OAKLAND LOCAL STREET NETWORK PLAN VOLUMES I,II

Prepared By:
Lane Council of Governments
859 Willamette Street, Suite 500
Eugene, Oregon 97401
Phone: (541) 682-4283

JULY 2015

[blank]

CITY OF OAKLAND
LOCAL STREET NETWORK PLAN

This project is partially funded by a grant from the Transportation and Growth Management (TGM) Program, a joint program of the Oregon Department of Transportation and the Oregon Department of Land Conservation and Development. This TGM grant is financed, in part, by federal Moving Ahead for Progress in the 21st Century ("MAP-21"), local government, and State of Oregon funds.

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

Prepared By:

Lane Council of Governments
859 Willamette Street, Suite 500
Eugene, Oregon 97401
Phone: (541) 682-4283; Fax: (541) 682-4099

July 2015
DRAFT

Picture Credits
Top Photo --Wayne Estes

ACKNOWLEDGEMENTS

- Project Management Team
  - Bette Keehley (Oakland City Mayor)
  - John McDonald (Oregon Department of Transportation)
  - Jacob Callister (Lane Council of Governments)
  - Other Key Project Staff:
    - *Jim Hart (Oakland Public Works Director)*
    - *Terri Long (Oakland City Recorder)*
    - *Kelly Sandow (Project Engineer)*
    - *Mike Travess (GIS/Mapping—Lane Council of Governments)*

- Project Advisory Committee
  - Wayne Estes (Oakland Planning Commission)
  - James Hart (Oakland Public Works Director)
  - Stuart Cowie (Douglas County Senior Planner)
  - Joshua Heacock (Douglas County Public Works)
  - Josh LeBombard (Department of Land Conservation Development)
  - Eric Lanning (Oakland Zoning Administrator)
  - Bette Keehley (Mayor of Oakland, Oregon)
  - Cheryl Cheas (Umpqua Transit)
  - Katie Baxter (Safe Routes to Schools)
  - John McDonald (Oregon Department of Transportation
  - Chris Glover (Oakland Rural Fire District)
  - Sandi Simmons

- Citizen's Advisory Committee
  - Craig Riley (Oakland City Council/Chamber of Commerce)
  - Tom Hasvold (Oakland City Council, Bicycle/Pedestrian Advocate)
  - Linda West (Oakland City Council/Oakland Economic Development)
  - Janice Wier (Oakland City Council)
  - TC Mckinley (Citizen at Large)
  - Sharon Findling (Citizen at Large)
  - Cole Barnes (Youth Representative)
  - Kathy Grimes (Citizen at Large)
  - Connie Riley (Citizen at Large)

- City of Oakland City Council
- City of Oakland Planning Commission

Table of Contents

VOLUME I: PROJECTS

VOLUME II: POLICIES AND DATA

LIST OF FIGURES

LIST OF TABLES

OAKLAND LOCAL STREET NETWORK PLAN ACRONYMS

AASHTO	American Association of State Highway Transportation Officials
ACT	Area Commissions on Transportation
ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act Accessibility Guidelines
CAC	Citizen Advisory Committee
CC	City Council
CDBG	Community Development Block Grant
CORP	Central Oregon & Pacific Railroad
DEQ	Department of Environmental Quality
DLCD	Department of Land Conversation Development
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESH	Essential Salmonid Habitat
HTF	Highway Trust Fund
HUD	Housing and Urban Development
ISTEA	Intermodal Surface Transportation Efficiency Act
LCDC	Land Conservation and Development Commission
LCOG	Lane Council of Governments
LSP/LSNP	Local Street Network Plan
NBIS	National Bridge Inspection Standards
NHD	National Hydrography Dataset
NWI	National Wetland Inventory
OAR	Oregon Administrative Rules
ODFW	Oregon Department of Fish and Wildlife
ODOT	Oregon Department of Transportation
ORP	Oregon Rail Plan
ORS	Oregon Revised Statutes
OTC	Oregon Transportation Commission
OTP	Oregon Transportation Plan
PAC	Project Advisory Committee
PC	Planning Commission
PMT	Project Management Team
ROW	Right-of-Way
RTP	Recreation Trails Program
SAFETEA-LU	Safe, Accountable, Flexible and Efficient Transportation Equity Act A Legacy for Users
SDC	System Development Charge
STIP	Statewide Transportation Improvement Program
SWACT	South West Area Commission on Transportation
TPR	Transportation Planning Rule
TSP	Transportation System Plan
UGB	Urban Growth Boundary
URA	Urban Renewal Area
VMT	Vehicles Miles Traveled

Volume I:
PROJECTS

CHAPTER 1. IMPROVEMENTS

1.1 Introduction to Street Network Improvements

Volume I of the Local Street Network Plan (LSP) contains a synopsis of the preferred improvement alternatives for Oakland's bicycle, pedestrian, automobile and transit systems. It also outlines implementation for the Local Street Network Plan. Improvements address issues of connectivity, safety, geometry (how an intersection is configured), and accessibility (e.g. Americans with Disabilities Act). The preferred alternatives were developed through a collaborative process in which the Project Management Team (PMT) worked with the City Council, advisory committees, and public to evaluate and prioritize improvements within the city, including evaluating each alternative against project goals and established evaluation criteria (Chapter 4). Feedback from stakeholders (committee meetings, joint work sessions, a public hearing and any other input) directed the final selection, configuration and priority of project alternatives. Final improvement concepts and priorities were organized and presented by each system; automobile, bicycle and pedestrian. The City of Oakland's transit system is also addressed.

Summary sheets containing concept level designs and maps were prepared for each improvement. These summary sheets also include estimates of costs and possible impacts to the existing system, safety and natural resources. Improvements also include reference to associated infrastructure; specifically how potential improvements relate to storm drain failures and resulting drainage issues.

1.2 Prioritizing Street Network Improvements

Street network improvements must be focused and directed, because resources and funding opportunities are very limited. As noted, any project and improvement prioritization was evaluated by the PAC, CAC and Oakland's local decision making bodies. Projects have been prioritized and recommended within three priority categories. These categories include: "Higher Priority" with the ideal timeframe of being addressed prior to the year 2020, "Medium Priority" with the ideal timeframe of being addressed prior to the year 2030 and finally "Lower Priority" with the ideal timeframe of being addressed prior to the year 2040. Improvement priorities can be reevaluated based upon actual growth and other trends or needs within the City.

Some projects which ranked relatively high against the evaluation criteria were not included as higher priorities. These are instances where other factors, such as street jurisdiction or the sheer magnitude of the project (including costs), influence the anticipated ability to realize meaningful "activity" on an improvement.

Table 1.1 summarizes the projects, their recommended priority and costs, while Table 1.2 provides priority in the context of the criteria evaluation.

Table 1.1: Prioritized Street Network Improvements

Intersection/Corridor	Improvement Summary	Cost Estimate*
Higher Priority (*activity by the year 2020*)		
Fifth Street and Oak Street	Improved (Flashing) Crossing	$25,000-$80,000
Calapooya Creek Multi-Use Path	Multi-Use Path on public open space west of railroad	$1,375,000
Ash Street (Creek) Multi-Use Path	Multi-use path in current undeveloped Ask Street ROW	$270,000 – $1,080,000
Multi-Use Path Railroad Crossing	A crossing at Ash , Pine or First Street	$690,000 - $1,500,000
Locust Street and Seventh Street	Improvements to curve, city hall parking, and sidewalk between 7th and 8th	$15,000 - $30,000 ($25,000 additional for sidewalk)
First and Locust & First and Oak Intersections	Improvements related to signage, geometry and crossings	$275,000
Apple Street Connection	Completing the loop of Apple Street near Fifth Street	$30,000 (2 12-ft travel lanes.)
First Street and Fifth Street	Paving south of Apple Street (First Street) and Pear Street (Fifth Street)	$60,000/$30,000 (2 12-ft travel lanes.)
Fifth-Cedar Streets & Fifth-Cypress Streets	Sidewalk between Cedar Street and school (west side). High visibility crosswalks at Cedar and Cypress Streets	$60,000 (sidewalk) Crossings at $500-$2,000 each
Medium Priority (*activity by the year 2030*)		
Fifth Street segment improvements	Improve path and intersection dynamics between Oak Street and School	$130,000 - $5,050,000
Locust Street segment Improvements	Bicycle improvements along Locust Street	$30,000 - $400,000
Cypress Avenue Improvements	Pedestrian and bicycle improvements for school traffic	$525,000 - $3,050,000
Railroad right-of-way East of Hwy 99	Utilizing leased Railroad land for improved connection across Railroad	$550,000
Lower Priority (*activity by the year 2040*)		
Maple Street Improvements	Bicycle and pedestrian improvements along Maple Street	$1,724,000
Oak Street Improvements	Bicycle and pedestrian improvements along Oak Street	$3,650,000
Oak Street to Locust Street (East) Connection	Developing a Locust and Oak east of 8th Street	$1,575,000
Extending Cypress Avenue	Extending Cypress Avenue between 5th and 6th Streets, with bike and ped improvements	$875,000
**Important additional info on prospectus sheets (Attachment A) including separation of construction and engineering costs.*		

Table 1.2: Criteria Evaluation of Street Network Improvements ***(5 = Highly Applicable , 1 = Less Applicable)***

Alternatives/ Concepts	Access to developable lands	Connecting existing streets (more direct routes)	Emergency access	Safe and efficient movement of goods	Safe and well integrated opportunities for bike/ped	School access	Minimize energy consumption	Supports downtown as major commercial area	Is it critical ?	Is it urgent?
***Higher Priority* (activity by the year 2020)**										
Oak-Locust-1st	1	2	4	5	5	2	3	5	4	4
Locust-7th	1	1	2	4	3	3	2	3	4	4
Oak-5th	1	2	3	4	5	4	3	4	5	5
Ash ROW Path	1	3	1	1	5	4	4	3	4	3
RR Cross Path	2	3	1	1	5	3	4	2	4	3
Apple St Extension	4	5	5	2	2	2	3	1	3	2
Calapooya Path	1	3	1	1	5	3	4	1	4	3
First/Fifth	3	1	4	1	3	2	2	1	4	3
5th Cedar/Cypr	2	2	1	2	5	5	4	1	4	4
Medium Priority (activity by the year 2030)										
RR ROW Path	1	3	1	1	5	3	4	3	3	3
5th Street	1	2	3	3	4	4	3	1	3	3
Cypress Ave	1	2	3	3	4	5	2	1	3	3
Locust St	2	2	3	4	4	4	3	3	4	3
Lower Priority (activity by the year 2040)										
Oak-Locust Connection	5	5	3	2	3	5	4	1	3	2
Oak Street	1	2	3	5	5	4	2	3	3	2
Maple St	2	2	3	2	4	4	3	2	3	3
Cypress Av. Extension	3	5	4	2	4	5	3	1	4	3

CHAPTER 2. IMPLEMENTATION

Full implementation of the LSP will require amendments to the Oakland Comprehensive Plan and Oakland Development Code. The amendments are also intended to be consistent with the Oregon Transportation Planning Rule (TPR). In order for the City's Comprehensive Plan and Development Code to be supportive of the LSP they must institute:

- Functional street classifications and design standards that enable bicycle and pedestrian infrastructure;
- Land use densities and intensities that are consistent with the functions, capacities and levels of service for the facilities identified in the LSP;
- Clarity on the importance of and encouragement of safe and convenient walking, bicycling, and transit
- Meaningful utility of public rights-of-way

Once locally adopted, the Oakland LSP serves as a refinement plan to the Transportation Element of the Oakland Comprehensive Plan. The LSP serves as policy and planning document for the City of Oakland, and must be referenced and reconciled in addressing transportation related matters.

The LSP captures the transportation needs and priorities of the community and to give the City a clear direction and justification for the pursuit of loans, bonds, grants and partnerships. The LSP also provides long range vision and directives for transportation and land use planning that can guide future policy making and development decisions. The LSP reflects broad input and addresses a broad range of potential stakeholders. It should be made broadly available. The agent implementing the LSP is the Public Works Director under the direction of the City Council.

Although similar, the LSP does not have the same role as a Capital Improvements Plan, which identifies projects and equipment purchases, but provides a clearer planning schedule and identifies more specific cost and funding detail.

2.1 Implementing Necessary Code and Plan Changes

Comprehensive Plans help frame and articulate what a community desires to be like both now and in the distant future. The Comprehensive Plan should translate the community's desires into goals and policies addressing community elements which include transportation and land use. The City's development (subdivision) and zoning codes augment and implement the comprehensive plan. As noted in Oakland's Zoning Ordinance (No. 499), all of the various planning documents which control the character and development of the City of Oakland must be used together to fulfill their combined purpose, which is to create and maintain a proper environment for human interaction.

The scope of the Local Street Network Plan was sufficient to fully and comprehensively address the need for a methodic and comprehensive review and update of Oakland's Development

Code and Comprehensive Plan. The LSP process did, however, outline key recommendations and provide a solid starting framework for a more comprehensive evaluation of Oakland's code and plans relative to the conclusions drawn in the process. These are included in detail within Technical Memorandum 8, Appendix I (Volume III).

2.2 Implementing Street Network Projects

As noted, projects have been prioritized and recommended within three priority categories: Higher Priority **(activity by the year 2020)**, Medium Priority **(activity by the year 2030),** and Lower Priority **(activity by the year 2040).**

It is not anticipated that many high priority projects will be completed by the year 2020. It is possible that none will be. "Activity" is defined as anything that constitutes progress on the project. An example would be the pursuit of planning or construction grants, or even the development of partnerships to further those projects. The City may be able to set aside funds (even if limited) to support less expensive activities that further investigate projects or fund relatively minor projects. Improvement priorities can be reevaluated based upon actual growth and other trends or needs occurring within the City.

2.3 Relationship to Ongoing Maintenance and Projects

A clearly stated objective for achieving Goal 1 of the LSP (outlined in Chapter 3) is for the document to serve as the policy foundation for decisions involving transportation issues. The City of Oakland's Public Works Director directs the maintenance and upkeep of City owned transportation facilities and equipment. The projects outlined in the LSP are not intended to directly supersede the ongoing priorities of Oakland Public Works. However, needs or opportunities which arise, and which by nature are outside of the realm of typical street system maintenance, should be evaluated relative to the priorities outlined in this plan, priorities established collectively by Oakland's decision makers and stakeholders.

The Public Works Director, under the direction of the City Council, must exercise discretion in interpreting the priorities and details outlined in the LSP. The Planning Commission and Zoning Administrator may also provide valuable insight and direction relative to the conclusions contained within the LSP, including funding opportunities and interpretation of LSP goals and objectives. It is also important to note another stated objective of the LSP, which is to coordinate transportation projects, policy issues, and development actions with all affected governmental units in the area. Key agencies for coordination include Douglas County, Central Oregon and Pacific Railroad, Department of Transportation, and Umpqua Transit.

2.4 Project Summary Sheets

As noted, each of the projects outlined in Volume I is outlined in a project specific summary sheet (Chapter 3). These include concept level designs, maps and figures, as well as estimates of costs and possible impacts to the existing street system, safety and natural resources.

Improvements also include reference to associated infrastructure; specifically how potential improvements relate to storm drain failures and resulting drainage issues.

All projects from the LSP were framed and evaluated at a conceptual or "planning" level. These sheets will support the pursuit of grants and other funding opportunities. The project priority list and project summary sheets will serve as a powerful tool for conveying Oakland's needs and commitment to improving transportation safety, transportation options and transportation's relationships to land use. Additional planning and engineering analysis and evaluation would be required before any construction could proceed on any of these projects.

Cost estimates are also conducted on a planning level and are reported in 2015 dollars and inflation must be considered for future reliance on cost figures. This is a particularly important consideration for lower priority improvement figures given the extended timeframe and steadily changing cost dynamics. It is also very difficult to anticipate if many of these projects will require slope stabilization or considerable drainage treatment. Readers are reminded that cost estimates will require further analysis for greater specificity and accuracy.

2.5 Index of Summary Sheets

Higher Priority (activity by the year 2020)	
Project 1	**Hwy 99-Locust Street, Hwy 99-Oak Street Intersections:** Improvements related to signage and crossings
Project 2	**Locust and Seventh Streets:** Improvements to curve, city hall parking, sidewalk between 7th and 8th
Project 3	**Fifth and Oak Street:** High visibility pedestrian crossing
Project 4	**Fifth Street-Cedar-Cypress:** Sidewalk and high visibility crosswalks at Cedar Street and Cypress Avenue
Project 5	**Calapooya Creek Multi-Use Path:** Multi-Use Path on public open space west of railroad
Project 6	**Ash Creek Multi-Use Path**: Multi-Use path in current undeveloped Ask Street ROW
Project 7	**Multi-Use Path Railroad Crossing:** A crossing at Ash, Pine or First Street
Project 8	**Apple Street Connection:** Completing the loop of Apple Street near Fifth Street.
Project 9a	**First Street:** Paving south of Apple
Project 9b	**Fifth Street:** Paving south of Pear

Medium Priority (activity by the year 2030)	
Project 10	**Fifth Street segment improvements:** Improve path and intersection dynamics between Oak and School
Project 11	**Locust Street segment improvements:** Bicycle improvements along Locust Street
Project 12	**Cypress Avenue Improvements:** Pedestrian and bicycle improvements for school traffic
Project 13	**Railroad right-of-way east of Hwy 99:** Utilizing leased railroad land for improved connection across RR.

Lower Priority (activity by the year 2040)	
Project 14	**Maple Street Improvements:** Bicycle and pedestrian improvements along Maple Street
Project 15	**Oak Street Improvements:** Bicycle and pedestrian improvements along Oak Street
Project 16	**Oak Street to Locust east connection:** Connecting Locust and Oak east of 8th Street
Project 17	**Cypress Avenue Extension:** Improving existing right-of-way between NE 5th Street and NE 6th Street.

Oakland Local Street Network Plan

Project 1: *Oak Street/Locust Street/Highway 99*

Corridor: OAK ST/LOCUST ST/ HWY 99 | **Priority**: HIGH

Corridor Limits: Intersections of Locust and Oak Streets at Highway 99

Project Elements:

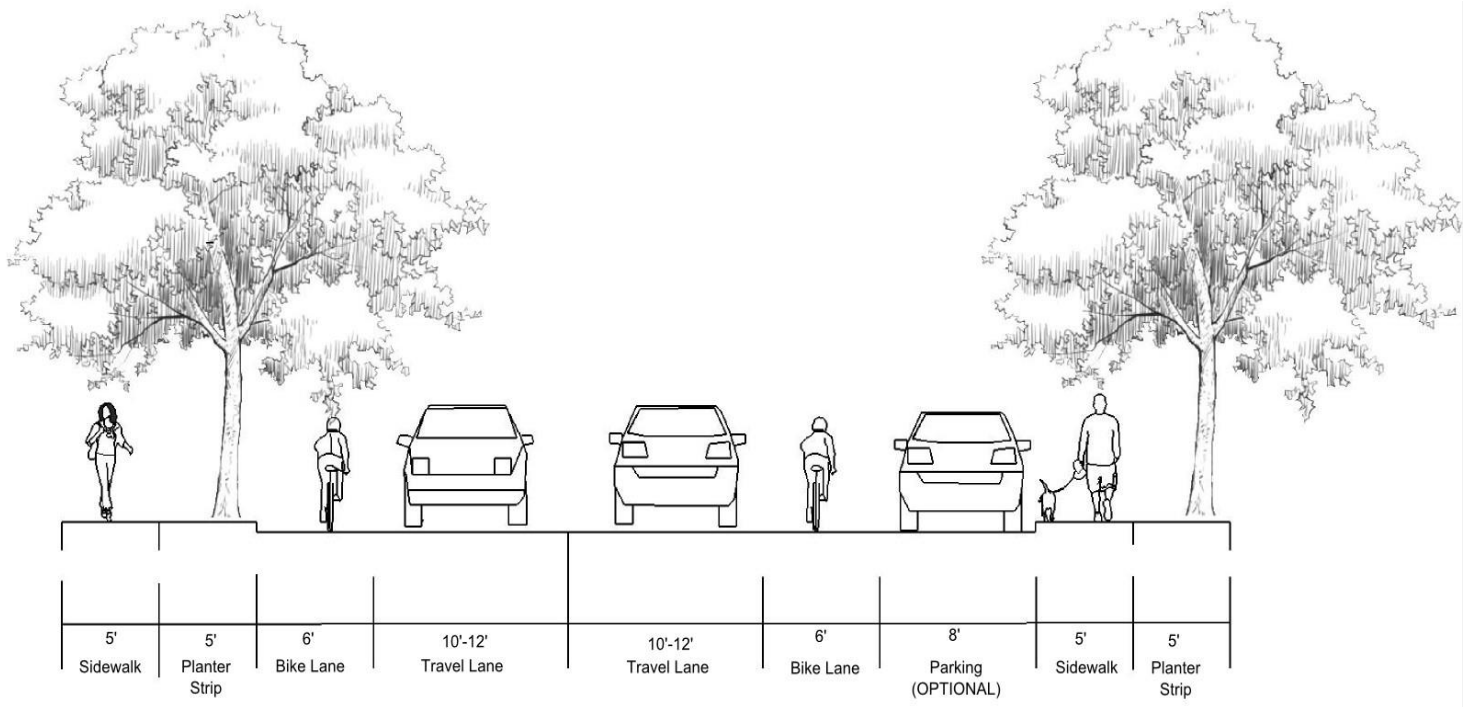
- ☒ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☒ Circulation/Connectivity
- ☐ Access
- ☒ Safety
- ☒ Intersection
- ☐ Other

Project Description: Improvements designed to Support Highway 99 (First Street) as Oakland's Main Street and to highlight Oak Street as the preferred route of traffic through Oakland. The design would provide additional signage directing traffic to Oak St/Draper Valley Road, to improve pedestrian crossings and provide roadway treatments designed as traffic calming.

Location :	Highway 99 from Oak To Locust Street
Street Section:	5' Sidewalks both sides 5' Planter Strips both sides 8' Parking on one side 6' Bike Lanes both sides 12' Travel lanes
Improvement Goals:	Encourage through traffic on Oak Street Improved pedestrian crossings Improve auto travel and connectivity, as well as safety and ADA compliant sidewalks. Traffic Calming
Design Elements:	• Serve as city main street with functionality for all modes • Reduce travel speeds • **Low Cost Improvements:** Provide Signage and Striping to direct motorists to use Oak Street • **Long Range Improvements:** **A:** Curb Extensions to reduce pedestrian crossing times and to narrow street for traffic calming. Crosswalks designed with "high-visibility" treatments. All ramps to be ADA compliant **B:** Provide/maintain on-street parallel parking **C:** Maintain on-street head-in parking
Implementation Considerations:	Sidewalk development must be discussed with property owners and developers in the area. Improve drainage issues in the area. The improvements would help provide visual cues that Oak Street is the preferred route for through traffic.
Potential Phasing:	• Add signage for Draper Valley Road • Stripe (restripe) crosswalks at intersections • Add curb extensions to reduce pedestrian crossing time
Project Cost Estimates:	Engineering/Planning Costs: $25,000 Construction Costs: $250,000
Sample Treatment Options:	 Highway 99 at Oak St. (2014 – Google)  Sample Treatment Diagram for Highway 99

Corridor: OAK ST/ LOCUST ST/ HWY 99

Corridor Limits: Intersections of Locust and Oak Streets at Highway 99



Sample Treatment Option:

1 Sign 1

2 Sign 2

High Visibility Crosswalk

Oakland Local Street Network Plan

Project 2: *Locust Street and SE 7th Street*

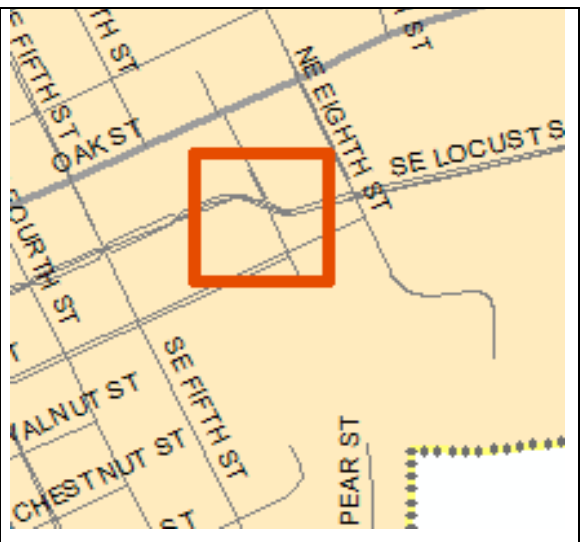
Corridor: LOCUST STREET & SE 7TH STREET | **Priority**: HIGH

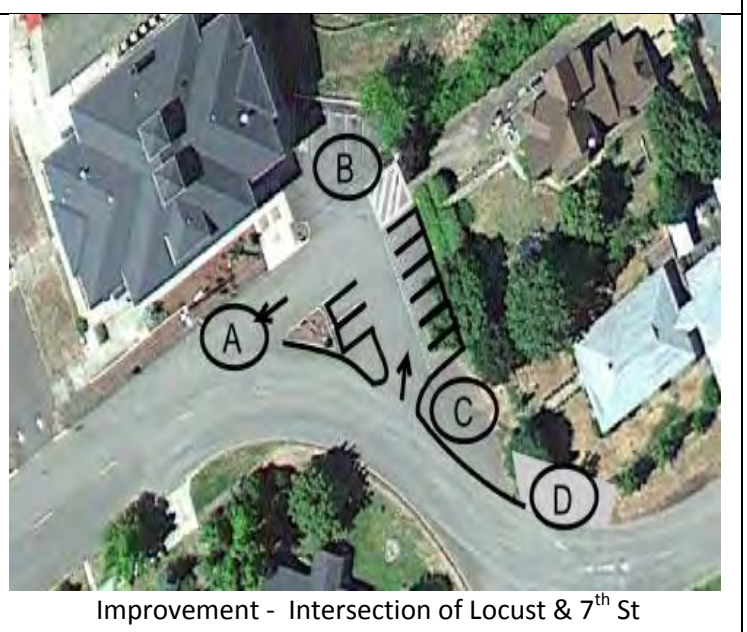
Corridor Limits: Intersection of Locust St and SE 7th Street

Project Elements:

- ☒ Automobile
- ☒ Pedestrian
- ☐ Bicycle
- ☐ Circulation/Connectivity
- ☒ Access
- ☒ Safety
- ☒ Intersection
- ☐ Other

Project Description: The intersection of Locust Street and SE 7th Street is identified as needing improvements. The intersection is complicated by a southward jog of Locust as it intersects with 7th. Proposed improvements include reconfiguring the roadway to provide a curb line, revised parking lot layout, and revised driveway locations. Two options were provided with Option 1 being the engineer's recommendation.



Segment :	Locust Street
Street Section:	• 20-24' Traveled Way
Improvement Goals:	• Traffic Calming • Provide clearer/safer traffic flow
Design Elements:	• One way traffic flow through parking area • Do-not block area for house access • New curb line and parking designation • Will need to remove vegetation in this area so turning vehicles from Locust can see oncoming vehicle. The location of amount of vegetation to be field verified.
Implementation Considerations:	• Home access for property tucked along City Hall parking area. • Relocate fire hydrant or not have parking • Improve drainage • Add sidewalks on north side Locust between 7th and 8th
Potential Phasing:	• Stripe traffic flow through parking area • Stripe parking lines • Remove vegetation • Add curb lines along Locust Street
Project Cost Estimates:	Relocating Fire Hydrant Engineering/Planning Costs: $10,000 Construction Costs: $20,000 Not Relocating Fire Hydrant Engineering/Planning Costs: $5,000 Construction Costs: $10,000
Sample Treatment Options:	 Existing Top View Intersection of Locust & 7th Streets (2014 – Google)  Improvement - Intersection of Locust & 7th St

Oakland Local Street Network Plan

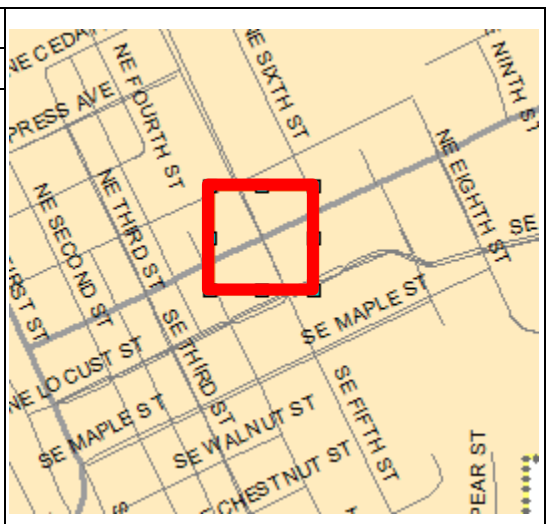
Project 3: *NE 5th Street & Oak Street*

Corridor: NE FIFTH STREET & OAK STREET | **Priority**: HIGH

Corridor Limits: NE 5th Street & Oak Street Intersection

Project Elements:

- ☒ Automobile
- ☒ Pedestrian
- ☐ Bicycle
- ☐ Circulation/Connectivity
- ☐ Access
- ☒ Safety
- ☒ Intersection



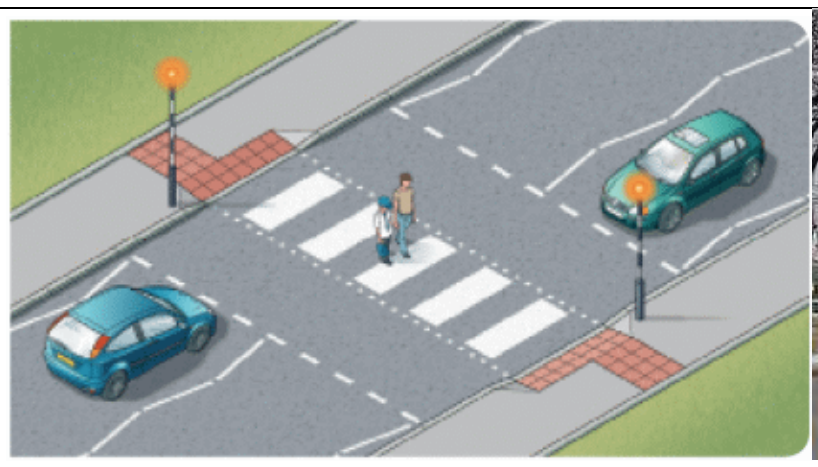
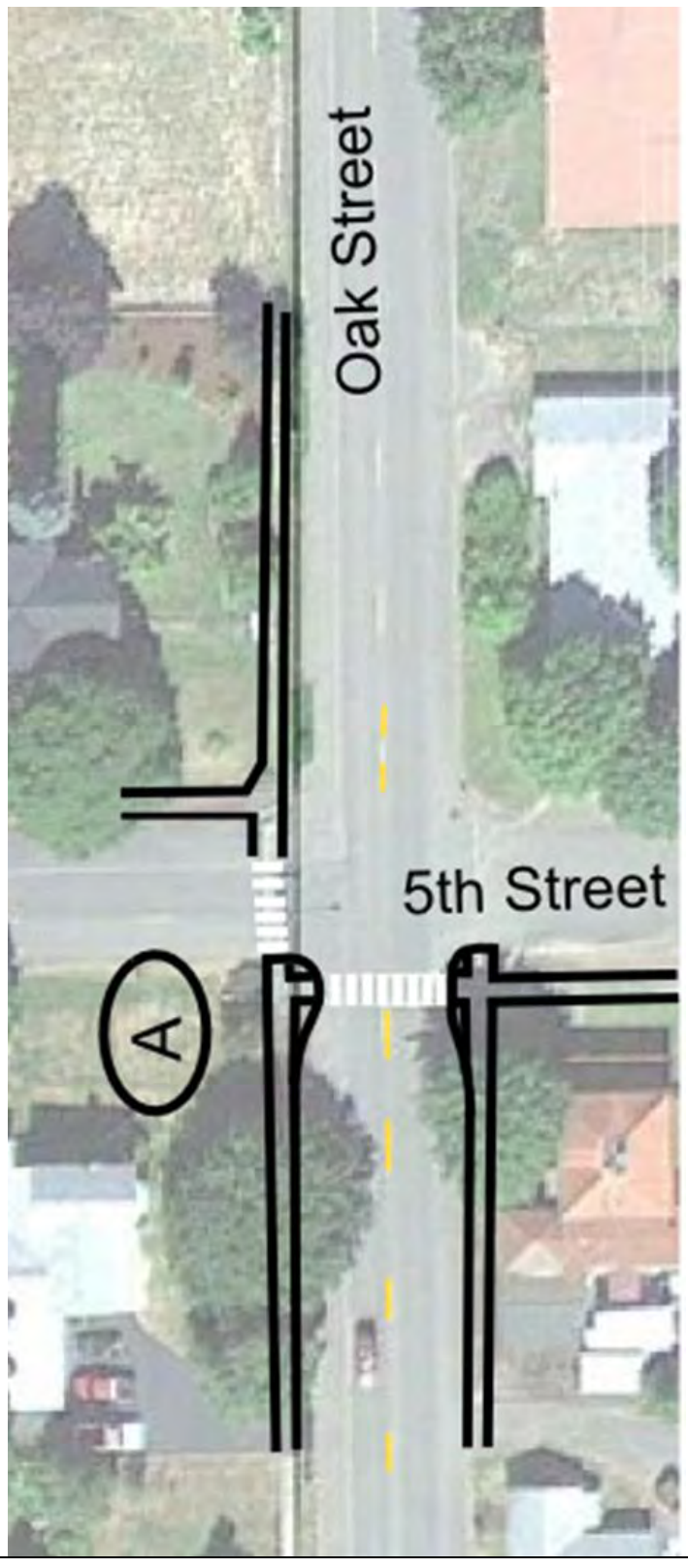
Project Description: The County has jurisdiction of Oak Street and places high priority on mobility for the street (higher speeds and fewer impediments). Project goals would encourage Oak Street as the primary means of through-traffic through Oakland. Because of high school traffic, the intersection is a priority for safety considerations. The project will provide enhanced pedestrian crossing.

Segment :	NE 5th Street	Oak Street
Street Section:	5’ Sidewalk on both sides (optional) 5’ Planter Strips on both sides 8’ On Street Parking on both sides 20’ Travel Way	5’ Sidewalk on both sides 5’ Planter Strips on both sides 8’ On Street Parking on one side (optional) 6’ Bike Lanes on both sides 20-24’ Travel Way
Improvement Goals:	• Traffic Calming • Improve pedestrian crossing across Oak Street and across 5th Street to access the pedestrian path on 5th Street • Improve Drainage Issues	
Design Elements:	• ADA compliant sidewalks • High visibility crosswalks • Flashing beacon for school time crossings	
Implementation Considerations:	• Oak Street is under county jurisdiction and will require coordination/cooperation with Douglas County. • Drainage: The intersection currently has drainage issues. These will be addressed with a larger street improvement design project that will include reconstructing the storm drain system. Alternatives should be considered that will allow for water retention ponds adjacent to the intersection that will reduce the demand on the system.	
Potential Phasing:	• Stripe (restripe) high visibility crosswalks • Negotiate with Douglas County for flashing beacon crossings • Create curb-extension for traffic calming and improved crossings	
Project Cost Estimates:	<u>With Flashing Beacon</u> Engineering/Planning Costs: $30,000 Construction Costs: $50,000	<u>Without Flashing Beacon</u> Engineering/Planning Costs: $5,000 Construction Costs: $20,000

Sample Treatment Options:

Intersection of 5th & Oak Streets (2014 – Google)

Sample Treatment Diagram - Intersection of 5th & Oak St.

Corridor: NE 5th Street & Oak Street	
Corridor Limits: NE 5th Street & Oak Street Intersection	
	A: Curb Extensions to reduce pedestrian crossing times, improve pedestrian visibility, and to narrow street for traffic calming. The curb extensions will be elevated standard sidewalk height. The extensions will tie back into the existing sidewalks. They will tie in with any new sidewalk that is constructed as a larger street reconstruction project Crosswalks designed with "high-visibility" treatments including a possible Rectangular Rapid Flashing Beacon. All ramps to be ADA compliant
Sample Treatment Options:	  

Oakland Local Street Network Plan

Project 4: *NE 5th Street*

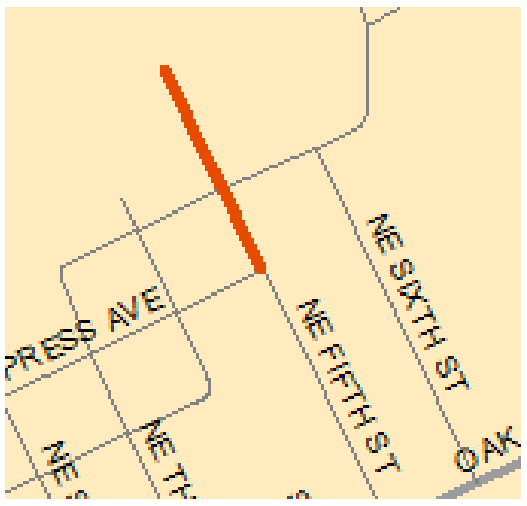
Corridor: NE 5TH STREET | **Priority**: HIGH

Corridor Limits: Cypress to School (north of NE Cedar Street)

Project Elements:

- ☐ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☐ Circulation/Connectivity
- ☐ Access
- ☒ Safety
- ☒ Intersection
- ☐ Other

Project Description: This summary presents higher priority and site specific improvement proposals for NE Fifth Street between Cypress Street and Oakland High School. Improvements that are contemplated for this stretch of roadway include high visibility crosswalks at the north side of both Cedar and Cypress, as well as construction of sidewalk along the west side of Fifth Street between Cypress and Cedar, and Cedar and the school.



Segment :	Cypress Street to School (north of NE Cypress Street)
Street Section:	5’ Sidewalk on west side 5’ Planter Strips on west side
Improvement Goals:	• Improve bicycle and pedestrian travel and connectivity • Address the concerns of parents west of Fifth • Investigate ability to create safer crossing of Fifth Street without necessitating stop sign at the top of Fifth Street • Traffic Calming
Design Elements:	• High Visibility Crosswalk(s) • All-way Stop controlled • 5th Street drainage to be improved with overall 5th Street project
Implementation Considerations:	The comprehensive improvement of Fifth Street is included as a medium priority project. Inclusion of this stretch as a “higher priority” is intended to facilitate higher urgency improvements if possible.
Potential Phasing:	• Negotiate sidewalk development with property owners • Stripe high visibility crosswalks
Project Cost Estimates:	Engineering/Planning Costs: $5,000 - 10,000 Construction Costs: $60,000 – $70,000
Sample Treatment Options:	 NE 5th Street (2014 – Google)  Sample Sidewalk Treatment Diagram for NE 5th Street

Corridor: NE 5th Street	
Corridor Limits: Oak Street to School (north of NE Cedar Street)	
Sample Treatment Option:	Stop Sign High Visibility Crosswalk Existing Path 

Oakland Local Street Network Plan

Project 5: *Calapooya Creek Multi-Use Path*

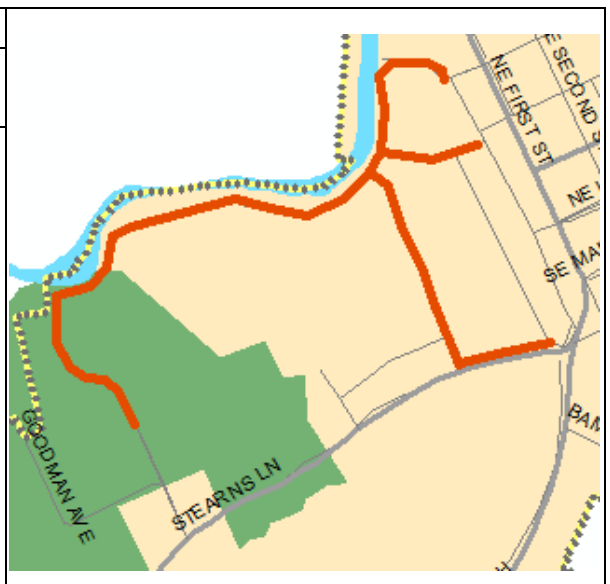
Corridor: CALAPOOYA CREEK MULTI-USE PATH | **Priority**: HIGH

Corridor Limits: Along Calapooya Creek connecting at Goodman Ave, Lake Shore St, and Ash Creek or Pine St right-of-way

Project Elements:

- ☐ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☒ Circulation/Connectivity
- ☐ Access
- ☒ Safety
- ☐ Intersection
- ☐ Other

Project Description: This summary presents a conceptual multi-use path system for the publicly owned lands south of Calapooya Creek and west of the railroad. The concept should be considered as a set of alternatives or phases for a multi-use path system. The multi-use path would include hardened surfaces but sections could be set aside for other surface types and uses. The width of the hardened portions of the path would be a minimum of eight feet and would likely be an asphalt construction.

