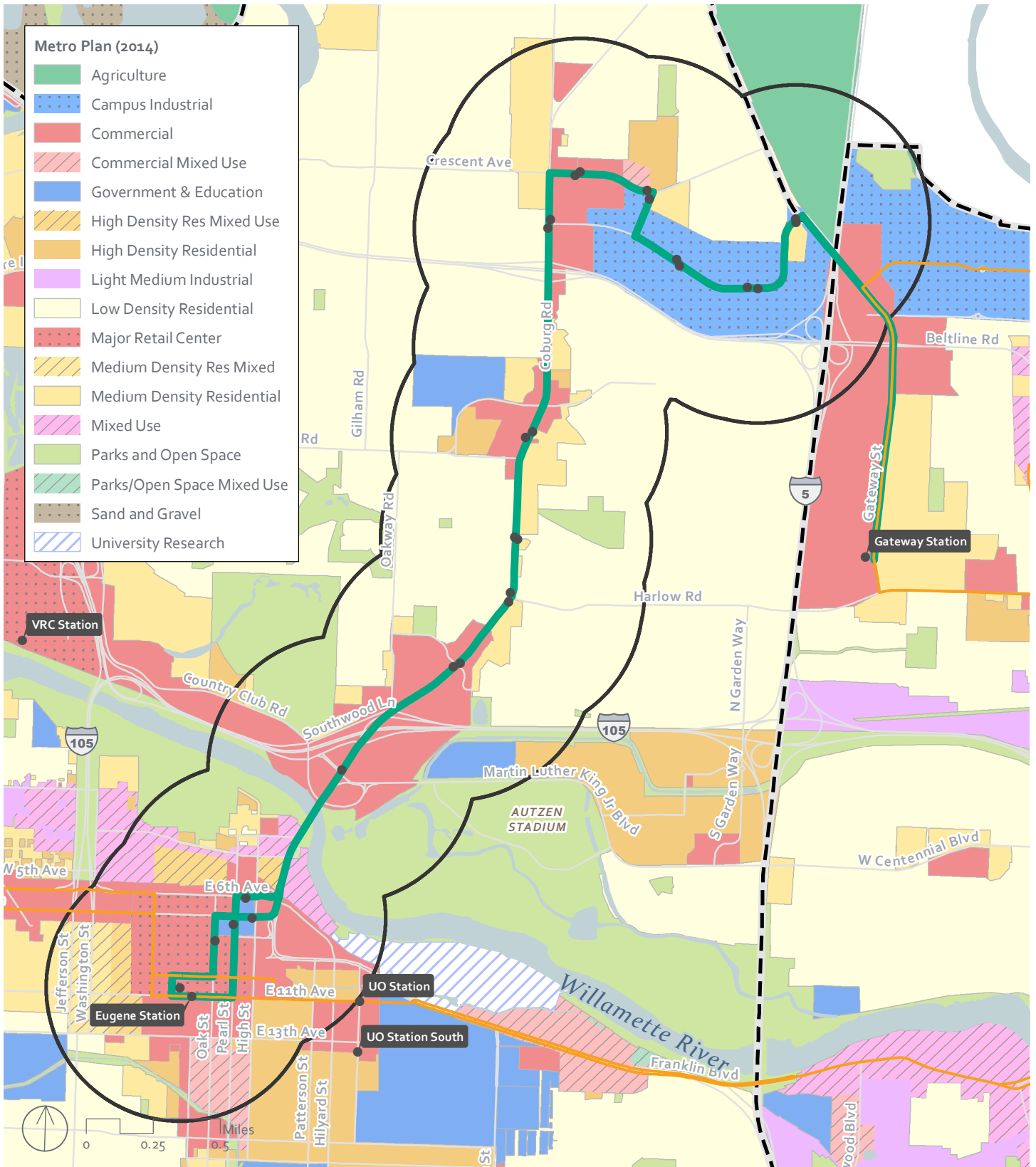
- Stop/Station Location
- Coburg Road Corridor
- 2035 No-Build EmX
- Road
- Area of Potential Impacts (API)
- Urban Growth Boundary (UGB)
- Water

**Metro Plan**

Coburg Road Corridor  
Enhanced Corridor  
Alternative

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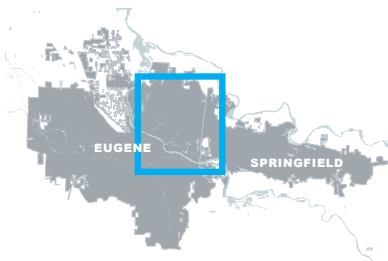
**Legend**

