OAKLAND LOCAL STREET NETWORK PLAN: VOLUME III APPENDICES

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CITY OF OAKLAND
LOCAL STREET NETWORK PLAN
APPENDIX

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

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VOLUME III: SUPPORTING DOCUMENTS

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

APPENDIX I:
PROJECT TECHNICAL MEMORANDA

Oakland Local Street Network Plan
Technical Memoranda 1-8

September, 2014 - June, 2015

- Final Technical Memorandum 1: Goals and Objectives
- Final Technical Memorandum 2: Existing Plans, Policies, and Standards
- Final Technical Memorandum 3: Transportation Facilities and Services Inventory
- Final Transportation System Maps
- Final Technical Memorandum 4: Transp. System Improvement Alternatives
- Improvement Alternatives Maps (25 MB)
- Final Technical Memorandum 5: Functional Class and Design Standards
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- Final Technical Memorandum 7: Recommended Improvement Alternatives
- Final Improvement Recommendations Summaries (Prospecti)
- Final Technical Memorandum 8: Code and Plan Update Considerations

Oakland Local Street Network Plan

Technical Memorandum 1: Goals and Objectives

I. *Introduction and Purpose*

A. Community Profile

The City of Oakland is located in southern Oregon two miles off of Interstate 5, just north of Sutherlin and approximately 15 miles north of Roseburg, the seat of Douglas County, and the area's regional center. The city has a total area of approximately 617 acres within its UGB.

As of the 2010, there were 927 people, 380 households, and 256 families residing in the City of Oakland. The average household size was 2.44 and the average family size was 2.89. The racial makeup of the city was 94.2% White, 0.1% African American, 1.4% Native American, 0.3% Asian, 1.2% from other races, and 2.8% from two or more races. Hispanic or Latino of any race were 3.0% of the population.

Of the 380 households in Oakland, 31.8% had children under the age of 18 living with them, 46.1% were married couples living together, 13.4% had a female householder with no husband present, 7.9% had a male householder with no wife present, and 32.6% were non-families. 25.3% of all households were made up of individuals and 10% had someone living alone who was 65 years of age or older. The median age in the city was 40.8 years. 23.6% of residents were under the age of 18 and 14.1% were 65 years of age or older.

Population in the City of Oakland has remained largely constant over the last twenty years, except for one significant spike at the beginning of this century. Since that time the population has either decreased or grown only slightly, remaining near or below 950 residents (Table 1).

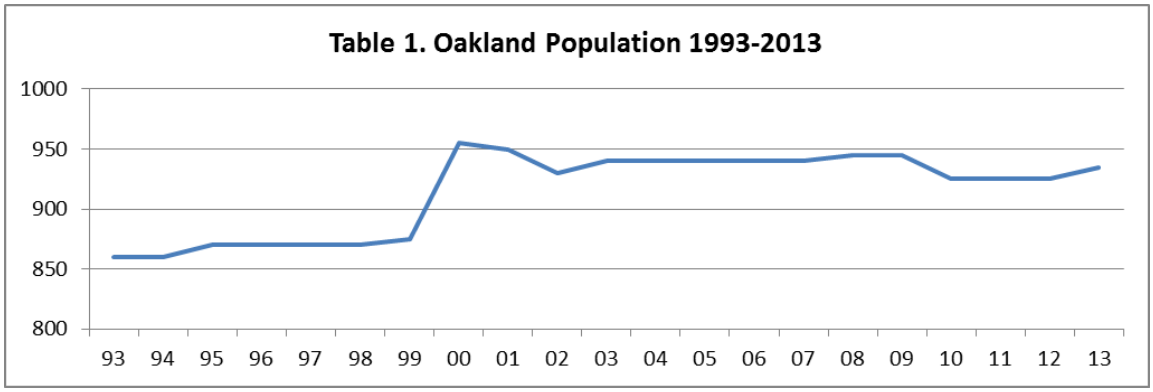
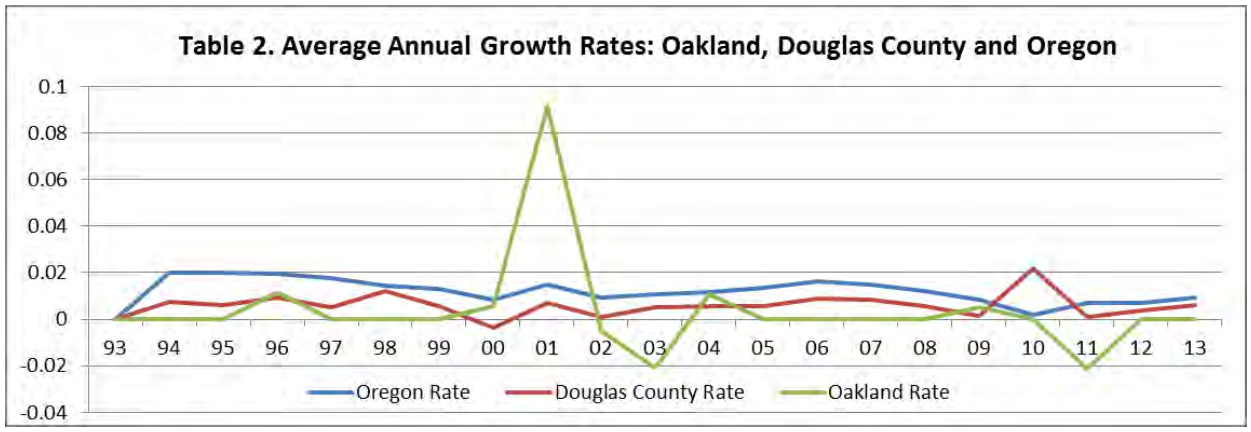


Table 2 provides a comparison of Oakland's growth rate(s) over the last twenty years to those of Douglas County and Oregon. Both Douglas County and Oakland have generally seen lower growth rates than the entire state, and Oakland, with a few exceptions (1996, 2001, 2004 and 2009) has trailed behind Douglas County's growth rate.



B. A Local Street Network Plan

Oregon State law (Statewide Planning Goal 12, Transportation) requires that Oregon communities prepare a transportation plan to address existing and future access and circulation needs of the community. The Transportation Planning Rule (TPR) further defines the specific requirements for a "transportation system plan," and directs cities and counties to develop strategies that make it more convenient for people to walk, bicycle, use transit, and drive less to meet their daily needs. The Local Street Network Plan (LSP), though not a proper "Transportation System Plan," addresses the same issues and provides similar guidance. Development of the Oakland LSP will guide, and enable the development of public infrastructure and assist local officials in making short-term decisions that will maintain consistency with long term plans and goals.

The planning area includes all of the transportation facilities within the City of Oakland's UGB. The LSP will provide guidance and regulatory tools so that the City can develop its transportation system through coordinated policies and planned improvements. The LSP will identify opportunities for transportation network improvements, and most importantly, priorities and recommended actions for realizing those improvements. A primary focus of the study will be building upon the efforts of the City to provide safer streets for schools and businesses. It also identifies planned transportation facilities and services needed to support planned land uses identified in the Comprehensive Plan in a manner consistent with Statewide Planning Goal 12 and the Oregon Transportation Plan. Following is a summary of things the LSP is designed to accomplish:

- Assure adequate planned transportation facilities to support planned and otherwise anticipated uses over the next 20 years;
- Provide safer streets for school children and all modes of travel;
- Provide certainty and predictability for locating new public streets, roads, highway improvements, and other planned transportation improvements;
- Provide predictability for land development;
- Help reduce the costs and maximize the efficiency of public spending on transportation facilities and services by coordinating land use and transportation decisions; and

- Facilitate future leveraging of funds and support by documenting and prioritizing transportation projects and objectives.

Providing a foundation and impetus for future improvements is a key goal for Oakland's support for the Local Street Network Plan. Important updates to transportation facilities can be very difficult for small communities to support alone. State and federal programs are an essential source for grants and loans for addressing these needs. Funders want assurance that projects have been broadly considered and are generally supported by the public. The Local Street Network Plan will be conducted with broad public and agency participation, and as such will provide critical leverage for accessing important resources that Oakland has had trouble securing in the past.

C. Local Benefits

Key benefits to Oakland and its residents include:

- Clear priorities for transportation system improvements
- Better integration of transportation with land uses
- Improved access to funding opportunities of all kinds
- A plan that reflects broad public input
- Safer streets and paths for all ages and modes of travel
- Research and evaluation of a bike and walk path in Oakland as well as a bicycle route from Oakland to Sutherlin

D. Stakeholder Involvement

A Project Advisory Committee will also provide important broader context and insure that the planning process sufficiently considers all of the stakeholders of the Oakland transportation system.

A Citizen Advisory Committee will guide the process, and members of the community will be encouraged to participate in the development of the plan. Public meetings as well as other creative opportunities for feedback will be announced widely. Throughout the plan process, the citizens of Oakland will be given important opportunities to comment upon and shape the emerging plan through public open house meetings and through a Citizen's Advisory Committee. An LSP open-house will also be held to introduce the LSP planning process and alternatives purpose to the community. The process will also include several joint Planning Commission and City Council work session, open to the public.

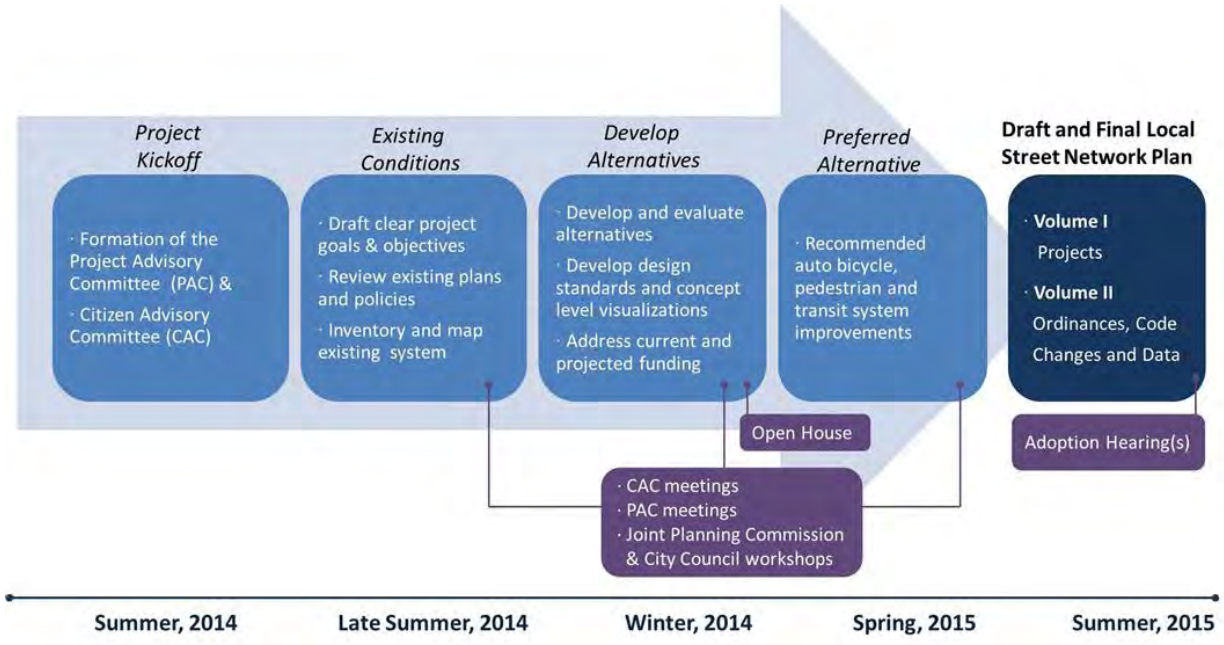
E. Modes

The transportation modes addressed in this LSP include:

- Motor vehicles (autos, trucks/freight)
- Transit (public transportation)
- Bicycles
- Pedestrians
- Rail

F. Plan Development Schedule and Key Steps

The project's official start was in mid-summer 2014. Tasks will proceed in rapid succession until the project's completion in summer 2015. Following is a summary of key tasks and the project schedule:



II. Goals and Objectives

The goals and objectives of the LSP should serve as the basis for the Plan, for needs analysis, policy and ordinance development, and project selection and priorities. The goals and objectives should reflect the transportation goals and overall transportation vision of the City. The goals will also ensure consistency with elements of 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 seven primary goals proposed by the project team. They are followed by proposed objectives for achieving the goals. These goals and objectives will be reviewed by the Citizen Advisory and Project Advisory Committees, as well as Oakland's Planning Commission and City Council. Objectives from Oakland's Comprehensive Plan have been included and

identified with asterisks in the lists. The City is not limited to either of these lists in developing goals or objectives for the project. Additional Comprehensive Plan and other concepts and ideas for objectives were assembled and included as Attachment A to the draft version of this memorandum.

A. Goal 1: Overall Transportation System

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.

B. 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. (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.

C. 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.

D. 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 wiII 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.

E. 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 committee's ort groups.

F: 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 UGB.

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 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.

G. 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. (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.

III. Draft Evaluation Criteria

Project staff have assembled evaluation criteria, which are based on proposed project goals and objectives (including existing policies and goals in the City Comprehensive Plan, Statewide Planning Goal 12, and the Oregon Transportation Plan). The criteria will can used to evaluate existing conditions, future conditions and alternatives. The proposed 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.

Oakland Local Street Network Plan

Technical Memorandum 2: Existing Plans, Policies, and Standards

I. Overview

This memorandum reviews existing plans, policies, and standards and identifies important transportation and land use issues that were considered in the preparation of the *Oakland Local Street Network Pan* (LSP). A variety of transportation studies, transportation plans, and other transportation-related documents have been produced by various jurisdictions in the past, and the relevance of these documents to the Oakland LSP varies widely. This chapter provides a synopsis of several documents, including the *Oregon Transportation Plan*, all Oregon Department of Transportation (ODOT) modal plans, *2004-2007 Statewide Transportation Improvement Program* (STIP), *Intercity Passenger Policy and Program, the Freight Moves the Oregon Economy Report,* as well as environmental documents, Douglas County documents, and other transportation studies. Several City of Oakland documents were reviewed, including the *City of Oakland's Comprehensive Plan, Zoning Ordinance,* and a few *Development and Standards Ordinances*. These documents contain goals and policies for the city related to transportation. Many local transportation policies and codes are several decades old and merit review. The final section of this memorandum presents policies and regulations currently in effect in Oakland that may conflict with objectives of the Local Street Network Plan.

II. State Regulatory Framework

A. Oregon Statewide Planning Goals

Goal 12. Transportation

Since 1973, Oregon has maintained a strong statewide program for land use planning, and the foundation of that program is a set of 19 statewide planning goals. These goals express the state's policies on land use and on related topics, such as citizen involvement, housing, and natural resources.

Oregon's statewide goals are achieved through local comprehensive planning. State law requires each city and county to adopt a comprehensive plan, and the zoning and land-division ordinances needed to put the plan into effect. The local comprehensive plans must be consistent with the statewide planning goals. Plans are reviewed for such consistency by the State's Land Conservation and Development Commission (LCDC). Once acknowledged, the plan becomes the controlling document for land use in the area covered by that plan.

Transportation is addressed by Goal 12. Goal 12 encourages a safe, convenient, and economic transportation system. According to Goal 12 a transportation plan shall 1) consider all modes of transportation including mass transit, air, water, pipeline, rail, highway, bicycle, and pedestrian; 2) be based upon an inventory of local, regional, and state transportation needs; 3) consider the differences in social consequences that would result from utilizing differing combinations of transportation modes; 4) avoid principal reliance upon any one mode of transportation; 5) minimize adverse social, economic, and environmental impacts and costs; 6)

conserve energy; 7) meet the needs of the transportation disadvantaged by improving transportation services; 8) facilitate the flow of goods and services so as to strengthen the local and regional economy; and 9) conform with local and regional comprehensive land use plans. Each plan shall include a provision for transportation as a key facility.

Transportation Planning Rule (TPR) Oregon Administrative Rule (OAR) 660-012
The TPR implements Oregon Statewide Planning Goal 12. The TPR directs cities and counties to develop balanced transportation systems addressing all modes of travel including motor vehicles, transit, bicycles, and pedestrians. The TPR envisions development of local plans that will promote changes in land use patterns and transportation systems that make it more convenient for people to walk, bicycle, use transit, and drive less to meet their daily needs. A fundamental issue in local and regional transportation system plans is a strategy to reduce reliance on the automobile.

The purpose of the rule is to promote safe, convenient, and economic transportation systems and coordination between affected levels of government in all steps of a transportation system plan (TSP). The TPR requires jurisdictions throughout Oregon to prepare and adopt local or regional transportation plans that are incorporated into their respective comprehensive plans.

In 1996, during the City of Oakland's periodic review evaluation, the City requested and was granted a full exemption from the requirements of the Transportation Planning Rule (under OAR 660-12-055 (6)).

The exception was granted based on findings that Oakland met the exception criteria under OAR 660-12-055(6). This included the fact that Oakland's population had not grown substantially in recent years, and that the city's isolation and small industrial base would seem to afford little prospect for a change in this trend of very limited growth. Also contributing to the exemption is the fact that Interstate 5 is not within Oakland's planning area. Additionally, although identified as Old Highway 99, the arterial transportation facility passing through the City is no longer classified as a state highway, but rather a rural major collector under Douglas County jurisdiction.

Because little has changed regarding these factors, the City of Oakland maintains an exemption from the strict requirements of the Transportation Planning Rule. This exemption does not waive the city's obligation to address OAR 660-12-060 when adopting a plan amendment or land use regulation that significantly affects a transportation facility, and the Local Street Network Plan will apply Statewide Planning Goal 12 principles in establishing goals and objectives for the plan.

Access Management OAR 734-051 (Division 51)
Division 51 governs the permitting, management, and standards of approaches to state highways to ensure safe and efficient operation of the state highways. As noted above, although identified as Old Highway 99, the transportation facility passing through the city is no

longer classified as a state highway. Therefore, no facility in Oakland is subject to these requirements.

State of Oregon Transportation Plan

The Oregon Department of Transportation (ODOT) utilizes several planning documents to guide transportation planning efforts and transportation system improvements in the state. The Oregon Transportation Plan (OTP) is ODOT's guiding policy document. The OTP and its modal components represent the State's Transportation System Plan and drive all transportation planning in Oregon. The plans provide a framework for cooperation between ODOT and local jurisdictions and offer guidance to cities and counties for developing local modal plans. The following lists the different modal plans that have been established and the year the plan was adopted by the Oregon Transportation Commission (OTC):

- Oregon Transportation Plan, 1992
- Aviation System Plan, 2000
- Bicycle/Pedestrian Plan, 1995
- Transportation Safety and Action Plan, 1995
- Public Transportation Plan, 1997
- Oregon Highway Plan, 1999
- Rail Freight and Passenger Plan, 2001

Oregon Transportation Plan (2006)

The Oregon Transportation Commission adopted the Oregon Transportation Plan in September 2006. The OTP has three elements: 1) Goals, Policies and Strategies; 2) Financial And Technical Analysis; and 3) Implementation. The OTP meets a legal requirement that the OTC develop and maintain a plan for a multimodal transportation system for Oregon. Further, the OTP implements the Federal Intermodal Surface Transportation Efficiency Act (ISTEA) requirements for the state transportation plan. The OTP also meets land use planning requirements for State agency coordination and the Goal 12 Transportation Planning Rule. This rule requires ODOT, the cities, and the counties of Oregon to cooperatively plan and develop balanced transportation systems.

Oregon Aviation System Plan (2000)

The Aviation System Plan applies general policies from the Oregon Transportation Plan to the state's public-use aviation system. There are no airports in the Oakland UGB; the nearest airports are the Roseburg Regional Airport and the George Felt Airport. The nearest airport with commercial service is in Eugene about 55 miles to the north.

Oregon Bicycle and Pedestrian Plan (1995)

The goal of this Plan is to provide safe, accessible, and convenient bicycling and walking facilities in the state, and to support and encourage increased levels of bicycling and walking. The plan identifies policies, classification of bikeways, construction and maintenance guidelines, and suggested actions to achieve these objectives. These actions address the need to: 1) provide bikeway and walkway systems that are integrated with other transportation systems;

2) create a safe, convenient, and attractive bicycling and walking environment, and 3) develop education programs that improve bicycle and pedestrian safety. In 2011, the Design Guide was separated from the policy portion of the plan and updated. These standards meet or exceed national standards as outlined in AASHTO (American Association of State Highway Transportation Officials) documents, the ADAAG (Americans with Disabilities Act Accessibility Guidelines) and other documents. These standards are recommended but not required for use by local jurisdictions in Oregon.

Of note is the fact that the Oregon Department of Transportation (ODOT) has begun developing a new Oregon Bicycle and Pedestrian Mode Plan to update the state's policy framework for bicycle and pedestrian transportation.

Oregon Transportation Safety and Action Plan (1995)
The *Oregon Transportation Safety Action Plan* was developed to be the safety element for the *Oregon Transportation Plan (OTP)*. It is one of several modal or multimodal plans called for in the OTP that defines, in greater detail, system improvements, legislative needs, and financial needs. These plans provide guidance for investment decisions that are reflected in the *Statewide Transportation Improvement Program (STIP)*, the *Highway Safety Plan,* and the operating budgets of implementing agencies.

This plan established the most important safety priorities for Oregon by identifying 70 actions relating to all modes of transportation, and addresses roadway, driver and vehicle characteristics. Included in this plan is specific guidance regarding the way safety issues should be considered in local transportation planning. It notes that local transportation plans should consider the following:

- Involvement in the planning process of engineering, enforcement, and emergency service personnel as well as local transportation safety groups
- Safety objectives
- Resolution of goal conflicts between safety and other issues

Oregon Public Transportation Plan (1997)
This plan is primarily focused on public transportation in metropolitan and urban areas. Although the standards directly address a minimum level of service or communities with population of at least 2,500 located within 20 miles of an urban central city, standards that should be noted by committees and decision makers in Oakland's planning process include:

- Coordinating intercity senior and disabled services with intercity bus and van services open to the general public.
- Coordinating local public transportation and senior and disabled services to intercity bus services.
- Provide an accessible ride to anyone requesting services.
- Provide at least 1.7 annual hours of public transportation service per capita with fixed-route, dial-a-ride, or other service types.

- Provide a guaranteed ride home program to all users of the public transportation system and publicize it well.
- Provide park-and-ride facilities along transit route corridors to meet reasonable peak and off-peak demand for such facilities.

Oregon Highway Plan (1999)
The Highway Plan gives policy and investment direction to corridor plans and transportation system plans that are prepared around the state, but leaves the responsibility for identifying specific projects and modal alternatives to local planning efforts. The City of Oakland has no state facilities within its planning area, although Interstate 5 is only a short distance from town and remains a critical element in Oakland's transportation dynamic.

Oregon Rail Plan (2001)
The Oregon Rail Plan (ORP) provides an updated overview of the rail system in Oregon. It outlines the state rail planning process and examines specific rail lines in detail that may be eligible for state or federal financial assistance. The plan examines service trends for low-density rail lines, which are increasingly being served by short haul (Class III) railroads. In addition, the plan describes minimum level of service standards for freight and passenger rail systems in Oregon.

The activities of the regional carrier Central Oregon & Pacific Railroad (CORP) dominate railroading in Southwestern Oregon. The CORP main line runs south of Eugene through Oakland and on to Medford and is Oregon's second largest short line railroad. The line is a former Southern Pacific line that was purchased by CORP in 1995. Most traffic either heads north out of Roseburg or south out of Medford. A large wood products operation at Dillard (just south of Roseburg) contributes the bulk of the traffic on the northern end of the line.

The Oregon Rail Plan includes a discussion of Short Line Needs. Needs expressed by short line railroads consist principally of rehabilitation of track and bridges, but some equipment and debt refinancing needs also were indicated. Much of the rehabilitation need was related to 286,000-pound cars. These cars are popular with shippers and Class I railroads as they represent opportunities to maximize loads and minimize operating costs. However, many short lines, including the CORP Eugene-Medford line, do not have the underlying track and structures capable of supporting these heavier cars. Rail service on this CORP line is also disadvantaged by a twisting track alignment, slow speeds, and relatively light population.

The closest AMTRAK passenger rail service to Oakland is located in Eugene, 55 miles to the north.

Intercity Passenger Policy and Program (2000)
Intercity passenger facilities are those locations where passengers traveling from one city to another can transfer from one travel mode to another. Typically, intercity passenger facilities include train stations, bus terminals, airports, and some transit transfer facilities. Intercity

passenger facilities should also accommodate transfers between intercity travel modes and local modes such as local transit, taxis, shuttles, bikeways, sidewalks, and the automobile.

ODOT has three ratings for intercity passenger networks in Oregon: adequate service, inadequate service, and missing service. Oakland would be considered to be missing service.

Oakland has no airports or Greyhound bus service. Dial-a-Ride has a connecting *out of area* service line that runs along I-5 from Cottage Grove to Roseburg that could potentially be used by Oakland residents to get to surrounding areas. The closest transit service is through an Umpqua Transit line running from Sutherlin to Umpqua Community College in Roseburg. There is no passenger rail service in Oakland.

Statewide Transportation Improvement Program (STIP), 2012-2015

The Oregon Statewide Transportation Improvement Program (STIP) is the state's four-year transportation improvement program for state and regional transportation systems, including federal land and Indian reservation road systems, interstate, state, and regional highways, bridges, and public transportation. It covers state and federally- funded system improvements for which funding is approved and that are expected to be undertaken during the upcoming four- year period. It is a compilation of projects utilizing various federal and state funding programs, and includes projects on the state, county, and city transportation systems as well as projects in the National Parks, National Forests, and Indian Reservations.

There were no STIP improvement projects planned around Oakland for the 2012-2015 period, The 2015-2018 STIP has been drafted and is in a public review phase. It also includes no improvements directly relevant to Oakland.

The investments or projects included in the STIP are consistent with adopted transportation plans that involved local and regional governments, Area Commissions on Transportation (ACTs), other state and local transportation agencies, and the public. Typical plans that the projects in the STIP come from include city and county transportation system plans (TSPs), metropolitan regional transportation plans (RTPs), and special state and federal planning documents. The South West Area Commission on Transportation (SWACT) is Oakland's avenue for reviewing STIP projects and making recommendation to the Oregon Transportation Commission (OTC). The SWACT is not considering any projects with direct relevance to the City of Oakland. They will begin a process for selection of projects into the 2018-2021 STIP in fall and winter 2014.

2012 ODOT Highway Design Manual

The 2012 ODOT Highway Design Manual provides uniform standards and procedures for ODOT. It is intended to provide guidance for the location and design of new construction, major reconstruction, and resurfacing, restoration, or rehabilitation projects. It has 14 chapters that cover the design specifications for all aspects of a multimodal transportation system including roadway designs, bike and pedestrian facility designs, and public transportation facilities.

The manual is required to be used by ODOT personnel for all planning, development, and construction projects located on state highways. The manual should also be used by local planners in determining design requirements for state highways in TSP's, Corridor Plans, and Refinement Plans. The planning area for the Oakland Local Street Plan does not contain any state highways but principles and guidelines within the design manual map prove useful in Oakland's efforts to develop its own design standards.

B. Douglas County Documents

There are a number of Douglas County owned and maintained facilities within the planning area for the Oakland LSP. These include Old Highway 99 (Front/First Street), Stearns Avenue, and Oak Street.

Douglas County Comprehensive Plan (Transportation Element) (2004)

The purpose of the Douglas County Comprehensive Plan Transportation Element is to address, in detail, Statewide Planning Goal 12 and to assist in the development of an effective and efficient transportation network that is compatible with the environment, local and adjacent jurisdictions, and land use planning.

The Transportation Element contains findings concerning:

- The background and existing conditions that affect Douglas County's transportation system;
- A description of Douglas County's transportation facilities;
- A County roadway network plan; and
- A Bikeway Master Plan and Policies.

Also contained are general transportation goals, as well as detailed discussions of the road, rail, air, waterways, pipeline, pedestrian and bicycle transportation modes, and the transportation disadvantaged.

Douglas County Transportation policies of particular relevance to Oakland include the following:

General

- *For those roads located within city UGBs, the County shall coordinate road classifications and construction standards with the affected cities.*
- *The cost of installation of street improvements to a standard higher than that for a minor collector street shall be borne by the County.*
- *The County supports the upgrading of all public roads to County Standard.*
- *Needed roadway improvements shall be made, as funds are available, in a systematic manner based on a priority rating process.*

Bikeways

- *Bikeways shall be provided which connect communities within the County*
- *The County shall coordinate with other jurisdictions and agencies to ensure development of routes which are continuous across jurisdictional boundaries and which serve the needs of all Douglas County residents.*

- *The County shall coordinate the designation and improvement of bikeways within the urban growth boundaries with the effected cities.*
- *All Class III bikeways (excluding Class IIIs) shall ultimately include full Class III improvements including lane striping…signing of Class III bikeways shall take place as soon as a route meets minimum standards for signing, its construction is practicable, and the route is considered safe for use.*

Transit

- *The County shall encourage the reestablishment of bus service to all Cities in the County*

The Douglas County Comprehensive Plan contains additional applicable detail related to road and bikeway planning, funding, construction and maintenance. These will be addressed in future memoranda.

Douglas County Transportation System Plan (2004)

The Transportation Planning Rule, requires ODOT, the cities, and the counties of Oregon to cooperatively plan and develop balanced transportation systems. Douglas County's TSP fulfills this planning requirement. Douglas County's TSP is comprised of compiled elements from its Comprehensive Plan as well as a few supporting documents. Listed below is a synopsis of relevant sections in the County's TSP.

Douglas County TSP provides volume to capacity (V/C) standards to county roads. The standards for a given route vary based on the urban or rural nature, speeds, and surrounding land use designations. The volume to capacity ratio is a measure of roadway congestion. This ratio is calculated by dividing the number of vehicles passing through a section of road during the peak hour by the capacity of the section. The classification system is as follows with the associated v/c standard: Arterial, V/C = 0.8 and Minor Collector, V/C = 0.95.

Douglas County Comprehensive Plan Chapter 15: Land Use Element

The Land Use Element of the Comprehensive Plan has sections that address transportation issues for urban areas, urban unincorporated areas, and rural communities. The Land Use Element presents the street classification system, other standards, and an implementation strategy for circulation plans. Douglas County facilities in Oakland include Arterials, Minor Collectors and Local streets.

Support Document to the Transportation Element of the Douglas County Comprehensive Plan

This document provides supplemental information in support of the Transportation Element. It provides a detailed discussion of roads, rail, air, waterways, pipeline, public transportation, pedestrian and bicycle transportation, and the transportation disadvantaged. Information is also provided on vehicle trip generation by land use type.

Douglas County Bikeway Master Plan (2004)
This document describes the popularity and multiple benefits of bicycling and establishes the need for long-range coordinated bicycle facilities planning. The Plan identifies, among other things, the existing bikeway system, construction guidelines, and bicycle safety education.

C. Local Plans and Agreements
City policies and standards particularly applicable to the LSP are those related to parking, street parking, street design, street and alley access, sidewalks, bicycle and pedestrian routes, curbs, gutters, and drainage. Some of the most critical among these are described in greater detail in the following sections.

City of Oakland Urban Area Comprehensive Plan (1986)
The City of Oakland's Comprehensive Plan is a long-range general policy guide that evaluates and identifies future needs in natural features, population projections, economy, housing, land use, community facilities and services, and transportation. The Comprehensive plan was intended to prepare the city for future growth, in compliance with Oregon's statewide planning goals.

Transportation Element
The Transportation Element of the Comprehensive Plan reviews traffic studies, defines roadway functional classifications, details existing conditions (as of 1978), and identifies needs for Oakland's transportation system as the city continues to grow. The Comprehensive Plan's Transportation Element also has a goal 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. The Comprehensive Plan subsequently details 19 supporting policies to reach this goal. The most applicable among these are outlined in greater detail in Technical Memorandum 1.

The Land Use Element
Goal 3 of the Land Use element of the Comprehensive Plan states that the

> *Location and manner of new development should allow for population growth, yet maintain the small, quiet, rural dynamic that visually unifies town character.*

These goals and related policies are outlined in greater detail in Technical Memoradum 1.

While the Comprehensive Plan primarily serves as a guide for improvements to the urban area's street circulation system, the Transportation Element also considers other modes of transportation such as public transit, rail, bicycle, and pedestrian facilities. Several of the other Elements have relevance to this LSP as well.

City of Oakland Urban Growth Management Agreement (1996)
The City's Urban Growth Management Agreement with Douglas County provides for the joint management of the Oakland's Urban Growth Area and for the coordination of land use activity

in identified areas of mutual interest. Areas of mutual interest are the Calapooya Creek Watershed, the north and south corridors of Old Highway 99, the east corridor along Driver Valley Road to Calapooya Creek, and the west corridor along Stearns Lane to Interstate-5. It reaffirms the City's planning authority within the UGB on City land and Douglas County's planning authority within the UGB on county-owned land. The guiding document in both cases is the City of Oakland's Comprehensive Plan. The point of the management agreement is to make sure that future planning efforts of the City and County are consistent and coordinated. Additionally, there is a supplemental section on development standards for new and existing streets, and a Zoning Plan.

D. Local Zoning and Development Ordinances

In addition to the aforementioned plans and studies, there are other transportation studies that have been produced for specific facilities in the Oakland UGB. Following are relevant traffic/transportation studies that have been performed at the street or corridor level.

Zoning

The Oakland Zoning Ordinance covers a wide range of policies and standards related to city development and improvements. The following table (Table 1) presents the City of Oakland's local zoning and plan designation categories as found in their Comprehensive Plan and Zoning Ordinances.

Table 1. Zoning Designations in Oakland

Comprehensive Plan Land Use Designation	Zoning Classification	Abbreviation
Commercial	General Commercial	C-1
Semi-Public		
Light Industrial	Light Industrial	M-1
General Industrial	General Industrial	M-2
Semi-Public	Low Density Residential (7,500 sq. ft.)	R-1
Specific Residential 1	Low Density Residential (10,000 sq. ft.)	
	Duplex Overlay Zone	N/A*
General Residential 2	Medium Density Residential	R-2
General Residential 1	Rural Density Residential	R-R
Public	Public Land	N/A*
Open Space/Agriculture	Agriculture/ Open Space	N/A*
Semi-Public		

**abbreviation not found or has not been recorded by the City of Oakland*

Subdivision Ordinance

The City of Oakland's Subdivision Ordinance provides standards and procedures for subdividing and/or partitioning land within city boundaries. Specific requirements must be met, including

requirements related to access and the provision of necessary transportation infrastructure. The Subdivision ordinance is, therefore, a key mechanism for the provision of an adequate transportation system.

Street Engineering Standards

Section 39 of the City of Oakland's *Land Use and Development Ordinance* specifies standards for streets and pedestrian ways. Current standards are outlined in Table 2.

Table 2. Street Design Standards

Type of Street	Pavement Width	Travel Lane	On-Street Parking [1]	Minimum R.O.W [2]	Sidewalk Width
Arterial	50-74'	2-4 – 12' Wide	2 sides	60-98'	5' min. both sides [3, 4]
Residential Boulevard	48'	2-11' Wide, plus 1-12' center turn lane or median	2 sides	72'	5' min. both sides [4]
Collector	27-34'	2-10' Wide	1 or 2 sides	51-58'	5' min. both sides [3, 4]
Local or Dead-End Street	28'	1-15' Wide (Queuing)	2 sides	53'	5' min. both sides [5]
Type of Street	**Pavement Width**	**Travel Lane**	**On-Street Parking [1]**	**Minimum R.O.W [2]**	**Sidewalk Width**
Turn-Arounds for Dead-End Streets in Residential Zones Only	47' Radius	40' Radius			
Turn-Arounds for Dead-End Streets in Commercial Zones Only	50' Radius	42' Radius			
Infill Local Street [6] – Up to 25 Dwellings	22'	1-15 ' Wide (Queuing)	1 side	35'	5' min. both sides [5]
Access Lane [6] – Up to 12 Dwellings	20'	1-13' Wide (Queuing)	1 side	35' (w/landscaping & Public access easement)	5' min. on one side [5]
Private Drive [6] – Up to 6 Dwellings	13'	1-13' Wide (Queuing) [7]	No	21' (w/public access easement)	None
Alleys	12-16'	12' Wide	No	16-20'	None

		residential, 16' Wide commercial. Both w/2' unpaved strip on sides			

1 – On-street parking width is 7 feet.
2 – When sidewalks and planting strips are not required, minimum R.O.W. can be reduced by those dimensions.
3 – In areas zoned commercial or mixed use, wider sidewalks with tree wells (4 ft. by 4ft.) and street trees may be required at the Planning Commission's discretion if deemed compatible with existing development. Additionally, planting strips and street trees may not be required if deemed incompatible with existing development.
4 – ADT – Average Daily Traffic.
5 – Bike lanes are generally not needed on low volume (less than 3,000 ADT) and/or low travel speed (less than 25 mph) streets.
6 – Two outlets required.
7 – Shared with pedestrians.

In addition to street widths, travel lanes, street parking, street ROW, and Sidewalk widths, the City's Street Engineering Standards also cover street design standards for intersection angles, grades, tangents, slopes, and curves.

Historic District
The Oakland Historic District which includes the Downtown Commercial Historic (sub) District and the Residential Historic (sub) District. These districts were identified and established by the City of Oakland to define and protect the areas of the city with the greatest concentration of historically significant properties. Although the standards outlined in the historic district ordinance (Ord. 456), almost exclusively address "structures," "landmarks" are also noted, including "bridges," "sites," "signs," or "other objects of historic importance." These are all elements which transportation projects might influence. Also of note is the fact that orientation to streets, sidewalk placement, as well as fencing and landscaping features are all factors for review relative to historic design review (where required).

Other Local Development Standards of Note:

- Alleys: Oakland Ordinance #501 Development Code includes policies related to the maintenance of alleys and street shoulders.
    - A) the city is to maintain improved streets and alleys for vehicle traffic and surface water drainage.
    - B) For improvement of street shoulders and alleys, the city shall allocate equipment and resources to site when requirements of policy A are not met or at the request of an adjacent property owner, granted he/she pays the city for the costs.

Sidewalks: Oakland Ordinance #267 states that, property owners are responsible for the construction and reconstruction of sidewalks that are adjacent to the street edge but still contained on the owners' property. The ordinance has 18 sections covering sidewalk improvement procedures from first notice to penalty, and all steps between. Oakland Zoning Ordinance (#499) also has a section related to sidewalks (13.08.0). It notes that sidewalks may be required to be installed to city specification in the city right -of-way by the developer of any lot, taking into consideration existing sidewalks and pedestrian traffic in the immediate area.

Street Improvements Responsibility: Oakland Ordinance #238 prescribes and covers procedures regarding street, sidewalk, sewer and other public improvements. The ordinance states that the city is responsible for all public improvements if no less than 50% of adjacent property owners petition for improvements. Also, the city shall make assessments for project improvements and will follow the outlined policies in contracting and completing the work.

Oakland Zoning Ordinance (#499) also has a section related to streets (13.09.0)0. It notes that construction of new streets and improvement of existing streets shall conform to the design standards as defined in the subdivision ordinance, specified by the Public Works Department, and in accordance with the conditions specified in the following subsections.

1. *Any development which will front on or gain access from a dedicated unimproved street shall improve the street to city standards from the nearest improved street up to and through the frontage of the lot.*
2. *Any development which will front on or gain access from a dedicated gravel or other unimproved street which is used for residential access or as an automobile route shall require the owner to sign an agreement which must be transferred with ownership of the property, specifying that the owner will not remonstrate against any improvements proposed under any improvement act or proceeding of the State of Oregon, Douglas County, or the City of Oakland, but does not waive the right to protest the amount or manner of apportioning the assessment thereof.*

D. Environmental Regulatory Framework

Several environmental conservation and protection policies and programs may have bearing on the Oakland LSP. Technical Memorandum 3 includes maps of natural resources of relevance to the Oakland LSP. Applicable policies and programs have been summarized below.

The Oregon Department of Environmental Quality

The Oregon Department of Environmental Quality (DEQ) is a regulatory agency whose job is to protect the quality of Oregon's Environment. DEQ is responsible for protecting and enhancing Oregon's water and air quality, for cleaning up spills and releases of hazardous materials, and for managing the proper disposal of hazardous and solid wastes. In addition to local programs, the Environmental Protection Agency (EPA) delegates authority to DEQ to operate federal environmental programs within the state such as the Federal Clean Air, Clean Water, and Resource Conservation and Recovery Acts. The DEQ is also authorized by the EPA to regulate hazardous waste in Oregon. Proper hazardous waste management is an integral part of protecting Oregon's land, air, and water systems.

A number of fact sheets are available from the DEQ website5 that identify what constitutes hazardous waste, how to report it, and who to contact to research site specific hazardous waste.

Oregon Department of State Lands
Oregon Department of State Lands has jurisdiction over the waterways and wetlands of the State. DSL has rules established surrounding the filling and removal of these resources that will be relevant to components of Oakland's LSP.

Oregon Department of Fish and Wildlife
The Oregon Department of Fish and Wildlife's (ODFW) mission is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations. More information about the Department's regulations and restrictions can be found on ODFW's website.

Department of Land Conservation Development—(Statewide Planning Goal 5 – Natural Resources)
The Oregon Department of Land Conservation and Development's (DLCD) Goal 5 intent is "[t]o protect natural resources and conserve scenic and historic areas and open spaces." Local governments, through their comprehensive plans, are required to address natural resource protection. It is a broad statewide planning goal that covers more than a dozen resources, including wildlife habitats, historic places, and mineral and aggregate resources. It was originally adopted in 1974. Goal 5 and related Oregon Administrative Rules (Chapter 660, Divisions 16 and 23) describe how cities and counties are to plan and zone land to conserve resources listed in the goal. Goal 5 requires that local governments inventory and address the following resources:

- Riparian corridors, including water and riparian areas and fish habitat
- Wetlands
- Wildlife Habitat
- Federal Wild and Scenic Rivers
- State Scenic Waterways
- Groundwater Resources
- Approved Oregon Recreation Trails
- Natural Areas
- Wilderness Areas
- Mineral and Aggregate Resources
- Energy sources
- Cultural areas

Goal 5 encourages local governments to maintain current inventories of the following resources as well:

- Historic Resources
- Open Space
- Scenic Views and Sites

Federal Endangered Species Act and Oregon Endangered Species Act
The federal Endangered Species Act (ESA)7 was passed in 1973 to conserve, protect, and recover species listed as endangered or threatened, and the ecosystems upon which they depend. Under this law, species may be listed either as "endangered" with extinction or "threatened" with endangerment. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened.

The federal and state ESAs are separate and independent, but somewhat parallel, regulatory programs that apply in different ways within Oregon. The Oregon ESA (1987) requires the "conservation" of listed species, and defines "conservation" as the use of methods and procedures necessary to bring a species to the point where measures no longer are necessary to ensure a species' persistence over time and generations. The Oregon ESA covers plants, fish, and wildlife, but does not extend to invertebrates. There are 1,261 listings under the federal ESA in the United States. Of those, 54 listings apply to animals or plants native to Oregon.

The provisions of federal law pre-empt any less protective provisions of state law. Species native to Oregon, and which are listed under the federal ESA, are subject to the provisions of federal law. Species listed by the Oregon Fish and Wildlife Commission also are protected by state law. Technical Memorandum 3 includes discussion and maps addressing wildlife.

For any new transportation project in Oakland, the Oregon Natural Heritage Databank should be referenced. The ONHD is Oregon's most comprehensive database of rare, threatened, and endangered species and includes site-specific information on the occurrences, biology, and status of over 2,000 species throughout Oregon.

III. Potential Policy Conflicts and Opportunities
Policy conflicts in transportation planning most often arise dated Comprehensive Plans that require updates in order to be consistent with federal, state and other rules and statues. The City of Oakland has a recognized exception from Oregon's Transportation Planning Rule and therefore policy conflicts are limited to those areas which the City (its residents, committees and decision makers) feel are not consistent with its revised goals and vision for transportation in Oakland. Several of the areas listed should be viewed more as "opportunities" than as "conflicts."

A. Comprehensive Plan Policies
Any policy revisions will need to have the approval of, and be reflective of, priorities established by the CAC, PAC and Oakland's decision making bodies. However, an initial review of Comprehensive Plan policies reveals some areas that may be suited for revision. They fall into the following categories:

- Providing improved access to lands for development.
- Connecting existing streets to the broader system.
- Provide improved access for emergency service vehicles (connections to existing dead ends) and expands options for residential areas that previously had limited points of access.

- Providing consistent street design standards for new development.
- Providing safe, efficient, and effective movement of goods, services, and people: creates a system of arterials to direct heavy traffic effectively through the community and maintains local access roads for residents.
- More specifically promoting the availability of a variety of transportation choices for moving people that balances vehicular use with other transportation modes, including walking and bicycling in order to avoid principal reliance on any one mode of transportation.
- Supporting downtown as the major commercial service area; provides more local access to the downtown commercial area, while concentrating heavier traffic on arterial and collector routes.
- Adding Sustainable and Feasible Costs for Construction and Maintenance: this is the highest cost option, but creative solutions to financing and funding street improvements will be explored for the final Street Network Plan.
- Minimizing adverse environmental impacts of transportation facilities.
- Considering of potential costs and funding mechanisms for transportation facilities.

B. System Development Charges

System Development Charges (SDC's) may be collected as vacant parcels of land are developed or as redevelopment occurs. The City of Oakland currently has a wastewater SDC in place (Ordinance 488, 1998). Transportation SDCs would be based on the land use type, the size of the development, 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. SDCs and other funding sources will be researched and presented in greater detail in future technical memoranda.

C. Street Classification and Design Standards

The City of Oakland's existing (but dated) local street functional classification system would be well served by re-assessment and revisions. Not only would certain streets be well-served by a re-classification, but all streets would be well served by the addition of more detailed design standards by street type. Streets are far more likely to effectively fulfill their identified functions, if standards are in place. Future tasks will specifically address this. Technical Memorandum 3 includes a preliminary street re-classification concept (Map 14).

This plan will be implemented through the process of updating and implementing the Comprehensive Plan's policies related to transportation. Additionally, the Zoning and Subdivision Ordinances will also be updated for consistency. Finally, the appropriation of funding is the final step for implementing the projects outlined in this plan.

D. Subdivision Ordinances

Any subdivision code revisions will need to have the approval of, and be reflective of, priorities established by the CAC, PAC and Oakland's decision making bodies. However, an initial review of the development policies reveals some areas that may be suited for refinement. They fall into the following categories:

- Revisions generally ensuring consistency between the subdivision and zoning ordinances.
- Reducing the size of long blocks in order to create more walkable increments.
- Better addressing the operational needs of streets, including vehicular, pedestrian and bicycle circulation and emergency vehicle access
- Reevaluate and improve pedestrian crossing dynamics.
- Modify the street standards to address circumstances where the physical features of the land create severe constraints, or natural features that should be preserved.
- Provisions addressing traffic control that may be needed to address speeding impacts within Oakland.

E. Zoning Ordinances

Any zoning code revisions will need to have the approval of, and be reflective of, priorities established by the CAC, PAC and Oakland's decision making bodies. However, an initial review of Comprehensive Plan policies reveals some areas that may be suited for revision. They fall into the following categories:

- Adding or revising sections addressing access, (in order to manage access to land uses and on-site circulation, and to preserve the transportation system in terms of safety, capacity, and function.
- Adding sections addressing pedestrian improvements to provide an interconnected network of pedestrian routes within neighborhoods (including development of private property
- Adding a section addressing deferment of required improvements, with a guarantee required to secure future installation. This section is proposed to provide flexibility to respond to unusual circumstances that would preclude the immediate construction of the improvements as required.
- Amendments providing the opportunity to modify the street standards to address unusual circumstances where physical features of the land create severe constraints or natural features that should be preserved.
- The proposed amendments add provisions addressing the provision of bicycle parking in commercial land use designations

Oakland Local Street Network Plan

Technical Memorandum 3: Transportation Facilities and Services Inventory

I. Introduction

Technical Memorandum 3 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 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 physical dynamics

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

II. Overview of Oakland's Existing Land Use Conditions

A. 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 (Old Highway 99) and North and South East Locust Street. Table 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 1: Distribution (in acres) of Land Use Types by Development Status

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

B. 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 the Urban Growth Boundary (UGB) is designated as Low Density Residential. Significant portions of town are also in General Industrial zoning. 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 2 provides a summary of the acres in each zone. Zone designations and special overlays are also presented in **Map 2**.

Table 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

C. 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 First and Front Streets (old 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 of town along Goodman Avenue (water treatment/public works). A table of Oakland's Comprehensive Plan land designation by acreage is provided below. A map of plan designations is provided as **Map 3**.

Table 3. Comprehensive Plan Zoning Designations

Comprehensive Plan Zone Type	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

D Right-of-Way (ROW)

Table 4 presents the ROW widths along streets (and types) in Oakland. The ROW widths were measured using geographic information systems (GIS) data provided by Douglas County. A map of approximate ROW locations in Oakland is included in **Map 3.**

Table 4. Approximate Street ROW Widths

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

E. Current and Near-Term Developments

The City of Oakland does not have any immediate or near term developments.

III. Overview of Oakland’s Existing Street Network

A. 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 section 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.

County-Maintained Roads and County Functional Classification

Douglas County maintains roads within the Oakland UGB. Table 5 shows the streets within Oakland’s UGB maintained by Douglas County and their County functional classification. A brief description and images for these streets follows. A map including roads by jurisdiction (City vs County) can also be found on **Map 4.**

Table 5. Douglas County-Maintained Roads

Road Name	From	To	County Classification
Old 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

Where SE First Street becomes SE Front Street--Arterial (Looking North)

NE First Street is Old Highway 99. Posted speeds are 35 MPH on the north and south ends of town. There are not posted speeds through the downtown area.

Image from Google Street View

Old Highway 99 North --Arterial (Looking South toward NE Front Street)

Image from Google Street View

Stearns Avenue—Minor Collector (Looking West)

Stearns Avenue runs east and west from the intersection of SE Front Street and Old Highway 99 North to Interstate 5. Posted speeds range from 35 to 45 MPH.

Image from Google Street View

Stearns Avenue—Minor Collector (Looking East)

Image from Google Street View

Oak Street -- Local (Looking East)

Oak Street runs east and west from NE First, in the center of town, to Driver Valley Road on the east side of town. The posted speed is 25 MPH from the center of town all the way to Driver Valley Road.

Image from Google Street View

City-Maintained Roads and Functional Classification

The City of Oakland also maintains roads within the Oakland UGB. Table 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 also be found on **Map 4.**

Table 6. 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	Old Highway 99 North	Collector
NE Eighth Street	Oak Street	SE Locust Street	Local

Road Name	From	To	City/County Classification
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	Old Highway 99	Local
NW Pine Street	NE First Street	Dead End	Local
Oak Street	NE First Street	Driver Valley Rd	Arterial/Local
Old Highway 99 North	North City Limits	NE Cypress Avenue	Arterial
Old Town Cemetery Rd.	Old 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
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	Arterial/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**

NE & SE Locust Streets (Looking East)

NE and SE Locust Streets run in an east west direction from the intersection of NE & SE First Streets to Driver Valley Road. The posted speed is 25 MPH in the residential and commercial areas around downtown.

Image from Google Street View

NE & SE Locust Streets (Looking West)

Image from Google Street View

NW & SW Locust Streets (Looking East)

Image from Google Street View

NE Fifth Street (Looking North)

NE Fifth Street runs north and south from Locust Street to its end (Oakland School District) just passed NE Cedar Street. NE Fifth Street contains a separated path which is currently used as a pedestrian path, acting as a main travel route for students to get to school. There are no posted speeds on NE Fifth.

Image from Google Street View

SE Fifth Street (Looking South)

SE Fifth Street runs north and south from Locust Street to its end just passed SE Pear Street at the south end of town. Posted speed is 25 MPH.

Image from Google Street View

SE Third Street (Looking South)

SE Third Street runs north and south from Locust Street to its end just passed SE Pear Street at the south end of town. There are no posted speeds on SE Third.

Image from Google Street View

SE Walnut Street (Looking East)

SE Walnut Street runs east west from SE First Street to SE Fourth Street. There are no posted speeds on SE Walnut.

Image from Google Street View

B. Street Classifications

Current definitions of street functional class are based on Oakland's Comprehensive Plan. Because the Comprehensive Plan is dated, functional class is also currently informed by the Oakland Subdivision Ordinance, and City of Oakland staff knowledge.

Functional classification provides a systematic basis for determining future right of way and improvement needs, and can also be 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 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 spectrum of mobility and access 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,

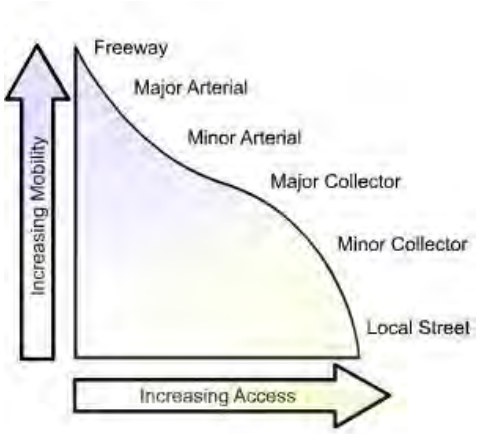


Figure 1 Functional Classifications

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.

Current Street Classification in Oakland
Currently, the City of Oakland and Douglas County use different roadway classifications and standards for roads within the study area (see **Map 5** (City Classification) and **Map 6** (County Classification). Following are definitions of Oakland's existing street functional classes.

- **Arterial**: Principle vehicular traffic arteries serving as connectors through Oakland and linking the community with other portions of the County, State, and Interstate transportations systems. Their main function is to move large volumes of traffic smoothly, to provide cross town access, and connect to major roads leading out from the city. Oak Street and Stearns Avenue are the only arterial in an east-west direction. They both connect to First Street (Old Highway 99), the city's only north-south arterial. Because of the large amount of traffic that they handle, arterials are suited for providing access to an area having commercial and industrial uses. Oak and First Streets in Oakland adjoin the city's business area, providing access from and throughout town.

  It is important that arterials be designed so that their main function is not hindered. This should include limiting the number of access ways onto the street, including driveways and other streets. The presence of numerous access ways could slow traffic flow, and increase energy use, traffic congestion, and the potential for traffic conflict as the volume of use increases in the future.

- **Collector**: Collectors provide access to rural, commercial, and residential areas. As the name suggests, collectors generally serve the function of gathering traffic from local streets and moving it to an arterial street. Access to abutting property, and on-street parking, are secondary functions of collector streets, which should not interfere with the main purpose of these streets. Fifth Street, which provides access from the schools, Old Town, and residential areas within town to Oak Street, serves as a collector. Locust Street, also a collector, provides access from residential and commercial areas of town to First Street. Locust Street also provides immediate access to adjacent property, and on-street parking.

- **Local:** Local streets constitute a third category of access. Their principal purpose is the provision of access to abutting property, and to move local traffic to a collector street. As a result, they are not intended for heavy traffic. This kind of street can be found throughout Oakland, providing access to residential areas of town, and constituting the side streets in the business area. As side streets they can provide parking spaces.

  To avoid undue traffic and noise, especially in residential areas, local streets should not provide through access across town. It is interesting to note that the presence of

numerous platted, but as yet undeveloped 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. **Map 14** includes a preliminary conceptual reclassification of streets generated by project staff with input from Oakland City staff. The preliminary concept proposes an increase the number and distinctiveness of functional classes, to allow for greater variety and uniqueness in design standards.

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:** (unknown definition)
- **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 neighborhood thereby helping to establish neighborhood identity. In rural areas, minor collectors also connect rural residential areas. Traffic volumes generally can range up to 5000 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. The through movement of traffic on local roads is to be discouraged. Traffic volumes on local roads are generally less than 1500 ADT (Average Daily Traffic).

Map 5 shows city street classifications and **Map 6** shows county street classifications. Table 7, which follows, presents streets by posted speeds and street conditions, including underground conditions. The City has significant documented issues related to collapsed storm drains. Table 8 summarizes street widths requirements for each classification according to the subdivision ordinance and the comprehensive plan. **Map 7** portrays road types and conditions.

C. Pavement Condition and Width

Pavement and road conditions in Oakland have not been thoroughly evaluated. Information about the status and conditions of roads is based on city staff knowledge and basic observational and other anecdotal information. 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. The project team has not determined road width 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 8 provides a summary of street widths from the Subdivision Ordinance and the Comprehensive Plan, with the discrepancy highlighted.

Table 7. Oakland Street Speeds, Conditions, and Documented Underground Issues

Road Name	Posted Speed	Condition	Surface Type	Documented Under Ground Repairs Needed
Old Highway 99 North	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

Table 8: 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

D. 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, which highlights challenges for improved connectivity within the existing network.

E. 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 (Old Highway 99) along its western side on the southern end of town. 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 Street 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 Old 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. Parking does not seem to be an issue in Oakland except for a handful of vehicles parking along First Street (Old Highway 99). 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.

IV. Overview of Oakland's Existing Pedestrian and Bicycle Facilities

Pedestrian and bike facilities in Oakland are limited and often inadequate where they occur. Fifth Street is the only street with a separated pedestrian 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 expressly designated for this purpose at present. Sidewalks exist in some parts of downtown, along both sides of Locust Street, the north side of Oak Street. Streets which Intersect with Locust Street (e.g. Second, Third, and Fifth) also have some existing sidewalks (see **Map 8)**. The city has a 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.

A. 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, and 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 would be impractical to conduct. 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.

B. 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.

The only existing County bicycle facilities in the vicinity of Oakland is a Class III facility, meaning that it shares the roadway with traffic and is identified by signage and striping. The facility is located along Old Highway 99 North at the South end of Town.

Project staff, in consultation with City of Oakland staff and officials developed a preliminary map of possible future bicycle routes. The routes are depicted in **Map 13.**

C. 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. However, many of Oakland's neighborhoods either do not have sidewalks or have limited and disconnected sidewalk system that are inconsistent with the Americans with Disability Act (ADA). 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 be in place sporadically throughout the block, lacking continuity. A map of existing pedestrian and bicycle facilities in Oakland is provided on **Map 8.**

D. 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 been evaluated, and information about the status and conditions of crosswalks is based on city staff knowledge and anecdotal information. Oakland's crosswalks are nicely visible with little chipping or fading, but, in many cases, fail to meet regulatory width standards. 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:

- 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.

E. 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 Old Highway 99/First/Front, Oak, Fifth and Locust Streets. More information on traffic levels will help refine street classifications in the future. There are no areas that would be considered "high" crash areas identified in Oakland (see Table 9). However, drivers must use caution when traveling to and from Sutherlin along Old Highway 99 North.

V. Overview of Oakland's Rail Network

A. Railroad

Central Oregon & Pacific Railroad (CORP) is the service provider for the railroad running along Old 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 Old Highway 99 crosses the railroad where it runs parallel to Calapooya Creek. This is a bridge crossing and does not directly affect traffic flow. The only other right of way crossing is an at-grade crossing on Stearns Avenue near Front Street (Old 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. The crossing is at grade with minimal improvements (railroad ties). The crossing provides access to the City's water intake. It is also included as part of conceptual bike loop connecting the north end of the City to Calapooya Creek and open space on the west side of town (see **Map 13**). Rail crossings are depicted on **Map 8.**

VI. Transit in Oakland

Oakland 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. Umpqua Transit has representation on the Project Advisory Committee and has expressed interest in investigating possible future opportunities for transit service in Oakland.

VII. Safety

A. Accidents

Crash data for Oakland was obtained by Douglas County. No crash data was directly available for the City of Oakland proper. Crash data is, therefore, limited to Douglas County maintained streets. Table 9 presents a summary of crash data on Douglas County facilities. **Map 4** also shows the accident occurrences.

Table 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

B. Bicycle and Pedestrian Safety Conditions

Bicycle and pedestrian safety concerns have not been broadly investigated by staff. Both the Citizen Advisory and Project Advisory Committees have bike and pedestrian representation and further concerns and details should arise from those meetings. Issues which have been apparent through preliminary conversations with staff and a tour of the City include the following:

- 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 the most potentially dangerous areas for pedestrian school children.

VIII. Natural Resource/Feature Constraints

A. 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 wetlands of note that are not directly associated with Calapooya Creek 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 lacks mapped resources, simple observation by the project team reveals a number of potential resources in this area related to drainages. 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 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 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

B. Waterways and Drainages

There are a number of waterways and drainages in the City of Oakland. Some are more apparent than others. Table 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 is also a useful characterization of the topographic challenges in Oakland.

C. Topography

The City of Oakland sits generally around 400 and 500 feet above sea level and gradually rises in elevation to the east and more dramatically to the north and southern parts of the city. Topography in Oakland constrains street system connectivity, necessitating significant engineering solutions to address.

D. 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 in 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 (Old 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.

E. 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 tributaries (drainages)).

Although not currently mapped, there may also be listed 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.

IX. 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 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 location of existing bridges in and around the study area are show on **Map 9**. The NBI condition rating for the Old 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.'