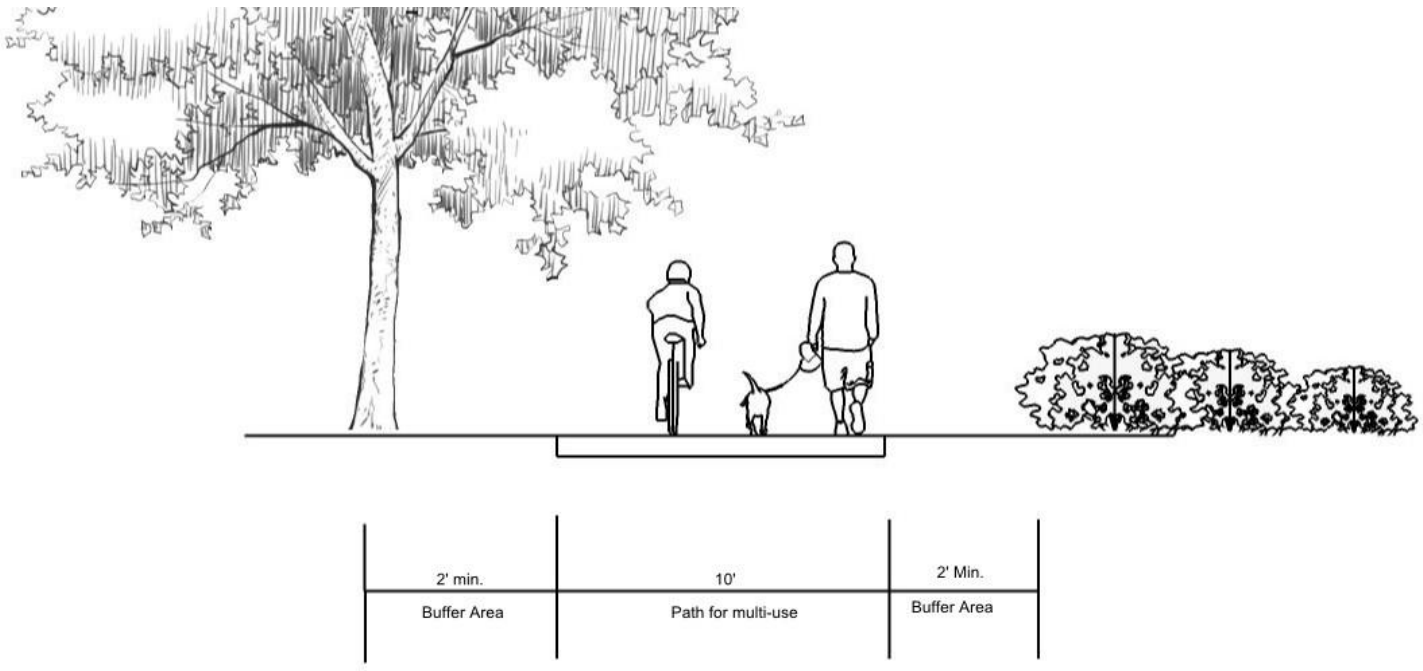


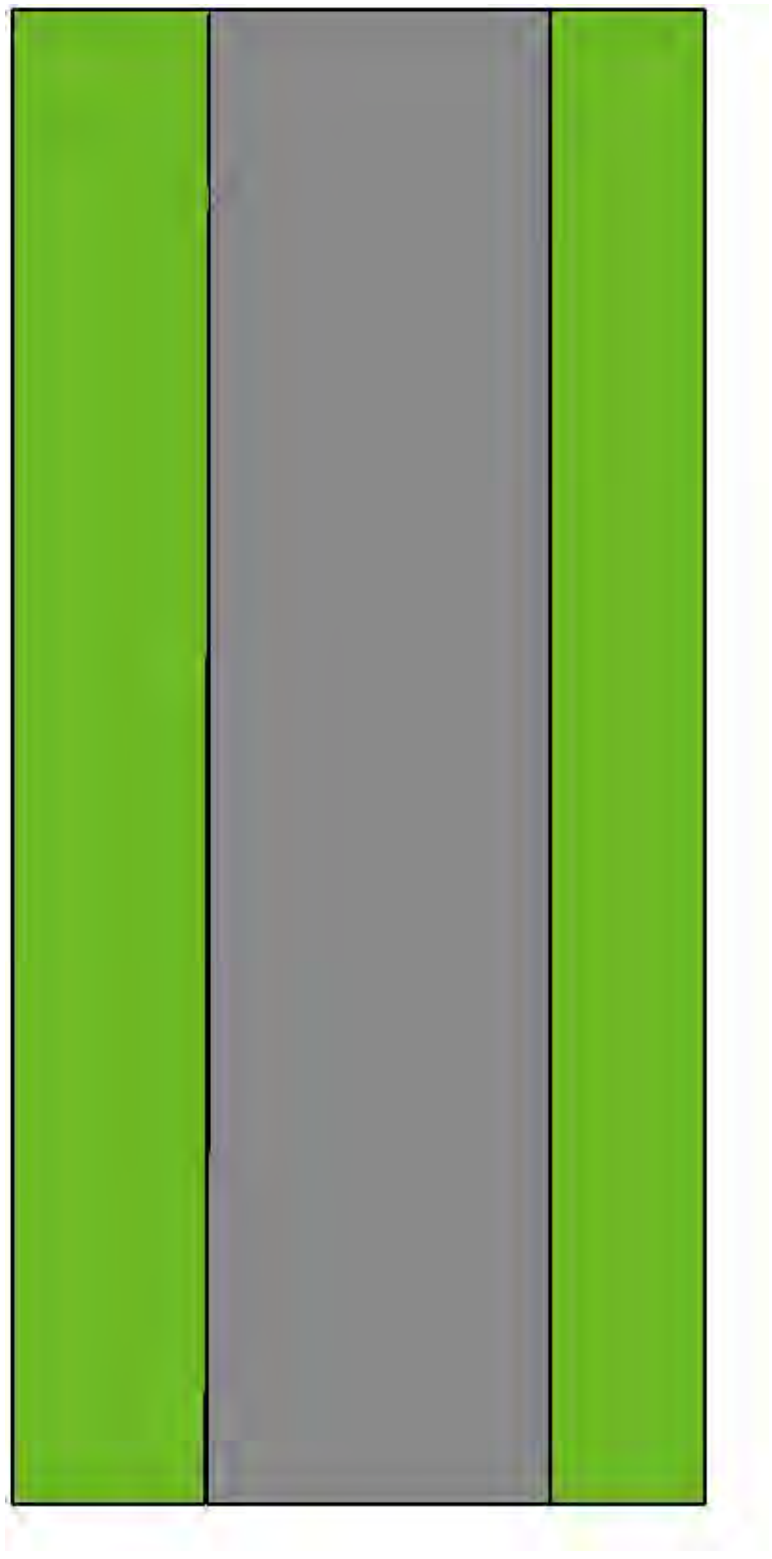
Segment :	City Owned Property
Street Section:	10’ Multi-Use Path 2’ buffer on both sides
Improvement Goals:	Improve pedestrian travel and connectivity including connections to the City’s public open space, parks and other natural features
Design Elements:	• Establish railroad crossing at either Pine Street or Ash Creek ROW • 10’ Width for 2-way traffic • Connect to Stearns Lane to provide path to 1st Street
Implementation Considerations:	• Much of City Owned Property floods during wet seasons of the year. • Negotiations with railroad to determine best route of crossing.
Potential Phasing:	• Establish railroad crossing • Construct multi-use path along creek with flood resistant materials
Project Cost Estimates:	Engineering/Planning Costs: $100,000 Construction Costs: $1,275,000
Sample Treatment Options:	 Lake Shore Street (2014 – Google)  Sample Treatment Diagram for Calapooya Path

Corridor: Calapooya Creek Multi-Use Path

Corridor Limits: Along Calapooya Creek connecting at Goodman Ave, Lake Shore St, and Ash Creek ROW or Pine St

Sample Treatment Option:





Oakland Local Street Network Plan

Project 6: *Ash Creek Right-of-Way*

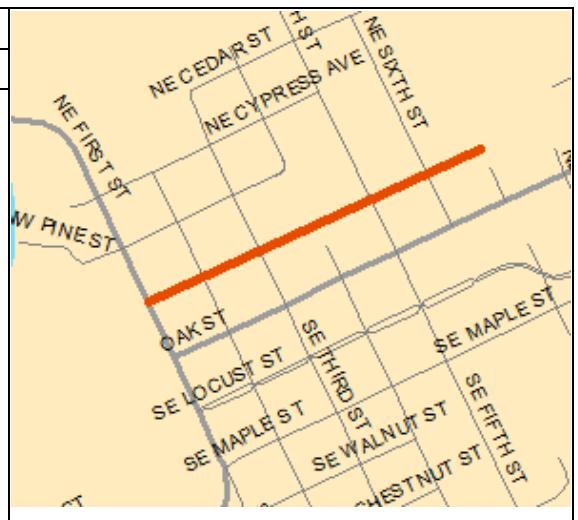
Corridor: ASH CREEK RIGHT-OF-WAY | **Priority**: HIGH

Corridor Limits: SE 1st Street to SE 7th Street

Project Elements:

- ☐ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☒ Circulation/Connectivity
- ☒ Access
- ☒ Safety
- ☐ Intersection
- ☐ Other

Project Description: The Ash Street right-of-way is not developed to street standards at any point along its 7-block length. The Ash Street right-of-way is undeveloped primarily because of the existence of Ash Creek which creates topographic and engineering challenges for street development. Ash Street is proposed for development of a multi-use path. It is noted that the ROW serves a critical storm drain function for the majority of the City.

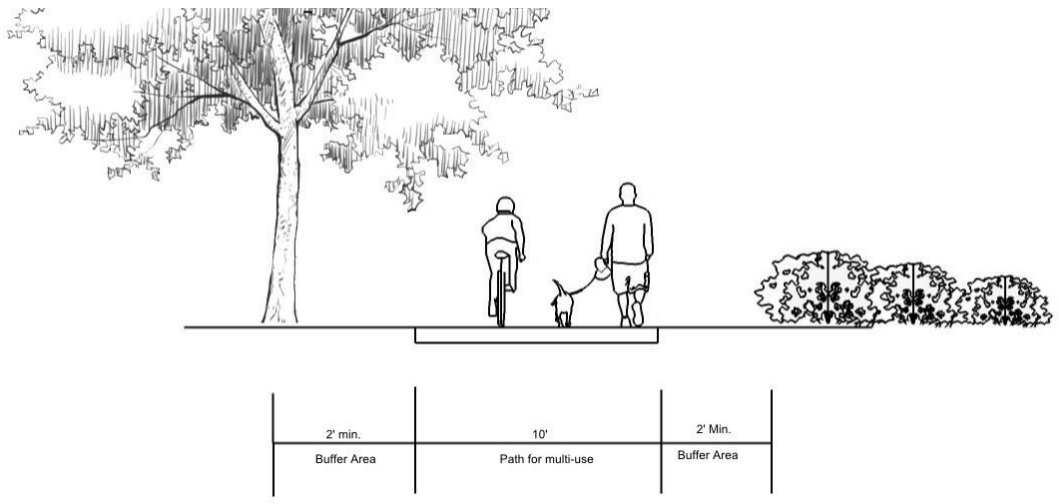


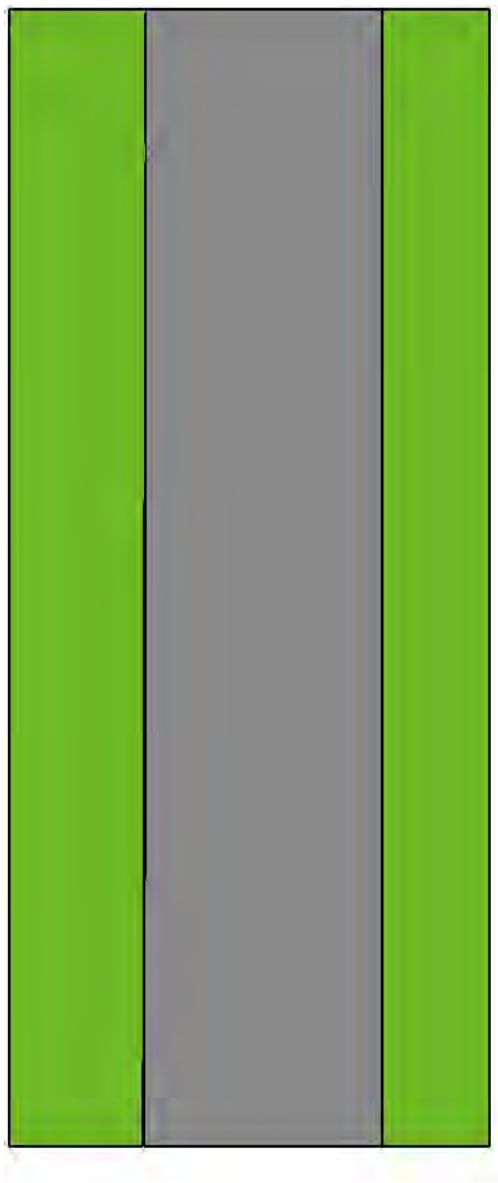
Segment :	NE 1st Street to NE 3rd Street	NE 3rd Street to NE 8th Street
Street Section:	2’ Buffer Area 10’ Path	2’ Buffer Area 10’ Path Grading
Improvement Goals:	Improve pedestrian travel and connectivity, particularly to schools to the north and open space areas west of the railroad tracks.	
Design Elements:	• Crossing at intersections along Ash Creek • Negotiations with property owners to remove infrastructure within ROW • Rectangular flashing beacon	
Implementation Considerations:	• Impacts to Ash Creek – and Ash Creek Riparian Area. • Slope and drainage • Intermittent flooding • Intersection with streets • Adjacent property owners	
Potential Phasing:	• Crossing at intersections along Ash Creek • Coordination with property owners • Rectangular flashing beacon	
Project Cost Estimates:	Engineering/Planning Costs: $40,000 Construction Costs: $650,000-$1.5 Million (cost is dependent on needing slope stabilization)	
Sample Treatment Options:	 Ash Creek (between 2nd & 3rd St) (2014 – Google)	 Sample Treatment Diagram for Ash Creek ROW

Corridor: Ash Creek Right-of-Way

Corridor Limits: SE 1st Street to SE 7th Street

Sample Treatment Option:





Oakland Local Street Network Plan

Project 7: *Ash Creek Right-of-Way & Pine Street*

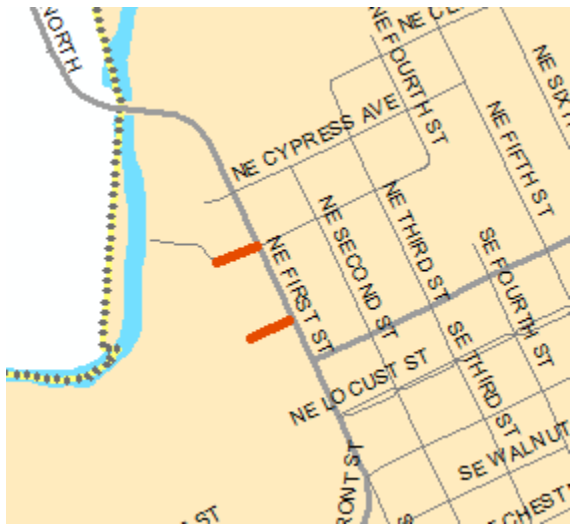
Corridor: ASH CREEK & PINE STREET RIGHT-OF-WAY | **Priority**: HIGH

Corridor Limits: Railroad Crossing at NE 1st Street

Project Elements:

- ☐ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☒ Circulation/Connectivity
- ☐ Access
- ☒ Safety
- ☐ Intersection
- ☐ Other

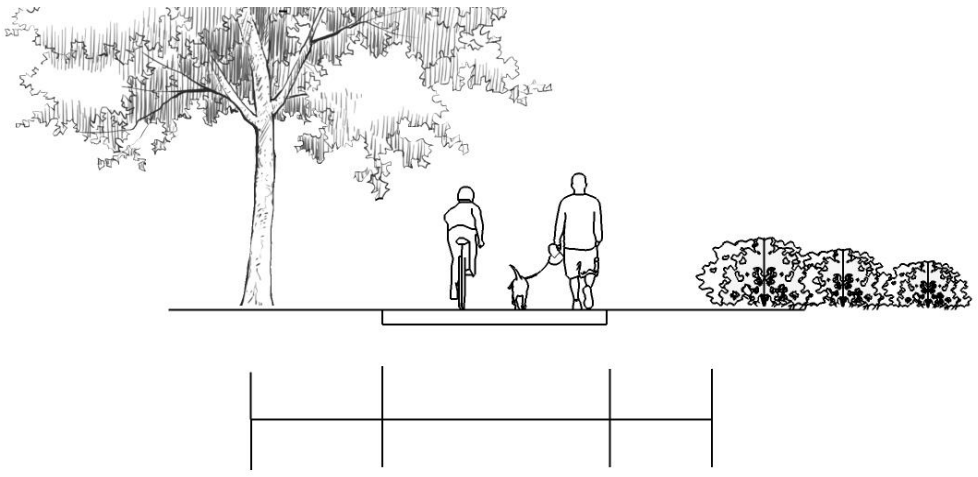
Project Description: This summary presents alternative proposals for crossing the railroad tracks in Oakland to facilitate a connection to publicly owned parkland and open space on the western end of town. The Ash Street right-of-way presents an opportunity for crossing (right-of-way beginning immediately to the west of Highway 99/First Street). Such a crossing would involve obtaining permission for, and developing, an at-grade crossing over the railroad. A crossing at Pine Street is a second alternative and would involve improvements to an existing (but generally low quality) crossing.

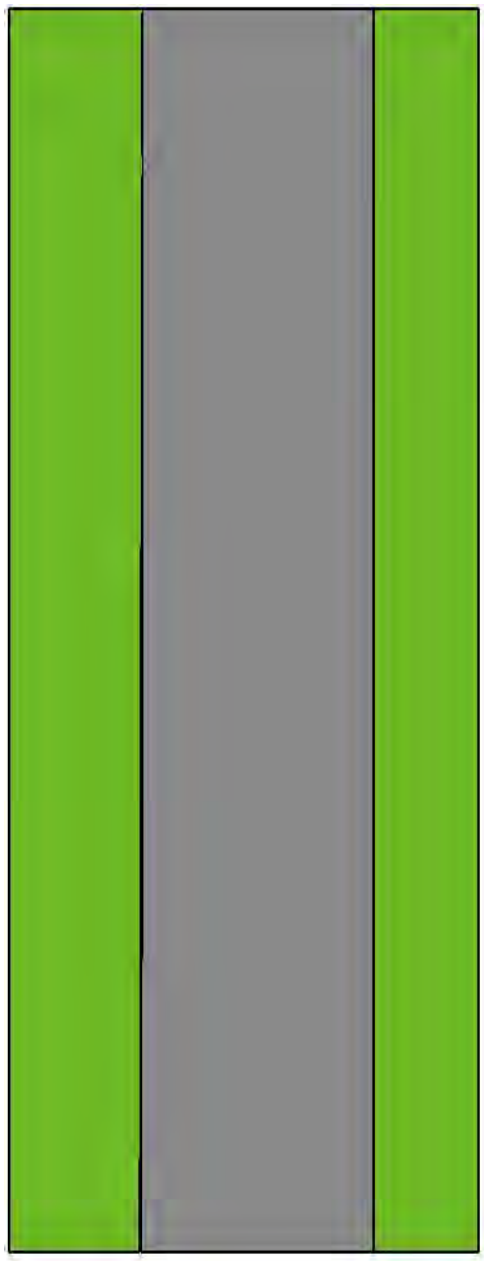


Segment :	Ash Creek ROW - Railroad Crossing at Hwy 99	Pine Street - Railroad Crossing at Hwy 99
Street Section:	• 10’ Path • 2’ Buffer Area	• 10’ Path • 2’ Buffer
Improvement Goals:	Improve pedestrian travel and connectivity	
Design Elements:	• Investigate the use of existing culvert for pedestrian crossing at Ash Creek • Enhanced pedestrian crossing across railroad as alternative	
Implementation Considerations:	Discussion with Railroad about potential crossing and impacts	
Potential Phasing:	• Negotiate crossing with railroad • Evaluate underground crossing	
Project Cost Estimates:	Ash Creek Crossing Engineering/Planning Costs: $20,000-$80,000 Construction Costs: $250,000-$1,000,000	
Sample Treatment Options:	 Pine Street & NE 1st St (2014 – Google) Existing Pine Street Crossing 	 Sample Treatment Concept Diagram for Ash Street Crossing

Corridor: North Railroad Crossing

Sample Treatment Option:





Oakland Local Street Network Plan

Project 8: *SE Apple Street*

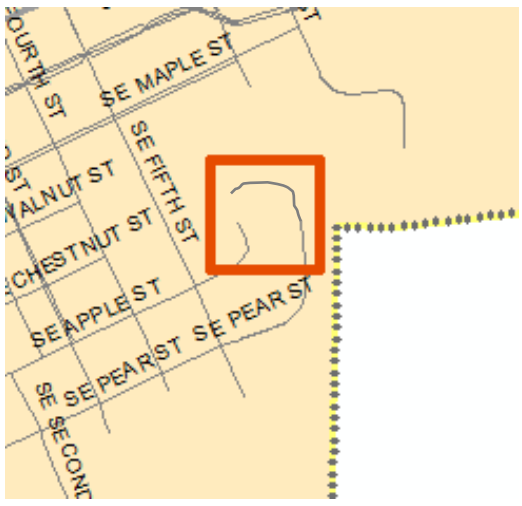
Corridor: SE APPLE STREET | **Priority**: HIGH

Corridor Limits: Apple Street (east end) to Pear Street

Project Elements:

- ☒ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☒ Circulation/Connectivity
- ☒ Access
- ☐ Safety
- ☐ Intersection
- ☐ Other

Project Description: This new road would provide a continuation of Apple Street from 5th Street (where it currently terminates) to SE Pear Street. The improvements would occur along existing (and non-slope constrained) right-of-way. Improvement obligations and dynamics relative to these proposed improvements can be further researched through documents related to development on Apple Street by Rae Bratton and City Council minutes from 10/5/04.

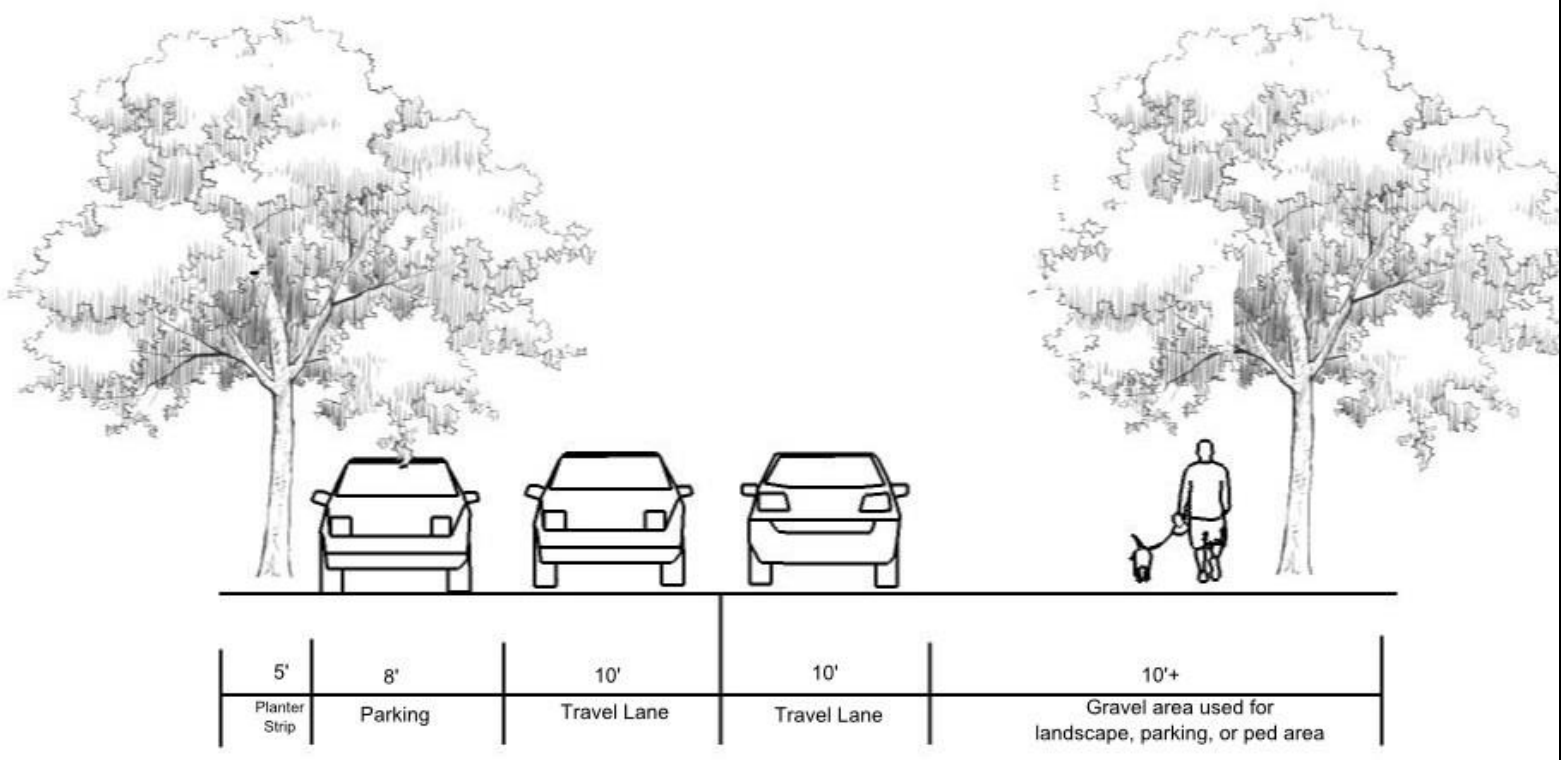


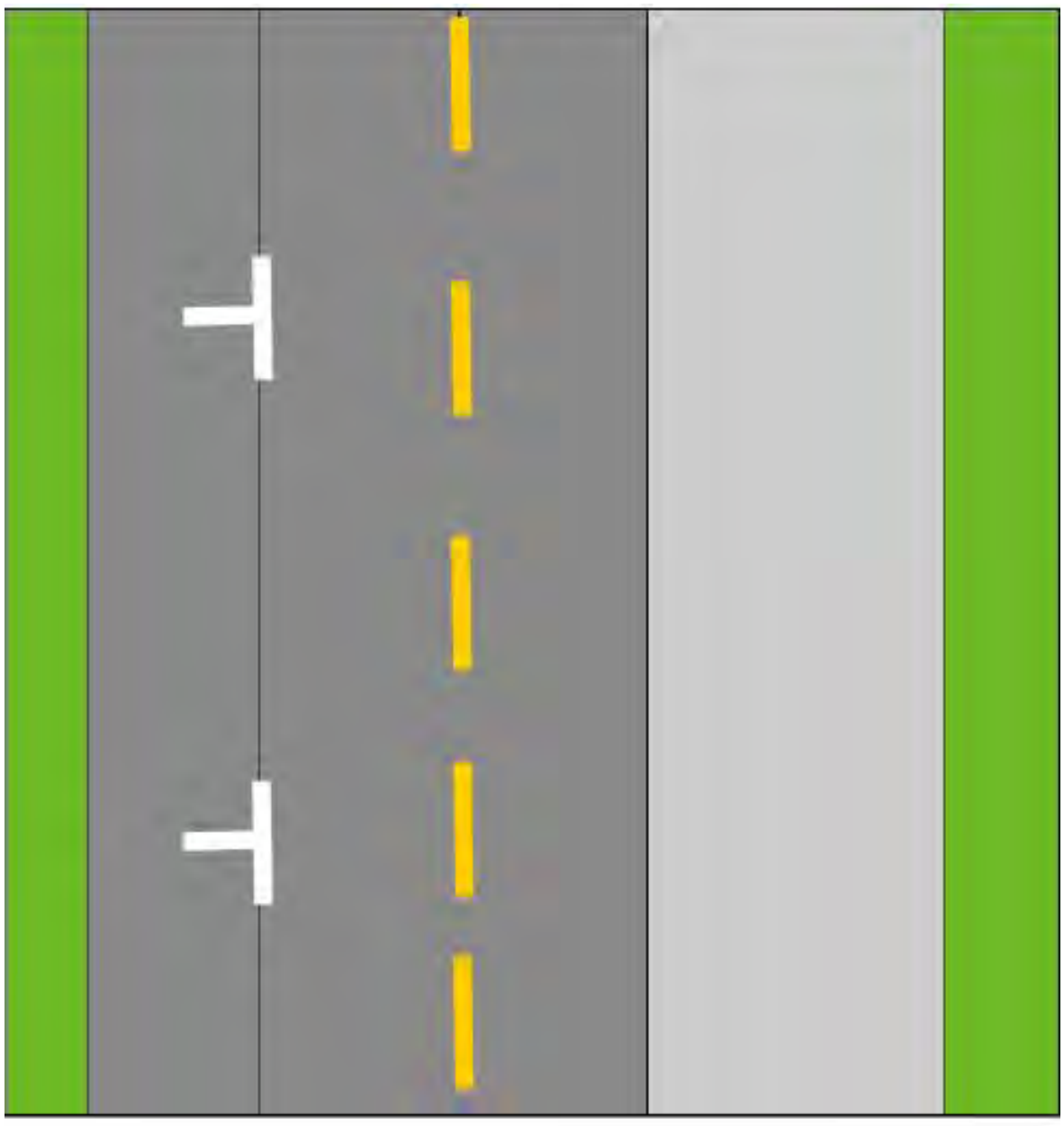
Segment :	Apple Street (east end) to Pear Street
Street Section:	• 10’ Travel lanes • 8’ Parking optional
Improvement Goals:	Improve automobile travel and connectivity Minor local classification
Design Elements:	• Optional on-street parking strip that is pervious to help with drainage
Implementation Considerations:	• Sensitivity around liabilities of future and current property owners. • Mature tree in right-of-way
Potential Phasing:	• None
Project Cost Estimates:	$30,000 (2 12-ft travel lanes.)
Sample Treatment Options:	 SE Apple Street (2014 – Google)
	 Sample Treatment Diagram for SE Apple Street

Corridor: SE Apple Street

Corridor Limits: Apple Street (east end) to Pear Street

Sample Treatment Option:





Oakland Local Street Network Plan

Project 9a: *SE First Street*

Corridor: SE FIRST STREET | **Priority**: HIGH

Corridor Limits: SE First Street south of Apple Street

Project Elements:

- ☒ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☐ Circulation/Connectivity
- ☒ Access
- ☒ Safety
- ☐ Intersection
- ☒ Other

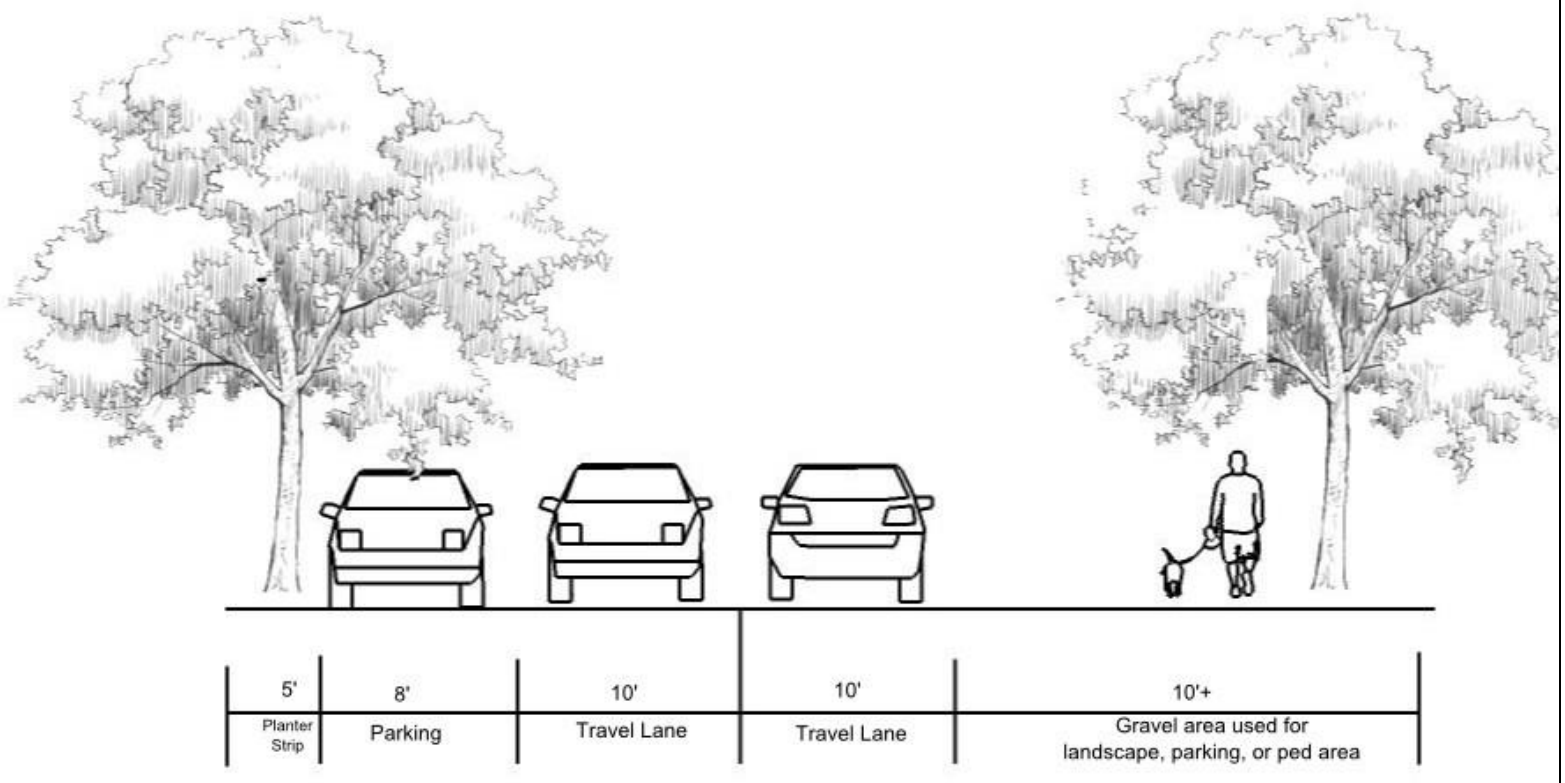
Project Description: This road paving project would pave one of the last unpaved significant streets in Oakland and would provide a continuation of pavement of First beyond Apple Street to where it currently terminates. The improvements would occur at minor local street standards.

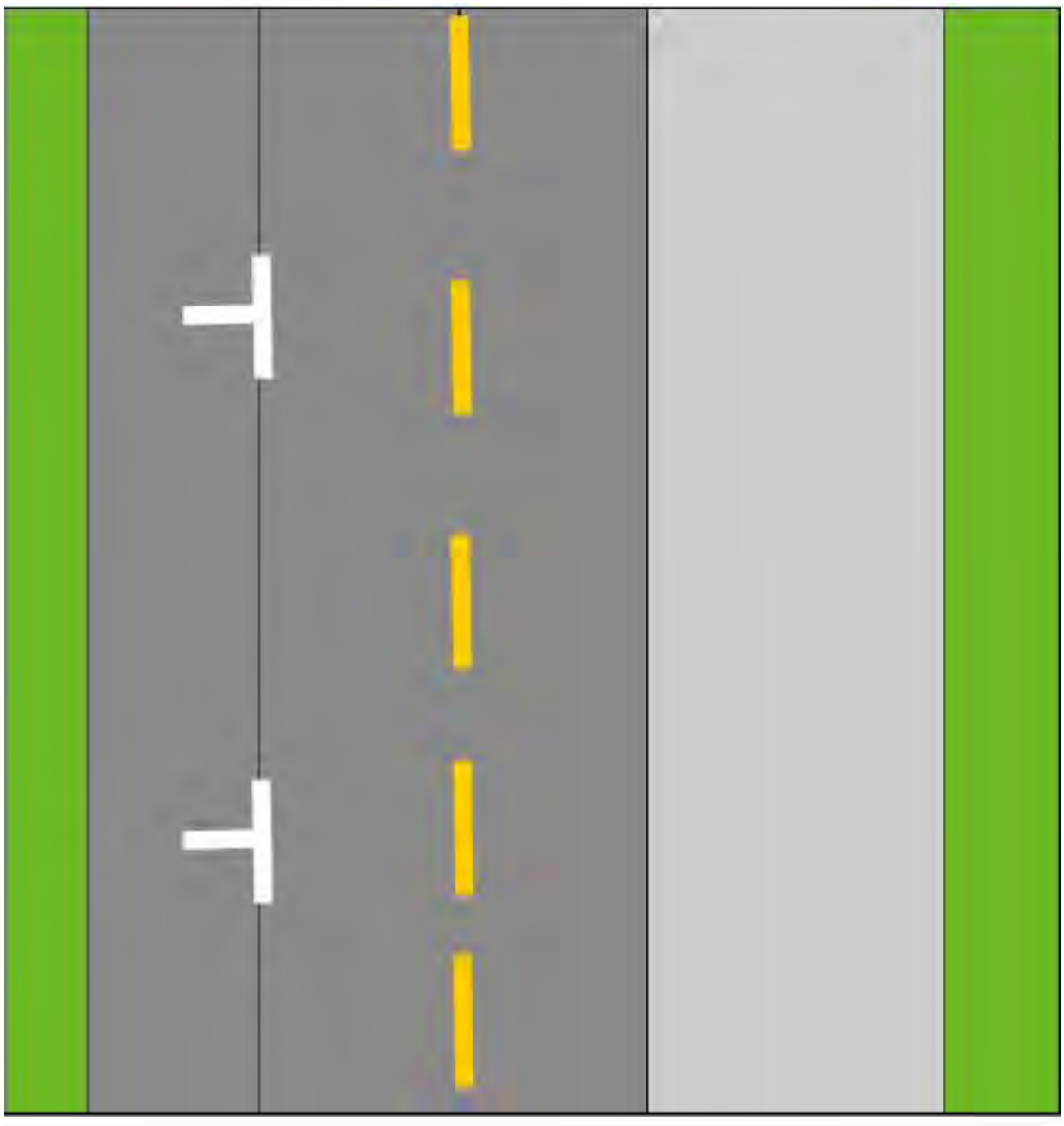
Segment :	SE First Street south of Apple Street
Street Section:	• 10’ Travel lanes • 8’ Parking optional
Improvement Goals:	Improve automobile access, connectivity and safety Minor local classification
Design Elements:	• Optional on-street parking strip that is pervious to help with drainage
Implementation Considerations:	• Current gravel street is very narrow
Potential Phasing:	• None
Project Cost Estimates:	$30,000 (2 12-ft travel lanes.)
Sample Treatment Options:	 SE First Street - Google 2014
	 Sample Treatment Diagram for SE First Street

Corridor: SE Apple Street

Corridor Limits: Apple Street (east end) to Pear Street

Sample Treatment Option:





Oakland Local Street Network Plan

Project 9b: *SE Fifth Street*

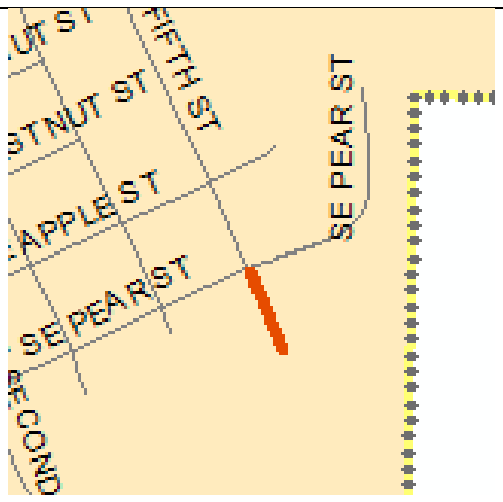
Corridor: SE FIFTH STREET | **Priority**: HIGH

Corridor Limits: SE First Street south of Pear Street

Project Elements:

- ☒ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☐ Circulation/Connectivity
- ☒ Access
- ☒ Safety
- ☐ Intersection
- ☒ Other

Project Description: This road paving project would pave one of the last unpaved significant streets in Oakland and would provide a continuation of pavement of Fifth beyond Pear Street to where it currently terminates. The improvements would occur at minor local street standards.