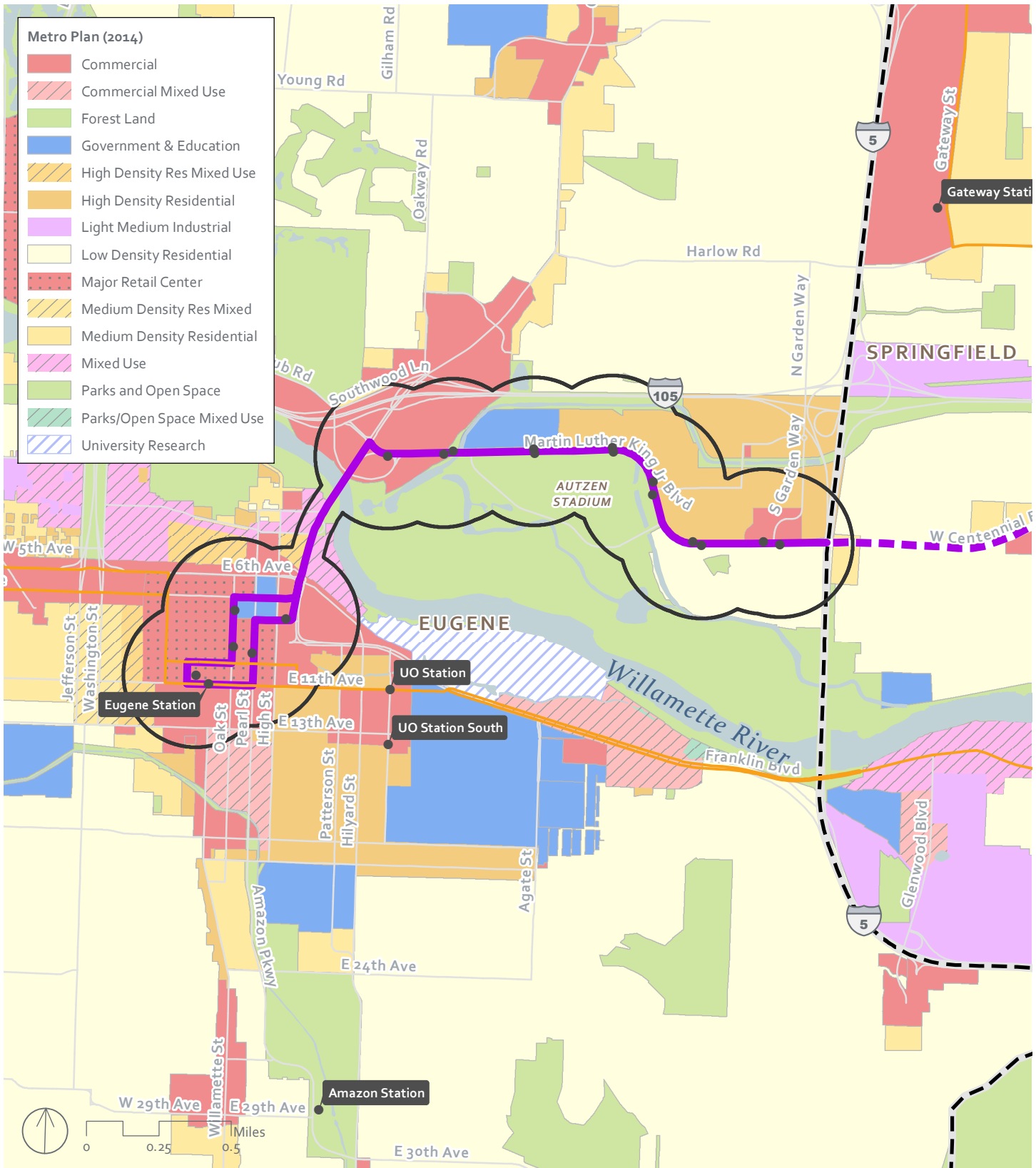
- Stop/Station Location
- ▬ Coburg Road Corridor
- ▬ 2035 No-Build EmX
- ▬ Road
- ▭ Area of Potential Impacts (API)
- ▭ Urban Growth Boundary (UGB)
- ▭ Water

**Metro Plan**

Coburg Road Corridor  
EmX Alternative

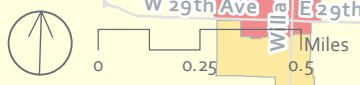
E-17





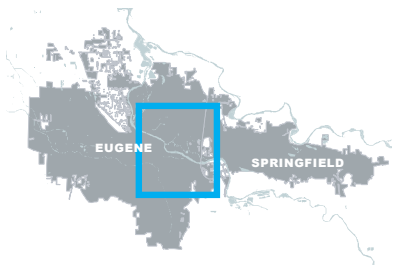
**Metro Plan (2014)**

[Red]	Commercial
[Red/White Diagonal]	Commercial Mixed Use
[Green]	Forest Land
[Blue]	Government & Education
[Orange/White Diagonal]	High Density Res Mixed Use
[Orange]	High Density Residential
[Purple]	Light Medium Industrial
[Yellow]	Low Density Residential
[Red/White Dotted]	Major Retail Center
[Orange/White Diagonal]	Medium Density Res Mixed
[Orange]	Medium Density Residential
[Pink/White Diagonal]	Mixed Use
[Light Green]	Parks and Open Space
[Green/White Diagonal]	Parks/Open Space Mixed Use
[Blue/White Diagonal]	University Research



**Legend**

- Stop/Station Location
- Martin Luther King Jr Blvd Corridor
- Martin Luther King, Jr Blvd Corridor continues east of I-5 as existing route #13
- 2035 No-Build EmX
- Road
- Area of Potential Impacts (API)
- Urban Growth Boundary (UGB)
- Water



**Metro Plan**

Martin Luther King, Jr. Boulevard Corridor Enhanced Corridor Alternative

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