X. Oakland Transportation System Maps

Project staff have developed fourteen maps referenced throughout the memorandum. The maps are attached and include the following:

- ***Map 1*** - *Land Use – Vacant Lots*
- ***Map 2*** - *Oakland Zoning*
- ***Map 3*** - *Oakland Comprehensive Plan Designation/ Right-of-Way*
- ***Map 4*** - *Street Jurisdiction & Safety*
- ***Map 5*** - *City Functional Classification*
- ***Map 6*** - *County Functional Classification*
- ***Map 7*** - *Existing Road Conditions*
- ***Map 8*** - *Existing Bike-Pedestrian System/Activity Centers*
- ***Map 9*** - *Rail/Bridges/Culverts*
- ***Map 10*** - *Natural Resources*
- ***Map 11*** - *Topography*
- ***Map 12*** - *Aerial*
- ***Map 13*** - *Conceptual Bike-Pedestrian Routes*
- ***Map 14*** - *Conceptual Street Classification*

Map 1
City of Oakland

Land Use with Vacant Lots

Rail Road

Roads

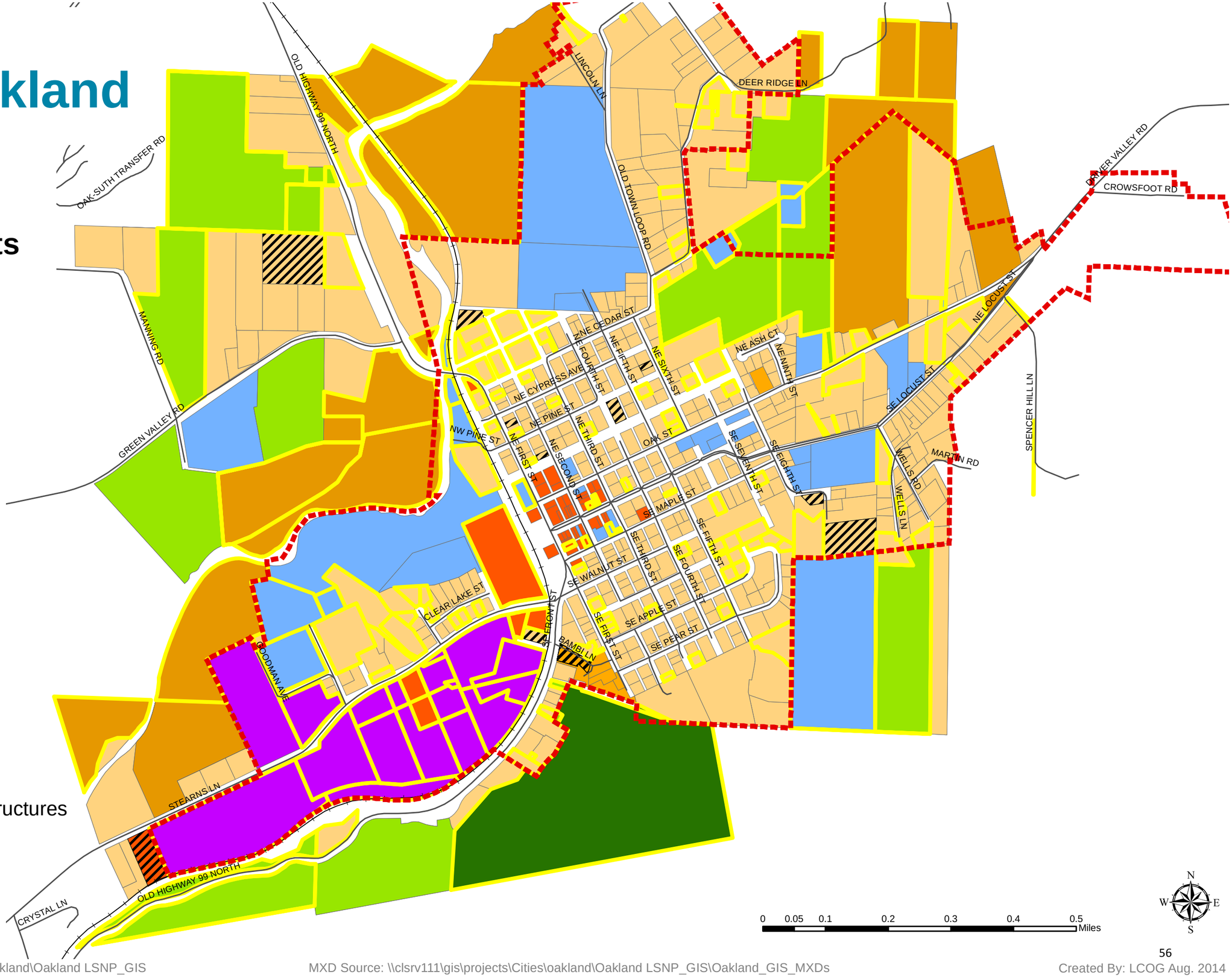
Vacant Lots*

Oakland UGB

Land Use

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

*Vacancy is determined using Douglas County property class



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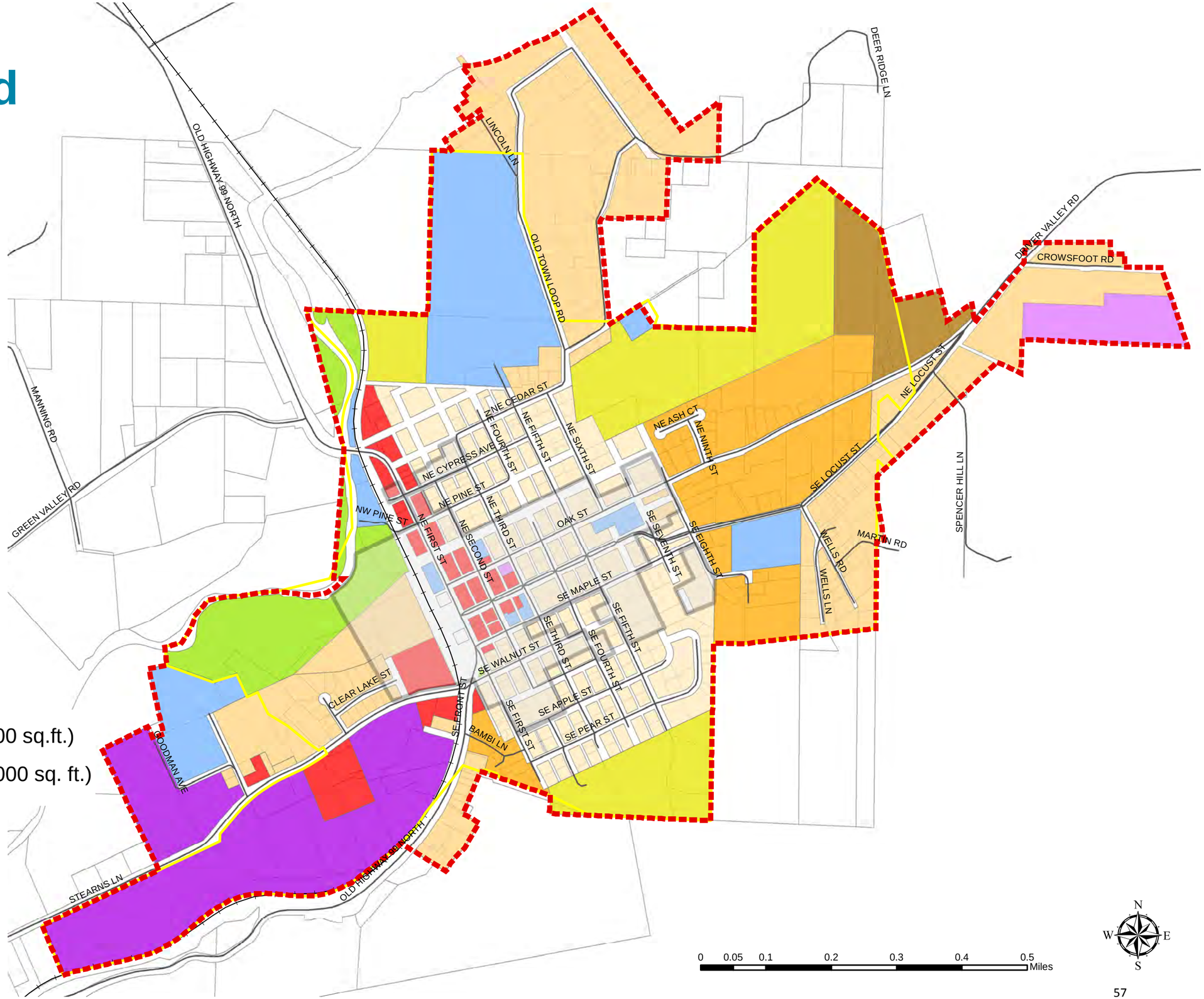
Map 2
City of Oakland
Zoning with Special Overlays

- Rail Road
- 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



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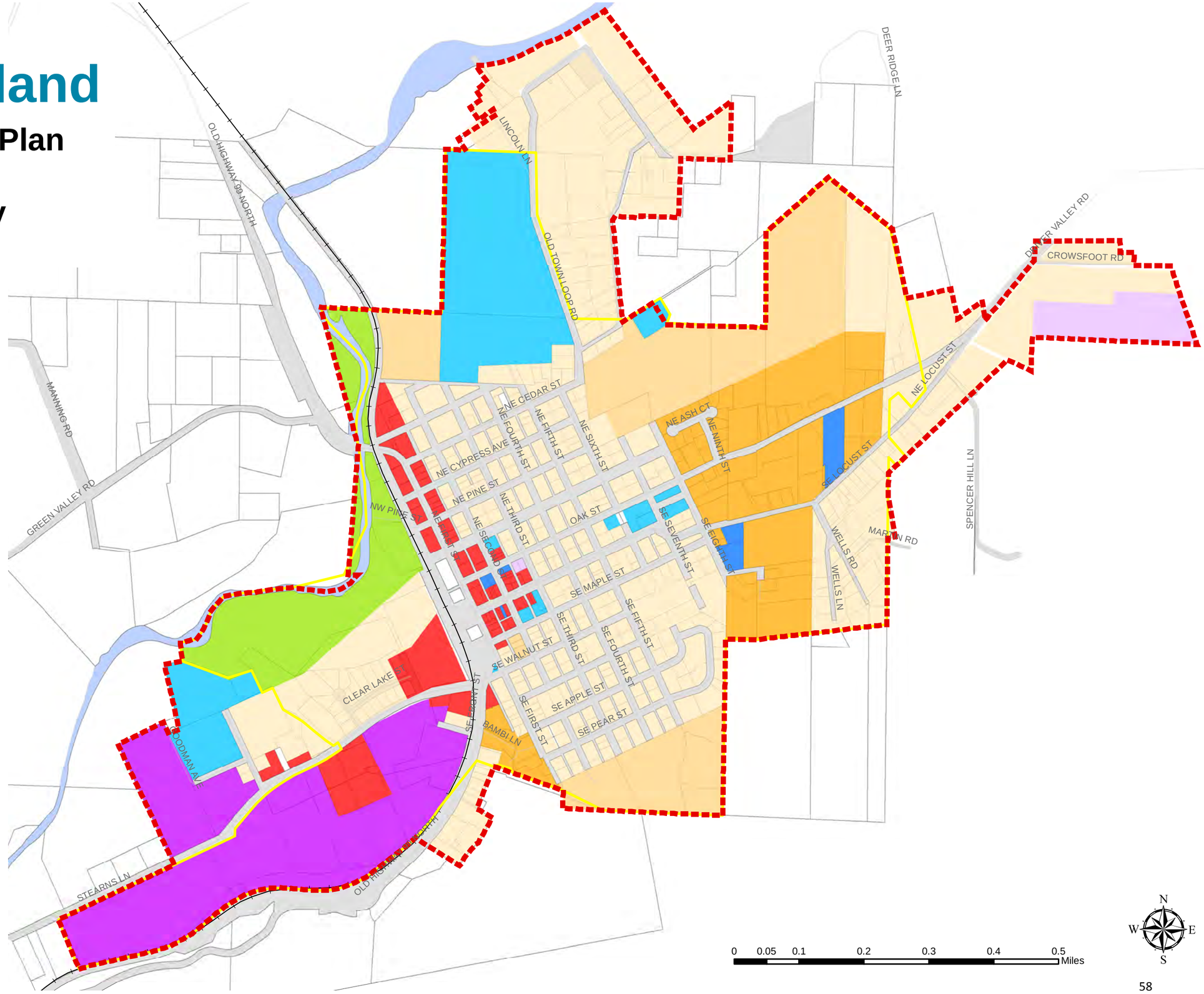
Map 3
City of Oakland
Comprehensive Plan and Right-of-Way

- Rail Road
- Roads
- Oakland City Limits
- Oakland UGB
- Oakland Parcels
- Calapooya Creek
- Oakland ROW

Oakland Plan Designation

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



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Map 4

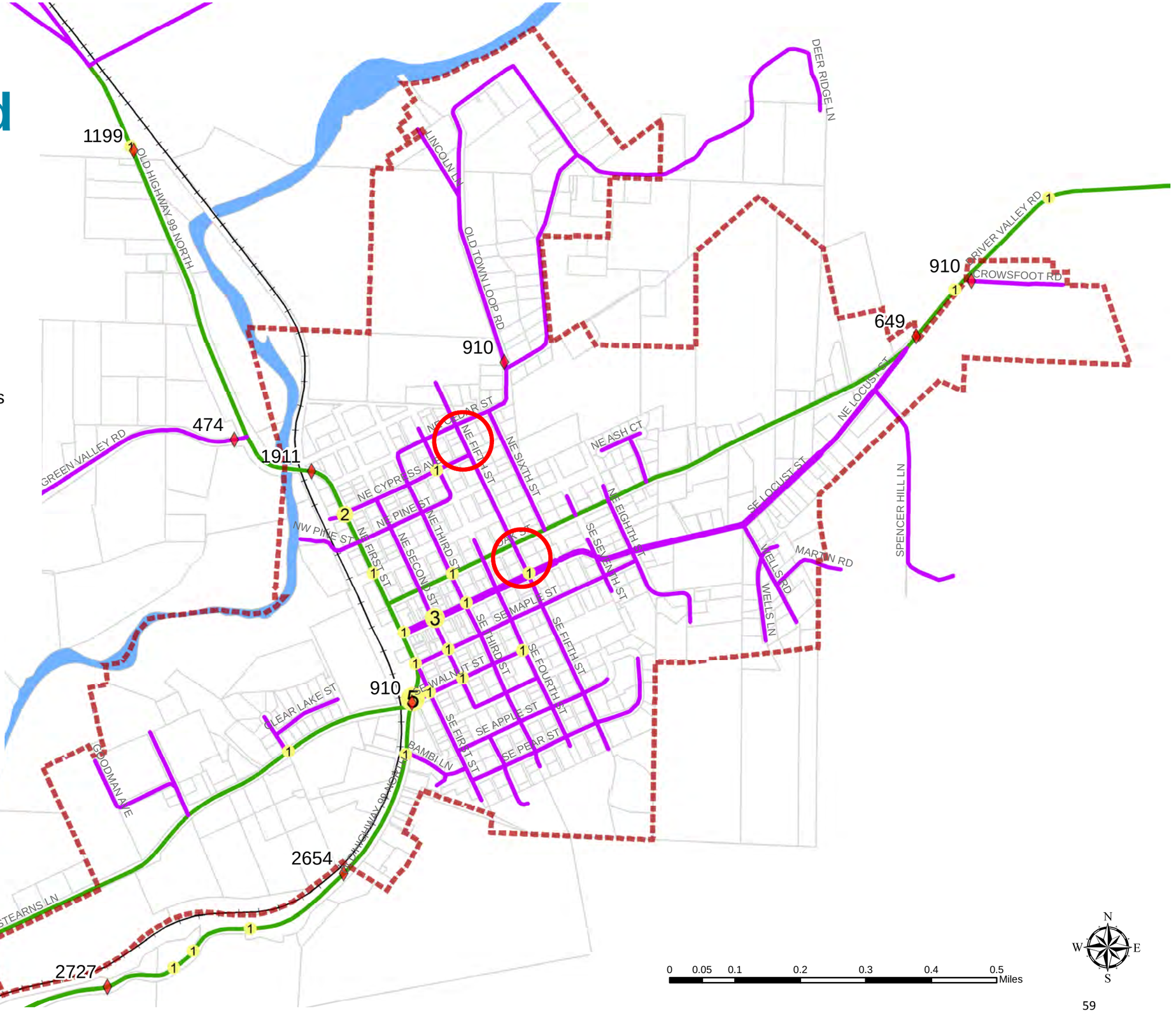
City of Oakland

Street Jurisdictions & Safety Concern Areas

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

Oakland Streets

- City/Municipal - M
- County - C
- Railroad
- Oakland Parcels
- Calapooya Creeek



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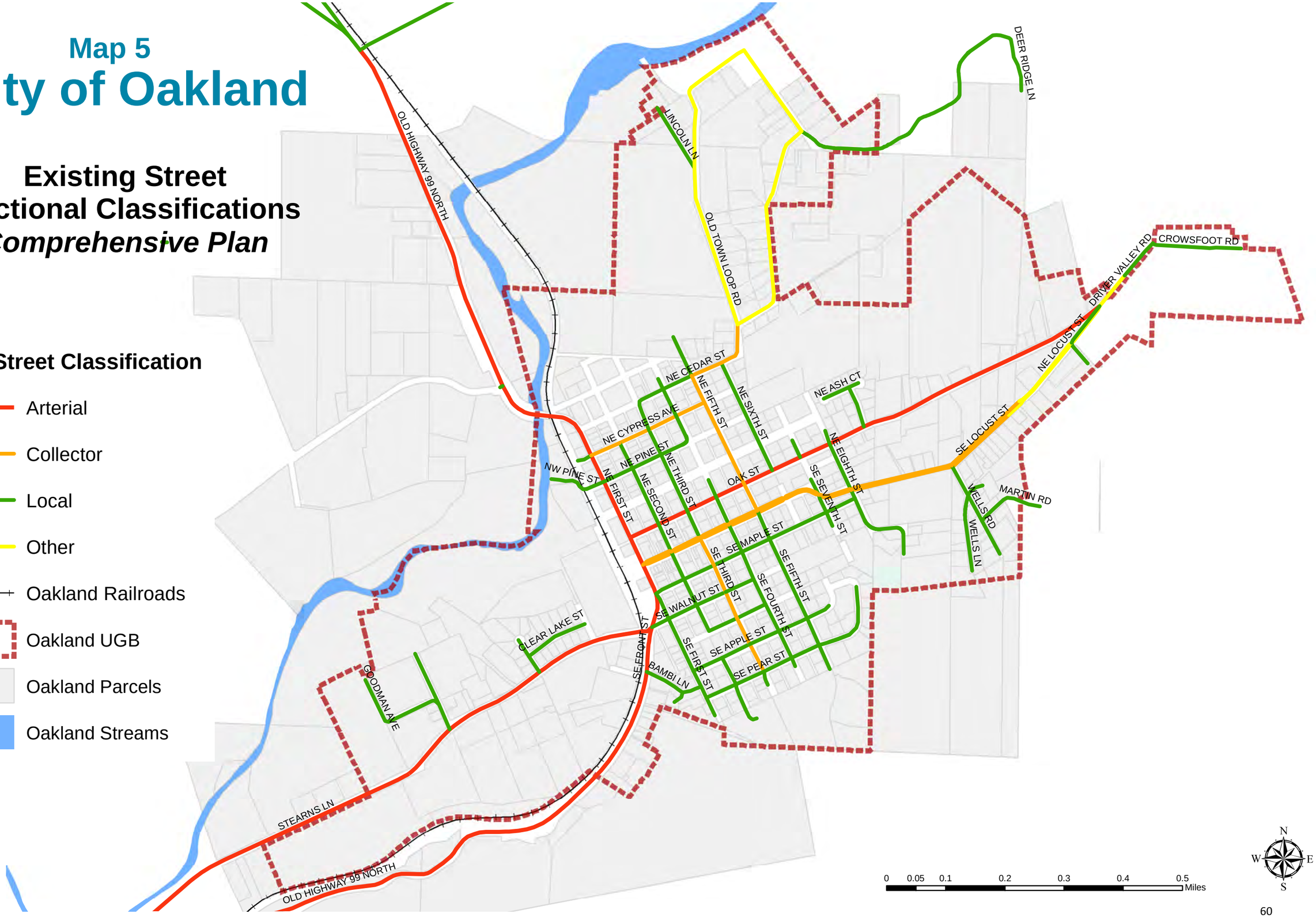
Map 5

City of Oakland

Existing Street Functional Classifications *Comprehensive Plan*

City Street Classification

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



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Created By: LCOG Aug. 2014

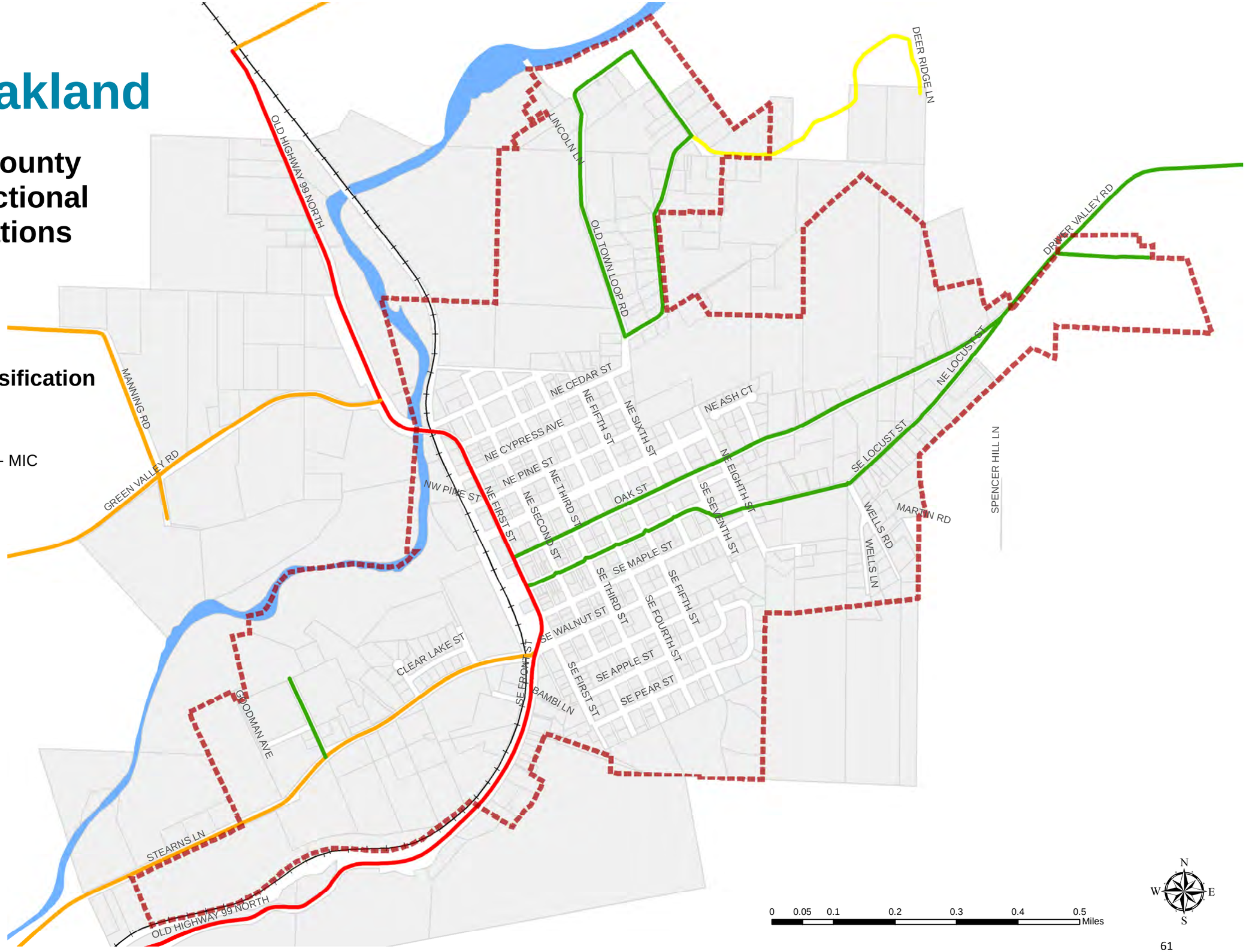
Map 6

City of Oakland

Douglas County Street Functional Classifications

Douglas County Classification

- ARTERIAL - ART
- MINOR COLLECTOR - MIC
- LOCAL - LOC
- Rural Local
- Oakland Railroads
- Oakland UGB
- Oakland Parcels
- Oakland Streams



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Map 7
City of Oakland

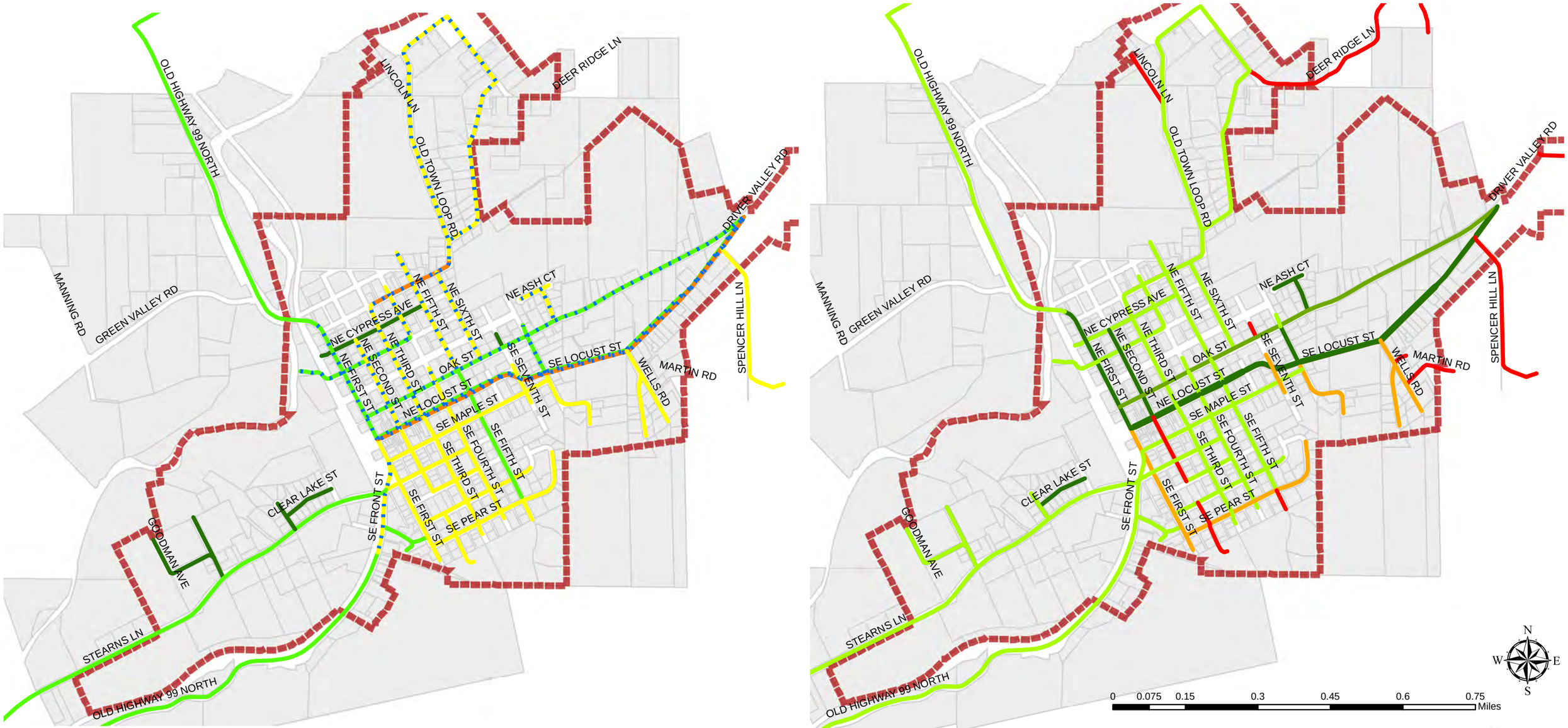
Road Conditions & Surface Types

Surface Condition

- Good
- Fair
- Poor
- Bad
- Streets with Storm Drain Issues

Surface Type/ Improvements

- Gravel
- Asphalt/Gravel
- Asphalt
- Asphalt/Asphalt and Curb
- Asphalt Curb and Gutter



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Map 8

City of Oakland

Existing Pedestrian & Bicycle Facilities with Local Activity Centers

- Local Activity Centers
- Rail Road
- Oakland UGB
- Oakland City Limits
- Oakland Parcels
- Oakland Schools

Bike & Ped Infrastructure

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

Dr. Warren Kadas Scenic Loop
Class IIIs

LIncoln Middle School

Oakland High School

Oakland Elementary School

Ron Hjort - Rochester Bridge Loop
Class IIIs

NE 5th Street

Oakland Church of Christ

City Hall

City Park with Disc Golf

Post Office

Stearns True Value Hardware

Oakland Community Church

Tolly's Restaurant

Oakland Tavern

City Park and Pavillion

Triangle Park

Stearns City Park

Oakland-Sutherlin Route
Class III

0 0.05 0.1 0.2 0.3 0.4 0.5 Miles

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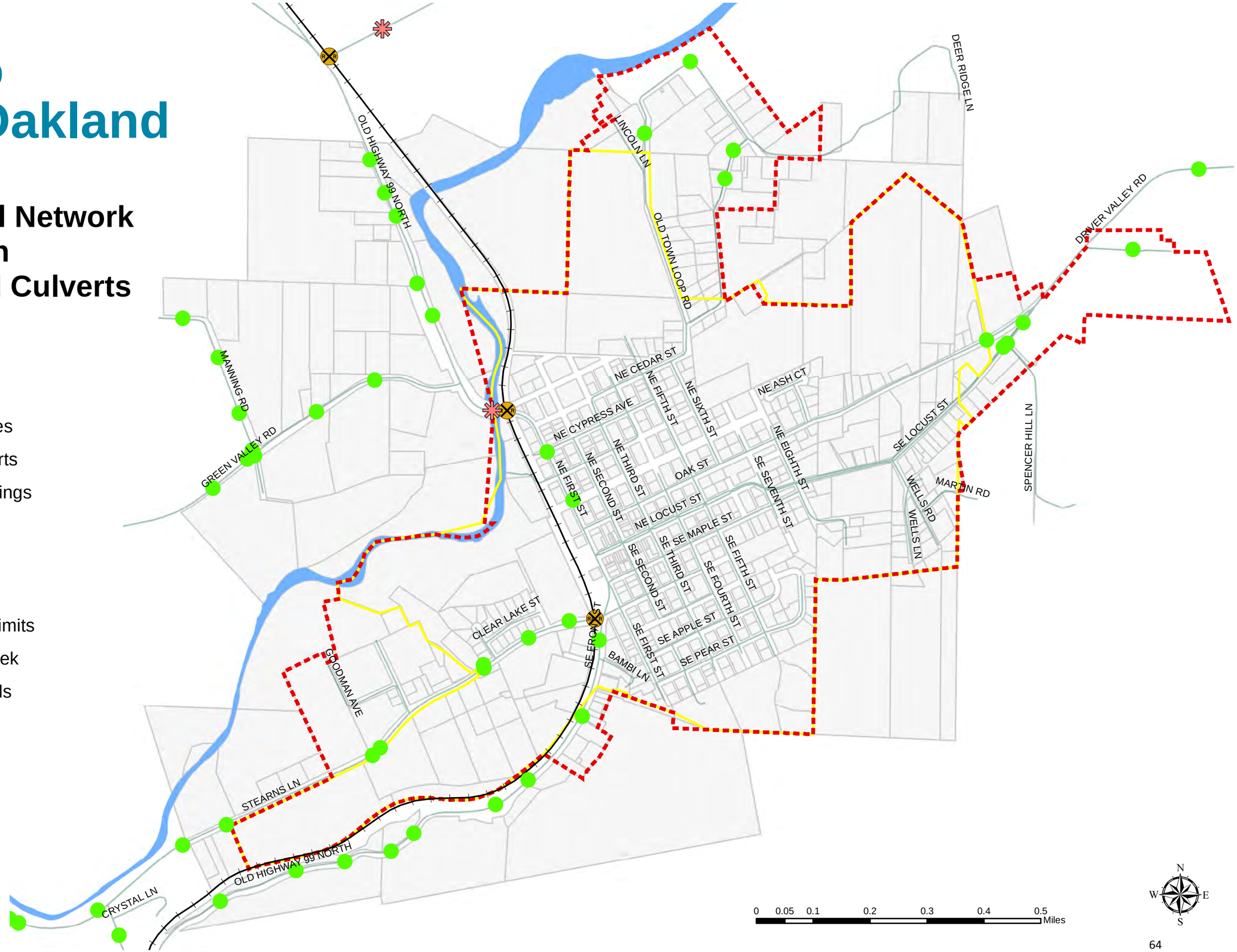
Map 9

City of Oakland

Existing Rail Network with Bridges and Culverts

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



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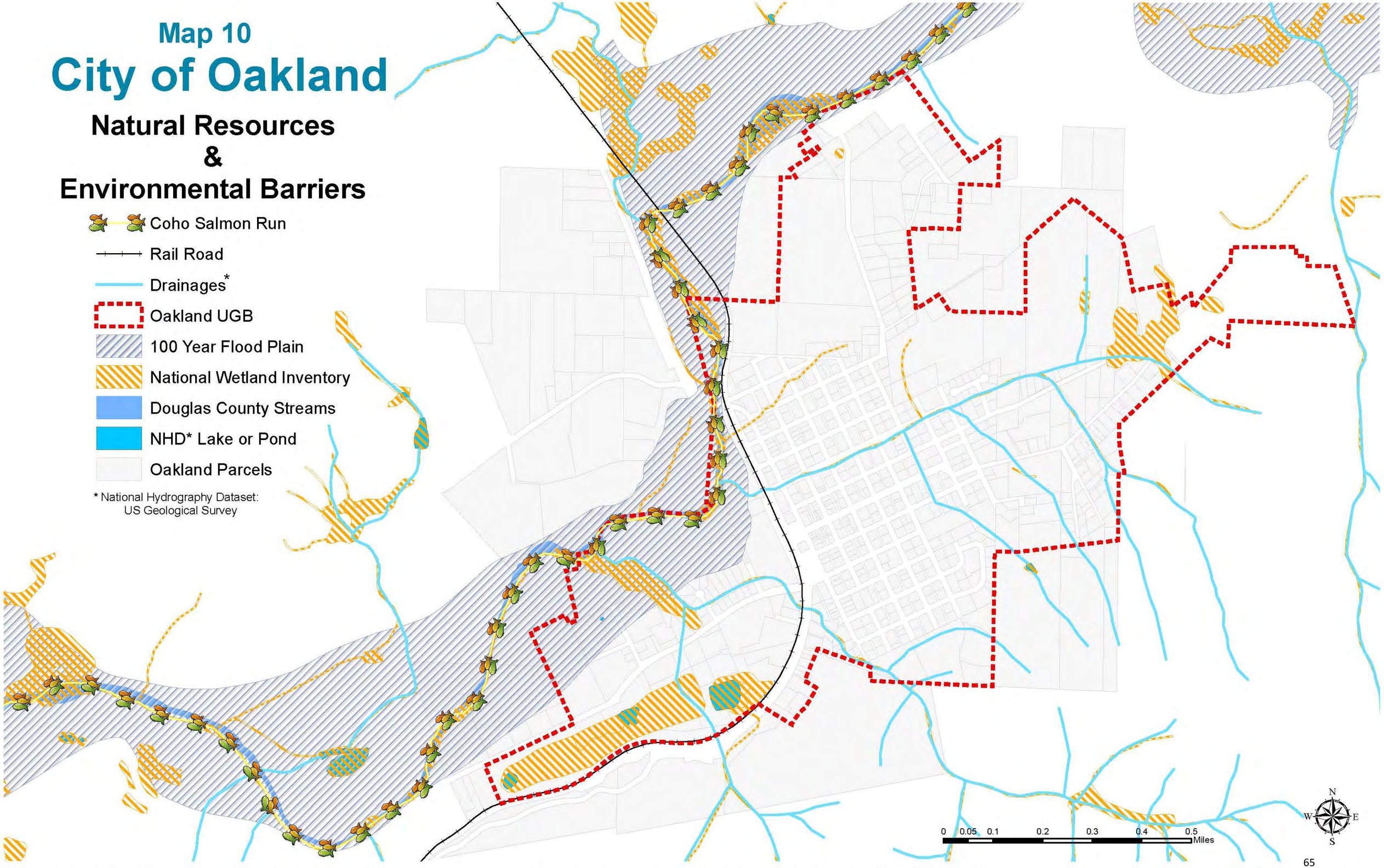
Map 10
City of Oakland
Natural Resources & Environmental Barriers

- Coho Salmon Run
- Rail Road
- Drainages*
- Oakland UGB
- 100 Year Flood Plain
- National Wetland Inventory
- Douglas County Streams
- NHD* Lake or Pond
- Oakland Parcels

* National Hydrography Dataset: US Geological Survey



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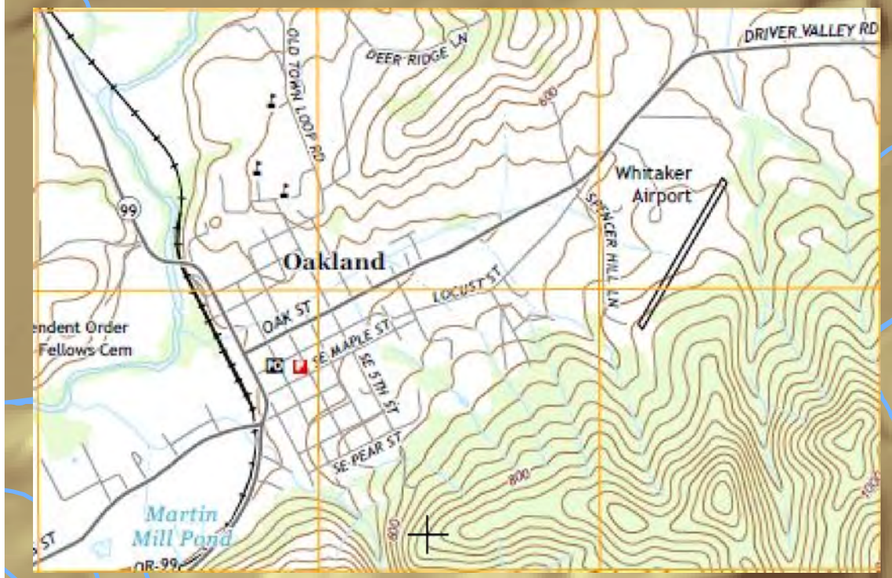
Map 11

City of Oakland

Hill Shade & Topography

- Rail Road
- Oakland UGB
- Waterbodies & Drainages
- Oakland Parcels



0 0.05 0.1 0.2 0.3 0.4 0.5 Miles

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Map 12

City of Oakland

2012 Aerial Photo

- Rail Road
- Oakland UGB
- Oakland City Limits
- Oakland Parcels

0 0.05 0.1 0.2 0.3 0.4 0.5 Miles

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Map 13

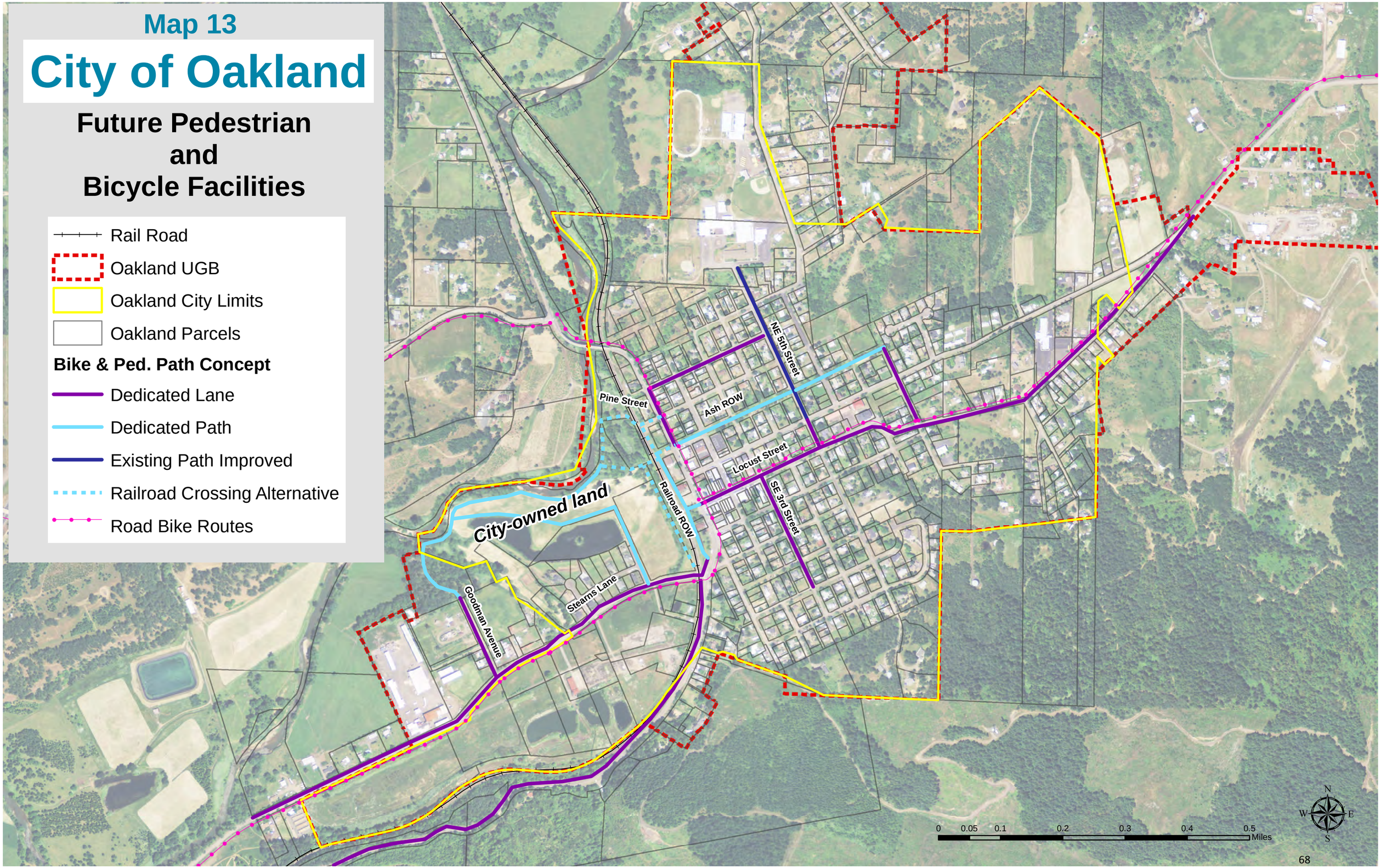
City of Oakland

Future Pedestrian and Bicycle Facilities

- Rail Road
- Oakland UGB
- Oakland City Limits
- Oakland Parcels

Bike & Ped. Path Concept

- Dedicated Lane
- Dedicated Path
- Existing Path Improved
- Railroad Crossing Alternative
- Road Bike Routes



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Map 14

City of Oakland

Street Classification Proposal & Conceptual Streets

Oakland UGB

Oakland Parcels

Street Classification Proposal

Arterial

Major Collector

Minor Collector

Major Local

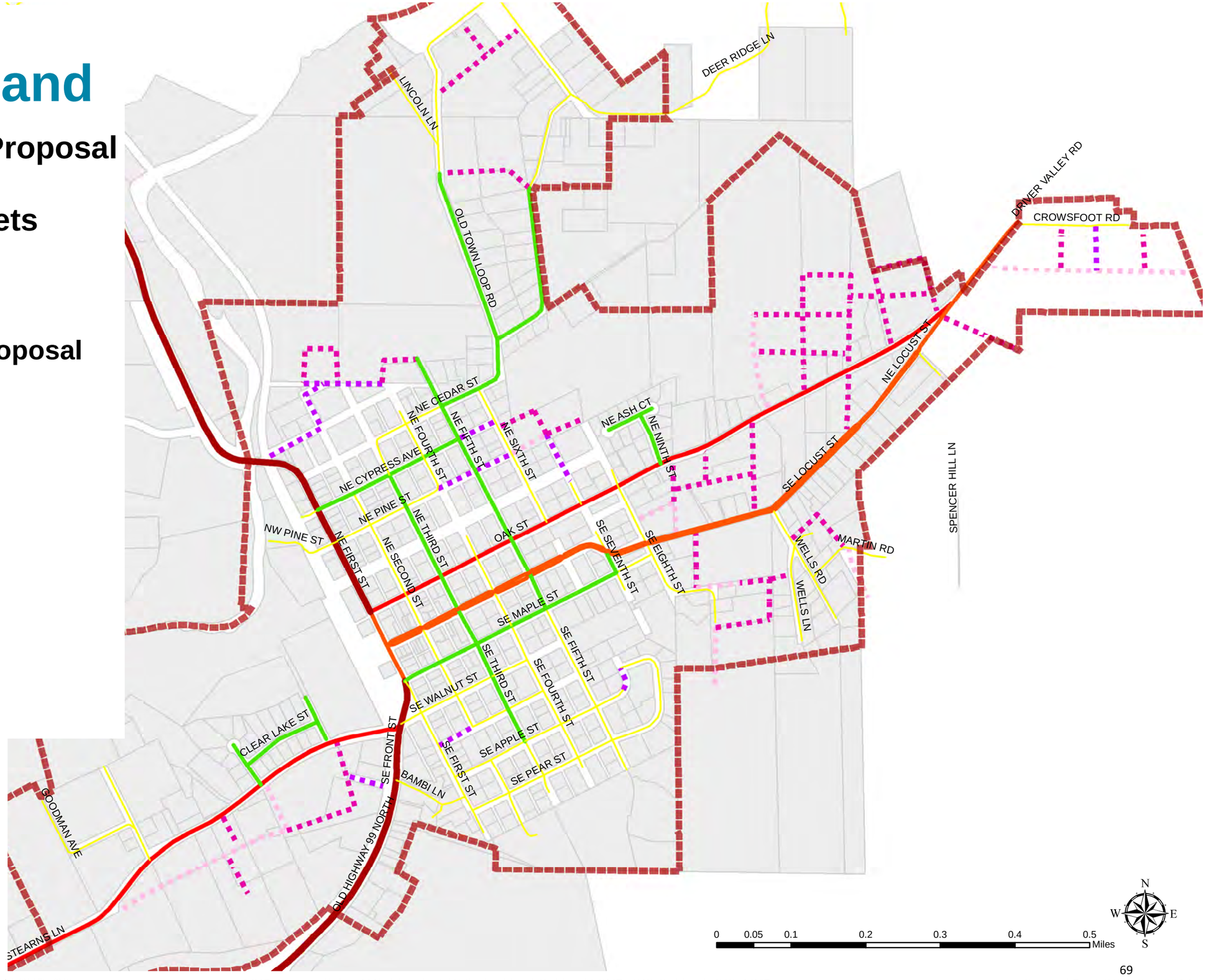
Minor Local

Conceptual Streets

Other Conceptual

Exisitng Improvements

Existing Right of Way



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Oakland Local Street Network Plan

Technical Memorandum 4: System Improvements

I. INTRODUCTION AND PURPOSE

Technical Memoranda 1, 2 and 3 provide significant background information for the Local Street Network Plan (LSP) including goals and objectives for the plan and project, important regulatory considerations and a characterization of the existing transportation system. In September of 2014, draft versions of Technical Memoranda 1, 2 and 3 were presented to the Project Advisory Committee, Citizen Advisory Committee, Planning Commission and City Council, and were also shared on the Project's website. Feedback from these groups informed final drafts of the Memoranda which are available at City Hall or on the project website at www.oaklandvoices.blogspot.com/p/blog-page_8.html.

The information contained in the memoranda, in combination with additional feedback from City of Oakland staff, the advisory committees and decision bodies, informs the development of more specific transportation system improvement concepts and alternatives. This feedback has also informed the development of final evaluation criteria for transportation system improvement alternatives.

Improvements are organized and presented by system; automobile and bicycle and pedestrian. The City of Oakland's transit system is also addressed, but is limited in its extent and, therefore included with the section addressing automobile system improvements.

Concept level designs and maps are included for the proposed improvement alternatives as well as 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 Technical Memorandum 1.

Improvements address connectivity, safety, geometry (how an intersection is configured), and issue accessibility (e.g. Americans with Disabilities Act). Improvements 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 worksessions, a public hearing and any other input) will inform the final selection, configuration and priority of project alternatives. Final alternatives will be presented with greater detail in Technical Memorandum 7.

A. Evaluation Criteria

Because the full list of desired projects and needs outstrip available funding or potentially conflict with other projects, it is important to determine priorities for potential projects or groups of projects or whether they should be considered for adoption and potential funding at all. To address these larger questions, evaluation criteria have been developed to refine how projects/concepts could/should be advanced, and assigning projects for short-range or longer-

range implementation. The TAC, CAC, Planning Commission, City Council and residents of Oakland will also have opportunities to apply the criteria to the projects.

Following are the overall project evaluation criteria (outlined in Technical Memorandum 1):

- Provides access to lands for development: provides the maximum access to developable lands as well as connecting existing streets to the broader system
- Provides adequate access for emergency service vehicles: creates connections to existing dead ends and expands options for residential areas that previously had limited points of access. Provides consistent street design standards for new development.
- Provides safe, efficient, and effective movement of goods, services, and people: creates a system of arterials to direct heavy traffic effectively through the community and maintains local access roads for residents
- Provides safe and well-integrated opportunities for pedestrian and bicycle pathways: creates a system of sidewalks, with special attention to school access.
- Minimizes energy consumption in terms of vehicle miles traveled as well as in terms of street construction and maintenance: the grid system creates opportunity for more direct routes as well as opportunities for walking and cycling.
- Supports downtown as the major commercial service area; provides more local access to the downtown commercial area, while concentrating heavier traffic on arterial and collector routes.
- Sustainable and Feasible Costs for Construction and Maintenance: this is the highest cost option, but creative solutions to financing and funding street improvements will be explored for the final Street Network Plan.

Ultimately, the practical considerations for priorities include the criteria above as well as the following:

- How critical is the need for the project(s)?
- How urgent is that need?

Environmental impacts must also be considered for each alternative. A number of conceptual 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 will be flagged in the LSP's projects summary as being highly likely to involve potential resource conflicts, and will include some detail on those potential impacts.

B. Application of Evaluation Criteria

All alternatives presented in Memoranda 4, 5 and 6 are in a draft and preliminary state. The assessment of alternatives against evaluation criteria is the combined task of all stakeholders, from staff to committee members, to public officials to Oakland residents. Project staff have provided a preliminary criteria evaluation of each alternative. These are assembled in Tables 1, 2 and 3. Committee meetings and the public open house will focus on "reality checking" the alternatives and ground-truthing the criteria evaluation. Staff anticipates that insights from these meetings may result in changes (both large and small).

C. Future Street/Path Network

The following section details concepts for the future street network in the City of Oakland. Project Alternatives A-1 through A-18, P-1 through P-9 and B-1 through B-5 (introduced below) propose improvements for existing infrastructure in Oakland.

Project Alternatives P-5 through P-10 present possible future multi-use paths. In most cases these proposals are for new infrastructure on existing public land or right-of-way. In some cases the improvements will require agreements or acquisition.

Project Alternatives A-6 through A-18 present the general location of possible future street alignments and improvements. The conceptual street alternatives are meant to serve as a guide as undeveloped parcels develop within the community (according to the discretion and timing of property owners). An understanding for preferable and feasible connections enables the City to focus its strategy for roadway improvements. The locations of actual street alignments will be determined at the time of development based on numerous factors, some of which cannot be adequately evaluated in this analysis. These proposed streets are located primarily in vacant residential lands north and east of downtown. Some proposed future streets would occupy existing rights-of-way, which may be determined to be underutilized, while others would require street dedication as required by future development.

In general, the proposed 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. Technical Memorandum 5 contains more detail on proposed changes in street functional class.

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 connectivity value.

Some options have been included to also increase bike and 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.

D. Traffic Forecasts

Because of the size of Oakland and its 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. Traffic counts on county roads are collected and a map of these counts is included on Map 4 of Technical Memorandum 3. 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 project.

E. System Maintenance

Preservation, maintenance, and operation are essential to protect the city 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.

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 recognizes instances where such issues have direct relevance to project alternatives and include the dynamic in its priority considerations. Attachment B provides an overview of drainage complications as documented by Oakland Public Works (as well as ADA deficiencies).

Technical Memoranda 5 and 6 address elements of maintenance as well.

II. AUTOMOBILE TRANSPORTATION SYSTEM

A. Automobile System Improvement Project Concepts and Alternatives

Feedback from local staff, committees, decision makers and insights from site visits and data analysis are assembled into a list of project concepts and alternatives. The concepts and alternatives are presented in greater detail in the maps and figures of Attachment A.

Intersection Improvements

- **A-1 Oak and 1st Street & Locust Street and 1st**
- **A-2 Locust Street and Seventh Street**
- **A-3 Oak Street and 5th Street**
- **A-4 Cedar Street and Fifth Street**
- **A-5 Stearns Lane and Stearns and Front Intersection**

Street Improvements (including reclassification)

Any street reclassification will have improvement implications for the automobile system. Technical Memorandum 5 provides greater detail for the considerations for and determination of Street Functional Class. The following streets are proposed for reclassification but the detailed summaries for each are contained within the Pedestrian and Bicycle System maps.

- **P-1 Fifth Street (Oak street to the school)**
- **P-2 Third Street (Apple Street to Cypress Street)**
- **P-3 Oak Street (1st Street to 8th Street)**
- **P-4 Cypress Avenue & NE 1st (1st Street around to 5th Street)**
- **B-1 Maple Street (Front Street to 7th Street)**
- **B-5 Locust Street (Apple Street to Cypress Street)**

Conceptual Streets

Existing Right-of-Way

- **A-6 Pine Street (between Fourth and Sixth**
- **A-7 Chestnut (between Second and South East First)**
- **A-8 Cypress (between Fifth and Sixth)**
- **A-9 Apple (completing connection to "Sixth")**

Future Development Contingent (not within, or only partly within existing public right-of-way, see map)

- **A-10 Old Hwy 99 to 5th Street Network**
- **A-11 Old Town Loop Connections**
- **A-12 6th to 7th Street Network**
- **A-13 Oak to Locust to 8th Street Network**
- **A-14 Oak to Locust East Street Connection**
- **A-15 North of Oak Street Network**
- **A-16 Driver Valley/Crowsfoot Road Network**
- **A-17 Wells & 8th Street Network**
- **A-18 Stearns Street Network**

B. Prioritization Considerations

Because resources are very limited and funding opportunities must be focused and directed. As noted, any projects and improvements prioritization needs to be evaluated by the TAC, CAC and decision making bodies. In this memorandum, staff utilize a draft criteria evaluation for each

alternative (Table 1) to present a basic priority scheme and initial priority assumptions. The automobile conceptual projects shown below have been prioritized as high (0 to 5 years), medium (6-15 years), and low (16 or more years). These recommended priorities for the projects can be modified and move up or down based upon process and feedback and can also be revisited as actual development growth occurs within Oakland.

The following projects have been prioritized and recommended as high priorities **(0 to 5 years)** and can change priority level based upon actual growth that occurs in the City:

- **A-3 Oak Street and 5th Street**
- **A-4 Cedar Street and Fifth Street**

The following projects have been prioritized and recommended as medium priorities **(6-15 years)** and can change priority level based upon actual growth that occurs in the City:

- **A-1 Oak and 1st Street & Locust and 1st Street**
- **A-2 Locust Street and Seventh Street**
- **A-6 Pine Street (between Fourth and Sixth**
- **A-7 Chestnut (between Second and South East First)**

The remaining projects have been prioritized and recommended as lower priorities (16+ years) and can change priority level based upon actual growth that occurs in the City:

C. Parking

On street parking is available in the downtown. Off-street parking is available at some businesses. Off street Parking and Loading requirements are found in Section 4.060 of the Zoning Ordinance. Large truck parking is an issue throughout town, particularly on Eagle Valley Road. Many truck operators illegally park their vehicles along Eagle Valley Road overnight; however, the City would like to be supportive of local residents and would like to find a solution to this conflict.

III. PEDESTRIAN TRANSPORTATION SYSTEM

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 described identified in the LSP, although in some cases, sidewalks could be retrofitted onto existing roads.

A. Pedestrian System Improvement Project Alternatives

Street reclassifications and associated pedestrian improvements

- **P-1 Fifth Street (Oak Street to the school)**
- **P-2 Third Street (Apple Street to Cypress Street)**
- **P-3 Oak Street (1st Street to 8th Street)**
- **P-4 Cypress Avenue & NE 1st (1st Street around to 5th Street)**

Dedicated (off-street) multi-use path (alley)

- **P-5 2nd & 3rd Street Alley (Apple Street to Ash Street)**
- **P-6 3rd & 4th Street Alley (Cedar Street to Locust Street)**

Dedicated (off-street) multi-use path

- **P-7 Ash Street Right-of-Way Path**
- **P-8 Ash Right-of-Way (ROW) & Pine Street Railroad Crossings**
- **P-9 Calapooya Creek Multi-Use Path (through city owned open space property)**
- **P-10 Railroad Right-of-Way (east and west of railroad)**

B. Prioritization Considerations

Because resources are very limited and funding opportunities must be focused and directed. As noted, any projects and improvements prioritization needs to be evaluated by the TAC, CAC and decision making bodies. In this memorandum, staff utilize a draft criteria evaluation for each alternative (Table 1) to present a basic priority scheme and initial priority assumptions. The pedestrian conceptual projects shown below have been prioritized as high (0 to 5 years), medium (6-15 years), and low (16 or more years). These recommended priorities address only the pedestrian improvement elements of the alternative and can be modified and move up or down based upon process and feedback and can also be revisited as actual development growth occurs within Oakland.

The following projects have been prioritized and recommended as high priorities **(0 to 5 years)** and can change priority level based upon actual growth that occurs in the City:

- **P-1 Fifth Street (Oak street to the school)**
- **P-3 Oak Street (1st Street to 8th Street)**

The following projects have been prioritized and recommended as medium priorities **(6 to 15 years)** and can change priority level based upon actual growth that occurs in the City:

- **P-2 Third Street (Apple Street to Cypress Street)**
- **P-4 Cypress Avenue & NE 1st (1st Street around to 5th Street)**

- **P-7 Ash Street Right-of-Way Path**
- **P-8 Ash Right-of-Way (ROW) & Pine Street Railroad Crossings**
- **P-9 Calapooya Creek Multi-Use Path (through city owned open space property)**

The remaining projects have been prioritized and recommended as lower priorities (16+ years) and can change priority level based upon actual growth that occurs in the City.

IV. BICYCLE TRANSPORTATION SYSTEM

The TAC, CAC as well as Oakland's Planning Commissions and City Council have 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 bike facilities. County bike facilities at the edges of the city are all Class III or Class IIIs bikeways that share the roadway with traffic. 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 designated facilities connecting residential neighborhoods to commercial areas and schools for convenient and safe local bicycle travel. In the future, bike facilities should be provided on major collectors to facilitate local and regional bicycle travel. In general, new bicycle lanes should be constructed as part of the roadway improvement projects. In some cases, bicycle lanes or route designations should be retrofitted onto existing arterial and collector streets. Specific recommended bicycle projects are listed below and presented in more detail in Attachment A.

Included in the proposed improvement for the bicycle network are number of off-street multi-use paths, providing improved bicycle access to city open spaces and parks, and taking advantage, in some instances, taking advantage of underutilized public amenities and rights-of-way, including the possibility of using Ash Creek as a bicycle and pedestrian path connecting residents to open space on the east side of the railroad.

Bicycle System Improvement Project Alternatives

Street reclassifications and associated bicycle improvements (including bicycle route designation and associated "sharrows" or signage (see B-1 through B-4)).

- ***B-1 Maple Street (Front Street to 7th Street)***
- ***B-2 5th street (Oak Street to the school)***
- ***B-3 Cypress Avenue (NE 1st and around to 5th Street)***
- ***B-4 Third Street (1st Street to 8th Street)***
- ***B-5 Locust Street (Apple Street to Cypress Street)***

Dedicated multi-use paths

- **Addressed under the pedestrian multi-use path alternatives P-5 through P-10 .**

Prioritization Considerations

Because resources are very limited and funding opportunities must be focused and directed. As noted, any projects and improvements prioritization needs to be evaluated by the TAC, CAC and decision making bodies. In this memorandum, staff utilize a draft criteria evaluation for each alternative (Table 1) to present a basic priority scheme and initial priority assumptions. The bicycle conceptual projects shown below have been prioritized as high (0 to 5 years), medium (6-15 years), and low (16 or more years). These recommended priorities address only the bicycle improvement elements of the alternative and can be modified and move up or down based upon process and feedback and can also be revisited as actual development growth occurs within Oakland.

The following projects have been prioritized and recommended as high priorities **(0 to 5 years)** and can change priority level based upon actual growth that occurs in the City:

- **B-5 Locust Street (Apple Street to Cypress Street)**

The following projects have been prioritized and recommended as medium priorities **(6 to 15 years)** and can change priority level based upon actual growth that occurs in the City:

- **B-4 Third Street (1st Street to 8th Street)**
- **B-1 Maple Street (Front Street to 7th Street)**

The remaining projects have been prioritized and recommended as lower priorities (16+ years) and can change priority level based upon actual growth that occurs in the City.

Table 1: Automobile System Concepts/Alternatives ***(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	Affordability and maintenance	Is it critical ?	Is it urgent?
Intersections											
A-1	1	2	4	5	5	2	3	5		4	4
A-2	1	1	2	4	3	3	2	3		4	4
A-3	1	2	3	4	5	4	3	4		5	5
A-4	1	2	2	2	5	4	2	1		5	5
A-5	3	1	2	3	4	4				1	1
Conceptual New Streets											
A-6	3	5	4	2	4	5	3	1		4	3
A-7	3	3	3	1	2	2	3	1		3	2
A-8	3	5	4	2	4	5	3	1		4	3
A-9	4	5	5	2	2	2	3	1		3	2
A-10	5	5	3	2	3	5	4	1		3	2
A-11	5	4	3	1	4	5	4	1		3	1
A-12	5	5	3	1	3	5	4	1		4	1
A-13	5	5	4	1	4	3	3	1		4	1
A-14	4	5	3	1	4	2	3	1		3	1
A-15	5	3	3	1	3	2	1	1		3	1
A-16	3	3	3	3	2	3	1	1		2	2
A-17	3	5	5	1	4	3	2	1		3	1
A-18	5	3	3	5	2	1	2	1		3	3

Table 2: Pedestrian System Concepts/Alternatives ***(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	Affordability and maintenance	Is it critical ?	Is it urgent?
Street Reclassifications (and eventual associated improvements)											
P-1	1	2	3	3	5	5	3	1		5	5
P-2	2	2	3	2	4	4	3	1		4	3
P-3	1	2	3	5	5	4	2	3		5	5
P-4	1	2	3	3	4	5	2	1		3	3
Off-Street Multi-Use Paths (including alleys)											
P-5	1	2	2	1	5	5	3	2		3	2
P-6	1	2	2	1	5	5	3	2		3	2
P-7	1	3	1	1	5	4	4	3		4	3
P-8	2	3	1	1	5	3	4	2		4	3
P-9	1	3	1	1	5	3	4	1		4	3
P-10	1	3	1	1	5	3	4	3		3	2

Table 3: Bicycle System Concepts/Alternatives ***(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	Affordability and maintenance	Is it critical ?	Is it urgent?
Street Reclassifications (and eventual associated improvements)											
B-1	2	2	3	2	4	4	3	2		4	3
B-2	1	2	3	3	4	4	3	1		3	3
B-3	1	2	3	3	4	5	2	1		3	3
B-4	2	2	3	2	4	4	3	2		4	3
B-5	2	2	3	4	4	4	3	3		5	5
**Multi-use path features (P-5 through P-10) provide bicycle opportunities but are not outlined here to reduce redundancy*											

Index Map

City of Oakland

Auto-Transportation System Alternatives

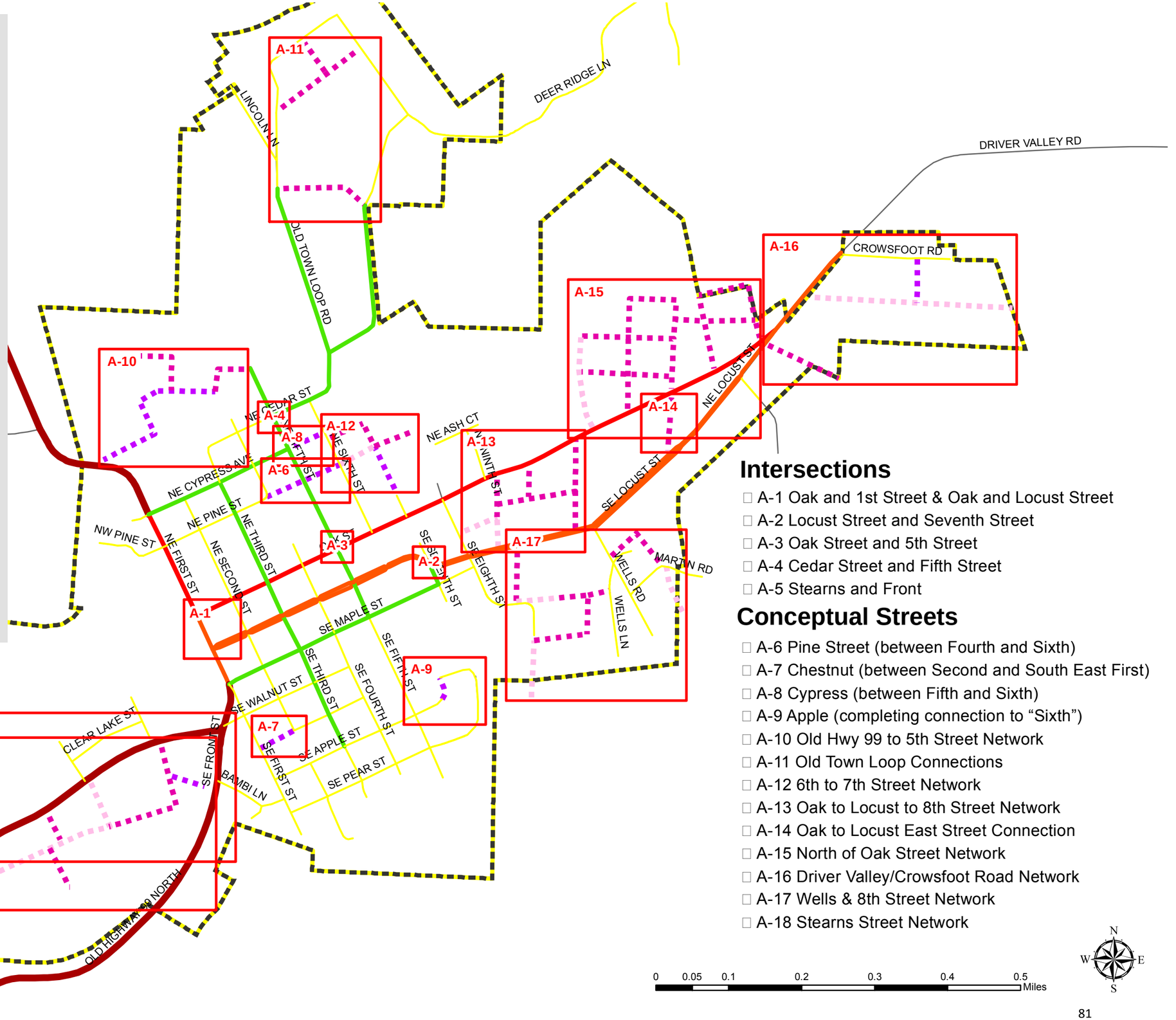
Oakland UGB

Street Classification Proposal

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

Conceptual Streets

- Other Conceptual
- Existing Access\Drive
- Existing Right of Way



Intersections

- A-1 Oak and 1st Street & Oak and Locust Street
- A-2 Locust Street and Seventh Street
- A-3 Oak Street and 5th Street
- A-4 Cedar Street and Fifth Street
- A-5 Stearns and Front

Conceptual Streets

- A-6 Pine Street (between Fourth and Sixth)
- A-7 Chestnut (between Second and South East First)
- A-8 Cypress (between Fifth and Sixth)
- A-9 Apple (completing connection to “Sixth”)
- A-10 Old Hwy 99 to 5th Street Network
- A-11 Old Town Loop Connections
- A-12 6th to 7th Street Network
- A-13 Oak to Locust to 8th Street Network
- A-14 Oak to Locust East Street Connection
- A-15 North of Oak Street Network
- A-16 Driver Valley/Crowsfoot Road Network
- A-17 Wells & 8th Street Network
- A-18 Stearns Street Network

0 0.05 0.1 0.2 0.3 0.4 0.5 Miles

N W E S

Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs

Created By: LCOG Jan. 2015

City of Oakland

Auto-Transportation System Alternatives

Site Map A-1

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Collector Street
Local Street
Oakland Parcels
Oakland ROW

N
W E
S

0 100 200 400 Feet

1st & Oak & Locust Streets Intersections Summary

The intersection of Oak Street and Old Highway 99/Front Street is of interest because it is one of the busiest intersections in Oakland and because the PAC and CAC have expressed interest in investigating how Oak Street can be encouraged more as a means of through-traffic through Oakland. Proposed improvements include larger and well placed signage for Driver Valley Road and specific attractions along Driver Valley Road. Other proposed treatments include curb extensions for traffic calming, high visibility crosswalk treatments and added sidewalks. The improvements would help provide visual cues that Oak Street is the preferred route for through traffic. See attached conceptual design and proposed improvements.

2012 Air Photo

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS
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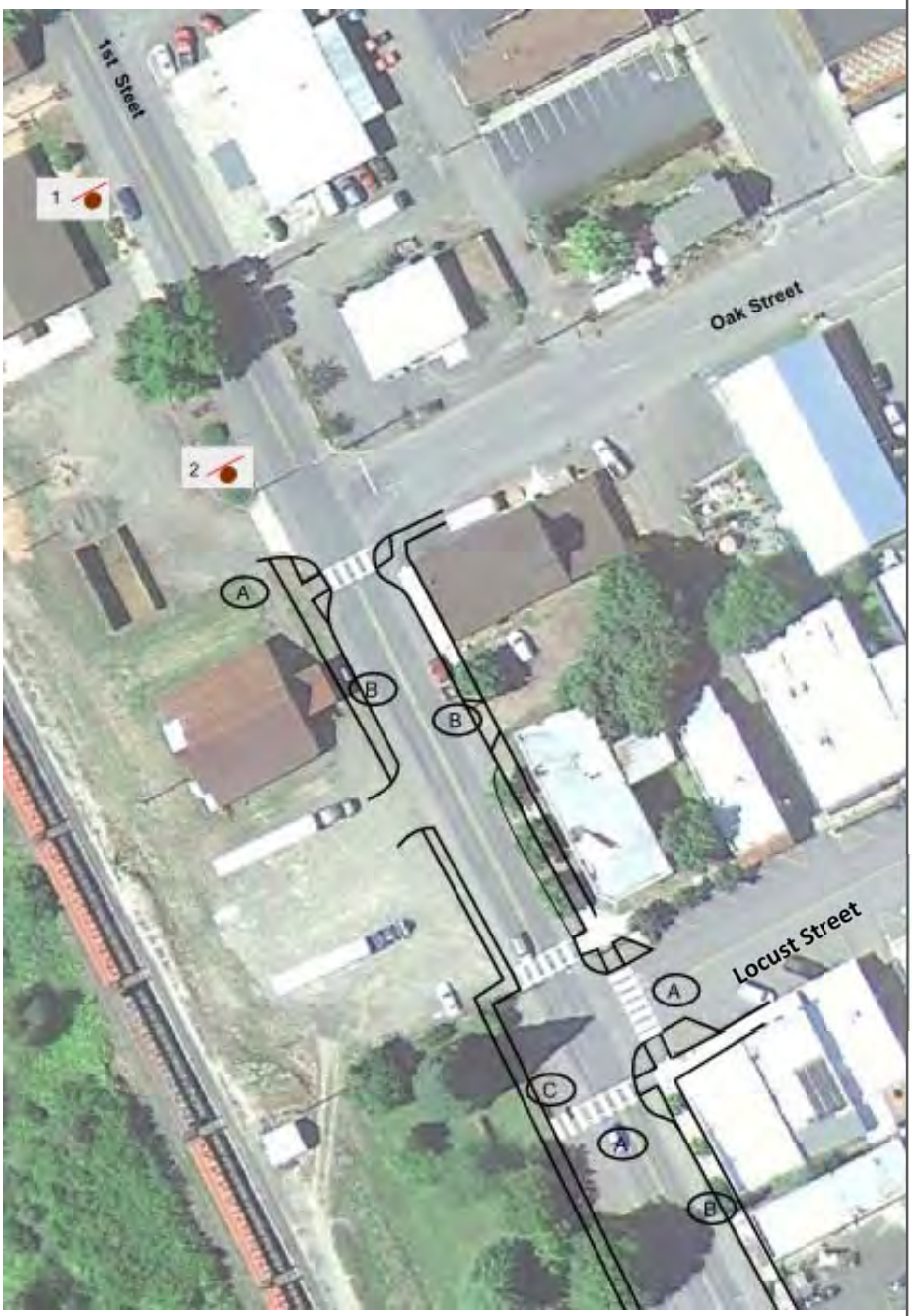
A1 - 1st & Oak & Locust Streets Intersection

Improvement Goals:

-Traffic calming
-Encourage through traffic to Draper Valley to use Oak Street instead of Locust Street
-Improve pedestrian crossing



Design Elements:

Low Cost Improvements:
Provide Signage and Striping to direct motorists to use Oak Street

1 - Sign 1

2 - Sign 2

- High Visibility Crosswalk

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

SE First Street (north of Maple St)

Objective:

- Serve as a City "Main Street" functionality for all modes
- Reduce travel speeds

Design Considerations:

- There is 60 ft. ROW
- 1st street (north & south of intersection) will have bike lanes (arterial designation)

Design Recommendations:

- Sidewalks and planter strips on both sides
- Parking on one side only
- 6 ft. bike paths on both sides
- 12 ft. travel lanes

Street Classification Changes:

NE First Street
"Arterial" to "Major Collector"
SE First Street (north of Front St)
"Arterial" to "Minor Collector"
NE Oak Street
"Arterial" to "Major Collector"
Locust Streets
"Collector" to "Minor Collector"

City of Oakland

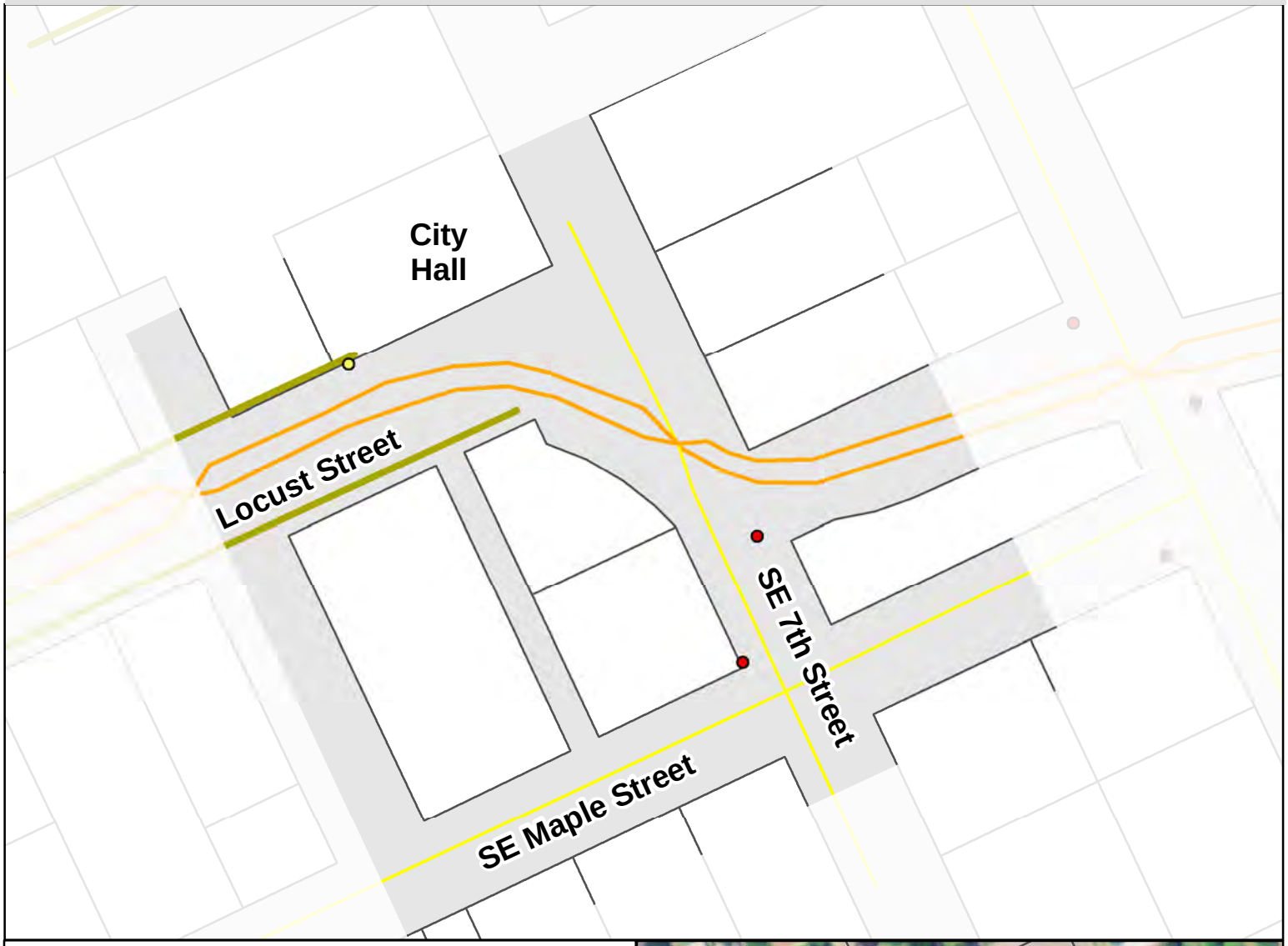
Auto-Transportation System Alternatives

Site Map A-2

Crosswalk Sign
Stop Sign
Oakland Sidewalks
Collector Street
Local Street
Oakland Parcels
Oakland ROW

N
W E
S

0 100 200 400 Feet



Locust & 7th Street Intersection Summary

The unique intersection of Locust Street and SE 7th Street was raised by the CAC and PAC as an intersection that could benefit from some 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 are provided with Option 1 being the engineer's recommendation (see attached conceptual design and proposed improvements).