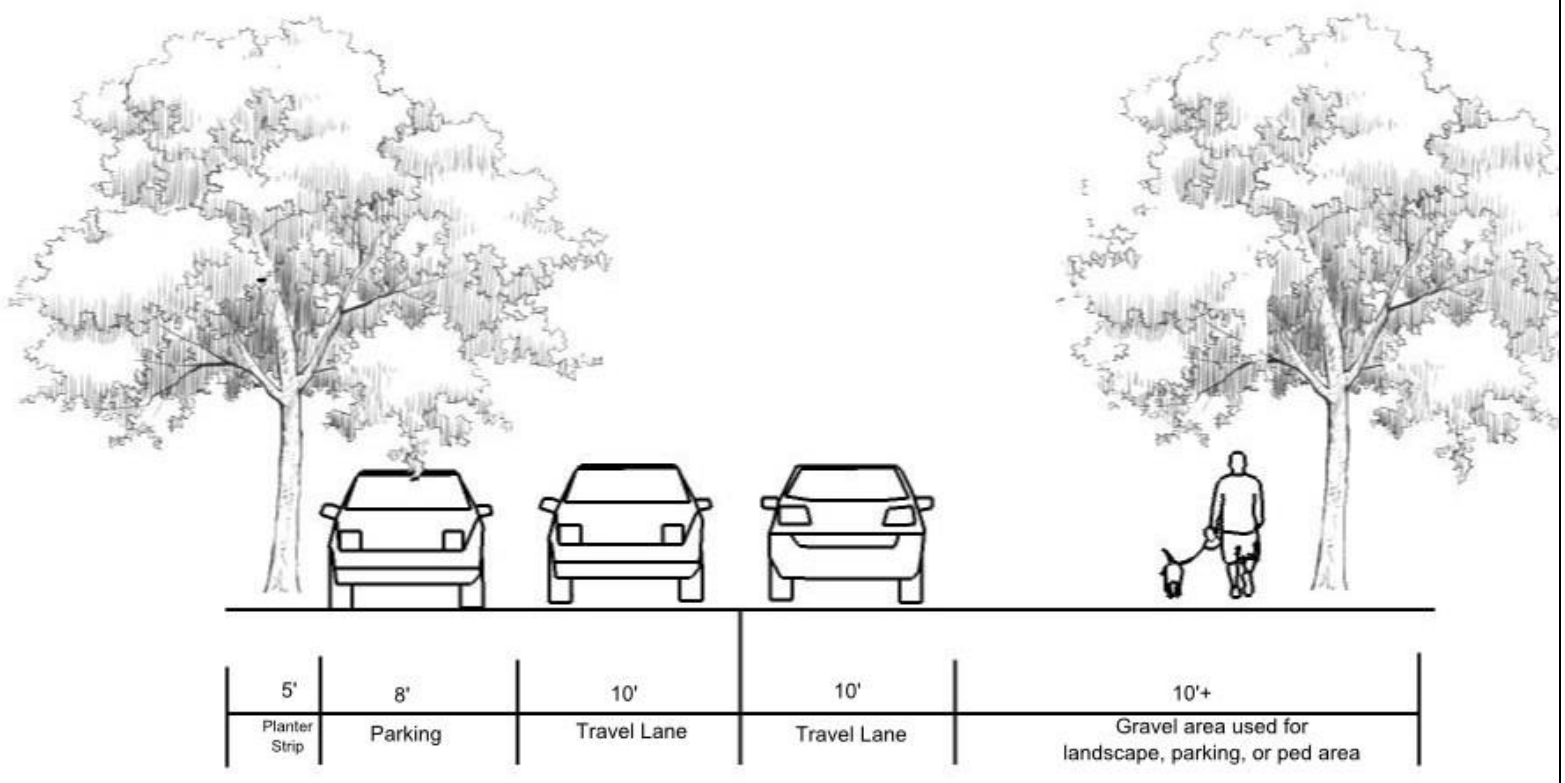


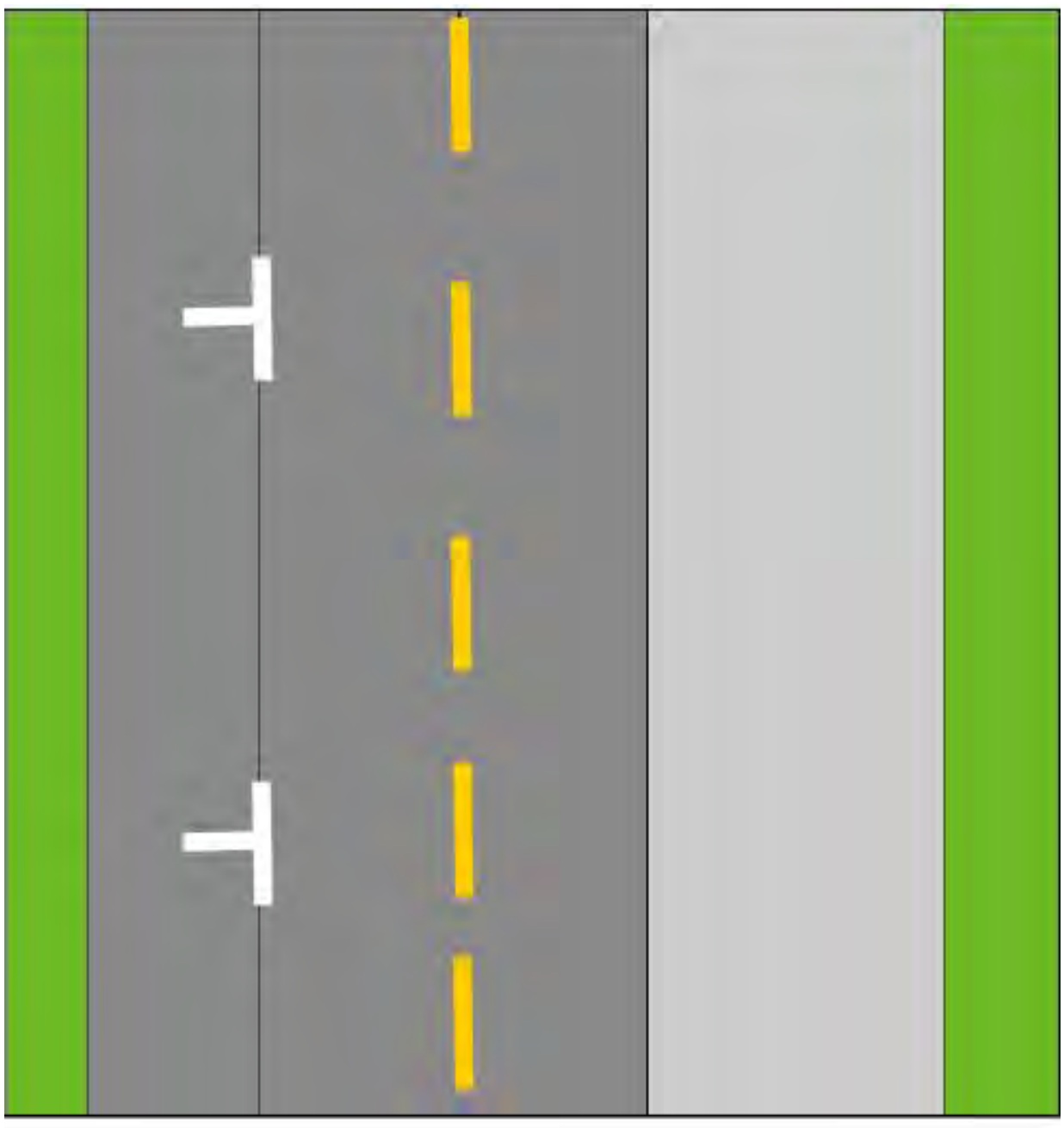
Segment :	SE First Street south of Apple Street
Street Section:	• 10’ Travel lanes • 8’ Parking optional
Improvement Goals:	Improve automobile access, connectivity and safety Minor local classification
Design Elements:	• Optional on-street parking strip that is pervious to help with drainage
Implementation Considerations:	• Current gravel street is very narrow
Potential Phasing:	• None
Project Cost Estimates:	$30,000 (2 12-ft travel lanes.)
Sample Treatment Options:	 SE Fifth Street - Google 2014
	 Sample Treatment Diagram for SE First Street

Corridor: SE Apple Street

Corridor Limits: Apple Street (east end) to Pear Street

Sample Treatment Option:





Oakland Local Street Network Plan

Project 10: *NE 5th Street*

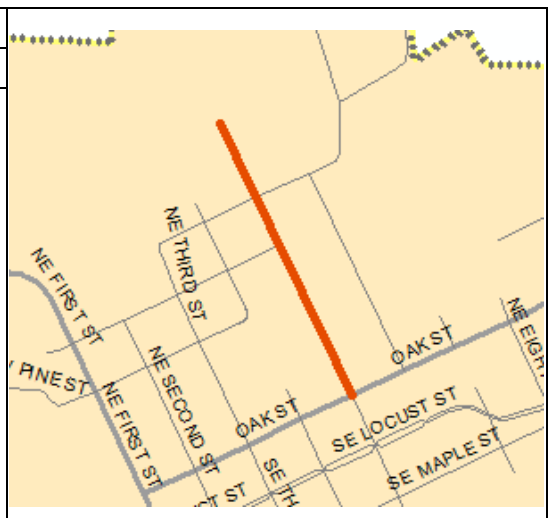
Corridor: NE 5TH STREET | **Priority**: MEDIUM

Corridor Limits: Oak Street to School (north of NE Cedar Street)

Project Elements:

- ☒ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☐ Circulation/Connectivity
- ☐ Access
- ☒ Safety
- ☐ Intersection
- ☐ Other

Project Description: This summary presents the comprehensive reclassification proposal for NE 5th Street from "Collector" to "Major Local". Improvements that are contemplated for this stretch of roadway include reconstructing the multi-use path to improve surface and to include adequate sub-base, drainage and crossing treatment, as well as ADA amenities.

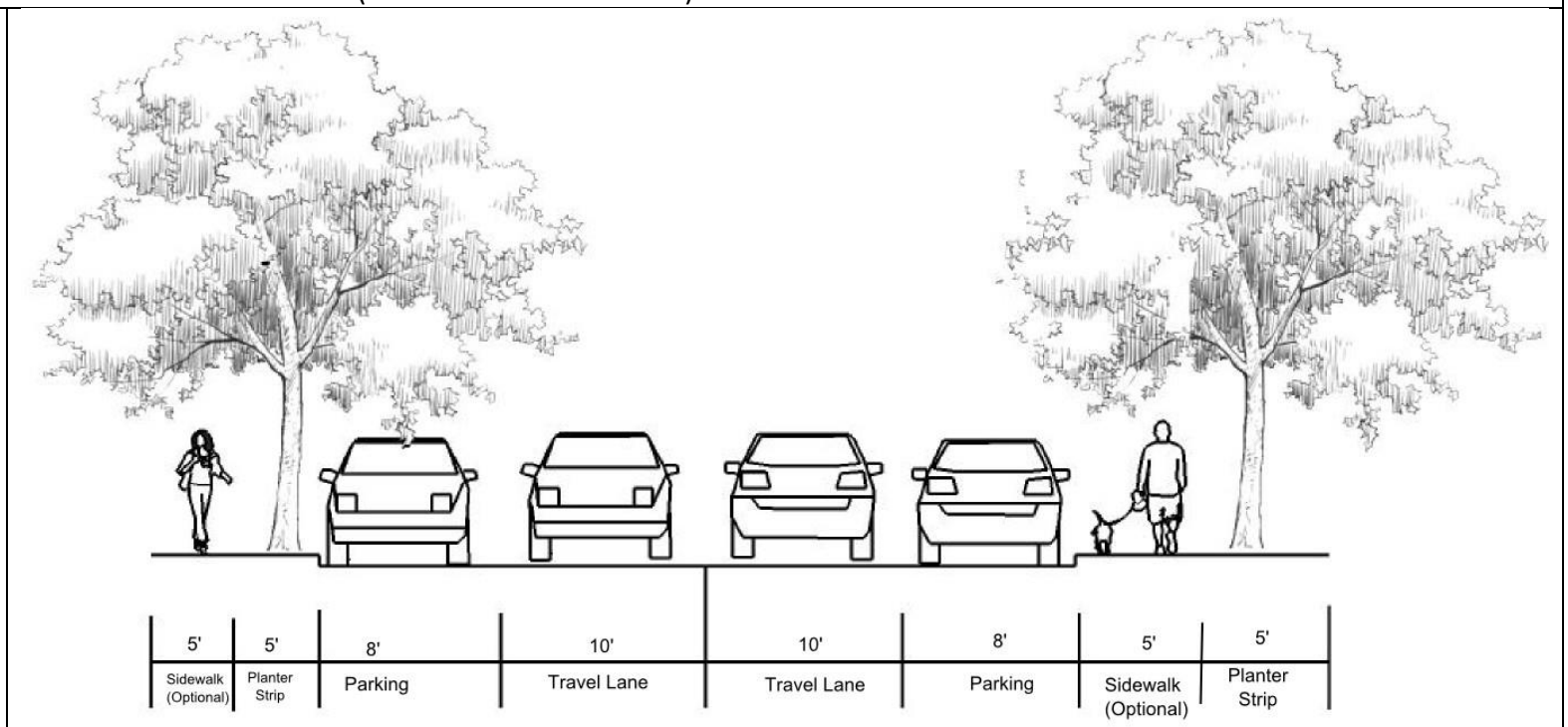


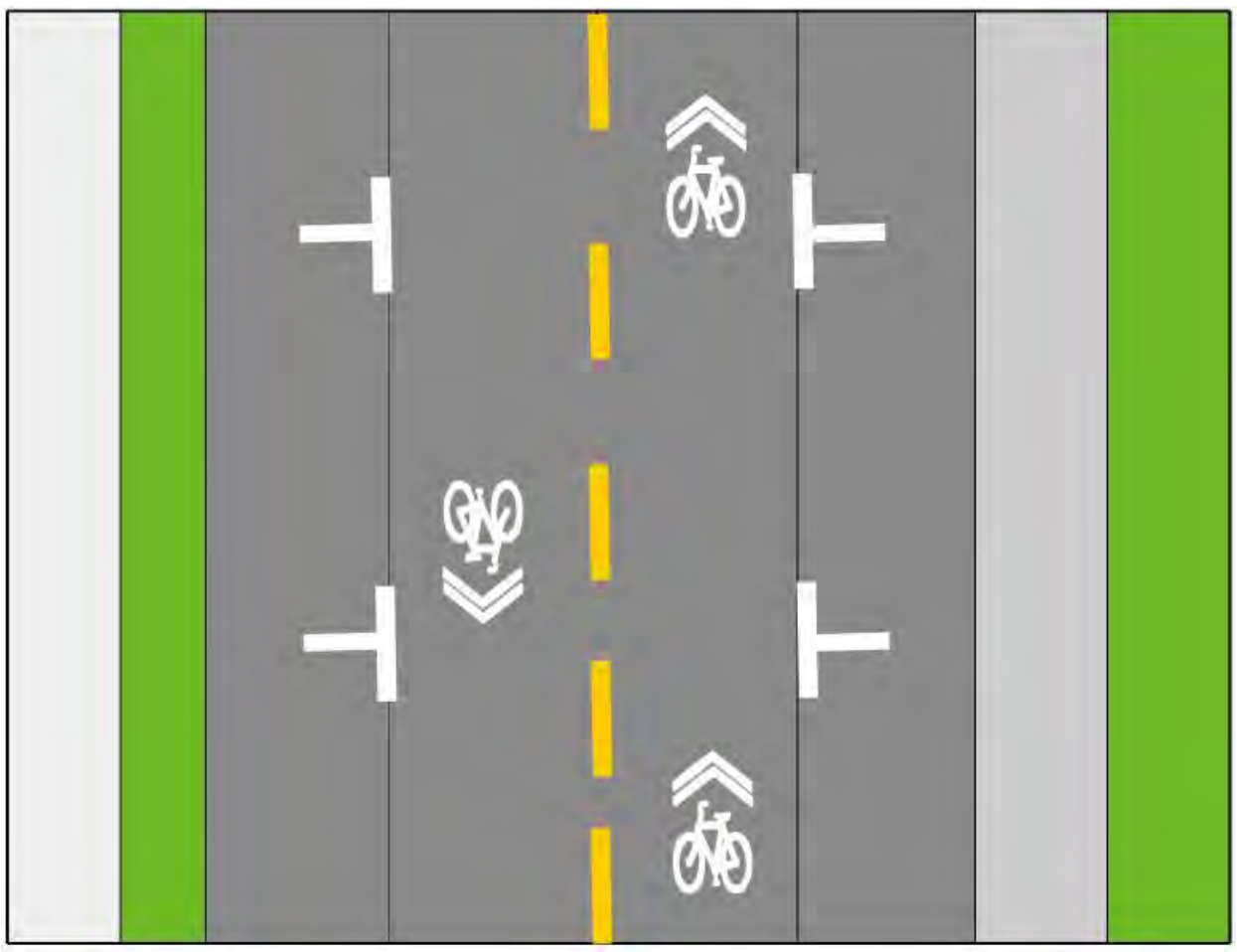
Segment :	Oak Street to School (north of NE Cedar Street)
Street Section:	5' Sidewalk on both sides (optional) 5' Planter Strips on both sides 20' Travel Way with "Sharrow" signage for bicycle travel
Improvement Goals:	Improve bicycle and pedestrian travel and connectivity
Design Elements:	• Provide signage for "Sharrow" symbol in roadway • Add sidewalks on both sides where applicable (including west side between Cedar and the School) • Convert existing asphalt ditch into "bio-swale" to allow water to infiltrate into the soil in order to lessen the demand on storm drain system
Implementation Considerations:	• Consideration could be given for a designated bike lane in addition to the dedicated off-street multi-use path. • The area lacks proper drainage. • There is a higher priority improvement which addresses elements of Fifth Street near the intersections of Cypress and Cedar.
Potential Phasing:	• Negotiate sidewalk development with property owners • Stripe high visibility crosswalks
Project Cost Estimates:	Engineering/Planning Costs: $10,000-$50,000 Construction Costs: $120,000-$5,000,000 (big range: low end is if we restripe crosswalks, and turn the existing ditch into a water retention/detention system-High end is full road reconstruction to new standards)
Sample Treatment Options:	 NE 5th Street (2014 – Google) - Stop Sign - High Visibility Crosswalk - Existing Path - Bio-swale
	 Sample Treatment Diagram for NE 5th Street

Corridor: NE 5th Street

Corridor Limits: Oak Street to School (north of NE Cedar Street)

Sample Treatment Option:





Oakland Local Street Network Plan

Project 11: *Locust Street*

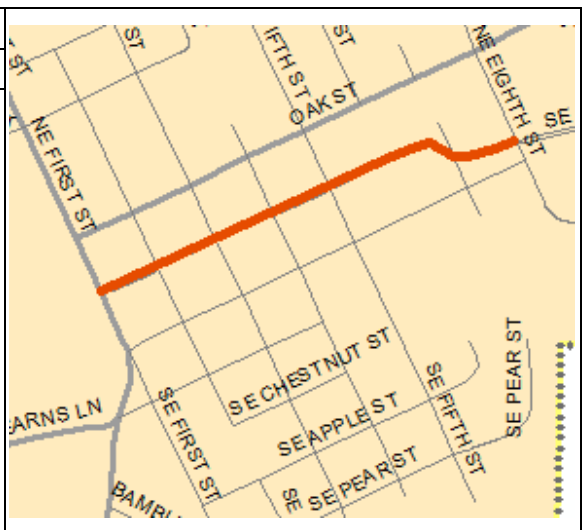
Corridor: LOCUST STREET | **Priority**: MEDIUM

Corridor Limits: SE 1 Street to east of SE 8th Street

Project Elements:

- ☒ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☐ Circulation/Connectivity
- ☐ Access
- ☒ Safety
- ☐ Intersection
- ☐ Other

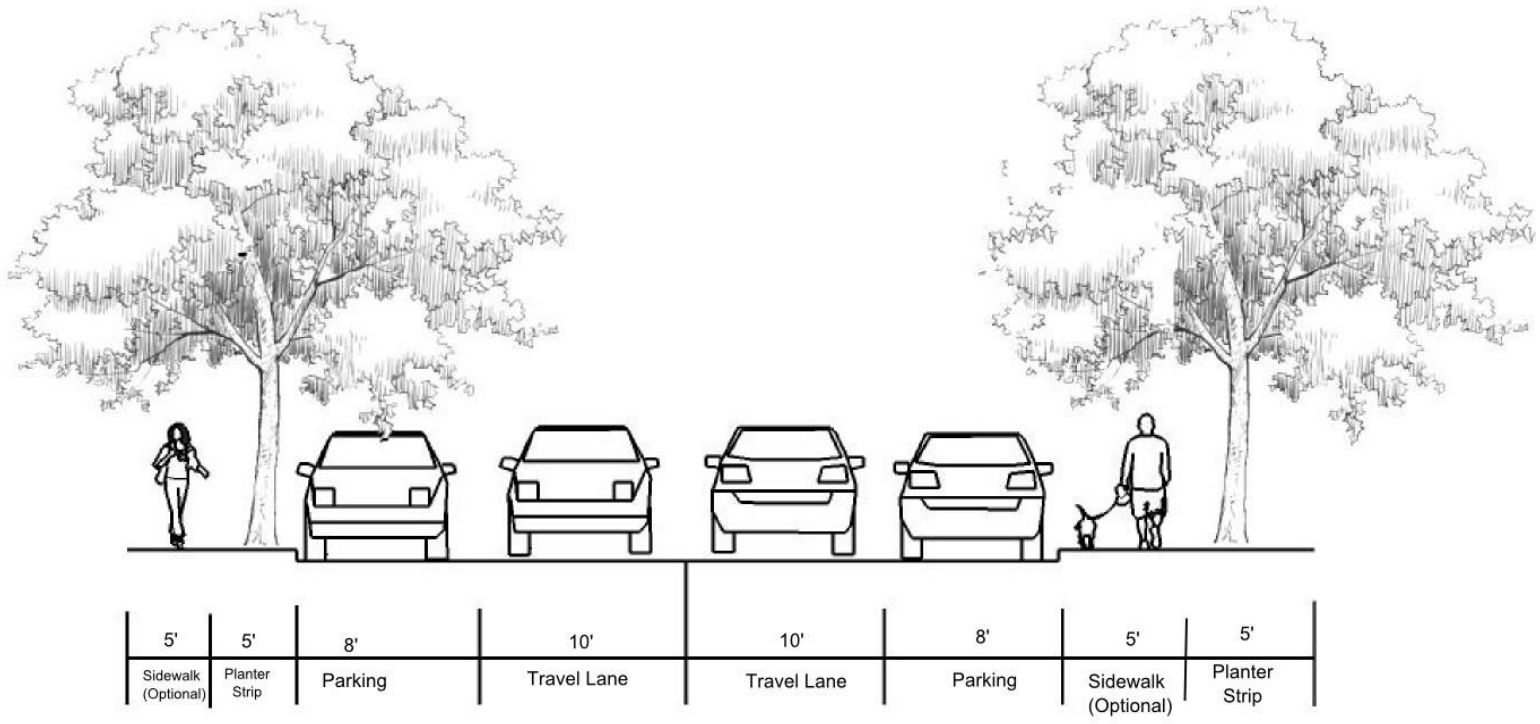
Project Description: This summary presents the proposal for Locust Street, between SE 1st Street and just east of SE 8th Street, to receive upgrades related to a reclassification from “Local” to “Major Local". Improvements for this stretch of roadway include designation as bike routes with pavement markings (sharrows and/or signs), while maintaining the existing character and on street parking.



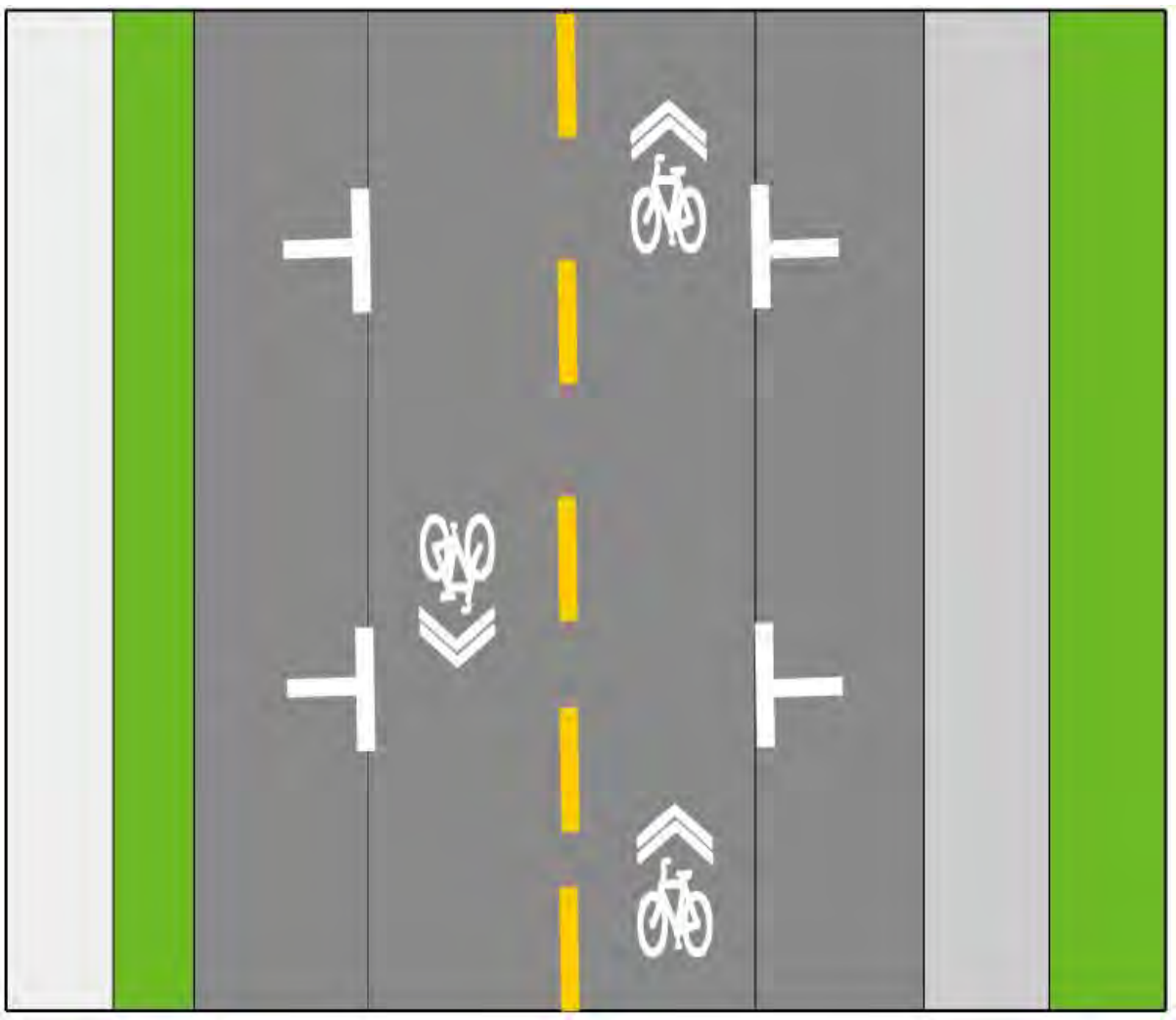
Segment :	SE 1 Street to east of SE 8th Street
Street Section:	5’ Sidewalk on both sides (optional) 5’ Planter Strips on both sides 8’ On Street Parking on both sides 20-24’ Travel Way with “Sharrow” signage for bicycle travel
Improvement Goals:	Improve bicycle travel and connectivity
Design Elements:	• Provide signage for “Sharrow” symbol in roadway • Improve cross walks and ADA ramps • Add sidewalks on both sides where applicable • Add 4-way stops to 2nd, 3rd, and 5th Streets
Implementation Considerations:	Design should consider traffic calming and drainage improvements.
Potential Phasing:	• Add “Sharrow” symbol to roadway • Negotiate sidewalk development with property owners • Stripe (restripe) crosswalks at intersections
Project Cost Estimates:	Engineering/Planning Costs: $5,000-$50,000 Construction Costs: $25,000-$350,000 (low end: ADA ramp upgrades, sharrows, updated crosswalks-High End- sidewalk update/missing links)
Sample Treatment Options:	 NE & SE Locust Streets (2014 – Google)
	 Sample Treatment Diagram for Locust Street

Corridor: Locust Street

Corridor Limits: SE 1 Street to east of SE 8th Street



Sample Treatment Option:



Oakland Local Street Network Plan

Project 12: *NE Cypress Avenue*

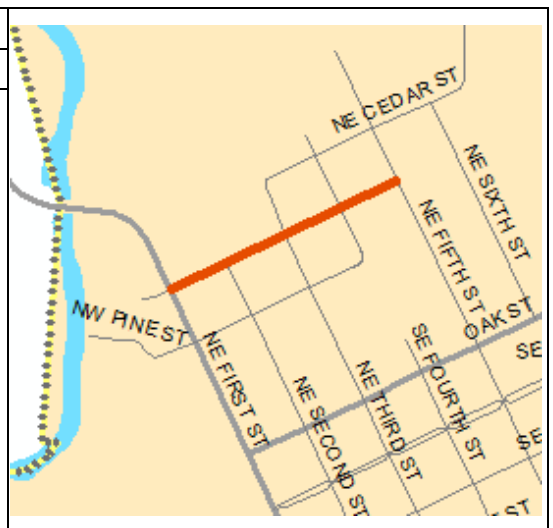
Corridor: NE CYPRESS AVENUE | **Priority**: MEDIUM

Corridor Limits: NE 1st Street to NE 5th Street

Project Elements:

- ☒ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☒ Circulation/Connectivity
- ☐ Access
- ☒ Safety
- ☐ Intersection
- ☐ Other

Project Description: This summary presents the proposal for NE Cypress Avenue, between 1st Street and 5th Street, to receive upgrades consistent with its reclassification from "Local" to "Major Local." Cypress Avenue is the only street north of Oak Street that is paved between First and 5th Streets. Improvements for this stretch of roadway include designation as bike routes (not lanes) with pavement markings (sharrows and/or signs), while maintaining the existing character and on street parking.

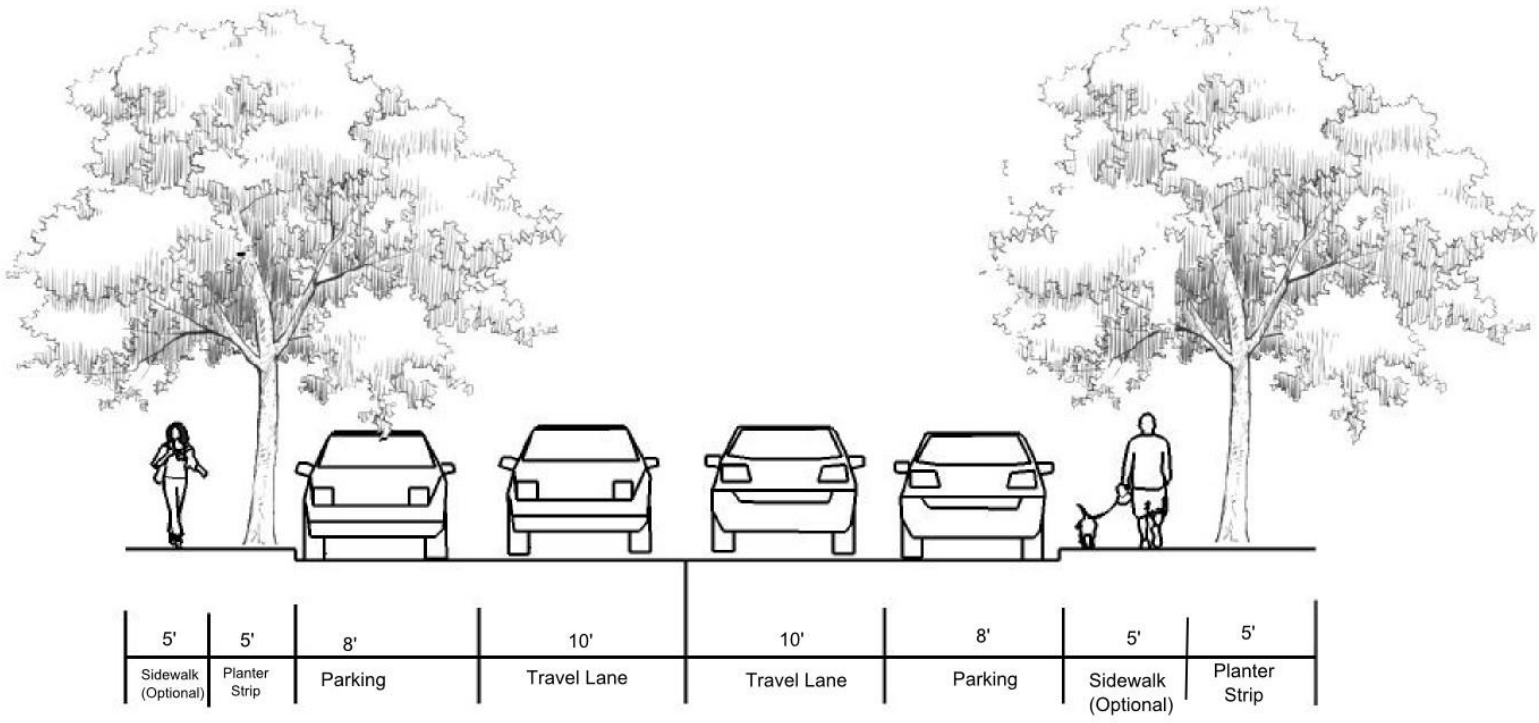


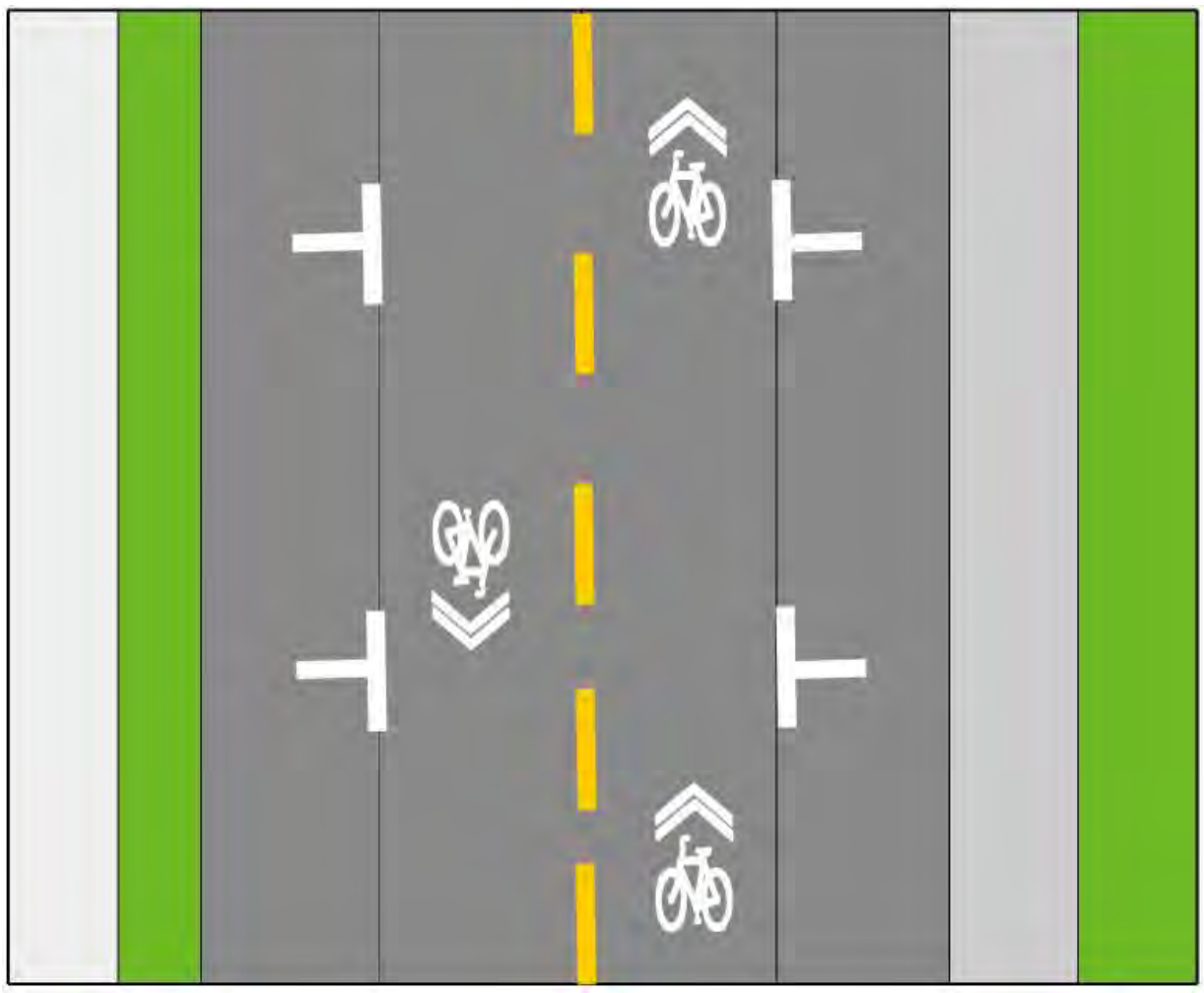
Segment :	NE 1st Street to NE 5th Street
Street Section:	5' Sidewalk on both sides (optional) 5' Planter Strips on both sides 8' On Street Parking on both sides 20' Travel Way with "Sharrow" signage for bicycle travel
Improvement Goals:	Improve bicycle and pedestrian travel and connectivity particularly related to school traffic. Improve alternatives, including grade/steepness alternatives.
Design Elements:	• Provide signage for "Sharrow" symbol in roadway • Add sidewalks on both sides where applicable • Stripe (restripe) crosswalks at intersections of NE 1st St and NE 5th St
Implementation Considerations:	Sidewalk development must be discussed with property owners and developers in the area. Drainage issues in the area.
Potential Phasing:	• Add "Sharrow" symbol to roadway • Negotiate sidewalk development with property owners • Stripe (restripe) crosswalks at intersections
Project Cost Estimates:	Engineering/Planning Costs: $50,000 Construction Costs: In its entirety, the cost would be $ 3,000,000 (new reconstruction of the roadway taking out the asphalt and repaving). Just adding in sidewalks would be about $500,000 with Engineering at $25,000.
Sample Treatment Options:	 NE Cypress Ave (2014 – Google)
	 Sample Treatment Diagram for NE Cypress Avenue

Corridor: NE Cypress Avenue

Corridor Limits: NE 1st Street to NE 5th Street

Sample Treatment Option:





Oakland Local Street Network Plan

Project 13: *Railroad Right-of-Way*

Corridor: RAILROAD RIGHT-OF-WAY | **Priority**: MEDIUM

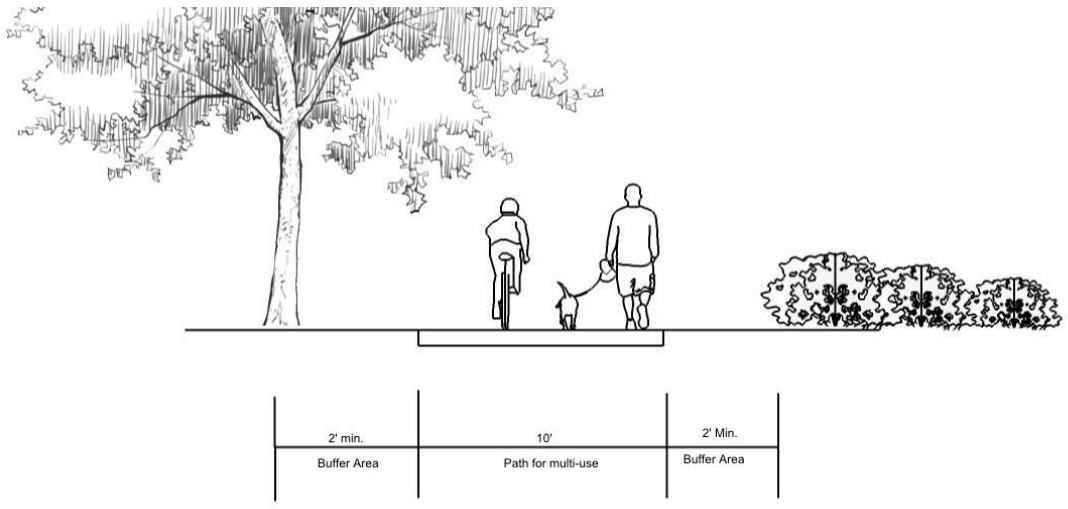
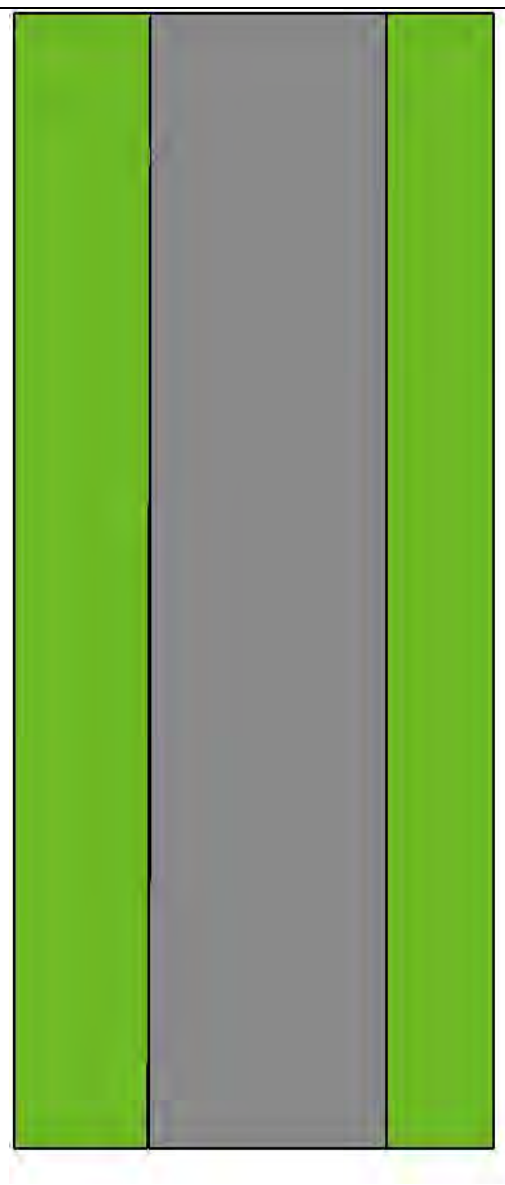
Corridor Limits: Ash Creek Right-of-Way to Stearns Lane

Project Elements:

- ☐ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☒ Circulation/Connectivity
- ☒ Access
- ☒ Safety
- ☐ Intersection
- ☐ Other

Project Description: This summary outlines a 0.18 mile segment of the conceptual multi-use path system that relates to the railroad right-of-way directly east of the railroad tracks. Portions of this area are currently leased to the City for park and other uses. The area could potentially accommodate a safe off-road dedicated multi-use path that connects areas of upper Highway 99 with lower sections of Highway 99 and Stearns Lane. This will be particularly relevant if it is determined that a railroad crossing is untenable.

Segment :	Ash Creek Right-of-Way to Stearns Lane
Street Section:	2’ Buffer Area 10’ Path
Improvement Goals:	Improve pedestrian travel and connectivity
Design Elements:	• Establish railroad crossing • Construct multi-use path along creek
Implementation Considerations:	Negotiations with Central Oregon Pacific Railroad regarding expanded use of the current lease of their right-of-way
Potential Phasing:	• None
Project Cost Estimates:	Engineering/Planning Costs: $50,000 Construction Costs: $500,000
Sample Treatment Options:	 Railroad ROW (2014 – Google)  Sample Treatment Diagram for Railroad ROW Path

Corridor: Railroad Right-of-Way	
Corridor Limits: Ash Creek ROW to Stearns Lane	
Sample Treatment Option:	 

Oakland Local Street Network Plan

Project 14: *SE Maple Street*

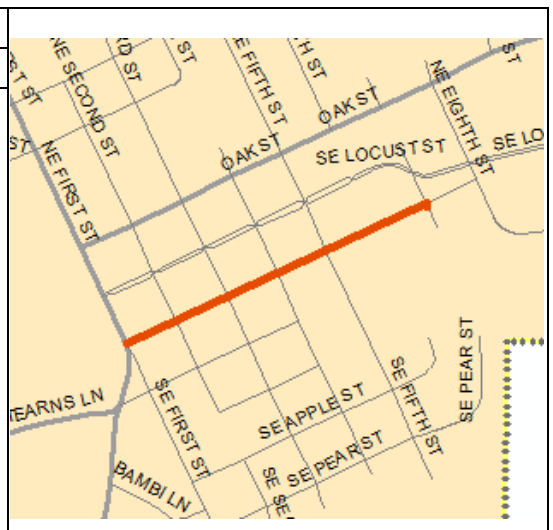
Corridor: SE MAPLE STREET | **Priority**: LOW

Corridor Limits: SE 1st Street to SE 7th Street

Project Elements:

- ☐ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☐ Circulation/Connectivity
- ☐ Access
- ☐ Safety
- ☐ Intersection
- ☐ Other

Project Description: This summary presents the proposal for SE Maple Street, between 1st Street and 7th Street, to receive upgrades consistent with a reclassification from "Local" to "Major Local." Maple Street is one of only a few streets south of Locust Street that is paved between 1st and 7th Streets. Improvements for this stretch of roadway include designation as bike routes with pavement markings (sharrows and/or signs), while maintaining the existing character and on street parking.

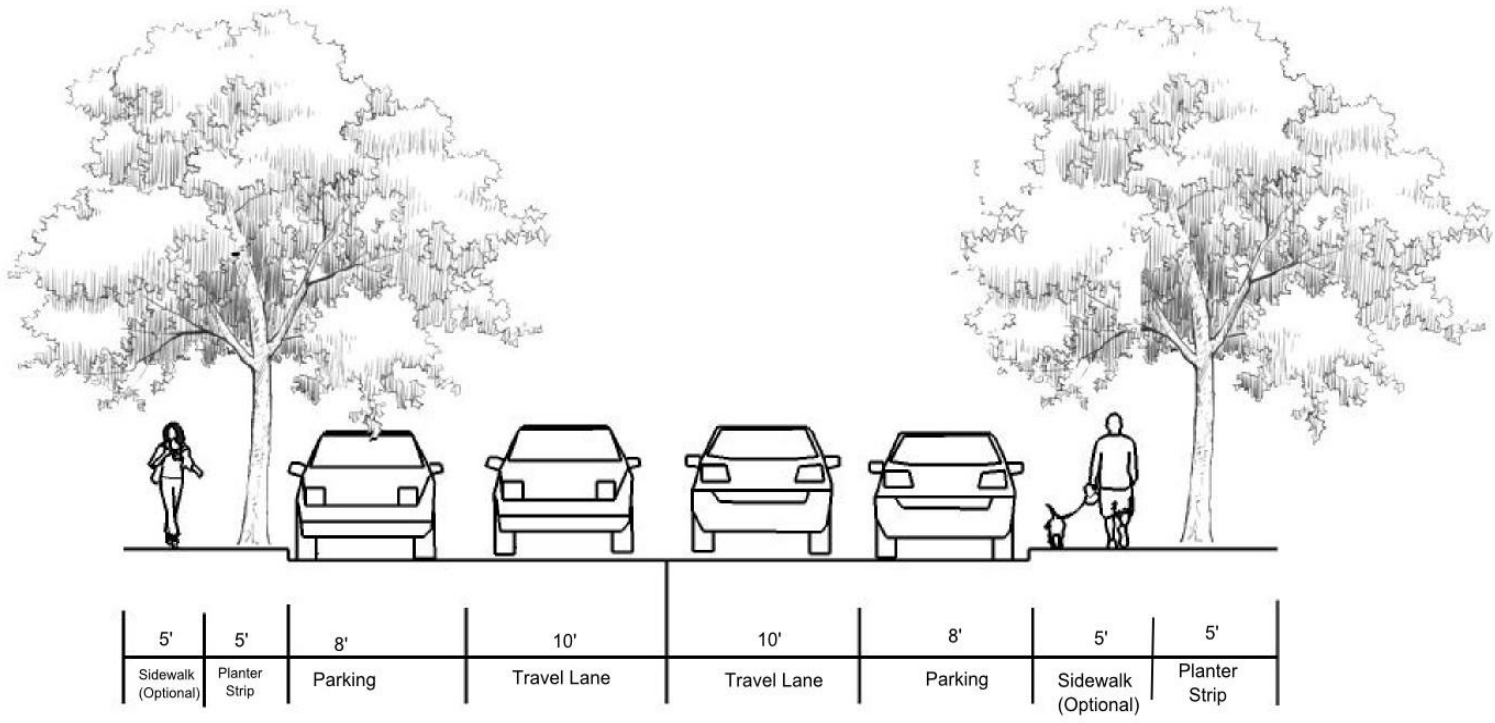


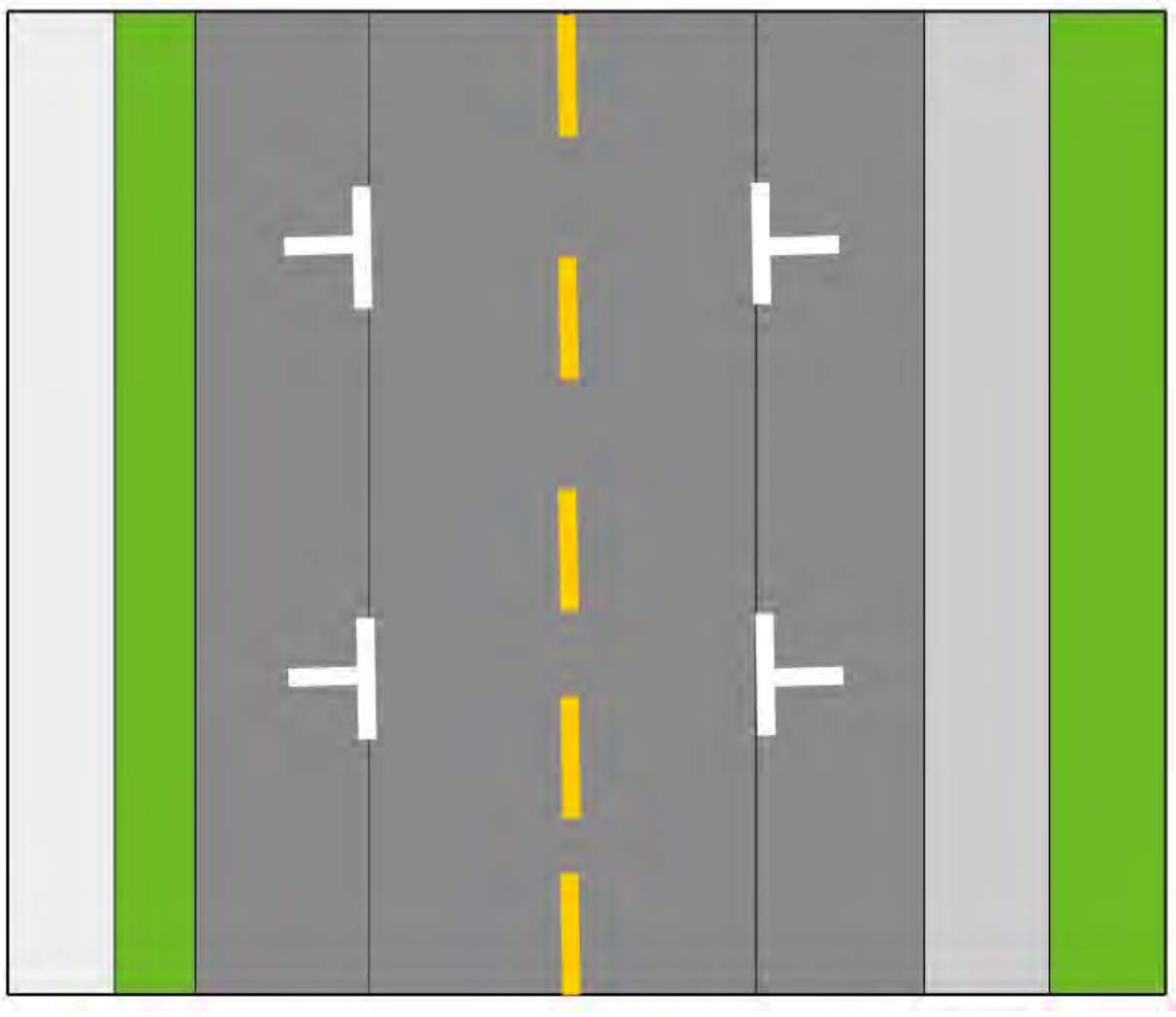
Segment :	SE Maple Street
Street Section:	5' Sidewalk on both sides (optional) 5' Planter Strips on both sides 8' On Street Parking on both sides (optional) 20' Travel Way with "Sharrow" signage for bicycle travel
Improvement Goals:	Improve bicycle travel alternatives and overall connectivity
Design Elements:	• Negotiate sidewalk development with property owners • Stripe (restripe) crosswalks at intersections
Implementation Considerations:	Sidewalk development must be discussed with property owners and developers in the area. Drainage issues in the area.
Potential Phasing:	• Add "Sharrow" symbol to roadway • Negotiate sidewalk development with property owners • Stripe (restripe) crosswalks at intersections
Project Cost Estimates:	Engineering/Planning Costs: $30,000 Construction Costs: $1,694,000
Sample Treatment Options:	 SE Maple Street (2014 – Google)
	 Example Treatment Diagram for SE Maple Street

Corridor: SE Maple Street

Corridor Limits: SE 1st Street to SE 7th Street

Sample Treatment Option:





Oakland Local Street Network Plan

Project 15: *Oak Street*

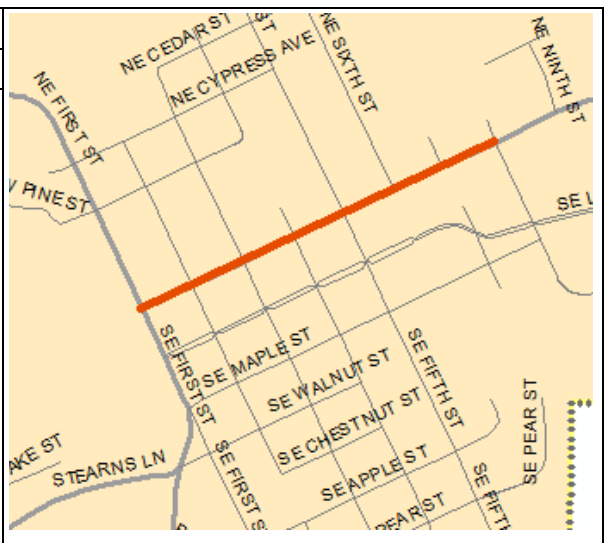
Corridor: OAK STREET | **Priority**: LOW

Corridor Limits: NE 1st Street to NE 8th Street

Project Elements:

- ☒ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☐ Circulation/Connectivity
- ☐ Access
- ☒ Safety
- ☐ Intersection
- ☐ Other

Project Description: This summary presents the proposal for Oak Street, between 1st Street and 8th Street, to receive upgrades related to a local reclassification from "Arterial" to "Major Collector." Improvements that would be considered for this stretch of roadway include infill of the missing sidewalks (ADA compliant) to provide a complete pedestrian connection.

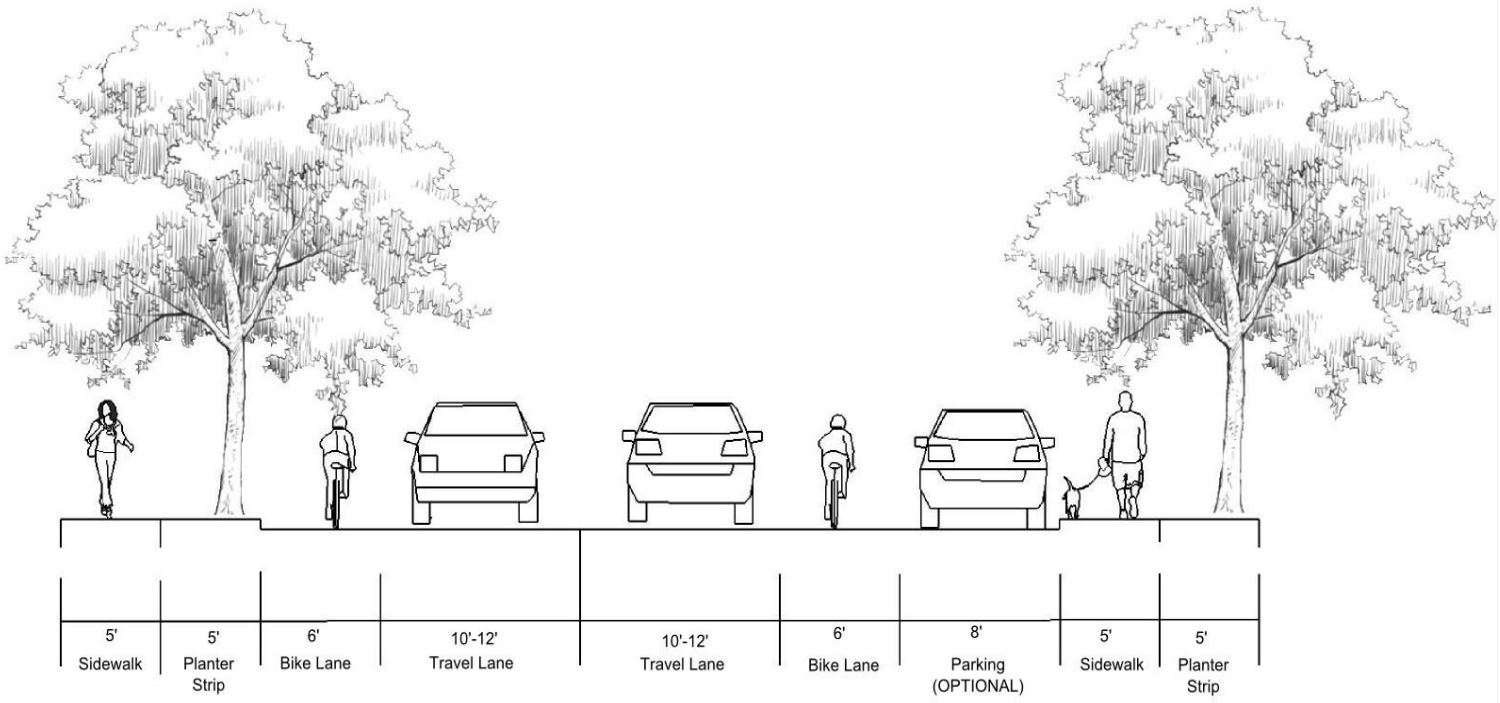


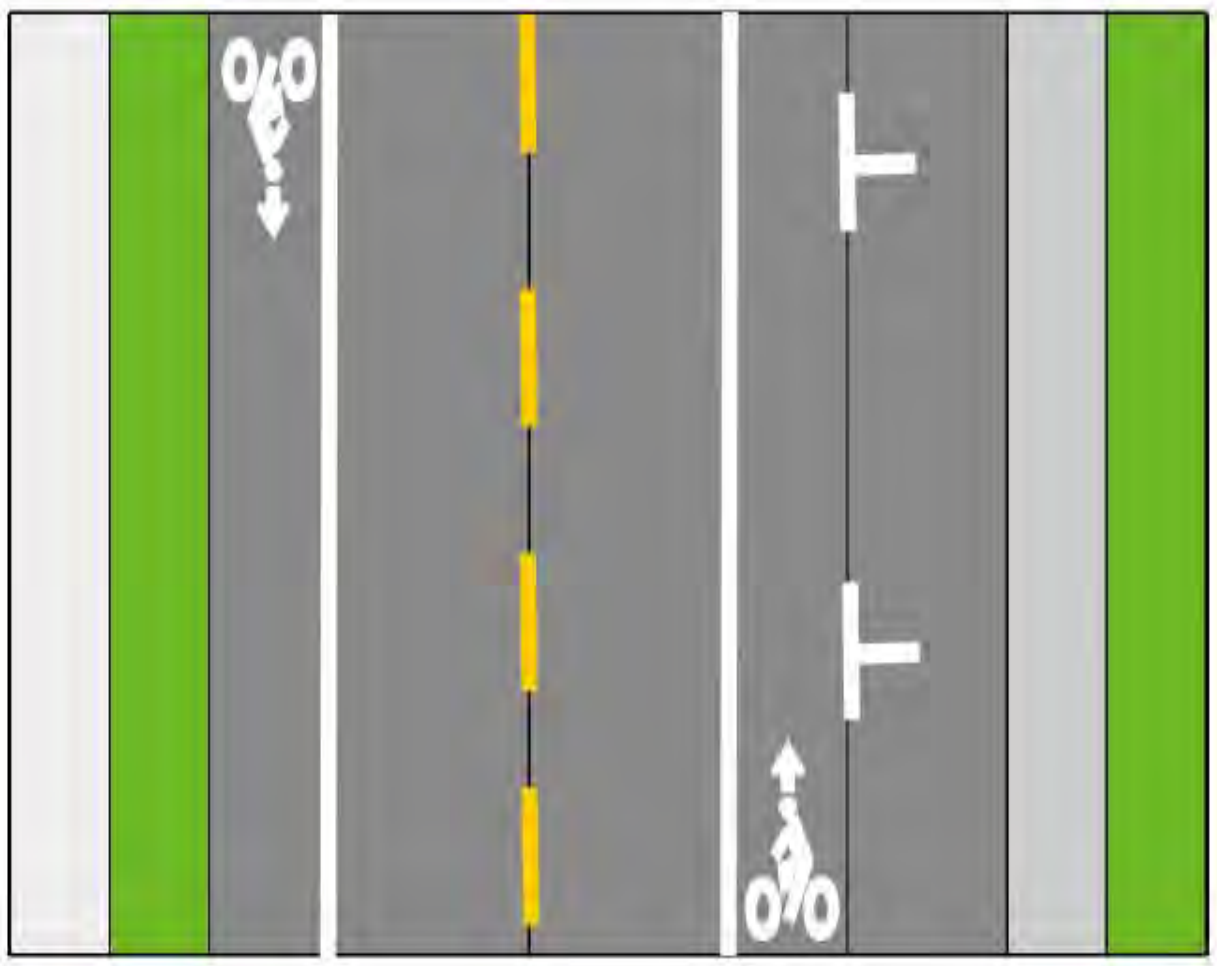
Segment :	NE 1st Street to NE 8th Street
Street Section:	5' Sidewalk on both sides 5' Planter Strips on both sides 8' On Street Parking (optional) 6' Bike Lanes on both sides 20-24' Travel Way
Improvement Goals:	Improve pedestrian travel and connectivity
Design Elements:	• Stripe roadway for bike lanes • Add sidewalks on both sides where applicable • Allow for through traffic and truck traffic
Implementation Considerations:	• Sidewalk development must be discussed with property owners and developers in the area. • Drainage issues in the area. • High Priority Project 3 implements a high visibility pedestrian crossing at the intersection of Oak Street and 5th Street.
Potential Phasing:	• Provide flashing crosswalk at intersection of 5th Street • Stripe for bike lanes and on street parking
Project Cost Estimates:	Engineering/Planning Costs: $75,000 Construction Costs: $3,650,000 Oak Street is under Douglas County jurisdiction. Douglas has made its financial constraints clear. It has expressed initial support for these improvement concepts but cannot pay for them.
Sample Treatment Options:	 Oak Street (2014 – Google)  Sample Treatment Diagram for Oak Street

Corridor: Oak Street

Corridor Limits: NE 1st Street to NE 8th Street

Sample Treatment Option:





Oakland Local Street Network Plan

Project 16: *Oak Street to Locust Street*

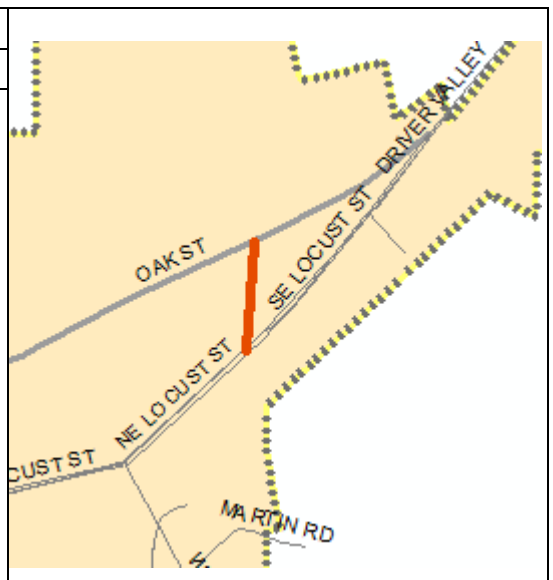
Corridor: OAK STREET TO LOCUST STREET | **Priority**: LOW

Corridor Limits: Oak to Locust Street Connection

Project Elements:

- ☒ Automobile
- ☐ Pedestrian
- ☐ Bicycle
- ☒ Circulation/Connectivity
- ☒ Access
- ☐ Safety
- ☐ Intersection
- ☐ Other

Project Description: This conceptual street anticipates development in larger properties between Oak Street and Locust Street. The new street would rely on new rights-of-way, but is near where the right-of-way for Inga Avenue existed until it was vacated by the City in 1969. The City preserved right-of-way for utilities (as per Ord 224 and Ord 227). The improvements would occur only as required by new development. The street improvements would improve local street connectivity, access, and circulation to the current and possible future residents in the eastern portions of Oakland.

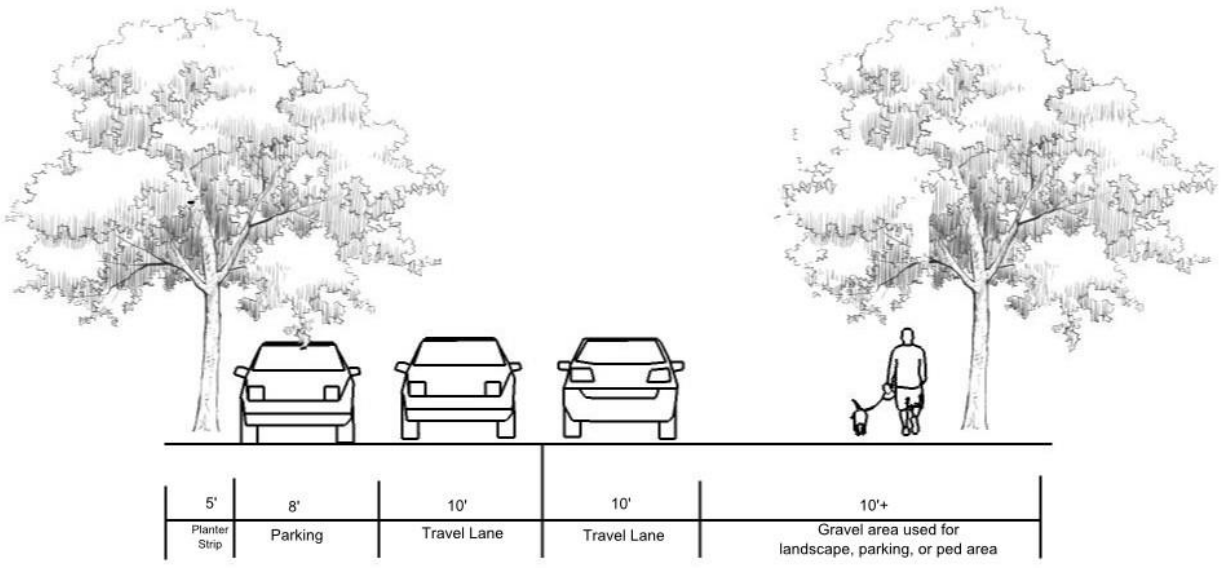


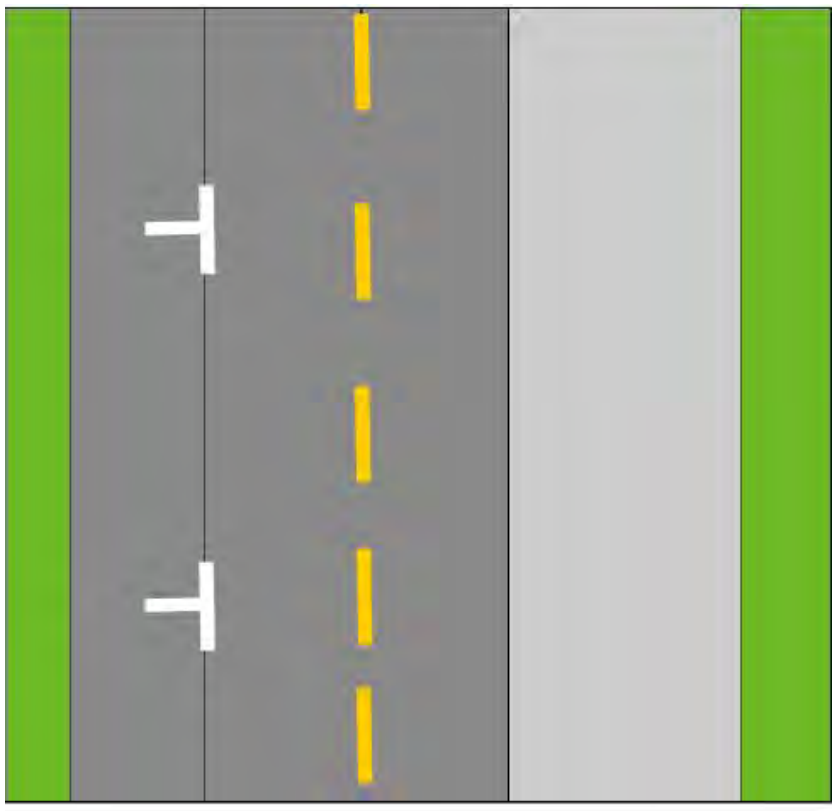
Segment :	Oak to Locust Street Connection
Street Section:	• 10’ Travel Lanes • 8’ Parking
Improvement Goals:	Improve automobile travel and connectivity Minor local classification Address a Comprehensive Plan policy
Design Elements:	• Optional on-street parking using pervious surfaces to help with drainage
Implementation Considerations:	• Due to its low priority this project will likely not realize until development in the area occurs.
Potential Phasing:	• None
Project Cost Estimates:	Engineering/Planning Costs: $75,000 Construction Costs: $1,500,000
Sample Treatment Options:	 NE Locust Street (2014 – Google)  Sample Treatment Diagram for NE Locust Street

Corridor: Oak Street to Locust Street

Corridor Limits: Oak to Locust Street Connection

Sample Treatment Options:





Oakland Local Street Network Plan

Project 17: *NE Cypress Avenue Extension*

Corridor: NE CYPRESS AVENUE | **Priority**: LOW

Corridor Limits: NE Cypress Avenue Extension from NE 5th Street to NE 6th Street

Project Elements:

- ☒ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☒ Circulation/Connectivity
- ☒ Access
- ☒ Safety
- ☐ Intersection
- ☐ Other

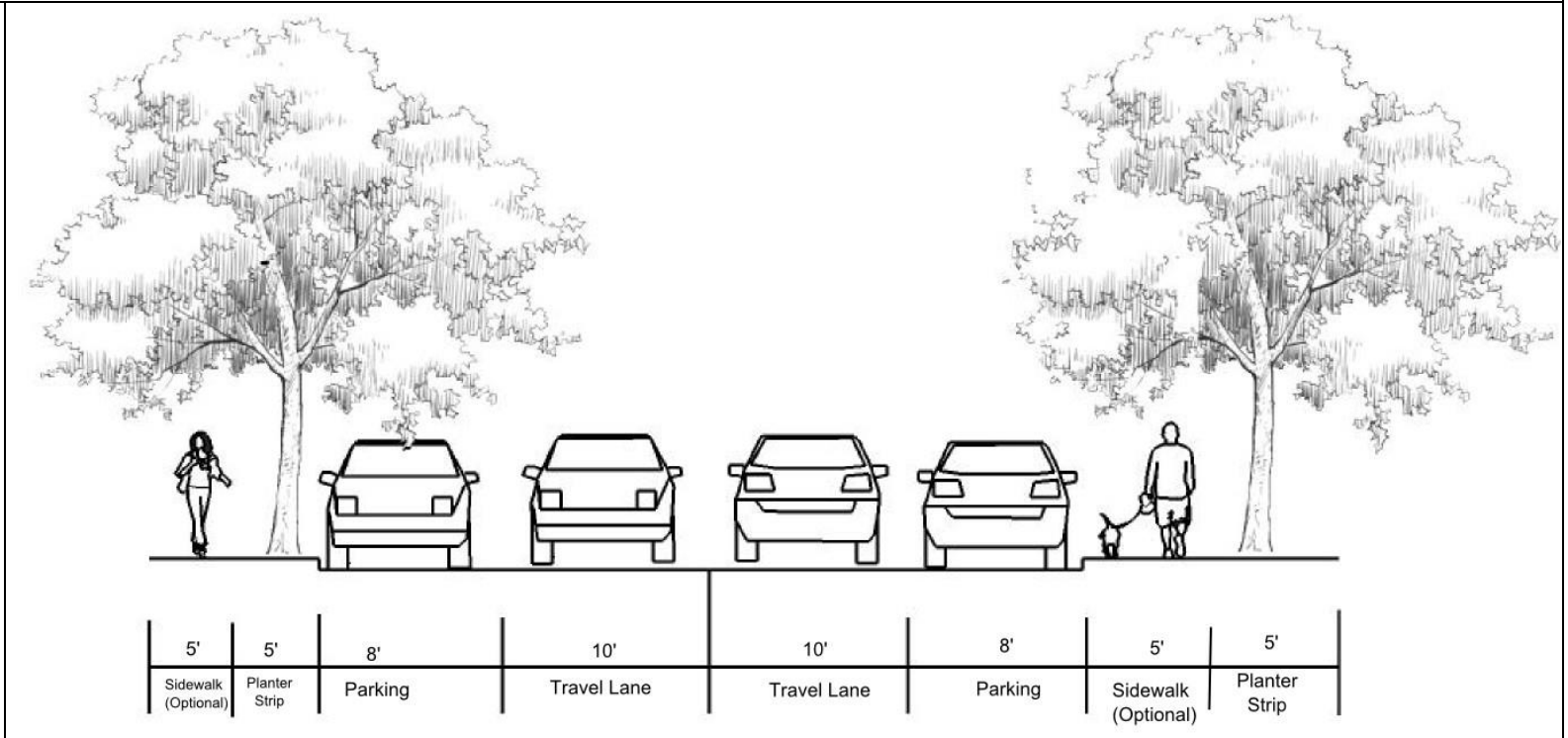
Project Description: This new road would provide a continuation of NE Cypress Street from 5th Street (where it currently terminates) to NE 6th Street. The improvements would occur along existing (and non-slope constrained) right-ofway. Adding another east-west connection between 5th and 6th would improve local street connectivity, access, and circulation to the current and possible future residents north of Oak and east of 6th.

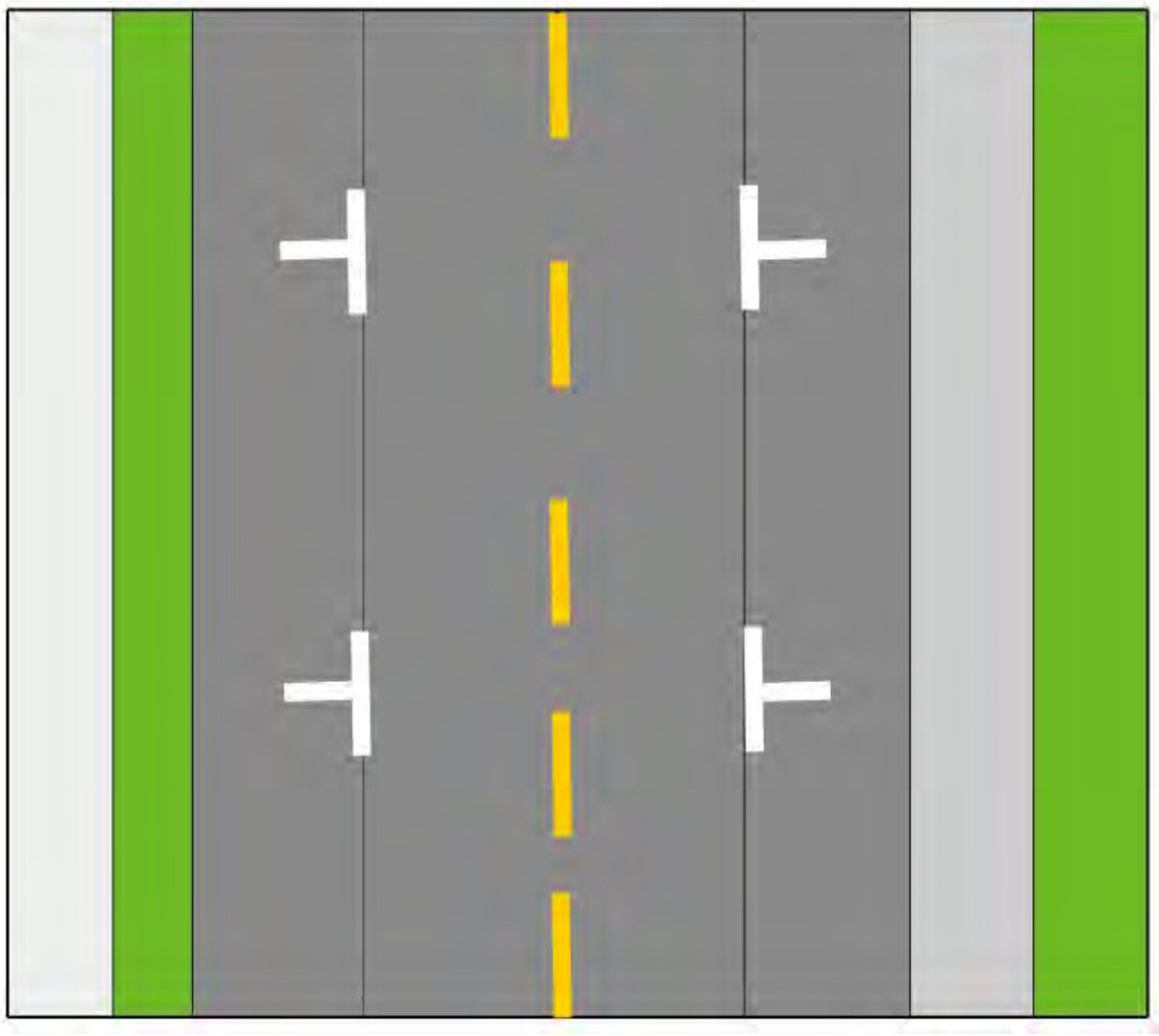
Segment :	NE Cypress Avenue Extension
Street Section:	• 10’ Travel lanes • 5’ Sidewalks optional • 8’ Parking • Street side planter stripe optional
Improvement Goals:	Improve automobile travel and connectivity Major Local Classification
Design Elements:	• Possible Sidewalks • Consider retaining storm water
Implementation Considerations:	• Slope considerations for constructability • As a low priority, this street is most likely to occur in association with development. It could also rise in priority with offsite development to the east.
Potential Phasing:	• None
Project Cost Estimates:	Engineering/Planning Costs: $25,000 Construction Costs: $850,000
Sample Treatment Options:	 NE Cypress Avenue (2014 – Google)  Sample Treatment Diagram for NE Cypress Avenue

Corridor: NE Cypress Avenue

Corridor Limits: NE Cypress Avenue Extension from NE 5th Street to NE 6th Street

Sample Treatment Option:





Volume II:
POLICIES AND DATA

CHAPTER 3. GOALS AND OBJECTIVES

3.1 Introduction

The goals and objectives of the LSP serve as the basis for the Plan; for needs analysis, policy and ordinance development, and project selection and priorities. The goals and objectives reflect the transportation goals and overall transportation vision of the City. The goals also ensure consistency with elements of Oregon Statewide Planning Goal 12, and the 1992 Oregon Transportation Plan (OTP).

Oakland's Comprehensive Plan states the following about transportation system planning:

> *"The City's opportunity to influence transportation in the future can occur through numerous channels. Through the comprehensive plan, it can designate where major streets, bikeways, and other paths are to be located. In addition, consideration can be given to alternate means of using streets besides the one-person, one-car pattern. Such alternatives may include carpools and bicycles. The city can specify standards for sidewalks, bikeways, and street size and construction. Finally, it can review the access proposed in new developments for the feasibility, impact on the city, conformance to city standards, and accessibility to the handicapped."*

Following are the seven primary goals that guided the Local Street Networking Planning process. Each of the seven goals is followed by objectives for achieving the goals. These goals and objectives were reviewed and approved by the Citizen Advisory and Project Advisory Committees, as well as Oakland's Planning Commission and City Council. A number of objectives are directly from Oakland's Comprehensive Plan and are identified with an asterisk(*).

3.2 Goals and Objectives

<u>Goal 1: Overall Transportation System</u>
To provide for safe, convenient, smooth, and energy efficient movement throughout the City by a variety of means for all groups of people; and for orderly use of the land as it relates to transportation.

Objectives:

- Generate an updated street functional classification system.*
- Consult with pedestrian, cycling, and the disabled communities regarding transportation needs, plans, and improvements, goals and policies.*
- Use the Local Street Network Plan as the policy foundation for decisions involving transportation issues.
- Designate safe routes from residential areas to schools, and identify transportation improvements needed to ensure the safety of Oakland's children.

- Identify mechanism for supporting maintenance of the transportation system in order to preserve user safety, facility aesthetics, and the integrity of the system.
- Coordinate transportation projects, policy issues, and development actions with all affected governmental units in the area. Key agencies for coordination include Douglas County, Oregon Department of Transportation, and Umpqua Transit.

Goal 2: Enhanced Livability

Enhance the livability of Oakland through the location and design of transportation facilities to be compatible with the characteristics of the built, social, and natural environment.

Objectives:

- Dedicated but undeveloped streets should be evaluated for best use based on criteria developed by the City, and potentially be repurposed.
- Plans for new or for the improvement of major transportation facilities should identify the positive and negative impacts on: (1) local land use patterns, (2) environmental quality, (3) energy use and resources, (4) existing transportation systems and (5) fiscal resources in a manner sufficient to enable local governments to rationally consider the issues posed by the construction and operation of such facilities. (Statewide Planning Goal 12)
- Locate and design recreational and multi-use paths to balance the needs of human use and enjoyment with resource conservation and social attractions in areas identified by stakeholders.

Goal 3: Transportation and Land Use

Maximize the efficiency of Oakland's transportation system through effective land use planning.

Objectives:

- Building setbacks should take into account the planned right-of-way width.*
- Integrate transportation and land use into development ordinances.

Goal 4: Street System

Provide a well-planned, comprehensive street system that serves the needs of the Oakland UGB and its residents.

Objectives:

- A street connecting Wells Lane with Oak Street should be built when possible.*
- Dirt or gravel streets along which development exists should be paved.*
- Priorities should be established as to which streets will be improved before others.*
- The location and manner of new development should allow for population growth, yet maintain the small, quiet, rural, and visually unifies town character.*
- Design the street system to safely and efficiently accommodate multiple travel modes within public rights-of-way.
- Improve existing streets in the Oakland UGB to City street design standards.

Goal 5: Balanced Transportation System

Facilitate the development of bike lanes, sidewalks, multi-use paths and transit in the Oakland UGB to provide more transportation options for Oakland residents and visitors.

Objectives:

- Bicycle lanes should be provided to connect U.S. 99 to Driver Valley Road, and along U.S. 99 south of town to connect with Sutherlin. In some cases this may involve improving the road shoulder. The city should support Douglas County and the Department of Transportation in their efforts to install bike lanes.*
- Oakland should encourage the use of the County's Dial-A-Ride System for senior citizens,* and encourage investigation into transit service expansion to Oakland by Umpqua Transit.
- Investigate opportunities for dedicated bicycle paths in and around Oakland.
- Ensure pedestrian, bicycle, and vehicle access to schools, parks, employment, and recreational areas, and the Oakland core city area by identifying and developing improvements that address connectivity needs.
- The City shall actively seek representatives from the pedestrian, cycling, and disabled communities on project committees or groups.

Goal 6: Transportation that Supports Economic Development

Facilitate the provision of a transportation system for the efficient, safe, and competitive movement of goods and services to, from, and within the Oakland Urban Growth Boundary.

Objectives:

- Bicycle racks shall be provided at a number of convenient locations in the business district.*
- Balance the needs of moving any freight with community livability.
- Consider the needs of railroad transportation facilities to enhance economic resources. Add railroad safety components for railroad (including crossings) to be compliant with safety standards.
- Manage on-street parking in downtown to facilitate pedestrian movement, and to efficiently support local businesses and residences consistent with the land use and mobility goals for each street.

Goal 7: Funding Transportation System Improvements

Implement the transportation plan by working cooperatively with federal, state, regional, and local governments, the private sector, and residents. Create a stable, flexible financial system for funding transportation improvements.

Objectives:

- Plans should provide for a detailed management program to assign respective implementation roles and responsibilities to those governmental bodies operating in the

planning area and having interests in carrying out the goal. (Oregon Statewide Planning Goal 12)

- Investigate System Development Charges for all transportation modes.
- Update and maintain a current capital improvement program that establishes the City's construction and improvement priorities, and allocates the appropriate level of funding.
- Establish rights-of-way at the time of land division or site development and, where appropriate, officially secure them by dedication of property.
- Working in partnership with Oregon Department of Transportation, Douglas County, and other jurisdictions and agencies, develop a long-range financial strategy to make needed improvements to the transportation system and support operational and maintenance requirements.

3.3 Evaluation Criteria

The project committees and decision making bodies developed evaluation criteria, which are based on project goals and objectives (including existing policies and goals in the City Comprehensive Plan, Oregon Statewide Planning Goal 12, and the Oregon Transportation Plan). The criteria was used to evaluate existing conditions, future conditions and alternatives. The evaluation criteria are as follows:

1. **Provides safe, efficient, and effective movement of goods, services, and people.** This evaluation criterion is aimed at creating a system of arterials to direct heavy traffic effectively through the community and maintain local access roads for residents.

2. **Provides safe and well-integrated opportunities for pedestrian and bicycle pathways.** Safety and convenient access are important considerations when prioritizing non-motorized projects, such as bicycle and pedestrian paths. Currently, there are places in Oakland that are unsafe or difficult to access by foot or bicycle. This evaluation criterion is focused on identifying street network options that will improve pedestrian and bicycle access.

3. **Provides adequate access for emergency service vehicles.** Emergency vehicles need to access sites using the shortest route possible. Providing an interconnected street network is the best way to achieve direct access. Oakland has a number of existing cul-de-sacs, which can result in valuable emergency response time being lost when connections between streets are missing. Further, some residential areas have limited points of access. This evaluation criterion is focused on identifying street network options that will improve access for emergency service vehicles.

4. **Sustainable and Feasible Costs for Construction and Maintenance.** This evaluation criterion is intended to support a street network plan that is affordable and maintainable for the community.

5. **Minimizes energy consumption in terms of vehicle miles traveled as well as in terms of street construction and maintenance**. Oakland has a transportation system which results in uneven traffic distribution, inefficient travel routes, and interruption of pedestrian and bicycle traffic. Traffic spread over a "grid" of streets flows smoothly and creates an opportunity for more direct access as well as opportunities for walking and cycling. Increased use of alternatives to the single-occupant vehicle, such as walking and bicycling, can limit the demand for new streets while maintaining a high level of accessibility to all areas of the City.

6. **Supports downtown as the major commercial service area.** This evaluation criterion is focused on providing local access to the downtown commercial area, while concentrating heavier traffic on arterial and collector streets

7. **Provides access to lands for development**. There are some vacant residential and industrial designated lands in City that could be developed in the future. This evaluation criterion is intended to focus on providing access to developable lands as well as connecting existing streets to the broader system.

The practical considerations for priority made by the Project Team, the Project Advisory and Citizens Advisory Committees, the Planning Commission and City Council included the seven criteria above as well as the following two key factors:

- **How <u>critical</u> is the need for the project(s)?**
- **How <u>urgent</u> is that need?**

More urgent projects are those with more closely influenced by a specific time frame, while more critical projects are those for which more severe consequences would be realized if not achieved. It is possible for a task to be urgent but not terribly important or to be critical but not yet pressing. Projects may also be determined to be both urgent and critical.

CHAPTER 4. OAKLAND TRANSPORTATION FACILITIES AND SERVICES INVENTORY

4.1 Introduction

Chapter 5 summarizes transportation facilities and related dynamics for all modes of transportation services within the Oakland Local Street Network Plan Study Area, (the City's UGB). The inventory assesses the capacity and condition of the existing transportation system.