***Note:** There are documented drainage issues in this area due to storm drain collapse, causing sink holes and undermining (see Attachment B). Locust is also one of few streets in Oakland identified by Public Works staff as having "bad" pavement condition (the worst condition category in the inventory).

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
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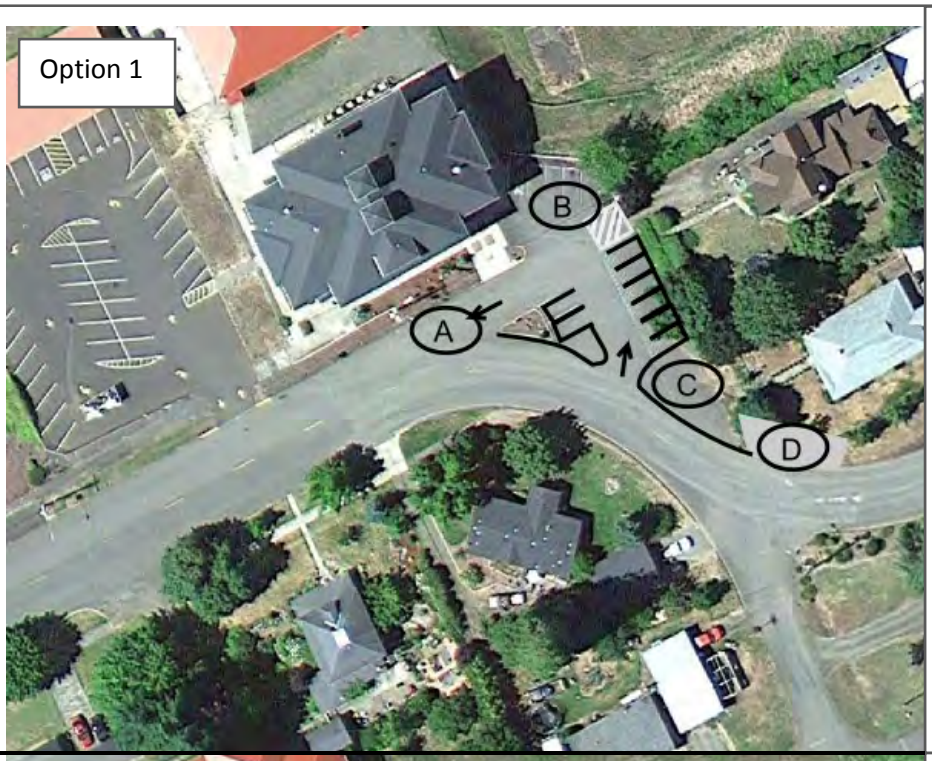
Created By: LCOG Jan. 2015

A2 - Locust & 7th Street Intersection

Improvement Goals:

-Traffic calming
-Provide clearer/safer traffic flow in the area



Design Elements:

A: One way traffic flow through parking area

B: Do-not block area for house access

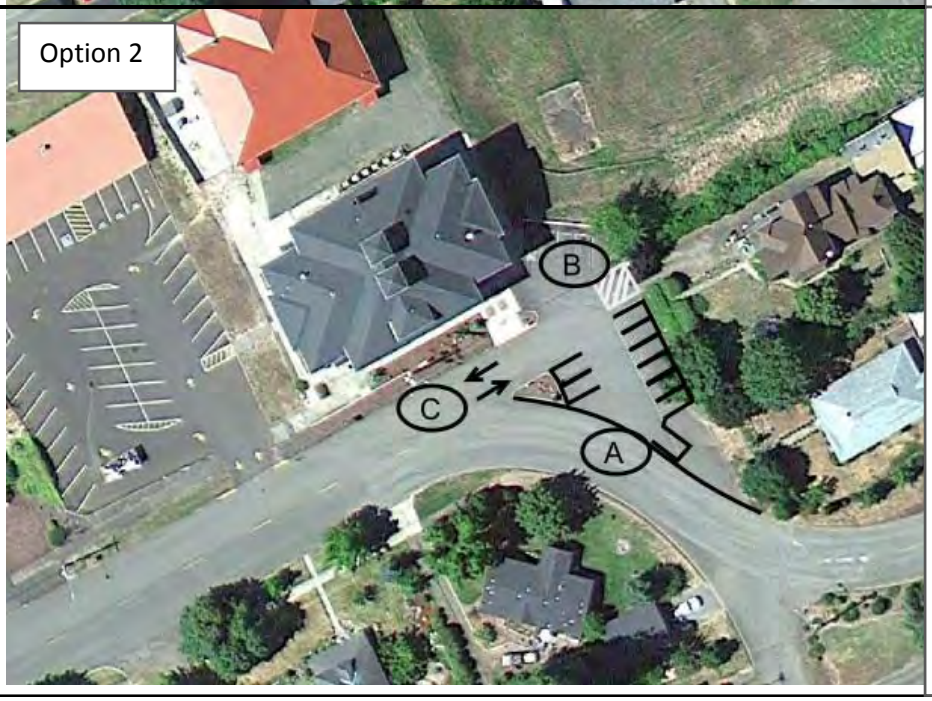
C: New curb line and parking designation

D: 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.

Street Reclassification Changes:

Locust Streets
"Collector" to "Minor Collector"

SE 7th Street
"Local" to "Minor Local"



Design Elements:

A: New curb line and parking designation

B: Do-not block area for house access

C: New curb line and parking designation

D: All access occurs from this area. Remove on-street parking to allow for two-directional travel

Street Reclassification Changes:

Locust Streets
"Collector" to "Minor Collector"

SE 7th Street
"Local" to "Minor Local"

City of Oakland

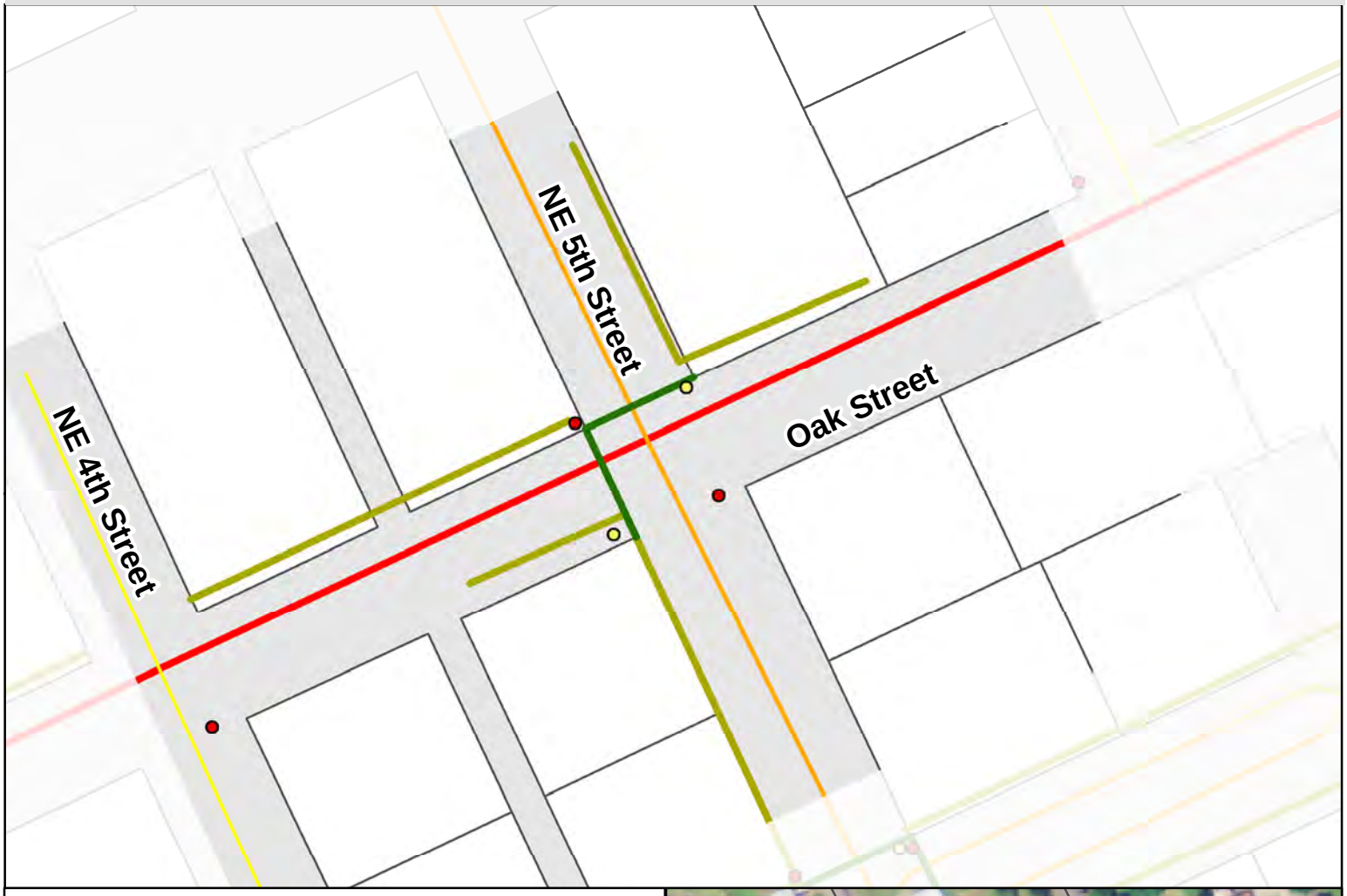
Auto-Transportation System Alternatives

Site Map A-3

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Collector Street
Local Street
Oakland Parcels
Oakland ROW

N W E S

0 85 170 340 Feet



Oak & 5th Street Intersection Summary

5th Street is the most highly utilized street for school traffic and Oak Street is one of the busiest streets in Oakland. The County has jurisdiction of Oak Street and places high priority on mobility for the street (higher speeds and fewer impediments). Some members of the CAC and PAC likewise wish to 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. There are currently no stop signs along Oak Street. Proposed improvements include a flashing crossing which would respond to specific crossing requests and would elevate the visibility of the crosswalk across Oak Street while limiting slower through-traffic to times of higher school traffic. Additional curb extensions and drainage improvements are recommended. The curb extensions will reduce crossing time, improve pedestrian visibility to motorists and create a traffic calming effect. See attached conceptual design and proposed improvements.

***Note:** There are documented drainage issues in this area due to storm drain collapse. Pooling of water is a safety concern (causing pedestrians to choose less safe routes to avoid pooling water). Sidewalks are also non-ADA in this area (see Attachment B).

2012 Air Photo

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS
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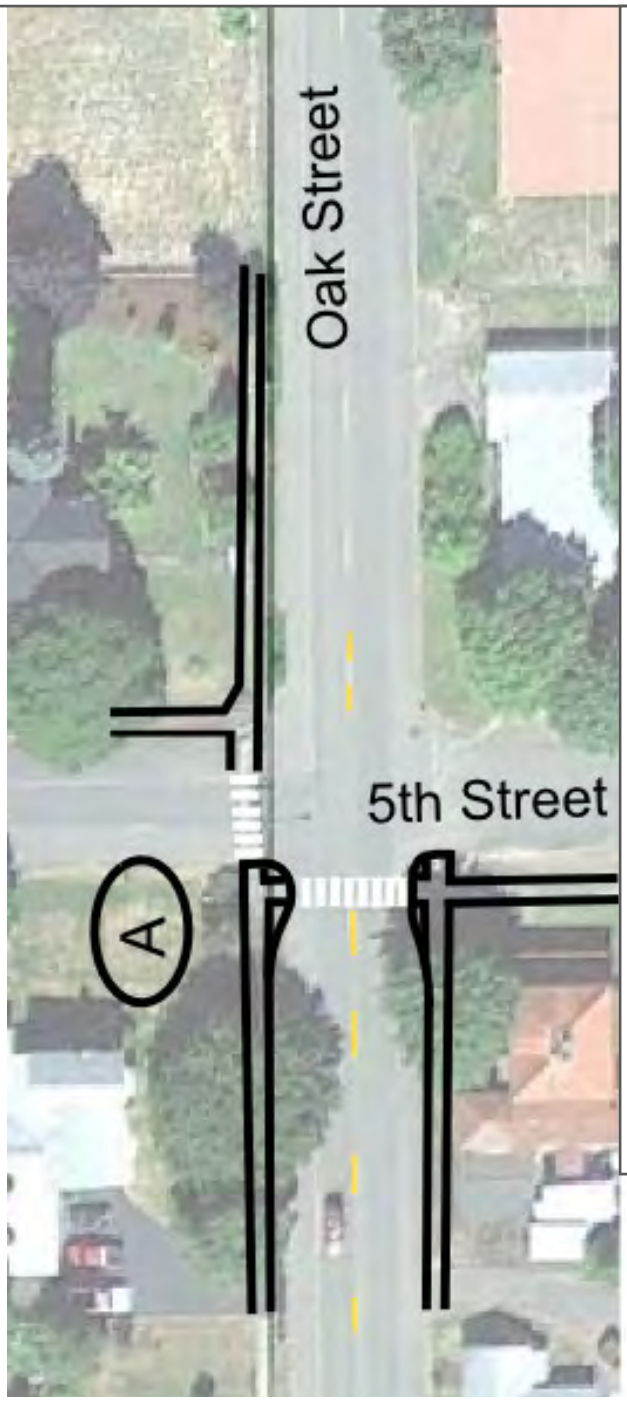
A3 - Oak & 5th Street Intersection

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:

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

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.

Street Reclassification Changes:

NE Oak Street
"Arterial" to "Major Collector"

NE Fifth Street
"Collector" to "Major Local"

City of Oakland

Auto-Transportation System Alternatives

Site Map A-4

Stop Sign
Oakland Crosswalks
Existing Path Improved
Oakland Sidewalks
Collector Street
Local Street
Oakland Parcels
Oakland ROW

N
W E
S

0 70 140 280 Feet

Cedar & 5th Street Intersection Summary

5th Street is the most highly utilized street for school traffic and Cedar Street is the closest intersection to the school. This is further complicated by the absence of a stop sign for northbound traffic along 5th Street. Proposed improvements include adding a stop sign for northbound traffic along 5th street and decreasing the width of Cedar Street at the intersection on the east side, and providing high visibility crosswalks.

***Note:** There are documented drainage issues in this area due to storm drain collapse (see Attachment B). Cedar Street is also one of few streets in Oakland identified by Public Works staff as having "bad" pavement condition (the worst condition category in the inventory).

2012 Air Photo

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Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS
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A4 – Cedar & 5th Street Intersection

IMPROVEMENT GOALS:

-Traffic Calming
-Improve pedestrian crossing across Oak Street and across 5th Street to access the pedestrian path on 5th Street

DESIGN ELEMENTS:

High Visibility Crosswalks on north and east legs of intersection
Sign "Draper Valley Next Left"

All-way Stop controlled

5th Street drainage to be improved with overall 5th Street project

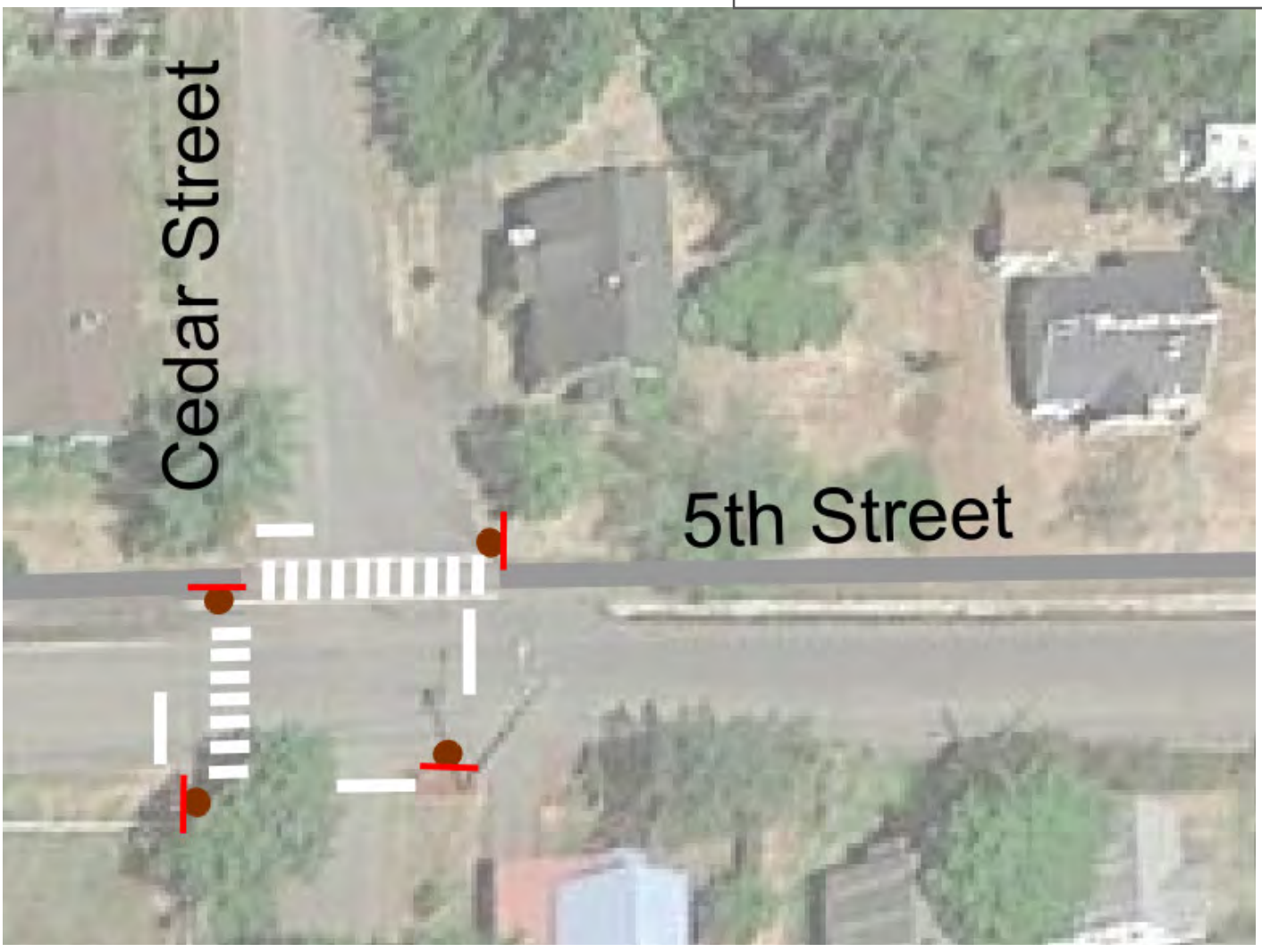
- Stop Sign
- High Visibility Crosswalk
- Existing Path

Street Reclassification Changes:

NE 5th Street
"Collector" to "Major Local"

NE Cedar Street (west of 5th St)
"Local" to "Minor Local"

NE Cedar Street (east of 5th St)
"Collector" to "Major Local"



City of Oakland

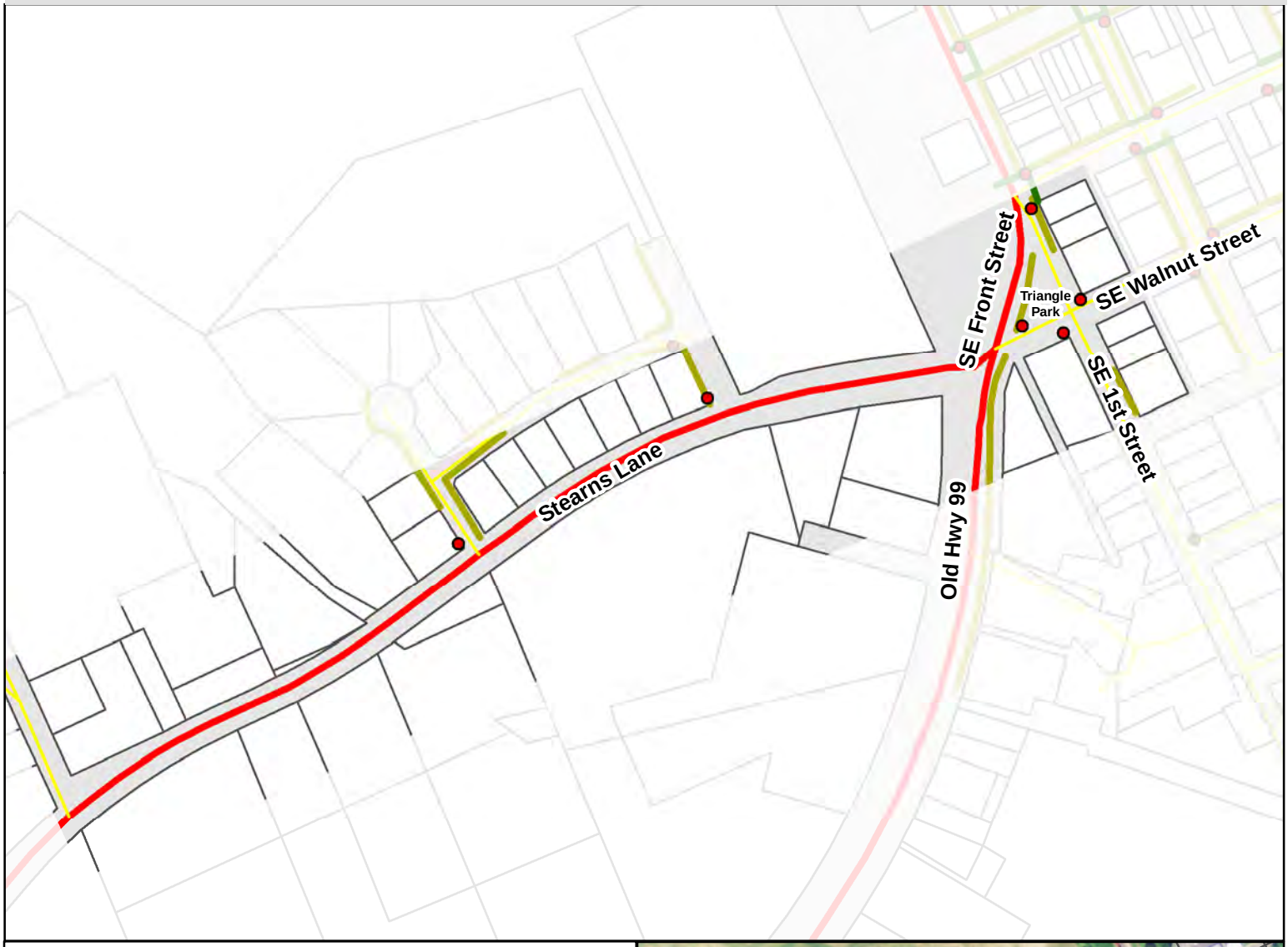
Auto-Transportation System Alternatives

Site Map A-5

Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Local Street
Oakland Parcels
Oakland ROW
Stop Sign

N W E S

0 315 630 1,260 Feet



Stearns Lane, Old Hwy 99/ Front & Stearns Intersection Summary

The unique intersection of Stearns Lane and Old Highway 99/Front Street has the highest occurrence of vehicle accidents in Oakland. The site is complicated by the essentially adjacent intersection of First Street and Walnut Street. Although the intersection has the City's highest accident rates, the crash data revealed high variability in the cause of incidents and was inconclusive for determining needed improvements. At this time, there are no recommended improvements to the intersection. Committee and public feedback may result in additional concerns for consideration. Recommendations for possible improvements to the entire stretch of Stearns Lane (within Oakland's boundaries) are included on Page 2.

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
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Created By: LCOG Jan. 2015

A5 – Old Hwy 99/Front & Stearns Intersection

Improvement Goals:

Design Elements:

Street Reclassification Changes:

SE Walnut
"Local" to "Minor Local"

SE 1st Street (south of Maple St)
"Local" to "Minor Local"

Left blank as data illustrates no improvements are necessary

Would like to discuss with city any other issues.

-Low visibility at night, etc that they may want to address

Stearns Lane:

- 60 foot Right-of-Way

Design Considerations:

- No on street parking
- Bike lanes on both sides (6 feet)
- 12 foot travel lanes
- Sidewalks and planter strips on both sides

City of Oakland

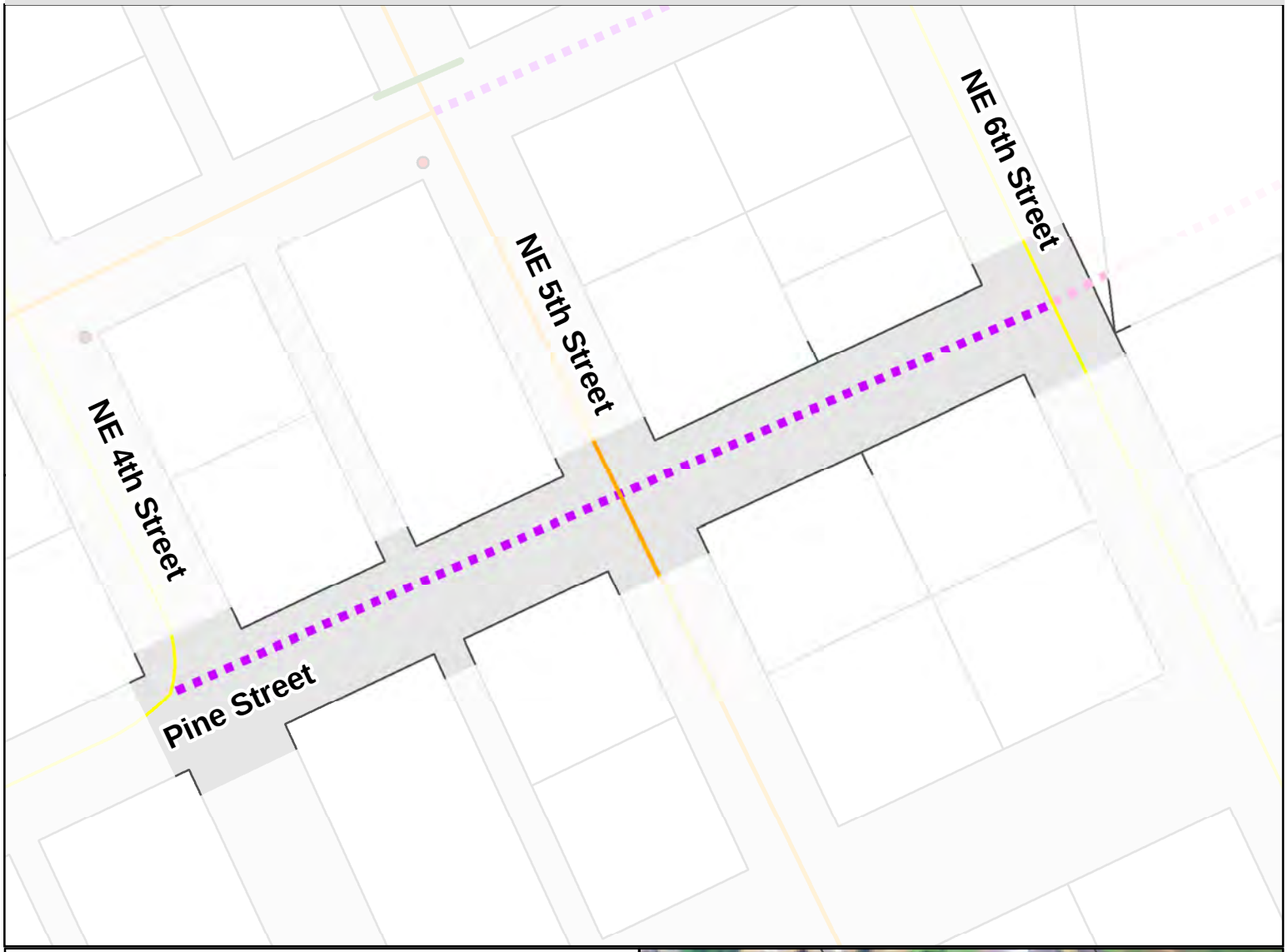
Auto-Transportation System Alternatives

Site Map A-6

Oakland Crosswalks
Collector Street
Local Street
Existing Access\Drive
Existing Right of Way
Oakland Parcels
Oakland ROW
Stop Sign

N W E S

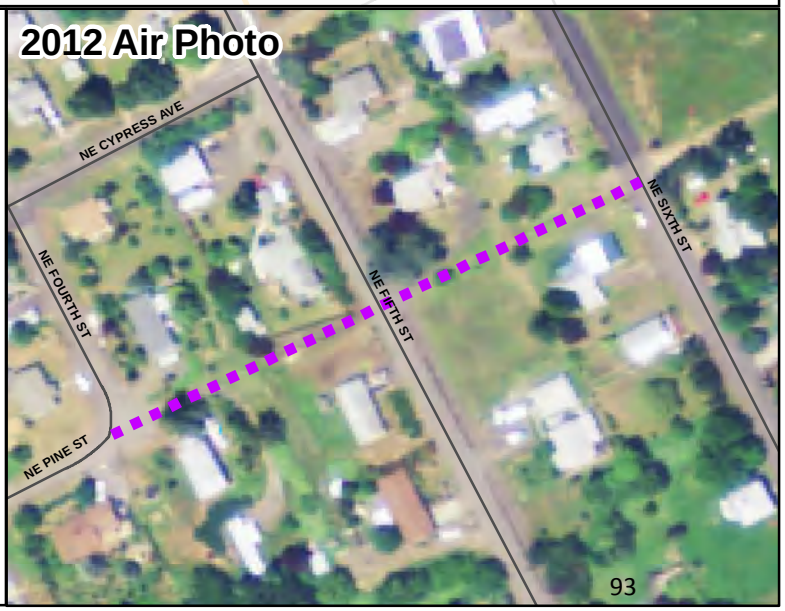
0 95 190 380 Feet



Pine Street Extension

This new road would provide a continuation of Pine Street from 4th Street (where it currently terminates) to NE 6th Street. The improvements would occur along existing (and non-slope constrained) right-of-way. This would improve local street connectivity, access, and circulation to the current and possible future residents north of Oak and east of Sixth (between those neighborhoods and the school) When developed, the street should be improved to Minor Local standards.

*** Note:** This area has documented collapsed storm drains, with resulting drainage issues in the area (see Attachment B).



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Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS
Created By: LCOG Jan. 2015

City of Oakland

Auto-Transportation System Alternatives

Site Map A-7

Local Street
Existing Right of Way
Stop Sign
Oakland ROW
Oakland Parcels

N W E S

0 70 140 280 Feet

Chestnut Street Extension

This new road would provide a continuation of Chestnut Street from 2nd Street (where it currently terminates) to SE 1st Street. The improvements would occur along existing (and non-slope constrained) right-of-way; this would improve local street connectivity, access, and circulation. When developed, the street should be improved to Minor Local street standards.

*** Note:** This area has documented drainage issues (see Attachment B).

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Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS

Created By: LCOG Jan. 2015

City of Oakland

Auto-Transportation System Alternatives

Site Map A-8

Other Conceptual Street
Existing Right of Way
Collector Street
Local Street
Oakland ROW
Oakland Parcels
Oakland Crosswalks
Stop Sign

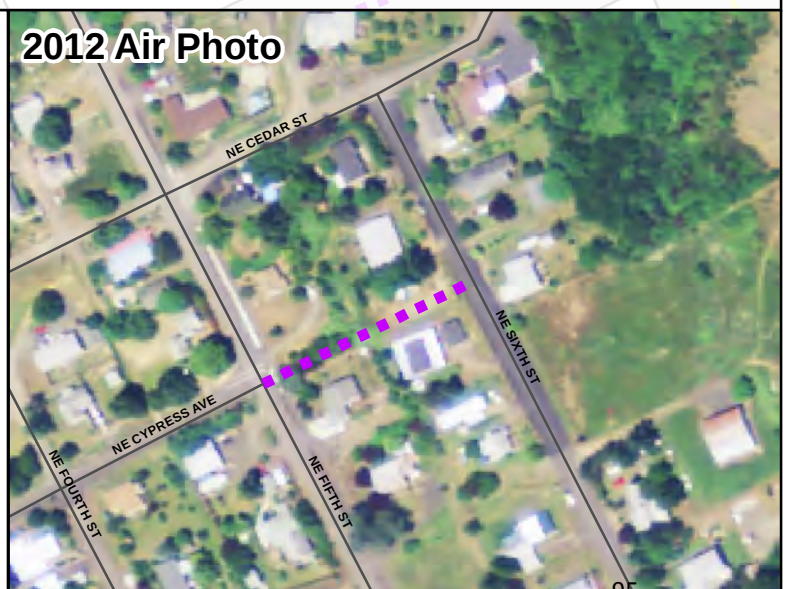
N W E S

0 70 140 280 Feet

Cypress Street Extension

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-of-way. 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. Upon development, the street should be classified Major Local and be improved to accommodate bicycle and pedestrian facilities and as per Major Local Standards.

*** Note:** This area has documented drainage issues (see Attachment B).



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City of Oakland

Auto-Transportation System Alternatives

Site Map A-9

Stop Sign
Minor Local Street
Existing Right of Way
Oakland Parcels
Oakland ROW

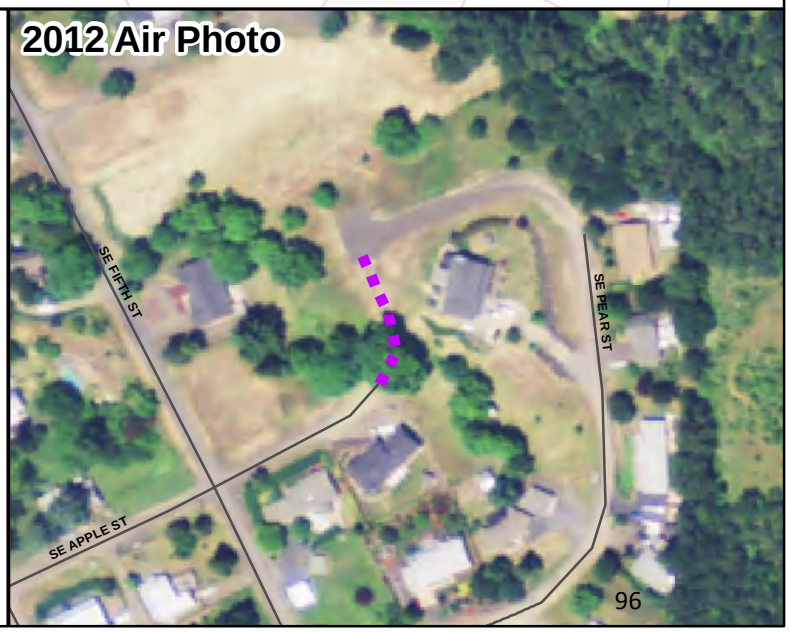
N W E S

0 95 190 380 Feet

Apple Street Extension

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. A subdivision was approved at the termination of SE Pear Street in 2009. 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. Improvement will complete local street connectivity, access, and circulation to the current and future residents to the north. The street should be classified as a Minor Local.

*** Note:** The southern end of this roadway has documented drainage issues (see Attachment B).



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City of Oakland

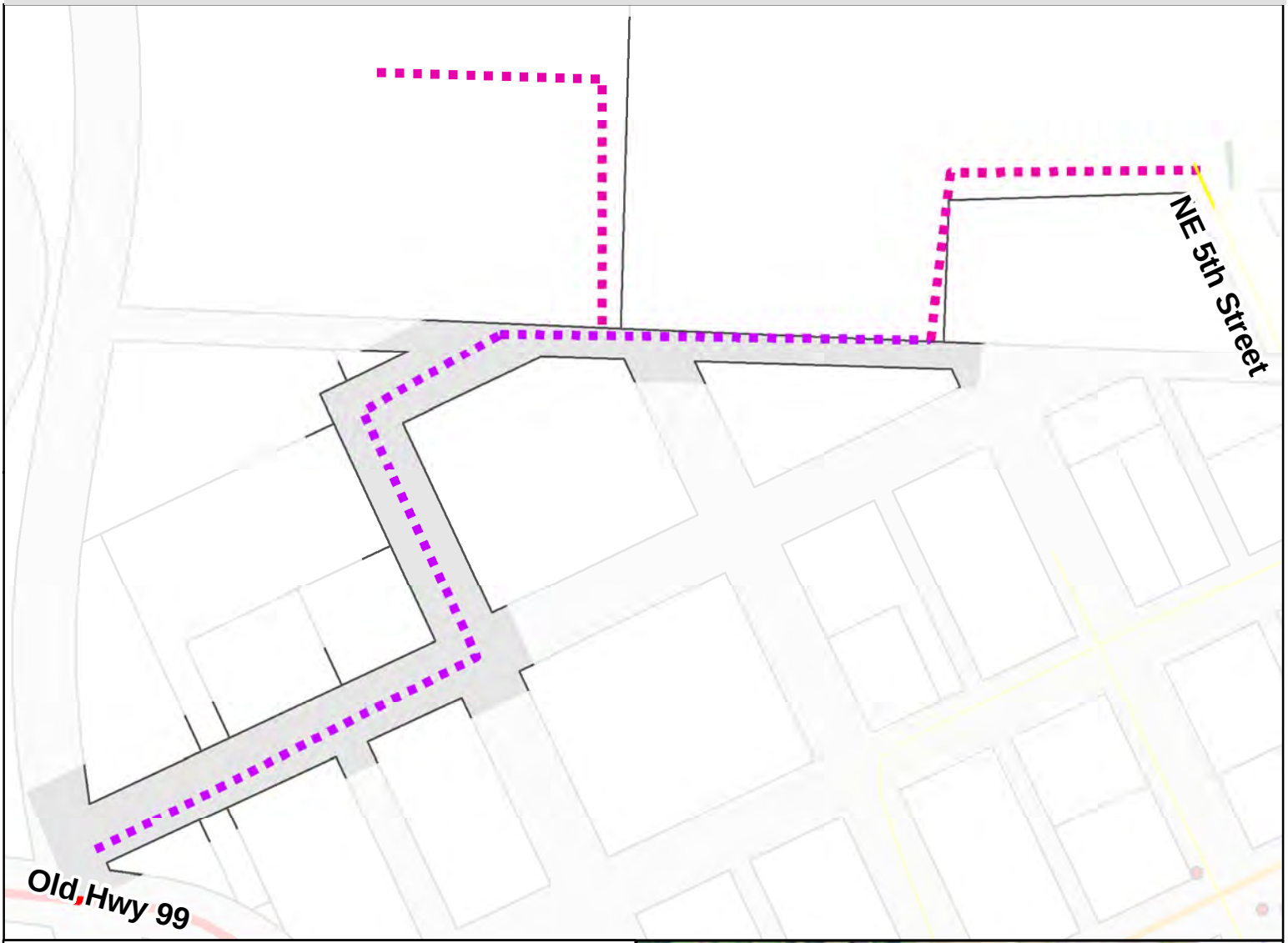
Auto-Transportation System Alternatives

Site Map A-10

Stop Sign
Other Conceptual Street
Existing Right of Way
Arterial Street
Collector Street
Local Street
Oakland Crosswalks
Oakland Parcels
Oakland ROW

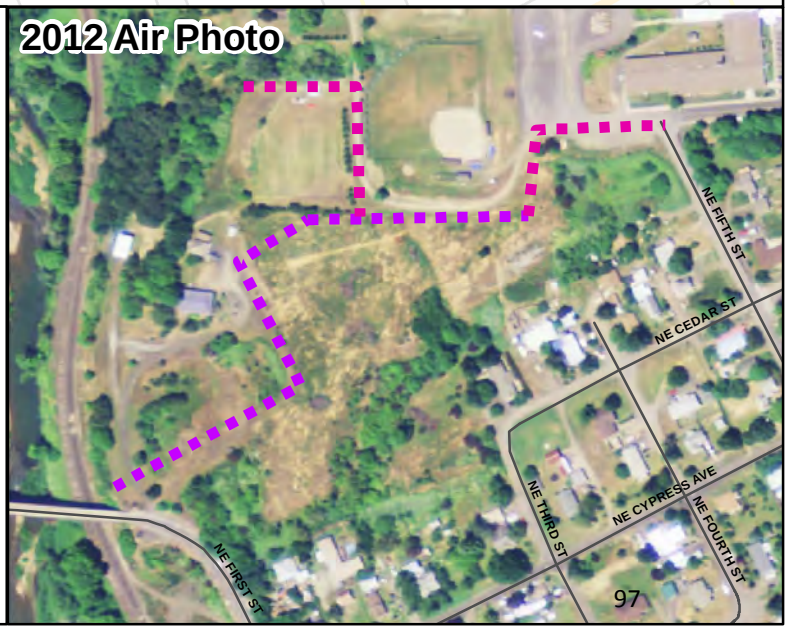
N W E S

0 155 310 620 Feet



Old HWY 99 to 5th Street Network

This new network of streets could provide critical connectivity to the northwest portion of Oakland. Portions of this area are slope constrained (and thus cut-off from the rest of the City). Non-cost prohibitive development which is feasible in some portions of this area. Street improvements would occur along a mix of existing right-of-way, and potential dedications through new development. The street improvements could enhance local street connectivity, access, and circulation to the current and possible future residents near and north of the school. No right-of-way connection exists for the most logical connection to Old Highway 99 (First Street). These streets should be classified Minor Local.



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City of Oakland

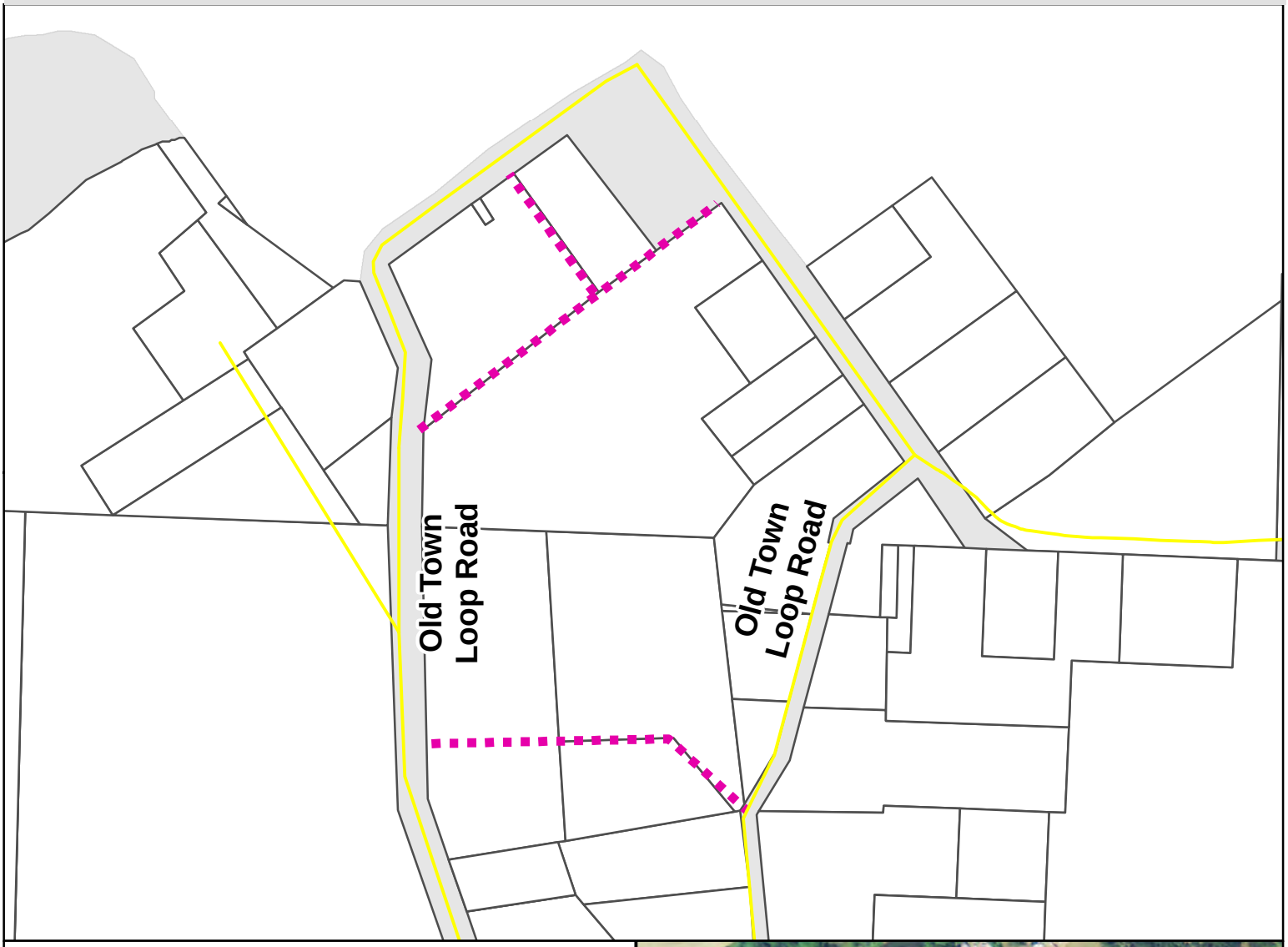
Auto-Transportation System Alternatives

Site Map A-11

Local Street
Other Conceptual Street
Oakland Parcels
Oakland ROW

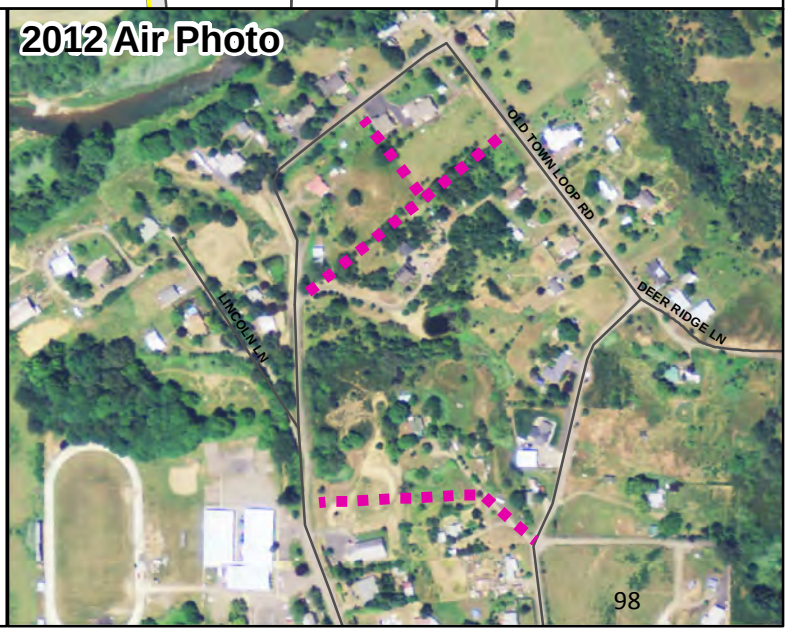
N
W E
S

0 300 600 1,200 Feet



Old Town Loop Connections

These new streets, connecting the east and west portions of Old Town Loop Road would provide connectivity within the northern most portion of Oakland. Because no public right of way exists in these areas, the streets would realize only as development requires. The street improvements could enhance local street connectivity, access, and circulation to the current and possible future residents north and immediately east of the school (dramatically reducing the street distance between most properties and the schools). The streets should be classified Minor Local.



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City of Oakland

Auto-Transportation System Alternatives

Site Map A-12

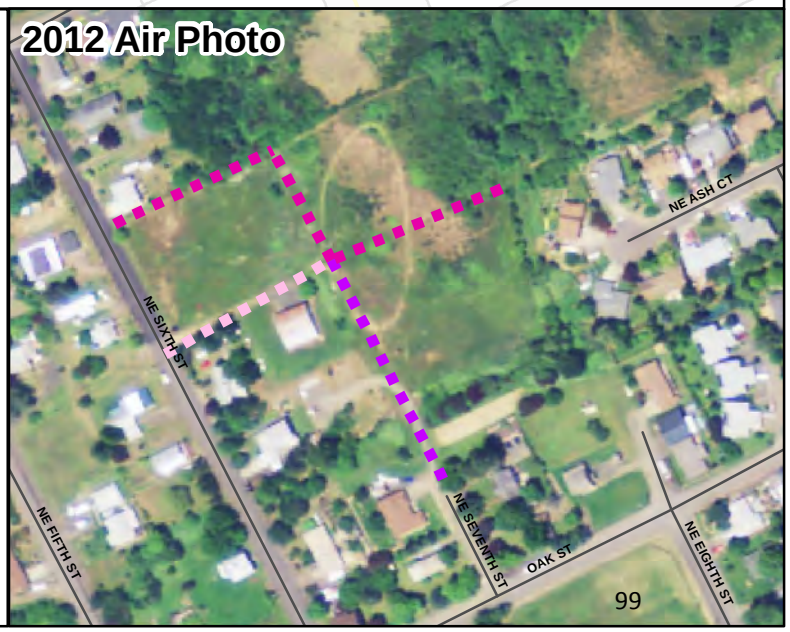
Collector Street
Local Street
Other Conceptual Street
Existing Access\Drive
Existing Right of Way
Oakland Parcels
Oakland ROW

N
W E
S

0 125 250 500 Feet

6th to 7th Street Network

This new network of streets conceptually anticipates development in the area east of 6th and north of Ash Street. It would necessitate a crossing of Ash Creek through the 7th Street right-of-way. The 7th Street crossing of Ash Street is one of only a few realistic remaining opportunities for a north-south connection. The improvements would occur along a mix of existing right-of-way, and dedications as future development requires. The street improvements would enhance local street connectivity, access, and circulation to the current and possible future residents in the eastern portions of Oakland. The streets should be classified Minor Local.



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City of Oakland

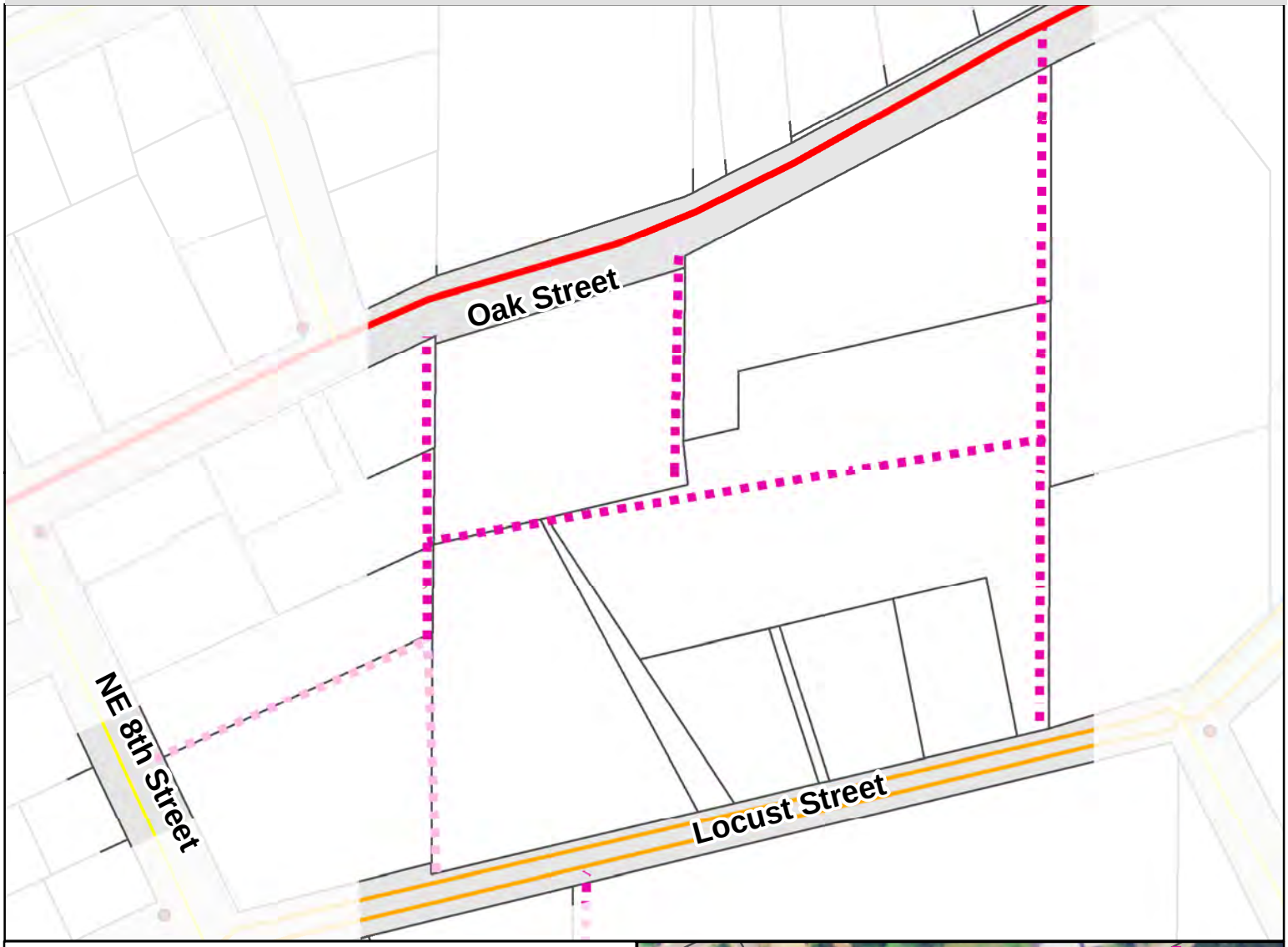
Auto-Transportation System Alternatives

Site Map A-13

Arterial Street
Collector Street
Local Street
Other Conceptual Street
Existing Access\Drive
Stop Sign
Oakland Parcels
Oakland ROW

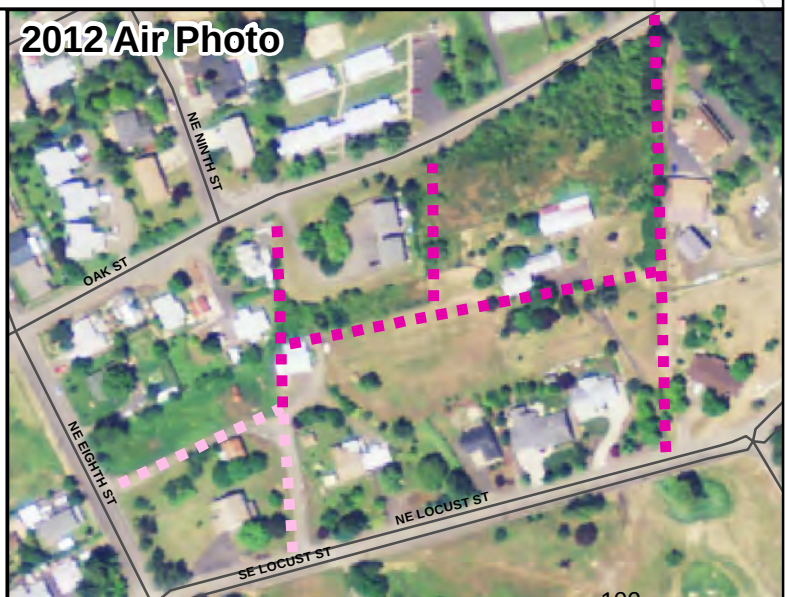
N W E S

0 150 300 600 Feet



Oak to Locust to 8th Street Network

This new network of streets conceptually anticipates development in the large properties between Oak Street and Locust Street and relies on new rights-of-way. The improvements would occur only as required by new development. The Oakland Comprehensive Plan Transportation Policy (6) notes that “A street connecting Wells Lane with Oak Street should be built.” The street improvements would improve local street connectivity, access, and circulation to the current and possible future residents in the eastern portions of Oakland. The streets should be classified Minor Local.



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City of Oakland

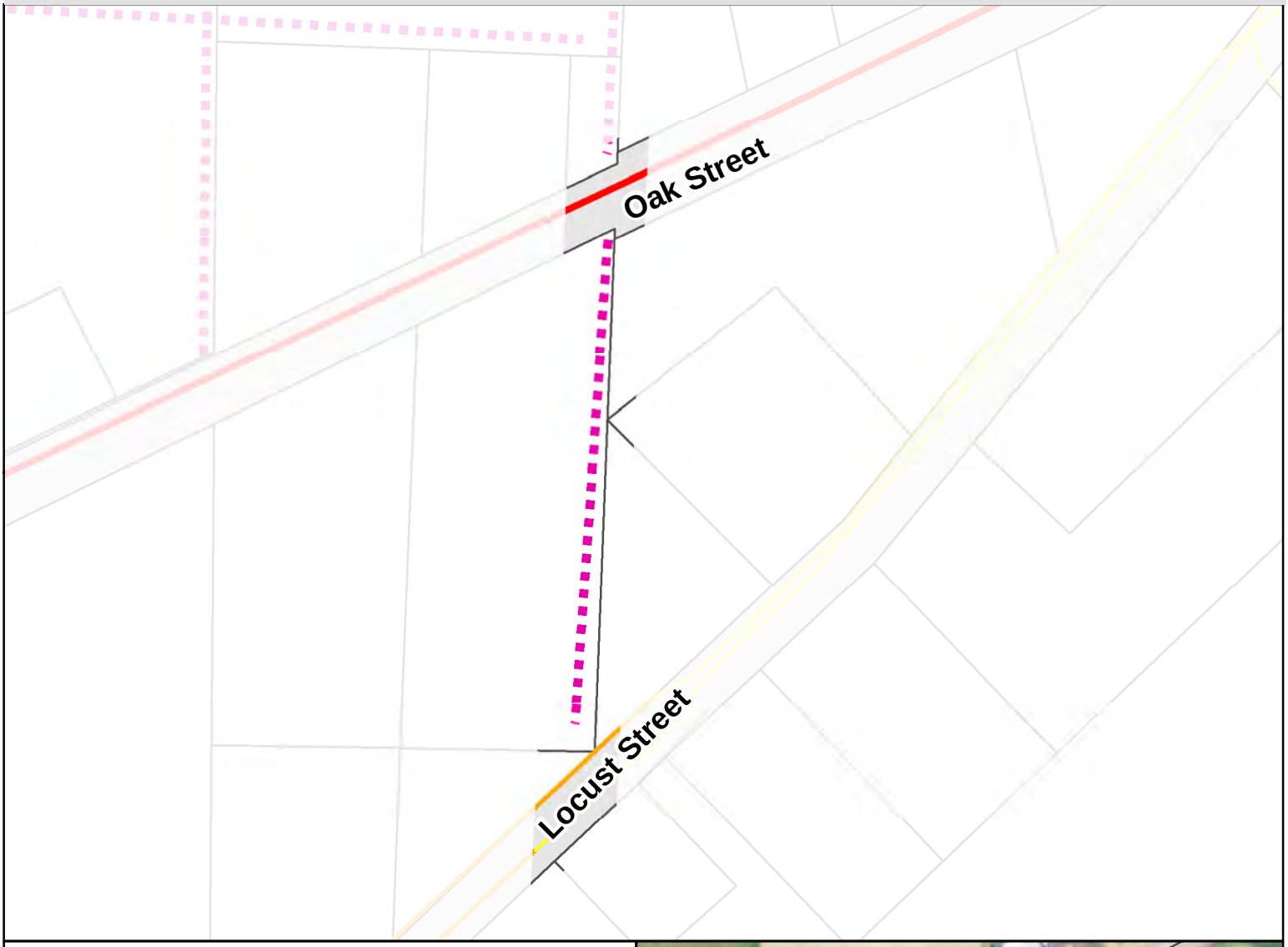
Auto-Transportation System Alternatives

Site Map A-14

Arterial Street
Collector Street
Local Street
Other Conceptual Street
Oakland Parcels
Oakland ROW

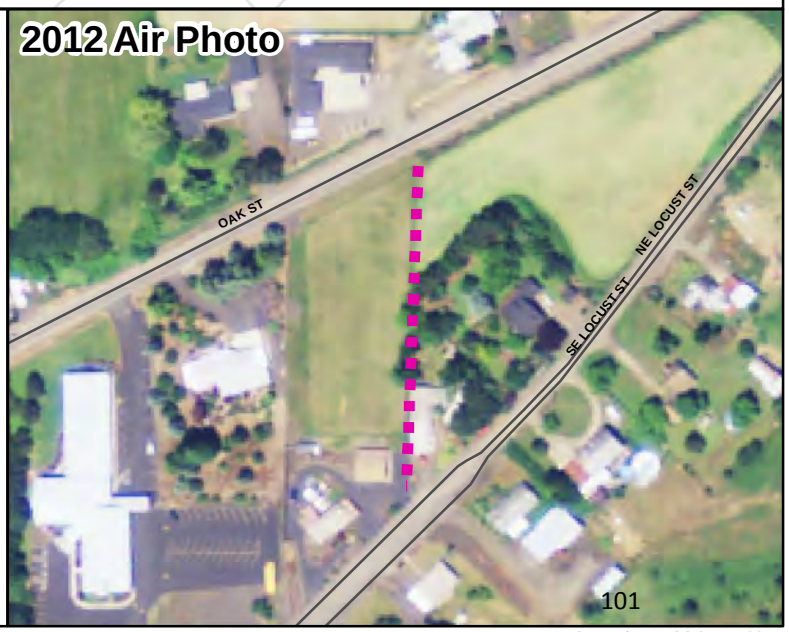
N W E S

0 125 250 500 Feet



Oak to Locust East Street Connection

This conceptual street, like those shown on Map A-13 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. The street should be classified Minor Local.



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City of Oakland

Auto-Transportation System Alternatives

Site Map A-15

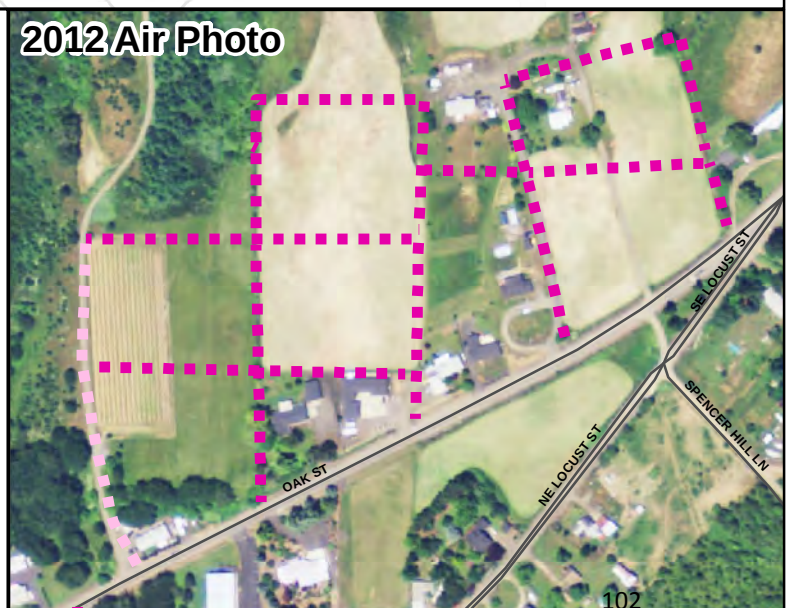
Arterial Street
Collector Street
Local Street
Other Conceptual Street
Existing Access\Drive
Oakland Parcels
Oakland ROW

N W E S

0 255 510 1,020 Feet

North of Oak Street Network

This new network of streets conceptually anticipates development in the large properties north of Oak Street near where it is joined by Locust Street. Several of the proposed streets are existing private roads. The improvements would occur through dedications of right-of-way only when as new development requires. The street improvements would improve local street connectivity, access, and circulation to the current and possible future residents in the eastern portions of Oakland. The majority of streets should be classified as Minor Local with perhaps one Major Local street.