The inventory of the existing transportation system conducted as part of the Local Street Network Planning process includes:

- Existing street characteristics including physical features, road conditions, functional classification, accident data, and connectivity with primary emphasis on the arterial and collector street systems
- Other surface transportation modes such as intercity bus and passenger rail
- Pedestrian and bicycle systems
- Existing land uses and zoning ordinances as they pertain to transportation and connectivity.
- Natural resources and other physical dynamics (such as slope, and waterways)

The inventory data comes from a variety of sources and field collection. The inventory provides a basis for comparison for future assessment of transportation conditions in Oakland, and provided critical insights for street network planning and priorities.

4.2 Overview of Oakland's Existing Land Use Conditions

4.2.1 Land Use and Vacant Lands

For the purposes of this study, the project team used property class determinations from the Douglas County Assessor to determine current land uses. A write-off of Douglas County tax lots (obtained from Douglas County in July, 2014) is being used for this study. The majority of land in Oakland is dedicated to residential uses, followed by rural and farm land. Commercial land use is concentrated along First Street (Highway 99) and North and South East Locust Street. Table 4.1 shows the distribution of land uses by their development status (according to Douglas County Assessment records). Map 1 depicts land use and development status within Oakland. Though numerous properties are identified with a vacant property class, many have significant development constraints (primarily slope).

Table 4.1: Distribution (in acres) of Land Use Types by Development Status in 2014*

Land Use, Developed	**Acres**
Residential	283
Commercial	7
Industrial	10
Rural	54
Farm	60
Multi-Family	4
Public	106
Unbuildable	29
Land Use, Vacant	**Acres**
Residential	62
Commercial	10
Industrial	59
Rural	125
Farm	115
Forest	55
Public	17
**Source: Douglas County Assessor Data 2014*	

4.3 Zoning and Special Overlay Areas

Oakland has 10 zoning designations they include:

- Low Density Residential at 7,500 sq. ft.
- Low Density Residential at 10,000 sq. ft.
- Medium Density Residential
- Public Lands
- Rural Density Residential
- Agriculture/Open Space
- General Commercial
- General Industrial
- Light Industrial
- Duplex Overlay Zone

The majority of land within Oakland's Urban Growth Boundary is designated as Low Density Residential. Significant portions of town are also zoned General Industrial. The Commercial Zone is located along First/Front Street (north to south) and South & North East Locust Street except for a large area along Stearns Lane in the western portion of town. The City also has a Historic District Overlay which is primarily applied to Low Density Residential areas but also includes all of downtown, with its commercial uses. Table 4.2 provides a summary of the acres in each zone. Zone designations and special overlays are also presented in Map 2.

Table 4.2: Distribution of Zoning Types

Zoning Type	Acres
Agriculture/Open Space	27.7
General Commercial	85.4
General Industrial	65.6
Light Industrial	10.3
Low Density Residential (7,500 sq. ft.)	130.4
Low Density Residential (10,000 sq. ft.)	70.1
Medium Density Residential	53.6
Public Land	50.1
Rural Density Residential	61.7
Duplex Overlay Zone	16.8

4.4 Oakland Comprehensive Plan

Oakland's Comprehensive Plan consists of nine land designations, they include:

- Light & General Industrial
- Public & Semi-Public
- Commercial
- Open Space/Agriculture
- General Residential 1 & 2
- Specific Residential 1

Over 40% of Oakland is designated Specific Residential, most of which is located in the center of town. The Light and General Industrial areas are located on the eastern and western ends of town, while the Commercial zones primarily lay in the center along Highway 99. Open Space/Agriculture is located along Calapooya Creek and the majority of Public lands can be found on the north end of town along Old Town Loop Road (school district) and the southwest end of town along Goodman Avenue (water treatment/public works). A table outlining Oakland's Comprehensive Plan land designation by acreage is provided below (Table 4.3). A map of plan designations is provided as Map 3.

Table 4.3: Comprehensive Plan Designations

Comprehensive Plan Designation	Acres
Commercial	21.5
General Industrial	65.5
General Residential 1	62.1
General Residential 2	55.5
Light Industrial	10.4
Open Space/Agriculture	31.3
Public	49.5
Semi-Public	4
Specific Residential 1	216.3

4.5 Right-of-Way

Table 4.4 presents the right-of-way widths along streets (and types) in Oakland. The right-of-way widths were measured using Geographic Information Systems (GIS) data provided by Douglas County. A map of approximate right-of-way locations in Oakland is included in Map 3.

Table 4.4: Approximate Street Right-of-Way Widths

Street Name	Width
Highway 99	100’
Ash Street (Undeveloped)	90’
Locust Street	80’
All other Streets	60’
All Alleys	20’

4.6 Location and Jurisdictional Responsibility

Douglas County and the City of Oakland each maintain portions of the existing street system within the study area. There are also a few privately maintained roads in the study area; these are not listed in the street inventory.

The following subsections presents a summary of the jurisdictional responsibility for the various streets and highways within the study area. Included are county roads and city streets. There are no state-maintained highways within the study area.

4.6.1 County-Maintained Roads and County Functional Classification

Douglas County maintains roads within Oakland’s UGB. Table 4.5 shows the streets within Oakland’s UGB maintained by Douglas County and their county functional classification. A brief description for these streets follows. A map including roads by jurisdiction (City vs County) can be found on Map 4. Map 6 shows the Douglas County street classifications (prior to adoption of the LSP).

Table 4.5: Douglas County-Maintained Roads

Road Name	From	To	County Classification
Highway 99 North	North Old Town Road	NE Cypress Avenue	Arterial
NE First Street	NE Cypress Avenue	SE Locust Street	Arterial
SE First Street	SE Locust Street	SE Front Street	Arterial
SE Front Street	SE Maple Street	Bambi Lane	Arterial
Stearns Lane	SE Front Street	Interstate 5	Minor Collector
Oak Street	NE First Street	Driver Valley Road	Local
Driver Valley Road	NE Locust Street	Fair Oaks Road	Local

4.6.2 City-Maintained Roads and Functional Classification

The City of Oakland also maintains roads within the Oakland UGB. Table 4.6 shows the streets within Oakland's UGB maintained by the City along with their city functional classifications (and where it is different, their county functional classification). A map including roads by jurisdiction (city vs county) can be found on Map 4. Map 5 shows Oakland City street classifications (prior to adoption of the LSP process).

Table 4.6: Current Functional Classifications of City-Maintained Streets

Road Name	From	To	City/County Classification
Bambi Lane	SE Front Street	SE First Street	Local
Carlile Road	Wells Road	Dead End	Local
Clear Lake Street	Vista Lake Street	Dead End	Local
Crowsfoot Road	Driver Valley Road	Dead End	Local
Deer Ridge Lane	Old Town Loop Road	Dead End	Local/Rural Local
Driver Valley Road	NE Locust Street	Fair Oaks Road	Local
Goodman Ave	Stearns Lane	Dead End	Local
Lincoln Lane	Old Town Loop Road	Dead End	Local
Martin Road	Wells Road	Dead End	Local
NE Ash Court	NE Ninth Street	Dead End	Local
NE Cedar Street	NE Third Street	Old Town Loop Rd	Collector
NE Cypress Avenue	NE Fifth Street	Highway 99 North	Collector
NE Eighth Street	Oak Street	SE Locust Street	Local
NE Fifth Street	NE Cedar Street	SE Locust Street	Collector
NE First Street	NE Cypress Avenue	SE Locust Street	Arterial
NE Fourth Street	NE Cedar Street	NE Pine Street	Local
NE Locust Street	NE First Street	Driver Valley Road	Collector/Local
NE Ninth Street	NE Ash Court	SE Locust Street	Local
NE Pine Street	NE First Street	NE Fourth Street	Local
NE Second Street	NE Cypress Avenue	SE Locust Street	Local
NE Seventh Street	Ash Creek ROW	Oak Street	Local
NE Sixth Street	NE Cedar Street	Oak Street	Local
NE Third Street	NE Cedar Street	SE Locust Street	Collector
North Old Town Road	Old Town Cemetery Rd	Highway 99	Local
NW Pine Street	NE First Street	Dead End	Local
Oak Street	NE First Street	Driver Valley Rd	Arterial/Local
Highway 99 North	North City Limits	NE Cypress Avenue	Arterial
Old Town Cemetery Rd.	Highway 99 North	Dead End	Local
Old Town Loop Road	NE Cedar Street	NE Cedar Street	Other/Local
SE Apple Street	SE First Street	Dead End	Local
SE Chestnut Street	SE First Street	SE Fourth Street	Local
SE Eighth Street	SE Locust Street	Dead End	Local
SE Fifth Street	SE Locust Street	Dead End	Local

SE First Street	SE Locust Street	Dead End	Local & Arterial/Arterial
SE Fourth Street	SE Locust Street	Dead End	Local
SE Front Street	SE Maple Street	Bambi Lane	Arterial
Road Name	**From**	**To**	**City/County Classification**
SE Locust Street	NE First Street	Driver Valley Road	Collector/Local
SE Maple Street	SE Front Street	SE Eighth Street	Local
SE Pear Street	SE First Street	Dead End	Local
SE Second Street	SE Locust/SE Apple	SE Chestnut/Dead End	Local
SE Seventh Street	Dead End/Locust Street	Locust Street/Dead End	Local
SE Third Street	SE Locust Street	Dead End	Collector
SE Walnut Street	SE Front Street	SE Fourth Street	Local
Spencer Hill Lane	NE Locust Street	Dead End	Local
Stearns Lane	SE Front Street	Interstate 5	Local/Minor Collector
Vista Lake Street	Stearns Lane	Dead End	Local
Wells Lane	Wells Road	Dead End	Local
Wells Road	NE Locust Street	Dead End	Local

*County Classification listed if applicable or different than City Classification

4.6.3 Pavement Condition and Width

Pavement and road conditions in Oakland were given basic anecdotal evaluation and summarized by Oakland Public Works staff in 2014. Table 4.8 presents streets by posted speeds and street conditions, including underground conditions. The City has documented issues related to collapsed storm drains though the issues have not, in all cases, been thoroughly evaluated. All roads in Oakland are two lane roads with the exception of an alley west of city hall, which is a single lane, one-way alley. Paved street widths were not identified for individual streets. Oakland's road width guidelines are contained in both the Comprehensive Plan and the Subdivision Ordinance. There are discrepancies between these documents related to local street width. Table 4.7 provides a summary of street widths from the Subdivision Ordinance and the Comprehensive Plan, with the discrepancy highlighted. Map 7 portrays road types and conditions.

Table 4.7: Street Classification by Width

Road Type	Subdivision Ordinance Width	Comprehensive Plan Min. Width
Arterial	60' -120'	60'
Collector	50' -80'	50'
Local	40' -50'	50'
Cul-de-Sacs	40' -50'	N/A
Circular ends of Cul-de-Sacs	92'	N/A
Hammerhead or "T" end of streets	30'	N/A
All other streets not specified	50'- 60'	N/A

Table 4.8: Oakland Street Speeds, Conditions, and Documented Underground Issues

Road Name	Posted Speed	Condition	Surface Type	Documented Under Ground Repairs Needed
Highway 99 N	35	FAIR	asphalt only	no issues
NE First Street	35	FAIR	asphalt, curb, gutter	potholes to subsurface, broken grates, underground issues, receded edges, utility damages, needs painted street crossings
SE Front Street	NPS	POOR	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
Stearns Lane	45	FAIR	asphalt only	no issues
Oak Street	25	FAIR	asphalt only or curb	major underground issues with storm drain and water damage from surface flooding effects local homes and emergency routes.
Driver Valley Road	55	GOOD	asphalt only	no issues
Bambi Lane	5	FAIR	asphalt only	no issues
Carlile Road	NPS		gravel	no issues
Clear Lake Street	NPS	GOOD	asphalt, curb, gutter	no issues
Crowsfoot Road	NPS		gravel	no issues
Deer Ridge Lane	NPS		gravel	no issues
Goodman Ave	20	GOOD	asphalt only	no issues
Lincoln Lane			gravel	no issues
Martin Road			gravel	no issues
NE Ash Court	25	POOR	asphalt, curb, gutter	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Cedar Street	NPS	BAD	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Cypress Avenue	NPS	GOOD	asphalt only	no issues
NE Eighth Street	NPS	FAIR	asphalt, curb, gutter	underground drainage issues and sink holes
NE Fifth Street	NPS	POOR	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud

Road Name	Posted Speed	Condition	Surface Type	Documented Under Ground Repairs Needed
NE Fifth Street	NPS	POOR	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Fourth Street	NPS	POOR	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Locust Street	25	FAIR	asphalt, curb, gutter	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Ninth Street	25	POOR	asphalt, curb, gutter	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Pine Street	NPS	FAIR	asphalt only	underground drainage issues and sink holes
NE Second Street	NPS	POOR	asphalt, curb, gutter	Storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Seventh Street	NPS	GOOD	asphalt only	no issues
NE Sixth Street	NPS	POOR	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
NE Third Street	NPS	POOR	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud
North Old Town Road	55	FAIR	asphalt only	no issues
NW Pine Street	NPS	FAIR	asphalt only	underground drainage issues and sink holes; sides exposed to elements; loose gravel
Old Town Cemetery Road	35	FAIR	asphalt to gravel	edges falling away due to erosion from under the surface
Old Town Loop Road	35	POOR	asphalt only	storm drain collection issues, continuous water damage, large sinkholes underground cause road failures , no rock in road base, needs new rock under base, drainage and overlay , large potholes, major cracking in surface to mud

Road Name	Posted Speed	Condition	Surface Type	Documented Under Ground Repairs Needed
SE Apple Street	NPS	POOR	asphalt	potholes to subsurface (some patched) exposed edges
SE Chestnut Street	NPS	POOR	asphalt	10% + alligatoring; edges exposed; potholes filled
SE Eighth Street	NPS	POOR	asphalt to gravel	50% gravel surface some over asphalt; potholes; exposed edges
SE Fifth Street	25	FAIR to POOR	asphalt to Pear then gravel	some loose gravel; intersection at Locust crumbling; exposed edges
SE First Street	NPS	POOR	50% asphalt/50% gravel	exposed edges; 10%+ alligatoring; potholes (some filled)
SE Fourth Street	NPS	POOR	asphalt	exposed edges; 10%+ alligatoring; potholes (some filled)
SE Locust Street	25	BAD	asphalt, curb, gutter	Storm drain collection issues, continuous water damage, major pot holes, no rock in road base, needs new rock under base, drainage and overlay blended into curb
SE Maple Street	25	FAIR to POOR	asphalt only	some exposed edges; short asphalt berm for drainage; some sidewalk
SE Pear Street	NPS	POOR	asphalt to gravel	exposed edges; alligatoring; filled potholes; citizen paved eastern extension of Pear
SE Second Street	NPS	POOR	gravel surface	exposed edges
SE Seventh Street		POOR	asphalt to gravel	exposed edges;
SE Third Street	NPS	POOR	asphalt	exposed edges; alligatoring; filled potholes; weed growth in cracks in surface
SE Walnut Street	NPS	POOR	asphalt	exposed edges; 10%+ alligatoring; potholes (some filled)
Spencer Hill Lane	NPS	POOR	gravel	exposed edges; potholes
Vista Lake Street	NPS	GOOD	asphalt	newer development - newer street
Wells Lane	NPS	POOR	asphalt to gravel	potholes, patches and exposed edges
Wells Road	NPS	POOR	asphalt to gravel	uneven surface due to major patches; exposed edges; potholes filled.

- *NPS = No Posted Signs. Where no speed limit is posted the following limit applies as per ORS 811.105(2)(a): 15 miles per hour when driving on an alley or a narrow residential roadway*
- *Road Conditions were evaluated as follows:*

GOOD - No pot holes, might need surface coat to extend life, no alligator surface, rock under base, might need seal coat on edges, painted
FAIR - 0 to 10% alligator surface, many cracks, needs overlay, minor potholes to sub layers, sides exposed to elements, no drainage
POOR - Over 10% alligator, asphalt surface less than 1 inch thick, no rock under base, mud on road, numerous pot holes, drainage issues

4.7 Connectivity

Connectivity in Oakland varies across different areas of town. Downtown and the central area of Oakland are laid out in a small grid pattern. As you move east or north towards the hills surrounding Oakland, connectivity declines slightly with many streets ending in cul-de-sacs and dead-ends. Topographic constraints have left the Ash Street right-of-way unimproved which gives the northern part of town generally poor connectivity to the rest of the City. Map 11 presents a topographic profile of Oakland, and highlights engineering challenges for improved connectivity within the existing network.

4.8 On and Off-Street Parking

There is little designated on-street parking on local streets throughout the city. On-street parking in residential areas occurs at drivers' discretion and as each street physically allows. Locust Street provides the bulk of designated on-street parking in Oakland, most of which are angled slots. Some parallel parking is available on First and Second Streets. Though not legal, residents and visitors frequently park perpendicular to First Street (Highway 99) along its western side on the southern end of town. City Officials have stated their desire for no parking along this street because of its higher volume of traffic, but have not yet taken any action. A complete listing of on-street parking locations in Oakland is provided below. There are no public parking lots in Oakland.

- On-street parking exists on both sides of Locust Street from NE First to NE Seventh Street near City Hall then breaks for a block and continues from NE Eighth Street and stopping near Oakland Church of Christ.
- There is on-street parking on both sides of First Street/Front Street from NE Pine Street to SE Walnut Street.
- On-street parking exists on both sides of the south end of SE Maple Street between First and Second Street.
- There is on-street parking on both sides of Second Street from NE Cypress Avenue to SE Chestnut Street.
- There is some on-street parking on both sides of Oak Street from NE First Street to NE Eighth Street.
- No on-street parking along Highway 99 North
- No on-street parking on Stearns Lane.
- No on-street parking is available on Fifth Street.

Off-street parking is available at some businesses. Off-street parking and loading requirements are found in the City's Zoning Ordinance.

4.9 Overview of Oakland's Existing Pedestrian and Bicycle Facilities

Pedestrian and bicycle facilities in Oakland are limited and often inadequate where they occur. Fifth Street is the only street with a separated multi-use path; however, conditions on this path make it inaccessible for skateboards and rollerblades. On many local streets, traffic volumes are low enough to allow for safe bicycle travel, but neither the City nor the school district have any routes explicitly designated for this purpose at the present time. The following subsections address bicycle and pedestrian facilities and gaps in further detail.

4.9.1 Local Activity Centers in Oakland

There are facilities and activity centers in Oakland that have the potential to generate more trips than other locations. A map of these sites is included in Map 8.

Trip attractions can vary widely depending on the trip purpose. Employment destinations, schools, recreation facilities, and commercial areas all entice travelers for different reasons. The bicycle and pedestrian system in Oakland is not well developed. Destinations that may be attractive to users of the system may be underutilized (or not used) by bicyclists and pedestrians. Because there is not a developed bicycle and pedestrian network of facilities, origin and destination studies were considered impractical to conduct by the project team. Therefore, with no empirical data, the attractions listed below have been identified by the project team with help from City officials and are consistent with "typical" attractions in other cities.

- Oakland Elementary School
- Lincoln Middle School
- Oakland High School
- Oakland City Hall
- Oakland Post Office
- Oakland City Park and Pavilion
- Stearns Hardware store
- Tolly's Restaurant
- Oakland Tavern
- Stearns City Park
- Oakland Transfer Station (Public Waste Disposal at end of Manning Road)

Other possible bicycle or pedestrian attractions include Triangle Park, downtown shops, and neighborhood churches.

4.9.2 Bicycle Transportation System in Oakland

The City of Oakland has no bicycle lanes or routes explicitly identified. Currently, bicyclists must compete with vehicle traffic on streets and with pedestrians on the limited sidewalk system. Douglas County has three designated bikeways and routes directly associated with Oakland:

- Dr. Warren Kadas Scenic Loop (Class IIIs)
- The Ron Hjort - Rochester Bridge Loo (Class IIIs)
- Oakland-Sutherlin Route (Class III)

County bikeway and routes are included on Map 8. It is noted that the County Bike Routes identified above are planned only, and do not currently have any of the proposed associated

improvements (e.g. signage and expanded shoulders). The Douglas County Bike Route classes are defined as follows:

- Class III: A bikeway that shares the roadway with motor vehicles. Class III routes are designated by signing, striping, and other visual markings. A Bicycle Lane is a Class III Bikeway.
- Class Ills: A Class III bikeway which is signed only. A Bicycle Route is a Class Ills Bikeway.

4.9.3 Pedestrian Transportation System in Oakland

The City of Oakland's sidewalk system varies widely from neighborhood to neighborhood. Sidewalks exist in most of the downtown area and provide access to commercial areas and employment sites. Streets that intersect with Locust Street (e.g. Second, Third, and Fifth) also have some existing sidewalks. However, many of Oakland's neighborhoods either do not have sidewalks or have limited and disconnected sidewalk segments that are inconsistent with the Americans with Disabilities Act (ADA). The city has a rarely used cost sharing policy for constructing sidewalks; this has resulted in a number of small segments of sidewalk scattered throughout town with little or no connectivity to the larger sidewalk system. On arterials and collectors, the availability of sidewalks is generally erratic and incomplete. On many blocks, the sidewalks may exist on one side of the street but be absent on the other side of the street, or partial sidewalks may exist sporadically throughout the block, lacking continuity. The location of existing sidewalks is included on Map 8.

4.9.4 Crosswalk Locations and Conditions

Oakland has very few crosswalks. Most of them are located in the downtown area. Crosswalk conditions in Oakland have not been systematically evaluated, and information about the status and conditions of crosswalks is based on city staff knowledge and anecdotal information. Oakland's crosswalks are generally visible with little chipping or fading, but, in many cases, fail to meet regulatory width standards (generally six feet). They often run across continuous traffic (no associated stop sign). This can result in safety and traffic congestion issues. Crosswalk locations in Oakland are listed below (crosswalks are also included on Map 8):

- Along Oak Street at intersections of NE First, NE Second, NE Third, and NE Fourth Streets.
- Along Locust Street at intersections of SE First, SE Second, SE Third, and SE Fourth Streets.
- Along Maple Street at intersections of SE Front, SE Second, and SE Third Streets.
- Along Fifth Street at intersections of NE Cedar, NE Cypress, NE Oak, and NE Locust Streets.

4.9.5 Traffic Levels

Systematic evaluations of traffic and capacity levels have not been conducted at this time for roads within the city. However, based on city staff knowledge traffic levels are modest throughout town. Higher levels of traffic are found on roads used as thoroughfares going north

or south to Interstate 5 and Sutherlin. The highest levels of traffic are found on Highway 99/First/Front, Oak, Fifth and Locust Streets. There are no areas that would be considered "high" crash areas identified in Oakland (see Table 4.8). However, drivers must use caution when traveling to and from Sutherlin along Highway 99 North. Average daily traffic points are shown on Map 4.

4.10 Overview of Oakland's Rail Network

Central Oregon & Pacific Railroad (CORP) is the service provider for the railroad running along Highway 99 North in Oakland. This line primarily handles logs, lumber, and plywood and follows the same alignment built in the 1880s. The line is maintained to Class 2 standards with maximum speed over the route of 25 mph, with many segments limited to 20 mph. A passenger rail service would be unable to match highway times. Rail running time on the present 205-mile rail route between Eugene and Medford would require over 8 hours, and the improvements necessary to reduce the rail running time to competitive levels would require major reconstruction.

Instances in Oakland where street right-of-way crosses the railroad line are limited. On the north end of town Highway 99 crosses the railroad where it runs parallel to Calapooya Creek. This is a bridge crossing and does not directly affect traffic flow. Another right-of-way crossing is an at-grade crossing on Stearns Avenue near Front Street (Highway 99). This crossing has at-grade improvements and a flashing light signal (without automatic gates).

The only other railroad "crossing" to speak of is an undeveloped westward extension of Pine Street which crosses the rail lines at the northwest part of town. The crossing is at grade with minimal improvements (railroad ties). The crossing provides access to the City's water intake. Rail crossings are depicted on Map 9.

4.11 Transit in Oakland

Although Oakland has historically had transit service, it is not currently served by public transit. Douglas Rides, a local Dial-a-Ride service has a connecting *out of area* service line that runs along I-5 from Cottage Grove to Roseburg. This service can be used by Oakland residents to get to surrounding areas. The closest proper transit service is an Umpqua Transit line running from Sutherlin to Umpqua Community College in Roseburg. There is no passenger rail service in Oakland.

4.12 Safety

4.12.1 Accidents

No crash data is available specifically for the City of Oakland. The only source for crash data for Oakland is through extraction from Douglas County crash data. This data is, however, limited to Douglas County maintained streets. Table 4.9 presents a summary of this crash data. Map 4 also shows the accident occurrences in Oakland.

Table 4.9: Crash data for Douglas County facilities in/or around Oakland

Accident	Year	Time	Weather Conditions	No. of Vehicles	Street	Accident Detail	Severity
1	1995	3 AM	unknown	1	Driver V.	car and bicycle	Injury
2	1998	9 AM	unknown	1	Driver V.	car left roadway, went through fence	Property Damage Only
3	2004	8 AM	clear/dry	1	Old 99 (S)	lost control of vehicle	Injury
4	2004	7 AM	clear/dry	3	Old 99 (N)	drove off road and hit two parked cars	Property Damage Only
5	2005	3 AM	clear/dry	1	Old 99 (S)	careless driving	Injury
6	2005	1 AM	clear/dry	2	Old 99 (S)	lost control of vehicle	Injury
7	2011	8 PM	rain/wet	2	Front	reckless	Property Damage Only

4.12.2 Bicycle and Pedestrian Safety Conditions

Bicycle and pedestrian safety concerns have not been broadly investigated by project staff. Both the Citizen Advisory and Project Advisory Committees have bicycle and pedestrian representation and concerns and details arose from committee meetings. Issues discussed in those meetings include the following: (Key school related safety concerns are also presented in Map 4).

- A general lack of sidewalks, shoulders and dedicated paths.
- Collapsed storm drains (particularly at Locust Street and Fifth Street) create recurring hazard to pedestrians, and in particular school children, as it causes them to leave the safety of established sidewalks to avoid areas of backed-up drainage.
- Crossings along Locust and Oak (particularly at Fifth Street) are potentially dangerous areas for pedestrian school children.

4.13 Natural Resource/Feature Constraints

4.13.1 Wetlands

A local wetlands inventory has not been completed for Oakland, so the project team used the National Wetland Inventory (NWI) to determine potential wetland areas. The majority of wetlands are located near the borders of the City, predominantly on the western side of town (associated with Calapooya Creek). Several other wetlands of note include areas on the industrial lands south of Stearns Lane and a possible feature near the intersection of Oak and Locust Streets on the eastern end of town. Although most of Oakland's central area appears to lack wetland resources, simple observation by the project team reveals a number of potential resources in this area related to drainages. Whether mapped or not, If the soil and vegetation dynamics of these areas are consistent with state and federal wetland criteria, they are the jurisdiction of the Department of State Lands and must be appropriately addressed in plans for development of any kind. Table 4.10 provides a summary of wetland type by acre. Locations of wetlands within the study area (and surrounding areas) are included on Map 10.

Table 4.10: NWI Wetland Types in Oakland

Wetland Type	Features	Acres
Freshwater Emergent Wetland	9	35.1

Freshwater Forested/Shrub Wetland	7	7.8
Freshwater Pond	2	1
Riverine Perennial	1	23.1
Riverine Seasonal/Intermittent	6	11.3

4.13.2 Waterways and Drainages

There are a number of waterways and drainages in the City of Oakland. Some are more apparent than others. Table 4.10 shows that there is a mix of perennial and seasonal/intermittent waterways in Oakland according to the National Wetland Inventory. The National Hydrography Dataset (NHD) produced by the US Geological Survey reveals a number of additional drainages. These drainages are a useful reference for areas that may present natural resource constraints, but can also characterize the topographic challenges in Oakland. Drainages are depicted on Map 10.

4.13.3 Topography

The City of Oakland sits generally around 400 and 500 feet above sea level. The City straddles a small rounded valley with a gradual rise in elevation to the east and more dramatic elevation rise to the north and south with Oak Street and Ash Creek essentially serving as the topographic low points. A number of significantly sloped drainages exist along the northern and southern slopes of the City. This topography constrains street system connectivity and in some instances will require significant engineering solutions to adequately address. Topography is depicted on Map 11.

4.13.4 Floodplain

A floodplain is an area that can be expected to flood following heavy rains and snowmelt. Map 10 depicts the one-hundred-year flood plain in Oakland. The Federal Emergency Management Agency maps these areas because they figure very importantly into building permitting, environmental regulations, and federal flood insurance programs. There is a 1% probability of a flood event occurring in any given year within the 100 year floodplain. Existing streets that are located within the floodplain include a very small portion of First Street (Highway 99) and portions of Goodman Avenue. Some undeveloped or underdeveloped land in the western part of town lie within the floodplain. Consideration for floodplain constraints must be given to possible street, path or trail developments in these areas.

4.13.5 Habitat

Calapooya Creek has been identified as Essential Salmonid Habitat (ESH) for Coho Salmon. Essential salmonid habitat is defined as the habitat necessary to prevent the depletion of native salmon species (Chum, Sockeye, Chinook and Coho salmon, and Steelhead and Cutthroat Trout) during their life history stages of spawning and rearing. The designation applies only to those species that have been listed as "Sensitive, Threatened or Endangered" by a state or federal authority. Calapooya Creek also provides habitat for Winter Steelhead and Fall Chinook, although the river is not identified as essential salmonid habitat for these species. Direct impacts to Calapooya Creek due to transportation development are not likely; however,

indirect impacts must be considered (e.g. stormwater drainage and impacts to tributary drainages).

Although not currently mapped, there may also be endangered or threatened plants in Oakland's wetlands and uplands. Several populations of the endangered plant, *rough popcorn flower* occur in Sutherlin, Wilbur, and Yoncalla area wetlands (in ash swales or regular palustrine emergent wetlands in meadows with pointed rush and coyote thistle). There are scattered populations of Kincaid's lupine in oak woodland or dry prairie-meadow uplands in Douglas County. There are no documented or known occurrences of these species in Oakland.

4.14 Overview of Oakland's Existing Bridges

To comply with the National Bridge Inspection Standards (NBIS), Title 23, Code of Federal Regulations, Part 650, subpart C, all bridges within the United States must be inspected at two-year minimum frequency. One of the two bridges in Oakland is inspected through a Local Agency Bridge Inspection Service contract administered by the Oregon Department of Transportation (ODOT). All bridges on interstate highways or state highways within Oakland are inspected by ODOT regional bridge inspectors. The City of Oakland does not maintain any significant bridges.

The location of existing bridges in and around the study area are show on Map 9. The NBI condition rating for the Highway 99 North (one-way) bridge is "Fair." The NBI Condition Ratings are an evaluation of a bridge's sufficiency to remain in service. Ratings range from 'Very Poor' to 'Very Good.'

4.15 Oakland Transportation System Inventory Maps

Map 1 - *Land Use*
Map 2 - *Oakland Zoning*
Map 3 - *Oakland Comprehensive Plan Designation*
Map 4 - *Street Jurisdiction & Safety Concern Areas*
Map 5 - *Existing City Functional Classification*
Map 6 - *Douglas County Functional Classifications*
Map 7 - *Existing Road Conditions & Surface Types*
Map 8 - *Existing Pedestrian & Bicycle Facilities with Local Activity Centers*
Map 9 - *Existing Rail Network with Bridges*
Map 10 - *Natural Resources and Environmental Dynamics*
Map 11 - *Topography*
Map 12 - *Aerial Photo*

Map 1
City of Oakland

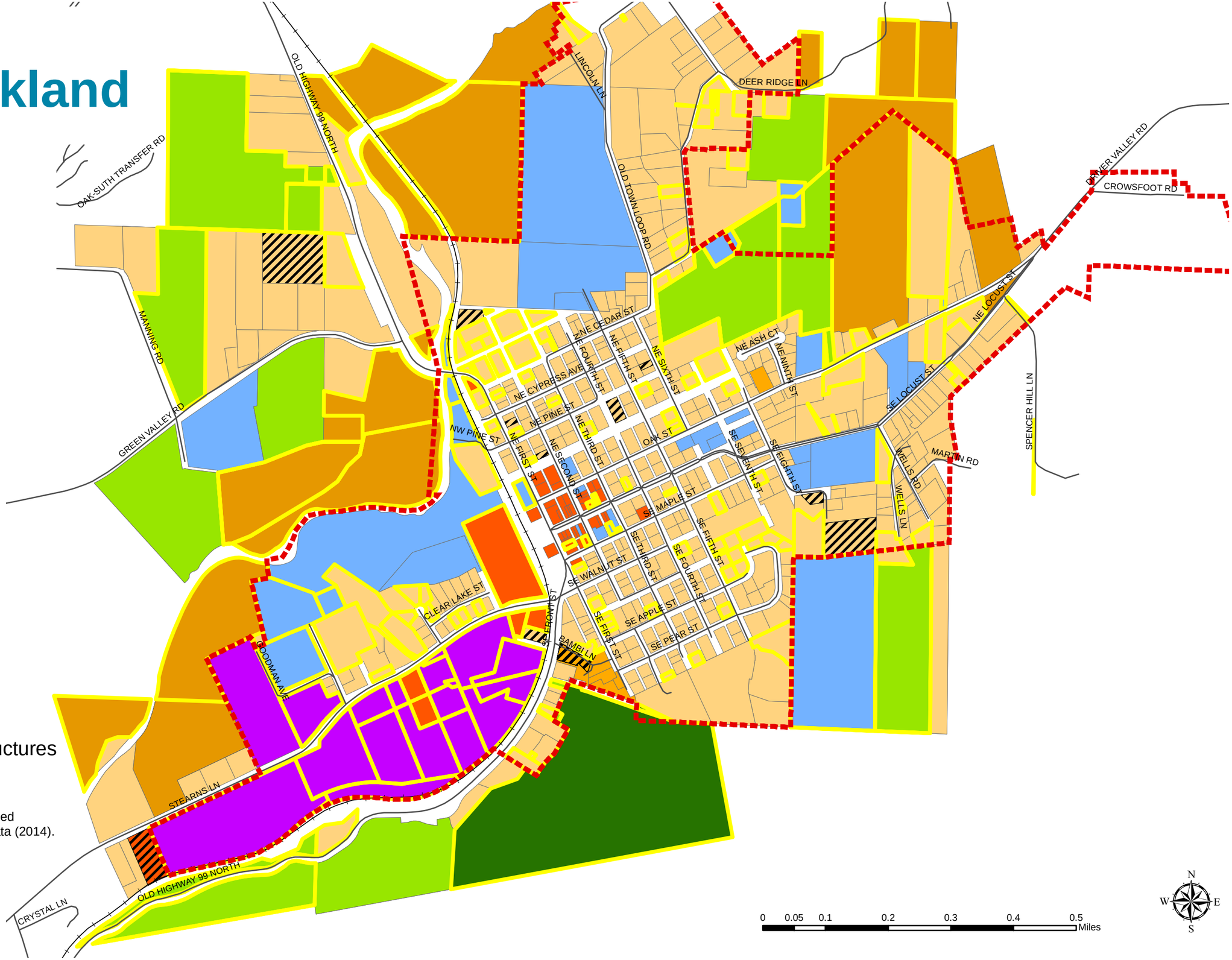
Land Use

- Railroad
- Roads
- Vacant Lots
- Oakland UGB

Land Use

- Residential
- Commerical
- Industrial
- Rural
- Farm
- Forest
- Multi-Family
- Manufactured Structures
- Public

Landuse, including vacancy, is determined using Douglas County property class data (2014).



Data Sources: Douglas County & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

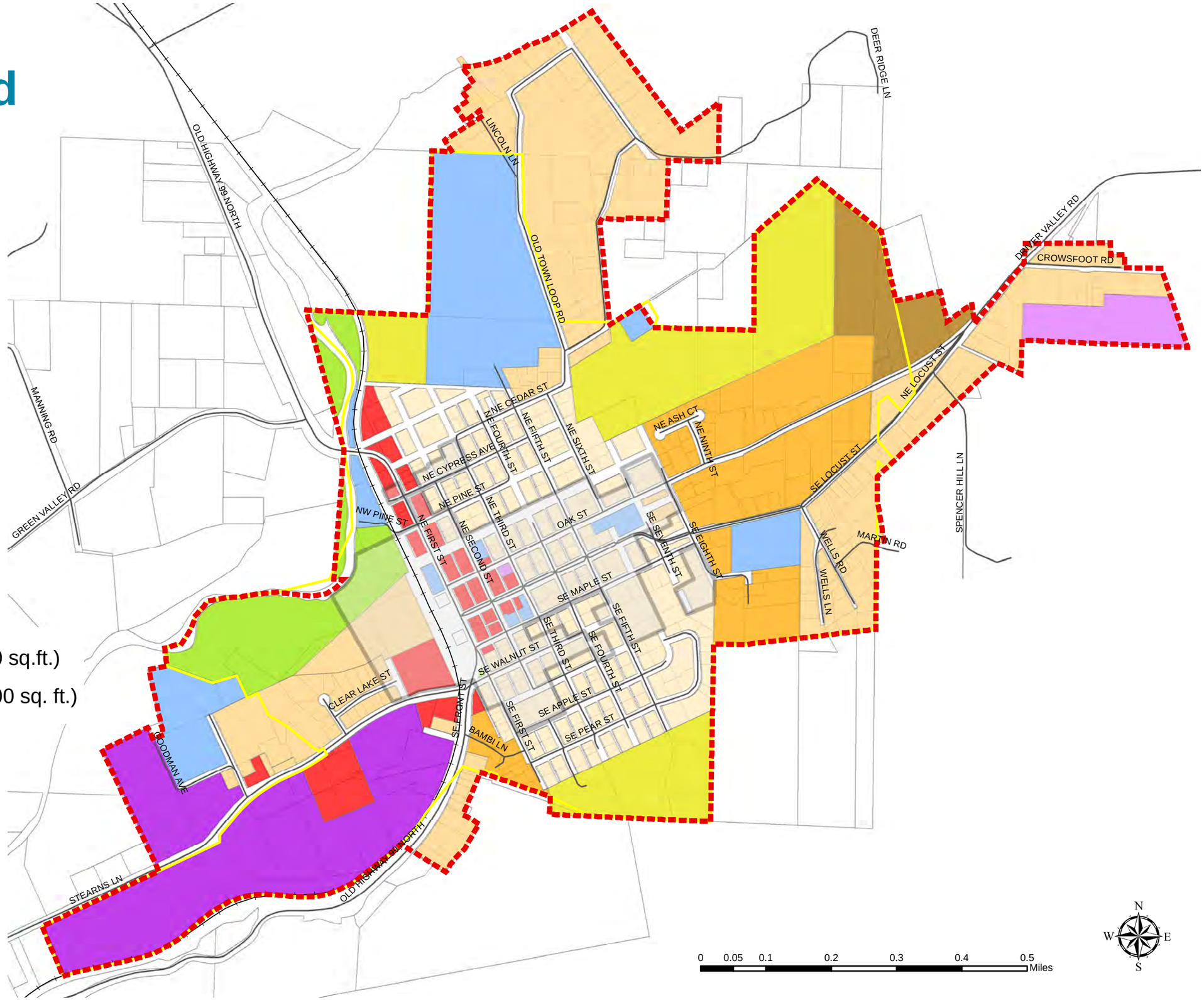
Map 2
City of Oakland

Zoning

- Railroad
- Roads
- Oakland City Limits
- Oakland UGB
- Oakland Historic District
- Oakland Parcels

Oakland Zoning

- Agriculture/Open Space
- General Commercial
- General Industrial
- Light Industrial
- Low Density Residential (7,500 sq.ft.)
- Low Density Residential (10,000 sq. ft.)
- Medium Density Residential
- Public Land
- Rural Density Residential
- Duplex Overlay Zone



Data Sources: Douglas County & LCOG

Peojected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

Map 3

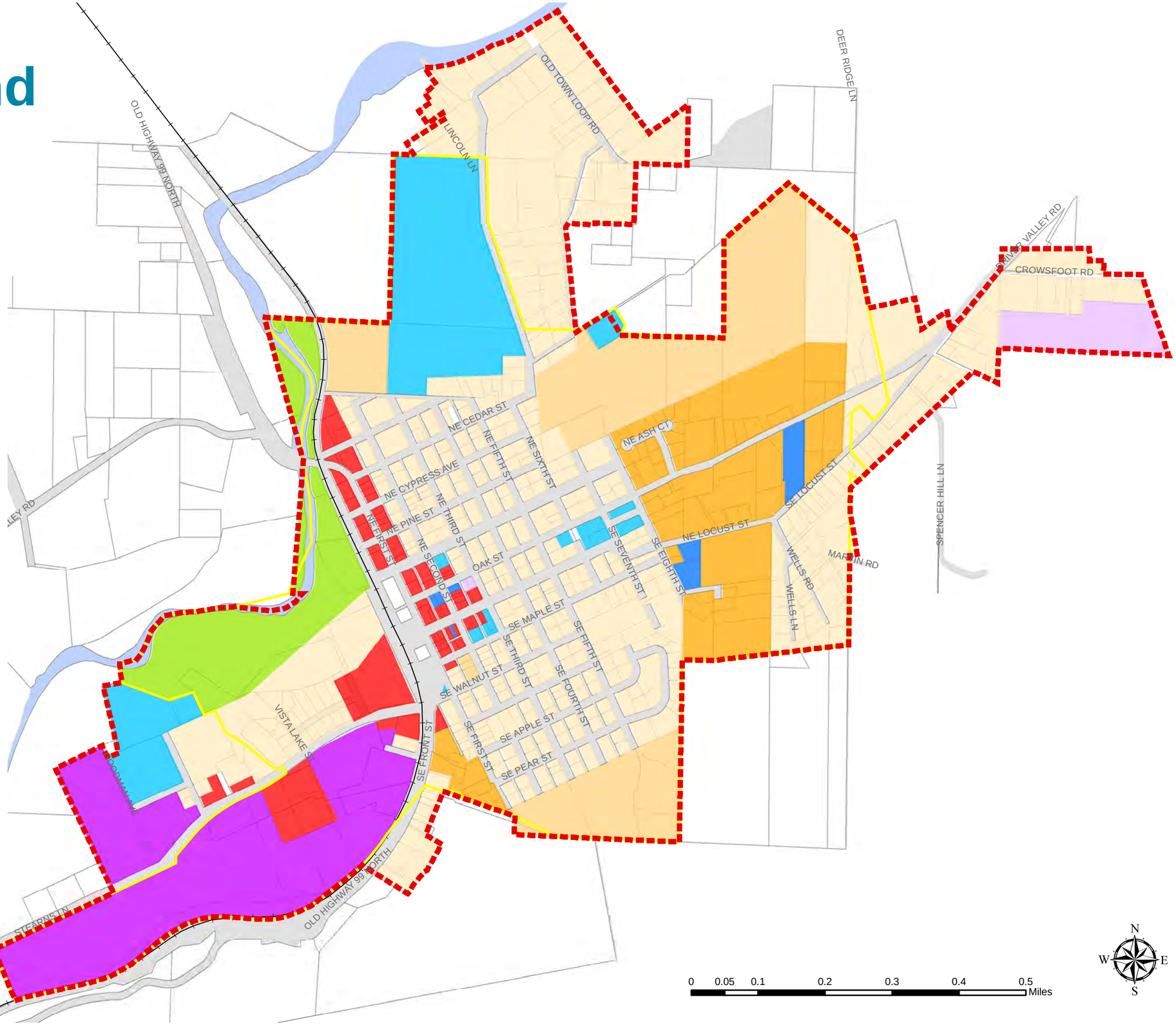
City of Oakland

Comprehensive Plan Designations

- Railroad
- Oakland City Limits
- Oakland UGB
- Oakland Parcels
- Calapooya Creek
- Oakland Right-of-Way