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City of Oakland

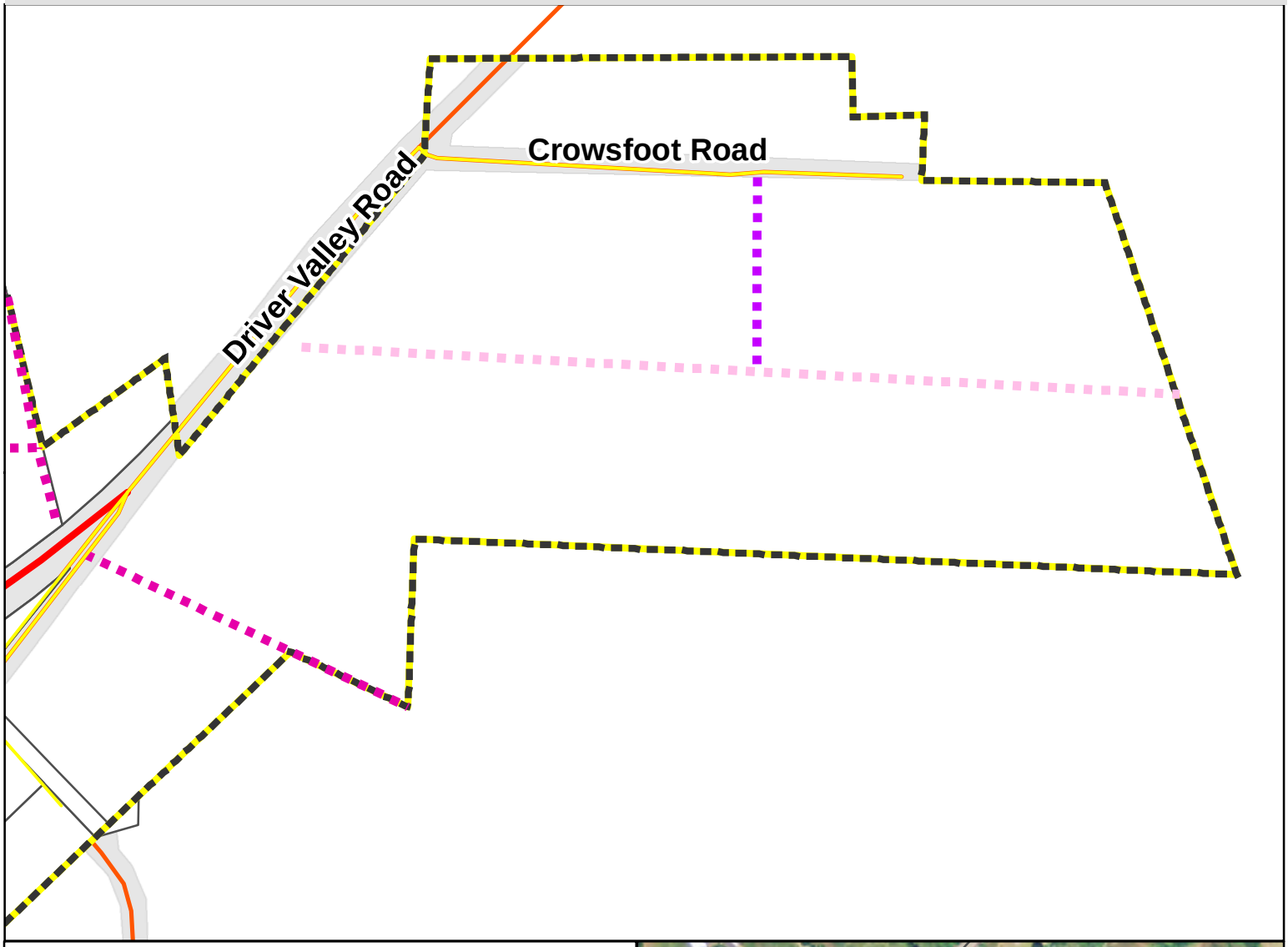
Auto-Transportation System Alternatives

Site Map A-16

Arterial Street
Local Street
Oakland UGB
Other Conceptual Street
Existing Access\Drive
Existing Right of Way
Oakland Parcels
Oakland ROW

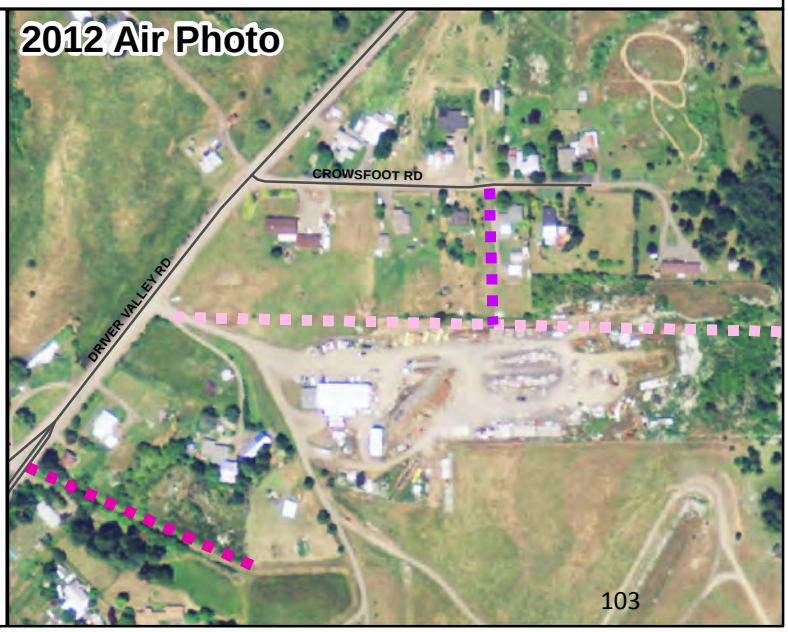
N W E S

0 265 530 1,060 Feet



Driver Valley/Crowsfoot Road Street Network

This new network of streets conceptually anticipates development in the unique mix of employment and residential properties on and near Crowsfoot Road at the far eastern end of Oakland. One street would connect the residential neighborhood to the employment land via existing right-of-way. The other improvements would occur on existing private streets through dedications of right-of-way only when property owners propose new development and opportunities present themselves. The street improvements would improve access, and circulation to the current and possible future residents in the eastern portions of Oakland. The majority of streets should be classified as Minor Local with perhaps one Major Local street.



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City of Oakland

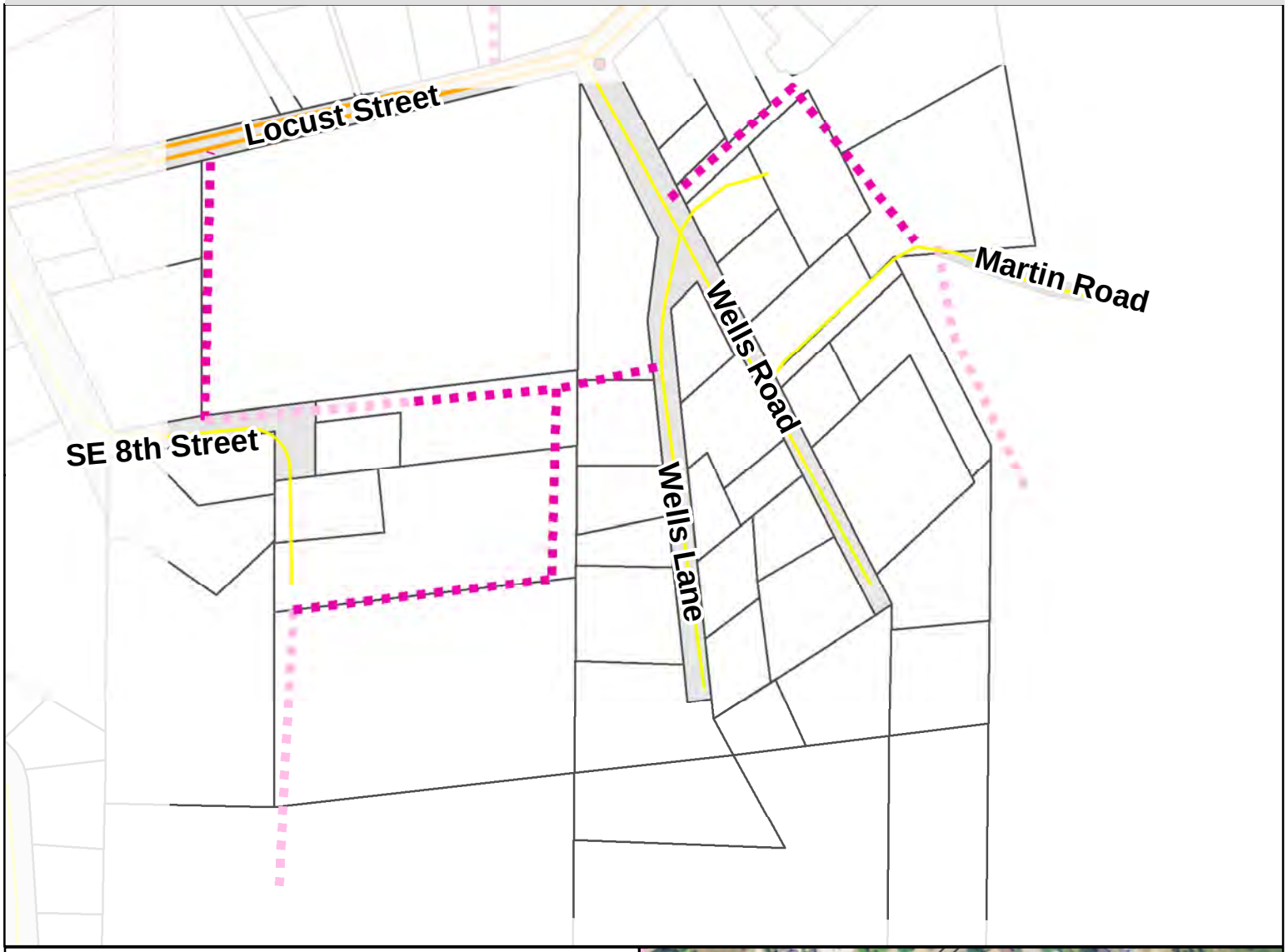
Auto-Transportation System Alternatives

Site Map A-17

Collector Street
Local Street
Other Conceptual Streets
Existing Access\Drive
Oakland Parcels
Oakland ROW
Stop Sign

N W E S

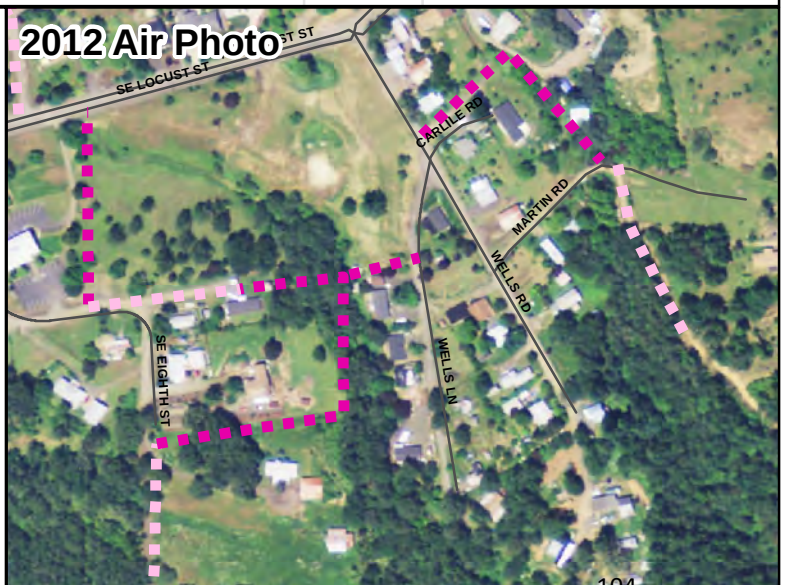
0 240 480 960 Feet



Wells & 8th Street Network

This new network of streets conceptually anticipates development in the larger properties off of and around SE 8th Street and Wells Road in south-eastern Oakland. The improvements would occur on a mix of existing private street (drives) and other new streets through dedications of right-of-way as development requires. The street improvements would improve access, and circulation to the current and possible future residents in the southeastern portions of Oakland. The streets should be classified as Minor Local.

***Note:** There are documented drainage issues in this area due to storm drain collapse (see Attachment B).



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City of Oakland

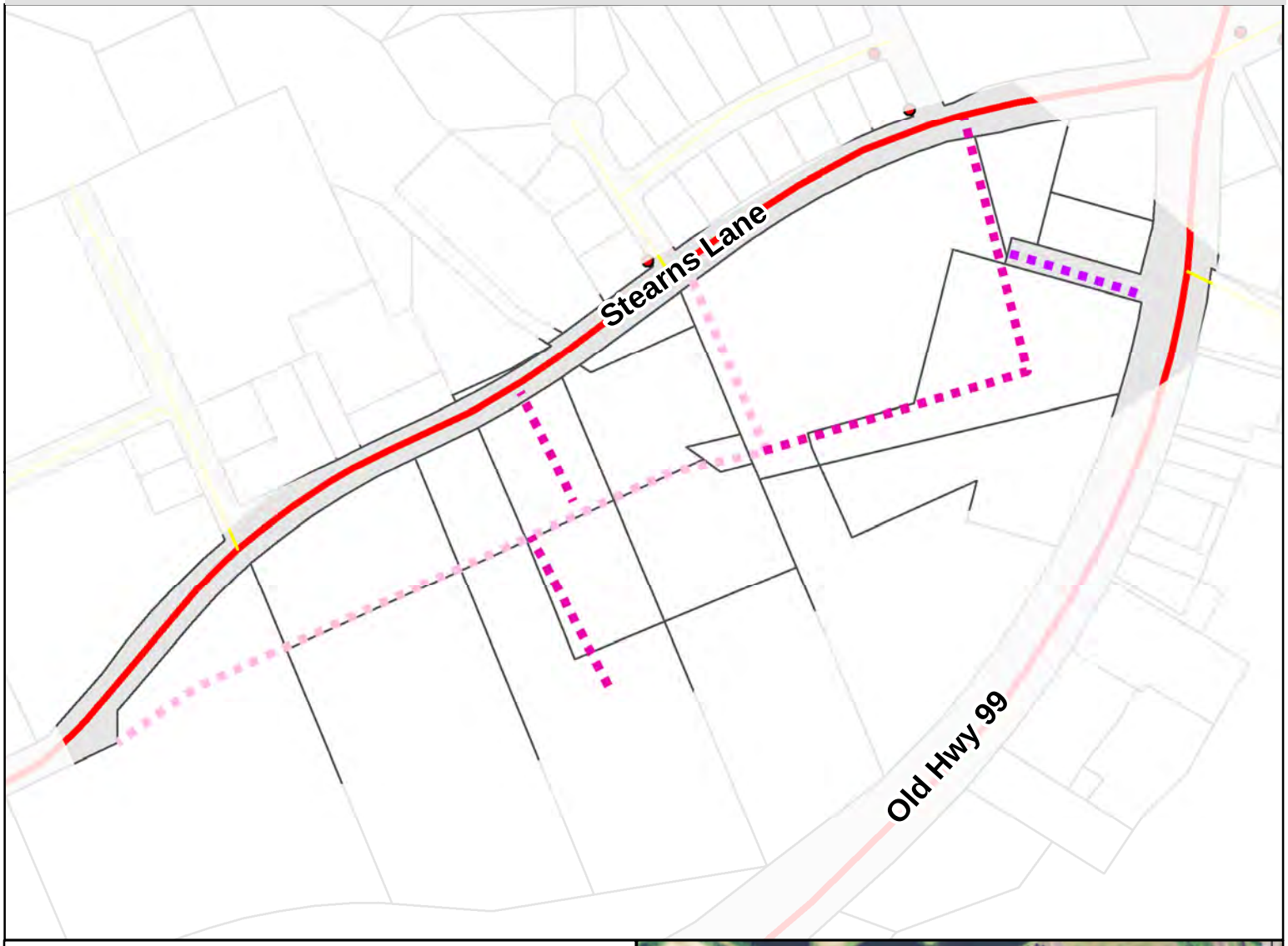
Auto-Transportation System Alternatives

Site Map A-18

Arterial Street
Local Street
Other Conceptual Street
Existing Access\Drive
Existing Right of Way
Oakland Parcels
Oakland ROW
Stop Sign

N
W E
S

0 300 600 1,200 Feet



Stearns Street Network

This new network of streets is highly conceptual and stems largely from the historic platted dynamic of the area (and related existing rights-of-way and private roads). The conceptual network relies heavily on the City's disposition towards the property as potential future employment land, including its marketability as such. The improvements would occur on a mix of existing private street (drives) and other new streets through dedications of right-of-way when property owners propose new development and opportunities present themselves. The street improvements would improve access, and circulation to the site. The majority of streets should be classified as Minor Local with perhaps one Major Local street (former Stearns Lane right-of-way).

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- Existing Path Improved
- Railroad Crossing Alternative

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- Minor Collector Street
- Major Local Street
- Minor Local Street

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- P-4 Cypress Avenue & NE 1st (1st Street around to 5th Street)

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- P-6 3rd & 4th Street Alley (Cedar Street to Locust Street)
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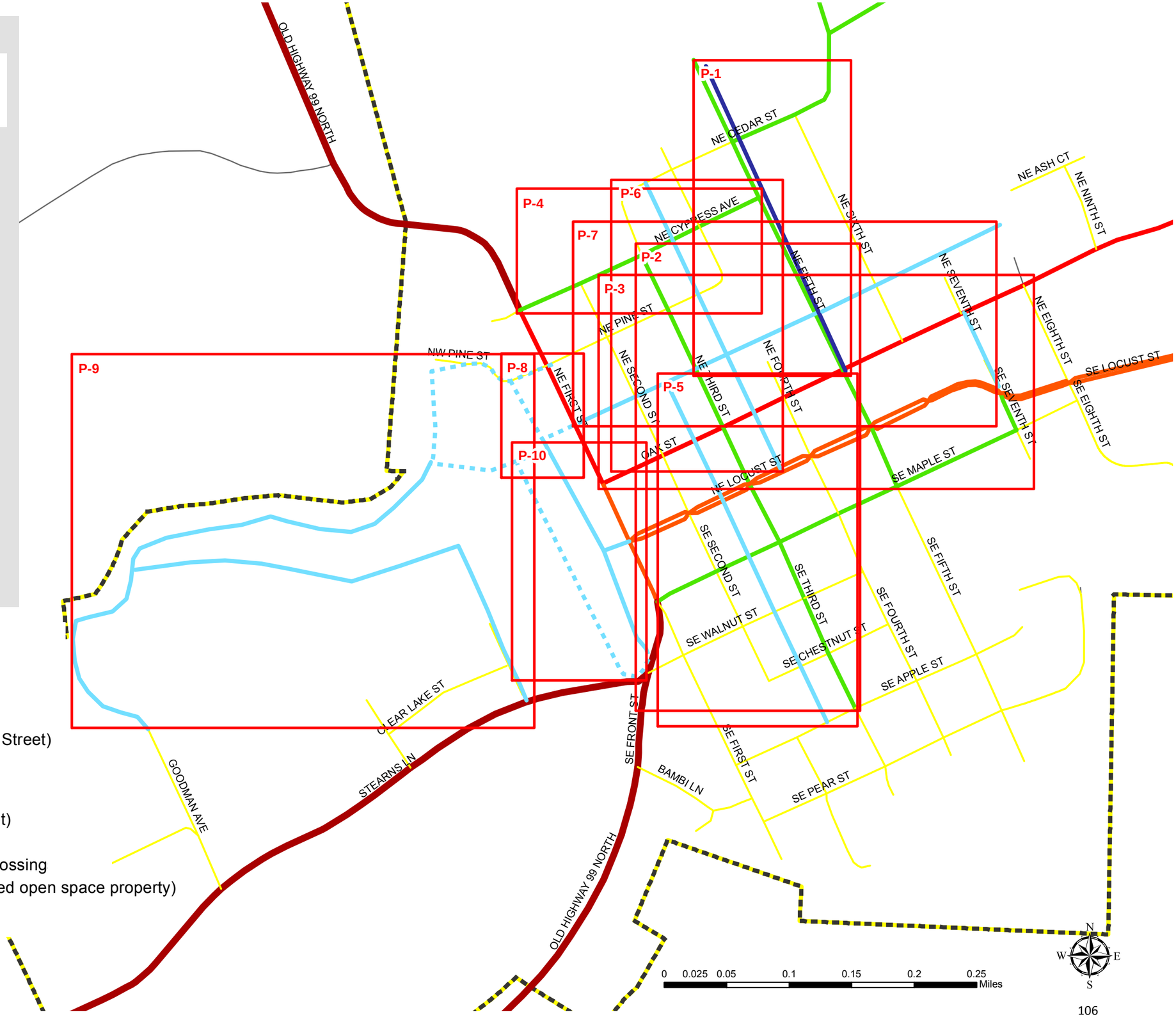

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City of Oakland

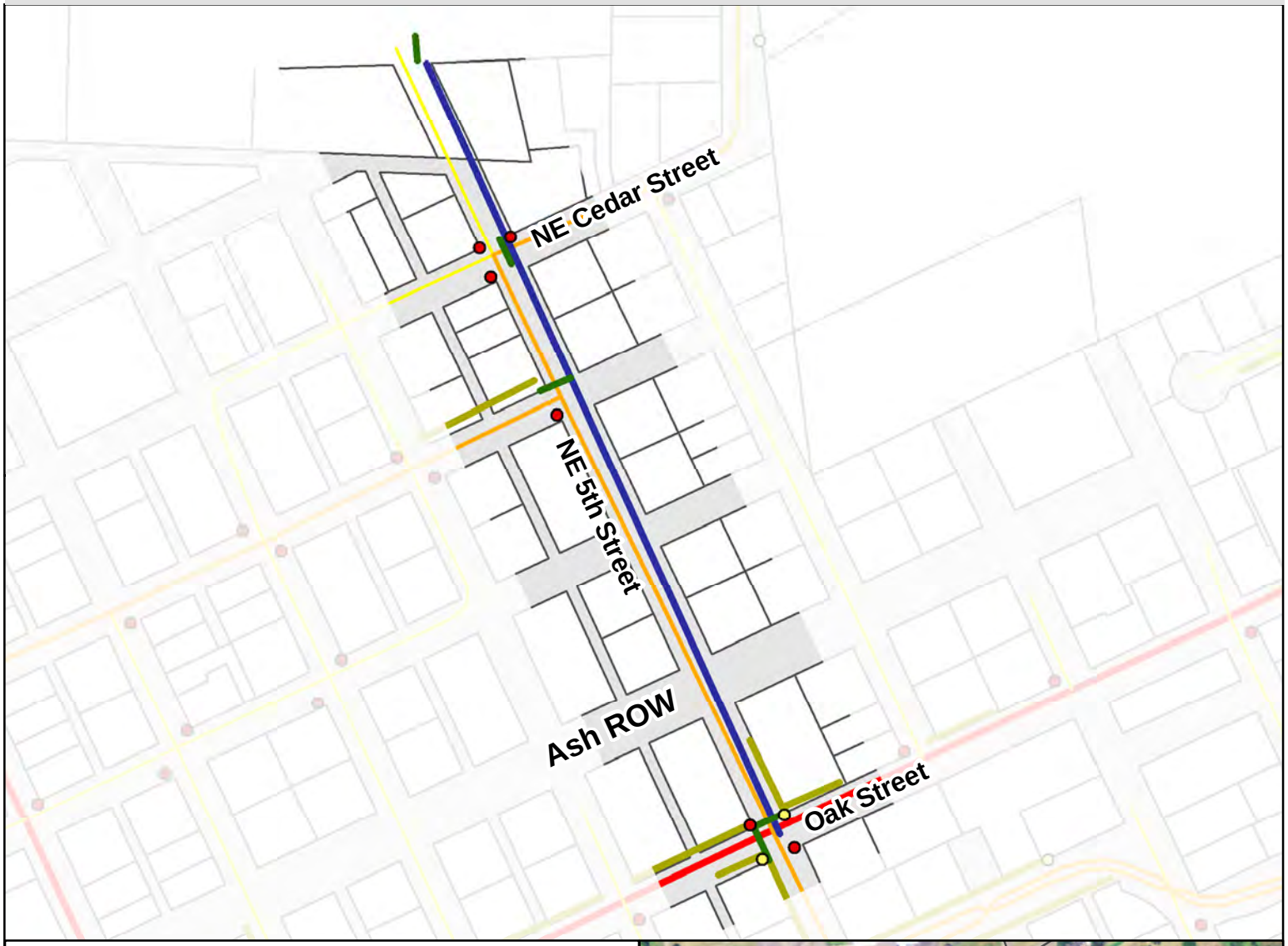
Pedestrian System Alternatives

Site Map P-1

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Existing Path Improved
Oakland ROW
Arterial Street
Collector Street
Local Street
Oakland Parcels

N
W E
S

0 270 540 1,080 Feet



5th Street Reclassification & Pedestrian Improvements Summary

This summary presents the reclassification proposal for NE 5th Street, between Oak Street and the School, from "Collector" to "Major Local." NE 5th Street is the only street in town with a dedicated off-street multi-use path. Improvements that are contemplated for this stretch of roadway include reconstructing the multi-use path to improve the surface to include adequate subbase, drainage and crossing treatment, as well as ADA amenities. The area lacks proper drainage. To address the drainage issue it is recommended that the concrete/ asphalt ditch between the roadway and multi-use path be converted to a bioswale to allow water to infiltrate and reduce the impact on the storm drain system. The bioswale should be designed to allow for adequate infiltration but low maintenance (see Attachment B).

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P1 – 5th Street Reclassification & Pedestrian Improvements

Improvement Goals:

-Improve pedestrian amenities

-Improve Drainage Issues

Design Elements:

High Visibility Crosswalks at select locations

Improve Drainage:

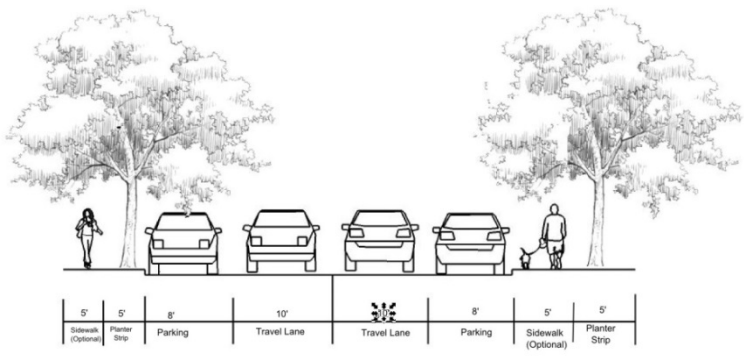
1. Convert existing asphalt ditch between roadway and walkway into a "bio-swale" (shown in green in illustration) this will allow water to infiltrate into the soil to lessen the water draining into the storm drain system

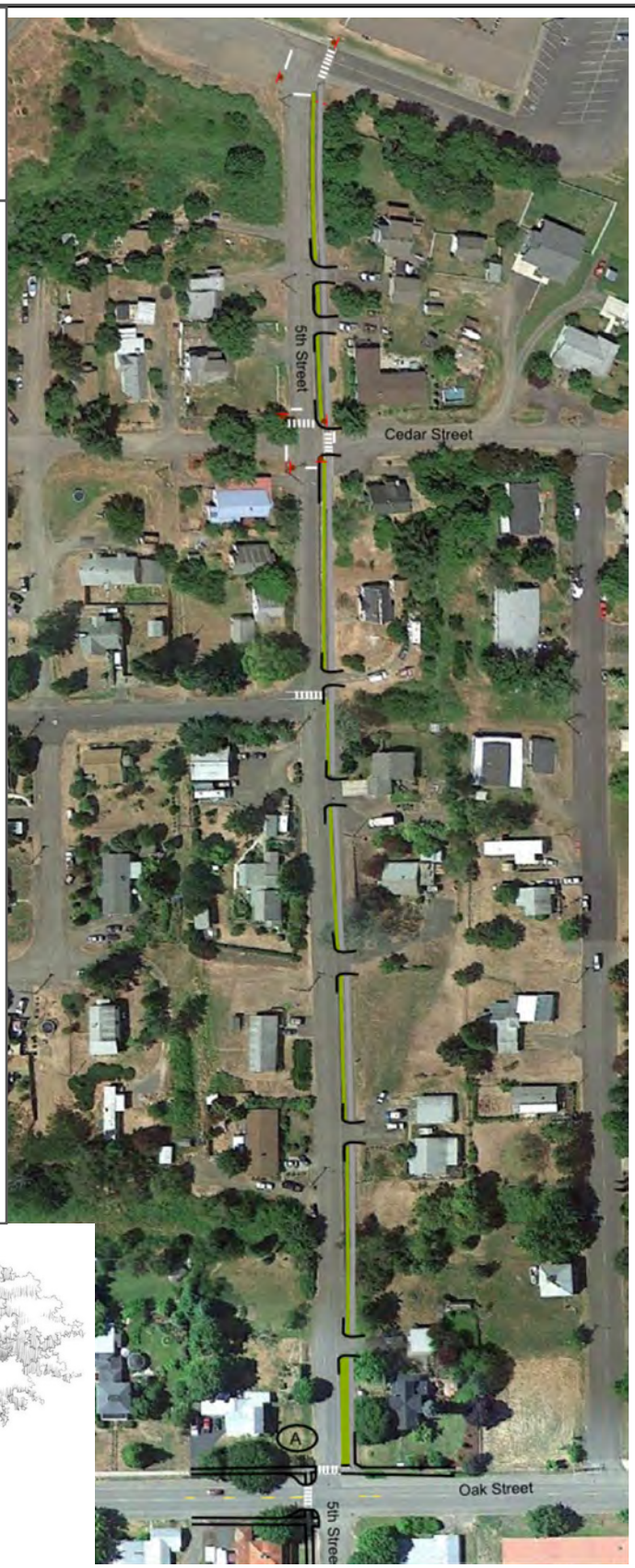
Improve the pedestrian walkway on the east side. Replace walkway with new asphalt with adequate rock base and drainage or concrete walkway. (shown in grey on the illustration)

Modify intersection at 5th and school entrance into an all-way stop with high-visibility crosswalk treatments.

Street Reclassification Changes:
NE 5th Street (north of Maple St)
"Collector" to "Major Local"

- Stop Sign
- High Visibility Crosswalk
- Existing Path
- Bio-swale





City of Oakland

Pedestrian System Alternatives

Site Map P-2

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Existing Path Improved
Oakland Parcels
Oakland ROW
Arterial Street
Collector Street
Local Street

N W E S

0 375 750 1,500 Feet

3rd Street Reclassification & Pedestrian Improvements Summary

This summary presents the proposal for 3rd Street, between Apple Street and Cypress Street, to receive upgrades related to a reclassification from “Local” to “Major Local.” Improvements that would be considered for this stretch of roadway include infill of the missing sidewalks to provide a complete pedestrian connection.

***Note:** 3rd Street has documented collapsed storm drains, with resulting drainage issues in the area (see Attachment B).

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City of Oakland

Pedestrian System Alternatives

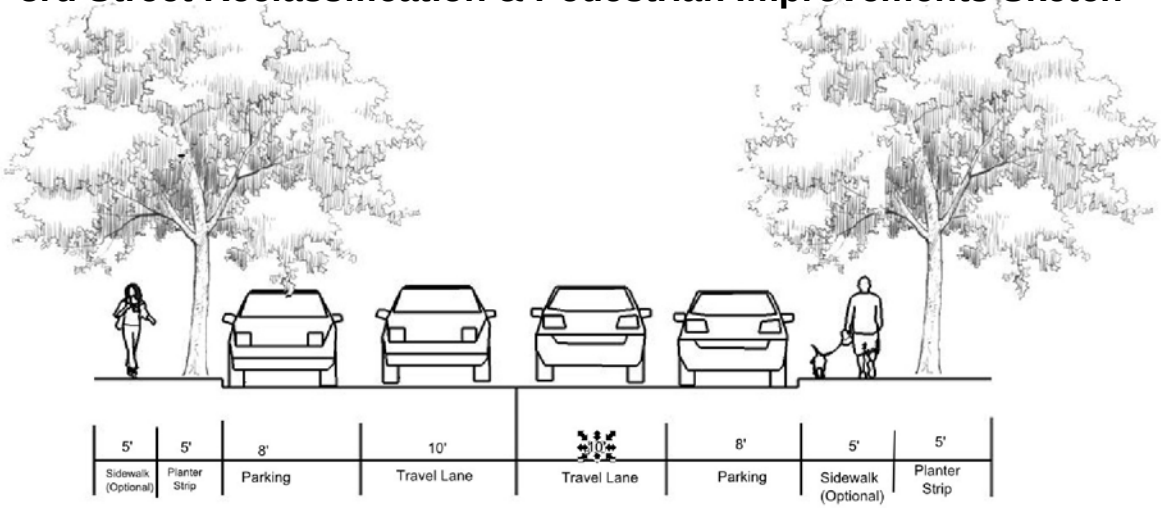
Site Map P-2 - Page 2

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland Parcels
Arterial Street
Major Collector Street
Minor Collector Street
Major Local Street
Minor Local Street
Railroad Crossing Alternative
Proposed Multi-Use Path
Existing Path Improved
Oakland ROW

N W E S

0 375 750 1,500 Feet

3rd Street Reclassification & Pedestrian Improvements Sketch



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City of Oakland

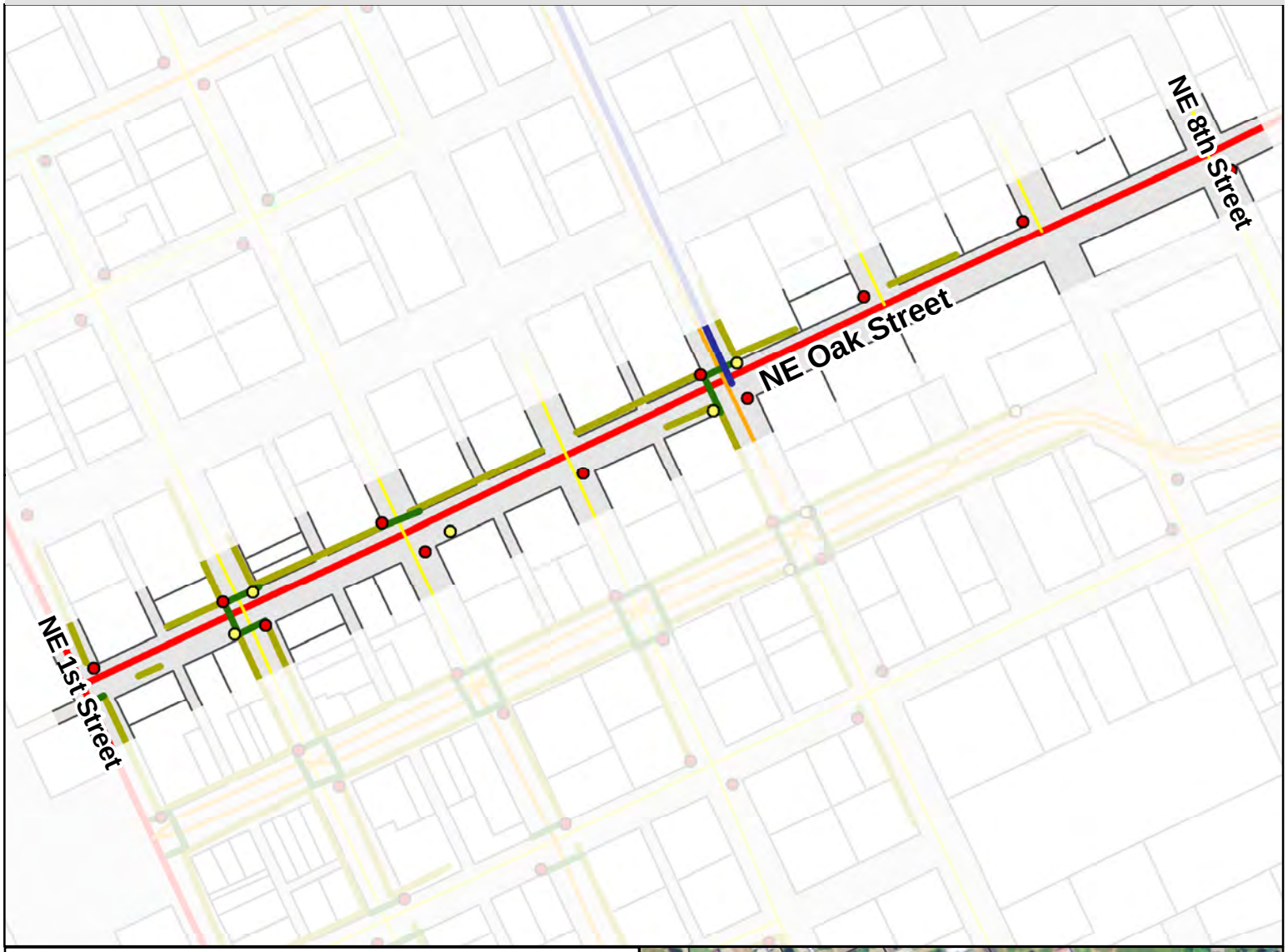
Pedestrian System Alternatives

Site Map P-3

Crosswalk Sign
Stop Sign
Oakland ROW
Oakland Parcels
Existing Path Improved
Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Collector Street
Local Street

N W E S

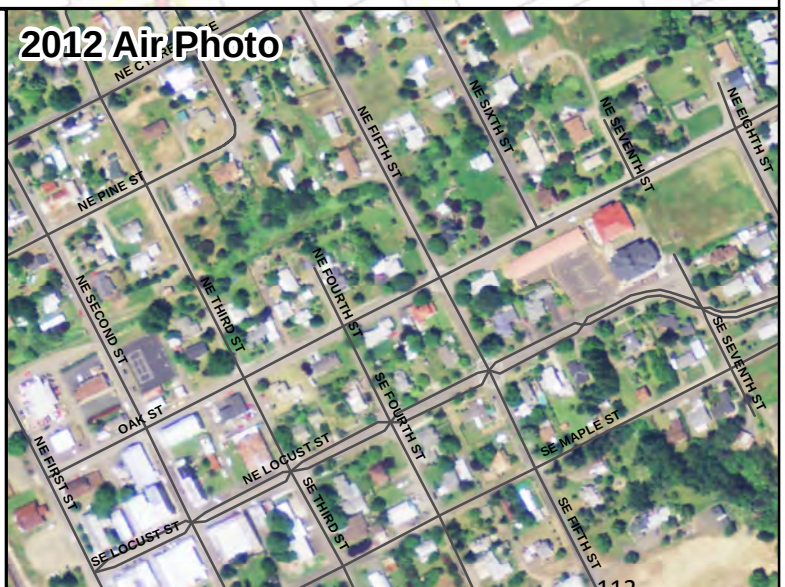
0 255 510 1,020 Feet



Oak Street Reclassification & Pedestrian Improvements Summary

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.

***Note:** Oak Street has documented collapsed storm drains, with resulting drainage issues in the area (see Attachment B).



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City of Oakland

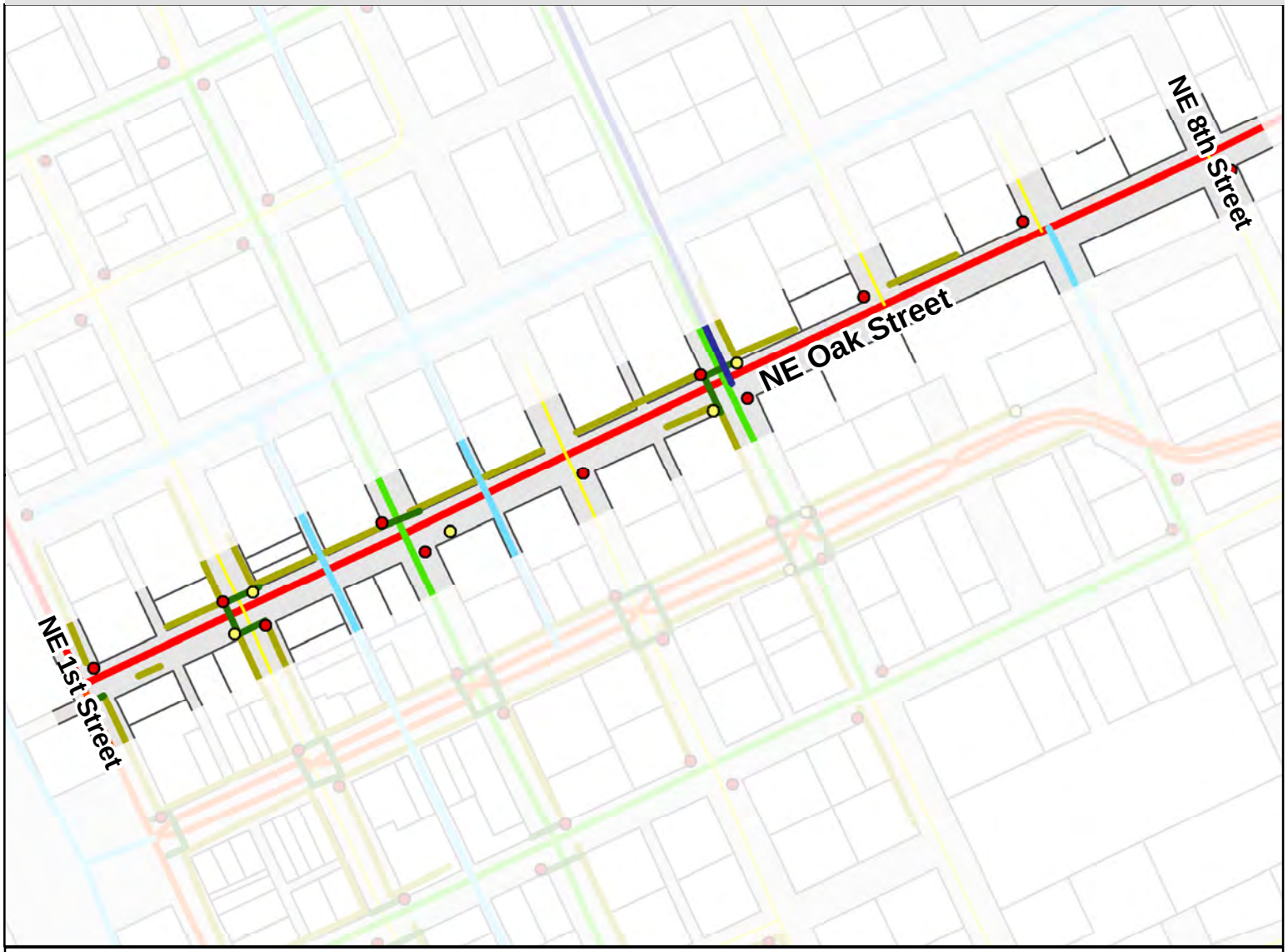
Pedestrian System Alternatives

Site Map P-3 - Page 2

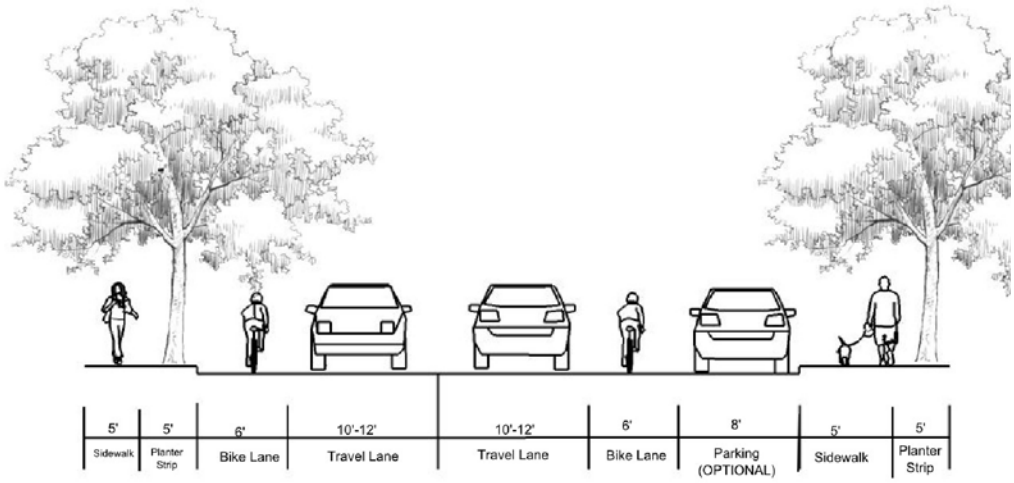
Crosswalk Sign
Stop Sign
Oakland ROW
Oakland Parcels
Proposed Multi-Use Path
Existing Path Improved
Oakland Crosswalks
Oakland Sidewalks
Major Collector Street
Minor Collector Street
Major Local Street
Minor Local Street

N W E S

0 255 510 1,020 Feet



Oak Street Reclassification & Pedestrian Improvements Sketch



60 Foot Right-of-way

Objective:
* Encourage through traffic to use this street

Design Considerations:
* Need for on-street parking
* Truck traffic
* Higher volume streets

Recommendations:
* Sidewalk and planter strips
* Separated bike facilities - bike lanes
* On-Street parking - one or both sides
* Crossing across 3rd & 5th street to have enhanced pedestrian crossings

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City of Oakland

Pedestrian System Alternatives

Site Map P-4

Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Proposed Multi-Use Path
Existing Path Improved
Oakland Parcels
Oakland ROW
Arterial Street
Collector Street
Local Street

N W E S

0 162.5 325 650 Feet

Cypress Avenue –NE 1st Reclassification & Pedestrian Improvements Summary

This summary presents the proposal for NE Cypress Avenue, between First Street and 5th Street, to receive upgrades related to a reclassification from "Local" to "Major Local." Cypress Street is the only street north of Oak Street that is paved between First and 5th Streets. Improvements that would be considered for this stretch of roadway include sidewalk completion on one or both sides.

***Note:** Cypress Avenue has documented drainage issues but is one of only a few streets identified by Public Works as being in "good" condition (see Attachment B).

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
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City of Oakland

Pedestrian System Alternatives

Site Map P-5

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Collector Street
Local Street
Oakland ROW
Oakland Parcels

N
W
E
S

0 325 650 1,300 Feet

2nd & 3rd Street Alley Multi-Use Path Summary

This summary presents the proposal for development of a dedicated multi-use path which utilizes the 2nd Street Alley, between Apple Street and Ash Street. Improvements that would be considered for this stretch of alley might include a multi-use path and crosswalk treatments.

***Note:** This area has documented collapsed storm drains, with resulting drainage issues in the area (see Attachment B).

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City of Oakland

Pedestrian System Alternatives

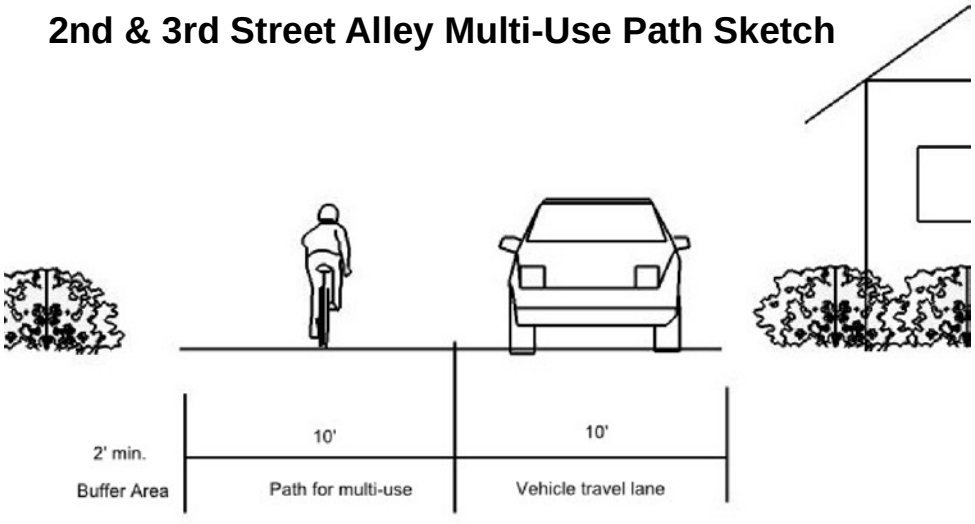
Site Map P-5 - Page 2

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland Parcels
Arterial
Major Collector
Minor Collector
Major Local
Minor Local
Proposed Multi-Use Path
Railroad Crossing Alternative
Existing Path Improved
Oakland ROW

0 325 650 1,300 Feet

N W E S

2nd & 3rd Street Alley Multi-Use Path Sketch



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City of Oakland

Pedestrian System Alternatives

Site Map P-6

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Collector Street
Local Street
Oakland ROW
Oakland Parcels

N W E S

0 245 490 980 Feet

3rd & 4th Street Alley Multi-Use Path Summary

This summary presents the proposal for development of a dedicated multi-use path which utilizes the 3rd Street Alley, between Locust Street and Cedar Street. Improvements that would be considered for this stretch of alley might include a multi-use path and crosswalk treatments.

***Note:** This area has documented collapsed storm drains, with resulting drainage issues in the area (see Attachment B).

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Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS
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City of Oakland

Pedestrian System Alternatives

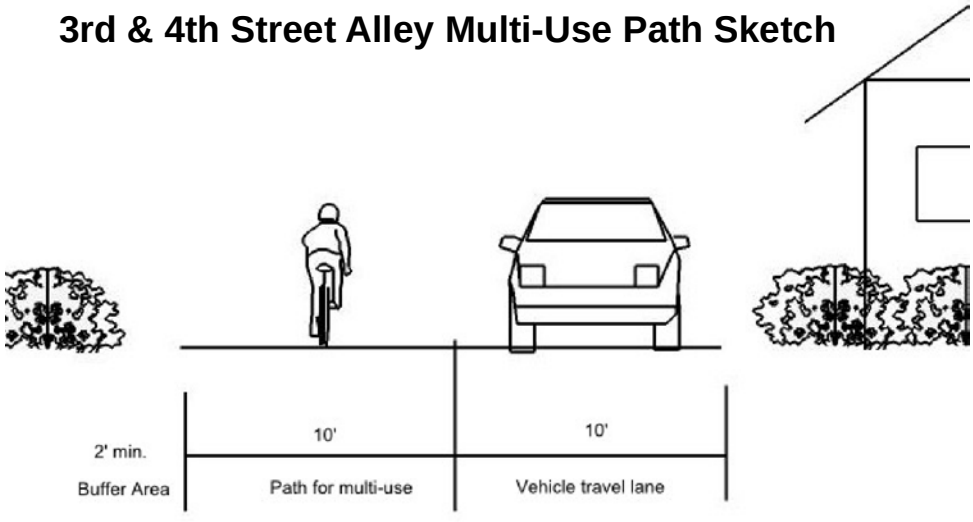
Site Map P-6 - Page 2

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland Parcels
Proposed Multi-Use Path
Existing Path Improved
Railroad Crossing Alternative
Oakland ROW
Arterial Street
Collector Street
Local Street

N W E S

0 245 490 980 Feet

3rd & 4th Street Alley Multi-Use Path Sketch



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City of Oakland

Pedestrian System Alternatives

Site Map P-7

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Arterial Street
Collector Street
Local Street
Oakland Parcels
Oakland ROW
Oakland Sidewalks

N W E S

0 270 540 1,080 Feet

Ash Right-of-Way (ROW) Multi-Use Path Summary

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. The portion between 1st Street and 3rd Street have more improved elements (including grading and more channelization of Ash Creek). The stretch between 3rd Street and Seventh Street will present greater challenges and likely require grading and increased impacts to Ash Creek. Where the path crosses City streets, improvements should be provided to increase visibility of the crossings. The crossing at 1st street should have a high visibility crosswalk treatment including a rectangular flashing beacon if deemed necessary.

***Note:** Ash Creek will be central to addressing drainage issues in Oakland (see Attachment B). Any improvements must take this into account.

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City of Oakland

Pedestrian System Alternatives

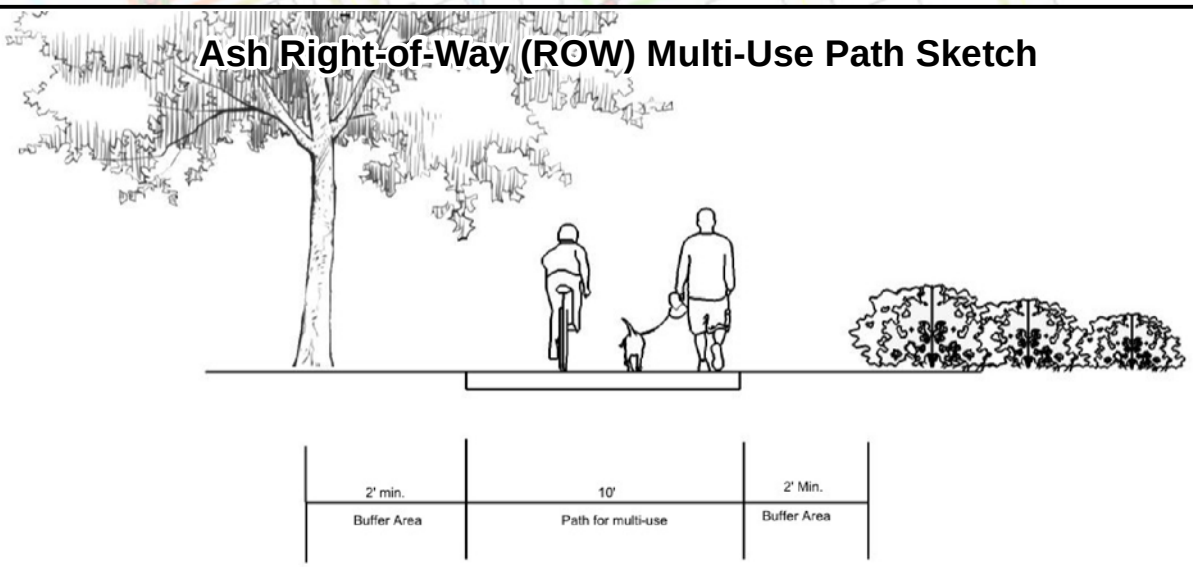
Site Map P-7 - Page 2

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland ROW
Major Collector Street
Minor Collector Street
Major Local Street
Minor Local Street
Oakland Parcels
Railroad Crossing Alternative
Existing Path Improved
Proposed Multi-Use Path

N
W E
S

0 270 540 1,080 Feet

Ash Right-of-Way (ROW) Multi-Use Path Sketch



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City of Oakland

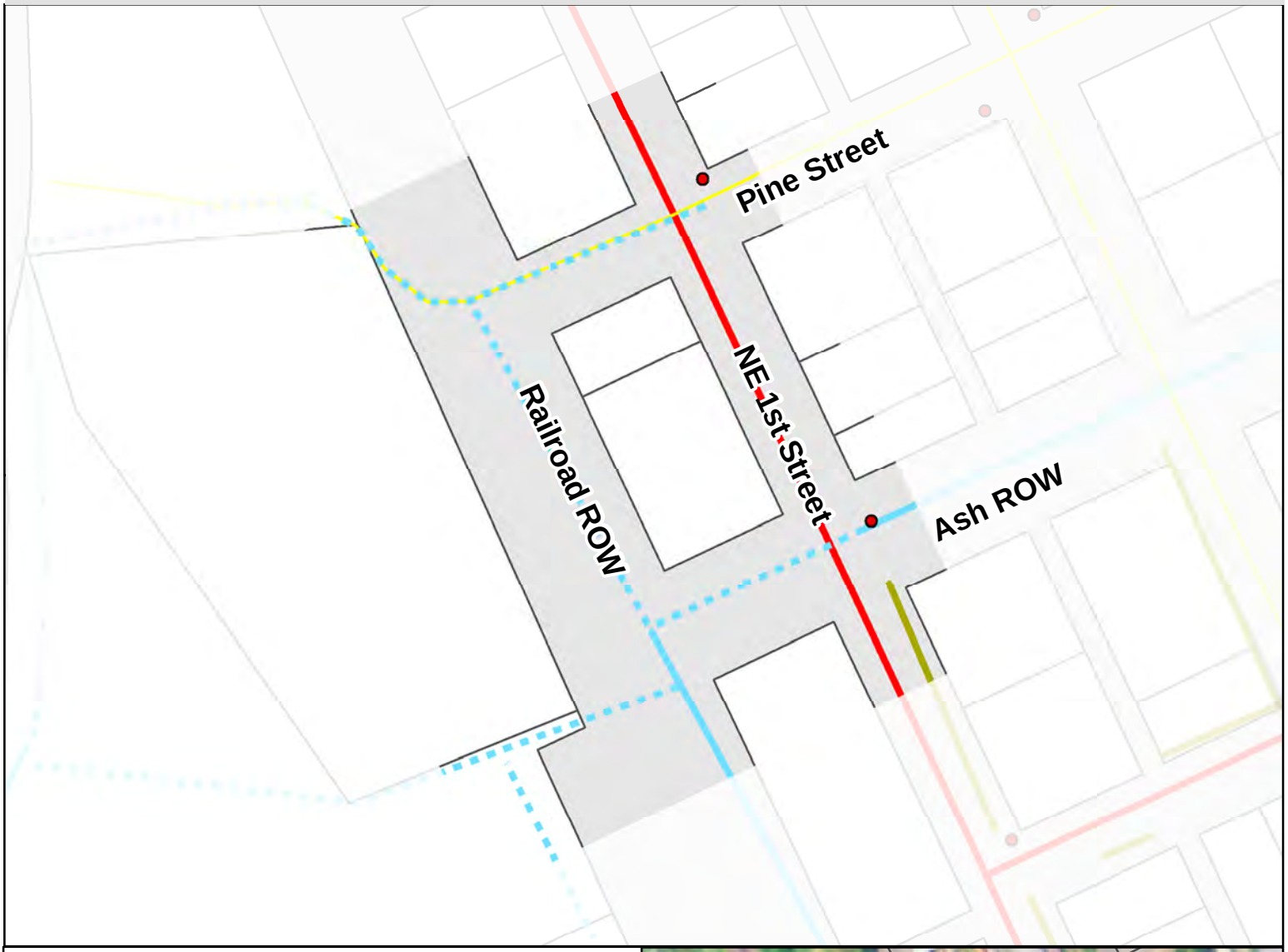
Pedestrian System Alternatives

Site Map P-8

Stop Sign
Oakland Parcels
Oakland ROW
Railroad Crossing Alternative
Proposed Multi-Use Path
Oakland Sidewalks
Arterial Street
Local Street

N W E S

0 120 240 480 Feet



Ash Right-of-Way (ROW) & Pine Street Railroad Crossing Summary

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 Old 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. It is assumed that no additional crossing could be added. Therefore a crossing is only possible at either Ash OR Pine Street. A third alternative, directly west of the railroad right-of-way (P-10), is included as an alternative to the Ash and Pine Street crossings if necessary, and would utilize the existing Stearns Lane railroad crossing.

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City of Oakland

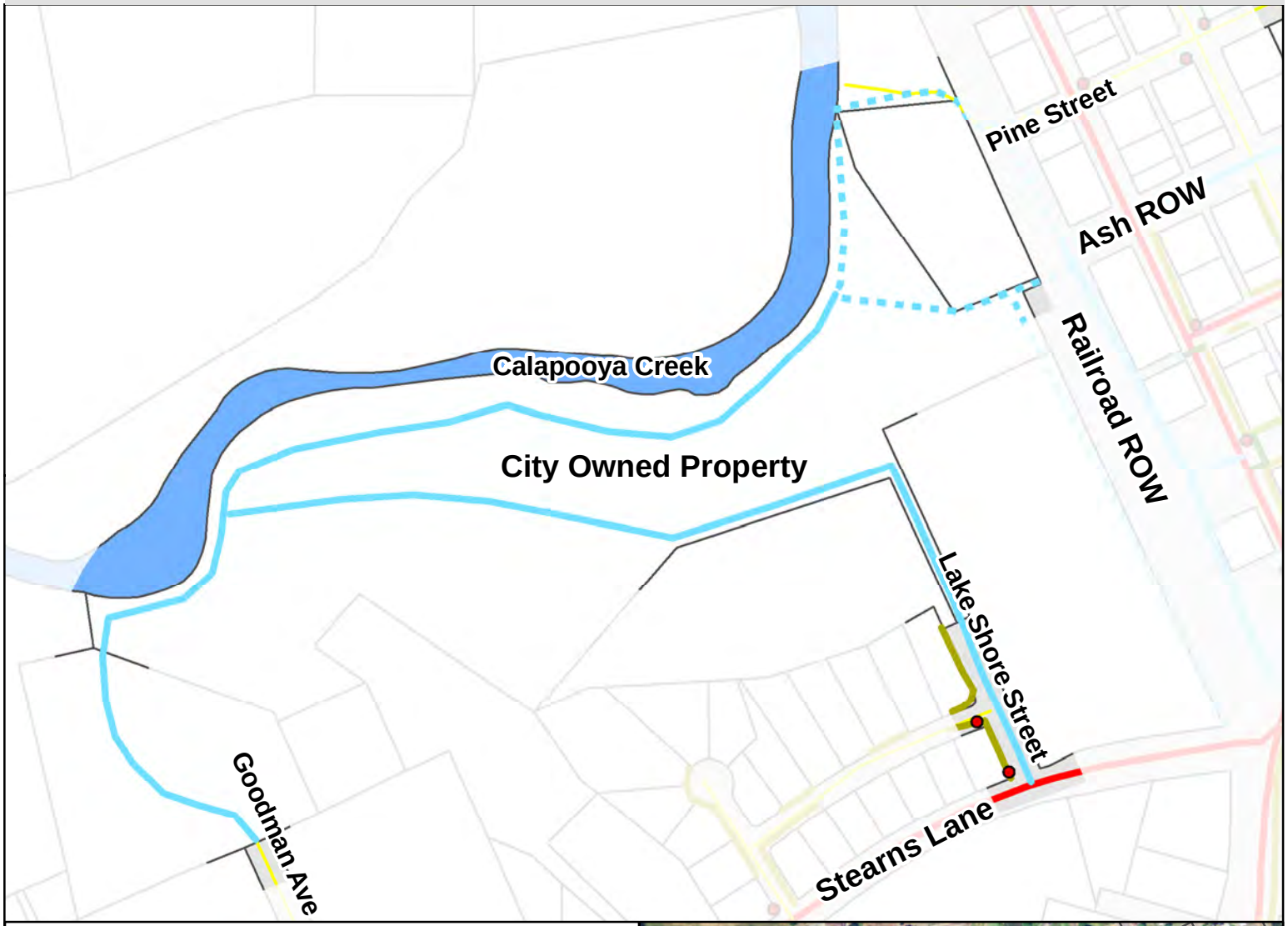
Pedestrian System Alternatives

Site Map P-9

Stop Sign
Railroad Crossing Alternative
Proposed Multi-Use Path
Oakland ROW
Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Local Street
Oakland Parcels

N W E S

0 335 670 1,340 Feet



Calapooya Creek Multi-Use Path Summary

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 can be considered as a set of alternatives or phases for a multi-use path system. The system is facilitated by connections through Stearns Park, Goodman Avenue, Lake Shore Street and improvements presented in Alternatives P-7 and P-8. The multiuse path would include hardened surfaces but sections could be set aside for other surface types (uses). The width of the hardened portions of the path would be a minimum of eight feet and would likely be an asphalt construction. One important consideration for the path is the potential impacts to natural resources including the riparian area adjacent to Calapooya Creek. Another important factor is the points of access to the east (across the railroad). Consideration must be given to existing needs for access to the water intake, private property dynamics and ability to use railroad right-of-way.

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City of Oakland

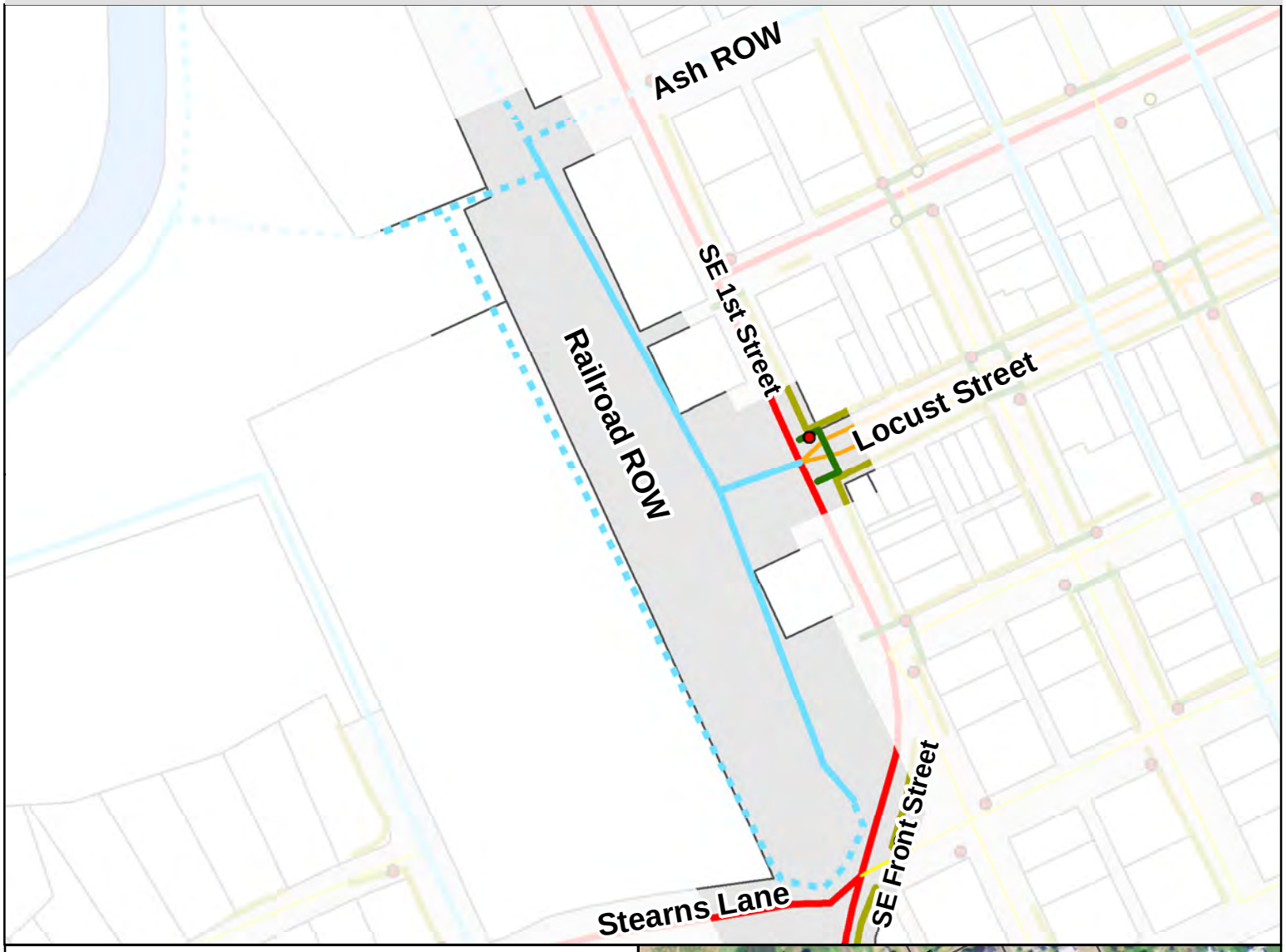
Pedestrian System Alternatives

Site Map P-10

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Collector Street
Local Street
Oakland Parcels
Railroad Crossing Alternative
Proposed Multi-Use Path
Oakland ROW

N W E S

0 215 430 860 Feet



Railroad Right-of-Way (ROW) Multi-Use Path Summary

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 First Street/Old Highway 99 with lower sections of First Street/Old Highway 99 and Stearns Lane. In combination with other conceptual paths, this could complete a nearly two mile network of off street paths in Oakland. The proposal includes a connection to the west side of Locust Street.

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Index Map

City of Oakland

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- Oakland UGB
- Road Bike Routes

Conceptual Bike & Pedestrian Path

- Dedicated Bike Lane
- Proposed Multi-Use Path
- Existing Path Improved
- Railroad Crossing Alternative

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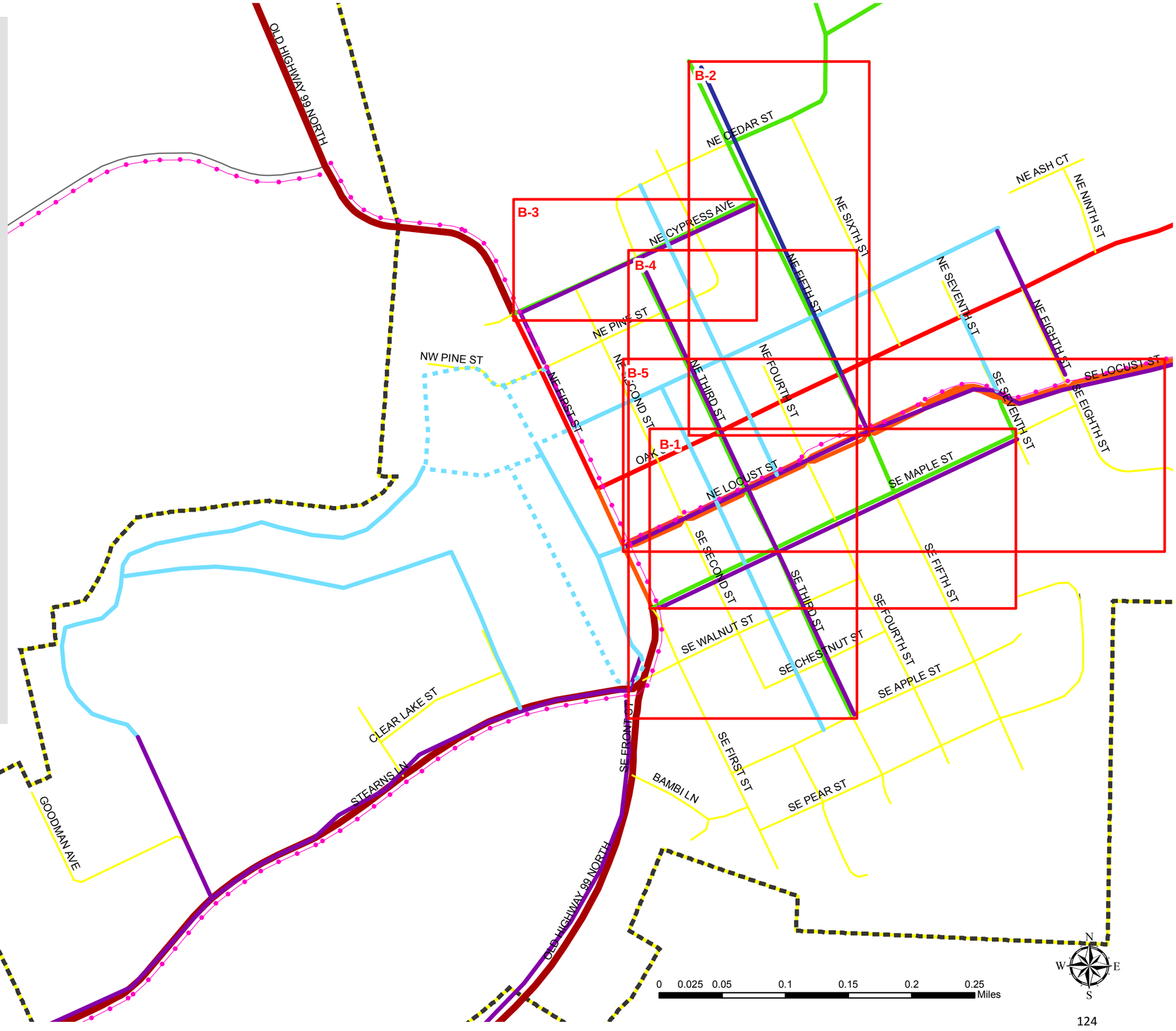
- Arterial Street
- Major Collector Street
- Minor Collector Street
- Major Local Street
- Minor Local Street

Reclassification

- ☐ B-1 Maple Street (Front Street to 7th Street)
- ☐ B-2 5th street (Oak Street to the school)
- ☐ B-3 Cypress Avenue (NE 1st and around to 5th Street)
- ☐ B-4 Third Street (Apple Street to Cypress Avenue)
- ☐ B-5 Locust Street (1st Street to 8th Street)



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MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs

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City of Oakland

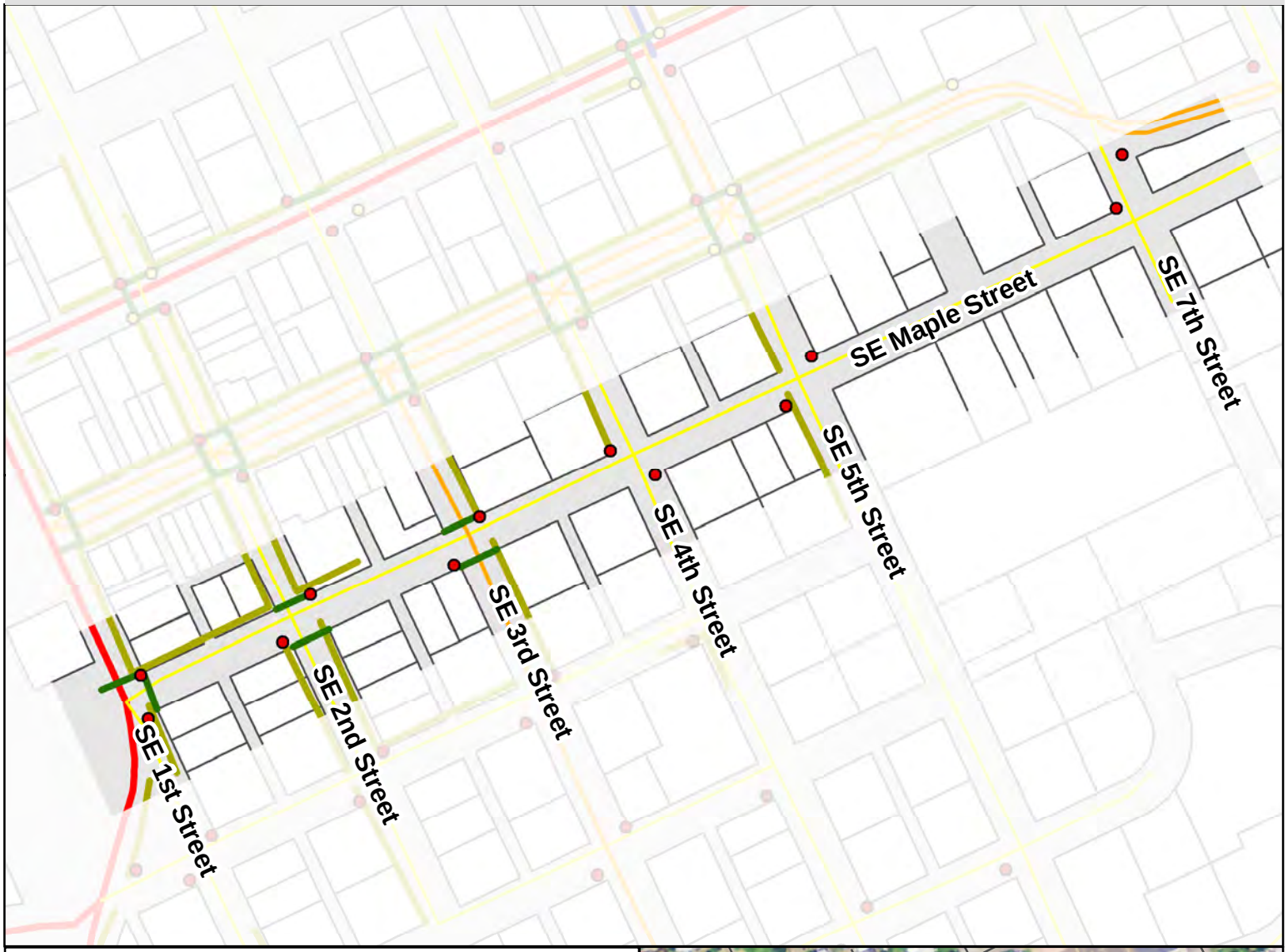
Bicycle System Alternatives

Site Map B-1

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Collector Street
Local Street
Existing Path Improved
Oakland Parcels
Oakland ROW

N W E S

0 245 490 980 Feet



Maple Street Reclassification & Bicycle Improvements Summary

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

***Note:** Maple Street has documented drainage issues (see Attachment B).

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City of Oakland

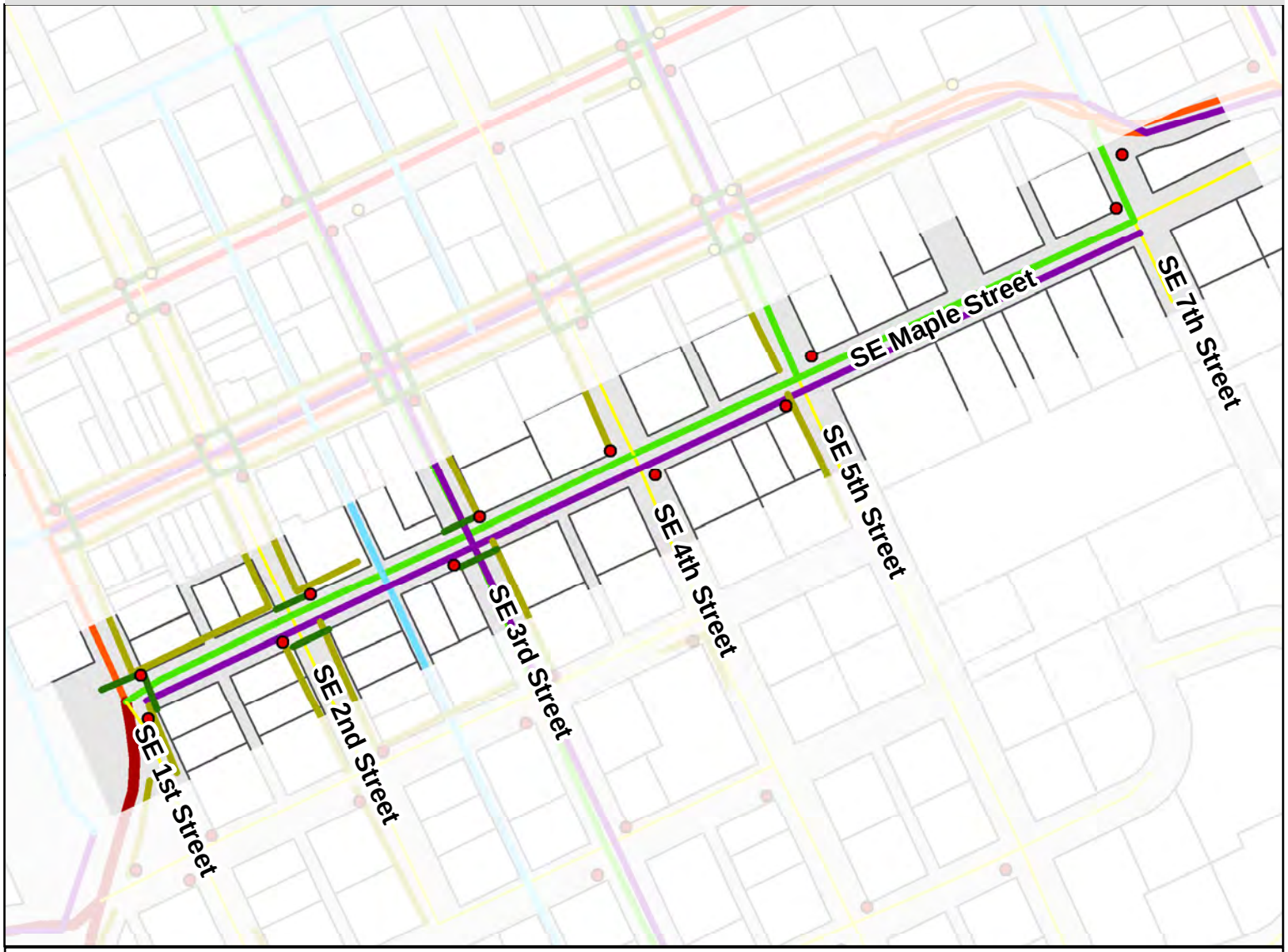
Bicycle System Alternatives

Site Map B-1 - Page 2

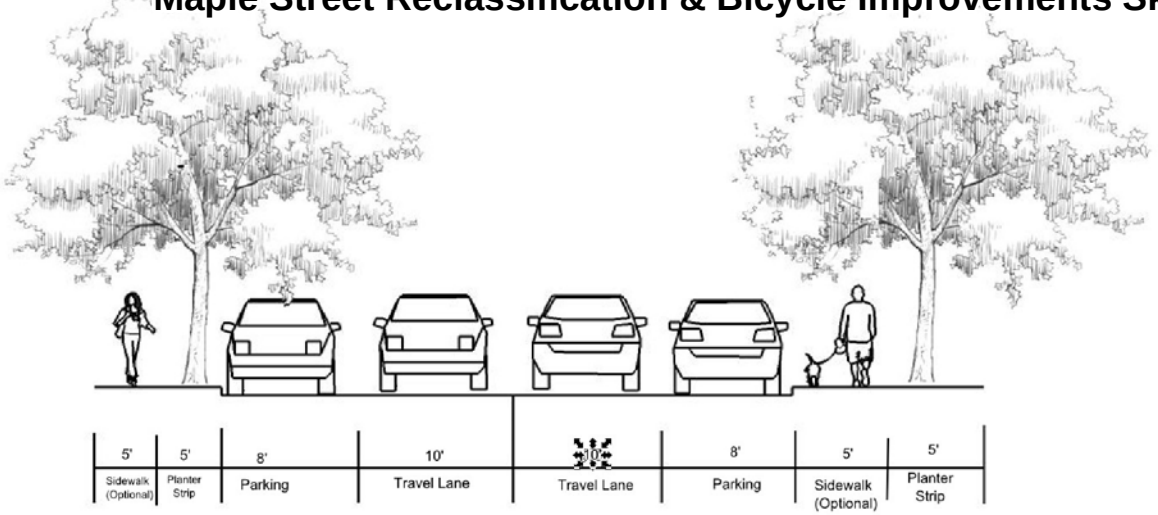
Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland ROW
Arterial Street
Major Collector Street
Minor Collector Street
Major Local Street
Minor Local Street
Dedicated Bike Lane
Proposed Multi-Use Path
Existing Path Improved
Oakland Parcels

N W E S

0 245 490 980 Feet



Maple Street Reclassification & Bicycle Improvements Sketch



Sharrow Symbol

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City of Oakland

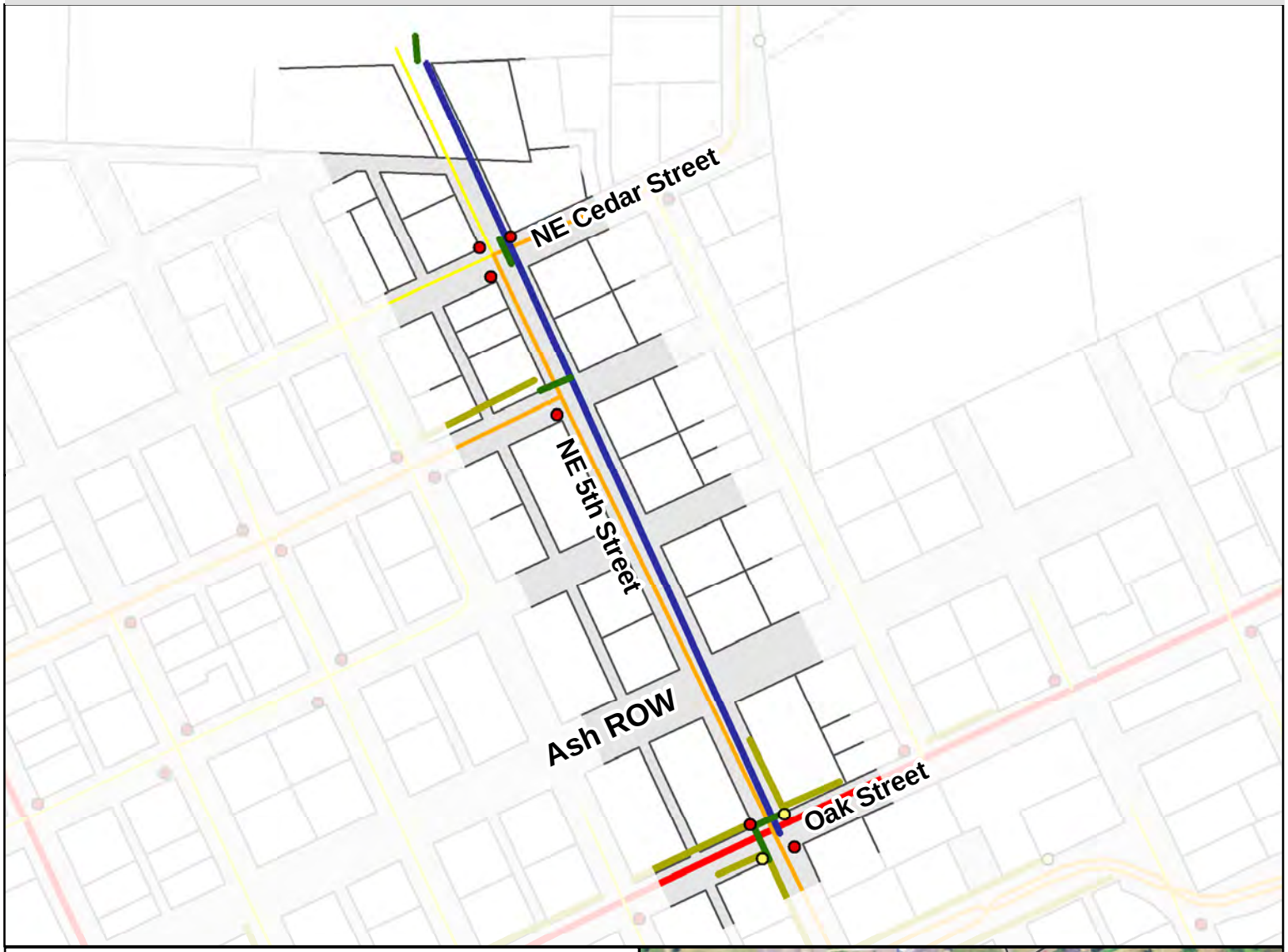
Bicycle System Alternatives

Site Map B-2

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Existing Path Improved
Arterial Street
Collector Street
Local Street
Oakland Parcels
Oakland ROW

0 270 540 1,080 Feet

N W E S



5th Street Reclassification & Bicycle Improvements Summary

This summary presents the reclassification proposal for NE 5th Street, between Oak Street and the School, from "Collector" to "Major Local." NE 5th Street is the only street in town with a dedicated off-street multi-use path. Improvements that are contemplated for this stretch of roadway include reconstructing the multi-use path to improve the surface to include adequate subbase, drainage and crossing treatment, as well as ADA amenities. Given the popularity of this roadway, consideration could be given for a designated bike lane in addition to the dedicated off-street multi-use path. The area lacks proper drainage (see Attachment B). To address the drainage issue it is recommended that the concrete/asphalt ditch between the roadway and multi-use path be converted to a bioswale to allow water to infiltrate and reduce the impact on the storm drain system. The bioswale should be designed to allow for adequate infiltration but low maintenance.

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B2 – 5th Street Reclassification & Bicycle Improvements

Improvement Goals:

-Improve pedestrian amenities

-Improve Drainage Issues

Design Elements:

High Visibility Crosswalks at select locations

Improve Drainage:

1. Convert existing asphalt ditch between roadway and walkway into a "bio-swale" (shown in green in illustration) this will allow water to infiltrate into the soil to lessen the water draining into the storm drain system

Improvements for this stretch of roadway include designation as bike routes with pavement markings (sharrows and/or signs signs), while maintaining the existing character and on street parking.

Modify intersection at 5th and school entrance into an all-way stop with high-visibility crosswalk treatments.

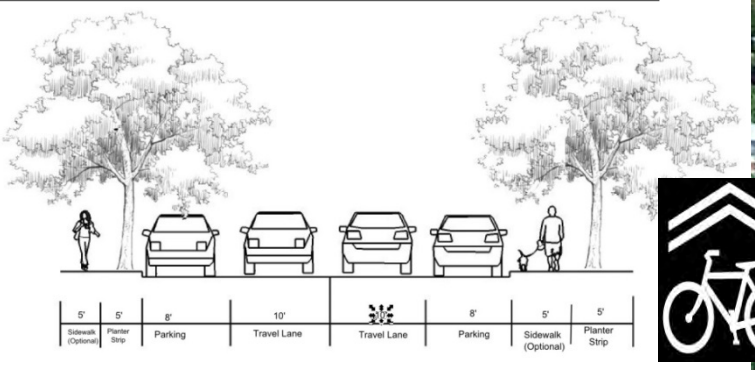
Street Reclassification Changes:
NE 5th Street (north of Maple St)
"Collector" to "Major Local"

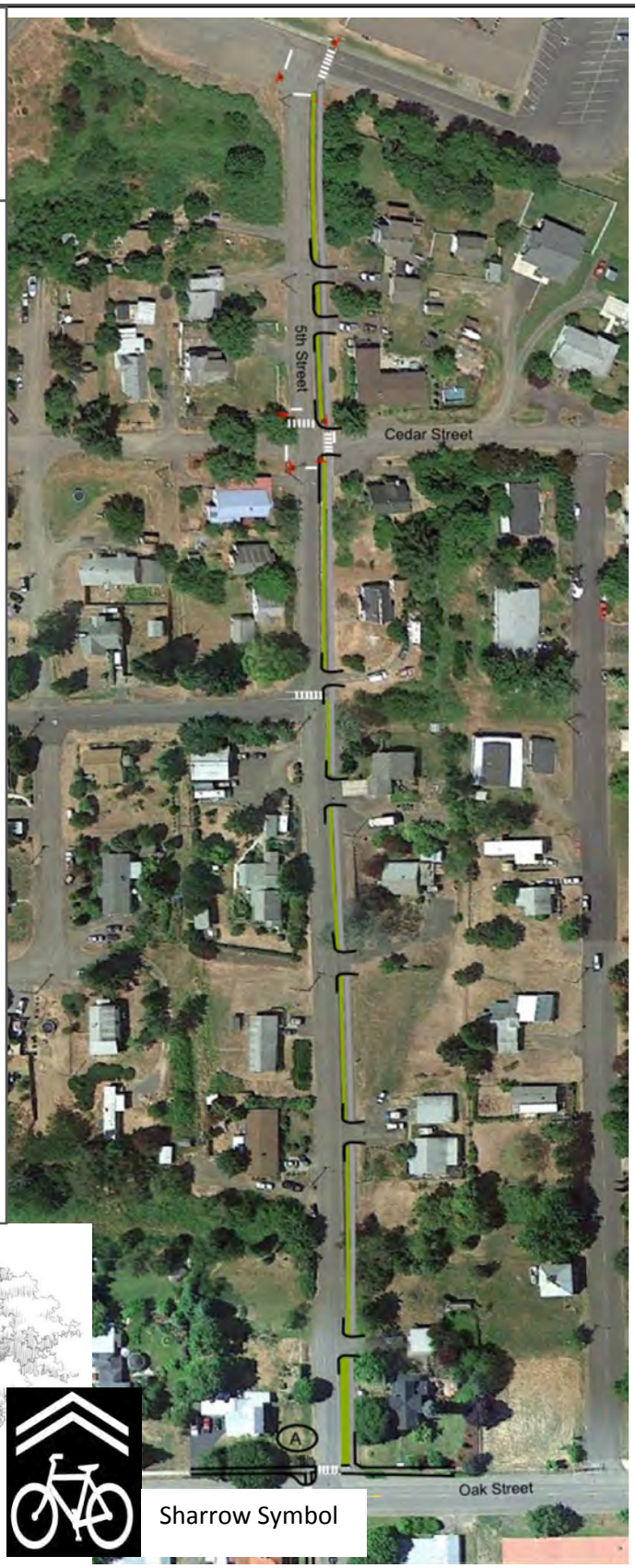

- Stop Sign

- High Visibility Crosswalk

- Existing Path

- Bio-swale





Sharrow Symbol

City of Oakland

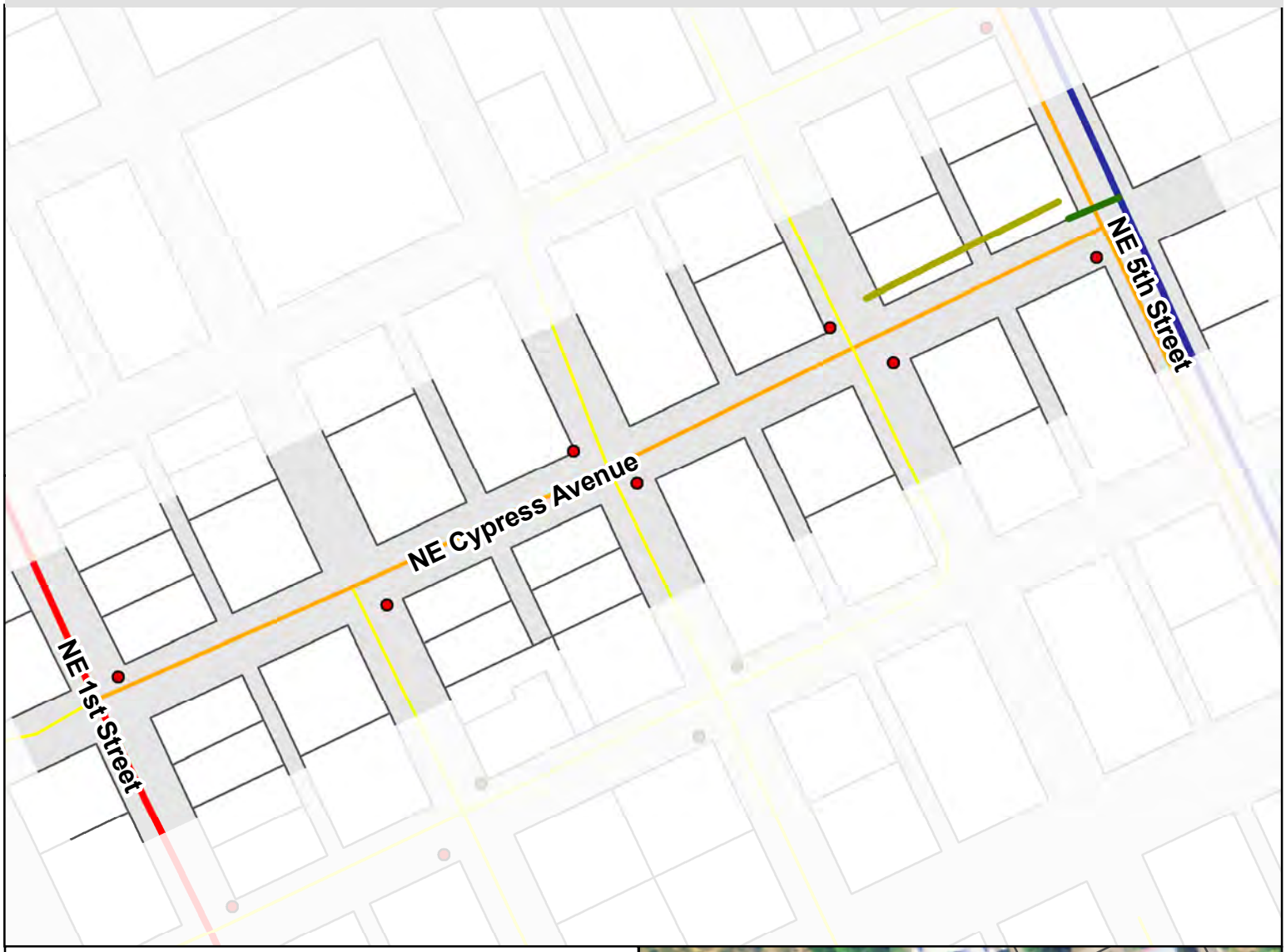
Bicycle System Alternatives

Site Map B-3

Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Existing Path Improved
Oakland Parcels
Oakland ROW
Arterial Street
Collector Street
Local Street

N W E S

0 162.5 325 650 Feet



Cypress Avenue –NE 1st Reclassification & Bicycle Improvements Summary

This summary presents the proposal for NE Cypress Avenue, between First Street and 5th Street, to receive upgrades related to a reclassification from "Local" to "Major Local." Cypress Street 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 with pavement markings (sharrows and/or signs signs), while maintaining the existing character and on street parking.

***Note:** Cypress Avenue has documented drainage issues. Is one of only a few streets identified by Public Works as being in "good" condition (see Attachment B).

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City of Oakland

Bicycle System Alternatives

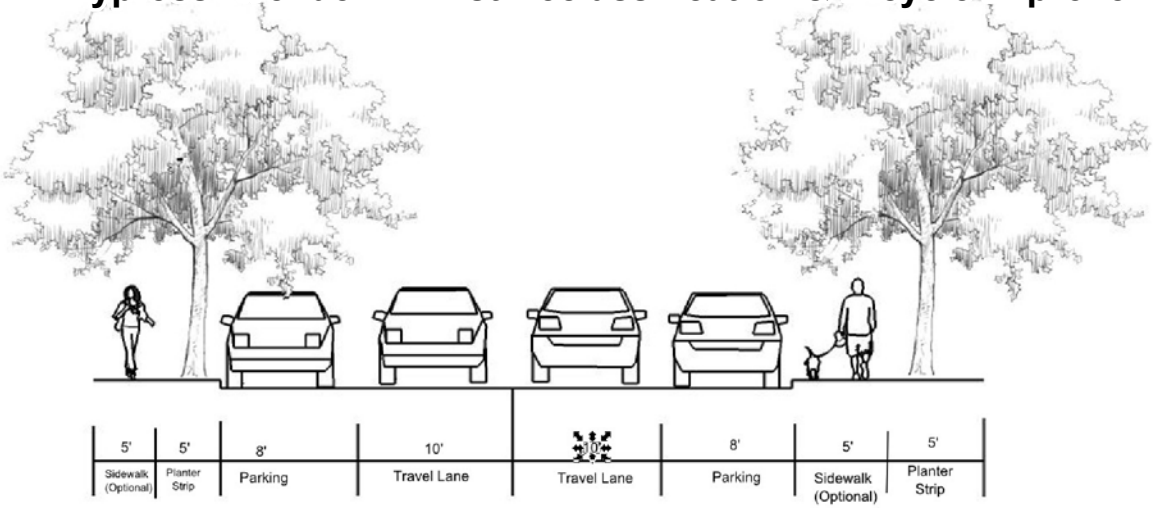
Site Map B-3 - Page 2

Stop Sign
Arterial
Dedicated Bike Lane
Oakland Crosswalks
Major Collector
Proposed Multi-Use Path
Oakland Sidewalks
Minor Collector
Existing Path Improved
Oakland ROW
Major Local
Oakland Parcels
Minor Local

N W E S

0 162.5 325 650 Feet

Cypress Avenue –NE 1st Reclassification & Bicycle Improvements Sketch



Sharrow Symbol

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City of Oakland

Bicycle System Alternatives

Site Map B-4

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Existing Path Improved
Oakland Parcels
Oakland ROW
Arterial Street
Collector Street
Local Street

N W E S

0 375 750 1,500 Feet

3rd Street Reclassification & Bicycle Improvements Summary

This summary presents the proposal for 3rd Street, between Apple Street and Cypress Ave, to receive upgrades related to a reclassification from “Arterial” to “Major Collector". Improvements for this stretch of roadway include designation as bike routes with pavement markings (sharrows and/or signs signs), while maintaining the existing character and on street parking.

***Note:** 3rd Street has documented collapsed storm drains, with resulting drainage issues in the area (see Attachment B).

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City of Oakland

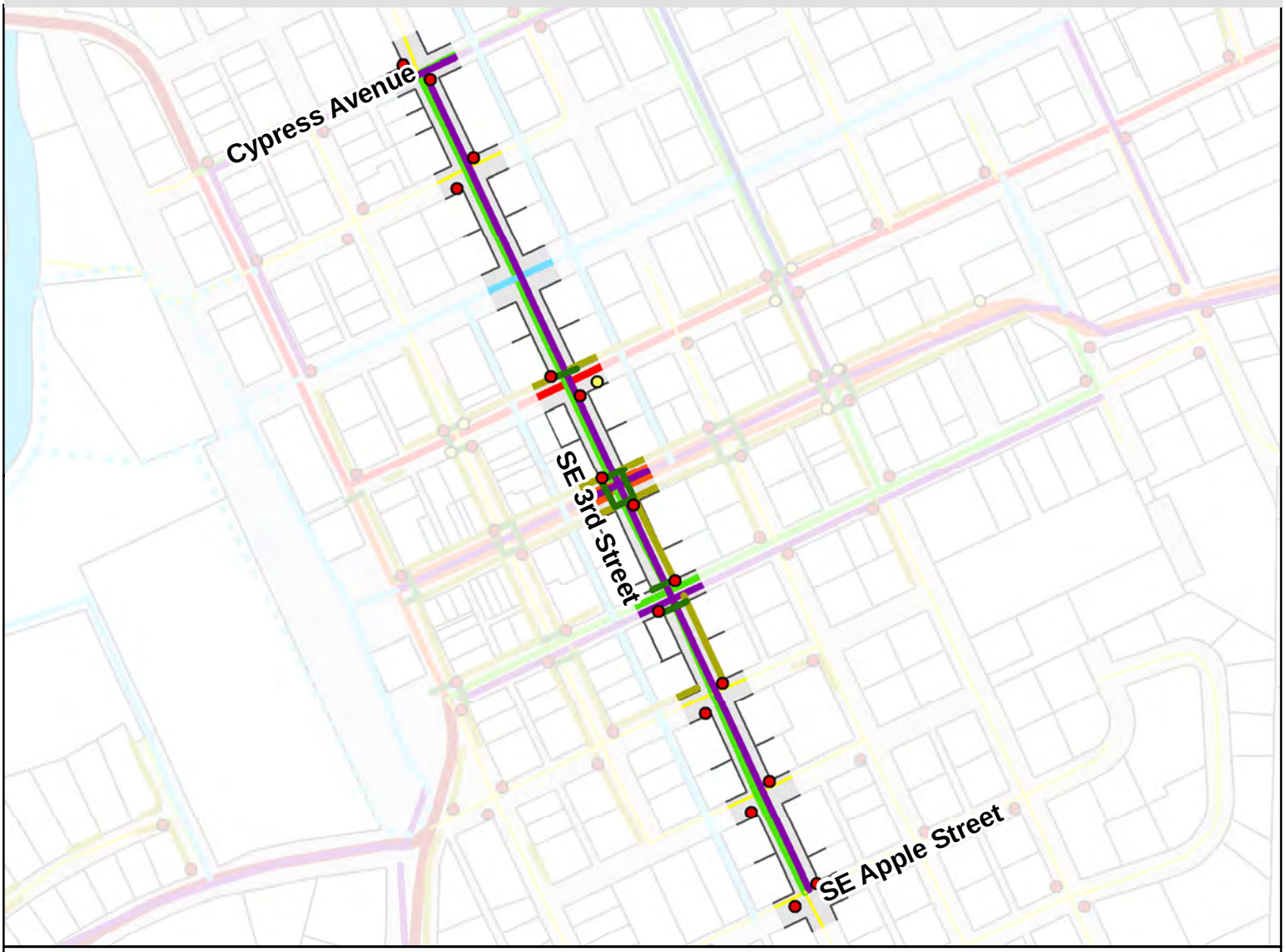
Bicycle System Alternatives

Site Map B-4 - Page 2

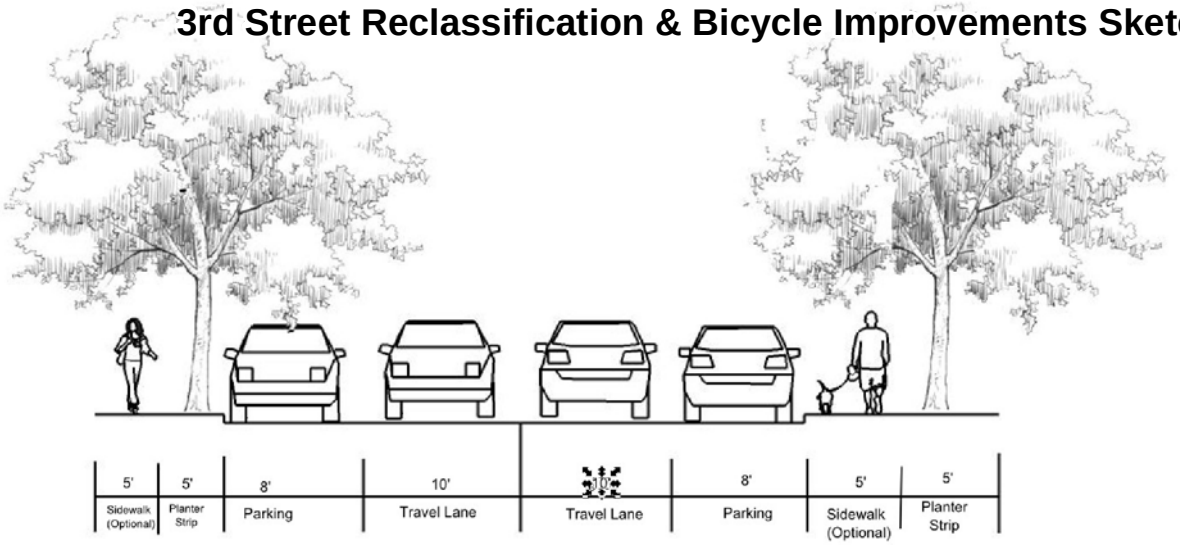
Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland Parcels
Arterial Street
Major Collector Street
Minor Collector Street
Major Local Street
Minor Local Street
Existing Path Improved
Railroad Crossing Alternative
Proposed Multi-Use Path
Dedicated Bike Lane
Oakland ROW

0 380 760 1,520 Feet

N W E S



3rd Street Reclassification & Bicycle Improvements Sketch



Sharrow Symbol

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City of Oakland

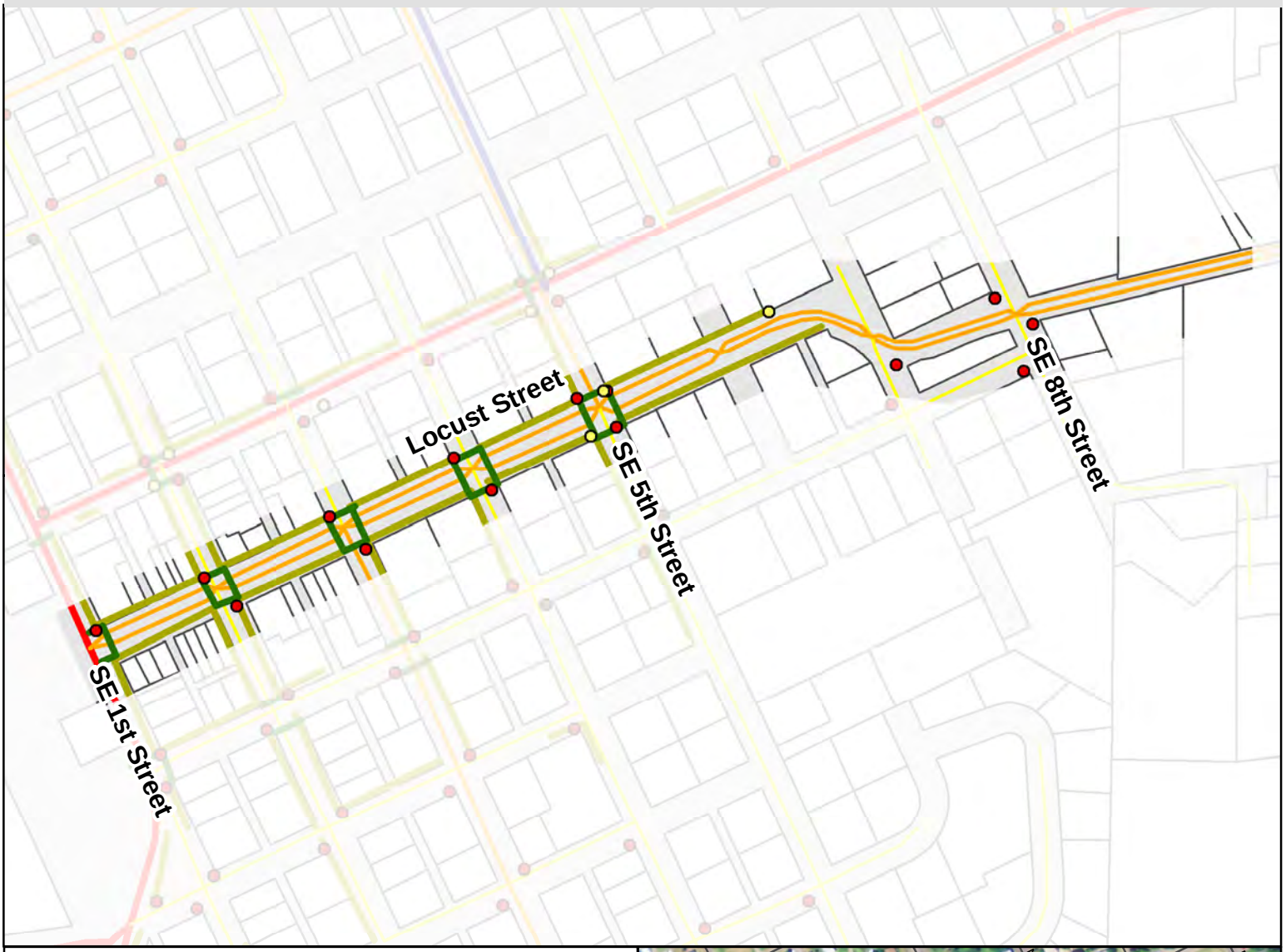
Bicycle System Alternatives

Site Map B-5

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Existing Path Improved
Oakland ROW
Oakland Parcels
Arterial Street
Collector Street
Local Street

N W E S

0 325 650 1,300 Feet



Locust Street Reclassification & Bicycle Improvements Summary

This summary presents the proposal for Locust Street, between Apple Street and Cypress 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 signs), while maintaining the existing character and on street parking.

***Note:** Locust Street has documented collapsed storm drains, with resulting drainage issues in the area (see Attachment B). Locust is also one of few streets in Oakland identified by Public Works staff as having “bad” pavement condition (the worst condition category in the inventory).

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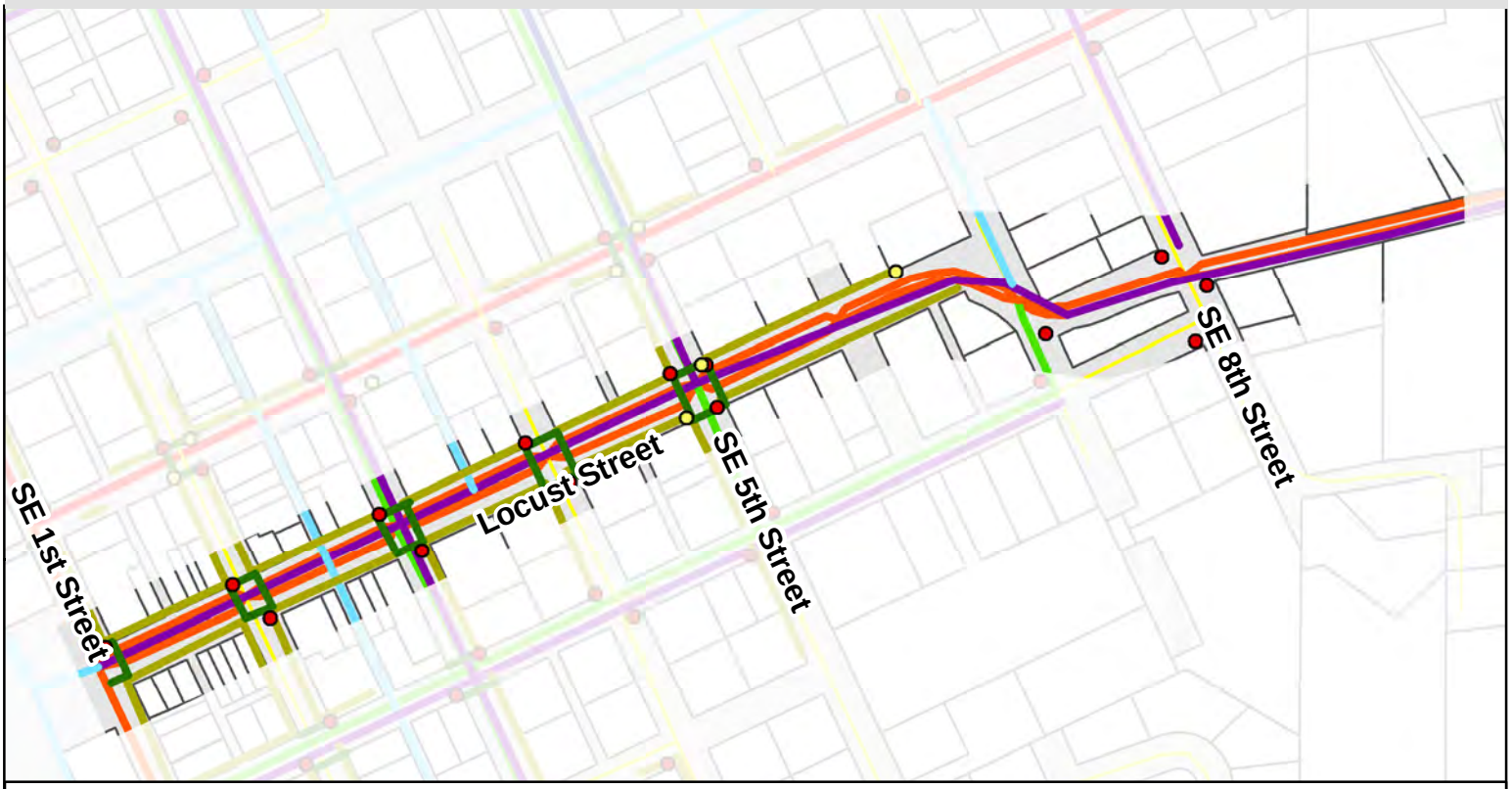
City of Oakland

Bicycle System Alternatives

Site Map B-5 - Page 2

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland Parcels
Arterial Street
Major Collector Street
Minor Collector Street
Major Local Street
Minor Local Street
Existing Path Improved
Railroad Crossing Alternative
Proposed Multi-Use Path
Dedicated Bike Lane
Oakland ROW

0 325 650 1,300 Feet

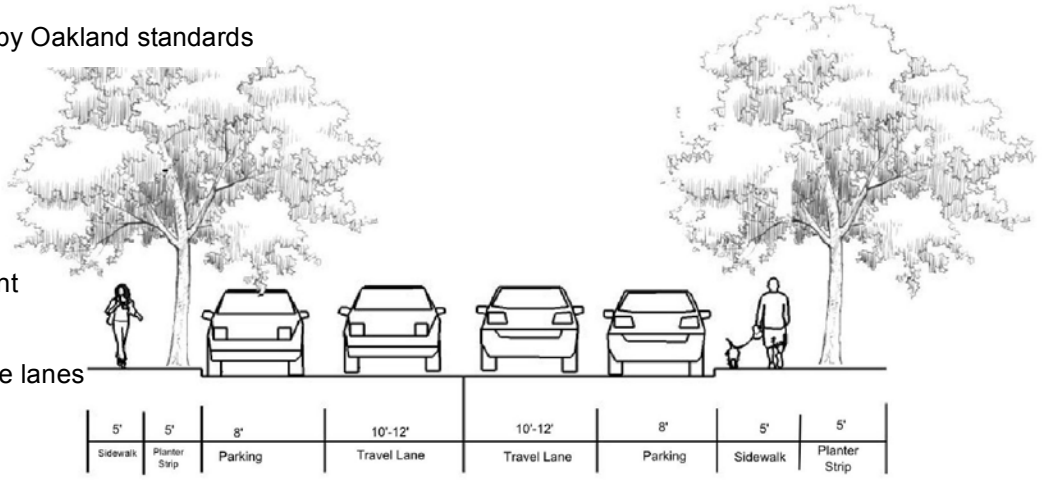


Locust Street Reclassification & Bicycle Improvements Sketch & Summary

Objective:

- operate as a medium volume street (by Oakland standards
- keep through traffic off
- 25 mph speed
- Keep trucks off of it
- Have bike and ped amenities (bike path desired)

Locust has an 80 foot right of way and about 46 feet of existing street pavement



Recommendations:

Option 1: Design the street to have bike lanes

- Planter strip and side walk
- 6 food bike lane
- 10 foot travel lanes in each direction
- 8 foot parking-currently the street can be restriped to have bike lanes on both sides but and parking on one side. If parking on both sides is wanted the existing pavement will have to be widened

Option 2: Sharrows

- On street parking on both sides
- Stripe the travel lanes to have sharrows to designate as a bike lane

Both Options: to help divert traffic from using locust 2nd, 3rd, and 5th streets should be changed to all way stops. The multiple stopping along Locust will:

- Slow traffic
- Keep through traffic off of locust-the multiple stop signs will deter drivers from this routs the stops will case delay
- The stop signs will help provide a safer crossing across locust for pedestrians at these crossings

Sharrow Symbol

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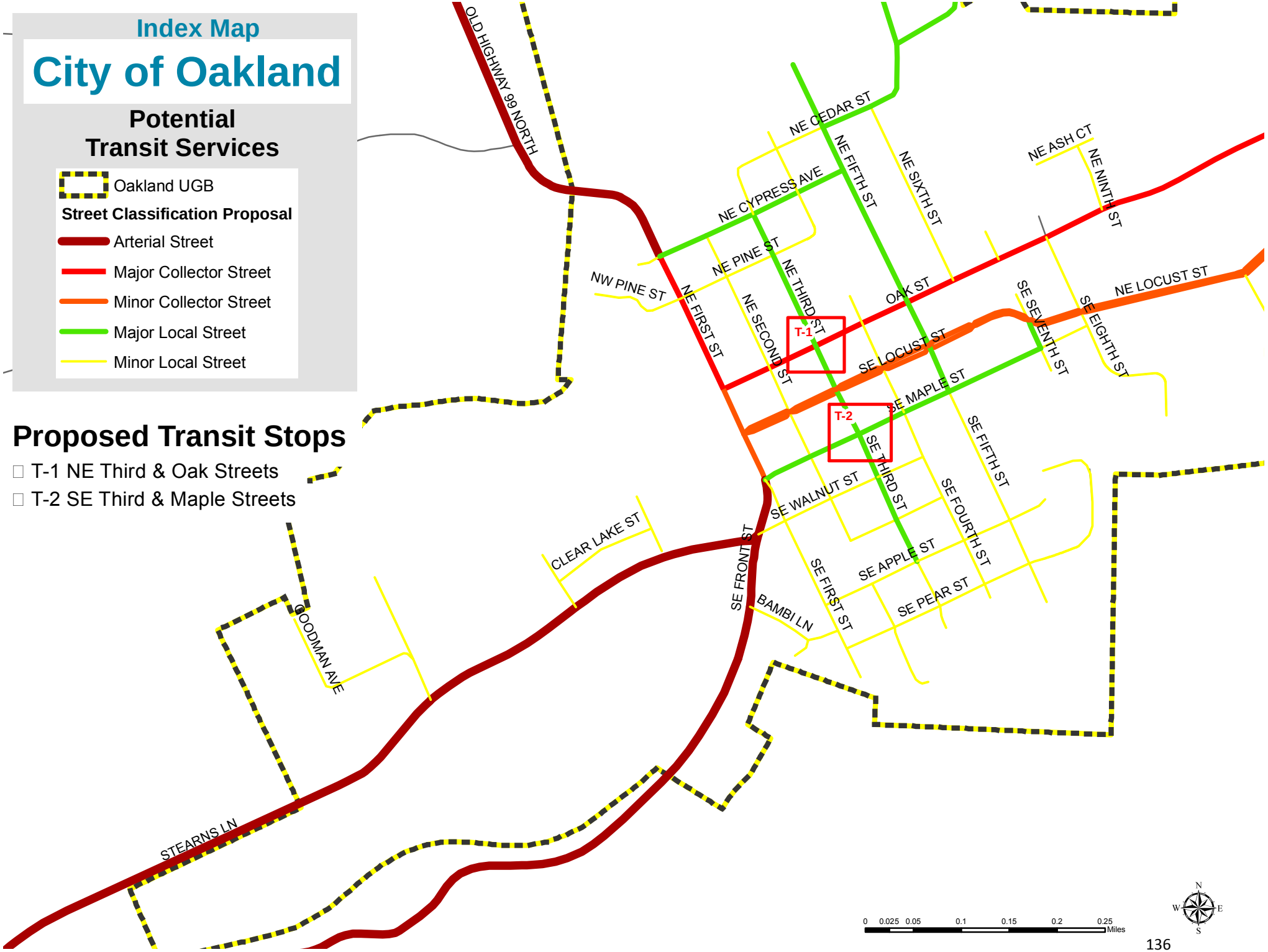

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City of Oakland

Attachment B

Storm & Drainage Issues with Non-ADA Sidewalks

Collapsed Storm Drains

"Collapsed storm drain sections discussed by contractor. There is stand up cave under rail-road track next to the Water Plant on south crossing drain."

Non-ADA Sidewalks

"Non-ADA sidewalks that need to be replaced or modified. Or Sidewalks that are repaired or improved."

Streets Lacking Drainage

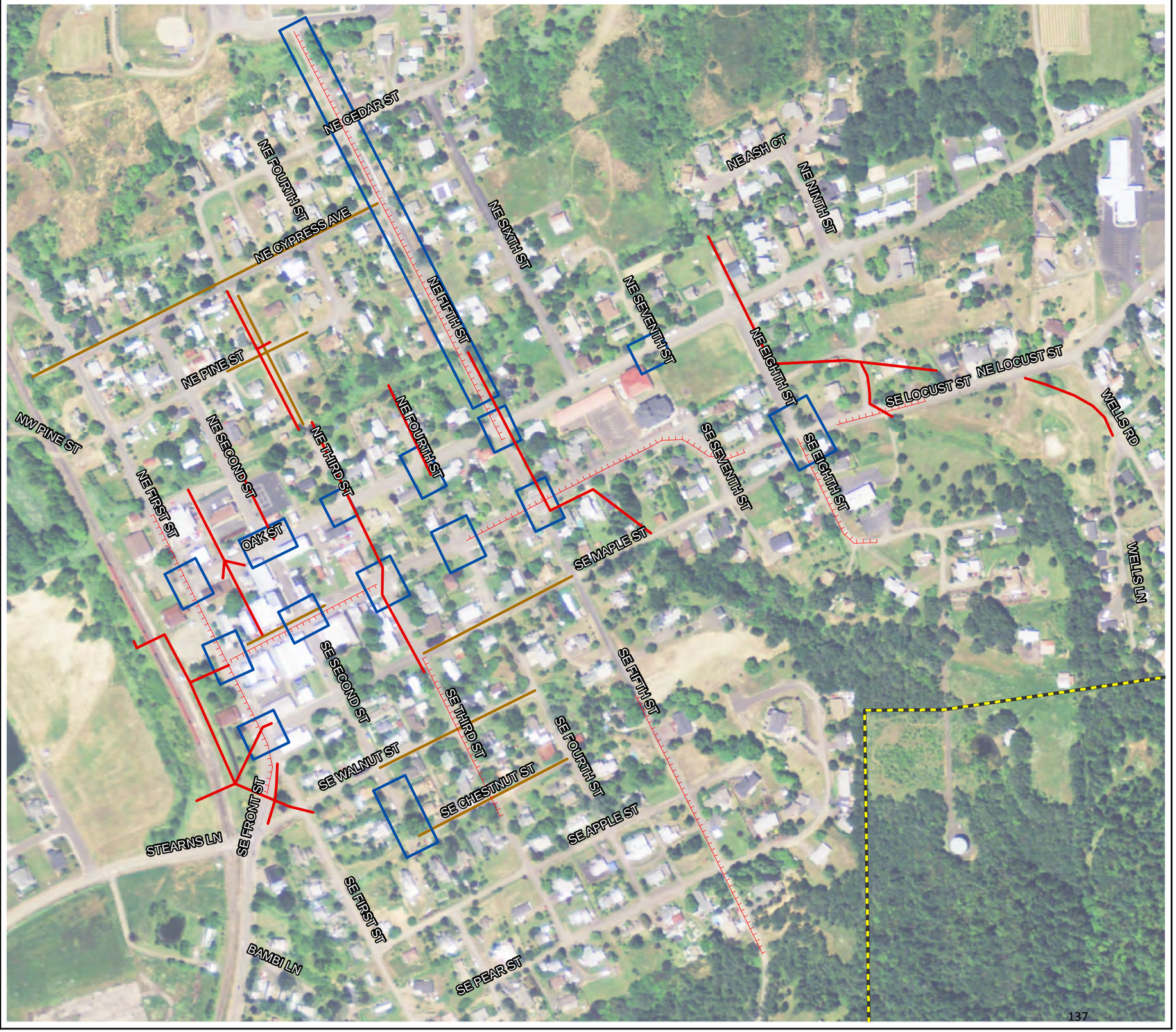
"Street where lack of drainage has caused sink-holes, undermining, street surface failures or early road deterioration that both kids and cars have fallen into over the past five years."

Streets with Water Run Off

"Streets where runoff is going into private homes, basements that have reported damage, claims or accidents."

Oakland UGB

0 0.05 0.1 0.2 Miles



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Oakland Local Street Network Plan

Technical Memorandum 5: Functional Classification and Design Standards

I. INTRODUCTION AND PURPOSE

A. Street Classifications and Street Design Standards for Oakland's Transportation System

Technical Memoranda 1, 2 and 3 provided significant background information for the Local Street Network Plan (LSP) including goals and objectives for the project, important regulatory considerations and a characterization of the existing transportation system. In September of 2014, draft versions of the technical memoranda were presented to the Project Advisory Committee, Citizen Advisory Committee, Planning Commission and City Council, and shared on the Project's website. Feedback from these groups informed final drafts of the Memoranda.

The information contained in the Memoranda, in combination with additional feedback from City of Oakland staff, the advisory committees and decision bodies, is applied in the formation of design standards and proposed adjustments to Oakland's current street classifications.

The concept of street functional classification was introduced in Technical Memorandum 3. Functional classification provides a systematic basis for determining future improvement needs, and provides general guidance to appropriate or desired vehicular street design characteristics. Design standards ensure that a street meets its identified function.

B. Determining Functional Classification

Roadway functional classification should be based on the relative priority of traffic mobility and access. 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 spectrum of mobility and access 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. As noted, different levels of access and mobility can be facilitated by different design standards. Functional classifications can be used to express design expectations related to bicycle and pedestrian uses as well.

II. PROPOSED STREET FUNCTIONAL CLASSIFICATIONS

Any change to a functional classification simply represents a change in standards that would be applied when improvements are desired or necessary. This could happen in combination with City directed street wide or intersection improvements, or as individual development triggers it. The changing of a functional classification of a street system does not require immediate reconstruction/improvement of the street. The reclassification of a street allows the street design when upgrades occur to align with current/planned roadway uses/trends.

The project team is proposing new street functional classifications for the City of Oakland. Local Functional Classification currently falls within the categories: Arterial, Collector, Local and Alley.

This Technical Memorandum and accompanying map (Map 1) propose new functional classifications and assignments. This includes the division of the Collector Street classification into Minor and Major Collector(s) and Local Streets into Local and Major Local streets. Since a significant amount of distinction exists within Oakland's local street inventory there is a need to implement subcategories. This would primarily distinguish between local roads which would be well-served by things like sidewalks and those where such improvements are not necessary or even wise. This added variation will provide 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 proposal for street functional classification descriptions for the City of Oakland, followed by a summary table of streets by their proposed functional class.

A. Arterial Streets:

Primary purpose: 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.
Design features: 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.

Currently Oakland has three arterial streets, Old Highway 99/Front/First Street, Stearns Lane, and Oak Street. The proposed changes include the removal of Oak Street as an arterial, as well as the stretch of First Street/Old Highway 99 for two blocks of the downtown core (between Oak and Maple Streets). Although arterials are critical elements in Oakland's transportation system, they are all under the jurisdiction of Douglas County. Proposed improvements and identified local needs have to be closely coordinated with County Public Works staff. To that end, Oakland and project staff met with Douglas County Public Works staff on February 24th, 2015. During that meeting it was determined, among other things, that the County's odd classification of Oak Street as a "Local" street is unintentional and simply went unnoticed at the time of jurisdictional transfer (form the City to the County).

Project staff are proposing a similar dynamic for arterial streets to that which currently exists in Oakland with a few exceptions. It is proposed that Oak Street no longer be considered an arterial and to limit local arterial designation of Old Highway 99/Front/First Street to the stretches north of Oak Street and south of Maple Street. The proposal is depicted in Map 1. This recommendation is rooted in the fact that 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.). The proposal to

change the downtown portions of Old Highway 99/Front/First Street are based on the unique dynamic present for those two blocks. Considerable evaluation and thought should be given to this short stretch, as it will need to address mobility (through traffic) as well as access and design elements compatible and appropriate for Oakland's unique downtown.

Current	Proposed
Old Highway 99/Front/First	Old Highway 99/Front/First (part)
Stearns Lane	Stearns Lane
Oak Street	

B. Collector Streets:

<u>Primary purpose</u>: Collector level streets provide access and circulation between local streets. Neighborhoods, and arterial street and serve as a primary route for local 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.

Currently Oakland has five collector streets, Cypress Avenue, NE 5th 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, project staff are proposing that the City of Oakland consider Locust Street and the portion of First Street (Old Hwy 99) adjacent to downtown (between Oak Street and Maple Street) as Minor Collector Streets. A review of the current functions of these streets

Again, based on current function, project staff are also proposing that the City of Oakland consider Oak Street as a Major Collectors. This designation will give Oak Street a chance for speeds lower than an arterial and will be more conducive to the existing on street parking dynamic and high occurrence of direct access. The proposal is depicted in Map 1.

Current Collector Streets	Proposed Collector Streets
Locust Street	Locust (Minor Collector)
Cypress Avenue	First Street –Downtown (Minor Collector)
Cedar Street	Oak Street (Major Collector)
NE Fifth Street	
SE Third Street	

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 liveablity of neighborhoods and mobility is a low priority.
<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. Minor local streets are designed to maintain the historic rural feel of the community.* *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 not have sidewalks. Below is an example of a newer residential subdivision that included these design elements.*

The overwhelming 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, project staff are proposing that the City of Oakland consider the following streets for designation as Major Local 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) and the southern end of Old Town Loop Rd. All remaining streets currently classified as local will be designated as Minor Local Streets. The proposal is depicted in Map 1.

Current Local	Proposed 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

Alleys:

<u>Primary purpose</u>: 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.
<u>Design features:</u> 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.

III. STREET DESIGN STANDARDS

Design and construction standards for arterial, collector, and local streets are summarized in the following pages and illustrated in Figures 1 through 8. 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.

The proposed new street standards are intended to improve pedestrian and bicycle access through 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. Private property owners would maintain the street trees.

The following tables list the proposed street standards. Proposed street standards are illustrated in the figures that follow.

A. Arterial Streets

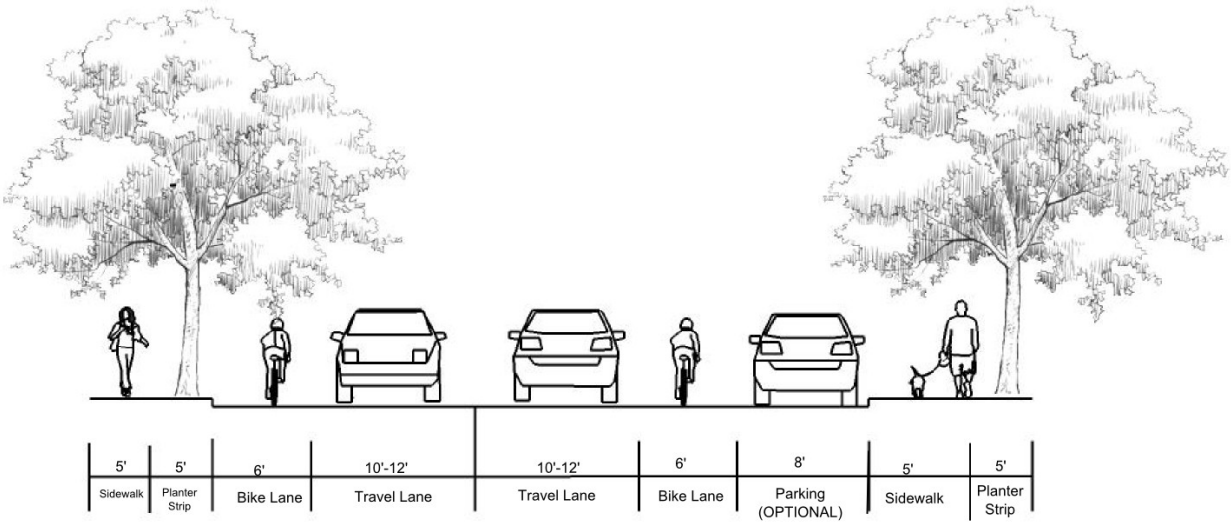
The Public Works Director shall determine the extent and nature of other improvements required in arterial streets on a case-by-case basis, but at minimum must incorporate the following standards.

Table 1: 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	2	none	Two 10-12-foot lanes	Two 6-foot bike lanes	Allowed both sides (optional design)	5-foot minimum width required both sides Option-	Required both sides	5-10 foot-wide sidewalks required on both sides of

	required improvements, rounded up to nearest interval of 5 feet.						curbside planter strip or at back of sidewalk		the street unless otherwise specified. Option to provide curbside or setback sidewalk.

Figure 1: ARTERIAL STREET DESIGN STANDARDS



B. Major Collector Streets

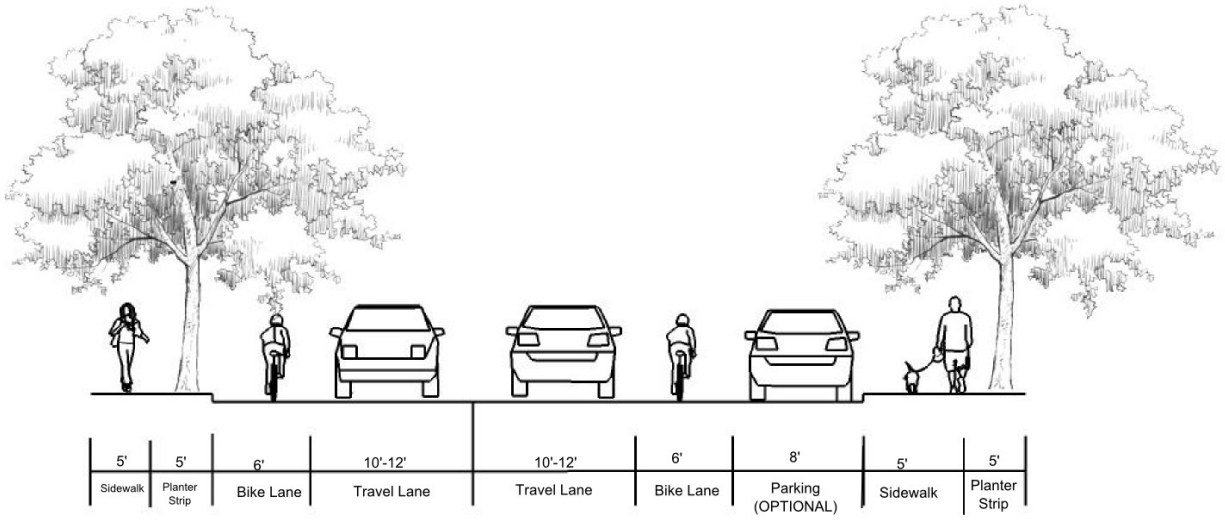
The chart and diagram below establish the extent and nature of the improvements that must be provided in major collector streets.