Oakland Plan Designation

- Commercial
- General Industrial
- General Residential 1
- General Residential 2
- Specific Residential 1
- Light Industrial
- Open Space/Agriculture
- Public
- Semi-Public



Data Sources: Douglas County & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

Map 4

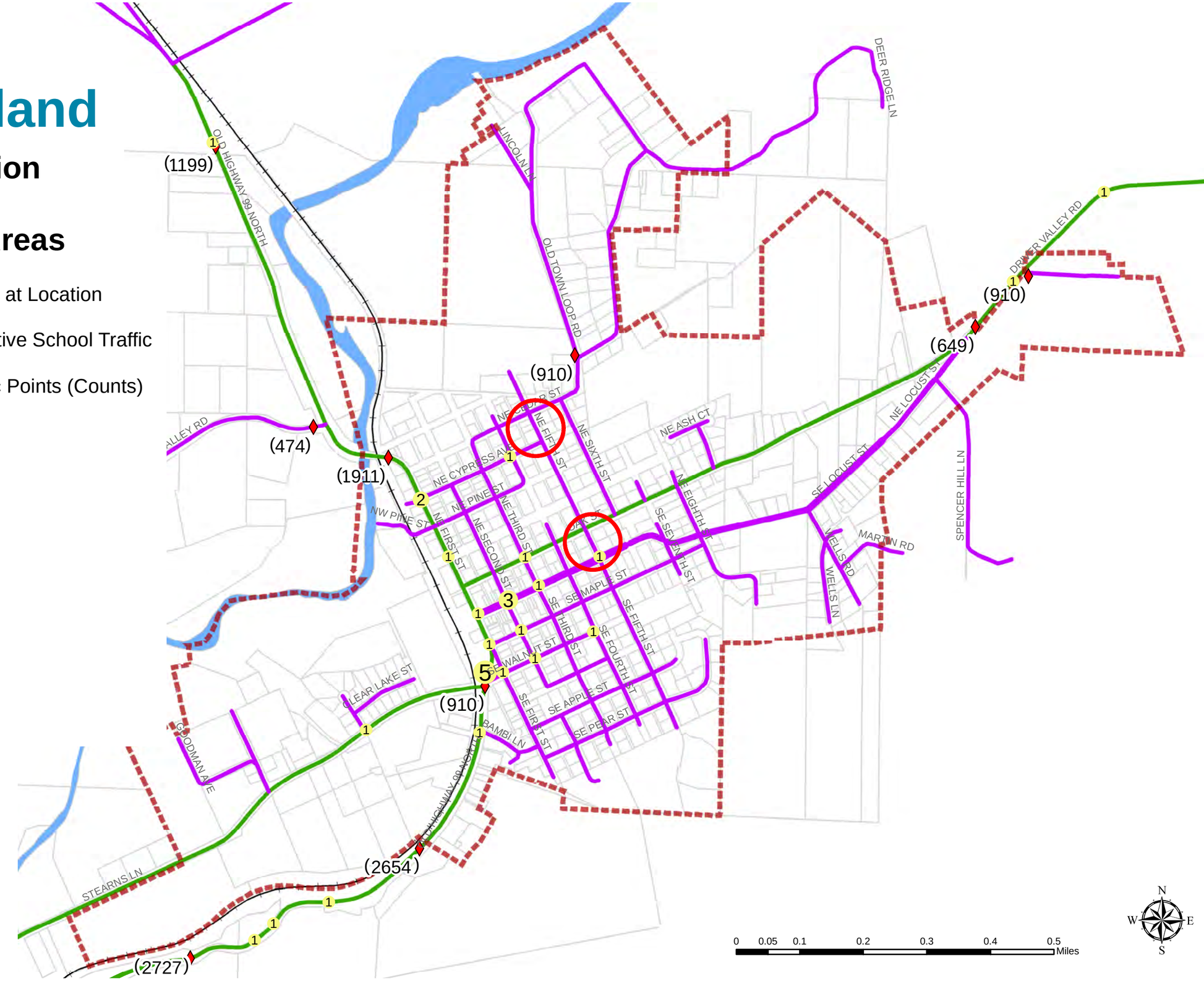
City of Oakland

Street Jurisdiction & Safety Concern Areas

- # — Number of Accidents at Location
- Area of Highly Sensitive School Traffic
- Average Daily Traffic Points (Counts)
- Oakland UGB

Oakland Streets

- City Jurisdiction
- County Jurisdiction
- Railroad
- Oakland Parcels
- Calapooya Creeek



Data Sources: Douglas County, Oakland & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

Map 5

City of Oakland

Existing City Functional Classification

City Street Classification

- Arterial
- Collector
- Local
- Other
- Railroads
- Oakland UGB
- Oakland Parcels
- Oakland Streams

OLD HIGHWAY 99 NORTH
LINCOLN LN
DEER RIDGE LN
OLD TOWN LOOP RD
DRIVER VALLEY RD
CROWSFOOT RD
NE LOCUST ST
NE CEDAR ST
NE CYPRESS AVE
NE FIFTH ST
NE SIXTH ST
NE ASH CT
NE PINE ST
NE THIRD ST
NW PINE ST
NE FIRST ST
NE SECOND ST
OAK ST
NE EIGHTH ST
SE SEVENTH ST
SE LOCUST ST
WELLS RD
WELLS LN
MARTIN RD
SE MAPLE ST
SE THIRD ST
SE FIFTH ST
SE FOURTH ST
SE WALNUT ST
SE FIRST ST
SE APPLE ST
SE PEAR ST
SE FRONT ST
BAMBI LN
CLEAR LAKE ST
GOODMAN AVE
STEARNS LN
OLD HIGHWAY 99 NORTH

0 0.05 0.1 0.2 0.3 0.4 0.5 Miles

N W E S

Data Sources: Douglas County, Oakland & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

Map 6

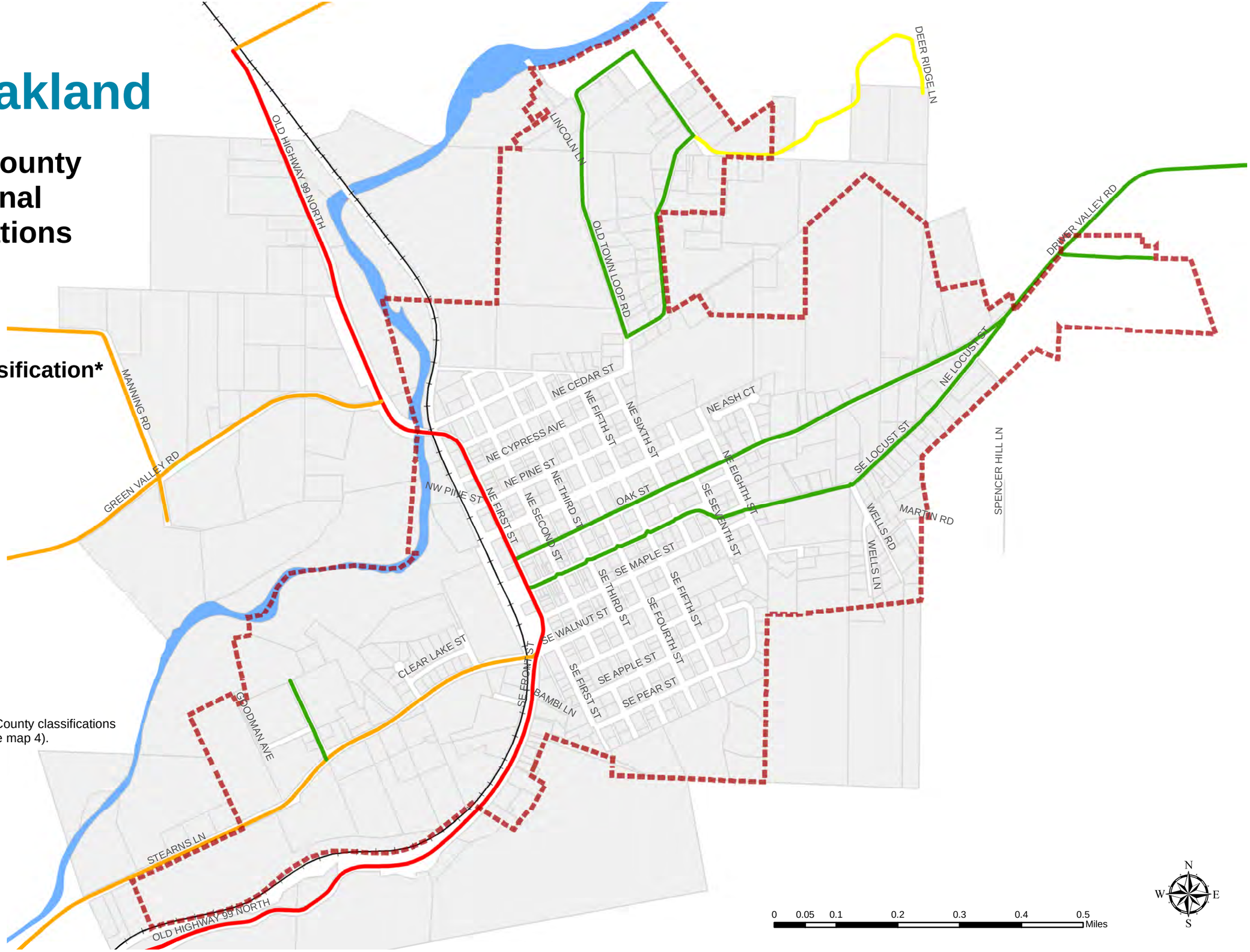
City of Oakland

Douglas County Functional Classifications

Douglas County Classification*

- Arterial
- Minor Collector
- Local
- Rural Local
- Railroad
- Oakland UGB
- Oakland Parcels
- Oakland Streams

* Not all streets desginated with Douglas County classifications are under Douglas County jurisdiction (see map 4).



Data Sources: Douglas County & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

Map 7
City of Oakland

Existing Road Conditions
&
Surface Types

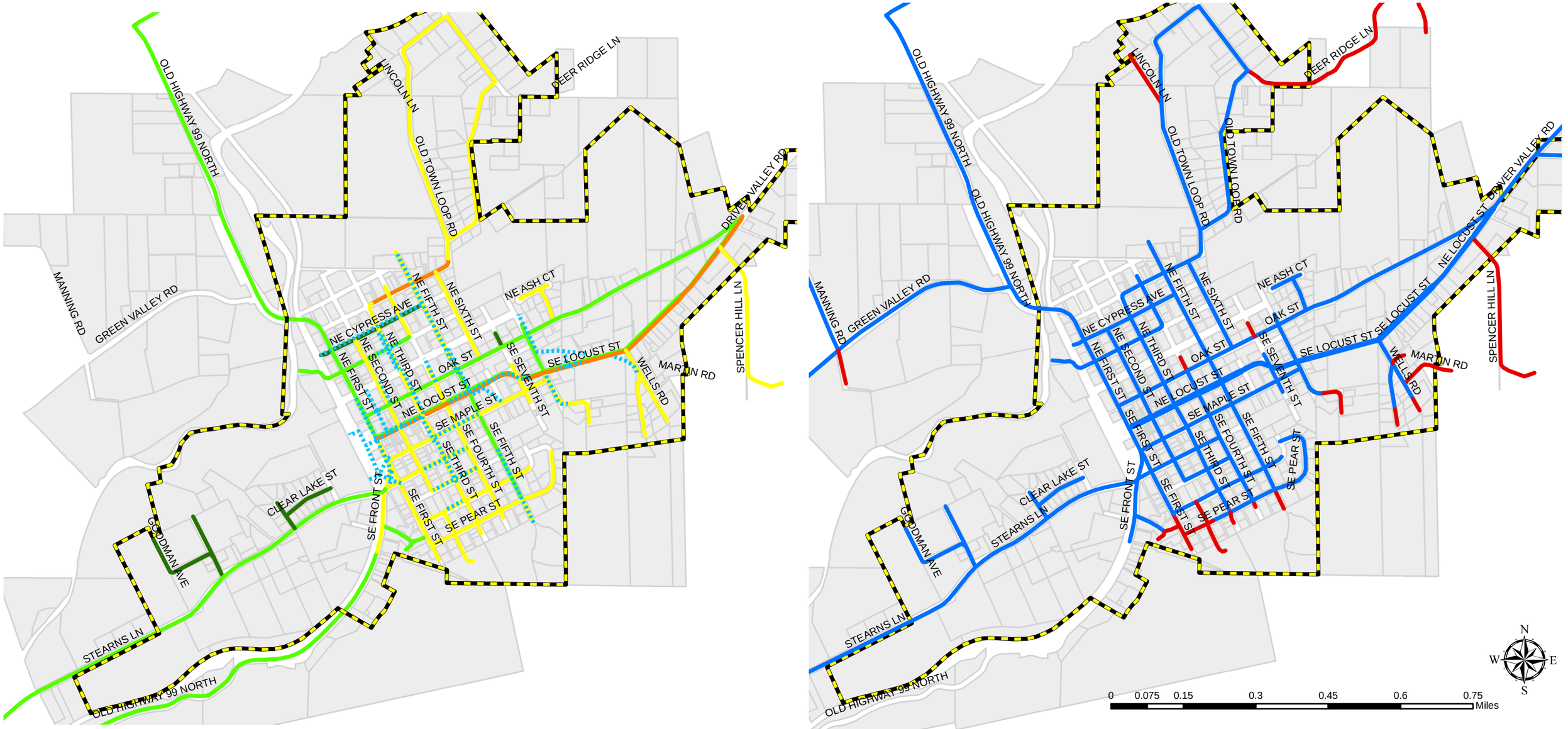
Surface Condition

- Good
- Fair
- Poor
- Bad
- Streets with Drainage Issues

- Oakland UGB
- Oakland Parcels

Pavement Type

- Asphalt
- Gravel



Data Sources: Douglas County, Oakland & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

Map 8

City of Oakland

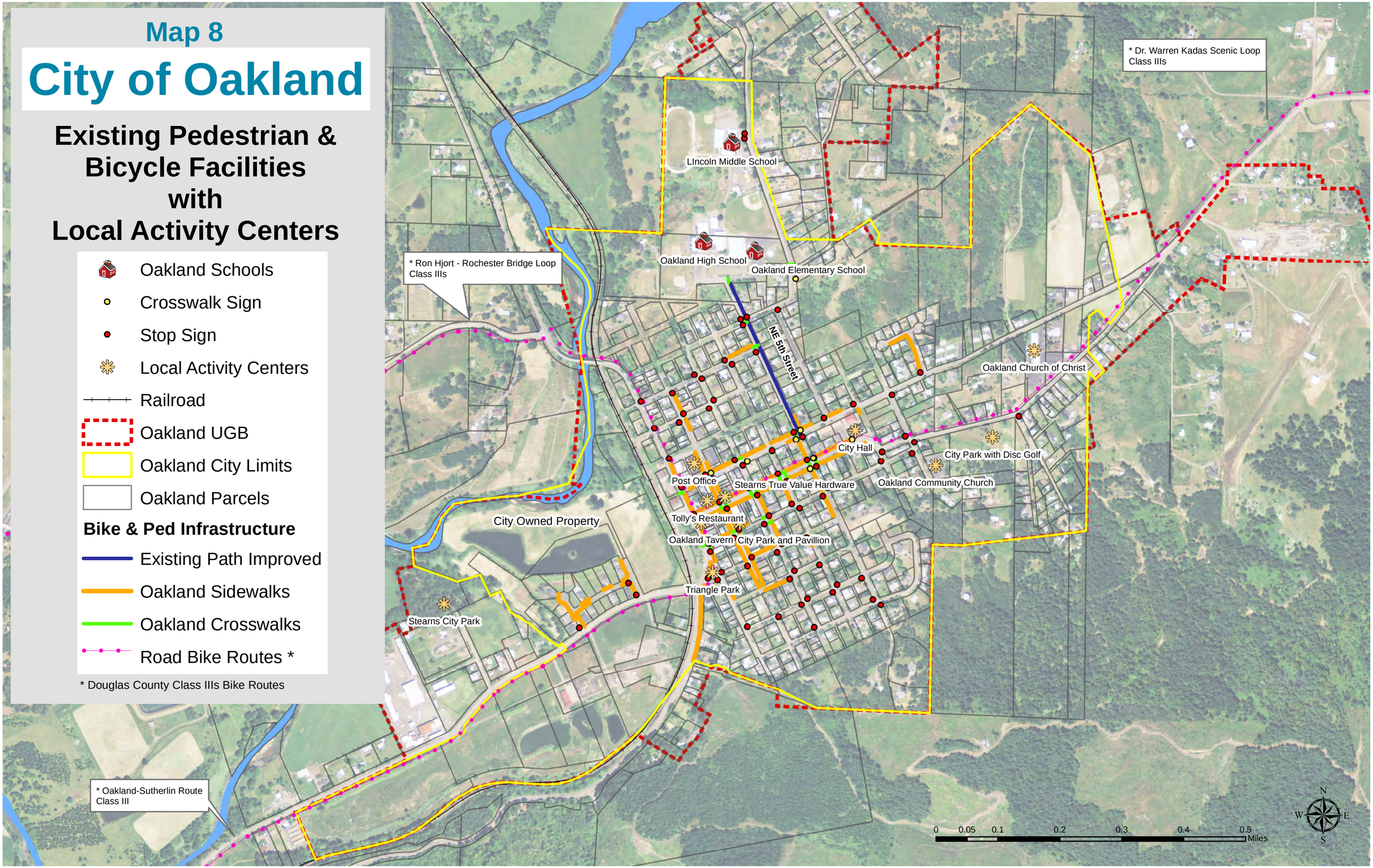
Existing Pedestrian & Bicycle Facilities with Local Activity Centers

- Oakland Schools
- Crosswalk Sign
- Stop Sign
- Local Activity Centers
- Railroad
- Oakland UGB
- Oakland City Limits
- Oakland Parcels

Bike & Ped Infrastructure

- Existing Path Improved
- Oakland Sidewalks
- Oakland Crosswalks
- Road Bike Routes *

* Douglas County Class IIIs Bike Routes



Data Sources: Douglas County, Oakland & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

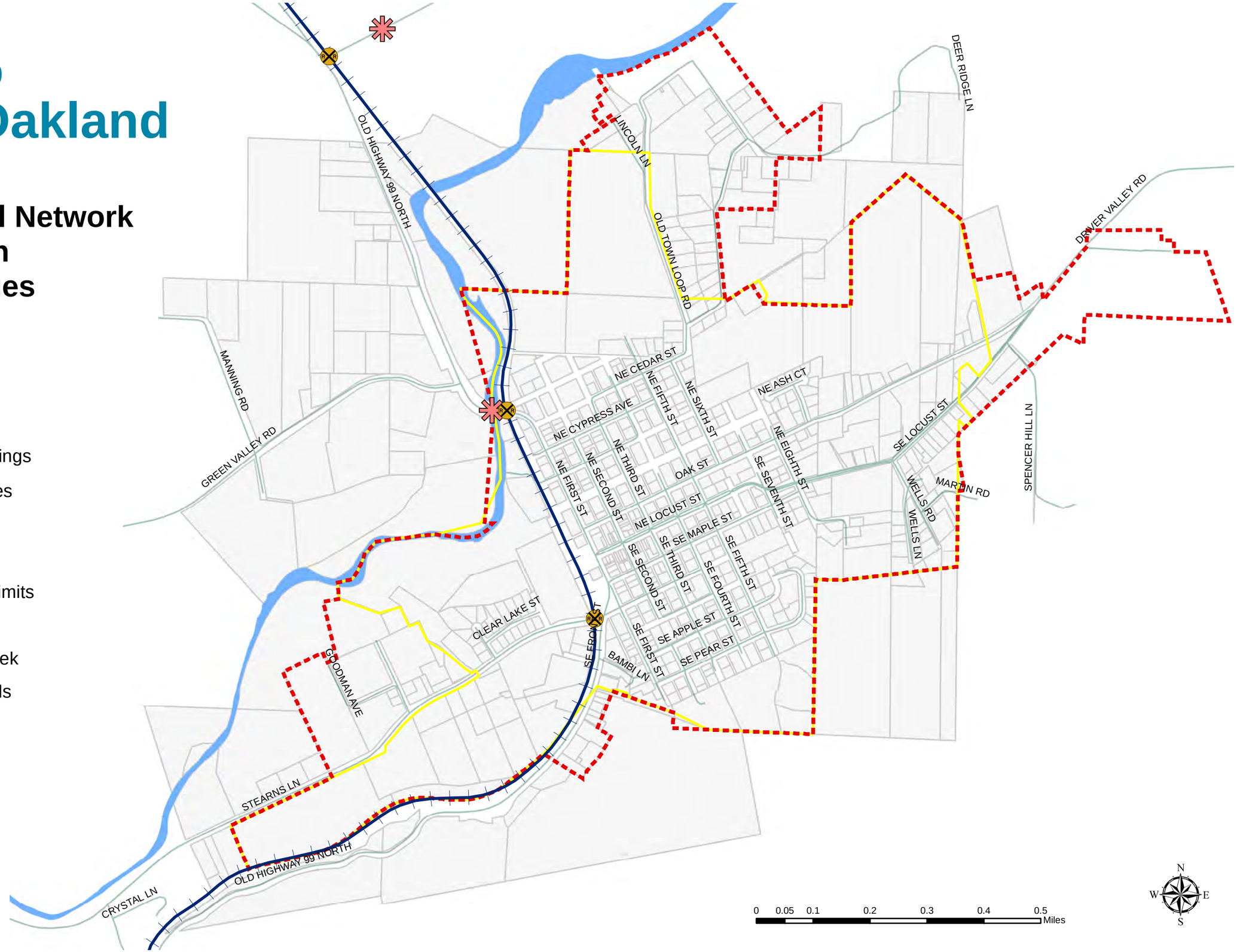
Created By: LCOG June 2015

Map 9

City of Oakland

Existing Rail Network with Bridges

- Railroad Crossings
- Oakland Bridges
- Railroad
- Oakland UGB
- Oakland City Limits
- Roads
- Calapooya Creek
- Oakland Parcels



Data Sources: Douglas County & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

Map 10

City of Oakland

Natural Resources and Environmental Dynamics

- Coho Salmon Run
- Oakland UGB
- Railroad
- National Wetland Inventory
- Drainages *
- 100 Year Flood Plain
- Douglas County Streams
- Oakland Parcels

* National Hydrography Dataset: US Geological Survey

0 0.05 0.1 0.2 0.3 0.4 0.5 Miles

N W E S

Data Sources: Douglas County, National Hydrography & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

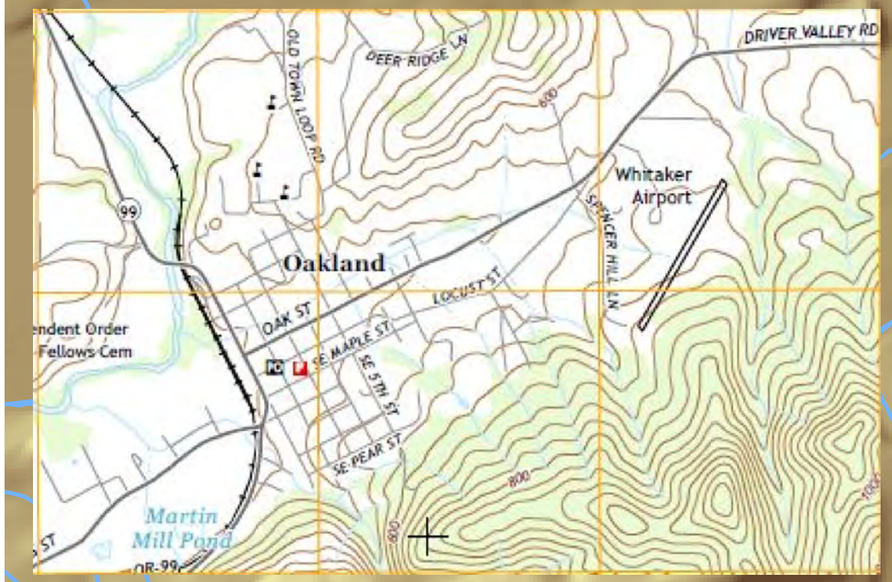
Map 11

City of Oakland

Topography

- Railroad
- Oakland UGB
- Waterbodies & Drainages*
- Oakland Parcels

* National Hydrography Dataset



0 0.05 0.1 0.2 0.3 0.4 0.5 Miles

N W E S

Data Sources: Douglas County, National Hydrography & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

Map 12

City of Oakland

2012 Aerial Photo

- Railroad
- Oakland UGB
- Oakland City Limits
- Oakland Parcels

0 0.05 0.1 0.2 0.3 0.4 0.5 Miles

N W E S

Data Source: Douglas County

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

CHAPTER 5. ROAD, BICYCLE, PEDESTRIAN, TRANSIT AND SYSTEM PLANS

5.1 Introduction

This chapter presents the Road, Bicycle, Pedestrian and Transit Plans and includes preferred improvement alternatives. Priority improvements were developed through a collaborative process involving the project team, City Council, Planning Commission, Advisory Committees and public participants.

Concept level designs and maps are prepared for each improvement alternative as well as planning level estimates of costs and possible impacts to the existing system, safety and natural resources. Each alternative is also weighed against the evaluation criteria introduced in Chapter 2. Improvement alternatives are more comprehensively outlined within Volume I (Chapter 3) of the LSP.

Improvements address connectivity, safety, geometry (how an intersection is configured), and accessibility (e.g. Americans with Disabilities Act). Improvement summaries contained within Volume I also include reference to associated infrastructure; specifically how potential improvements relate to storm drain failures and resulting drainage issues.

Feedback from stakeholders (committee meetings, joint work sessions, a public hearing and any other input) directed the final selection, configuration and priority of project alternatives.

Of note, is the fact that, because distinctions between Road, Pedestrian and Bicycle facilities can be nuanced, there is some redundancy within each plan. (e.g. The multi-use path inherently addresses both pedestrian and bicycle needs). Also, the design standards associated with the reclassification of a street segment has implications for motorists, bicyclists, and pedestrians.

5.1.1 Application of Evaluation Criteria

All alternatives presented in the Road, Bicycle, Pedestrian and Transit Plans were evaluated by the Oakland Project Advisory and Citizen Advisory Committees as well as Oakland's Planning Commission and City Council. The assessment of alternatives against evaluation criteria was also brought before Oakland residents and other stakeholders at an Open House in February, 2015. Residents and stakeholders provided critical perspectives on the criteria evaluation which resulted in changes (both large and small). Table 1.2 (in Chapter 1) provides a summary of projects weighed against evaluation criteria.

Transportation system improvements are presented in Tables 5.1, 5.8 and 5.9, (below) by the priority category that they were assigned through the Local Street Planning Process. Higher priority projects are targeted for completion or notable progress by the year 2020. Medium priority projects are targeted for completion or notable progress by the year 2030. Lower priority projects are targeted for completion or notable progress by the year 2040. Progress will depend largely on availability of and efforts to pursue funding

5.2 Road Plan

This section describes recommended improvements to the road network (the system serving motor vehicles). These improvements are related to transportation deficiencies identified through the inventory assessment and also suggestions from stakeholders involved in the Local Street Planning Process. As noted many road improvements also pertain to other modes of travel (e.g., walking, bicycling). Many of these are discussed in more detail in subsequent sections relating specifically to those modes.

As noted, the draft improvements were refined in an iterative process, to become the preferred alternatives presented in this section.

5.2.1 Road System Improvements

Road network improvements are presented in Table 5.1 (below) by the priority category that they were assigned through the Local Street Planning Process. Map 13 provides a geographic summary of Road System Improvements.

Table 5.1: Road System Priority Improvements

Intersection/Corridor	Improvement Summary
Higher Priority (by year 2020)	
Locust Street and Seventh Street	Improvements to curve, city hall parking, and sidewalk between 7th and 8th
First and Locust & First and Oak Intersections	Improvements related to signage, geometry and crossings
Apple Street Connection	Completing the loop of Apple Street near Fifth Street
First Street and Fifth Street	Paving south of Apple Street (First Street) and Pear Street (Fifth Street)
Medium Priority (by year 2030)	
Fifth Street segment improvements	Improve path and intersection dynamics between Oak Street and School
Lower Priority (by the year 2040)	
Oak Street Improvements	Bicycle and pedestrian improvements along Oak Street
Extending Cypress Avenue	Extending Cypress Avenue between 5th and 6th Streets, with bicycle and pedestrian improvements

5.2.2 Future Road Network

As communities grow and vacant lands develop, connectivity should be preserved. Goal 1 of the LSP outlines the need for the LSP to serve as a policy guide for future transportation decisions. Goal 4 outlines the need to ensure a future street system that is highly connected and accommodates multiple travel modes. Goal 7 of the LSP also outlines the practical and financial necessity to secure rights-of-way at the time of development in order to maintain an adequate street system. Map 15 outlines a conceptual future street network in Oakland which maintains connectivity and preserves a number of critical. The conceptual streets are located

primarily in vacant residential lands north and east of downtown. The primary intent of Map 15 is to provide a vetted concept for future development that improves or maintains local traffic circulation, mobility, and relief to parallel routes in Oakland. Few of these conceptual streets are listed as projects within Volume I due to their context sensitivity, highly unpredictable nature, and the generally low urgency. These road improvements also improve bicycle and pedestrian mobility and connectivity.

The conceptual street alternatives are meant to serve as a guide as undeveloped (or underdeveloped) parcels develop within the community. That development will generally occur according to the discretion and timing of property owners. An understanding for preferable and feasible connections enables the City to enforce its subdivision code and guide its resources and plans for roadway improvements. The locations of actual street alignments will be determined at the time of development based on several factors, some of which cannot be adequately evaluated in this analysis. Some depicted future streets would occupy existing rights-of-way, which may be determined to be underutilized, while others would require street dedication through future development.

In general, the future street plan strives to preserve connectivity by continuing the existing grid system. The plan provides street connectivity by assuming a grid pattern over most of the remaining buildable lands in the community. Most new streets should continue to be classified as minor local streets, although some may be appropriately classified as major local streets. No new arterials or collectors are anticipated in the LSP.

In Oakland topographic constraints play a major role in the feasibility of improving connectivity. Although topography was a primary consideration in the development of conceptual streets (e.g. the area south of the high school and the area around Wells Road), some conceptual streets with engineering challenges were included for consideration because of their high connectivity value.

The Advisory Committee, City Council, Planning Commission and public review of the proposed conceptual streets map resulted in the removal and addition of several conceptual streets. The remaining conceptual streets are presented in Map 15.

5.2.3 Changes to Street Functional Classifications

Oakland's current definitions of street functional class are based on Oakland's Comprehensive Plan. Functional class is also currently informed by the Oakland Subdivision Ordinance.

Functional classification provides a systematic basis for determining future right of way and improvement needs, and is also used to provide general guidance to appropriate or desired vehicular street design characteristics. Roadway functional classification is based on the relative priority of traffic *mobility* and *access* (see Figure 5.1). From a design perspective, the functions of mobility and access can be incompatible since high or continuous speeds are desirable for mobility, while low speeds are more desirable for access. At one end of the mobility-access spectrum are freeways, which emphasize moving high volumes of traffic, allowing only highly

controlled access points. At the other end of the spectrum are residential cul-de-sac streets, which provide access only to parcels with direct frontage and allow no through traffic. Between the ends of this spectrum are arterials, collectors and local streets each with an increasingly greater emphasis on mobility. Arterials emphasize a high level of mobility for through movement; local facilities emphasize the land access function; and collectors offer a balance of both functions. Classifications can be further stratified into major and minor arterials and collectors.

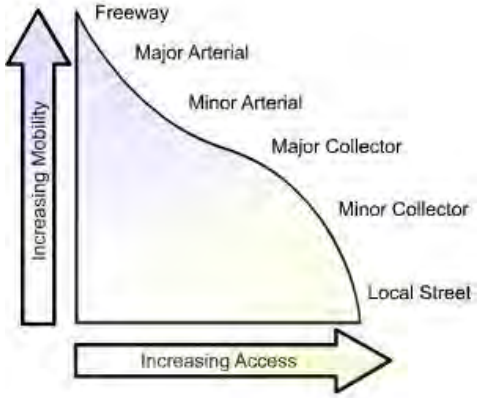


Figure 5.1 Functional Classifications Mobility-Access Spectrum

Street Classification in Oakland

The Oakland Local Street Network Planning process resulted in changes to the functional classification of certain streets, as well as changes to the functional classifications themselves. Any change to a functional classification simply represents a change in design standards that would be applied when improvements are desired or necessary. These improvements could occur as part of City directed street-wide or intersection improvement, but are commonly triggered by individual development. Changing the functional classification of a street system does not require immediate reconstruction or improvement of the street. The reclassification of a street allows the street design when upgrades occur to align with current and planned roadway uses and trends.

Map 5 presents the City of Oakland's existing functional classifications. Map 15 shows the revisions made to the City's street functional classifications. Since a significant amount of distinction exists within Oakland's local street inventory there is a need to implement subcategories. A notable addition to the street functional classifications includes the division of the Collector Street classification into Minor and Major Collector streets and the Local Streets classification into Minor and Major Local streets. These subcategories help distinguish between local roads which are well-served by things like sidewalks and those where such improvements are not necessary or even preferable. This added flexibility provides for greater variety in the application of design standards for streets, while maintaining basic consistency with generally accepted design standards for similar streets.

Following is a description of street functional classifications for the City of Oakland, followed by a summary table of functional class changes instituted through the local street planning process.

A. Arterial Streets:

<u>Primary purpose</u>: Arterials serve as higher volume higher speed roadways connecting the local and collector streets to regional connectors. These streets are designed to efficiently move traffic through a city with little minimal delay or impacts. They are generally important connectors for freight and mobility through a city, however, all modes of travel should be considered and adequately accommodated. Arterial Streets generally have limited direct access.

<u>Design features:</u> Arterial Streets generally have wider lanes to accommodate freight traffic. Typically they contain at least 1 lane in each direction and at some locations turn lanes are necessary to handle the traffic flow. Arterial streets are designed with separate services for pedestrians and bicycles and contain bike lanes and sidewalks. Within Oakland the Arterial Streets will have speeds of 35 mph.

Oakland has three arterial street segments 1) Highway 99 and 2) Oak Street and 3) Stearns Lane. The changes instituted through the LSP include the removal of Oak Street and Stearns Lane as arterials. Although arterials are critical elements in Oakland's transportation system, they are all under the jurisdiction of Douglas County. Improvements and identified local needs have to be closely coordinated with County Public Works staff.

During a meeting with Douglas County Public Works staff it was concluded that the County's incompatible classification of Oak Street as a "Local" street was unintentional and unnoticed at the time of jurisdictional transfer (from the City to the County). Oak Street will no longer be considered an arterial, because the use of Oak Street does not best match the purpose and design features of an arterial. Oak Street does not accommodate considerable freight traffic, and has a high occurrence of direct access (driveways, etc.).

Local arterial designation will be limited to Highway 99. Although Highway 99 is an arterial street, the downtown portions of the street present a unique dynamic for at least three blocks. Considerable evaluation and thought should be given to this street segment. Though it is classified as a Douglas County and Oakland Arterial Street, with an emphasis on mobility, it will have to be sensitive to access and design elements compatible with and appropriate for Oakland's unique and historic downtown. Stearns Lane is changed to minor collector status to match Douglas County's designation for the street.

Arterials Before LSP	Current Arterials
Highway 99	Highway 99
Oak Street	
Stearns Lane	

B. Collector Streets:

<u>Primary purpose</u>: Collector level streets provide access and circulation between local streets (neighborhoods) and arterial streets. As such, collector streets serve as a primary route for traffic between neighborhoods and commercial areas. Individual accesses are allowed but should be managed to ensure safe and efficient travel.

<u>Design features:</u> Collector level streets are generally designated as 35 mph or 25 mph speeds and can be designated as the need dictates. The street design includes one lane of travel in each direction, bike lanes (optional), sidewalks, and on-street parking.

Oakland has five collector streets, Cypress Avenue, Cedar Street, NE Fifth Street, Locust Street, and SE Third Street. As with arterial streets, it is important to note that Douglas County

maintains a number of "collector" streets in Oakland and has classifications of its own (which includes none of Oakland's collector streets, but designates Stearns Lane as a collector).

Based on the current function, Locust Street and Stearns Lane will be classified as a Minor Collector Streets. Oak Street will be classified as a Major Collector. This designation will enable speeds on Oak Street that are slower than an arterial and will be more conducive to the existing on-street parking dynamic and high occurrence of direct access.

Collectors Before LSP	Current Collectors
Locust Street	Oak Street (Major Collector)
Cypress Avenue	Locust (Minor Collector)
Cedar Street (part)	Stearns Lane (Minor Collector)
NE Fifth Street (part)	
SE Third Street (part)	

C. Local Streets:

<u>Primary purpose</u>: Local Streets serve lower volume, lower speed streets and provide direct access to property. Local Streets are generally 20-25 mph, have frequent driveways, and may or may not have separate pedestrian amenities. Local streets generally take into consideration livability of neighborhoods, placing mobility is a lower priority than accessibility.
<u>Design features:</u> The project team is proposing two design alternates for local streets, Major Local and Minor Local. The Major and Minor Local standards blend the need for urban roadway standards (curb, gutter, sidewalk) within new development, with the desire to keep the historic local fee of existing neighborhoods. *Minor Local Streets are also designed with narrower lanes with one in each direction. These streets will not contain bike lanes or sidewalks. On-street parking is provided in the form of gravel/landscape areas adjacent to the roadway.* *Newer residential subdivisions can be designed to mimic the rural historic feel of the existing neighborhoods by choosing to not include sidewalks, curb, and gutter. These streets would be classified as a Minor Local Street and would provide drainage, on-street parking, and would have the option of not having sidewalks. A number of project summary sheets (Chapter 2) provide visual examples of this approach.*

The majority of streets in Oakland, as in many communities, are local streets. Douglas County does not have jurisdiction over any streets currently identified by Oakland as local streets. As noted, a need was identified to provide greater distinction between streets currently designated simply as "local streets."

Based on their current function and potential for improved function, the following streets are will be designated as Major Local streets: Cypress Avenue, Cedar Street (east of Fifth Street), Fifth Street (north of Maple Street) and Third Street (Between Apple and Cypress). These streets are currently designated as Minor Collector streets in Oakland. Other streets identified for Major Local classification include Maple Street (east of Fifth), Seventh Street (between

Maple Street and Locust Street) and the southern end of Old Town Loop Road. All remaining streets currently classified as local will be designated as Minor Local Streets.

Local Before LSP	Current Major Local
All non-arterial, non-collector, non-alley streets	Cypress Avenue
	Cedar Street (east of Fifth Street)
	Fifth Street (north of Maple Street)
	Third Street (Between Apple and Cypress)
	Maple Street (east of Fifth)
	Seventh Street (between Maple Street and Locust Street)
	Southern end of Old Town Loop Rd

D. Alleys:

Primary purpose: Alleys are generally narrow, unpaved roadways that are used for back access and service. Alleys serve a very low volume of traffic and have very low speeds. In some instances alleys can accommodate off-street bicycle and pedestrian paths.
Design features: Alleys are generally a narrow (18-20 feet in width). They do not designate two separate directions of travel and two-way traffic is not anticipated to occur at frequent intervals. The alleys can be paved or gravel and do not contain separate pedestrian amenities, though as noted, can serve as a dedicated pedestrian path.

To avoid undue traffic and noise, especially in residential areas, local streets should not provide through access across town. It is important to note that the presence of numerous platted, but not yet developed streets north of Oak Street, prevent through traffic on many of the local residential streets in that area.

The Local Street Network Plan for the City of Oakland can introduce updated functional classifications to support the system that the City would like to see. The new Functional Classifications in Oakland include an increase in the number and distinctiveness of functional classes, to allow for greater variety and uniqueness in design standards (Map 14).

5.2.4 Douglas County Street Functional Classifications

As noted, Douglas County has its own functional classes identified for streets within Oakland's city limits. The relevant classifications for county roads are as follows:

- **Arterial:** The Arterial network will provide through traffic movement (including public transportation) and its distribution from Principal Highways on to the Collector and Local Streets network. As with Principal Highways, Arterials provide connection between major communities in the County. Arterials are subject to regulation and control of parking, turning movements, entrances, exits, and curb uses. Access control and on street parking are a function of the number of lanes, lane and shoulder width, design speed, traffic volumes, and land use. Traffic volumes on major arterial streets can reach up to 30,000 vehicles per day.

- **Minor Collector:** Minor collectors are intended to distribute local traffic onto other minor collector, major collector, or arterial streets. Property access onto minor collectors is often allowed. In urban areas, minor collectors should border neighborhoods helping to establish identity. In rural areas, minor collectors also connect rural residential areas. Traffic volumes generally can range up to 5,000 vehicles per day.
- **Local:** Local roads are intended to provide direct access to abutting property and move traffic from origin to the major road network. Through movement of traffic on local roads is to be discouraged. Traffic volumes on local roads are generally less than 1,500 ADT (Average Daily Traffic). It is noted that Locust Street I classified by Douglas County as a Local Street. Douglas County does not have jurisdiction over Locust Street, and therefore the City has proposed Locust as a Minor Collector (consistent with its use).