Table 2: MAJOR 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	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	Required both sides.	5-10 foot-wide sidewalks required on both sides of the street

	width of required improvements.					Option-curbside planter strip or at back of sidewalk		unless otherwise specified. Option to provide curbside or setback sidewalk

Figure 2: MAJOR COLLECTOR STREET DESIGN STANDARDS



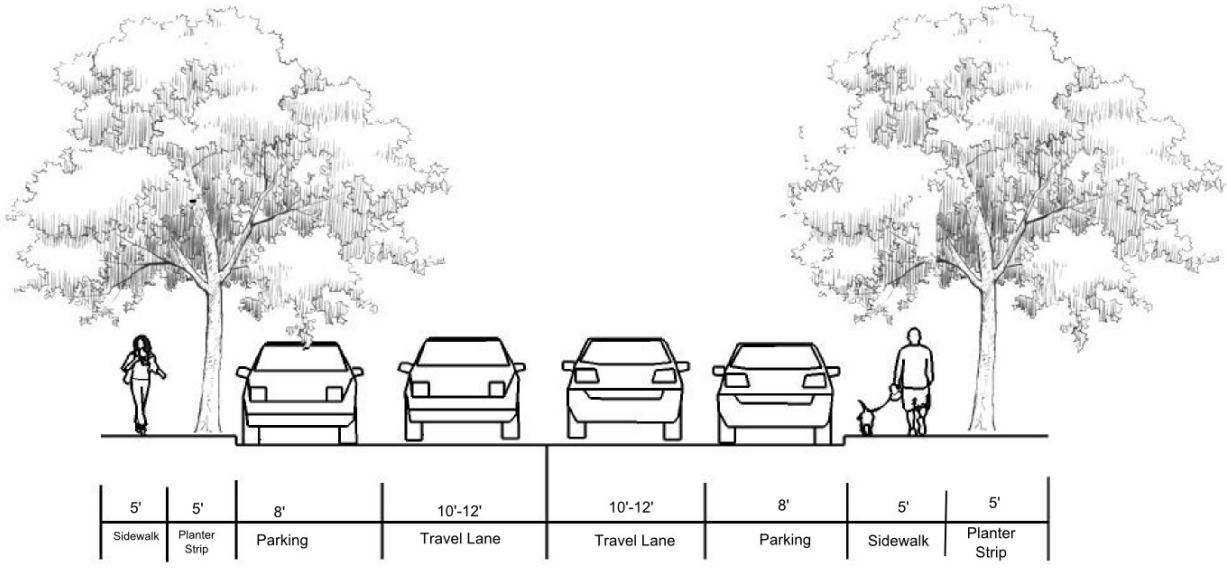
C. Minor Collector streets

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

Table 3: MINOR COLLECTORSTREET 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 3: MINOR COLLECTOR STREET DESIGN STANDARDS



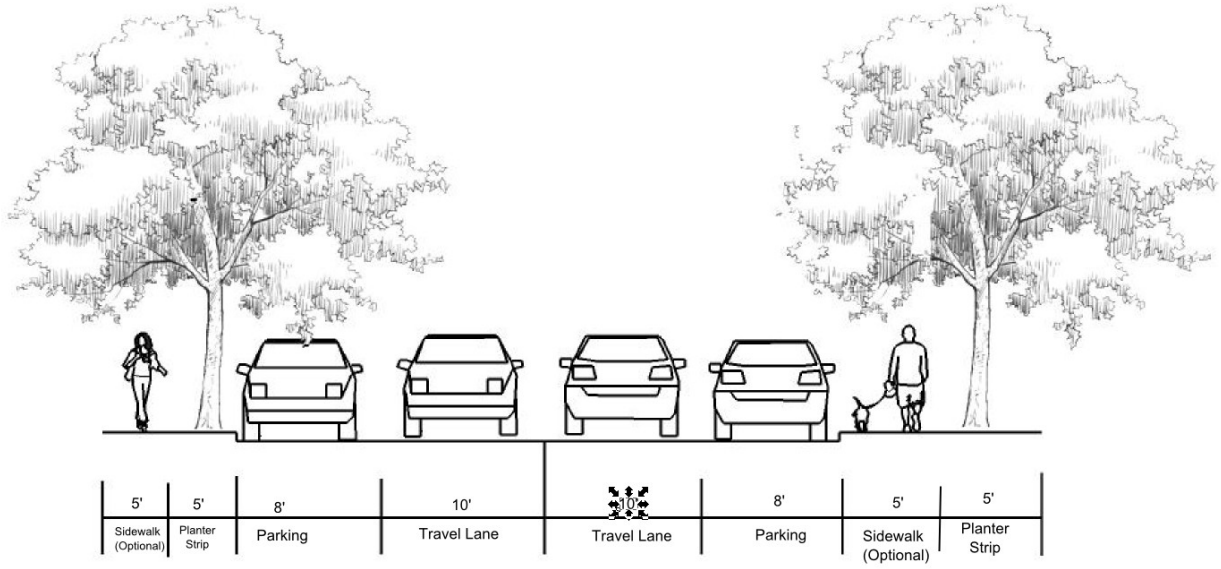
D. Major Local Access Streets

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 bike amenities.

Table 4: 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

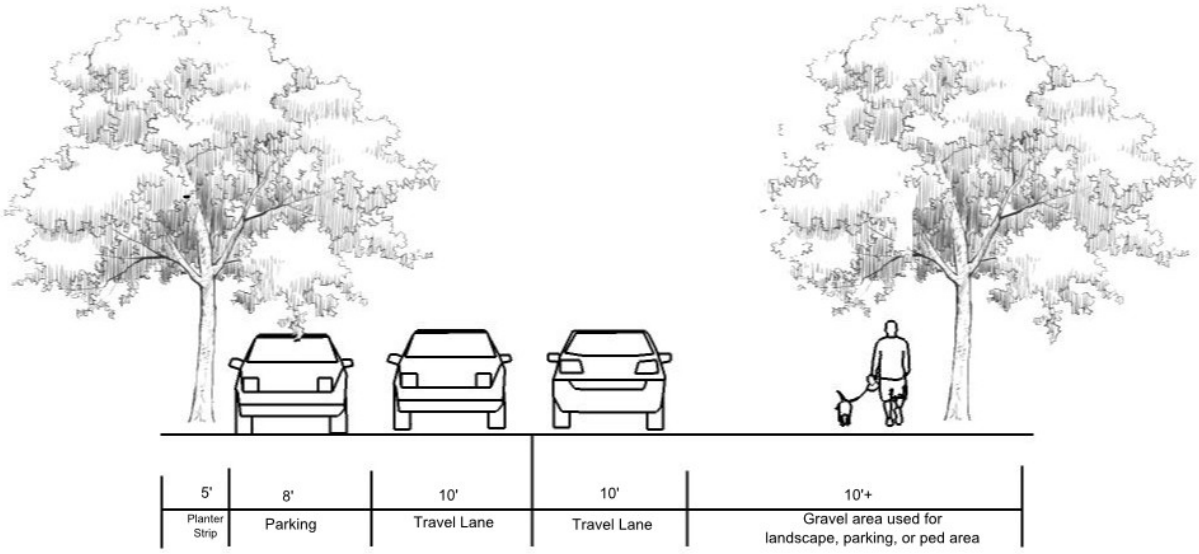
Figure 3: MAJOR LOCAL ACCESS STREET DESIGN STANDARDS



E. Local (Minor) Access Streets

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

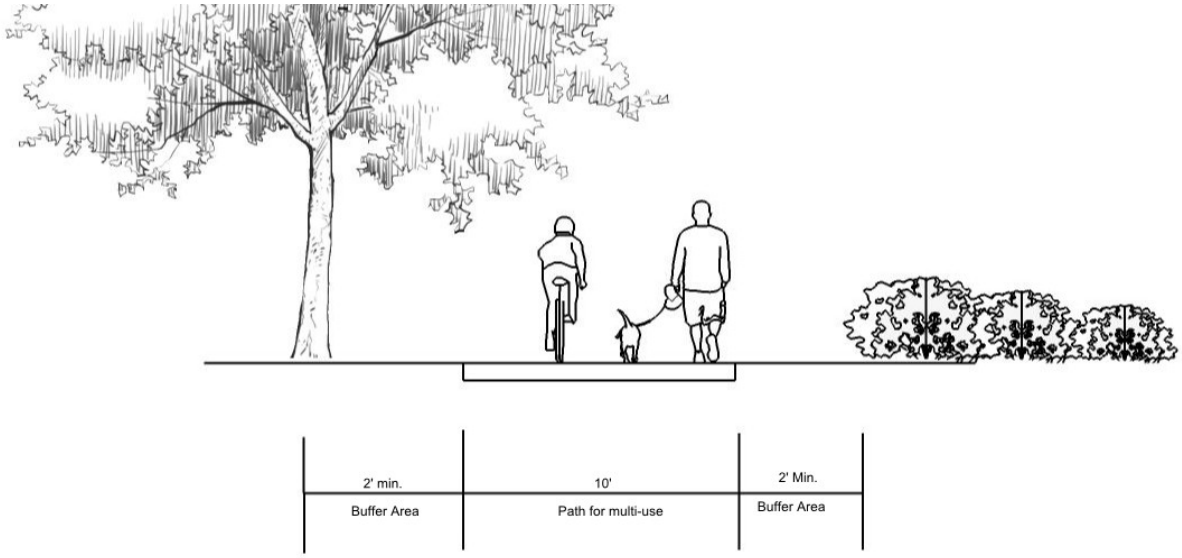
Figure 4: LOCAL (MINOR) ACCESS STREET DESIGN STANDARDS



G. Bicycle/Pedestrian Pathways

The diagram below establishes the extent and nature of the improvements that must be provided for a bicycle/pedestrian pathway that is not associated with a street.

Figure 5: BICYCLE/PEDESTRIAN PATHWAY DESIGN STANDARDS



Attachment B: Proposed 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
Old Highway 99 North	North City Limits	NE Cypress Avenue	Arterial
Old 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	Old 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	Old 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	Old Highway 99	Local
NW Pine Street	NE First Street	NE Fourth Street	Local
Old Town Cemetery Rd.	Old 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

Map 1

City of Oakland

Street Classification Proposal

Oakland Parcels

Oakland UGB

Classification Proposal

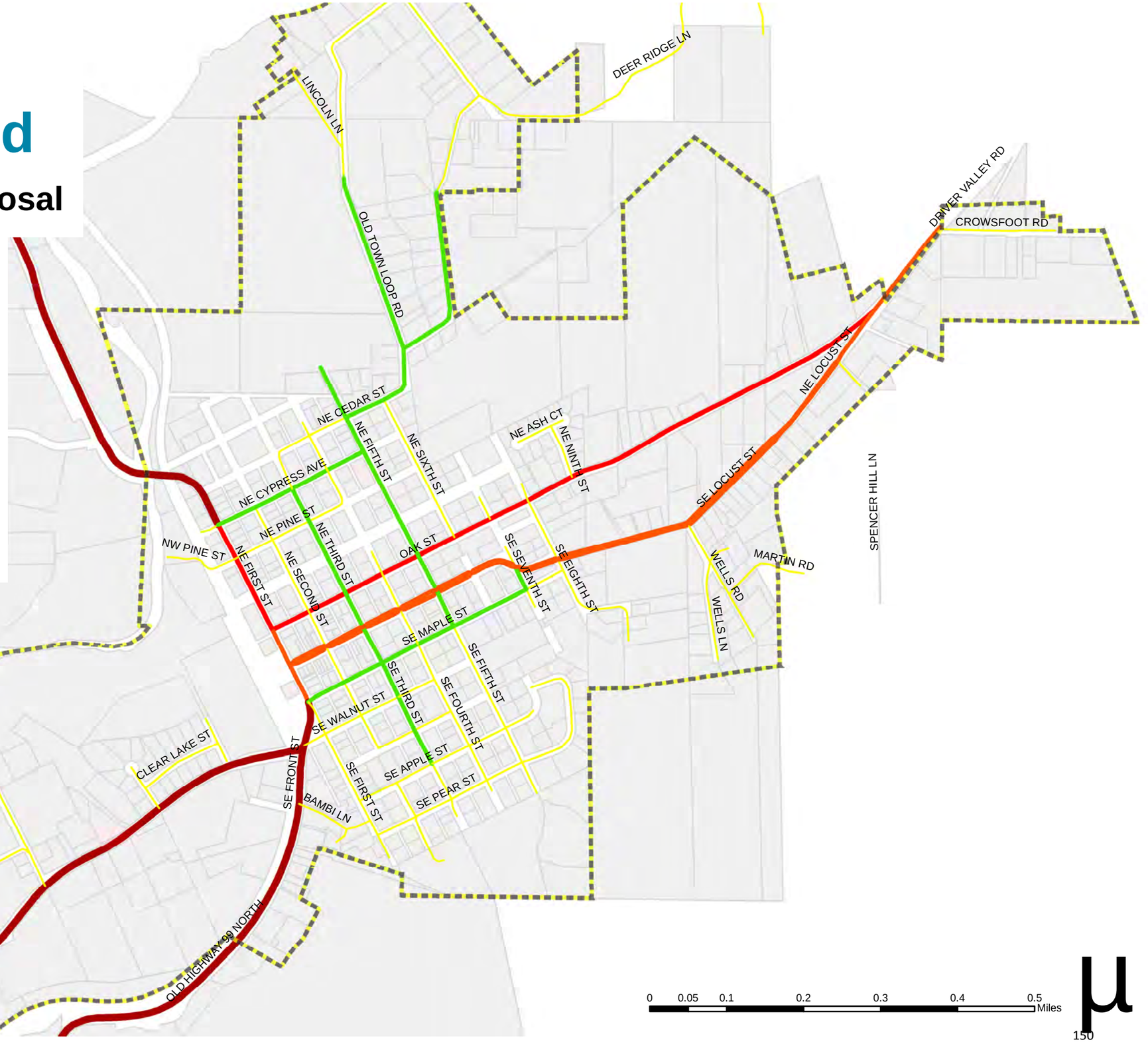
Arterial

Major Collector

Minor Collector

Major Local

Minor Local



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Created By: LCOG Oct. 2014

Oakland Local Street Network Plan

Technical Memorandum 6: Funding

I. INTRODUCTION AND PURPOSE

This memo characterizes the City of Oakland's current budget and financing relative to transportation. Also included is a discussion of available funding mechanisms as well as a summary of the project planning-level costs, and implementation priorities presented in Memorandum 4. For some projects, it is not possible to generate a conceptual cost estimate, due to unknown variables in the scale or scope of the project. Detailed unit-cost estimates and assumptions for each project are included in Memorandum 4. The Oakland Local Street Network Plan Project does not include funding in support of construction projects.

II. TRANSPORTATION FINANCE PLAN

The City of Oakland has conducted a thorough 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.

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.

A. Existing Transportation Funding within Oakland

Like many small cities in Oregon and elsewhere, The City of Oakland Public Works Department must maintains 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 proposed 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 memorandum.

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 addressing long term or immediate priorities.

B. Federal Grants/Programs

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 1 st 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% 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 and the state disperses 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 about 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 as needed in connection with outdoor recreation activities.

C. 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 still can 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.

D. 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 proposed 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.

E. Other Current and Potential Funding Sources

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 be 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, s/he 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
In general, the users pay based on their use of, or impact on, the system.

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 they are not available for new transportation projects are 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.

III. FUNDING RECOMMENDATIONS

It will be challenging for the City to develop internal resources to address transportation development, and any amount of progress with local funding will certainly take time. It is recommended, in the meantime, that the City utilize available state and federal funding sources for priority projects. Additionally, bike 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 has established appropriate policies for funding local transportation projects. As local funding becomes available, the City can reprioritize projects based on need and resource availability.

Projects/Improvements List

Costs for individual street, bicycle and pedestrian project alternatives of the local street network plan have been developed. Detail related to the projects themselves are included in Technical Memorandum 4 and its attachments.

Project costs 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. Technical Memorandum 7 will include the final list of projects and may include greater detail in some instances

Table 1 presents, for each project, the rough capital cost, the potential funding partners (e.g., City, County, and/or State), and an estimate at a City share of project costs. As noted, Douglas County would have or share responsibility for a number of the roadway, bicycle facilities, and pedestrian facilities in the plan. It is noted that costs associated with storm drain repair or sub surface work is not included, but should be considered and evaluated where drainage issues are documented. The total estimated cost for all projects is about $5 million in 2014 dollars. The City's share of these projects would be about $2.25 million, or about 53 percent of the total cost.

The City's funding of these projects will require additional revenue sources. A review of the City's current funding ability has revealed why new sources are needed.

Table 1: Rough Cost Estimates (Reference Technical Memorandum 4, Attachment A)

Location	Intersection Improvements	Anticipated Costs Design & Construction*
A-3 Oak Street and 5th Street	Curb Extensions, crosswalk paint, signage	$12,500-$15,000
	Install Rectangular Rapid Flashing Beacon	$35,000
A-4 Cedar Street and Fifth Street	Signage and Striping for all way stop	$2,000
A-1 Oak and 1st Street	Low Cost: signage and striping	$2,000
	Long Rang: curb extensions, new sidewalk	$50,000
A-2 Locust Street and Seventh Street	New Curb and Striping to parking area	$10,000-15,000
A-6 Pine Street (between Fourth and Sixth	New road built to minor local standards	$350,000
A-7 Chestnut (between Second and South East First)	New road built to minor local standards	$175,000
P-5 Off Street Path	New asphalt pathway	$525,000
P-6 Off Street Path	New asphalt pathway	$425,000
P-7 Ash Street Path	New asphalt pathway	$325,000
P-9 Calapooya Creek Path	New asphalt pathway	$1,950,000
P-10 Railroad path	New asphalt patheway	$325,000

Project Priorities

The improvements list should be prioritized based on priorities from the LSP technical advisory committee, LSP 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 could include: high (0 to 5 years), medium (6-15 years), and low (16+ years). Project priorities for the

can be modified and moved up or down based upon actual development growth that occurs in the City of Oakland.

The following projects have been prioritized and recommended as high priorities **(0 to 5 years**) and can change priority level based upon actual growth that occurs in the City:

- **A-3 Oak Street and 5th Street**
- **A-4 Cedar Street and Fifth Street**
- **P-1 Fifth Street (Oak street to the school)**
- **P-3 Oak Street (1st Street to 8th Street)**
- **B-5 Locust Street (Apple Street to Cypress Street)**

The following projects have been prioritized and recommended as medium priorities (**6 to 15 years**) and can change priority level based upon actual growth that occurs in the City:

- **A-1 Oak and 1st Street & Oak and Locust Street**
- **A-2 Locust Street and Seventh Street**
- **A-6 Pine Street (between Fourth and Sixth**
- **A-7 Chestnut (between Second and South East First)**
- **P-2 Third Street (Apple Street to Cypress Street)**
- **P-4 Cypress Avenue & NE 1st (1st Street around to 5th Street)**
- **P-7 Ash Street Right-of-Way Path**
- **P-8 Ash Right-of-Way (ROW) & Pine Street Railroad Crossings**
- **P-9 Calapooya Creek Multi-Use Path (through city owned open space property)**
- **B-4 Third Street (1st Street to 8th Street)**
- **B-1 Maple Street (Front Street to 7th Street)**

The remaining projects have been prioritized and recommended as low priorities (**16+ years**) and can change priority level based upon actual growth that occurs in the City.

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

FUNDING SOURCE	PROGRAM NAME	WEB ADDRESS	USES						APPLICANTS					
			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	

Map 1
City of Oakland
Street Classification Proposal
&
Conceptual Streets

Oakland Parcels

Oakland UGB

Classification Proposal

Arterial

Major Collector

Minor Collector

Major Local

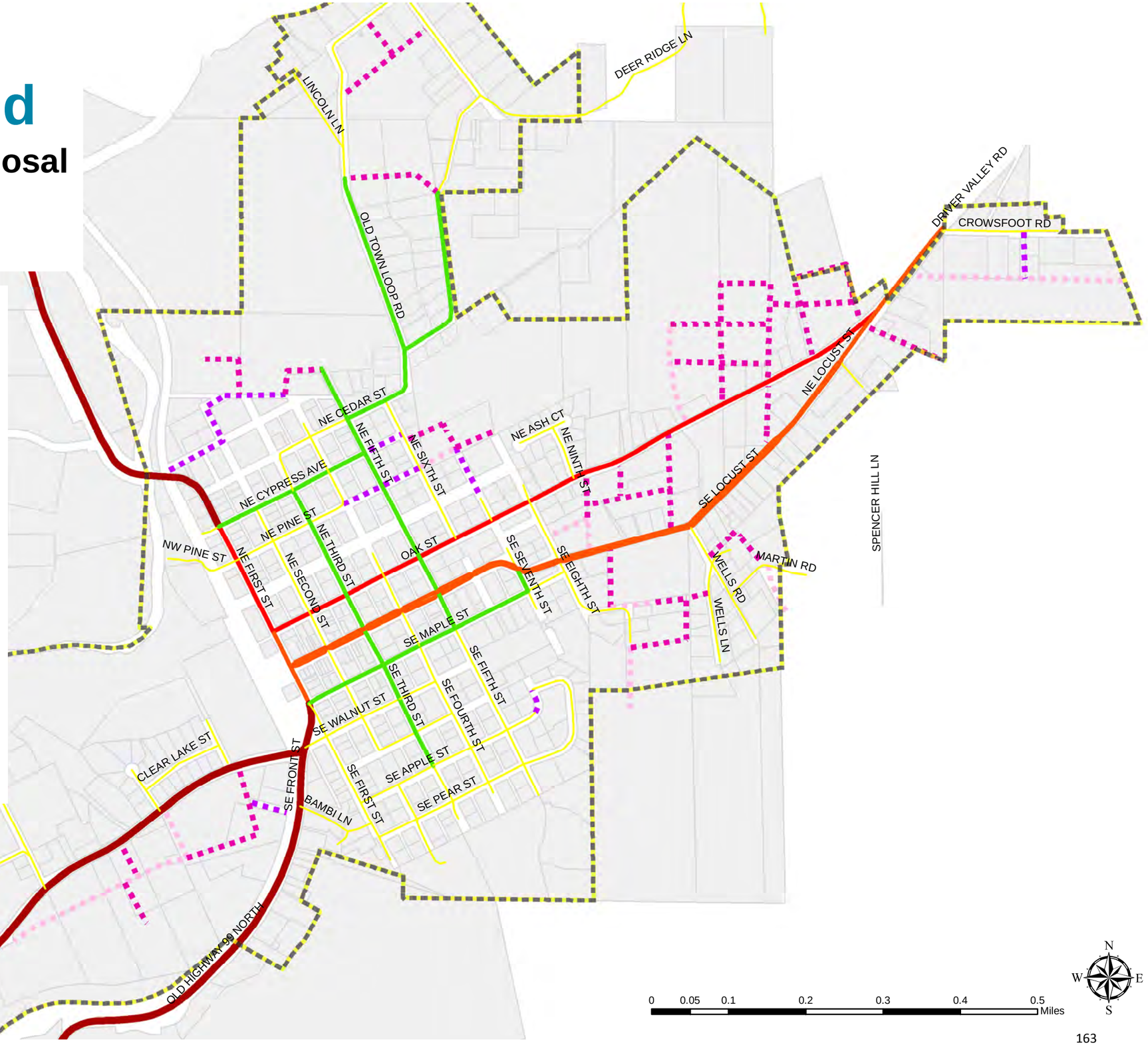
Minor Local

Conceptual Streets

Other Conceptual

Exisitng Improvements

Existing Right of Way



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Created By: LCOG April 2015

Map 2

City of Oakland

Proposed Sidewalks

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

N
W E
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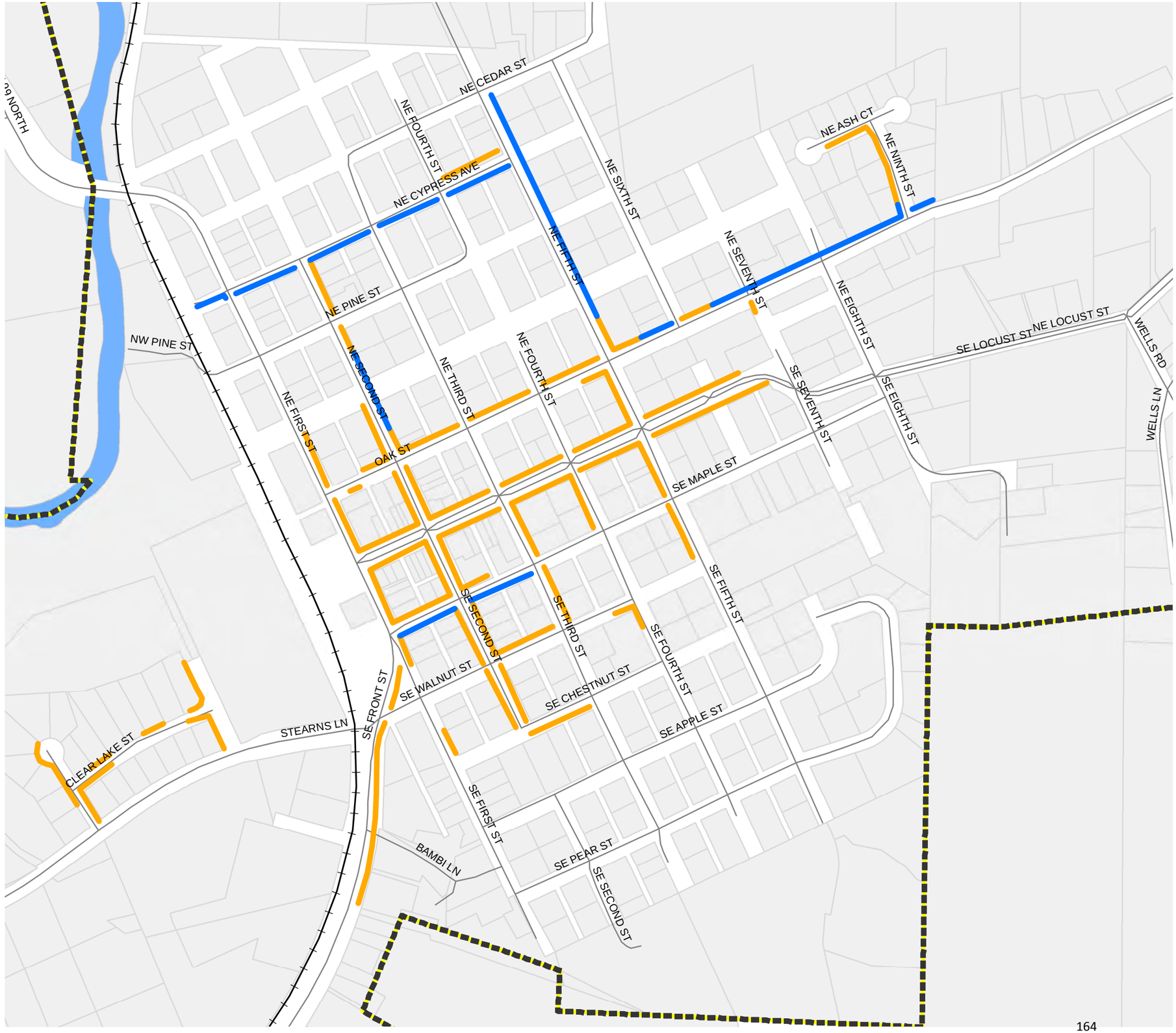
0 0.025 0.05 0.1 0.15 0.2 0.25 Miles



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Created By: LCOG April. 2015

Map 3

City of Oakland

Street Pavement

Urban Growth Boundary

Oakland Parcels

Oakland Streams

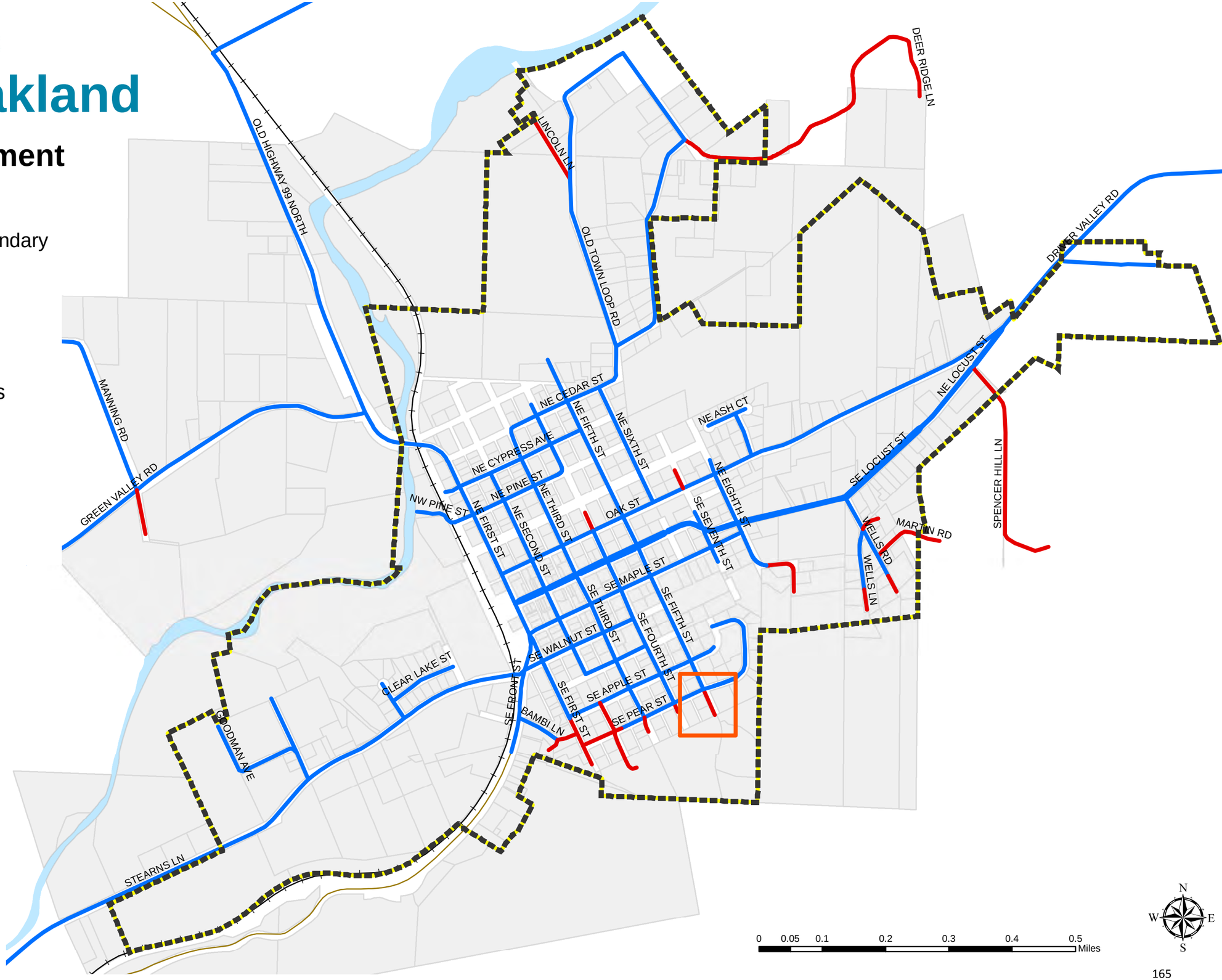
Oakland Railroads

Street Pavement Type

Asphalt

Gravel

Priority Areas



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Created By: LCOG March 2015

Oakland Local Street Network Plan

Technical Memorandum 7: Preferred Alternatives

I. *Introduction and Purpose*

Technical Memorandum 7 contains a synopsis of the preferred improvement alternatives for the bicycle system, pedestrian system, auto system, and transit system.
The preferred alternatives were developed through a collaborative process in which the project team worked with the City Council, advisory committees, and public to evaluate and prioritize improvements within the city. Improvements were organized and presented by system; automobile and bicycle and pedestrian. The City of Oakland's transit system is also addressed, but is limited in its extent and, therefore included with the section addressing automobile system improvements.

Concept level designs and maps were prepared for each proposed improvement alternatives as well as 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 Technical Memorandum 1.

Improvements address connectivity, safety, geometry (how an intersection is configured), and issue accessibility (e.g. Americans with Disabilities Act). Improvements 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.

A. Evaluation Criteria

Because the full list of desired projects and needs outstrip available funding or potentially conflict with other projects, it is important to determine priorities for potential projects or groups of projects or whether they should be considered for adoption and potential funding at all. To address these larger questions, evaluation criteria was developed and described within Technical Memorandum 4. The criteria refines how projects/concepts could/should be advanced, and assigned projects for short-range or longer-range implementation.

Following are the overall project evaluation criteria (outlined in Technical Memorandum 1 and 4):

- Provides access to lands for development: provides the maximum access to developable lands as well as connecting existing streets to the broader system
- Provides adequate access for emergency service vehicles: creates connections to existing dead ends and expands options for residential areas that previously had limited points of access. Provides consistent street design standards for new development.

- Provides safe, efficient, and effective movement of goods, services, and people: creates a system of arterials to direct heavy traffic effectively through the community and maintains local access roads for residents
- Provides safe and well-integrated opportunities for pedestrian and bicycle pathways: creates a system of sidewalks, with special attention to school access.
- Minimizes energy consumption in terms of vehicle miles traveled as well as in terms of street construction and maintenance: the grid system creates opportunity for more direct routes as well as opportunities for walking and cycling.
- Supports downtown as the major commercial service area; provides more local access to the downtown commercial area, while concentrating heavier traffic on arterial and collector routes.
- Sustainable and Feasible Costs for Construction and Maintenance: this is the highest cost option, but creative solutions to financing and funding street improvements will be explored for the final Street Network Plan.

Ultimately, the practical considerations for priorities include the criteria above as well as the following:

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

Environmental impacts must also be considered for each alternative. A number of conceptual 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 will be flagged in the LSP's projects summary as being highly likely to involve potential resource conflicts, and will include some detail on those potential impacts.

II. AUTOMOBILE TRANSPORTATION SYSTEM

A. Automobile System Improvement Project Concepts and Alternatives

Feedback from local staff, committees, decision makers and insights from site visits and data analysis are assembled into a list of project concepts and alternatives. The concepts and alternatives are presented in greater detail in the form of draft prospectus sheets (Attachment A).

B. Street Improvements (including reclassification)

Any street reclassification will have improvement implications for the automobile system. Technical Memorandum 5 provides greater detail for the considerations for and determination of Street Functional Class. The following streets are proposed for reclassification but the

detailed summaries for each are contained within Attachment A. Map 1 presents the comprehensive proposal of street functional classifications.

- *Fifth Street (Oak street to the school)*
- *Oak Street (1st Street to 8th Street)*
- *Cypress Avenue & NE 1st (1st Street around to 5th Street)*
- *Maple Street (Front Street to 7th Street)*
- *Locust Street (Apple Street to Cypress Street)*

Conceptual Streets
Utilizing local insights, site visits, topographic dynamics and existing development patterns, project staff developed over a dozen conceptual street alternatives. As noted in Technical Memorandum 4, the conceptual street alternatives are meant to serve as a guide as undeveloped parcels develop within the community (according to the discretion and timing of property owners). The locations of actual street alignments will be determined at the time of development based on numerous factors, some of which cannot be adequately evaluated in this analysis. These proposed streets are located primarily in vacant residential lands north and east of downtown and strive to preserve connectivity by continuing the existing grid system. Some proposed future streets would occupy existing rights-of-way, which may be determined to be underutilized, while others would require street dedication as required by future development.

Advisory Committee, City Council, Planning Commission and public review of the proposed conceptual streets map resulted in a few issues and ultimately the removal of several conceptual streets. The remaining conceptual streets will be aggregated into a distinct map figure that will be included and adopted as part of the Local Street Network Plan. A draft of this map is included in Map 2, and remains open to feedback and revision.

C. Prioritization Considerations
Because resources are very limited and funding opportunities must be focused and directed. Projects have been prioritized and recommended as high priority **(0 to 5 years)**, medium priority **(6-15 years),** and lower priority **(16+ years)** projects can change priority level based upon actual growth that occurs in the City:

D. System Maintenance
Preservation, maintenance, and operation are essential to protect the city 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.

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. A draft inventory of priority paving improvement areas is included as Map 3, and remains open to feedback and revision.

III. PEDESTRIAN TRANSPORTATION SYSTEM

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 described identified in the LSP, although in some cases, sidewalks could be retrofitted onto existing roads.

Advisory Committee, 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 4 and remains open to feedback and revision.

IV. BICYCLE TRANSPORTATION SYSTEM

The PAC, CAC as well as Oakland's Planning Commissions and City Council have 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 bike facilities. County bike facilities at the edges of the city are all Class III or Class IIIs bikeways that share the roadway with traffic. 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 designated facilities connecting residential neighborhoods to commercial areas and schools for convenient and safe local bicycle travel. In the future, bike 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 the roadway improvement projects. In some cases, bicycle lanes should be retrofitted onto existing arterial and collector streets. Specific recommended bicycle projects are listed below and presented in more detail in Attachment A.

Included in the proposed improvement for the bicycle network are number of off-street multi-use paths, providing improved bicycle access to city open spaces and parks, and taking advantage, in some instances, taking advantage of underutilized public amenities and rights-of-way, including the possibility of using Ash Creek as a bicycle and pedestrian path connecting residents to open space on the east side of the railroad.

V. IMPROVEMENT PRIORITIZATION

Because resources and funding opportunities are very limited street network improvements must be focused and directed. As noted, any project and improvement prioritization was evaluated by the PAC, CAC and decision making bodies. Projects have been prioritized and recommended as higher priority **(activity within 0 to 5 years)**, medium priority **(activity within 6-15 years),** and lower priority **(16+ years).** Improvement priorities can be reevaluated based upon actual growth and other trends or needs occurring within the City. It is noted that some projects which ranked relatively highly against criteria are not always included as high priorities. In these instances other factors influence the priority, such as street jurisdiction or the sheer magnitude of the project. Table 1 summarizes the projects, their recommended priority and costs, while Table 2 provides priority in the context of the criteria evaluation. Cost estimates 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 sixteen year 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 these are planning cost estimate and will require further investigation and analysis for greater specificity.

Table 1: Prioritized Improvement Alternatives

Intersection/Corridor	Improvement Summary	Cost Summary*
Higher Priority (0-5 years)		
Fifth and Oak Street	Pedestrian Crossing	$25,000-$80,000
Calapooya Creek Multi-Use Path	Multi-Use Path on public open space west of RR	$1,375,000
Ash Creek Multi-Use Path	Multi-Use path in current undeveloped Ask Street ROW	$270,000 – $1,080,000
Multi-Use Path RR Crossing	A crossing at Ash, Pine or First Street	$690,000 - $1,500,000
Locust and Seventh Streets	Improvements to curve, city hall parking, and possible sidewalk between 7th and 8th	$15,000 - $30,000 ($25,000 additional for sidewalk)
First –Locust—Old Hwy 99 Street Intersections	Improvements related to signage 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 (First) and Pear (Fifth)	$60,000/$30,000 (2 12-ft travel lanes.)
Fifth Street-Cedar-Cypress	Sidewalk between Cedar and school (west side). High visibility crosswalks at Cedar and Cypress	$60,000 (sidewalk) Crossings at $500-$2,000 each
Medium Priority (6-15 years)		
Fifth Street segment improvements	Improve path and intersection dynamics between Oak 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 Old Hwy 99	Utilizing leased RR land for improved connection across RR.	$550,000
Lower Priority (16+ years)		
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 east connection	Connecting Locust and Oak east of Cty Hall	$1,575,000
Extending Cypress	Facilitating future connections and connectivity to the east by improving Cypress between 5th and 6th Streets.	$875,000
**Important additional info on prospectus sheets (Attachment A) including separation of construction and engineering costs.*		

Table 2: Criteria Evaluation of Final Alternative Recommendations ***(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 (0-5 years)										
Oak-1st-99	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 (6-15 Years)										
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 (16+ Years)										
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

Volume I: Oakland Local Street Network Plan

High Priority Projects

Corridor: NE 1st/SE 1st/Old HWY 99 | **Priority**: High

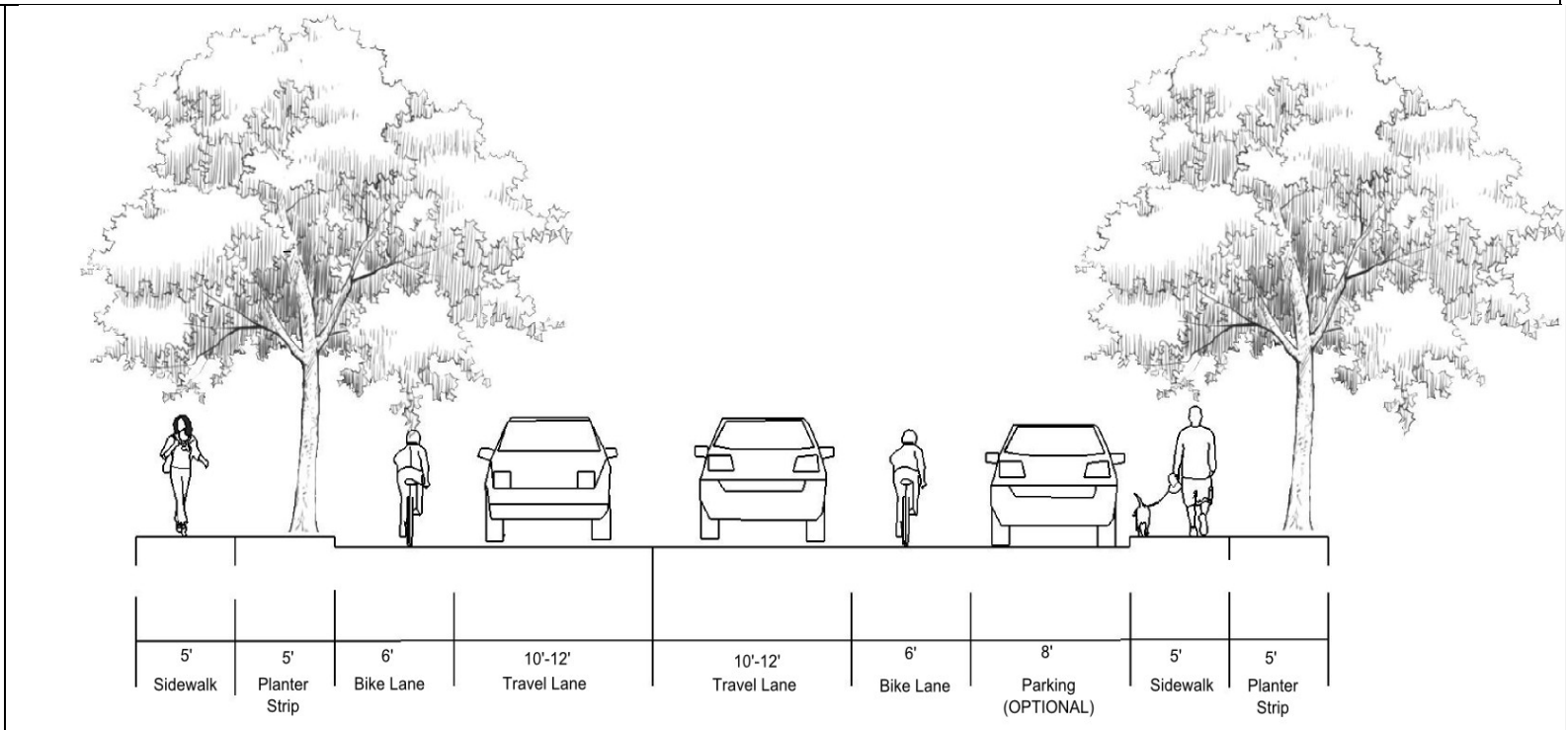
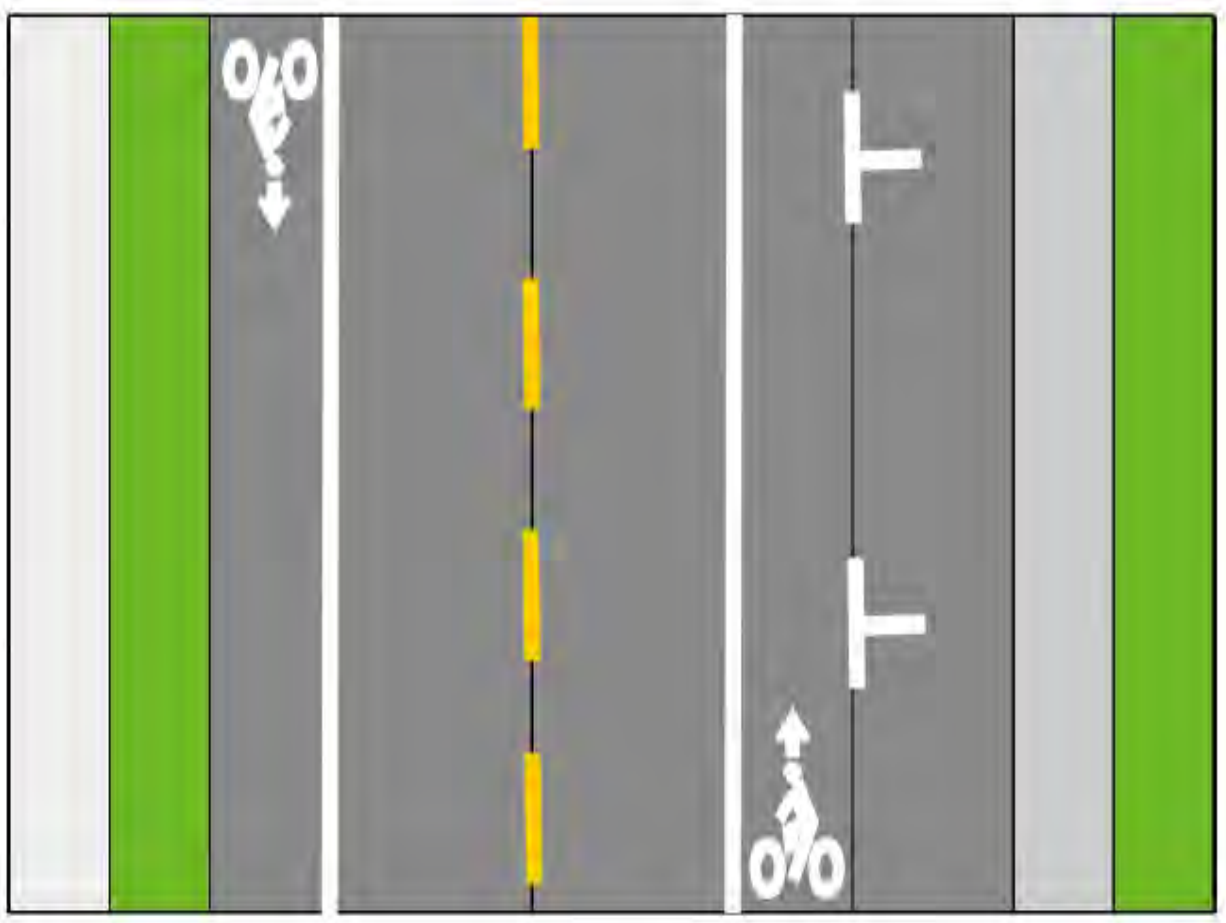
Corridor Limits: Intersections of Locust and Oak Streets at NE & SE 1st Streets

Project Elements:

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

Project Description: The intersection of Oak Street and Old Highway 99/Front Street improvements are designed 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 :	NE 1st Street 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 crossing Improve auto travel and connectivity, as well as safety and ADA compliant sidewalks.
Design Elements:	• Serve as city main street • Reduce travel speeds • Enhance crosswalks at intersections
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:	 SE & NE 1st Street at Oak St. (2014 – Google)
	 Sample Treatment Diagram for SE & NE 1st Street

Corridor: NE 1st & Oak Street, SE 1st & Locust Street	
Corridor Limits: Intersections of Locust and Oak Streets at NE & SE 1st Streets	
Sample Treatment Option:	 

Volume I: Oakland Local Street Network Plan

High Priority Projects

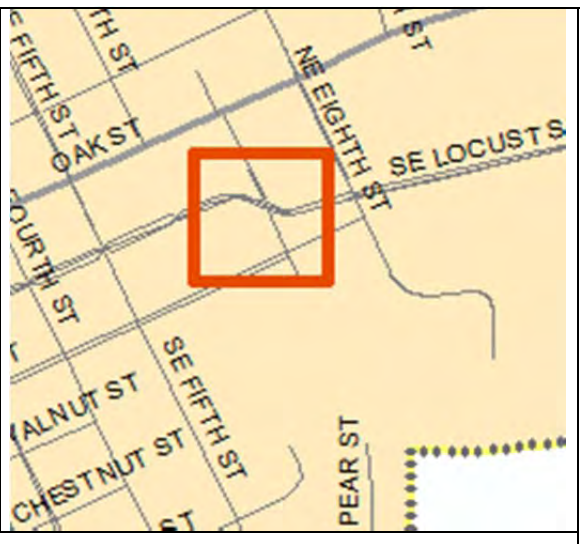
Corridor: Locust Street and SE 7th Street | **Priority**: High

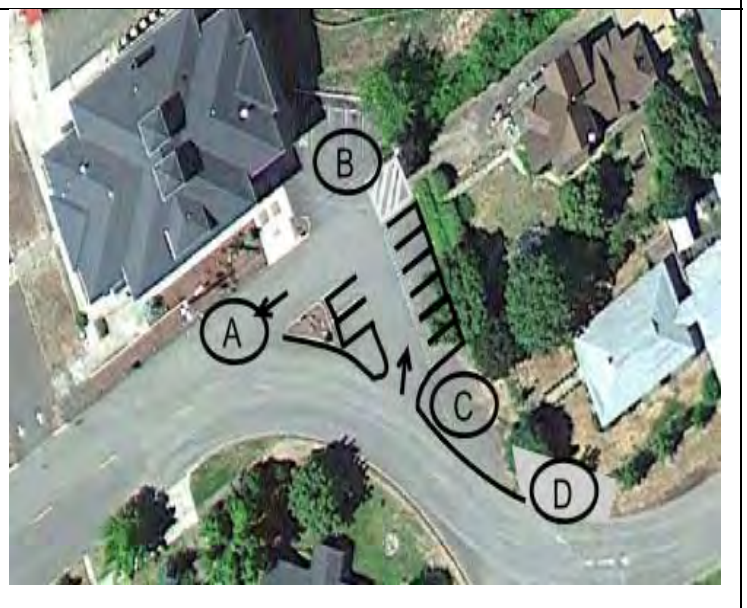
Corridor Limits: Intersection of Locust St and SE 7th Street

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:	• Removal of roadside vegetation to improve visibility
Implementation Considerations:	• Home access for property tucked along City Hall parking area. • Relocate fire hydrant or not have parking • Improve drainage • Add sidewalks on Locust north of 7th
Potential Phasing:	• Stripe traffic flow through parking area • Stripe parking lines • Remove vegetation • Add curb lines along Locust Street
Project Cost Estimates:	<u>Relocating Fire Hydrant</u> Engineering/Planning Costs: $10,000 Construction Costs: $20,000 <u>Not Relocating Fire Hydrant</u> 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

Volume I: Oakland Local Street Network Plan

High Priority Projects

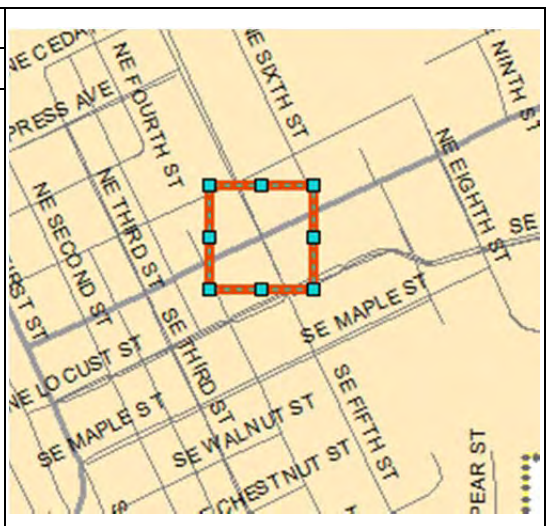
Corridor: NE 5th Street & Oak Street | **Priority**: High

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 Wa	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:	Improve pedestrian crossing and safety.	
Design Elements:	• ADA compliant sidewalks • High visibility crosswalks • Flashing beacon for school time crossings	
Implementation Considerations:	Major drainage issues in the area and high volumes of school traffic. Also, Oak Street is county jurisdiction and will need cooperation with Douglas County.	
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	
Sample Treatment Option:	Don’t need
	Don’t need
	Don’t need

Volume I: Oakland Local Street Network Plan

High Priority Projects

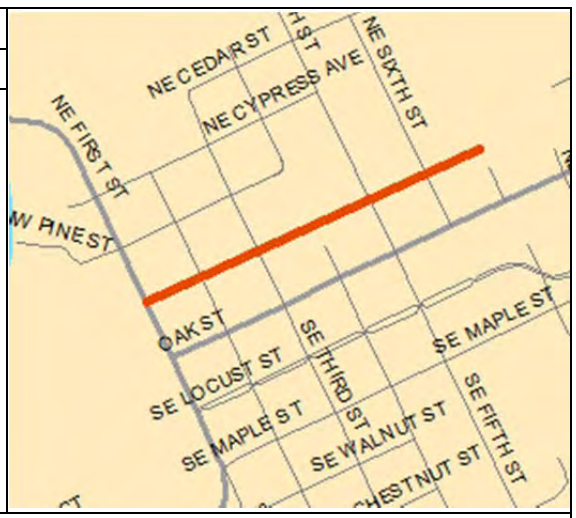
Corridor: Ash Creek Right-of-Way | **Priority**: High

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.

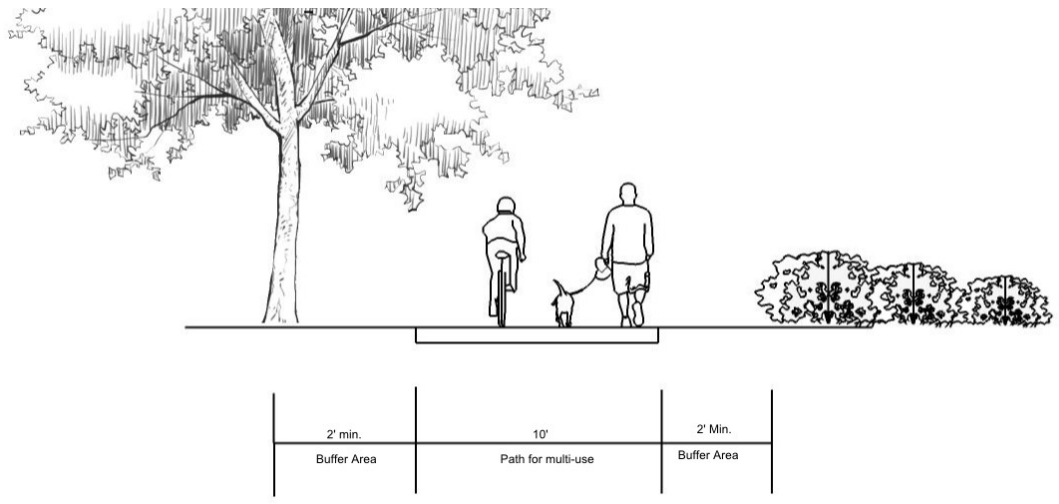


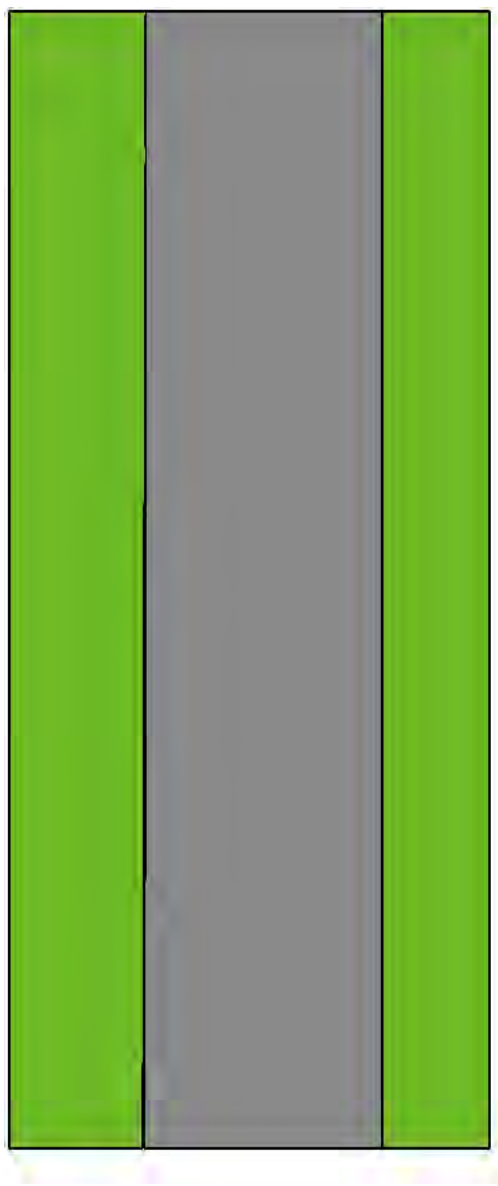
Segment :	NE 1st Street to NE 3rd Street	NE 3rd Street to NE 8th Street
Street Section:	2’ Buffer Area 10’ Path	2’ Buffer Area 10’ Path Grading
Improvement Goals:	Improve pedestrian travel and connectivity, particularly to open space areas west of the railroad tracks.	
Design Elements:	• Crossing at 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:





Volume I: Oakland Local Street Network Plan

High Priority Projects

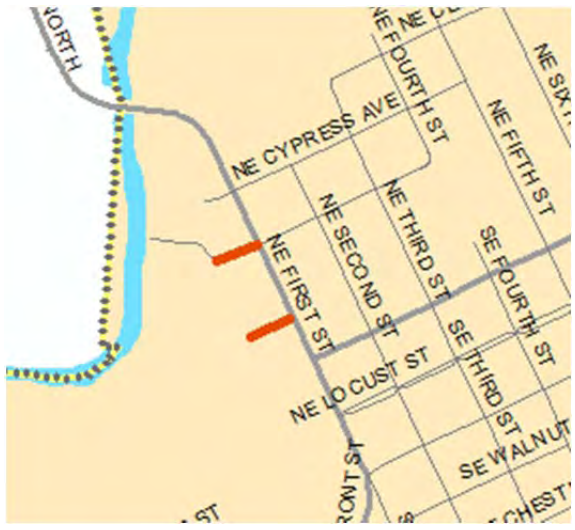
Corridor: Ash Creek ROW & Pine Street | **Priority**: High

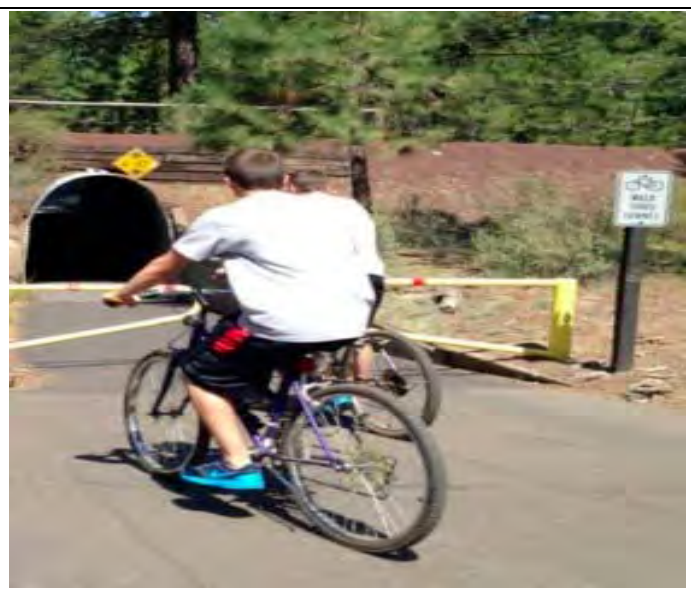
Corridor Limits: Railroad Crossing at NE 1st Street

Project Elements:

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

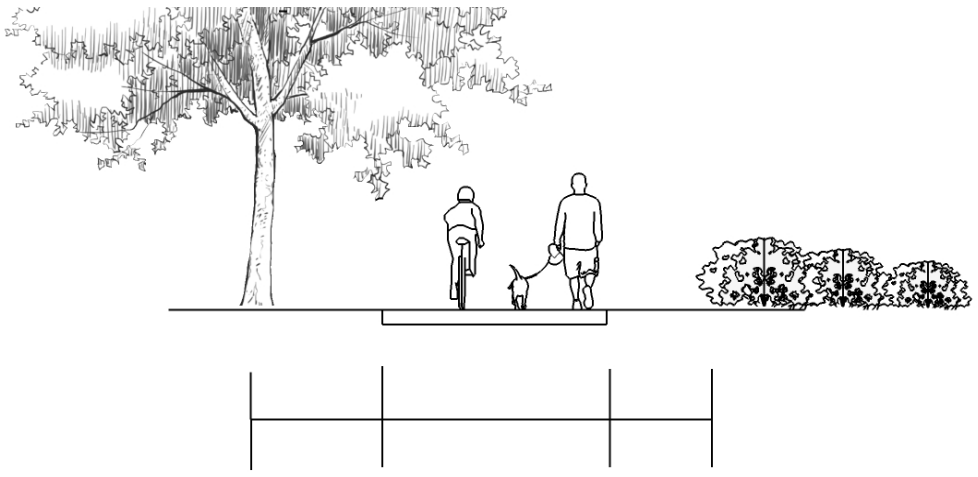
Project Description: This summary presents alternative proposals for crossing the railroad tracks in Oakland to facilitate a connection to publicly owned parkland and open space on the western end of town. The Ash Street right-of-way presents an opportunity for crossing (right-of-way beginning immediately to the west of Old 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 NE 1st Street	Pine Street - Railroad Crossing at NE 1st Street
Street Section:	• 10’ Path • 2’ Buffer Area	• 10’ Path • 2’ Buffer
Improvement Goals:	Improve pedestrian travel and connectivity	
Design Elements:	• Possible 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)	 Sample Treatment Diagram for Pine Street Crossing

Corridor: North Railroad Crossing

Sample Treatment Option:



Oakland Local Street Network Plan

Volume I:

Projects

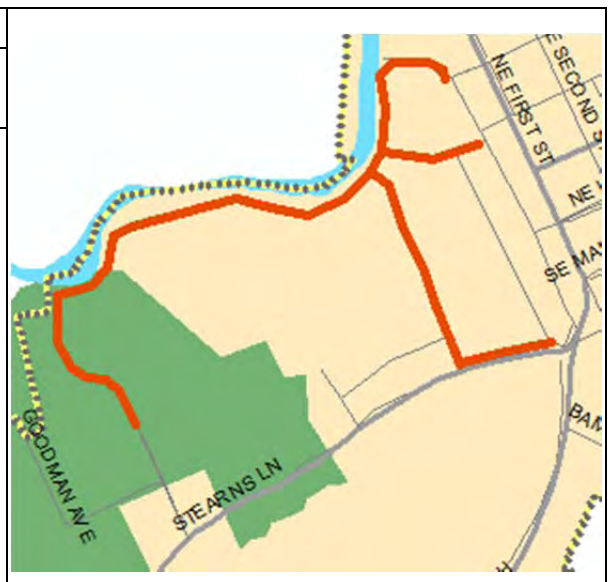
Corridor: Calapooya Creek Multi-Use Path | **Priority**: High & 4;3

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

Project Elements:

- ☐ Automobile
- ☒ Pedestrian
- ☒ Bicycle
- ☒ Circulation/Connectivity
- ☐ Access
- ☐ Safety
- ☐ Intersection
- ☐ Placeholder 2

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 can be considered as a set of alternatives or phases for a multi-use path system. The multiuse path would include hardened surfaces but sections could be set aside for other surface types (uses). The width of the hardened portions of the path would be a minimum of eight feet and would likely be an asphalt construction.



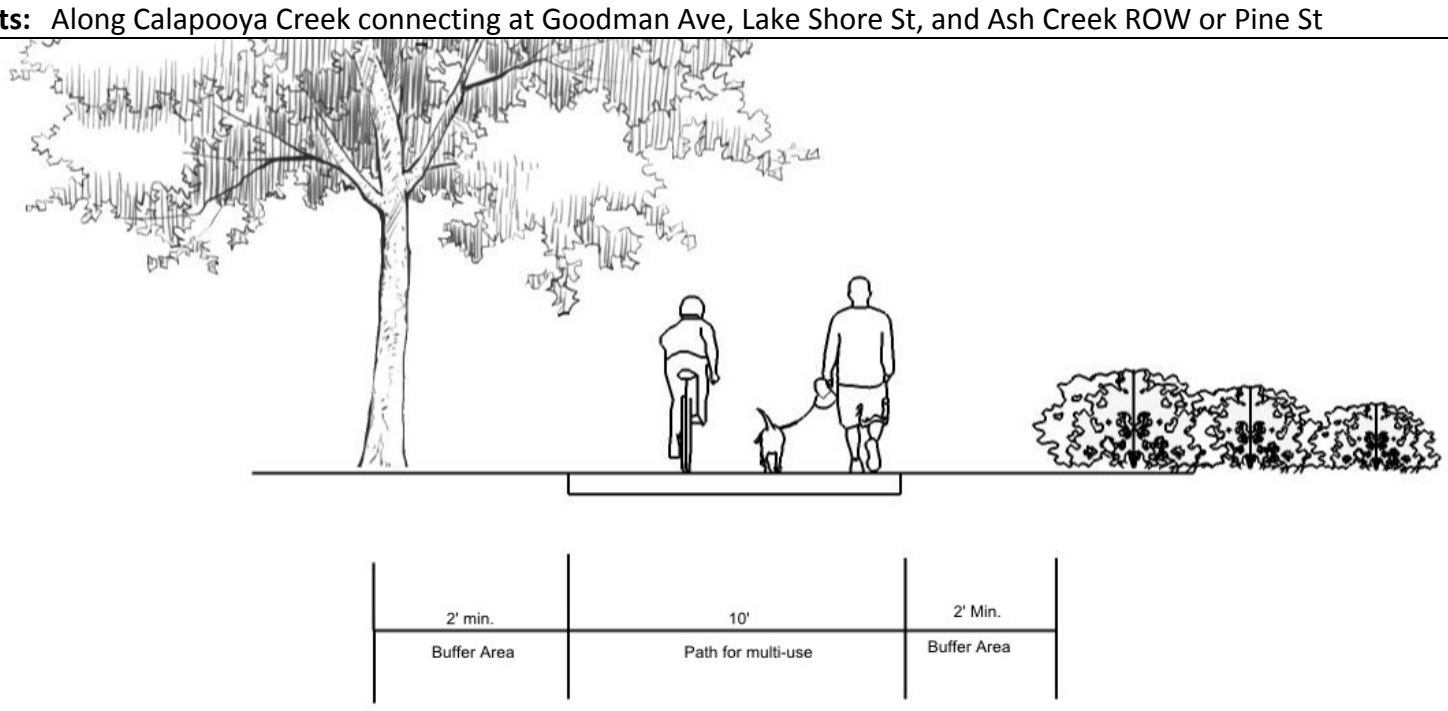
Segment :	City Owned Property
Street Section:	10’ Multi-Use Path 2’ buffer on both sides
Improvement Goals:	Improve pedestrian travel and connectivity
Design Elements:	• Establish railroad crossing at either Pine Street or Ash Creek ROW • 10’ Width for 2-way traffic • Connect to Stearns Lane to provide path to 1st Street
Implementation Considerations:	Much of City Owned Property floods during wet seasons of the year. Also, 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)

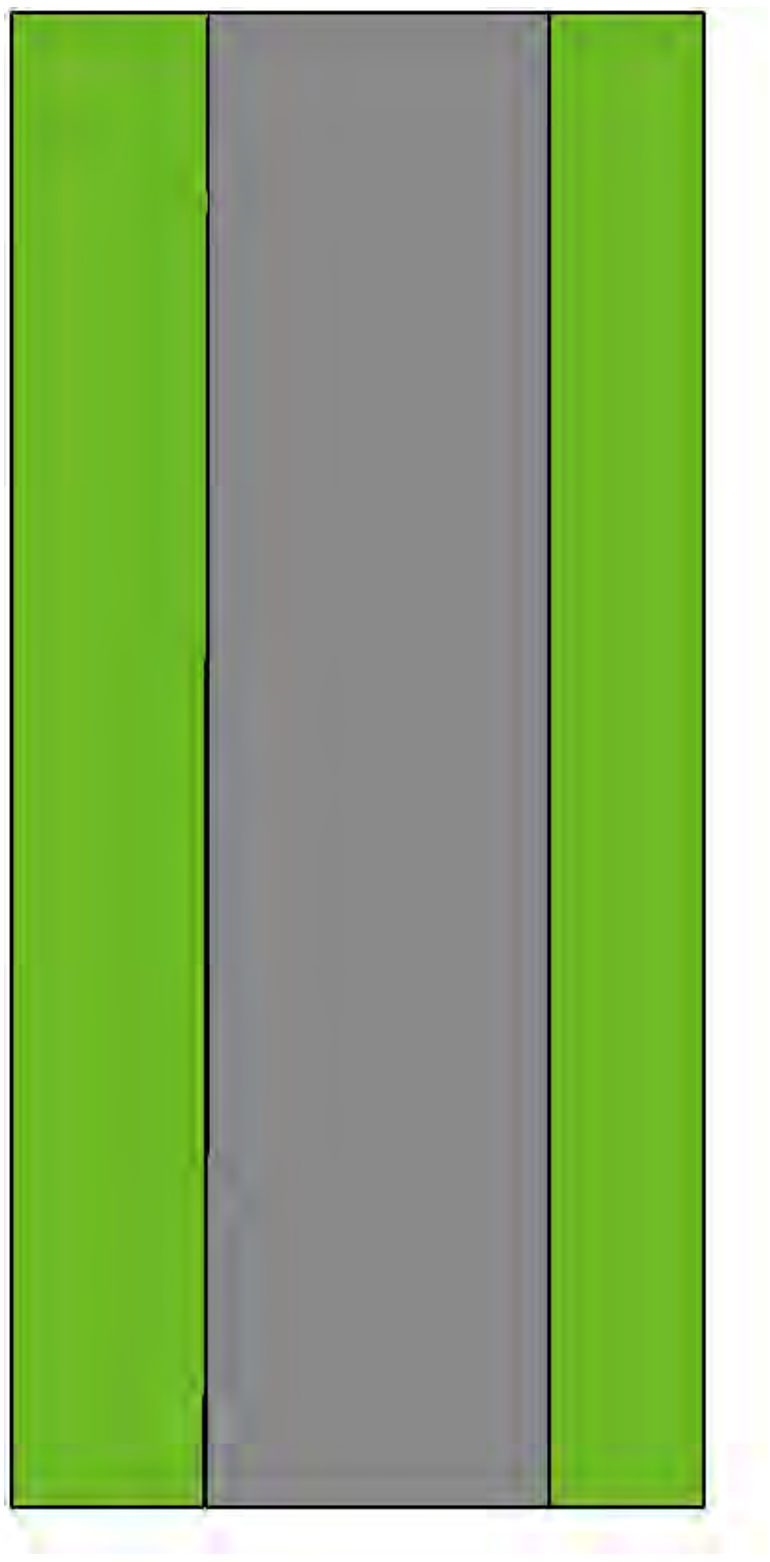
Sample Treatment Diagram for Calapooya Path

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:





Volume I: Oakland Local Street Network Plan

Medium Priority Projects

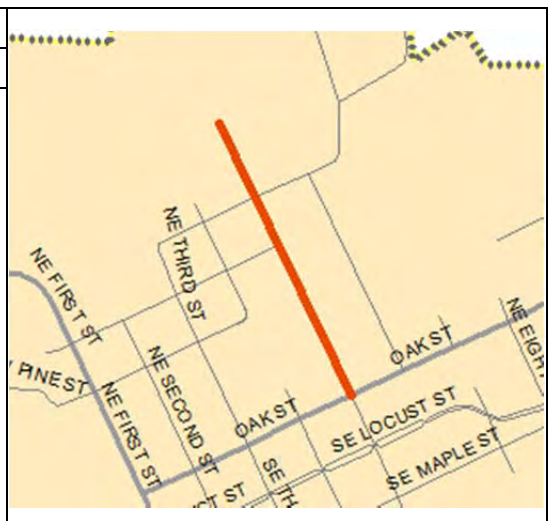
Corridor: NE 5th Street | **Priority**: Medium

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 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.

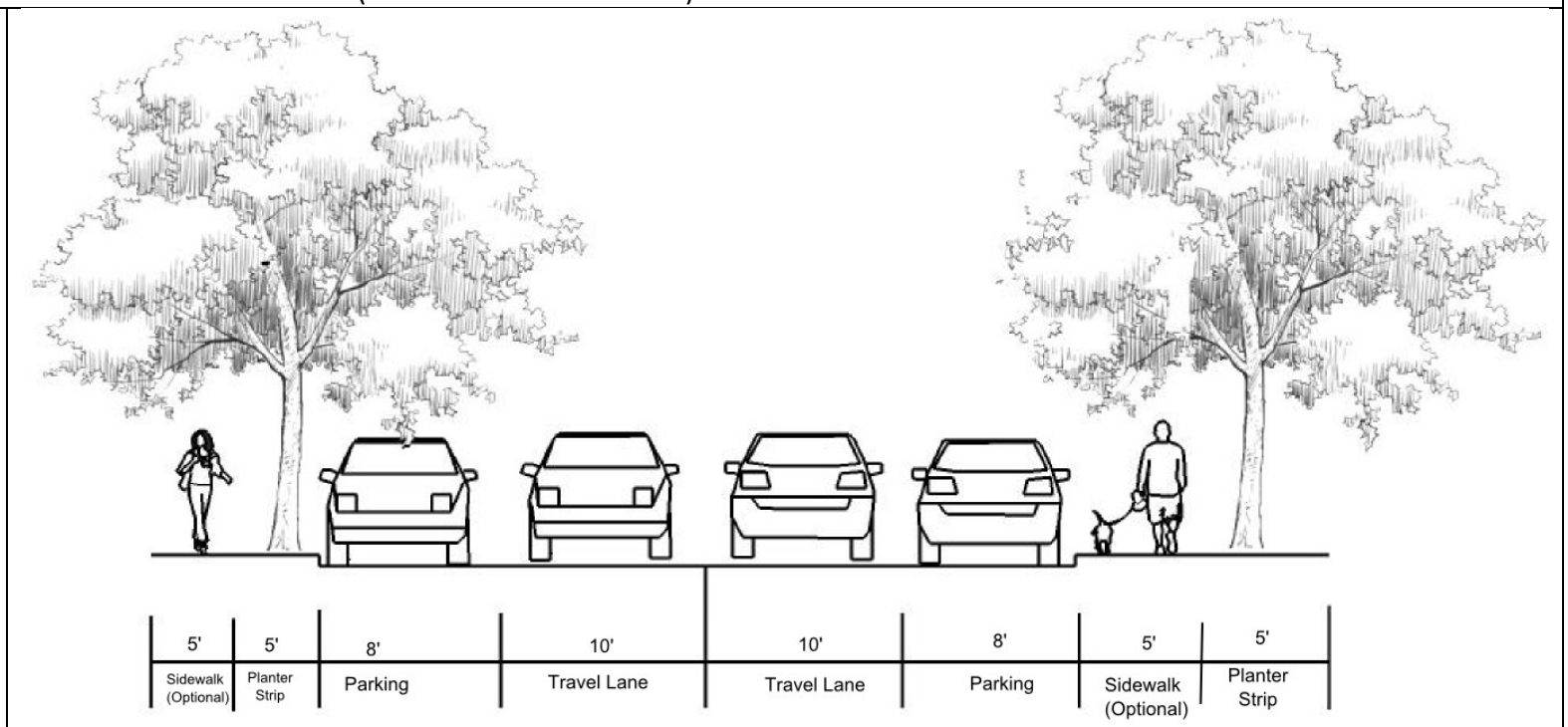


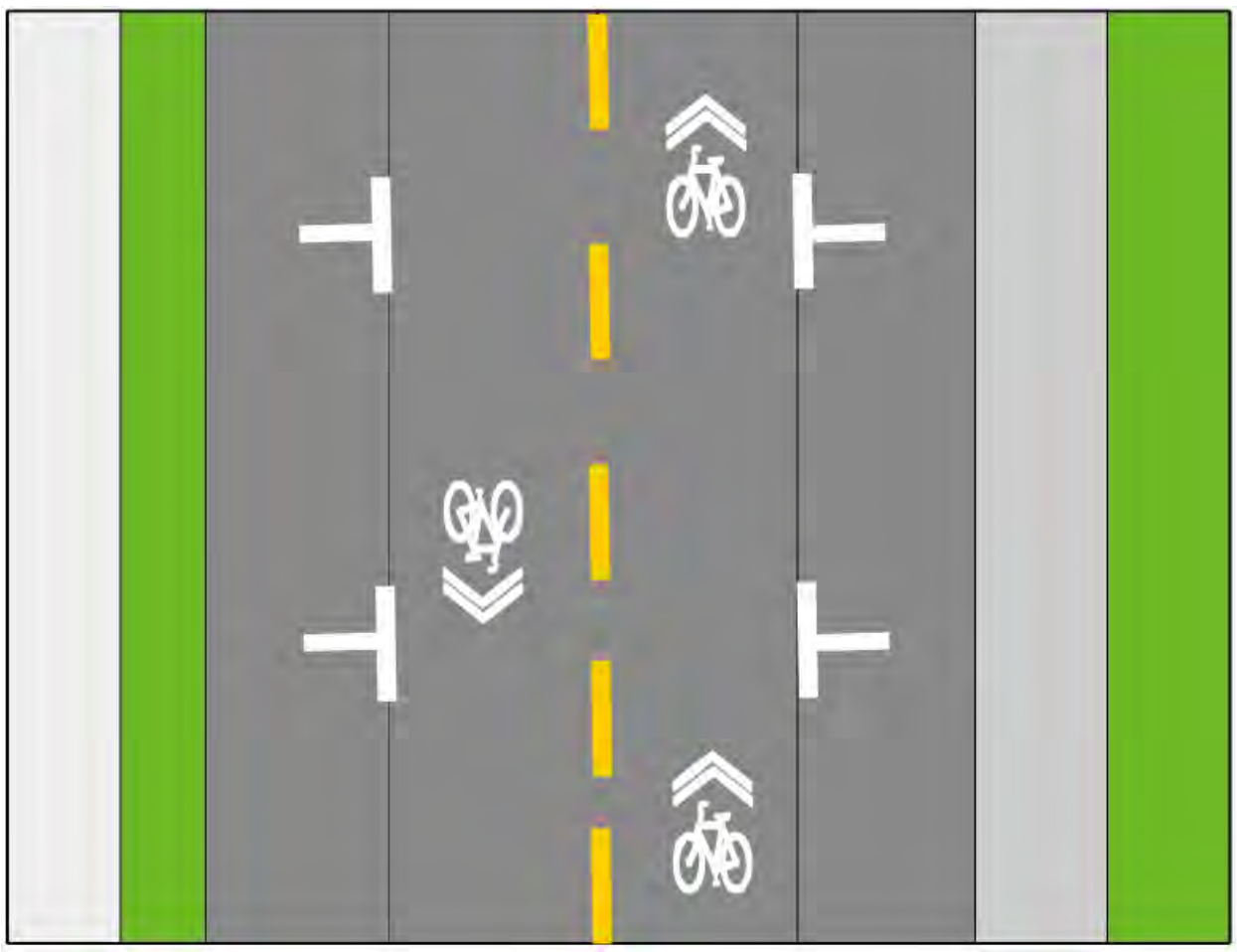
Segment :	Oak Street to School (north of NE Cedar Street)
Street Section:	5' Sidewalk on both sides (optional) 5' Planter Strips on both sides 20' Travel Way with "Sharrow" signage for bicycle travel
Improvement Goals:	Improve bicycle and pedestrian travel and connectivity
Design Elements:	• Provide signage for "Sharrow" symbol in roadway • Add sidewalks on both sides where applicable • 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.
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)
	 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:





Volume I: Oakland Local Street Network Plan

High Priority Projects

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

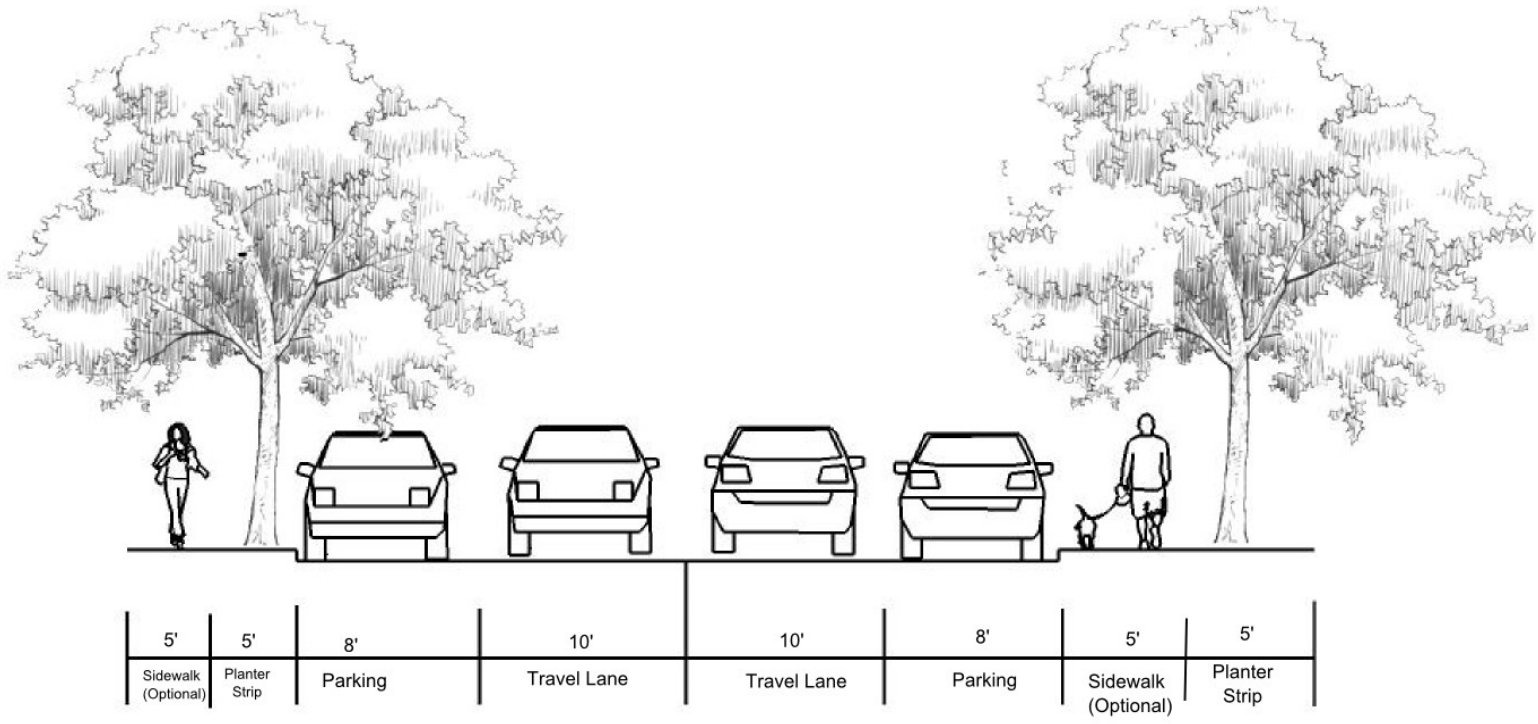
Project Description: This summary presents the proposal for Locust Street, between SE 1st Street and just east of SE 8th Street, to receive upgrades related to a reclassification from "Local" to "Major Local". Improvements for this stretch of roadway include designation as bike routes with pavement markings (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:



Volume I: Oakland Local Street Network Plan

Medium Priority Projects

Corridor: Railroad Right-of-Way | **Priority**: Medium

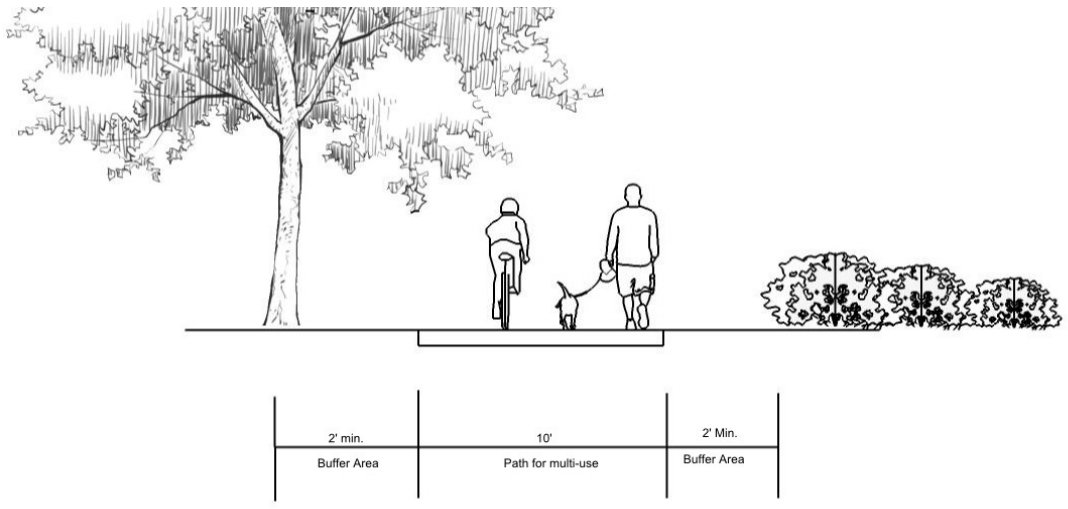
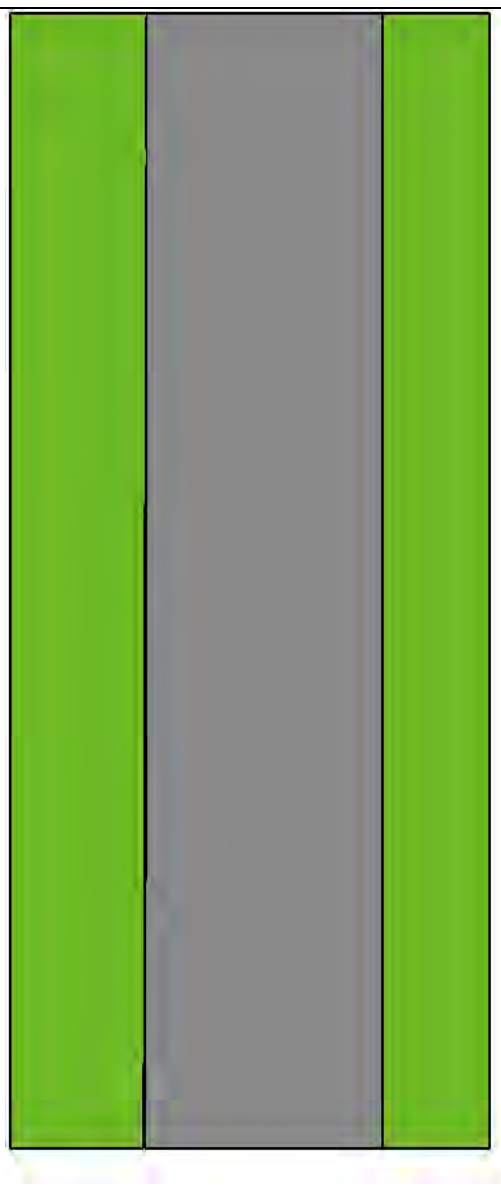
Corridor Limits: Ash Creek ROW to Stearns Lane

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 First Street/Old Highway 99 with lower sections of First Street/Old Highway 99 and Stearns Lane. This will be particularly relevant if it is determined that a railroad crossing is untenable.

Segment :	Ash Creek ROW 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 Railroad and use of their ROW
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:	 

Volume I: Oakland Local Street Network Plan

Medium Priority Projects

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

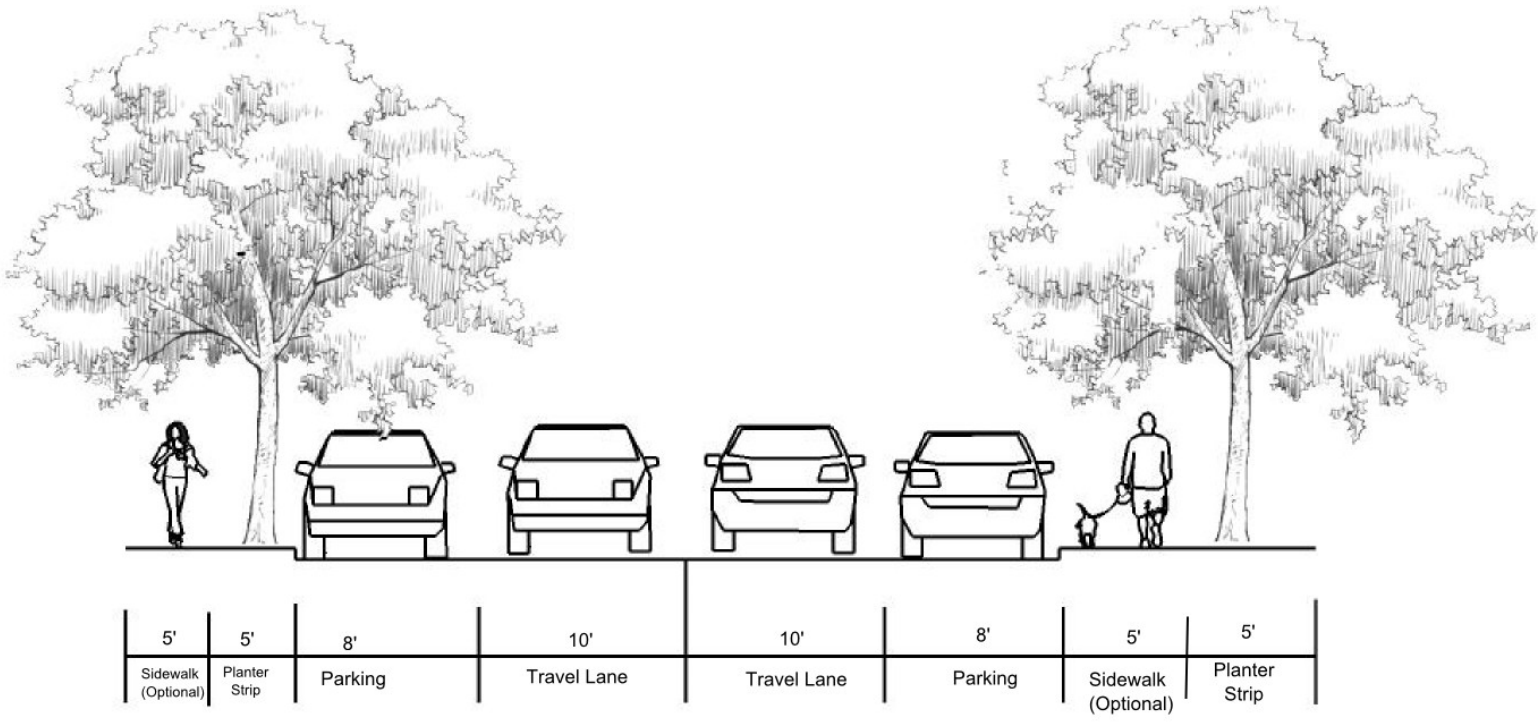
Project Description: This summary presents the proposal for NE Cypress Avenue, between 1st Street and 5th Street, to receive upgrades related to a reclassification from "Local" to "Major Local." Cypress Avenue is the only street north of Oak Street that is paved between First and 5th Streets. Improvements for this stretch of roadway include designation as bike routes with pavement markings (sharrows and/or signs), while maintaining the existing character and on street parking.

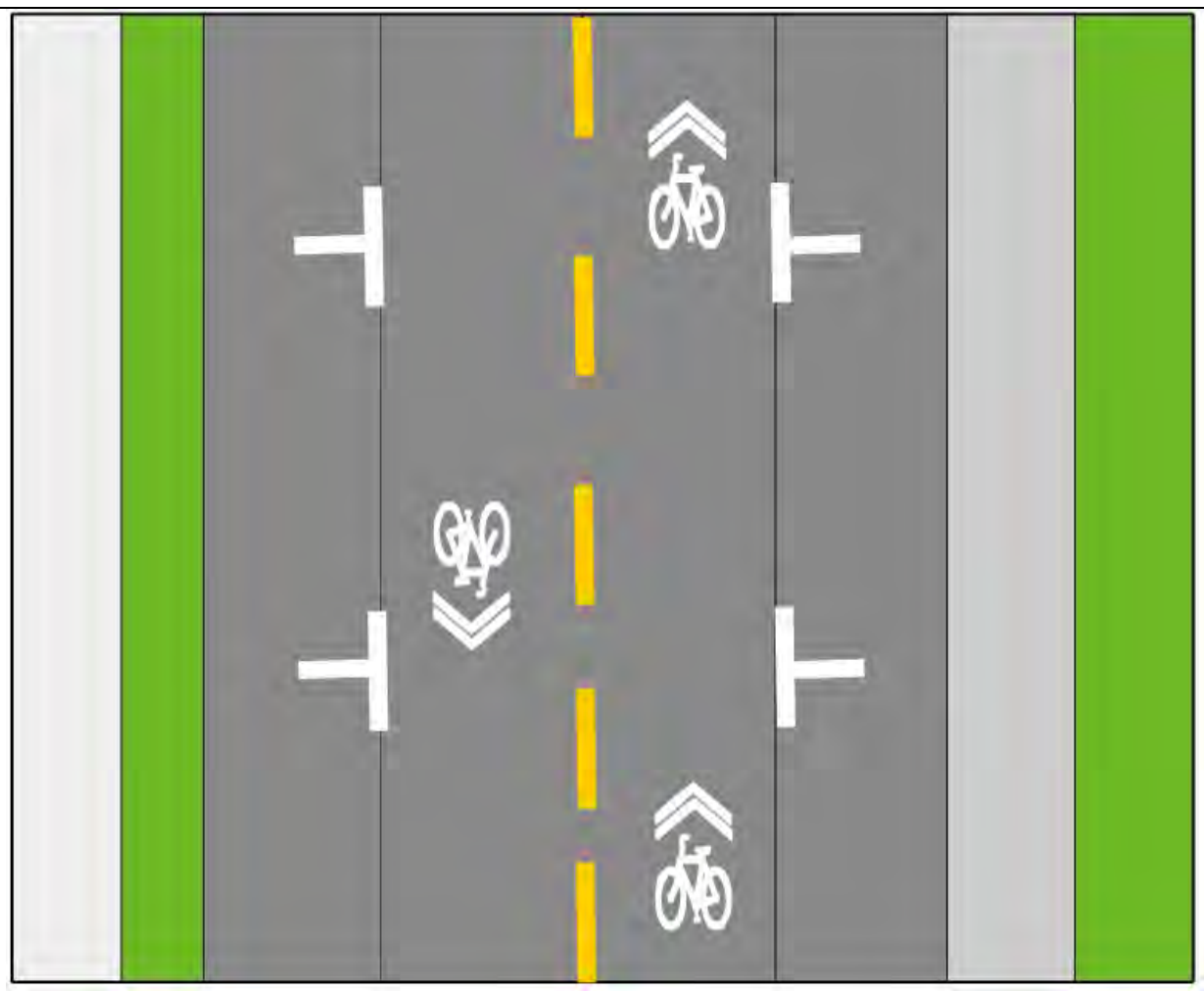
Segment :	NE 1st Street to NE 5th Street
Street Section:	5' Sidewalk on both sides (optional) 5' Planter Strips on both sides 8' On Street Parking on both sides 20' Travel Way with "Sharrow" signage for bicycle travel
Improvement Goals:	Improve bicycle and pedestrian travel and connectivity particularly 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: Pending Construction Costs: Pending
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:





Volume I: Oakland Local Street Network Plan

Low Priority Projects

Corridor: Oak Street to Locust Street | **Priority**: Low

Corridor Limits: Oak to Locust Street Connection

Project Elements:

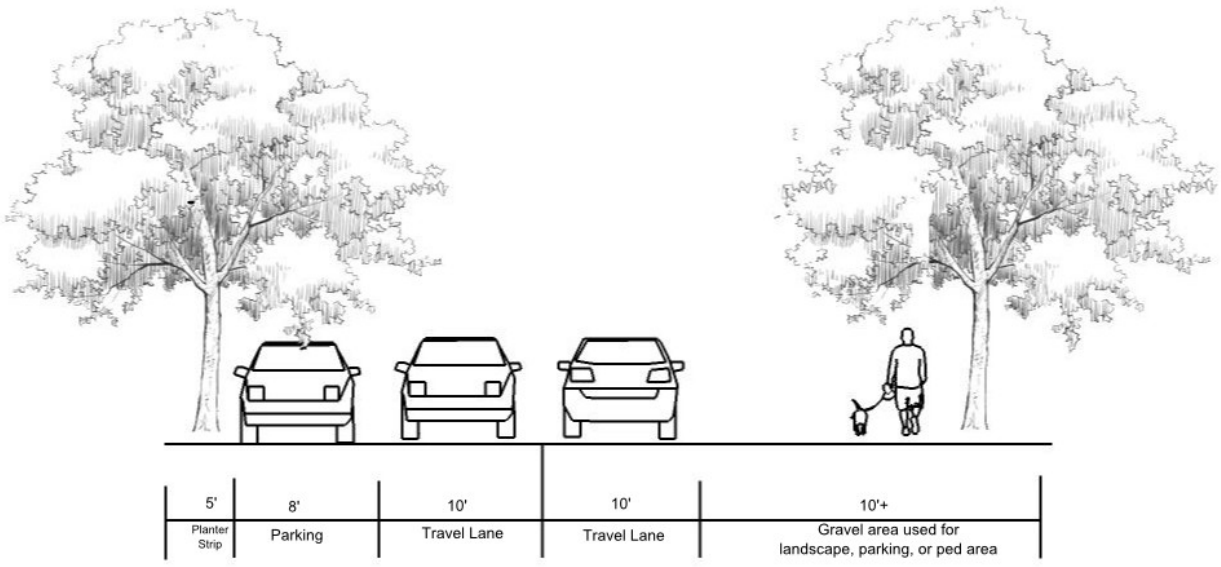
- ☒ Automobile
- ☐ Pedestrian
- ☐ Bicycle
- ☒ Circulation/Connectivity
- ☒ Access
- ☐ Safety
- ☐ Intersection
- ☐ Other

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.

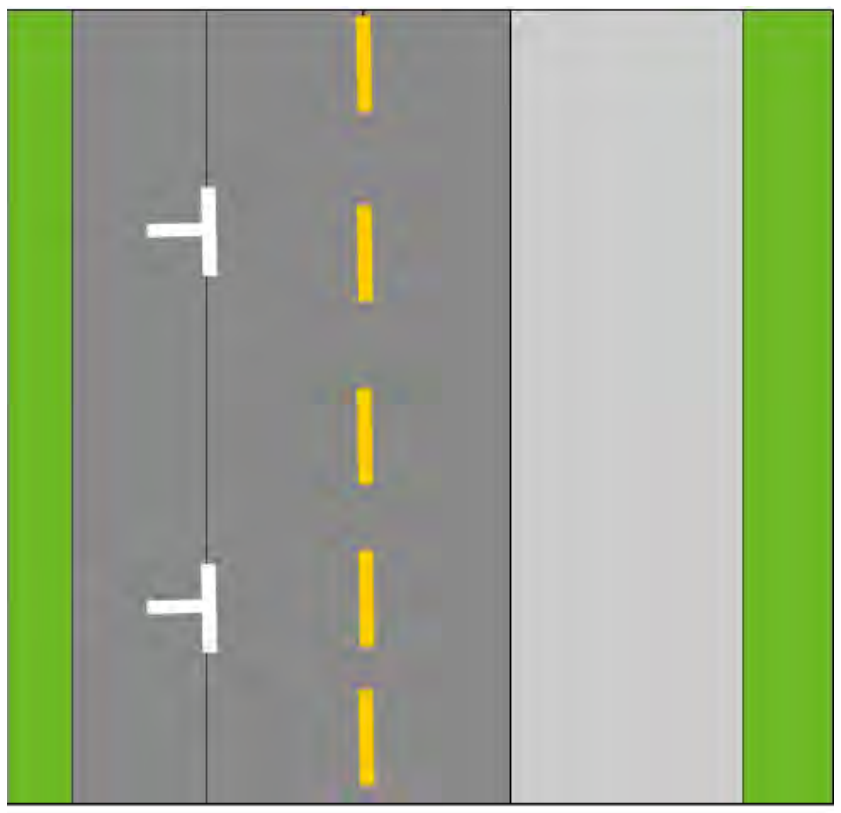
Segment :	Oak to Locust Street Connection
Street Section:	• 10’ Travel Lanes • 8’ Parking
Improvement Goals:	Improve automobile travel and connectivity Minor local classification Address a Comprehensive Plan policy
Design Elements:	• Optional on-street parking using pervious surfaces to help with drainage
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: Pending Construction Costs: Pending
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:



Volume I: Oakland Local Street Network Plan

Low Priority Projects

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

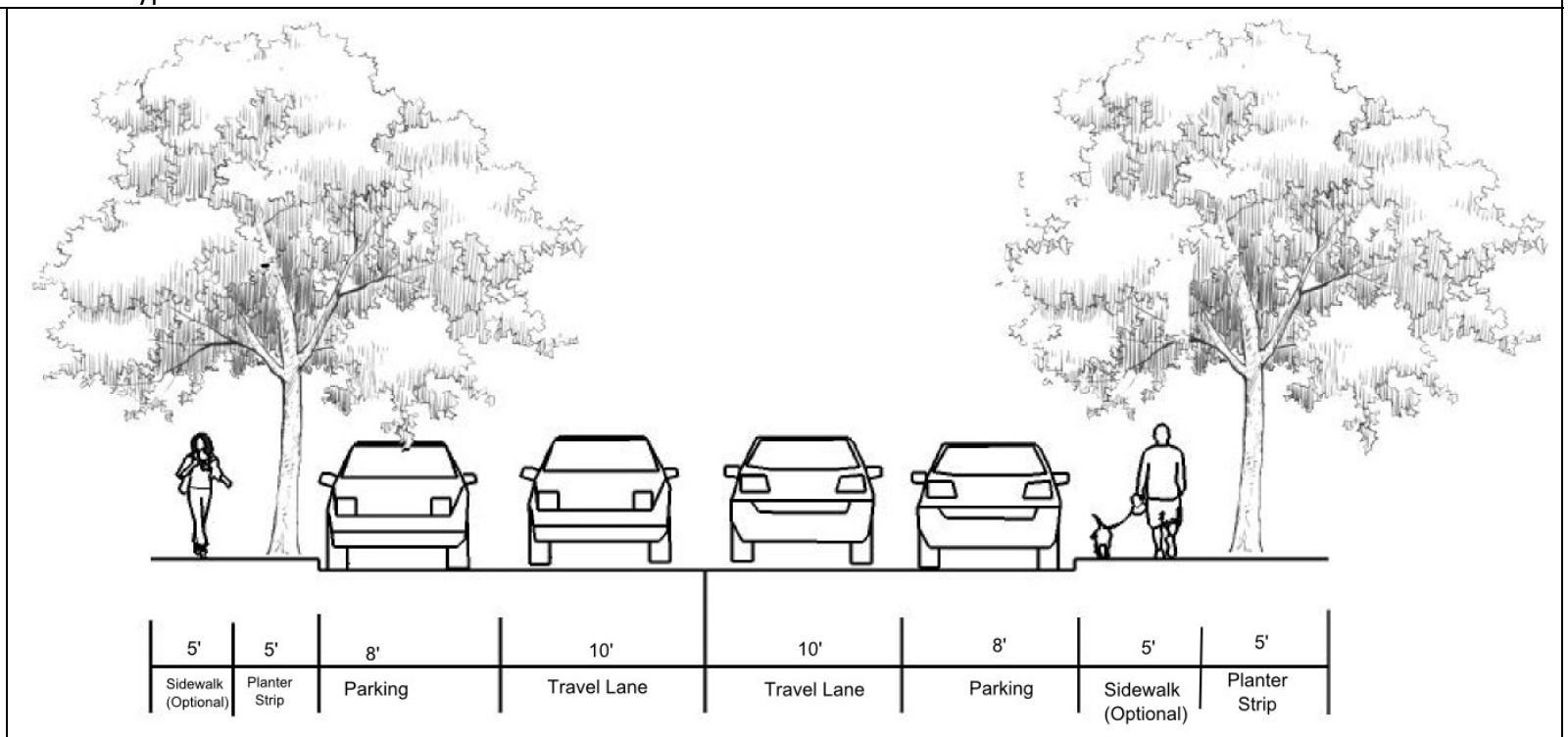
Project Description: This new road would provide a continuation of NECypress Street from 5th Street (where it currently terminates) to NE 6th Street. The improvements would occur along existing (and non-slope constrained) right-ofway. Adding another east-west connection between 5th and 6th would improve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

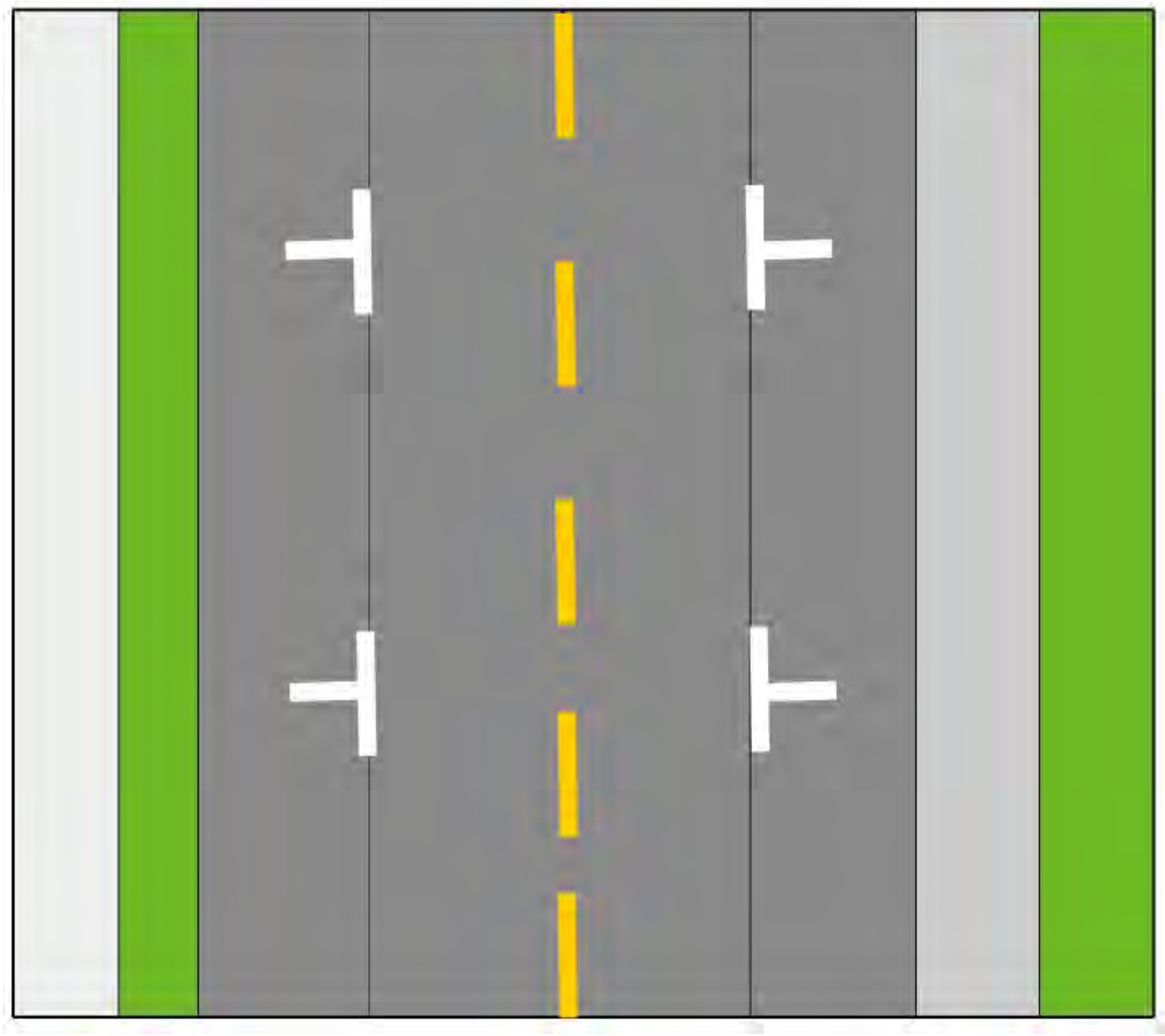
Segment :	NE Cypress Avenue Extension
Street Section:	• 10’ Travel lanes • 5’ Sidewalks optional • 8’ Parking • Street side planter stripe optional
Improvement Goals:	Improve automobile travel and connectivity Major Local Classification
Design Elements:	• Possible Sidewalks • Consider retaining storm 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: Pending Construction Costs: Pending
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 Options:





Volume I: Oakland Local Street Network Plan

Low Priority Projects

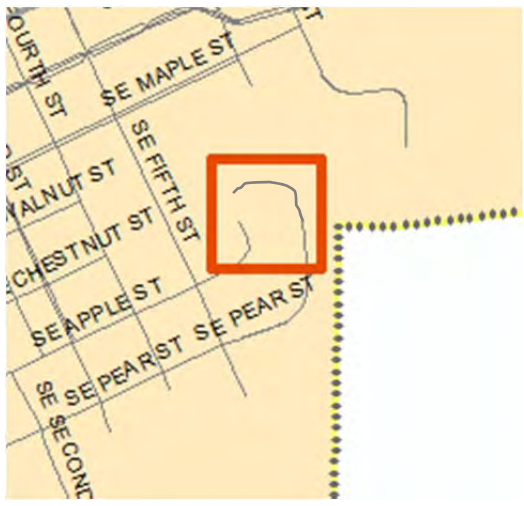
Corridor: SE Apple Street | **Priority**: Low

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

Project Elements:

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

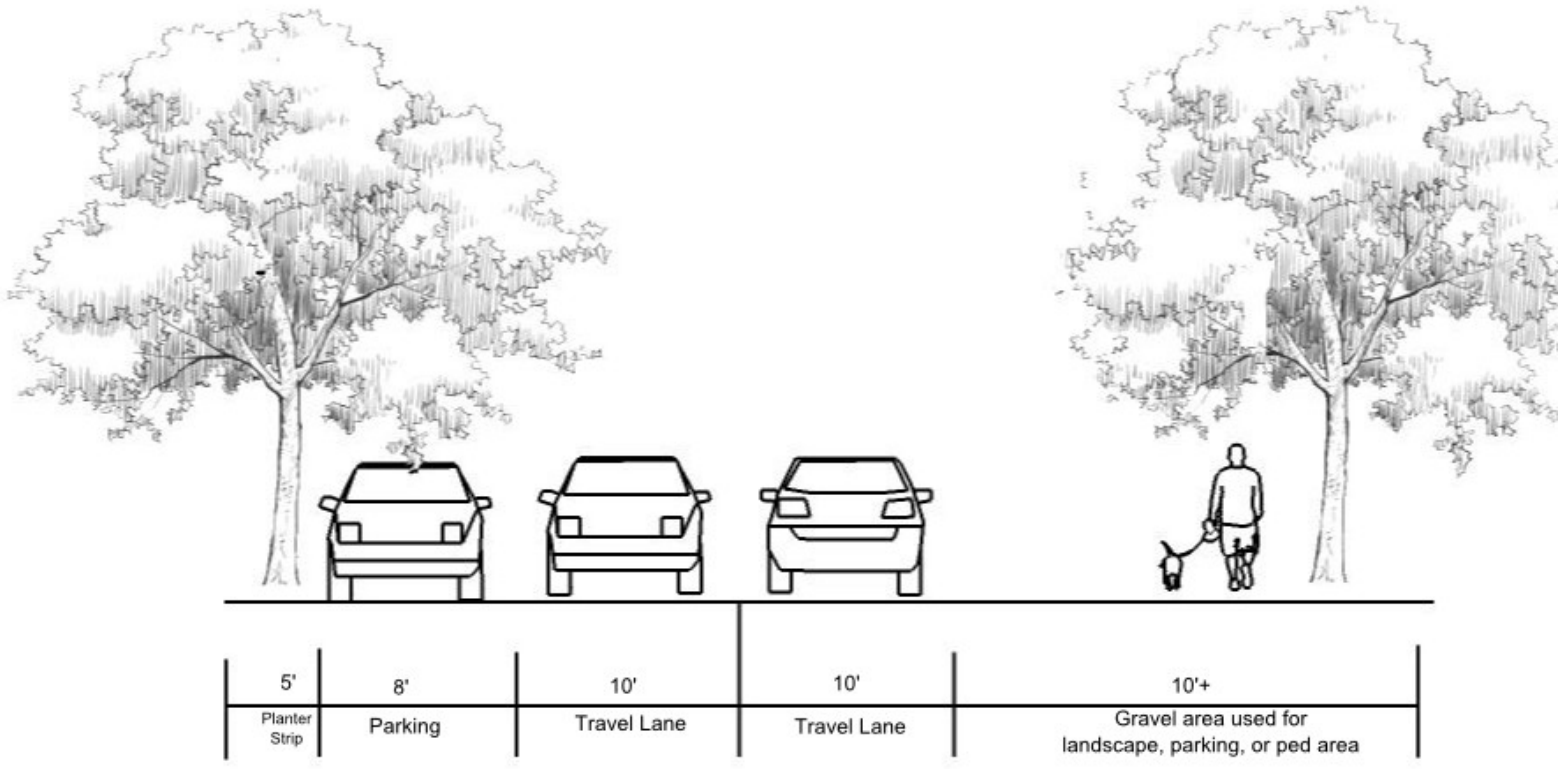
Project Description: This new road would provide a continuation of Apple Street from 5th Street (where it currently terminates) to SE Pear Street. The improvements would occur along existing (and non-slope constrained) right-of-way. Improvement obligations and dynamics relative to these proposed improvements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



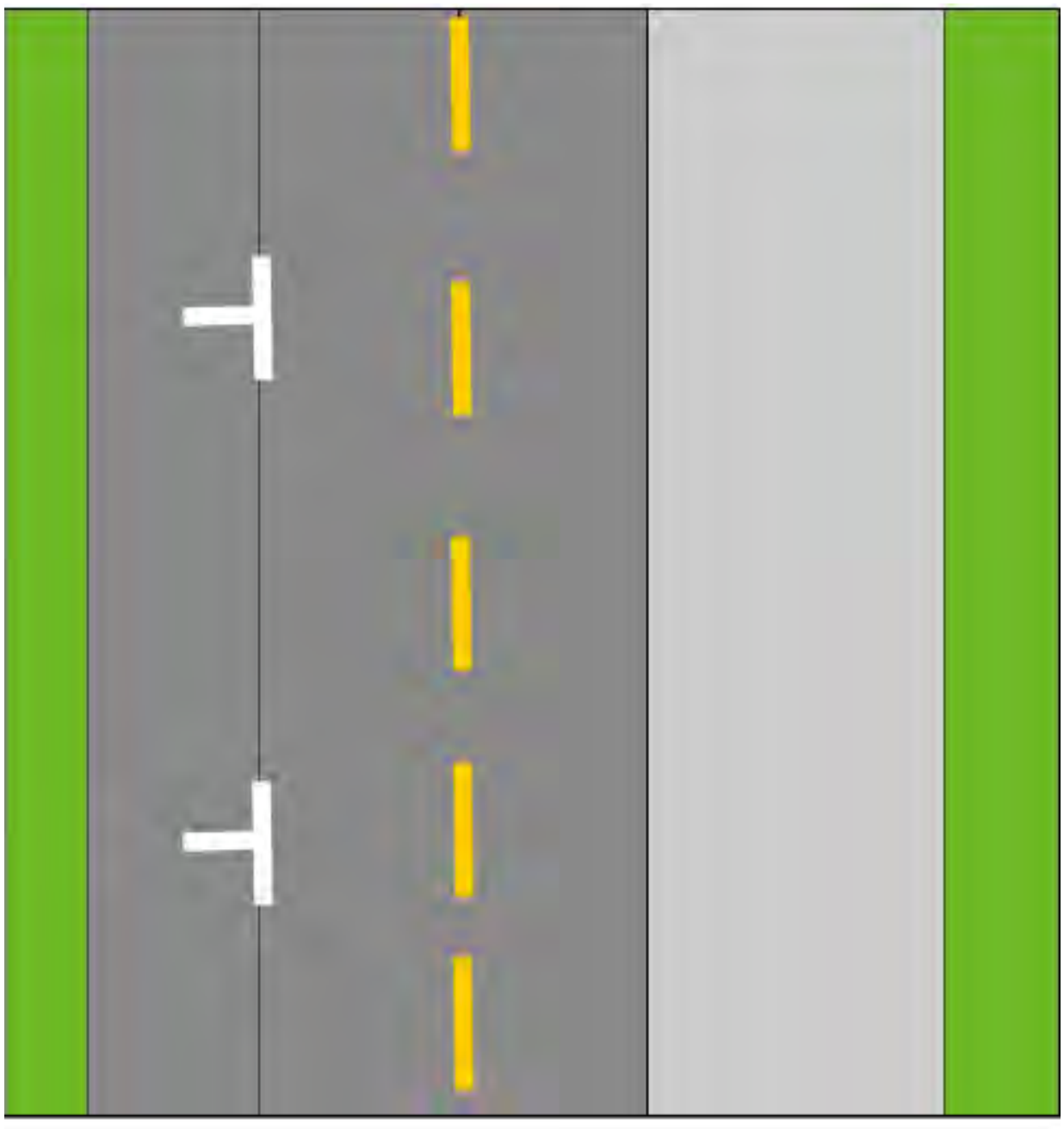
Segment :	Apple Street (east end) to Pear Street
Street Section:	• 10’ Travel lanes • 8’ Parking optional
Improvement Goals:	Improve automobile travel and connectivity Minor local classification
Design Elements:	• Optional on-street parking strip that is pervious to help with drainage
Implementation Considerations:	• Sensitivity around liabilities of future and current property owners. • Mature tree in right-of-way
Potential Phasing:	• None
Project Cost Estimates:	Engineering/Planning Costs: Pending Construction Costs: Pending
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:



Volume I: Oakland Local Street Network Plan

Low Priority Projects

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

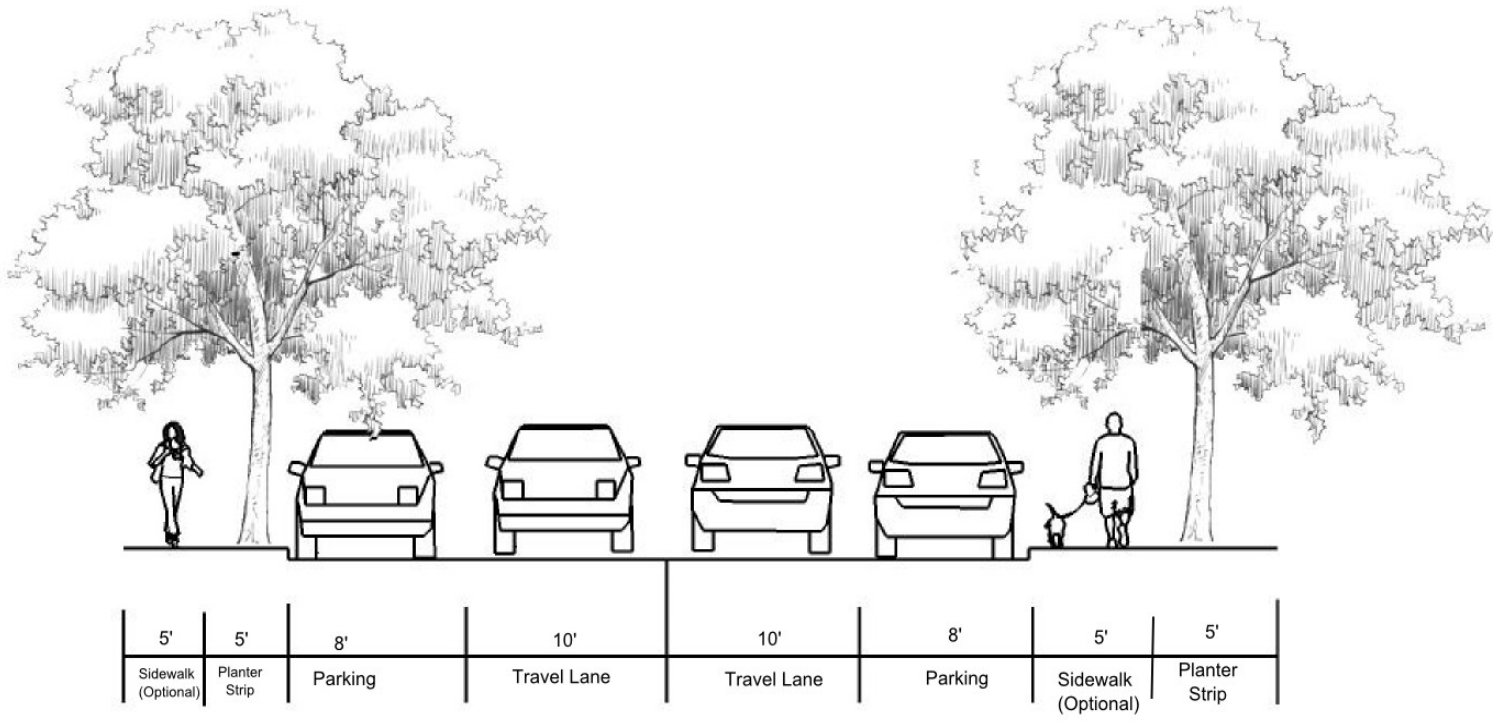
Project Description: This summary presents the proposal for SE Maple Street, between 1st Street and 7th Street, to receive upgrades related to a reclassification from "Local" to "Major Local." Maple Street is one of only a few streets south of Locust Street that is paved between 1st and 7th Streets. 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.

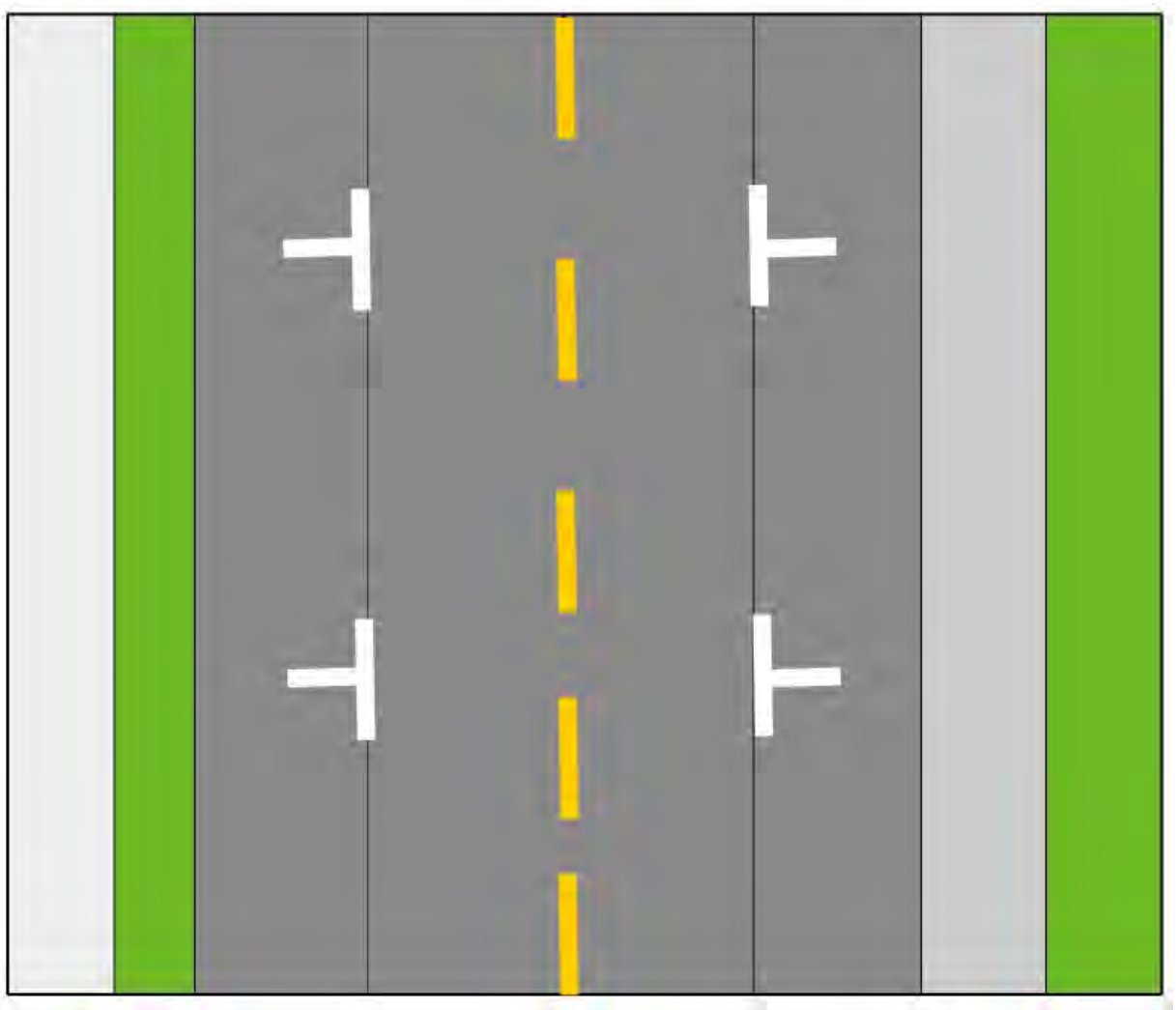
Segment :	SE Maple Street
Street Section:	5' Sidewalk on both sides (optional) 5' Planter Strips on both sides 8' On Street Parking on both sides (optional) 20' Travel Way with "Sharrow" signage for bicycle travel
Improvement Goals:	Improve bicycle travel alternatives and overall connectivity
Design 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: Pending Construction Costs: Pending
Sample Treatment Options:	 SE Maple Street (2014 – Google)
	 Sample Treatment Diagram for SE Maple Street

Corridor: SE Maple Street

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

Sample Treatment Option:





Volume I: Oakland Local Street Network Plan

Low Priority Projects

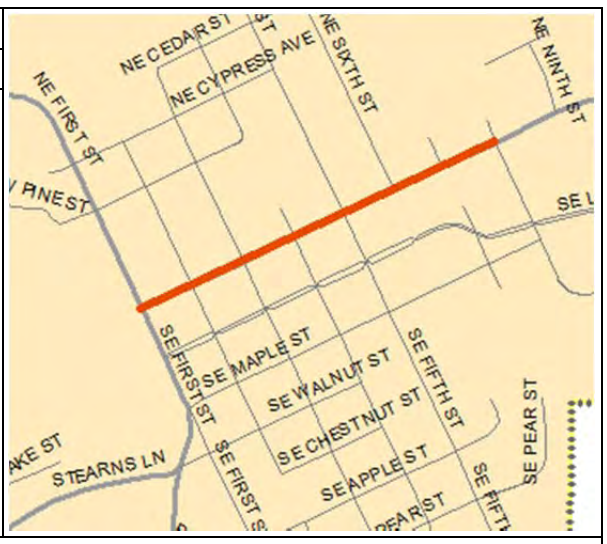
Corridor: Oak Street | **Priority**: Low

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.

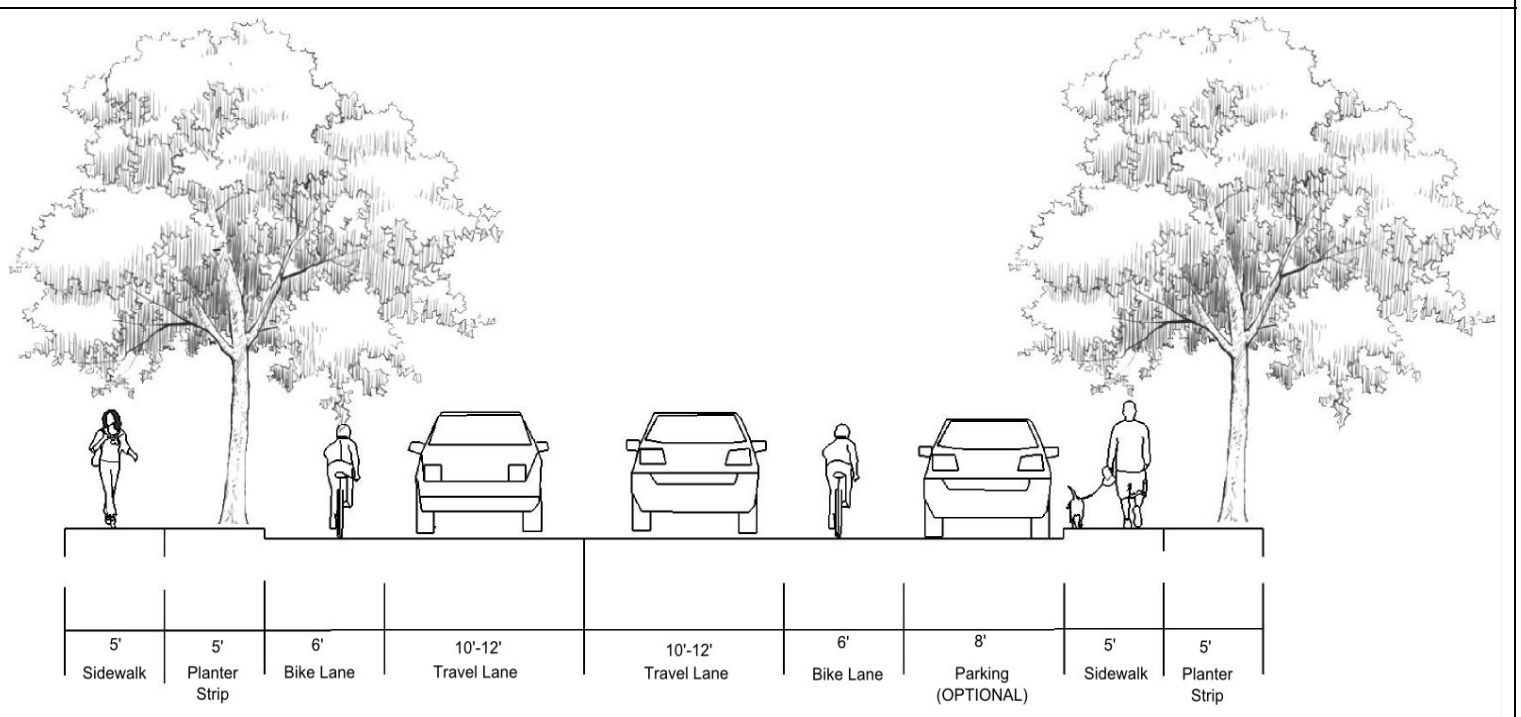


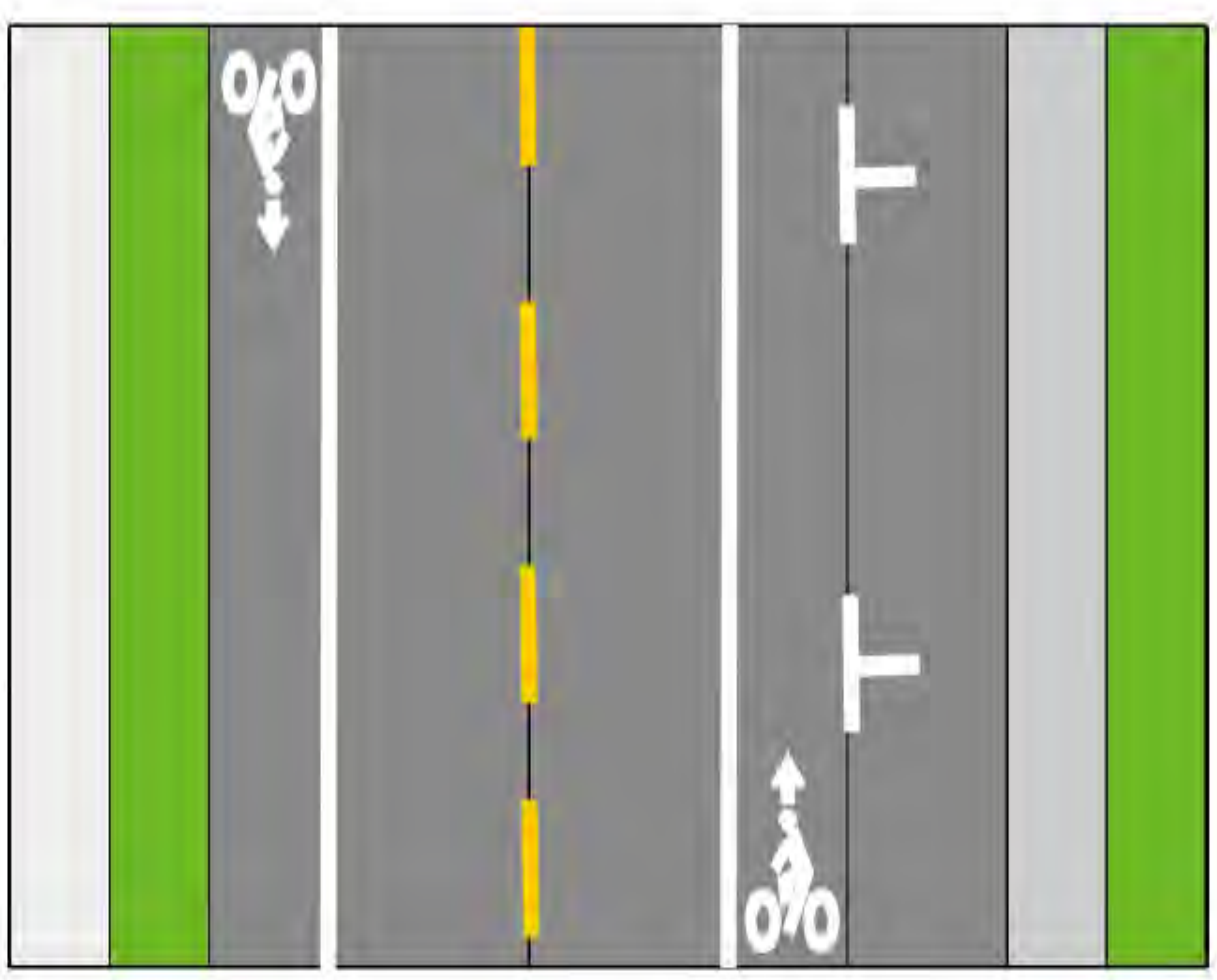
Segment :	NE 1st Street to NE 8th Street
Street Section:	5' Sidewalk on both sides 5' Planter Strips on both sides 8' On Street Parking (optional) 6' Bike Lanes on both sides 20-24' Travel Way
Improvement Goals:	Improve pedestrian travel and connectivity
Design Elements:	• Stripe roadway for bike lanes • 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. Also, drainage issues in the area.
Potential Phasing:	• Provide flashing crosswalk at intersection of 5th Street • Stripe for bike lanes and on street parking
Project Cost Estimates:	Engineering/Planning Costs: Pending Construction Costs: Pending 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

Technical Memorandum 8: Recommended Plan and Code Changes

I. INTRODUCTION AND PURPOSE

This memorandum outlines recommendations for code and comprehensive plan changes necessary for, or supportive of, the adoption of the Oakland Local Street Network Plan. Comprehensive Plans help frame and articulate what a community desires to be like both now and in the distant future. The 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 the Oakland 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.

It is noted that Oakland planning documents, like those in many communities, could benefit from a more methodic and comprehensive review and update. This project does not have the scope to fully address this need, although additional funds are currently being pursued to support a more comprehensive effort. With the hope that resources for a more comprehensive evaluation can be secured, and recognizing that numerous code amendment adoption processes would be awkward and inefficient, this memorandum outlines key recommendations and provides a solid starting framework for a more comprehensive evaluation of Oakland's code and plans relative to the conclusions emerging from the Oakland Local Street Network Plan. These are included as Section II Oakland Ordinance and Comprehensive Plan Recommendations.

II. OAKLAND ORDINANCE AND COMPREHENSIVE PLAN RECOMMENDATIONS

Key Recommendation: Updated Street Engineering (Design) Standards (Section 39)

Section 39 of the City of Oakland's *Land Use and Development Ordinance* specifies standards for streets and pedestrian ways. The Oakland Local Street Planning process resulted in a re-evaluation of local street classifications, as well as associated design standard changes, and the development of street section diagrams for each street functional classification. The focus for proposed changes was to provide design standards that are appropriate for Oakland facilities, to accommodate more realistic bicycle and pedestrian facilities and to make the design standards easier to understand and communicate. Table 1 outlines both current street design standards, as well as proposed design standards (bolded). Design standards which would be replaced by the new street standards are identified in italics and with an asterisk. The revised table that would constitute the actual update of Oakland Subdivision Ordinance Section 39 Table 1, Street Design Standards, and its accompanying Street Functional Class Street Section Diagrams is included as Attachment A to this memorandum.