Table 5.3: New Street Functional Classification

ROAD NAME	FROM	TO	FUNCTIONAL CLASSIFICATION
Arterial Streets			
SE Front Street	SE Maple Street	Bambi Lane	Arterial
NE First Street	NE Cypress Avenue	Oak Street	Arterial
Highway 99 North	North City Limits	NE Cypress Avenue	Arterial
Highway 99 North	South City Limits	Bambi Lane	Arterial
Stearns Lane	SE Front Street	Interstate 5	Major Collector
Major Collector Streets			
Oak Street	NE First Street	Driver Valley Road	Major Collector
Driver Valley Road	NE Locust Street	Fair Oaks Road	Major Collector
Minor Collector Streets			
NE First Street	Oak Street	SE Locust Street	Major Collector
SE First Street	SE Locust Street	SE Maple Street	Major Collector
SE Locust Street	NE First Street	Driver Valley Road	Minor Collector
Major Local Streets			
NE Cypress Avenue	NE Fifth Street	Highway 99 North	Major Local
NE Fifth Street	School (NE Spruce)	SE Locust Street	Major Local
SE Fifth Street	SE Locust Street	SE Maple Street	Major Local
NE Cedar Street	NE Fifth Street	Old Town Loop Rd	Major Local
NE Third Street	NE Cypress Avenue	SE Locust Street	Major Local
SE Third Street	SE Locust Street	SE Apple Street	Major Local
NE Ash Court	NE Ninth Street	Dead End	Major Local
SE Maple Street	SE Front Street	SE Seventh Street	Major Local
SE Seventh Street	SE Maple Street	SE Locust Street	Major Local
Old Town Loop Road W	NE Cedar Street	Lincoln Lane	Major Local
Old Town Loop Road E	Old Town Loop Road W	(see Map 1)	Major Local
Local Streets			
NE Cypress Avenue	Railroad Right-of-Way	Highway 99 North	Local
Bambi Lane	SE Front Street	SE First Street	Local

Carlile Road	Wells Road	Dead End	Local
NE Cedar Street	NE Third Street	NE Fifth Street	Local
Crowsfoot Road	Driver Valley Road	Dead End	Local
Deer Ridge Lane	Old Town Loop Road	Dead End	Local
Clear Lake Street	Vista Lake Street	Dead End	Local
NE Ninth Street	NE Ash Court	Oak Street	Local
Vista Lake Street	Stearns Lane	Dead End	Local
Goodman Ave	Stearns Lane	Dead End	Local
Lincoln Lane	Old Town Loop Road	Dead End	Local
Martin Road	Wells Road	Dead End	Local
NE Eighth Street	Ash Creek Right-of-Way	SE Locust Street	Local
NE Fourth Street (1)	NE Cedar Street	NE Pine Street	Local
NE Fourth Street (2)	Ash Creek Right-of-Way	SE Locust Street	Local
SE Maple Street	SE Seventh Street	SE Eighth Street	Local
NE Pine Street	Railroad Right-of-Way	NE Fourth Street	Local
NE Second Street	NE Cypress Avenue	SE Locust Street	Local
NE Seventh Street	Ash Creek Right-of-Way	Oak Street	Local
NE Sixth Street	NE Cedar Street	Oak Street	Local
North Old Town Road	Old Town Cemetery Rd	Highway 99	Local
NW Pine Street	NE First Street	NE Fourth Street	Local
Old Town Cemetery Rd.	Highway 99 North	Dead End	Local
Old Town Loop Road	Lincoln Lane	(see Map 1)	Local
SE Apple Street	SE First Street	Dead End	Local
SE Chestnut Street	SE Second Street	SE Fourth Street	Local
SE Eighth Street	SE Locust Street	Dead End	Local
SE Fifth Street	SE Maple Street	Dead End	Local
SE First Street	Se Maple Street	Dead End	Local
SE Fourth Street	SE Locust Street	Dead End	Local
SE Pear Street	SE First Street	Dead End	Local
SE Second Street (1)	SE Locust	SE Chestnut	Local
SE Second Street (2)	SE Apple	Dead End	Local
SE Seventh Street	Maple Street	Dead End	Local
NE Third Street	NE Cedar Street	NE Cypress Avenue	Local
SE Walnut Street	SE Front Street	SE Fourth Street	Local
Spencer Hill Lane	NE Locust Street	Dead End	Local
Wells Lane	Wells Road	Dead End	Local
Wells Road	NE Locust Street	Dead End	Local

5.2.5 Street Design Standards

Design and construction standards for arterial, collector, and local streets are summarized in the following pages and illustrated in Figures 5.2 through 5.7. In many cases, the existing roads will not meet these standards. These standards will apply only to newly constructed or reconstructed roads; retrofitting all existing roads is not envisioned or recommended. Where

rights-of-way are insufficient to meet the new standards in the event of future improvement standards, different requirements will be identified for the width of sidewalks and parking areas.

At the core of the new street standards are fundamental improvements to pedestrian and bicycle access throughout the City by including sidewalks, street trees, and curbs and gutters on new local streets. It would be the responsibility of the developer to *construct* new streets within their projects. The City is responsible for *maintaining* local streets, while private property owners would maintain the street trees.

The following tables list the new street standards. New street standards are illustrated in the figures that follow.

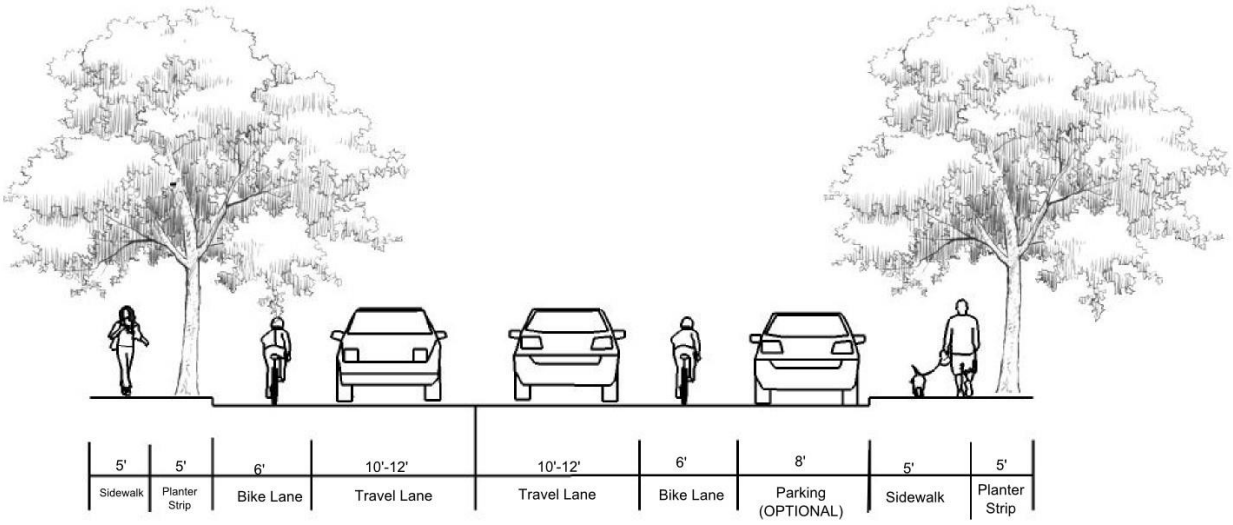
Arterial Streets

The Public Works Director shall determine the extent and nature of other improvements required in arterial streets on a case-by-case basis, but at minimum must incorporate the following standards.

Table 5.4: ARTERIAL STREET DESIGN STANDARDS

Street Type	Right-of-Way	Number of Lanes	Lane Width		Bicycle Lane Width	Parking	Landscape Strip	Curb and Gutter	Sidewalks
			Center	Thru					
Arterial	60-foot minimum Right-of-way width determined by width of required improvements, rounded up to nearest interval of 5 feet.	2	30 feet from ROW edge	Two 10-12-foot lanes	Two 6-foot bike lanes	Allowed both sides (optional design)	5-foot minimum width required both sides Option-curbside planter strip or at back of sidewalk	Required both sides	5-10 foot-wide sidewalks required on both sides of the street unless otherwise specified. Option to provide curbside or setback sidewalk.

Figure 5.2: ARTERIAL STREET DESIGN STANDARDS



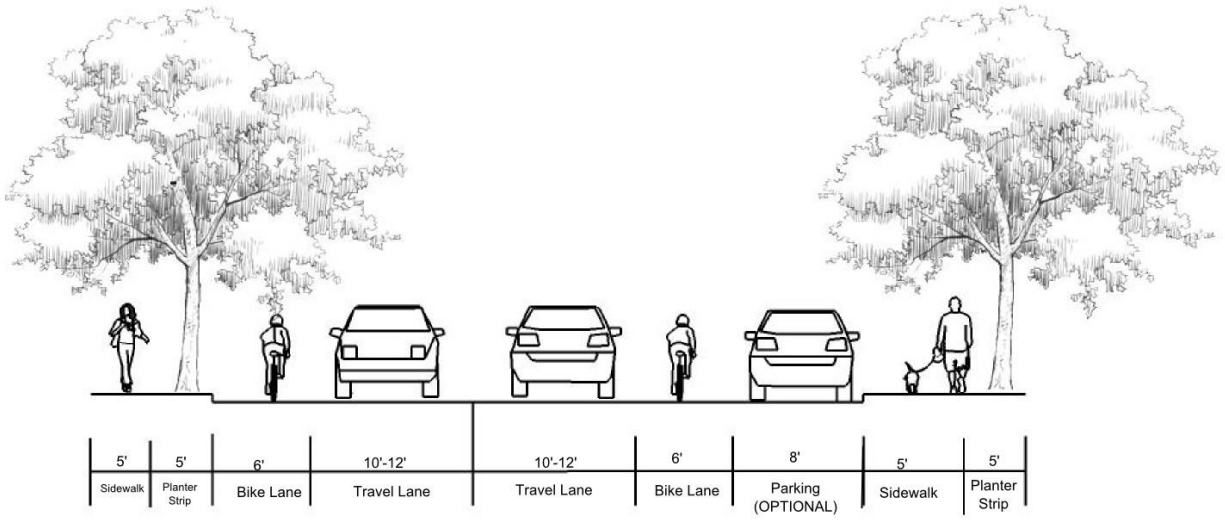
Major Collector Streets

The chart and diagram below establish the extent and nature of the improvements that must be provided in major collector streets.

Table 5.5: MAJOR COLLECTOR STREET DESIGN STANDARDS

Street Type	Right-of-Way	Number of Lanes	Lane Width	Parking	Bicycle Lane Width	Landscape Strip	Curb and Gutter	Sidewalks
Major Collector	60-foot minimum Right-of-way width determined by width of required improvements.	2	Two 10-12-foot lanes	Allowed both sides (optional to provide parking)	Two 6-foot bike lanes	5-foot minimum width required both sides Option-curbside planter strip or at back of sidewalk	Required both sides.	5-10 foot-wide sidewalks required on both sides of the street unless otherwise specified. Option to provide curbside or setback sidewalk

Figure 5.3: MAJOR COLLECTOR STREET DESIGN STANDARDS



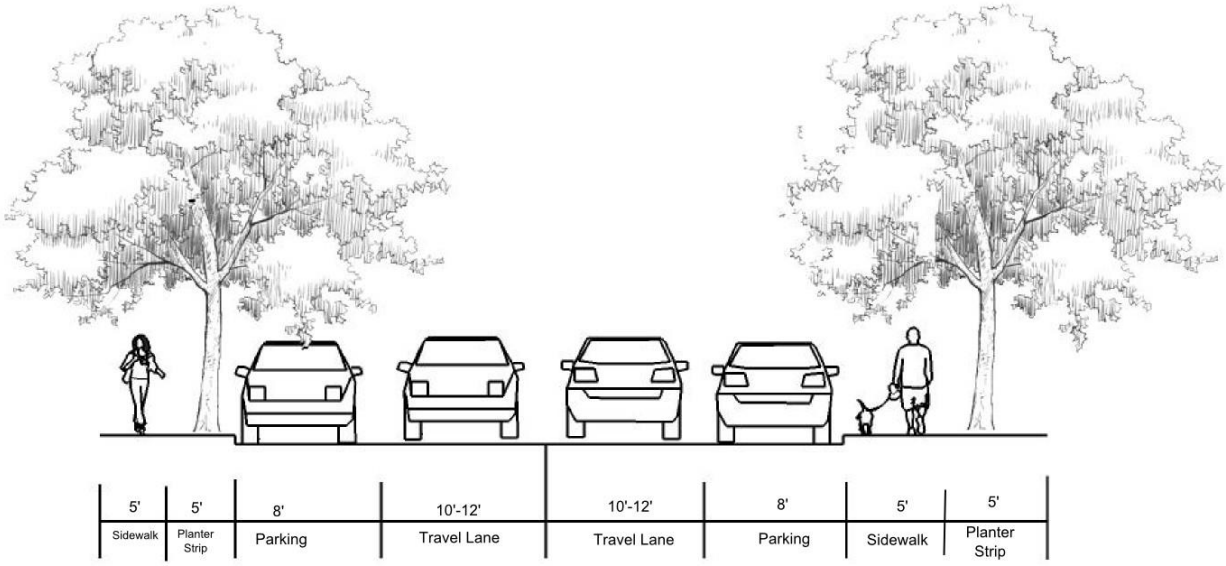
Minor Collector Streets

The chart and diagrams below establish the extent and nature of the improvements that must be provided in a Minor Collector Street.

Table 5.6: MINOR COLLECTOR STREET DESIGN STANDARDS

Street Type	Minimum Right-of-Way	Parking	Bicycle Lane Width	Curb and Gutter	Landscape Strip	Sidewalks
Minor Collector	60 feet.	Allowed on both sides.	6 foot lanes on each side of roadway (optional)	Required both sides	-foot minimum width required both sides Option-curbside planter strip or at back of sidewalk.	5-foot-wide sidewalks required on both sides of the street.

Figure 5.4: MINOR COLLECTOR STREET DESIGN STANDARDS



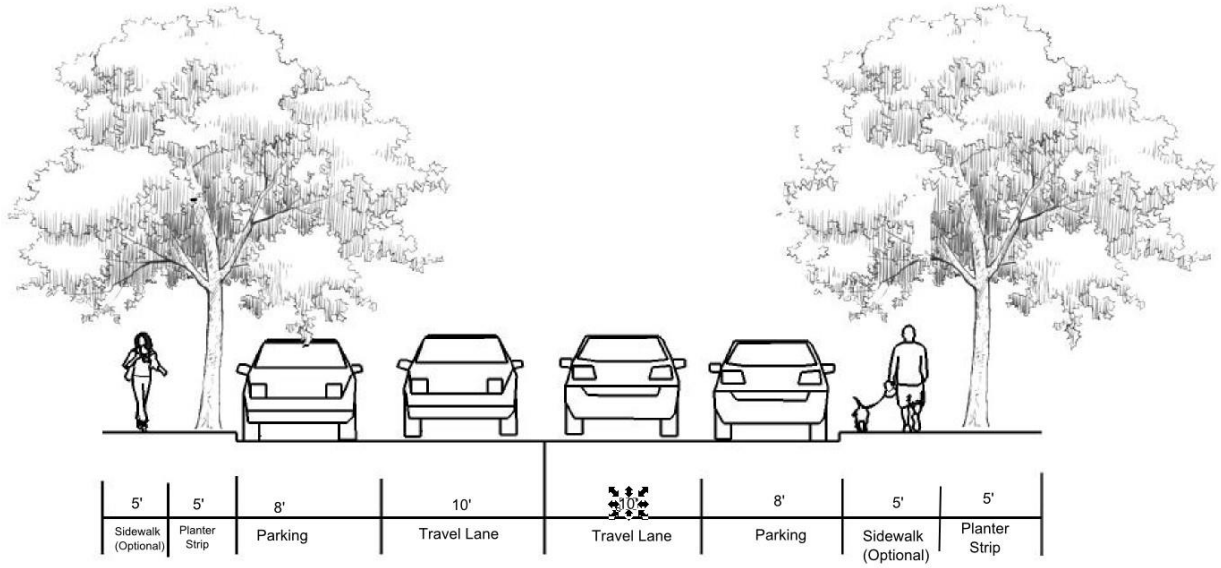
Major Local Access Streets

The chart and diagrams below establish the extent and nature of the improvements that must be provided in a Major Local street. This street standard is intended to be used for Local Streets that need additional improvements for enhanced pedestrian and bicycle amenities.

Table 5.7: MAJOR LOCAL ACCESS STREET DESIGN STANDARDS

Street Type	Minimum Requirements for Street Type	Minimum Right-of-Way	Parking	Landscape Strip	Sidewalks
Major Local	minimum Pavement width is 20 feet.		on street parking allowed	5 foot minimum width (optional)	5--foot-wide sidewalks allowed on both sides of the street unless otherwise specified

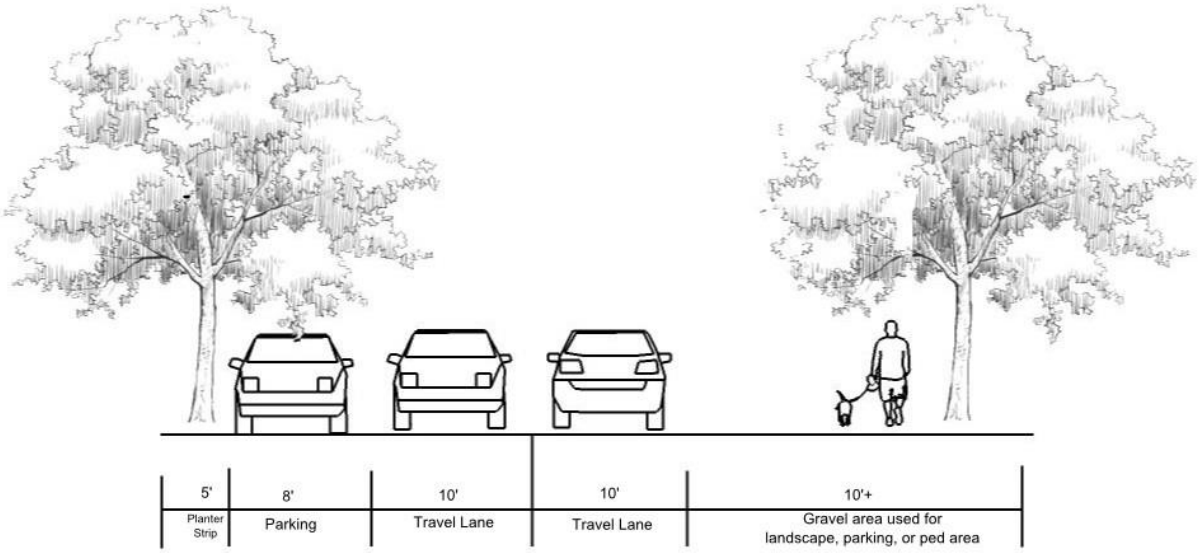
Figure 5.5: MAJOR LOCAL ACCESS STREET DESIGN STANDARDS



Minor Local Access Streets

The chart and diagrams below establish the extent and nature of the improvements that must be provided on a Minor Local street.

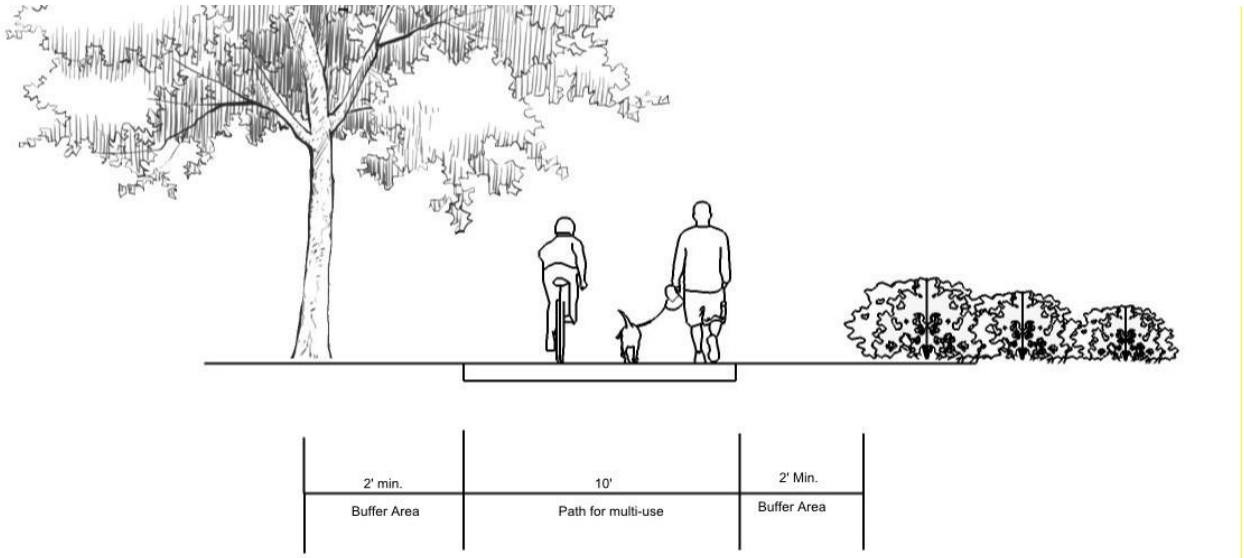
Figure 5.6: MINOR LOCAL ACCESS STREET DESIGN STANDARDS



Bicycle/Pedestrian(Multi-Use) Pathways

The diagram below establishes the extent and nature of the improvements that must be provided for a bicycle and pedestrian (multi-use) pathways that are not associated with a street.

Figure 5.7: BICYCLE/PEDESTRIAN PATHWAY DESIGN STANDARDS



5.3 Transit Plan

As noted in Section 4.13, Oakland is not currently served by public transit. Historically a route has served Oakland, but that route was discontinued by Umpqua Transit in within the last ten years, citing low ridership. Douglas Rides, a local Dial-a-Ride service has a connecting *out of area* service line that runs along I-5 from Cottage Grove to Roseburg. This service can be used by Oakland residents to get to surrounding areas. The closest proper transit service is an Umpqua Transit line running from Sutherlin to Umpqua Community College in Roseburg. There is no passenger rail service in Oakland.

Goal 5 of the LSP (Chapter 2) clearly expresses that Oakland should encourage the use of the County's Dial-A-Ride System for senior citizens, and encourage investigation into transit service expansion to Oakland by Umpqua Transit. Umpqua Transit provided representation on the Project Advisory Committee and expressed interest in investigating possible future opportunities for transit service in Oakland. Concerns outlined by Umpqua transit include the need to substantiate ridership, and to ensure the location of transit stops in areas that are ADA accessible. Map 19 presents the transit improvement alternatives approved by the Advisory Committees, City Council and Planning Commission.

5.4 Pedestrian Plan

In Goal 5 of the LSP (Chapter 2), the Project Advisory and Citizen Advisory Committees, as well as Oakland's Planning Commission and City Council expressed a priority for developing a balanced transportation system, including pedestrian facilities. Sidewalks currently exist sporadically throughout the downtown area, in newer neighborhoods and a number of other fairly random locations. Sidewalks provide only limited access to commercial areas, employment sites, and other activity centers (including schools) in Oakland. On the collector streets system, sidewalks are discontinuous and incomplete, and some collectors lack sidewalks altogether. Areas in particular need of attention are included the projects outlined below.

In the future, sidewalks should be provided on all collectors and major local streets, as well as on minor local streets where there are reasonable opportunities for connections to existing sidewalks. In general new sidewalks should be constructed as part of roadway improvement projects identified in the LSP, although in some cases, sidewalks could be retrofitted onto existing roads.

Advisory committees, City Council, Planning Commission and public review and feedback revealed the desire for prioritization of sidewalk improvements at a site specific level in order to delineate and facilitate possible sidewalk improvements of urgent and critical need outside of the broader street reach improvement context. A draft sidewalk inventory and identification of priority sidewalk improvement areas is included as Map 17 and serves as a supplement to the improvement priority list.

5.4.1 Pedestrian System Improvements

Table 5.8 outlines the pedestrian related priority projects identified through Oakland's LSP process. A number of alternatives reflect the desire for multi-use paths in Oakland. In most cases these proposals are for new infrastructure on existing public land or right-of-way. In a few cases the improvements will require agreements or acquisition. Map 16 also provides a graphic summary of pedestrian system improvements.

Table 5.8: Prioritized Pedestrian System Improvements

Intersection/Corridor	Improvement Summary
Higher Priority (*activity by the year 2020*)	
Fifth Street and Oak Street	Improved (Flashing) Crossing
Calapooya Creek Multi-Use Path	Multi-Use Path on public open space west of railroad
Ash Street (Creek) Multi-Use Path	Multi-use path in current undeveloped Ask Street ROW
Multi-Use Path Railroad Crossing	A crossing at Ash , Pine or First Street

Locust Street and Seventh Street	Improvements to curve, city hall parking, and sidewalk between 7th and 8th
First and Locust & First and Oak Intersections	Improvements related to signage, geometry and crossings
Fifth-Cedar Streets & Fifth-Cypress Streets	Sidewalk between Cedar Street and school (west side). High visibility crosswalks at Cedar and Cypress Streets
Medium Priority (*activity by the year 2030*)	
Fifth Street segment improvements	Improve path and intersection dynamics between Oak Street and School
Cypress Avenue Improvements	Pedestrian and bicycle improvements for school traffic
Railroad right-of-way east of Hwy 99	Utilizing leased Railroad land for improved connection across Railroad
Lower Priority (*activity by the year 2040*)	
Maple Street Improvements	Bicycle and pedestrian improvements along Maple Street
Oak Street Improvements	Bicycle and pedestrian improvements along Oak Street
Extending Cypress Avenue	Extending Cypress Avenue between 5th and 6th Streets, with bicycle and pedestrian improvements

New Streets Design Standards, outlined in Section 5.2.5, include, for all street functional classifications, a requirement for infrastructure specific to pedestrian uses. As evidenced in Table 5.8, numerous priority projects have been included to increase pedestrian connections as well as improving sidewalks throughout town. In order to complete a usable and safe sidewalk network, improvements will need to be made to the existing network as identified.

5.5 Bicycle Plan

In Goal 5 of the LSP, the Project Advisory and Citizen Advisory Committees, as well as Oakland's Planning Commission and City Council expressed a priority for developing a balanced transportation system, including bicycle facilities. Furthermore, Oregon Revised Statue (ORS) 366.51 requires the provision of bicycle and pedestrian facilities on all arterial and major collector construction, reconstruction or relocation projects where conditions permit. Additionally, in any fiscal year, at least one percent of road improvement funds in a jurisdiction must be allocated for bicycle/pedestrian projects.

Currently, the City of Oakland has no proper bicycle facilities. County bicycle facilities at the edges of the city are all Class III or Class IIIs bikeways that share the roadway with traffic (see Map 8). Continuity and connectivity are key issues for bicyclists. Without connectivity, this mode of travel is significantly limited (similar to a road system with numerous cul-de-sacs). Due to the lack of bike facilities in and through Oakland, there is no connectivity between the County bikeways, for example. In addition, there are no designated facilities connecting residential neighborhoods to commercial areas and schools for convenient and safe local bicycle travel. In the future, bicycle facilities should be provided on collectors and major local streets to facilitate local and regional bicycle travel. In general, new bicycle lanes should be

constructed as part of roadway improvement projects. In some cases, bicycle lanes should be retrofitted onto existing arterial and collector streets. Recommended bicycle improvements are listed below and presented in more detail.

Included in the improvements for the bicycle network are a number of off-street multi-use paths. The paths will provide improved bicycle access to city open spaces and parks, and, in some instances, take advantage of underutilized public amenities and rights-of-way. A notable example of this utilization of existing right-of-way is the proposal to use Ash Creek as a bicycle and pedestrian path connecting residents to open space on the east side of the railroad.

5.5.1 Bicycle System Improvements

Table 6.9 outlines the bicycle related priority projects identified through Oakland's LSP process. A number of alternatives reflect the desire for multi-use paths in Oakland. In most cases these proposals are for new infrastructure on existing public land or right-of-way. In a few cases the improvements will require agreements or acquisition. Bicycle system improvements are, in many cases the same projects identified as Pedestrian System Improvements in Table 5.8. Map 18 also provides a graphic summary of bicycle system improvements.

Table 5.9: Prioritized Bicycle System Improvements

Intersection/Corridor	Improvement Summary
Higher Priority (*activity by the year 2020*)	
Fifth Street and Oak Street	Improved (Flashing) Crossing
Calapooya Creek Multi-Use Path	Multi-Use Path on public open space west of railroad
Ash Street (Creek) Multi-Use Path	Multi-use path in current undeveloped Ask Street ROW
Multi-Use Path Railroad Crossing	A crossing at Ash , Pine or First Street
First and Locust & First and Oak Intersections	Improvements related to signage, geometry and crossings
Fifth-Cedar Streets & Fifth-Cypress Streets	Sidewalk between Cedar Street and school (west side). High visibility crosswalks at Cedar and Cypress Streets
Medium Priority (*activity by the year 2030*)	
Fifth Street segment improvements	Improve path and intersection dynamics between Oak Street and School
Locust Street segment Improvements	Bicycle improvements along Locust Street
Cypress Avenue Improvements	Pedestrian and bicycle improvements for school traffic
Railroad right-of-way east of Hwy 99	Utilizing leased Railroad land for improved connection across Railroad
Lower Priority (*activity by the year 2040*)	
Maple Street Improvements	Bicycle and pedestrian improvements along Maple Street

Oak Street Improvements	Bicycle and pedestrian improvements along Oak Street
Extending Cypress Avenue	Extending Cypress Avenue between 5th and 6th Streets, with bike and ped improvements

New Street Design Standards for Arterial and Major Collector Streets, and Multi-Use Paths (Section 5.2.5) include requirements for infrastructure specific to bicycle use. As evidenced in Table 5.9, numerous priority projects have been included to increase bicycle connections throughout town. In order to complete a usable and safe bicycle network, improvements will need to be made to the existing network as identified.

5.6 Overall Transportation System

5.6.1 System Maintenance

Preservation, maintenance, and operation are essential to protect the City's investment in transportation. The City of Oakland's current operations and maintenance budget is very limited. Any increase in road inventory and/or identified need for increased maintenance of any kind will require expanding funds for maintenance (see Chapter 6).

One tool for effective maintenance is a pavement management program. A pavement management program is one systematic method of organizing and analyzing information about pavement conditions to develop the most cost-effective maintenance treatments and strategies. A pavement management program can be a major factor in improving performance in an environment of limited revenues. As a management tool, it enables public works to determine the most cost-effective maintenance program. The concept behind a pavement management system is to identify the optimal rehabilitation time and to pinpoint the type of repair that makes the most sense.

A critical maintenance consideration in Oakland is a high occurrence of storm drainage issues. A number of storm drains have, over time, collapsed and created a number of unsafe, destructive and/or environmentally disturbing circumstances. Although the LSP cannot fully address stormwater infrastructure issues, it should adequately note instances where such issues have direct relevance to project alternatives and include the dynamic in its priority considerations**.**

Advisory Committee, City Council, Planning Commission and public review and feedback also revealed the desire for prioritization of paving improvements at a site specific level in order to delineate and facilitate possible paving improvements of urgent and critical need outside of the broader street reach improvement context. Several priority paving improvement areas are identified in Map 13, the Road System Improvement Map.

5.6.2 Traffic Forecasts

Given the size of Oakland and its limited forecasted growth, traffic forecasts were not done for this project. For the purposes of this project, the assumption is that traffic will increase as population increases in Oakland. Truck traffic through town is expected to remain stable or increase only slightly (though one new industrial use could result in notably higher truck traffic).

Traffic counts on county roads are periodically collected and a map of these counts is included on Map 4. The county road counts generally capture a majority of the truck traffic through town. Bicycle and pedestrian counts were also not conducted for this study and all conclusions are based on anecdotal and qualitative data gathered during the LSP planning process.

5.6.3 Parking

Section 5.10 provides a complete listing of on-street parking locations in Oakland. There is little designated on-street parking on local streets throughout the city, and there are no public parking lots in Oakland. Locust Street provides the bulk of designated on-street parking in Oakland, most of which are angled slots. Some parallel parking is available along SE First and Second Streets. Though not legal, residents and visitors frequently park perpendicular to First Street (Highway 99) along its western side on the southern end of town. This parking dynamic has long been an issue in Oakland, though safety and traffic flow concerns become most serious during events, such as the City's Fourth of July Celebration. This ongoing safety issue needs to be addressed.

5.6.4 Access Management

Access management is important, particularly on high volume roadways, for maintaining traffic flows, mobility, and safety. Local and neighborhood streets primarily function to provide access, whereas collector and arterial streets typically serve greater traffic volumes. Numerous driveways or street intersections increase the number of conflicts and potential for accidents, and decreases mobility and traffic flow. Oakland, like any community, needs a balance of streets that provide access and streets that provide mobility.

Following are several access management strategies that the City could implement to ensure that access and mobility are both considered and maintained:

- Prohibit new single family access to arterials and collectors
- Work with land use development applications to consolidate driveways
- Pedestrian refuge islands on arterials and collectors

5.6.5 Neighborhood Traffic Management/Traffic Calming

Neighborhood traffic management is a method used to describe traffic control devices typically used in residential neighborhoods to slow and "calm" traffic. The City does not have a formalized neighborhood traffic management program. The following are examples of neighborhood traffic management/traffic calming measures:

- Speed humps
- Chokers
- Pavement texturing
- Chicanes (bump outs)
- Curb extension
- Medians
- Signalized Crosswalk
- Narrow streets
- Photo radar
- On-street parking
- Selective enforcement
- Neighborhood watch

5.6.6 Environmental

Goal 2 of the LSP addresses enhancing livability within Oakland including locating and constructing transportation facilities in a manner that is compatible with the natural environment and which strikes a balance between the need for human use and enjoyment with resource conservation.

The environmental impacts for each project have been considered at a planning level. A number of projects occur across, within or in close proximity to riparian areas, floodplains and wetlands. It is noted that the City of Oakland has never completed a local wetland inventory and relies entirely on the less detailed National Wetland Inventory for determining the location of wetlands. Local knowledge and documentation of problem areas in town indicate that more wetlands may exist than are currently mapped. At the time of construction, all projects will be subject to the regulations that apply to the resources they impact, whether known (mapped) or unknown (unmapped). A number of projects are flagged in the LSP's projects summary (Volume I, Chapter 3) as being highly likely to involve potential resource conflicts. Greater detail relative to resource conflicts will have to be investigated as project specifics emerge and construction plans are developed.

5.7 Oakland Transportation System(s) Maps

Map 13 - *Road System Improvements*
Map 14 - *New Street Functional Classification*
Map 15 - *Conceptual Future Road Network*
Map 16 - *Pedestrian System Improvements*
Map 17 - *Sidewalks*
Map 18 - *Bicycle System Improvements*
Map 19 - *Transit System Improvements*

Map 13

City of Oakland

Road System Improvements

- Urban Growth Boundary
- Railroad
- Roads
- Calapooya Creek
- Oakland Parks
- Oakland City Limits

OLD HIGHWAY 99 NORTH
LINCOLN LN
DEER RIDGE LN
DRIVER VALLEY RD
CROWSFOOT RD
OLD TOWN LOOP RD
NE CEDAR ST
NE FIRST ST
NE SECOND ST
NE THIRD ST
NE CYPRESS AVE
NE FIFTH ST
NE SIXTH ST
NE ASH CT
NE EIGHTH ST
SE SEVENTH ST
OAK ST
NE LOCUST ST
SE LOCUST ST
SE MAPLE ST
SE THIRD ST
SE FIFTH ST
SE FOURTH ST
SE WALNUT ST
SE APPLE ST
SE PEAR ST
SE FIRST ST
SE FRONT ST
BAMBLER LN
WELLS RD
WELLS LN
MARTIN RD
SPENCER HILL LN
CLEAR LAKE ST
GOODMAN AVE
STEARNS LN
OLD HIGHWAY 99 NORTH
INTERSTATE 5
CRYSTAL LN

17
10
15
2
1
8
9
9

Higher Priority

Project 1 - Hwy 99 and Locust & Hwy 99 and Oak Intersections
Project 2 - Locust and Seventh Street
Project 8 - Apple Street Connection
Project 9 - First Street and Fifth Street

Medium Priority

Project 10 - Fifth Street Segment Improvements

Lower Priority

Project 15 - Oak Street Improvements
Project 17 - Extending Cypress Avenue

0 0.125 0.25 0.5 0.75 Miles

N W E S

This map should only be used for general planning purposes.
It is not intended for legal, engineering, and surveying purposes.

Data Source: Douglas County & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

Map 14

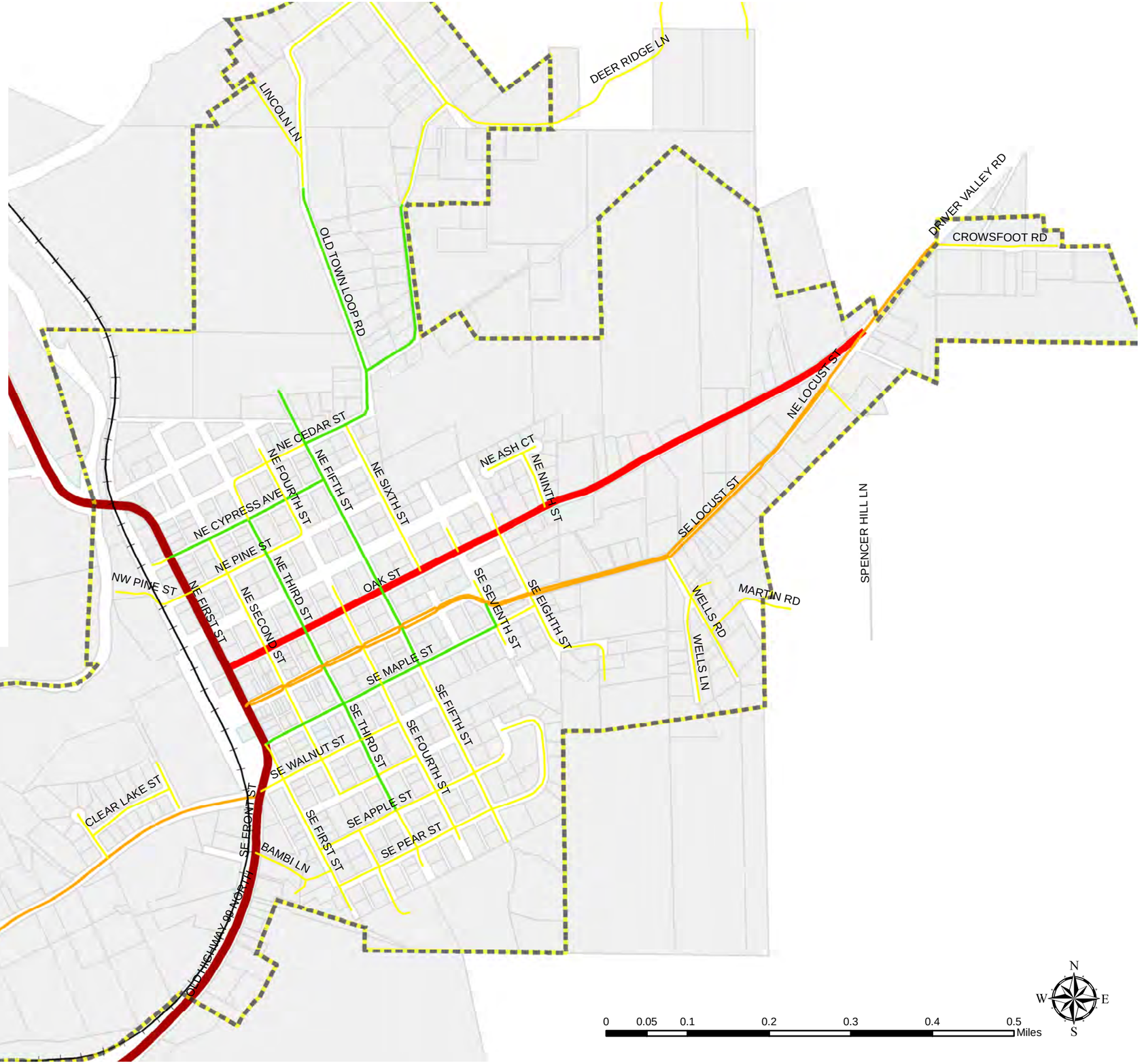
City of Oakland

New Street Functional Classification

- Oakland Parcels
- Railroad
- Oakland UGB

Classification Proposal

- Arterial
- Major Collector
- Minor Collector
- Major Local
- Minor Local



Data Sources: Douglas County & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

Map 15

City of Oakland

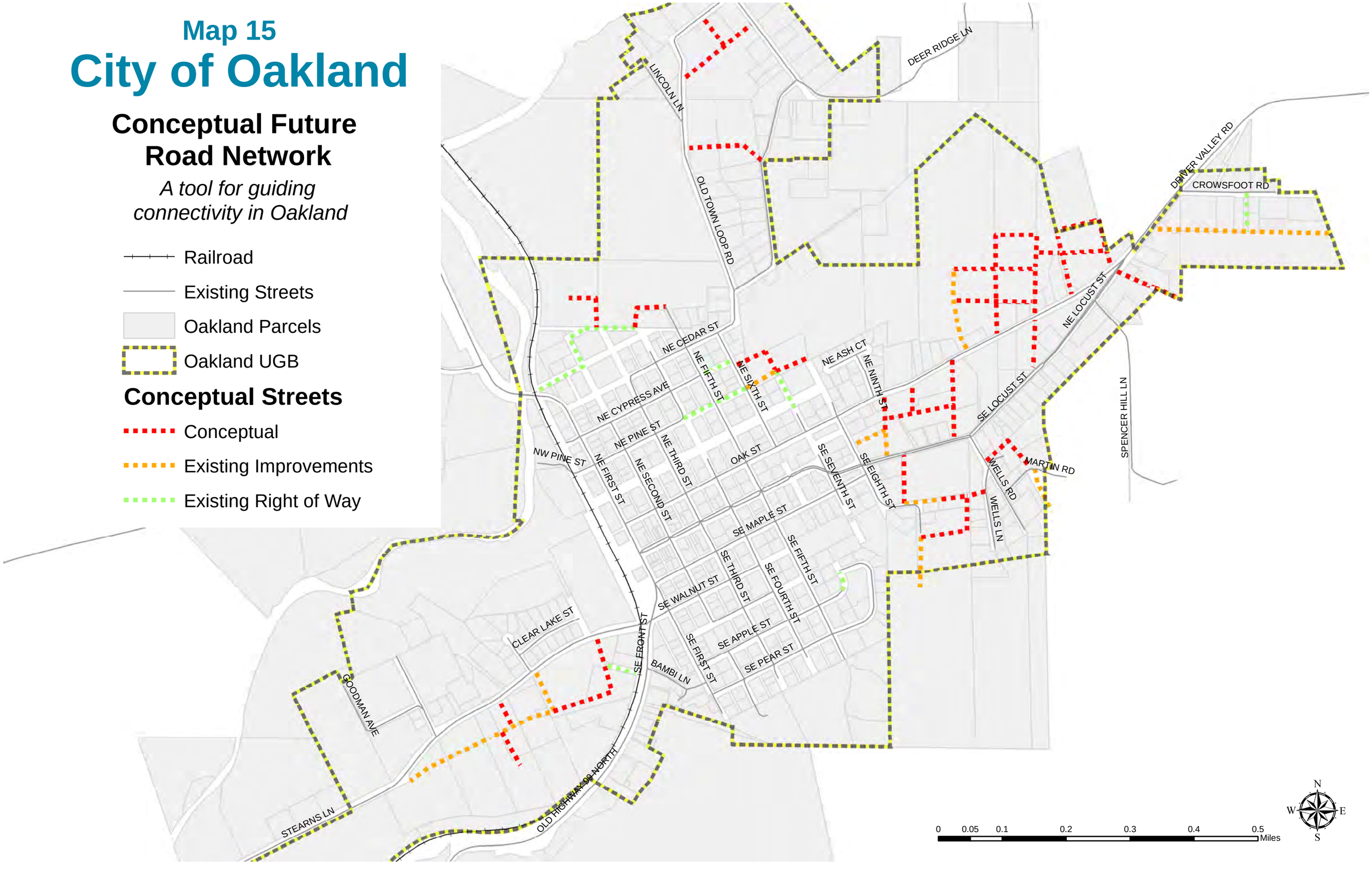
Conceptual Future Road Network

A tool for guiding connectivity in Oakland

- Railroad
- Existing Streets
- Oakland Parcels
- Oakland UGB

Conceptual Streets

- Conceptual
- Existing Improvements
- Existing Right of Way



Data Source: Douglas County, Oakland & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

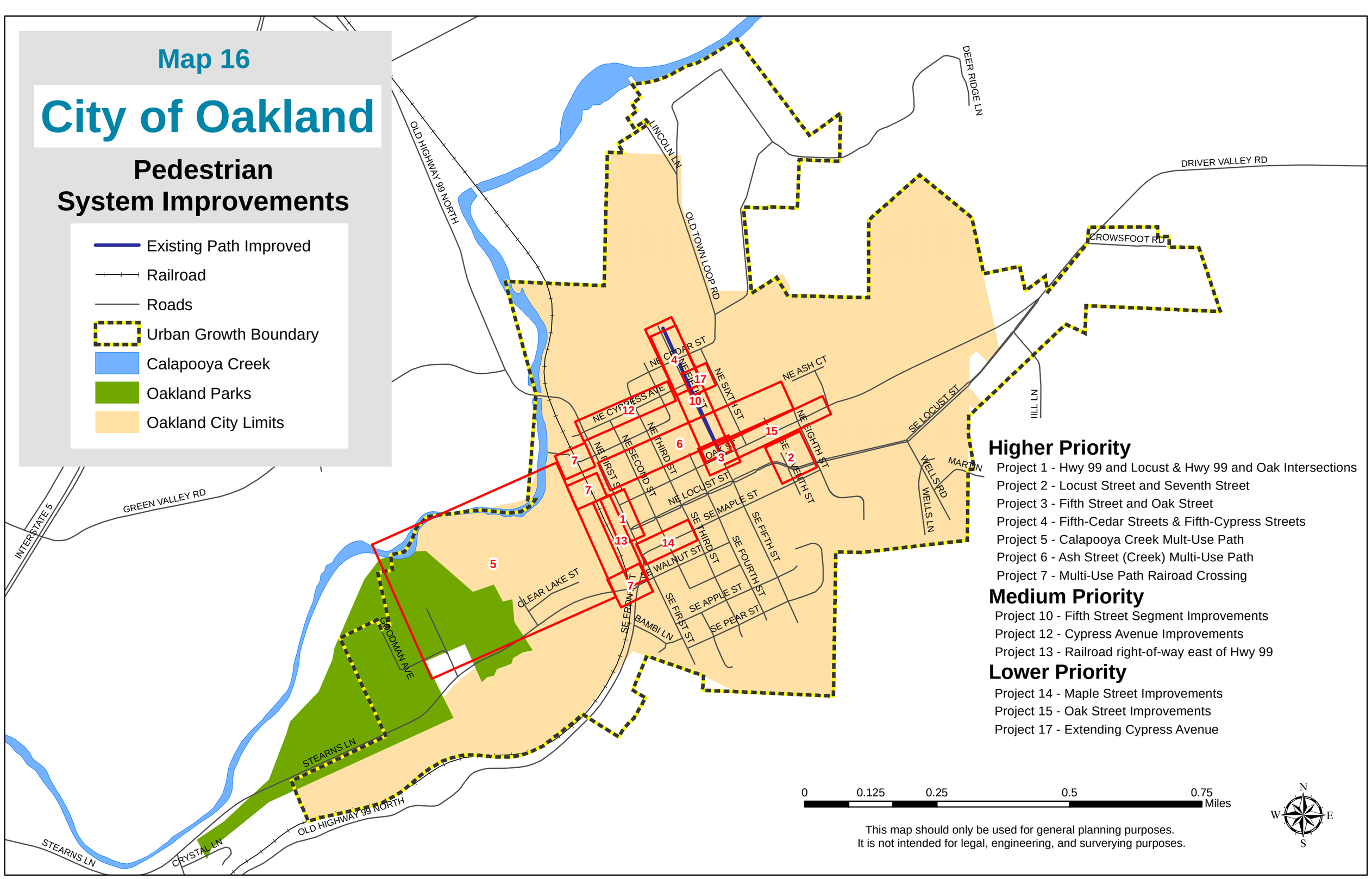
Created By: LCOG June 2015

Map 16

City of Oakland

Pedestrian System Improvements

- Existing Path Improved
- Railroad
- Roads
- Urban Growth Boundary
- Calapooya Creek
- Oakland Parks
- Oakland City Limits



Higher Priority

- Project 1 - Hwy 99 and Locust & Hwy 99 and Oak Intersections
- Project 2 - Locust Street and Seventh Street
- Project 3 - Fifth Street and Oak Street
- Project 4 - Fifth-Cedar Streets & Fifth-Cypress Streets
- Project 5 - Calapooya Creek Mult-Use Path
- Project 6 - Ash Street (Creek) Multi-Use Path
- Project 7 - Multi-Use Path Rairoad Crossing

Medium Priority

- Project 10 - Fifth Street Segment Improvements
- Project 12 - Cypress Avenue Improvements
- Project 13 - Railroad right-of-way east of Hwy 99

Lower Priority

- Project 14 - Maple Street Improvements
- Project 15 - Oak Street Improvements
- Project 17 - Extending Cypress Avenue

0 0.125 0.25 0.5 0.75 Miles

N W E S

This map should only be used for general planning purposes.
It is not intended for legal, engineering, and surverying purposes.

Data Sources: Douglas County & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

Map 17

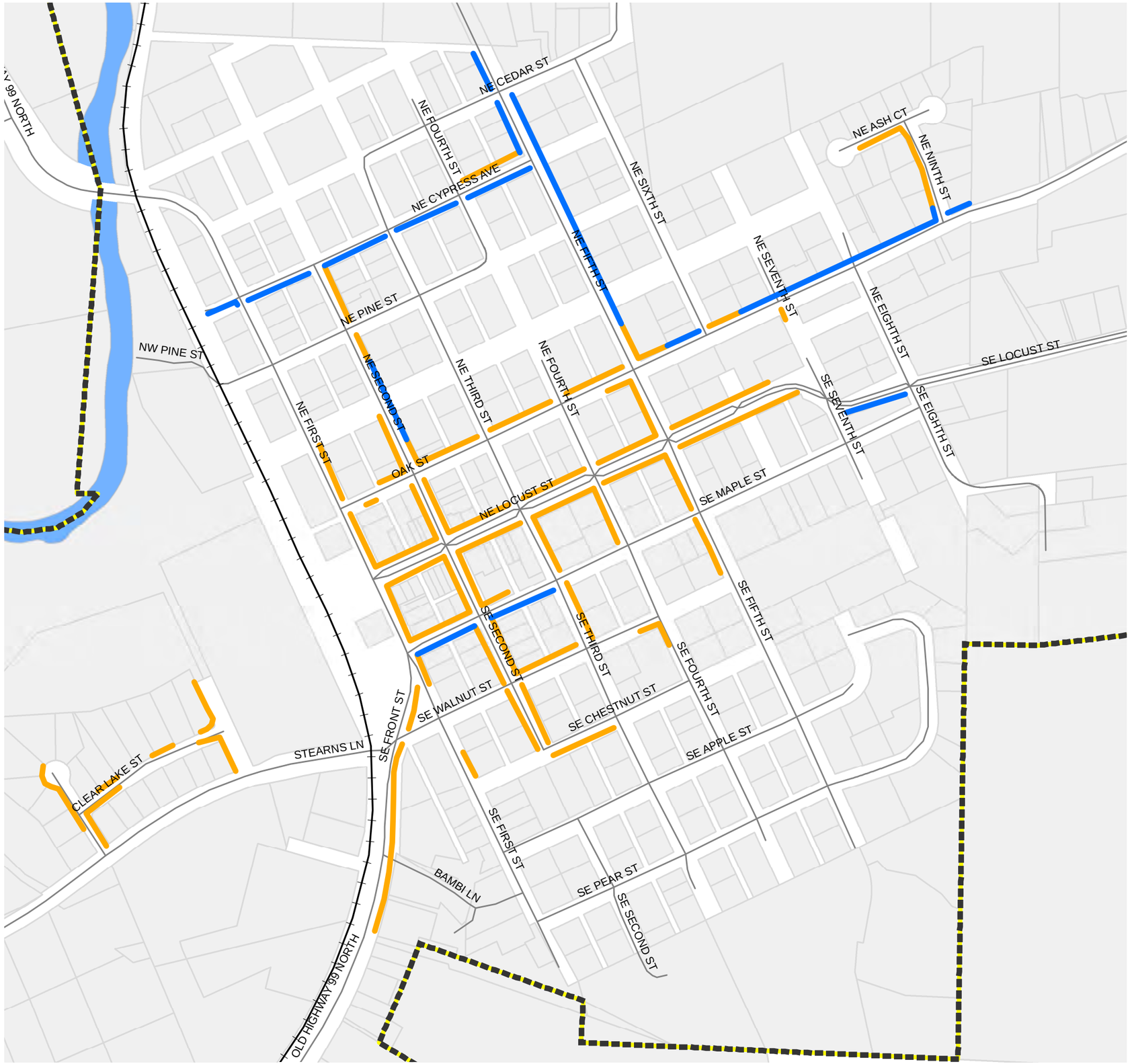
City of Oakland

Sidewalks

- Douglas County Roads
- Railroad
- Desired Sidewalk Project Improvements
- Existing Sidewalks
- Urban Growth Boundary
- Oakland Parcels
- Waterbody

N
W E
S

0 0.025 0.05 0.1 0.15 0.2 0.25 Miles



Data Sources: Douglas County, Oakland & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

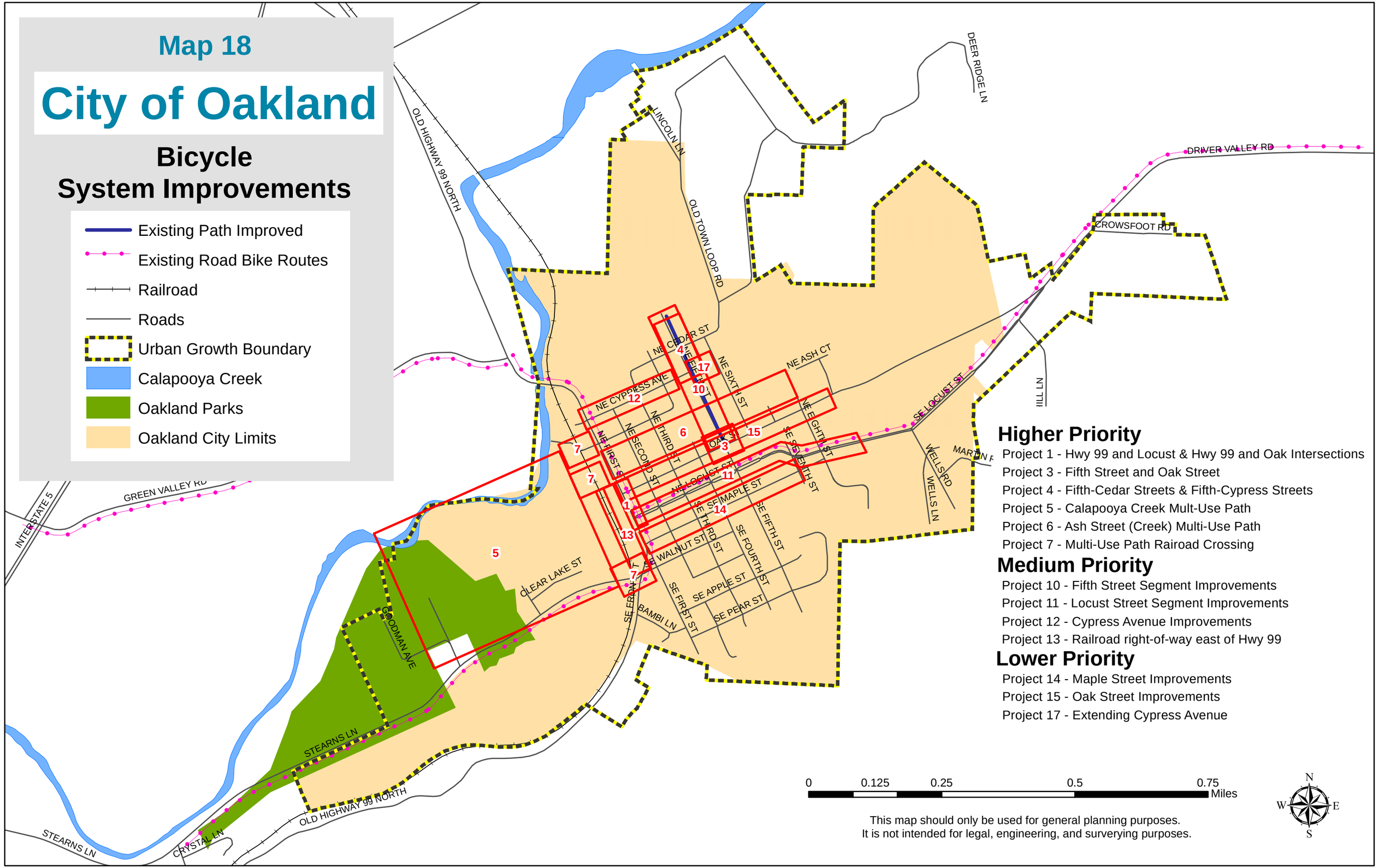
Created By: LCOG June 2015

Map 18

City of Oakland

Bicycle System Improvements

- Existing Path Improved
- Existing Road Bike Routes
- Railroad
- Roads
- Urban Growth Boundary
- Calapooya Creek
- Oakland Parks
- Oakland City Limits



Higher Priority

- Project 1 - Hwy 99 and Locust & Hwy 99 and Oak Intersections
- Project 3 - Fifth Street and Oak Street
- Project 4 - Fifth-Cedar Streets & Fifth-Cypress Streets
- Project 5 - Calapooya Creek Mult-Use Path
- Project 6 - Ash Street (Creek) Multi-Use Path
- Project 7 - Multi-Use Path Rairoad Crossing

Medium Priority

- Project 10 - Fifth Street Segment Improvements
- Project 11 - Locust Street Segment Improvements
- Project 12 - Cypress Avenue Improvements
- Project 13 - Railroad right-of-way east of Hwy 99

Lower Priority

- Project 14 - Maple Street Improvements
- Project 15 - Oak Street Improvements
- Project 17 - Extending Cypress Avenue

0 0.125 0.25 0.5 0.75 Miles

N W E S

This map should only be used for general planning purposes.
It is not intended for legal, engineering, and surverying purposes.

Data Sources: Douglas County & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

Map 19

City of Oakland

Transit System Improvements

- Urban Growth Boundary
- Railroad
- Roads
- Calapooya Creek
- Oakland Parks
- Desired Sidewalk Project Improvements *
- Existing Sidewalks *
- Oakland City Limits
- Potential Transit Route
- Historical Transit Stop

* Affected by potential transit stops

OLD HIGHWAY 99 NORTH
LINCOLN LN
DEER RIDGE LN
OLD TOWN LOOP RD
DRIVER VALLEY RD
MANNING RD
N VALLEY RD
NE CEDAR ST
NE FIFTH ST
NE SIXTH ST
NE ASH CT
NE CYPRESS AVE
NE FIRST ST
NE SECOND ST
NE THIRD ST
OAK ST
NE LOCUST ST
NE EIGHTH ST
SE LOCUST ST
SE SEVENTH ST
SE MAPLE ST
SE THIRD ST
SE FOURTH ST
SE FIFTH ST
SE WALNUT ST
SE APPLE ST
SE PEAR ST
SE FIRST ST
SE FRONT ST
WELLS RD
WELLS LN
MARTIN RD
SPENCER HILL LN
CLEAR LAKE ST
BAMBI LN
GOODMAN AVE
STEARNS LN
CRYSTAL LN
INTERSTATE 5

Transit Stops

- SE Maple and SE First Street
- NE Third and Oak Streets

0 0.125 0.25 0.5 0.75 Miles

N W E S

This map should only be used for general planning purposes.
It is not intended for legal, engineering, and surveying purposes.

Data Sources: Douglas County, Umpqua Transit, Oakland & LCOG

Projected Coord: NAD 1983 State Plane Oregon South FIPS 3602 Feet

Created By: LCOG June 2015

CHAPTER 6. TRANSPORTATION FUNDING

6.1 Introduction

Goal 7 of the LSP (Chapter 3) outlined the City's desire to work cooperatively with federal, state and local governments, as well as the private sector to create a stable, flexible financial system for funding transportation improvements.

This chapter characterizes the City of Oakland's budget and financing dynamic relative to transportation. Also included is a discussion of available funding mechanisms as well as a summary of the project planning-level costs for the projects outlined in Volume I and referenced throughout this Plan. Planning level cost estimates and assumptions for each project are included in Volume I. For some projects, it is not possible to generate even conceptual cost estimates, due to unknown variables in the scale or scope of the project. Construction level cost estimates (more detailed in nature) will follow as projects are ready to go forward.

The City of Oakland has conducted an inventory of the existing transportation system and an analysis of future demands on the system. There are needed improvements to the existing street system and expansions will be required as development occurs. In addition, there are needed improvements and expansion to pedestrian and bicycle facilities.

In response to this, alternatives, opportunities and priorities to enhance the transportation system in Oakland have been identified. A variety of established funding sources from federal, state and local sources are available to fund future transportation projects in the City of Oakland. This section summarizes a number of potential funding sources.

6.2 Existing Transportation Funding within Oakland

Like many small cities in Oregon and elsewhere, The City of Oakland Public Works Department must maintain and operate the City's road network with limited funds. All jurisdictions (State, County and City) receive an apportionment of "Highway Revenues" or the "State Highway Fund" which is generated through the following major sources:

- Driver License Fees
- Motor Vehicle Registration and Title Fees.
- Motor Vehicle Fuel Taxes.
- Weight-Mile Tax.

With minor exceptions, the Oregon Constitution (Article IX, Section 3a) dedicates the highway revenues for the construction, improvement, maintenance, operation and use of public highways, roads, streets and roadside rest areas. Cities are apportioned 16% of total funds and this is distributed based on the population in each city (ORS 366.805).

In budget year 2013-14, Oakland reported street fund accrual totaling $53,419. For that same budget year the City of Oakland Budget Committee approved an accrued Net Working Capital balance of $21,725, bringing the cities total transportation resources that year to $72,725.

Expenditures, including Personal and Material Services totaled $26,900 in 2013-14. In recent years these actual expenditures were reported at anywhere between $130,030 in 2010-11 to $53,257 in 2011-12. The most significant budget factor is the "Rock, Repairs, and Street Maintenance." In 2013-14 this line item constitutes 47% of the $26,900 budget. In 2010-11 this line item constituted almost 90% of the budget.

The City has no dedicated capital outlay fund. A capital outlay fund is money incrementally set aside for long term and/or future acquisition, maintenance, repair, or upgrading of capital assets, likes roads or trails. Under Oakland's current transportation budgeting dynamic, funding for any of the projects outlined in this plan would have to come from sources other than Oakland.

It is important to note that Douglas County would have, or share, responsibility for a number of the roadway, bicycle facilities, and pedestrian facilities in the plan. This dynamic is addressed more specifically in further sections of this Chapter.

6.3 External Funding Sources

A review of the project-level cost estimates and priorities for Oakland reveal that the City's current transportation funding dynamics will not be sufficient for adequately addressing long term or immediate priorities. Although many can be challenging for small cities to secure, a number of external funding sources exist, including federal and state resources.

6.3.1 Federal Funding

Highway Trust Fund

Revenues to the federal Highway Trust Fund (HTF) are comprised of motor vehicle fuel taxes, sales taxes on heavy trucks and trailers, tire taxes and annual heavy truck use fees. HTF funds are split into two accounts, the highway account and transit account. Funds are appropriated to the states annually, based on allocation formulas in the current legislation governing the HTF. Moving Ahead for Progress in the 21st Century (MAP-21) is the current federal transportation program legislation, which became effective October 1st, 2012. MAP-21 kept federal funding for transportation at the same rate as the prior legislation (the Safe, Accountable, Flexible and Efficient Transportation Equity Act A Legacy for Users, known as SAFETEA-LU). MAP-21 consolidated the 90 different programs in SAFETEA-LU into 30, eliminated transportation earmarks, and reduced funding for transportation enhancements (pedestrian, bicycle and similar projects) by one third. Despite these changes and modest reduction in transportation enhancement (now transportation alternatives) funds, MAP-21 largely continues federal transportation funding and policy enacted under SAFETEA-LU. Matching funds are generally required; the current matching ratio is about 10 percent for projects in Oregon.

Most federal grant monies are distributed by the Oregon Department of Transportation (ODOT) through the Statewide Transportation Improvement Program (STIP). The application process for federal funds is described below in the STIP section.

Most federal funds are programmed through the STIP process, which is guided by ODOT and relevant Area Commissions on Transportation (ACT). The Southwest Area Commission Transportation (ACT) generally selects projects for submission and inclusion in the STIP, which are then eligible for a variety of state and federal funding.

Community Development Block Grants (CDBG)
The Department of Housing and Urban Development administers CDBGs with states dispersing the funds. CDBG funds can be used for transportation projects in eligible cities. Currently Oakland does meet the income thresholds to qualify for CDBG grants, but recent questions regarding the income data used for these thresholds (resulting in much fewer cities being eligible than in the past) has created uncertainty about the methodology and therefore Oakland should watch CDBG closely in the short term.

Land and Water Conservation Fund
This grant program is administered by the Oregon Department of Transportation (ODOT). Funds are derived under Public Law 88-578 from the National Park Service, Department of the Interior. Grants are available for the acquisition of land and the development of public outdoor recreation facilities. Grants are limited to 50% of the total project cost. The cities and counties are responsible for the remaining project cost. Bicycle/pedestrian paths have been funded under this program in instances where they have been shown to be needed in connection with outdoor recreation activities.

6.3.2 State Grants

State Highway Fund
State funds are distributed by the Oregon Transportation Commission (OTC). Revenues to the fund are comprised of fuel taxes, vehicle registration and title fees, driver's license fees and the truck weight-mile tax. State funds may be used for construction and maintenance of state and local highways, bridges and roadside rest areas. State law requires that a minimum of 1% of all highway funds be used for pedestrian and bicycle projects in any given fiscal year. However, cities and counties receiving state funds may "bank" their pedestrian and bicycle allotment for larger projects.

Statewide Transportation Improvement Program (STIP)
The STIP is the 4-year capital improvement program for the state of Oregon. It provides a schedule and identifies funding for projects throughout the state. Projects included in the STIP are generally "regionally significant" and have been given a high priority through planning efforts (like the Local Street Network Plan). The STIP is the major transportation funding program for most state and federal transportation funds.

All regionally significant state and local projects, as well as all federally-funded projects and programs, must be included in the STIP. Oakland has no projects on the current 2012-2015 STIP.

STIP Enhance funds for roadway projects require some form of benefit to the state system. Since Oakland does not have a state facility, such a connection would be difficult to

substantiate. There will be a small amount of STIP Enhance money available for purely local projects, mostly non-roadway projects like bike paths, sidewalks, and trails. These must be entirely NEW facilities that add capacity for those modes. ODOT anticipates these funds will be very competitive, and successful projects will have a match that is significantly larger than the minimum required, and can still show some wider regional benefit. STIP Enhance funds are federal, and federal standards will apply to all projects. Oakland will need to consider whether STIP funding is appropriate for any of the projects Oakland might pursue.

6.3.3 Other State Grants

Recreational Trails Program (RTP)

This program is administered by the Oregon Parks and Recreation Department. RTP funding is intended for recreational trail projects, and can be used for acquiring land and easement and building new trails. Funding varies greatly from year to year, with about $4 million awarded annually. Oakland's multi-use trail project across the railroad tracks project would be eligible for funding under this program.

Connect Oregon Program

ConnectOregon provides grants and loans for non-highway transportation projects, backed by bonds on state lottery proceeds. $40 million in bonds were authorized for the most recent biennium. In July, 2013, the State Legislature made bicycle and pedestrian projects, that are not eligible for State Highway Funds, eligible to compete for ConnectOregon funding.

Oregon Immediate Opportunity Fund

The objectives of the Opportunity Fund are providing street or road improvements to influence the location, relocation, or retention of a firm in Oregon, providing procedures and funds for the OTC to respond quickly to economic development opportunities.

6.3.4 Other Current and Potential Funding Source/Mechanisms

The city currently has limited internal sources for funding of transportation projects. Prioritization of projects is based on external availability of funds from state, federal, or private funding sources. Some potential strategies for generating city funding sources are below.

Tax Increment Financing (Urban Renewal Areas)

Oakland currently has no Urban Renewal Areas (URA). Oregon law allows small cities to designate up to 25% of the land area within the city as URAs; Oakland could potentially designate a URA, the funds from which could be used to finance transportation projects. However, URAs can only be designated in "blighted" areas; "blight" refers to a variety of conditions, including lack of infrastructure, under- utilization of property, physical condition of buildings, etc. Further research would need to be conducted on the appropriateness of a URA, but the area south of Stearns Avenue may be an example of a possible fit.

System Development Charges (SDCs)

SDCs are fees imposed on new development. Oakland currently has SDCs for wastewater collection and wastewater treatment (adopted in 1998). SDCs can be developed for numerous

types of public of infrastructure, including transportation. SDC revenue of any kind is dependent on the type and amount of development occurring in the City of Oakland.

System Development Charges (SDCs) would be based on the development's impact on the overall transportation system. Transportation SDCs are based on the land use type, the size of the development (number of dwelling units or number of acres), the number of trips per unit of development (derived from the Institute of Transportation Engineers Manual), and the fee/trip rate. These funds may also be used for financing alternative modes projects. The costs of setting up a system development charge can be covered in the charge itself, but the city would need to work with an engineering firm to estimate the appropriate SDCs.

Special City Allotment
Oakland qualify for ODOT's Special City Allotment program. This is a competitive program, with grants up to $50,000 for roadway projects. Guidelines and a working Agreement on this program have been developed in cooperation with the League of Oregon Cities. The purpose of the program is to help cities repair or reconstruct city streets that are inadequate for the capacity they serve or are in a condition detrimental to safety. A sum of $1,000,000 was available for the 2012 program with a maximum of $50,000 allotted to anyone eligible city. Applications are available through local ODOT regional staff.

Debt Financing
General Obligation Bonds: Bonds are sold by the municipal government to fund public infrastructure and other improvements, and are repaid with property tax revenue. Voters must approve general obligation bond sales. The City of Oakland could issue tax-based bonds to construct projects on its capital improvement list. Voters would need to approve a general obligation bond at a general election. In odd numbered years, a double majority is required to approve a tax measure such as a bond. That is, a majority of voters would have to cast ballots, and a majority of those would have to approve the bond. In even numbered years only a majority of cast ballots is needed to approve a bond measure. Revenues from a general obligation bond could be used only for capital improvements including major repairs to roadways.

Revenue Bonds
Bonds sold by the city and repaid with revenue from an enterprise fund which has a steady revenue stream such as a water or sewer fund. The bonds are typically sold to fund improvements in the system which is producing the revenue. They are a common means to fund large high cost capital improvements which have a long useful life.

Special Assessments
Assessments pay for on-site or adjacent public improvements. The property owners who directly benefit from the improvement pay the assessments.

Local Improvement District
The property owners who will benefit from the improvements pay an assessment of the project cost.

Agreement for Improvements
It does not always make sense for a land divider or property owner to install the required improvements (including streets and sidewalks) at the time of development. If that is the case, the landowner executes and files with the City an agreement to pay for future improvements. Oakland keeps these agreements in files organized by street and will pull them at the time of a capital improvement project.

Private Developers
The majority of local streets and sidewalks are paid for at the time of development by the developer. This will also apply to bikeways, bicycle parking, and transit facilities. In this way, the benefiting users are paying for the cost of the system installation. The city then is responsible for maintaining improvements within the public right-of-way.

User Fees
User fees, In general, are paid by the user based on their use of, or impact on, the system. Examples of user fees include the following:

Local Gas Tax: A local gas tax is not a current possibility in Oakland, because the City does not have any gas stations. Local gas tax can be a helpful support to local system funding. Communities immediately adjacent to major highways benefit the most from a local gas tax (due to higher levels of outside traffic). Not every city in Oregon (gas stations or not) levies a local gas tax; of those that do, the local tax rate ranges from $0.01 to $0.04 per gallon.

Parking Fees: The City does not currently charge for parking. Income generated by charging parking fees could be used to implement a variety of transportation projects. The collection system would require purchase of parking meter infrastructure, careful study of where to install meters, and analysis of the appropriate fee amount to charge drivers. However, relatively low demand and abundant free parking availability on nearby neighborhood streets may mean that charging for parking in Oakland is infeasible.

Local Vehicle Registration Fee: Counties can implement a local vehicle registration fee. A portion of the County fee would be allocated to cities in Douglas County. The fee would provide a stable and reasonable funding source, but is unlikely to receive local support.

Transportation Maintenance Fee: The City of Oakland does not currently have anything of the sort, but a number of Oregon jurisdictions levy a transportation maintenance fee (also call street utility fee) to pay for maintenance and operations of City streets. Fee revenue can generally be used only for maintenance and operations of existing facilities, and not for new projects or other improvements. These fees are typically assessed on a monthly basis to residents, businesses and other non-residential uses. The fee rates and allocation among

residents and businesses varies. A typical residential fee structure is a flat monthly rate for single family homes and a reduced rate for apartments and condominiums, based on standard trip generation estimates for each type of residential use. Non-residential fees are typically assessed by type of use, square footage of the building, and/or number of parking stalls that would be required under City code for a given use. These fees are used exclusively for maintenance and are thus not available for new transportation projects or enhancements. However, implementing the maintenance fee could free other financial resources for transportation projects in the LSP.

Fees vary significantly from city to city; the City of Stayton charges $1.00 - $2.00 per month per home and Oregon City charges $4.50 per single family residence. Non-residential fees also vary, with fees ranging from less than $0.15 to as much as $20.00 per square foot, depending on the type and intensity of use.

6.4 Project Improvement Costs

Planning level costs for individual street, bicycle and pedestrian project alternatives of the LSP were developed. Detail related to the projects themselves are included in the project summary sheets included in Chapter 3 of Volume I.

Costs associated with the projects were estimated using typical unit costs for transportation improvements based upon current construction cost indexes (2014), and do not reflect unique project costs such as significant environmental mitigation (where anticipated). Development of more detailed project costs (and additional financial analysis) can be prepared in the future as these projects are further studied and refined.

The improvements list is prioritized based on priorities from the LSP Project Advisory Committee, Citizen Advisory Committee, public meeting input, and assessment of current and future transportation deficiencies and needs. One method used for prioritizing projects is to assign them priority relative to when they should be completed. These categories include: "Higher Priority" with the ideal timeframe of being addressed prior to the year 2020, "Medium Priority" with the ideal timeframe of being addressed prior to the year 2030 and finally "Lower Priority" with the ideal timeframe of being addressed prior to the year 2040. Project priorities can be modified and moved up or down based upon actual development growth and individual opportunities that arise in the City of Oakland. Table 6.1 provides a summary of these projects (for each system) along with the planning level cost estimates for each.

Table 6.1: Prioritized Improvement Alternatives

Intersection/Corridor	Improvement Summary	Cost Estimate*
Higher Priority (*activity by the year 2020*)		
Fifth Street and Oak Street	Improved (Flashing) Crossing	$25,000-$80,000
Calapooya Creek Multi-	Multi-Use Path on public open space west of	$1,375,000

Use Path	railroad	
Ash Street (Creek) Multi-Use Path	Multi-use path in current undeveloped Ask Street ROW	$270,000 – $1,080,000
Multi-Use Path Railroad Crossing	A crossing at Ash , Pine or First Street	$690,000 - $1,500,000
Locust Street and Seventh Street	Improvements to curve, city hall parking, and sidewalk between 7th and 8th	$15,000 - $30,000 ($25,000 additional for sidewalk)
First and Locust & First and Oak Intersections	Improvements related to signage, geometry and crossings	$275,000
Apple Street Connection	Completing the loop of Apple Street near Fifth Street	$30,000 (2 12-ft travel lanes.)
First Street and Fifth Street	Paving south of Apple Street (First Street) and Pear Street (Fifth Street)	$60,000/$30,000 (2 12-ft travel lanes.)
Fifth-Cedar Streets & Fifth-Cypress Streets	Sidewalk between Cedar Street and school (west side). High visibility crosswalks at Cedar and Cypress Streets	$60,000 (sidewalk) Crossings at $500-$2,000 each
Medium Priority (*activity by the year 2030*)		
Fifth Street segment improvements	Improve path and intersection dynamics between Oak Street and School	$130,000 - $5,050,000
Locust Street segment Improvements	Bicycle improvements along Locust Street	$30,000 - $400,000
Cypress Avenue Improvements	Pedestrian and bicycle improvements for school traffic	$525,000 - $3,050,000
Railroad right-of-way East of Hwy 99	Utilizing leased Railroad land for improved connection across Railroad	$550,000
Lower Priority (*activity by the year 2040*)		
Maple Street Improvements	Bicycle and pedestrian improvements along Maple Street	$1,724,000
Oak Street Improvements	Bicycle and pedestrian improvements along Oak Street	$3,650,000
Oak Street to Locust Street (East) Connection	Developing a Locust and Oak east of 8th Street	$1,575,000
Extending Cypress Avenue	Extending Cypress Avenue between 5th and 6th Streets, with bike and ped improvements	$875,000
**Important additional info on prospectus sheets (Attachment A) including separation of construction and engineering costs.*		

6.4.1 Funding and Jurisdiction

Douglas County would have or share responsibility for a number of the roadway, bicycle facilities, and pedestrian improvements outlined in the LSP . Conversations with Douglas County regarding improvements to facilities under the County's jurisdiction revealed County funding, and County priority challenges. The County has expressed general openness to discuss the

feasibility of priority improvements within the LSP, but at the time of Plan adoption the County was unable to financially commit to the improvements. As noted, the City of Oakland contains no State owned transportation facilities.

The City's funding of these projects will require additional revenue sources. A review of the City's own current funding challenges (outlined in Section 6.2) reveal why new sources are needed.

6.5 Funding Recommendations

It will be challenging for the City of Oakland to develop internal resources to address transportation development, and any amount of progress with local funding will certainly take time. It is recommended that the City utilize available state and federal funding sources for priority projects. Additionally, bicycle and pedestrian projects may be eligible for private grants such as the Meyer Memorial Trust or the Oregon Community Foundation. Grant funding cannot sustainably support a healthy transportation system. To accomplish this, the City must establish appropriate policies for funding and maintaining local transportation projects. As local funding becomes available, the City can reprioritize projects based on need and resource availability.

6.5.1 Funding Goals of the Local Street Network Plan

A number of financial objectives were outlined under Goal 7 of the LSP. The LSP could not adequately address each of these and thus the following are carried forward as ongoing funding recommendations:

- Investigate System Development Charges for all transportation modes.
- Update and maintain a current capital improvement program that establishes the City's construction and improvement priorities, and allocates the appropriate level of funding.
- Work in partnership with Oregon Department of Transportation, Douglas County, and other jurisdictions and agencies, to develop a long-range financial strategy to make needed improvements to the transportation system and support operational and maintenance requirements.

6.5.2 Partnership with Oakland Schools

Oakland Elementary School has an active Safe Routes to Schools (SRTS) program. Safe Routes to School (SRTS) programs are sustained by the efforts of parents, schools, community leaders and local, state, and federal governments to improve the health and well-being of children by enabling and encouraging them to walk and bicycle to school. SRTS programs and funds examine conditions around schools and conduct projects and activities that work to improve safety and accessibility, and reduce traffic and air pollution in the vicinity of schools.

Oakland School's SRTS program was an active partner in the LSP process, addressing, in large part, the safety issues associated with the surrounding sloped street network.

The City's prioritized project list includes numerous bicycle and pedestrian projects within the vicinity of the school and with clear association to school trips. The City and Oakland School District should closely align, and collectively pursue opportunities for funding which relate to the missions and priorities that they share, and make every effort to closely align them.

6.5.3 Cost Saving Strategies

The City of Oakland should remain open and considerate of options for addressing challenges associated with the costs of transportation maintenance and improvements. Some strategies that may serve to reduce the cost estimates included in the LSP include:

- **Providing a sidewalk on one side of the street only**, or designating certain streets for sidewalk improvements (an alternative with the existing Minor Local Street Classification).
- **Reducing the areas where landscape strips and street trees are required**. Street trees provide many benefits, as a result, street trees have been proposed on both sides of the street in the new street standards. However, to reduce overall project costs, the standard could be modified to eliminate or designate which streets trees are placed.
- **Utilizing low impact development (LID)** techniques to address storm drainage. LID is a set of techniques that mimic natural watershed hydrology by slowing, evaporating/transpiring, and filtering water that allows water to soak into the ground closer to its source. This differs from traditional stormwater design practices, in which water is collected and conveyed in pipes to central control ponds. A street design incorporating LID techniques would have a slightly different set of features than the new street design, including an open bio-infiltration swale where stormwater would collect and infiltrate, no curbs or curb inlets that allow stormwater to be directed into the swale, and use of porous pavement for sidewalk materials.

  Use of LID techniques has many benefits to natural systems, and in many cases can be less costly to implement than traditional stormwater techniques, depending upon current stormwater control requirements. Costs savings are typically realized due to reduced costs for site grading and preparation, stormwater infrastructure, site paving, and landscaping. In terms of costs, LID techniques can reduce the amount of materials needed for paving roads and driveways and for installing curbs and gutters. Other LID techniques can eliminate or reduce the need for curbs and gutters, thereby reducing infrastructure costs. Also, by infiltrating or evaporating runoff, LID techniques can reduce the size and cost of flood-control structures. Note that in some circumstances LID techniques might result in higher costs because of more expensive plant material, site preparation, soil amendments, underdrains and connections to municipal stormwater systems, as well as increased project management costs. Other considerations include land required to implement a management practice and differences in maintenance requirements. Finally, in some circumstances LID practices can offset the costs associated with regulatory requirements for stormwater control.

- **Volunteerism.** The City of Oakland has highly engaged residents. Transportation projects provide a tremendous opportunity for residents to provide initial and ongoing support for projects. Projects related to schools, open spaces and parks can be particularly attractive and meaningful for resident participation. “Friends of” groups can provide consistent and ongoing support for facilities such as paths and special corridors. The City should help identify and support volunteer and stewardship opportunities for schools and community groups which clearly promote stewardship of the City’s resources.

Table 6.2: Summary Matrix of Bicycle and Pedestrian Funding Sources

FUNDING SOURCE	PROGRAM NAME	WEB ADDRESS	USES						APPLICANTS					
			Plan	Program	Develop	Acquire	Education	Equipment	Non-Profit	School	City	County	State	Federal
Bikes Belong Coalition	Bikes Belong Grants Program	http://www.peopleforbikes.org/pages/community-grants			X				X		X	X	X	X
Center for Disease Control (CDC)	Preventive Health & Health Services Block Grant Program	http://www.cdc.gov/phhsblockgrant/index.htm		X	X						X	X	X	
Federal Dept. of Health &	Healthy People 2010	www.healthypeople.gov/prevention-portal/	X	X					X		X	X		
Meyer Memorial Trust	General Purpose Grants	http://www.mmt.org/apply		X	X		X		X	X	X	X	X	X
National Park Service	River Trails & Conservation Assistance Program	http://www.nps.gov/orgs/rtca/apply.htm	X	X					X		X	X	X	X
Oregon Dept. of Trans. / Oregon DLCD	Transportation and Growth Management Program	http://www.oregon.gov/LCD/TGM/Pages/grants.aspx	X								X	X		
Oregon Parks & Recreation Dept.	Recreation Trails Program	http://www.oregon.gov/oprd/GRANTS/pages/trails.aspx			X	X	X	X	X		X	X	X	X
Oregon Parks & Recreation Dept.	Land & Water Conservation Fund	http://www.oregon.gov/oprd/GRANTS/pages/lwcf.aspx			X	X					X	X	X	
Oregon Parks & Recreation Dept.	Local Government Grant Programs	http://www.oregon.gov/oprd/GRANTS/pages/local.aspx			X	X					X	X	X	
Oregon Watershed Enhancement Board	Small Grant Program	http://www.oregon.gov/OWEB/GRANTS/pages/smgrant_main.aspx			X				X		X	X	X	X
Surdna Foundation		http://www.surdna.org/grants/grants-overview.html		X	X				X		X	X	X	X

The Kresge Foundation	Bricks & Mortar Program	http://kresge.org/grants-social-investments/apply-for-funding		X	X				X	X	X	X	X	X
Tread Lightly!	Restoration For Recreation	http://treadlightly.org/programs/restoration-for-recreation/		X			X		X	X	X	X	X	X
			USES						**APPLICANTS**					
FUNDING SOURCE	**PROGRAM NAME**	**WEB ADDRESS**	Plan	Program	Develop	Acquire	Education	Equipment	Non-Profit	School	City	County	State	Federal
The Trust for Public Land		http://www.tpl.org/our-work/parks-for-people								X	X	X	x	x
The Oregon Community Foundation	Oregon Historic Trails Fund	http://www.oregonhistorictrailsfund.org/apply-for-grant/		X	X	X	X		X		X	X	X	X
U.S. Dept. of Transportation	Transportation & Community & System Preservation Pilot Program	http://www.fhwa.dot.gov/planning/tcsp/index.cfm	X		X						X	X	X	
U.S. Forest Service	Programs - Rural Development Program Urban & Community	http://www.fs.fed.us/r6/coop/Oregon%20State%20Coordinators			X				X		X	X	X	