Table 1. Former and Proposed Street Design Standards Comparison (proposed shaded grey)

Type of Street	Pavement Width	Travel Lane	On-Street Parking [1]	Minimum R.O.W [2]	Sidewalk Width	Bike Lane
**Arterial*	*50-74'*	*2-4 – 12' Wide*	*2 sides*	*60-98'*	*5' min. both sides [3, 4]*	
Arterial	**40-44'**	**2 10-12' Wide**	**1 Side**	**60'**	**5' min. both sides [3, 4]**	**2 Sides**
**Residential Boulevard*	*48'*	*2-11' Wide, plus 1-12' center turn lane or median*	*2 sides*	*72'*	*5' min. both sides [4]*	
Type of Street	Pavement Width	Travel Lane	On-Street Parking [1]	Minimum R.O.W [2]	Sidewalk Width	Bike Lane
Major Collector	**40-44'**	**2 10-12' Wide**	**1 Side**	**60'**	**5' min. both sides [3, 4]**	**2 Sides**
**Collector*	*27-34'*	*2-10' Wide*	*1 or 2 sides*	*51-58'*	*5' min. both sides [3, 4]*	
Minor Collector	**36-40'**	**2 10-12' Wide**	**2 sides**	**56-60'**	**5' min. both sides [3, 4]**	**Sharrow where needed**
Local or Dead-End Street	28'	1-15' Wide (Queuing)	2 sides	53'	5' min. both sides [5]	
Major Local Street	**36'**	**2- 10' Wide**	**2 sides**	**56-60'**	**5' min. both sides [3, 4]**	**Sharrow where needed**
Turn-Arounds for Dead-End Streets in Residential Zones Only	47' Radius	40' Radius				
Turn-Arounds for Dead-End Streets in Commercial Zones Only	50' Radius	42' Radius				
Infill Local Street [6] – Up to 25 Dwellings	*22'*	*1-15 ' Wide (Queuing)*	*1 side*	*35'*	*5' min. both sides [5]*	
Minor Local Street	**28'**	**2-10' Wide**	**1 side**	**43'**	**5' planter strip 1 side, 10+' gravel area side**	
Access Lane [6] – Up to 12 Dwellings	20'	1-13' Wide (Queuing)	1 side	35' (w/landscaping & Pub. access	5' min. on one side [5]	

				easement)		
Private Drive [6] – Up to 6 Dwellings	13’	1-13’ Wide (Queuing) [7]	No	21’ (w/public access easement)	None	
Alleys	12-16’	12’ Wide residential, 16’ Wide commercial. Both w/2’ unpaved strip on sides	No	16-20’	None	

1 – On-street parking width is currently 7 feet, proposed to be 8 feet.
2 – When sidewalks and planting strips are not required, minimum R.O.W. can be reduced by those dimensions.
3 – In areas zoned commercial or mixed use, wider sidewalks with tree wells (4 ft. by 4ft.) and street trees may be required at the Planning Commission’s discretion if deemed compatible with existing development. Additionally, planting strips and street trees may not be required if deemed incompatible with existing development.
4 – ADT – Average Daily Traffic.
5 – Bike lanes are generally not needed on low volume (less than 3,000 ADT) and/or low travel speed (less than 25 mph) streets.
6 – Two outlets required.
7 – Shared with pedestrians.

In addition to street widths, travel lanes, street parking, street ROW, and Sidewalk widths, the City’s Street Engineering Standards also cover street design standards for intersection angles, grades, tangents, slopes, and curves. These remain unchanged.

Following is a tabular summary matrix of Oakland ordinance and comprehensive plan recommendations, which is broken down by code sections and plan elements and includes recommendations ranging from specific code language updates to the flagging of potentially relevant code sections or plan policies for further consideration in this or future efforts.

TABLE 2: OAKLAND ORDINANCE AND COMPREHENSIVE PLAN RECOMMENDATIONS MATRIX		
Code/Plan Section	**Current themes or specific language**	**Proposed changes (specific or conceptual)**
Zoning Ordinance #499		
Section 3: Definitions	Defines terms used in the ordinance, including relevant terms: Street, Street Arterial, Street Collector, Street Local, Street Marginal Access, Street Improved, Street Unimproved.	Revise definitions where necessary. Use Local Street Network Plan definitions where applicable. Check for congruency with Subdivision ordinance.
6.14.0: Public Land Zone	6.14.3 Uses Permitted Outright (lists uses that are permitted outright within the public land zone)	Consider adding recreation or multi-use paths as an explicit outright permitted use.
13.06.0 - Drainage	Describes approval process for new construction, describes required connections to existing system.	Review further for possible amendments. Consider reference to relationship to current stormdrain conditions (very poor in some instances) and consider relevance.
13.07.0 – Curbs and Gutters	*Curbs and gutters are required to be installed by the developer if any other lot on the same side of the street in the same block has curbs and gutters.*	Review further for relevance with new Street Design Standards (e.g. minor local street standards)
13.08.0 -- Sidewalks	*Sidewalks may be required to be installed to city specification in the city right-of-way by the developer of any lot, taking into consideration existing sidewalks and pedestrian traffic in the immediate area.*	Review further for possible amendments relative to revised street design standards.
13.09.0 -- Streets	References requirements for conformance with street design standards including frontage and access dynamics.	Review further for possible amendments
13.13.0 – Driveways and Access	Addresses requirements for driveway width, spacing, construction and contextual relationship.	Clarify references to “local” or “collector” distinguish when “minor” or “major” are intended
13.23.0 (2) (B), (C) – Tourist related Industries (associated	Addresses criteria and standards for site plan review for recreation vehicle parks, specifically	Review further for possible amendments

street improvements)	street and sidewalk improvements.	
Code/Plan Section	**Current themes or specific language**	**Proposed changes (specific or conceptual)**
Subdivision Ord #504		
Section 1: Definitions	Defines terms used in the ordinance, including relevant terms: Access Lane, Alley, Private Drive, Residential Boulevard, Street Arterial, Street Collector, Street Local, Street Marginal Access, Street Improved, Street Unimproved.	Revise definitions where necessary. Use Local Street Network Plan definitions where applicable. Check for congruency with Zoning ordinance.
Section 20: Creation of Public Street Outside of a Subdivision	Affords the Planning Commission authority to approve the creation of a public street by deed without full compliance with subdivision regulations.	Review further for possible amendments
Section 21: Creation of Private Street Outside of a Subdivision	Affords the Planning Commission authority to approve the creation of a private street by deed without full compliance with subdivision regulations.	Review further for possible amendments
Section 39: Streets and Pedestrian Ways	*(1) (a) B)* *Buildings or other existing development on adjacent lands physically preclude a connection now or in the future, considering the potential for redevelopment."* Table 1. Street Design Standards (5) Future Extension of Streets (15) Pedestrian Ways	*(1) (a) B)* *<u>Legally constructed</u> ~~B~~buildings or other existing development on adjacent lands physically preclude a connection now or in the future, considering the potential for redevelopment."* Replace with revised Table 1. Street Design Standards with new street classifications (See Table 1) Consider revisions to subsection (5) to reference address conceptual roads map in LSNP. Consider revisions to subsection (15) to address needs specific to multi-use path dynamics

		described in the LSNP.
Code/Plan Section	**Current themes or specific language**	**Proposed changes (specific or conceptual)**
Section 40: Blocks	(3) Easements (c) Pedestrian and bicycle ways	Review further
Section 41: Buildings Sites	(2) Access	Review further
Section 48: Public Facility Improvements in Subdivisions	(1) Streets Establishes street improvements required by a developer and directs to design standards. (2) Curbs and Gutters *Curbs and gutters are required to be installed by the developer if any other lot on the same side of the street in the same block has curbs and gutters.* (5) Sidewalks and street trees *Sidewalks and street trees shall be installed to City specifications on one or both sides of an improved public street within or connecting to a subdivision, at the discretion of the Planning Commission…* (6) Bicycle Routes and Lanes	Review further Review further (possibly direct to design standards and consider minor local street standards) Consider: (5) Sidewalks and street trees *Sidewalks and street trees shall be installed to City specifications on one<u>,</u> ~~or~~ both, <u>or neither</u> sides of an improved public street within or connecting to a subdivision, at the discretion of the Planning Commission…* (6) Bicycle Routes and Lanes. Consider the addition of language addressing the use of Sharrows.
Ordinance #267 Sidewalk Ordinance	Construction/reconstruction of sidewalks by abutting property owners. Cost share with City.	Review further
Ordinance #287 Subdivision Ordinance	References to Street Classifications, access, improvements	Ordinance index does not show that #287 was repealed by #504. Consider relevance and reconciliation of overlaps.
Ordinance #343 Flood Hazards	Language about restrictions on development within the floodplain/way	Review for relevance to potential multi-use path improvements in the floodplain/way

Code/Plan Section	Current themes or specific language	Proposed changes (specific or conceptual)
Ordinance #456 Historic and Cultural Resources	Establishing a new program, defining powers, duties and process for proposed changes to properties within the historic district.	Consider impacts of existing language on plans for transportation improvements.
Ordinance #501	Maintenance of Alleys and Street Shoulders	Review further
Oakland Comprehensive Plan		
Natural Features Element	Goal A, Policy 6: Goal B, Policy 3: Vegetation on stream banks	Add something related to paths in floodway Add something to recognize possible need for impacts relative to bike path..
Facilities and Services Element	(E), Policy 6: Concerns the adequacy of parkland and specifically addresses Ash Creek right-of-way as a potential park site. (E), Policy 8: Concerns Ash Creek as a continued major collector of storm runoff. (E), Policy 13: *Public buildings and recreation facilities shall take into account the needs of physically handicapped persons.*	Add clarity about "path" as "park" for Ash Street R-O-W. Consider stronger or more specific language. Review for relevance and consistency with Policy 6. (E), Policy 13, Consider: *Public buildings, sidewalks and recreation facilities shall take into account the needs of physically handicapped persons.* Consider adding a policy specifically addressing support for public recreation multi-use paths Consider adding a policy regarding the coordination of street improvements with stormdrain improvements

Transportation Element	Policy 1: *…Dedicated but undeveloped streets should not be vacated* Policy 2: *The street network shall consist of arterial streets, collector streets, and local streets.* Policy 4: *It is recommended that local streets be designed so that through traffic is discouraged.* Policy 6: *A street connecting Wells Lane with Oak Street should be built.* Policy 7: *…They should be constructed to City specifications, should be paved, and have curbs and gutters.* Policy 11: *When reviewing proposals ort planning improvements, the needs of the transportation disadvantaged shall be considered.*	Consider clearer language relative to the policy language. Consider and enable the appropriate vacation of right-of-way. Not removing from public ownership, for example. Policy 2: *The street network shall consist of arterial streets, major and minor collector streets, and major and minor local streets.* Policy 4: *It is recommended that minor local streets be designed so that through traffic is discouraged.* Staff recommends maintaining this as a policy. Public and stakeholder process did not, however, reveal this as a clear priority. Staff recommends evaluating the relevance of this policy further. Policy 7: *…They should be constructed to meet City design standards ~~specifications~~, should be paved, and have curbs and gutters.* Consider more specific language Consider adding a policy specifically addressing support for public recreation multi-use paths

Code/Plan Section	Current themes or specific language	Proposed changes (specific or conceptual)
		Consider a policy referencing reliance on the City's transportation plan(s) for priorities.
	Sidewalks Policy 1: *Sidewalks should be constructed on at least one side of the all local and collector streets…*	Sidewalks Policy 1: *Sidewalks should be constructed on at least one side of the all major local and collector streets…*
	Bicycles Policy 1: *…The City should support the Department of Transportation in their efforts to install bike lanes.* Bicycles Policy 2: *Bicycle racks shall be provided at a number of convenient locations in the business district.*	Bicycles Policy 1: *…The City should support ~~the Department of Transportation~~ Douglas County in ~~their~~ any efforts to install bike lanes.* Consider more specific language (locations).
	Public Transit Policies:	Add more specificity and consider language that specifically supports Umpqua Transit service in Oakland.
Land Use Policy Element	Goal (C) (2) *New Development should, as much as possible occur contiguous to already urbanized areas.*	Consider adding language to the effect of "… and should, as much as possible, perpetuate the existing street pattern as conceptualized in City plans. Consider additional policy related to transportation and land use relationship.
Urbanization Element	Policy 3 (e): *All utilities, roads, and their rights-of-way, pavement widths, and construction specifications, serving existing parcels of land should be in accordance with City of Oakland policies and standards.*	Consider adding reference to City plans related to conceptual future street network.

Historic Element	Policy 10: In keeping with the character of the area, consideration should be given to not installing curbs and gutters in the residential portions of the historic district.	Consider relevance to Code updates
Map Updates	The Comprehensive Plan contains numerous inventory Maps which the Local Street Network Plan updates.	Consider updating the following maps: Existing Land Use, Street Circulation, Street Conditions. Add: Sidewalk Inventory and others
Douglas County Plans		
Although arterials are critical elements in Oakland's transportation system, they are all under the jurisdiction of Douglas County. Proposed improvements and identified local needs have to be closely coordinated with County Public Works staff. To that end, Oakland and project staff met with Douglas County Public Works staff on February 24th, 2015. During that meeting it was determined, among other things, that the County's curious classification of Oak Street as a "Local" street is unintentional and simply went unnoticed at the time of jurisdictional transfer (from the City to the County). The County should rectify this.		

III. ADDITIONAL CODE AND PLAN CONSIDERATIONS

- Internal code and policy inconsistencies often arise from dated zoning and subdivision ordinances and comprehensive which have experienced numerous isolated amendments or iterations.
- State and Federal Laws are constantly changing which requires local jurisdictions to ordain updates to be consistent or administer ordinance provisions and plan policies that may be inconsistent with state and federal rules and statutes. Many of these areas are better viewed as "opportunities" than as "conflicts."
- System Development Charges (SDC's) may be collected as vacant parcels of land are developed or as redevelopment occurs. The City of Oakland currently has a wastewater SDC in place (Ordinance 488, 1998). Transportation SDCs would be based on the land use type, the size of the development, 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. SDCs and other funding sources will be researched and presented in greater detail in future technical memoranda.

In the process of initial review of code provisions and plan policies, some additional potential revision themes were revealed. They fall into the following categories:

- Adding or revising sections addressing access, (in order to manage access to land uses and on-site circulation, and to preserve the transportation system in terms of safety, capacity, and function.
- Adding sections addressing pedestrian improvements to provide an interconnected network of pedestrian routes within neighborhoods (including development of private property
- Adding or refining sections addressing deferment of required improvements, with a guarantee required to secure future installation. This section is proposed to provide flexibility to respond to unusual circumstances that would preclude the immediate construction of the improvements as required.
- Amendments providing additional (and perhaps more specific) opportunity to modify the street standards to address unusual circumstances where physical features of the land create severe constraints or natural features that should be preserved. The proposed amendments add provisions addressing the provision of bicycle parking in commercial land use designations.

Attachment A

Table 1. Street Design Standards

Type of Street	Pavement Width	Travel Lane	On-Street Parking [1]	Minimum R.O.W [2]	Sidewalk Width	Bike Lane
Arterial	40-44'	2 10-12' Wide	1 Side	60'	5' min. both sides [3, 4]	2 Sides
Major Collector	40-44'	2 10-12' Wide	1 Side	60'	5' min. both sides [3, 4]	2 Sides
Minor Collector	36-40'	2 10-12' Wide	2 sides	56-60'	5' min. both sides [3, 4]	Sharrow as needed
Major Local Street	36'	2- 10' Wide	2 sides	56-60'	5' min. both sides [3, 4]	Sharrow as needed
Turn-Arounds for Dead-End Streets in Residential Zones Only	47' Radius	40' Radius				
Turn-Arounds for Dead-End Streets in Commercial Zones Only	50' Radius	42' Radius				
Infill Local Street [6] – Up to 25 Dwellings	*22'*	*1-15 ' Wide (Queuing)*	*1 side*	*35'*	*5' min. both sides [5]*	
Minor Local Street	28'	2-10' Wide	1 side	43'	5' planter strip 1 side, 10+' gravel area side	
Access Lane [6] – Up to 12 Dwellings	20'	1-13' Wide (Queuing)	1 side	35' (w/landscaping & Pub. access easement)	5' min. on one side [5]	
Private Drive [6] – Up to 6 Dwellings	13'	1-13' Wide (Queuing) [7]	No	21' (w/public access easement)	None	
Alleys	12-16'	12' Wide residential, 16' Wide commercial. Both w/2' unpaved strip on sides	No	16-20'	None	

1 – On-street parking width is currently 7 feet, proposed to be 8 feet.

2 – When sidewalks and planting strips are not required, minimum R.O.W. can be reduced by those dimensions.

3 – In areas zoned commercial or mixed use, wider sidewalks with tree wells (4 ft. by 4ft.) and street trees may be required at the Planning Commission's discretion if deemed compatible with existing development. Additionally, planting strips and street trees may not be required if deemed incompatible with existing development.

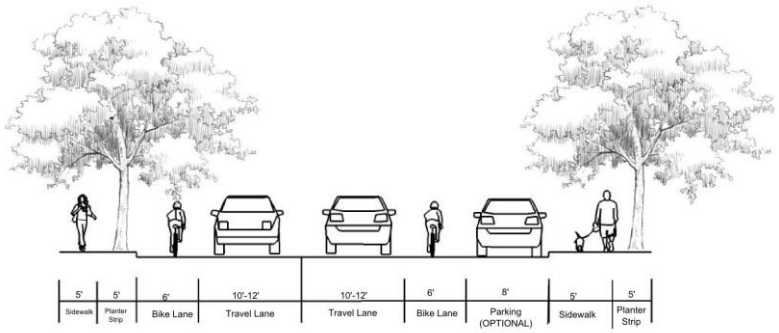
4 – ADT – Average Daily Traffic.

6 – Two outlets required.

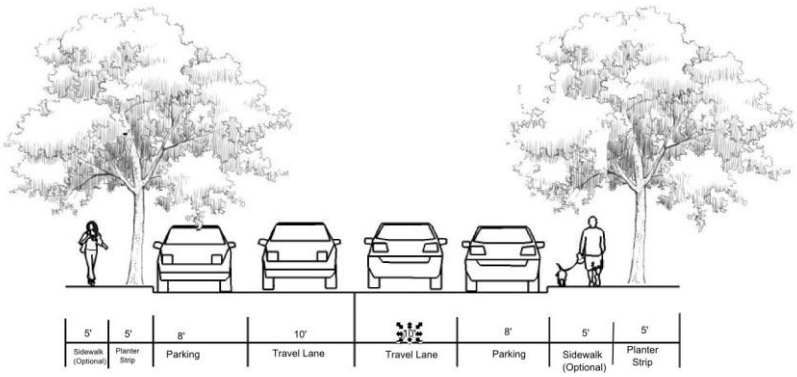
7 – Shared with pedestrians.

Figure 1: Street Functional Class Street Section Diagrams

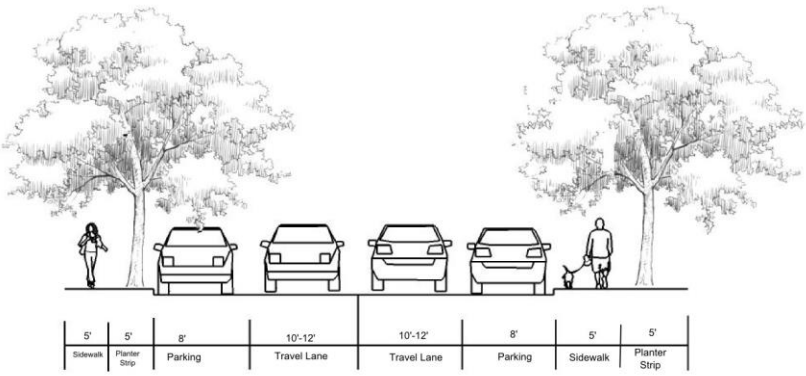
Arterial / Major Collector



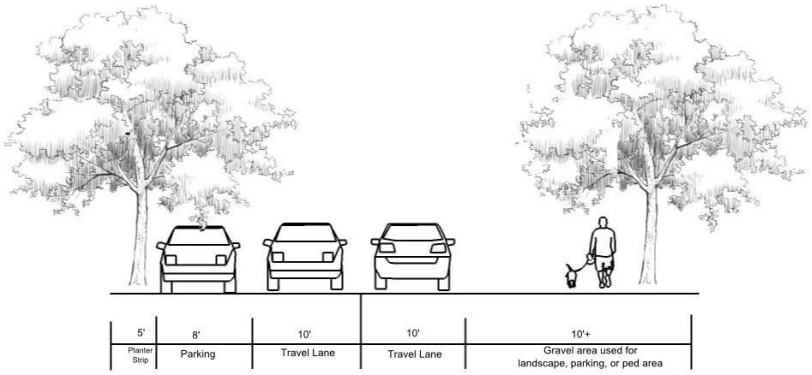
Minor Collector



Major Local



Minor Local



APPENDIX II:
PUBLIC INVOLVEMENT/PROCESS OVERVIEW

Oakland LSNP – Open House & CAC/PAC Priorities

Created - 03/09/2015

Street Reclassification – Bicycle

- **B-3 "Cypress Avenue – NE 1st street to NE 5th Street Reclassification" -** PAC 3, CAC 4 = **7**
  Cypress Avenue street reclassification to a 'Major Local' is of high priority to the public. The "sharrow" concept seems like a popular idea on this street.
- **B-2 "5th Street Reclassification & Bicycle Improvements" -** PAC 7, CAC 0 **= 7**
  The proposal to reclassify 5th Street (from Oak Street to NE Cedar Street) to a Major Local street was acknowledged in all meetings as of high priority. This proposal contains the 'sharrow' concept.
- **B-5 "Locust Street Reclassification & Bicycle Improvements" -** PAC 1, CAC 4 **= 5**
  Locust Street reclassification to a 'Minor Collector' is of high priority to the CAC mainly because of the added bicycle accessibility. Staff proposed 3 options; Option1 – which includes designed Bike Lanes, Option 2 – which includes the "sharrow" concept and Option 3 – which is a hybrid of the two with increased 4-way stops along Locust. None of the options seems to be more popular than the other to the public; it seems they just want to see some change in the area as it pertains to bicyclists. Kelly noted "issue of blind turn at Locust and 2nd Street" (turning right). One citizen noted "no stop sign on 3rd" and another citizen noted confusion about right of way width.
- **B-1 "Maple Street Reclassification & Bicycle Improvements" –** PAC 3, CAC 0 = **3**
  The proposal to reclassify Maple Street (from SE 1st Street to SE 7th Street) to a 'Major Local' street was acknowledged by some as a priority, but not broadly or by every group.
- **B-4 "3rd Street Reclassification & Bicycle Improvements" –** PAC 2, CAC 0 = **2**
  The proposal to reclassify 3rd Street (from SE Apple Street to NE Cypress Avenue) to a 'Major Local' street was acknowledge by some as a priority, but not broadly. This proposal includes our 'sharrow' concept. One citizen noted "Hill between Oak and Pine Streets on 3rd creates visibility issues". And another citizen noted that "Bikes [would be] better on 2nd Street".

Street Reclassification – Pedestrian

- **P-1 "5th Street Reclassification & Pedestrian Improvements" –** PAC 7, CAC 5 = **12**
  Members of the public have placed priority on the reclassification of 5th Street (from Oak Street to the School) to better accommodate pedestrian transportation. Athough some citizens expressed desire for a stop sign at the top of Fifth Street, a larger number of citizens stressed that they would not like to see a stop signs (at Cedar). They noted: "Stops signs on 5th will cause more congestion – I am a bus driver", "In adverse weather, cars, school buses, and trucks will have a difficult time getting started. No stop signs going uphill", and "I agree – no stop sign on hill". Also, a few citizens noted that they would like to see streets lights on the NE 5th Street "for safety". One member noted "Have better access/improvements to 6th for alternative routes to school hill". A PAC member signed "STU" noted "Better drainage for street & existing sidewalk helps to promote existing improvements". Also, noted by a CAC or PAC member is "New 18 inch between Oak and into Ash" which I believe means there is a new 18 inch drain pipe in the area (east side of 5th street).
- **P-3 "Oak Street Reclassification & Pedestrian Improvements" –** PAC 11, CAC 0 = **11**
  Citizens of Oakland placed priority on the reclassification of Oak Street (from NE 1st Street to NE 8th Street) to better accommodate pedestrian transportation. Although the street reclassification proposal doesn't change (going from 'Arterial' to 'Arterial)', the proposed design standards will change to better accommodate pedestrian travel. Two citizens noted that "sidewalks need to go to apartments past 9th street. Children walk from there every day in the street." Another Citizen noted that "Oak Street should be used as main route east and not allow heavy trucks on Locust Street".
- **P-4 "Cypress Avenue – NE 1st Reclassification & Pedestrian Improvements" –** PAC 4, CAC 4 = **8**
  2 citizens of Oakland have placed priority on the reclassification of Cypress Avenue (from NE 1st Street to NE 5th Street) to a 'Major Collector' to better accommodate pedestrian transportation. One noted that there should be "sidewalks on one side the street only." Two of the PAC Red Stickers were signed with "WE" and "BL" (I assume these are initials). And lastly, one of the members noted that "School Bus Line" runs along Cypress Avenue from and to NE 5th Street and NE 1st Street.
- **P-2 "3rd Street Reclassification & Pedestrian Improvements" –** PAC 1, CAC 0 = **1**
  The proposal to reclassify 3rd Street (from SE Apple Street to Cypress Avenue) to a 'Major Local' to accommodate pedestrian travel was of some priority to the public. Most of the citizens noted that they would rather see this reclassification on 2nd Street rather than 3rd. Another citizen noted that they would like to see "sidewalks on one side of street, right side".

Multi-Use Paths – Pedestrian

- **P-9 "Calapooya Creek Multi-Use Path" –** PAC 31, CAC 4 = **35**
  Citizens of Oakland have placed priority on the proposed Multi-Use Paths along Calapooya Creek connecting to Goodman Avenue and Lake Shore Street, and possible railroad crossings at Pine Street or Ash ROW. For the most part people loved this proposal; one member provided an additional note stating that we should "work with Sutherlin for a Oakland to Sutherlin bike and pedestrian path". By the placement of most of the stickers, I believe that most of the public would rather have the railroad crossing at Ash Creek rather than Pine Street. Another citizen noted that people will use Stearns Lane from Goodman Avenue to Lake Shore Street for bike and pedestrian travel. Is there "any possibility of adding an additional path here or widening the shoulder?" One member does not like the idea of the Multi-Use Path running along the back side of the Clear Lake Ponds and would rather see a direct connection from Lake Shore Multi-Use Path to the Multi-Use path running closest and along Calapooya Creek. Also, some members of the PAC stressed that the City Owned Property, where the multi-use paths are proposed, floods every 10 years or so and would like to put emphasis on building the paths using durable and flood resistant materials.
- **P-7 "Ash Right-of-Way (ROW) Multi-Use Path" –** PAC 8, CAC 8 = **16**
  Citizens of Oakland have placed priority on the proposed Multi-Use Path through Ash Creek ROW (from NE 8th Street to NE 1st Street). Although, one citizen did note that "this isn't a really high priority". One PAC member, noted "Great Idea! ROW already exists – no mess trying to obtain ROW. Creates better pedestrian connectivity to downtown and 5th Street to school". Another PAC member, signed as "WAE", noted "should connect with path along creek". I am assuming that this member is referring to a connection between the existing 5th Street Path and the proposed Multi-Use Path along Ash Creek ROW. Also, one member noted "Vehicle travel lane over Ash Creek?". I assume this member is putting emphasis on maintaining automobile transportation across Ash Creek even with the proposed path.
- **P-10 "Railroad Right-of-Way (ROW) Multi-Use Path" –** PAC 8, CAC 0 = **8**
  Citizens of Oakland have placed priority on the proposed Multi-Use Path running through Railroad ROW from Ash Creek to SE Front Street; this path also includes a connection to Locust Street. I believe that most of the public is in favor of a railroad crossing at Ash Creek rather than Pine Street. On a side note: Jim used this map area to sketch out his concept of continuing the sidewalk running north on SE 1st Street where it would 'hang' a left and continue to run along the

proposed Railroad crossing at Ash Creek, finally ending at the proposed Railroad ROW Multi-Use Path. Jim also expressed that he'd like to see additional sidewalk extensions along NE 1st Street to accommodate an 'unimproved' street connecting SE 2nd Street to NE 1st Street just south of the Ash Creek ROW.

- **P-8 "Ash Right-of-Way (ROW) & Pine Street Railroad Crossings" –** PAC 2, CAC 0 = **2**
  One citizen of Oakland placed priority on the Ash Creek Row and Pine Street Railroad Crossing. I believe this member was also a fan of the Ash Creek ROW Railroad crossing as well. Jim also noted and sketched out the location of a storm drain currently residing under the railroad. This storm drain is 7 feet tall, 6-8 feet in width, and 24 feet long. The storm drain, pretty much acts as a culvert diverting water beneath the railroad coming from Ash Creek. Jim pitched the idea of using this giant storm drain as a pedestrian railroad crossing. The two cons to this idea are; that the drain is only 7 feet tall which would make it uncomfortable for your average adult bicyclist, and there would be some additional costs to divert the Ash Creek water during certain parts of the year.

Street Intersections – Auto Transportation

- **A-2 "Locust and 7th Street Intersection" –** PAC 8, CAC 8 = **16**
  Three citizens of Oakland placed priority on our proposal to provide safer and clearer traffic flow through the intersection of SE 7th Street and Locust Street. We proposed two options for this intersection; option 1- allows for one-way traffic flow through City Hall's parking lot which would include additional curb lines along Locust. Option 2- allows a two-way traffic flow through City Hall's parking lot and also includes closing the parking lots easterly access. One of the citizens noted that there "need[s] to be a sidewalk North side of Locust after Intersection e[ast] (referring to the intersection of 7th and Locust Streets). Neither option was prioritized by the CAC or PAC which makes me believe they are open to any reasonable changes in to the area. One member noted "Parking at City Hall – ball field overflow parking",1 ***(see notes below)*** *while another noted "Sidewalks needed between the end of sidewalk on Locust (South) through 7th Street and 8th Street intersections".2*
- **A-3 "Oak and 5th Street Intersection" –** PAC 3, CAC 9 = **12**
  Citizens of Oakland placed priority on improving pedestrian crossing at the intersection of Oak Street and NE 5th Street; our proposal also includes improving drainage issue that's hinder pedestrian travel in the area. One member noted "Connection with 5th Street existing sidewalk to school and bio-swale project could connect to Ash Creek ROW Path". Another individual also noted that we "should [plan to] connect 3 missing ½ block of sidewalk between 5th and 6th Streets [along Oak Street]". Also, noted for this area, is the southwesterly lot at the corner of 5th and Oak Streets is "flooded".4
- **A-1 "1st & Oak & Locust Streets Intersections" –** PAC 5, CAC 5 = **10**
  Citizens of Oakland placed priority on our proposal to increase sidewalk connections on the west side of the 1st Street and also include sidewalk extensions to decrease pedestrian crossing time ***(4 Stickers)****.One citizen noted "sidewalks for Mom's with strollers – yes!, higher visibility for business off Oak – Yes!, bike path for kids on bikes – yes please!". One member, signed "STU", noted "High Priority to help draw people downtown and create connection to Park Across 99 [1st Street]". Another member noted, "We would like to consider parallel parking this location [west-side of SE 1st Street, just south of Locust Street]". And lastly, another member noted, "Right turn from North bound 99 [1st Street]5 to Locust inside turn island". I assume this member would like to see a median in the center of Locust Street at the intersection of 1st Street.*
- **A-4 "Cedar and 5th Street Intersection" –** PAC 2, CAC 8 = **10**

One citizen of Oakland placed priority on improving pedestrian crossing at the intersection of NE Cedar Street and NE 5th Street. But was "very unpopular" to others. They noted "Yes to high visibility crosswalks, no to stop signs on 5th Street. Stop signs on Cedar Street OK", "No more stop signs here…will cause more congestion", and "forces buses to stop on hill – school district impact very critical here" (referring to stops on 5th Street). Two members noted that he/she would like to see speed bumps at the intersection instead of a stop sign. Another member also, noted "There should be NO stop sign for traffic heading north on 5th Street; it will create a jam of traffic". Another individual countered this note with "Yes there should"; meaning he/she would like to have the stop sign on 5th Street for north bound traffic.
One citizen noted "No stop sign on top of hill please"

- **A-5 "Stearns Lane, Old Hwy 99/Front Street Intersection" –** PAC 1, CAC 0 = **1**
  We had no direct proposal for this intersection but we did receive some feedback from the public of Oakland. A few citizens noted issues at the intersection of SE Walnut, Stearns Lane, and Old Highway 99/Front Street. They stated "Walnut and Stearns misaligned to each other and if oncoming cars want to both turn left [facing east and west] they will hit if they miscommunicate." These citizens also provided little diagrams of what the left turns look like. "If one drive thinks this… …and the other thinks this. They will hit".

Another citizen suggested a round-about near Triangle Park, but two other citizens declined that proposal
with, "No! Round-about." And lastly, one citizen noted that "light dynamics [on Stearns Lane are] confusing. Stop? Wait?"

Conceptual Streets – Auto Transportation

- **A-9 "Apple Street Extension" –** PAC 4, CAC 0 = **4**
  The proposals to extend Apple Street (west end) to SE Pear Street and was of high priority to the public.
- **A-14 "Oak to Locust East Street Connection" –** PAC 4, CAC 0 = **4**
  The proposal to connect Oak Street to Locust Street near the east side of town (near Driver Valley Road- just passed the church) is of high priority to the citizens of Oakland.
- **A-8 "Cypress Avenue Extension" –** PAC 2, CAC 1 = **3**
  A few members of the public placed priority on our proposal to extend Cypress Avenue from its intersection at NE 5th Street to NE 6th Street. But, two citizens noted "Not interested" and "this project would be unfeasible, primarily due to topography. The homeowner on this property has huge concerns as to how access to the property would be handled." Another member noted "Have better access/improvements to 6th for altnernative routes to school hill".

- **A-10 "Old Hwy 99 to 5th Street Network" –** PAC 1, CAC 0 = **1**
  Our proposal for this area is to connect NE 5th Street (near the school) to Old Highway 99 to increase local connectivity and to accommodate for future residents in the northern portions of Oakland. One member of the public placed priority on this proposal noting "Good for extra way

out of games…". One member of the CAC or PAC, noted that he/she doesn't agree with the conceptual street segment running through the school's parking lot from 5th Street. This member noted "traffic flow into the elementary school parking lot would be majorly affected and create no smooth flow into the parking lot."

- **A-11 "Old Town Loop Connections" -** PAC 1, CAC 0 = **1**
  The proposal to create connections from one side of Old Town Loop Road to the other was acknowledge by one member of the public.
- **A-15 "North of Oak Street, Street Network" –** PAC 0, CAC 1 = **1**
  One member of the CAC placed priority on our conceptual street network on the north-side of Oak Street (just east of Driver Valley Road) to increase local connectivity for future residential growth in the eastern portions of Oakland.

Notes:

1. My comment from a conversation with the mayor. She stated that during events there is not enough parking at the city hall. She would like to find a solution. One possible solution is to create a driveway into the field and use that for overflow during the big events.

2. One PAC member placed all her stickers here. She says there are a group of students that walk on the north side of Locust and the section between 7th and 8th street is dangerous. They would like a sidewalk here to be a high priority

3. Make this infill project a higher priority so that it can be done even if they do not reconstruct the whole street.

4. Again my note from a conversation. It was stated to me that the drainage from the intersection floods the basement of the house.

5. Talked to the mayor about this. There was some confusion on how the right turns maneuver around the curb extension. We talked it through and she understood that there would be curb side parking and the curb would allow the right turn to happen safely

RAW Maps --- Map Key

Intersection Improvements

- A-1 Oak and 1st Street & Locust Street and 1st
- A-2 Locust Street and Seventh Street
- A-3 Oak Street and 5th Street
- A-4 Cedar Street and Fifth Street
- A-5 Stearns Lane and Stearns and Front Intersection

Conceptual Streets

- A-6 Pine Street (between Fourth and Sixth
- A-7 Chestnut (between Second and South East First)
- A-8 Cypress (between Fifth and Sixth)
- A-9 Apple (completing connection to "Sixth")
- A-10 Old Hwy 99 to 5th Street Network
- A-11 Old Town Loop Connections
- A-12 6th to 7th Street Network
- A-13 Oak to Locust to 8th Street Network
- A-14 Oak to Locust East Street Connection
- A-15 North of Oak Street Network
- A-17 Wells & 8th Street Network

Other Street

- B-1 Maple Street (Front Street to 7th Street)
- B-2 5th street (Oak Street to the school)
- B-3 Cypress Avenue (NE 1st and around to 5th Street)
- B-4 Third Street (1st Street to 8th Street)
- B-5 Locust Street (Apple Street to Cypress Street)
- P-1 Fifth Street (Oak street to the school)
- P-2 Third Street (Apple Street to Cypress Street)
- P-3 Oak Street (1st Street to 8th Street)
- P-4 Cypress Avenue & NE 1st (1st Street around to 5th Street)

Paths

Dedicated (off-street) multi-use path (alley)

- P-5 2nd & 3rd Street Alley (Apple Street to Ash Street)
- P-6 3rd & 4th Street Alley (Cedar Street to Locust Street)

Dedicated (off-street) multi-use path

- P-7 Ash Street Right-of-Way Path
- P-8 Ash Right-of-Way (ROW) & Pine Street Railroad Crossings
- P-9 Calapooya Creek Multi-Use Path (through city owned open space property)
- P-10 Railroad Right-of-Way (east and west of railroad)

HIGH PRIORITY TO HELP DRAW PEOPLE DOWNTOWN & CREATE CONNECTIVITY TO PARK ACROSS 99.

A1 - 1st & Oak & Locust Streets Intersection

Improvement Goals:

-Traffic calming
-Encourage through traffic to Draper Valley to use Oak Street instead of Locust Street
-Improve pedestrian crossing

Design Elements:

Low Cost Improvements:
Provide Signage and Striping to direct motorists to use Oak Street

1 - Sign 1

2 - Sign 2

- High Visibility Crosswalk

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
We would like to consider parallel parking in this location.

SE First Street (north of Maple St)
Objective:
- Serve as a City "Main Street" functionality for all modes
- Reduce travel speeds

Design Considerations:
- There is 60 ft. ROW
- 1st street (north & south of intersection) will have bike lanes (arterial designation)

Design Recommendations:
- Sidewalks and planter strips on both sides
- Parking on one side only
- 6 ft. bike paths on both sides
- 12 ft. travel lanes

Street Classification Changes:
NE First Street
"Arterial" to "Major Collector"
SE First Street (north of Front St)
"Arterial" to "Minor Collector"
NE Oak Street
"Arterial" to "Major Collector"

RT TURN FROM NB 99 TO LOCUST TO INSIDE TURN (SLOW!)

A1 - 1st & Oak & Locust Streets Intersection

Improvement Goals:

-Traffic calming
-Encourage through traffic to Draper Valley to use Oak Street instead of Locust Street
-Improve pedestrian crossing

Design Elements:

Low Cost Improvements:
Provide Signage and Striping to direct motorists to use Oak Street

1 - Sign 1

2 - Sign 2

- High Visibility Crosswalk

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

SE First Street (north of Maple St)
Objective:
- Serve as a City "Main Street" functionality for all modes
- Reduce travel speeds

Design Considerations:
- There is 60 ft. ROW
- 1st street (north & south of intersection) will have bike lanes (arterial designation)

Design Recommendations:
- Sidewalks and planter strips on both sides
- Parking on one side only
- 6 ft. bike paths on both sides
- 12 ft. travel lanes

Street Classification Changes:
NE First Street
"Arterial" to "Major Collector"
SE First Street (north of Front St)
"Arterial" to "Minor Collector"
NE Oak Street
"Arterial" to "Major Collector"
Locust Streets
"Collector" to "Minor Collector"

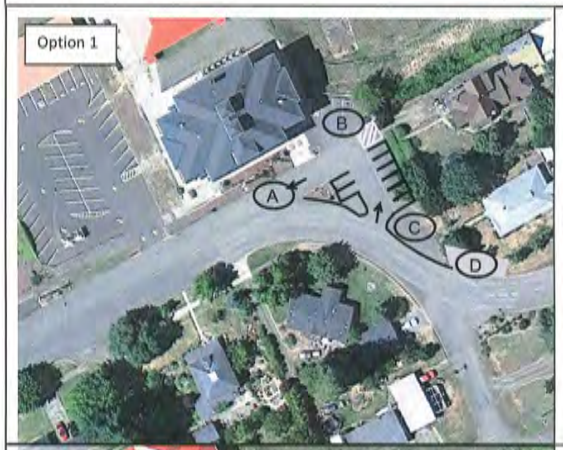
Sidewalks for moms w/ strollers (yes) higher visibility for businesses off Oak. bike path for young kids on bikes

A2 - Locust & 7th Street Intersection

Improvement Goals:

-Traffic calming
-Provide clearer/safer traffic flow in the area

Option 1



Design Elements:

A: One way traffic flow through parking area

B: Do-not block area for house access

C: New curb line and parking designation

D: 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.

Street Reclassification Changes:

Locust Streets
"Collector" to

SE 7th Street
"Local" to "Mino

Option 2

Design Elements:

A: New curb line and parking designation

B: Do-not block area for house access

C: New curb line and parking designation

D: All access occurs from this area. Remove on-street parking to allow for two-directional travel

Street Reclassification Changes:

Locust Streets
"Collector" to "Minor Collector"

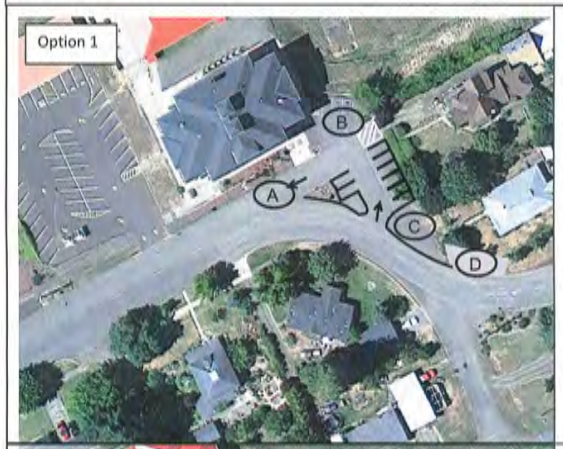
SE 7th Street
"Local" to "Minor Local"

A2 - Locust & 7th Street Intersection

Improvement Goals:

-Traffic calming
-Provide clearer/safer traffic flow in the area

Option 1



Design Elements:

A: One way traffic flow through parking area

B: Do-not block area for house access

C: New curb line and parking designation

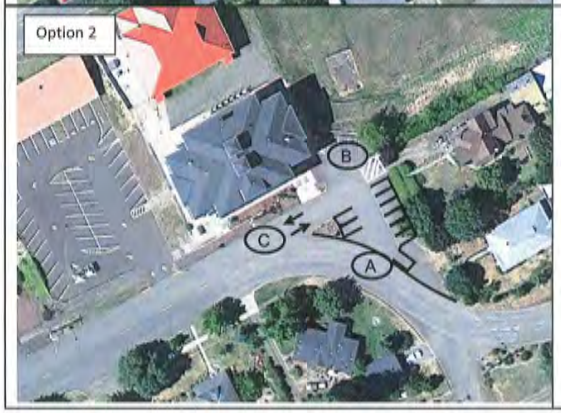
D: Will need to remove vegetation in this area so turning vehicles from Locust can see oncoming vehicle. The location of amount of vegetation to be field verified.

Street Reclassification Changes:

Locust Streets
"Collector" to "Minor Collector"

SE 7th Street
"Local" to "Minor Local"

Option 2



Design Elements:

A: New curb line and parking designation

B: Do-not block area for house access

C: New curb line and parking designation

D: All access occurs from this area. Remove on-street parking to allow for two-directional travel

Street Reclassification Changes:

Locust Streets
"Collector" to "Minor Collector"

SE 7th Street
"Local" to "Minor Local"

- PARKING @ City hall
- Ball ticket overflow parking

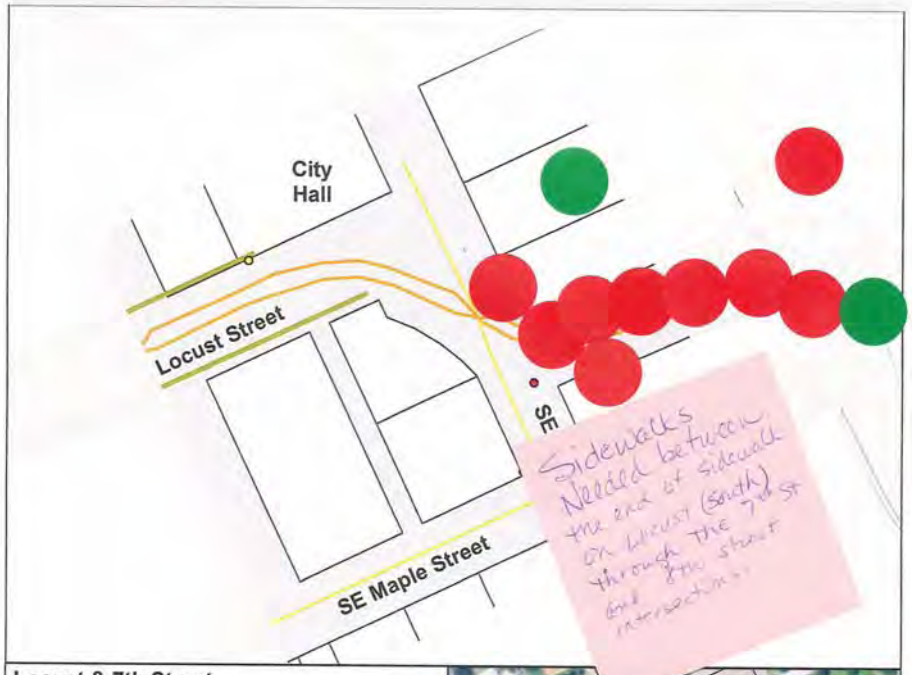
City of Oakland

Auto-Transportation System Alternatives

Site Map A-2

Crosswalk Sign
Stop Sign
Oakland Sidewalks
Collector Street
Local Street
Oakland Parcels
Oakland ROW

0 100 200 400 Feet



Locust & 7th Street Intersection Summary

The unique intersection of Locust Street and SE 7th Street was raised by the CAC and PAC as an intersection that could benefit from some 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 are provided with Option 1 being the engineer's recommendation (see attached conceptual design and proposed improvements).

***Note:** There are documented drainage issues in this area due to storm drain collapse, causing sink holes and undermining (see Attachment B). Locust is also one of few streets in Oakland identified by Public Works staff as having "bad" pavement condition (the worst condition category in the inventory).

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS Created By: LCOG Jan, 2015

City of Oakland

Auto-Transportation System Alternatives

Site Map A-2

Crosswalk Sign
Stop Sign
Oakland Sidewalks
Collector Street
Local Street
Oakland Parcels
Oakland ROW

0 100 200 400 Feet

Locust & 7th Street Intersection Summary

The unique intersection of Locust Street and SE 7th Street was raised by the CAC and PAC as an intersection that could benefit from some 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 are provided with Option 1 being the engineer's recommendation (see attached conceptual design and proposed improvements).

***Note:** There are documented drainage issues in this area due to storm drain collapse, causing sink holes and undermining (see Attachment B). Locust is also one of few streets in Oakland identified by Public Works staff as having "bad" pavement condition (the worst condition category in the inventory).

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS Created By: LCOG Jan. 2015

Should connect missing ½ block of sidewalk between 5th + 6th Streets.

CONNECTION N/ 5TH ST. EXISTING SIDEWALK TO SCHOOL & BIOSWALE PROJECT. COULD CONNECT TO ASH CR. ROW PATH.

A3 - Oak & 5th Street Intersection

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:

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

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.

Street Reclassification Changes:

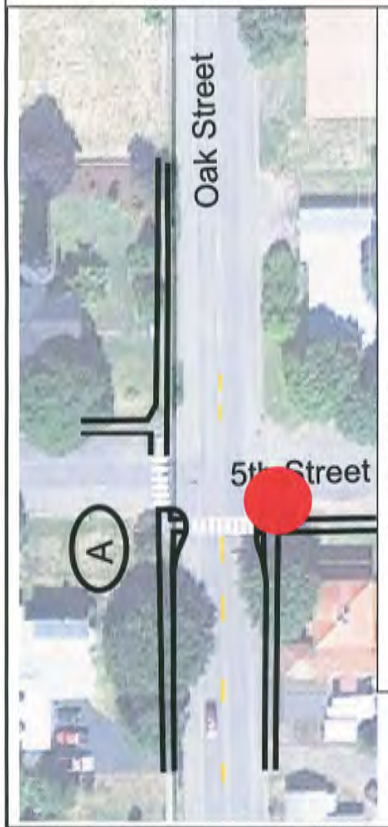
NE Oak Street
"Arterial" to "Major Collector"

NE Fifth Street
"Collector" to "Major Local"

A3 - Oak & 5th Street Intersection

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:

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

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.

Street Reclassification Changes:

NE Oak Street
"Arterial" to "Major Collector"

NE Fifth Street
"Collector" to "Major Local"

City of Oakland

Auto-Transportation System Alternatives

Site Map A-3

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Collector Street
Local Street
Oakland Parcels
ROW

Oak & 5th Street Intersection Summary

5th Street is the most highly utilized street for school traffic and Oak Street is one of the busiest streets in Oakland. The County has jurisdiction of Oak Street and places high priority on mobility for the street (higher speeds and fewer impediments). Some members of the CAC and PAC likewise wish to 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. There are currently no stop signs along Oak Street. Proposed improvements include a flashing crossing which would respond to specific crossing requests and would elevate the visibility of the crosswalk across Oak Street while limiting slower through-traffic to times of higher school traffic. Additional curb extensions and drainage improvements are recommended. The curb extensions will reduce crossing time, improve pedestrian visibility to motorists and create a traffic calming effect. See attached conceptual design and proposed improvements.

*Note: There are documented drainage issues in this area due to storm drain collapse. Pooling of water is a safety concern (causing pedestrians to choose less safe routes to avoid pooling water). Sidewalks are also non-ADA in this area (see Attachment B).

2012 Air Photo

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Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS

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A4 – Cedar & 5th St. Intersectic

IMPROVEMENT GOALS:

-Traffic Calming
-Improve pedestrian crossing across Oak Street and across edestrian path on 5th Street

Speed bumps to replace Stop Sign?

DESIGN ELEMENTS:

High Visibility Crosswalks on north and east legs of intersection
Sign "Draper Valley Next Left"

All-way Stop controlled

5th Street drainage to be improved with overall 5th Street project

Street Reclassification Changes:

NE 5th Street
"Collector" to "Major Local"

NE Cedar Street (west of 5th St)
"Local" to "Minor Local"

NE Cedar Street (east of 5th St)
"Collector" to "Major Local"

- Stop Sign
- High Visibility Crosswalk
- Existing Path

A4 – Cedar & 5th Street Intersection

IMPROVEMENT GOALS:

-Traffic Calming
-Improve pedestrian crossing across Oak Street and across 5th Street to access the pedestrian path on 5th Street

DESIGN ELEMENTS:

High Visibility Crosswalks on north and east legs of intersection
Sign "Draper Valley Next Left"

All-way Stop controlled

5th Street drainage to be improved with overall 5th Street project

- Stop Sign
- High Visibility Crosswalk
- Existing Path

Street Reclassification Changes:

NE 5th Street
"Collector" to "Major Local

NE Cedar Street (west of 5th S
"Local" to "Minor Local"

NE Cedar Street (east of 5th S
"Collector" to "Major Local"

Yes to high vis crosswalks No to stop signs on 5th St

Stop signs on cedar St OK

VERY UNPOPULAR

No more stop signs here!

Will create more congestion

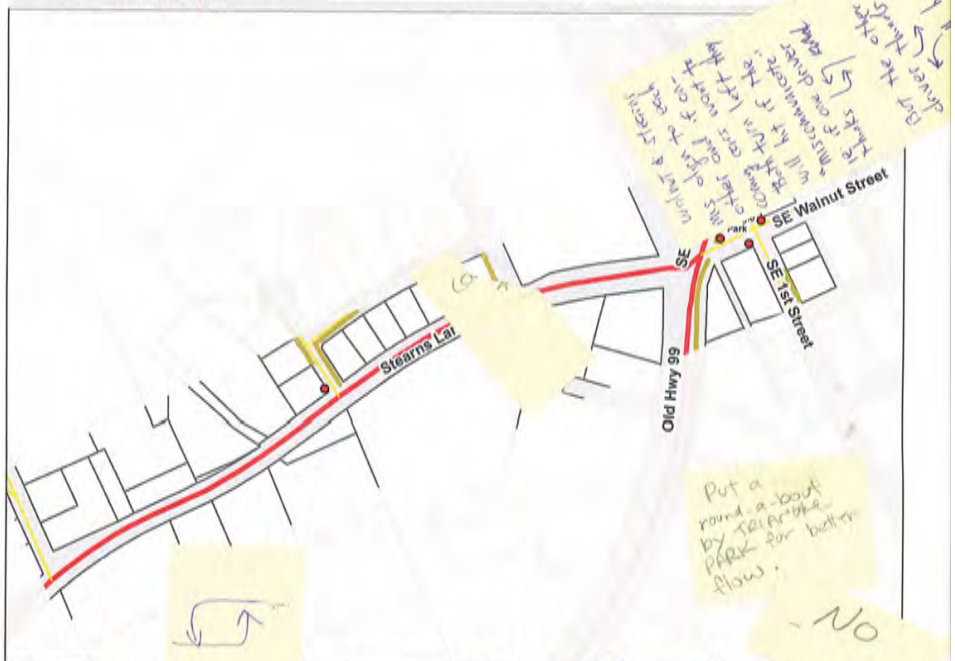
City of Oakland

Auto-Transportation System Alternatives

Site Map A-5

Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Local Street
Oakland Parcels
Oakland ROW
Stop Sig

0 315 630 1,260



Put a round-about by Trailhead PARK for better flow.

- No

Stearns Lane, & Front Street Summary

The unique intersection of Stearns Lane and Old Highway 99/Front Street has the highest occurrence of vehicle accidents in Oakland. The site is complicated by the essentially adiacent intersection of First Street and Walnut Street intersection has the City's highe the crash data revealed high va of incidents and was inconclusi needed improvements. At this recommended improvements Committee and public feedba additional concerns for consic Recommendations for possib entire stretch of Stearns Lane (within boundaries) are included on Page 2.

2012 Air Photo

No final idea!

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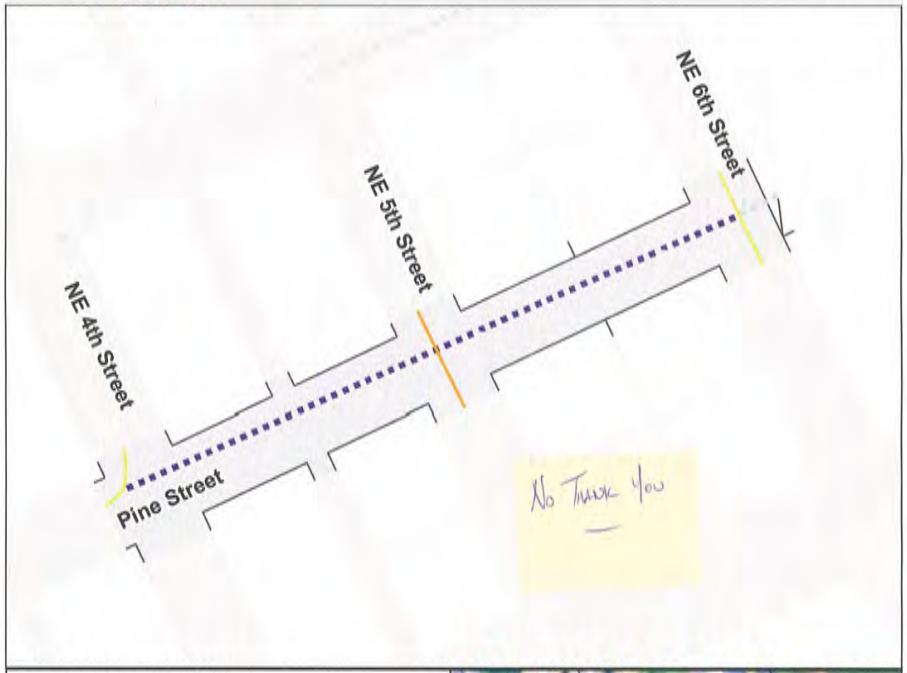
City of Oakland

Auto-Transportation System Alternatives

Site Map A-6

Oakland Crosswalks
Collector Street
Local Street
Existing Access\Drive
Existing Right of Way
Oakland Parcels
Oakland ROW
Stop Sign



Pine Street Extension

This new road would provide a continuation of Pine Street from 4th Street (where it currently terminates) to NE 6th Street. The improvements would occur along existing (and non-slope constrained) right-of-way. This would improve local street connectivity, access, and circulation to the current and possible future residents north of Oak and east of Sixth (between those neighborhoods and the school) When developed, the street should be improved to Minor Local standards.

* **Note:** This area has documented collapsed storm drains, with resulting drainage issues in the area (see Attachment B).

2012 Air Photo

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
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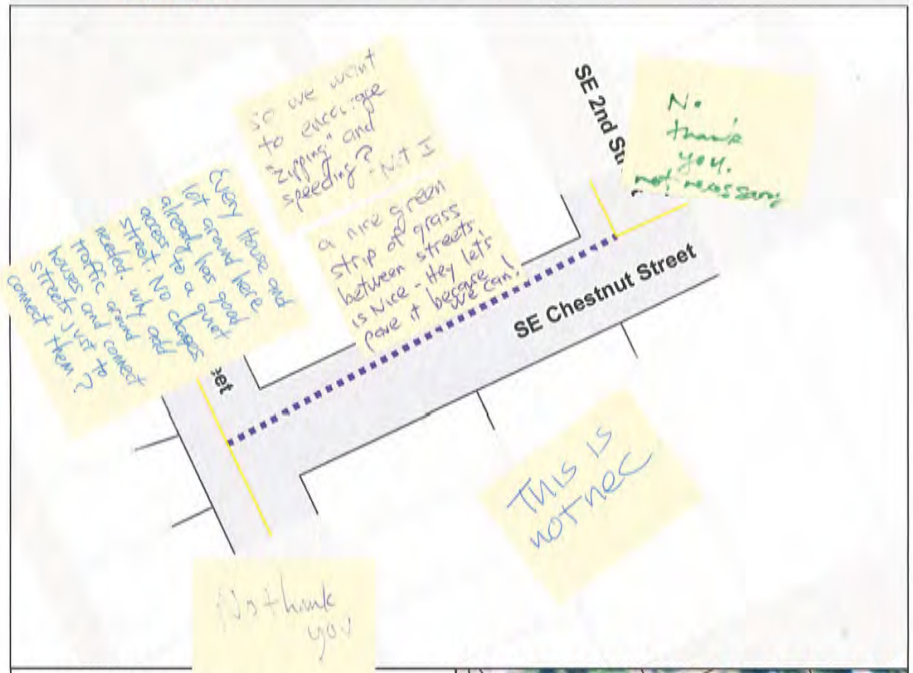
City of Oakland

Auto-Transportation System Alternatives

Site Map A-7

Local Street
Existing Right of Way
Stop Sign
Oakland ROW
Oakland Parcels



Chestnut Street Extension

This new road would provide a continuation of Chestnut Street from 2nd Street (where it currently terminates) to SE 1st Street. The improvements would occur along existing (and non-slope constrained) right-of-way; this would improve local street connectivity, access, and circulation. When developed, the street should be improved to Minor Local street standards.

* **Note:** This area has documented drainage issues (see Attachment B).

2012 Air Photo

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
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City of Oakland

Auto-Transportation System Alternatives

Site Map A-8

Other Conceptual Street
Existing Right of Way
Collector Street
Local Street
Oakland ROW
Oakland Parcels
Oakland Crosswalks
Stop Sign

0 70 140 280 Feet

Cypress ~~Street~~ AVENUE Extension

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-of-way. 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. Upon development, the street should be classified Major Local and be improved to accommodate bicycle and pedestrian facilities and as per Major Local Standards.

* **Note:** This area has documented drainage issues (see Attachment B).

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs

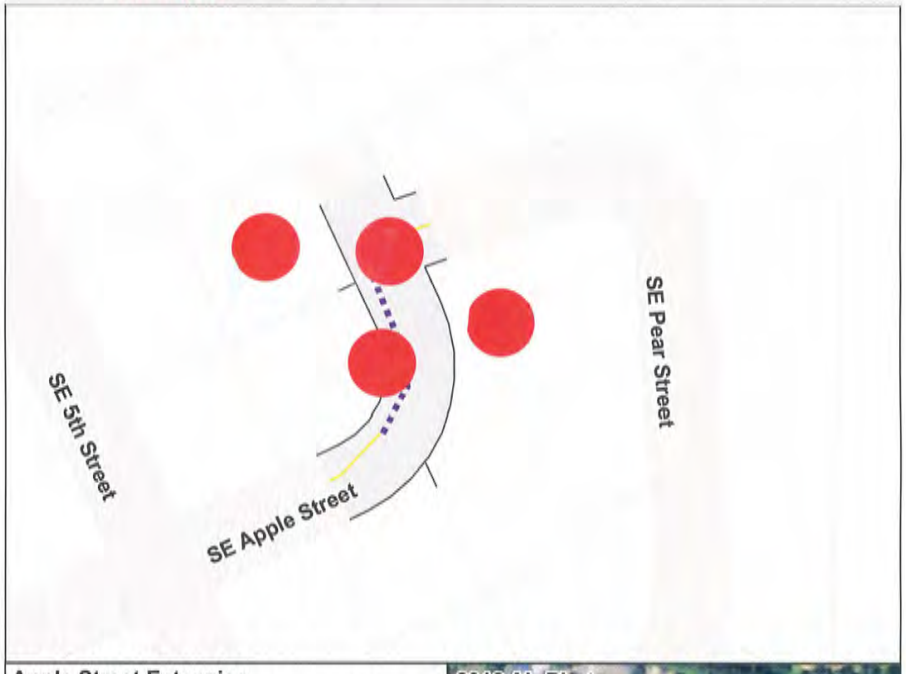
City of Oakland

Auto-Transportation System Alternatives

Site Map A-9

Stop Sign
Minor Local Street
Existing Right of Way
Oakland Parcels
Oakland ROW

0 95 190 380 Feet



Apple Street Extension

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. A subdivision was approved at the termination of SE Pear Street in 2009. 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. Improvement will complete local street connectivity, access, and circulation to the current and future residents to the north. The street should be classified as a Minor Local.

* **Note:** The southern end of this roadway has documented drainage issues (see Attachment B).

2012 Air Photo

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
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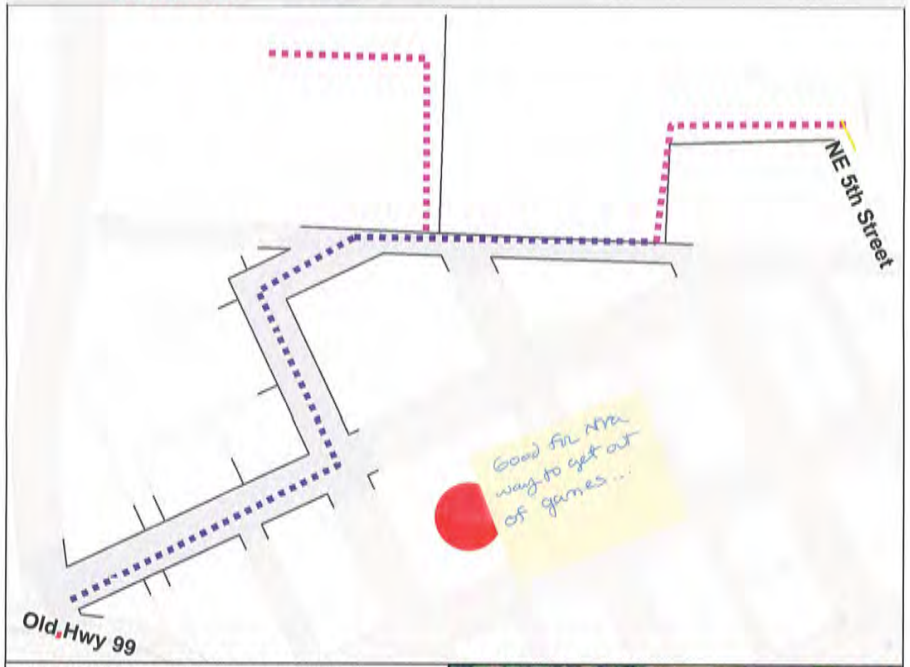
City of Oakland

Auto-Transportation System Alternatives

Site Map A-10

Stop Sign
Other Conceptual Street
Existing Right of Way
Arterial Street
Collector Street
Local Street
Oakland Crosswalks
Oakland Parcels
Oakland ROW

0 155 310 620 Feet



Old HWY 99 to 5th Street Network

This new network of streets could provide critical connectivity to the northwest portion of Oakland. Portions of this area are slope constrained (and thus cut-off from the rest of the City). Non-cost prohibitive development which is feasible in some portions of this area. Street improvements would occur along a mix of existing right-of-way, and potential dedications through new development. The street improvements could enhance local street connectivity, access, and circulation to the current and possible future residents near and north of the school. No right-of-way connection exists for the most logical connection to Old Highway 99 (First Street). These streets should be classified Minor Local.

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS
Created By: LCOG Jan. 2015

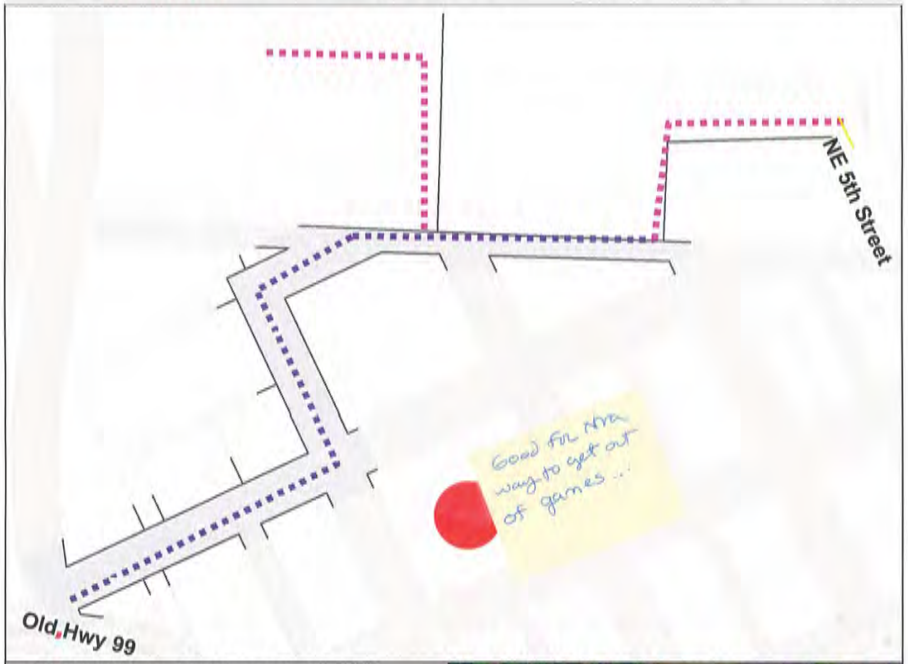
City of Oakland

Auto-Transportation System Alternatives

Site Map A-10

Stop Sign
Other Conceptual Street
Existing Right of Way
Arterial Street
Collector Street
Local Street
Oakland Crosswalks
Oakland Parcels
Oakland ROW

0 155 310 620 Feet



Old HWY 99 to 5th Street Network

This new network of streets could provide critical connectivity to the northwest portion of Oakland. Portions of this area are slope constrained (and thus cut-off from the rest of the City). Non-cost prohibitive development which is feasible in some portions of this area. Street improvements would occur along a mix of existing right-of-way, and potential dedications through new development. The street improvements could enhance local street connectivity, access, and circulation to the current and possible future residents near and north of the school. No right-of-way connection exists for the most logical connection to Old Highway 99 (First Street). These streets should be classified Minor Local.

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
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City of Oakland

Auto-Transportation System Alternatives

Site Map A-11

Local Street
Other Conceptual Street
Oakland Parcels
Oakland ROW

0 300 600 1,200 Feet

Old Town Loop Connections

These new streets, connecting the east and west portions of Old Town Loop Road would provide connectivity within the northern most portion of Oakland. Because no public right of way exists in these areas, the streets would realize only as development requires. The street improvements could enhance local street connectivity, access, and circulation to the current and possible future residents north and immediately east of the school (dramatically reducing the street distance between most properties and the schools). The streets should be classified Minor Local.

2012 Air Photo

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City of Oakland

Auto-Transportation System Alternatives

Site Map A-12

Collector Street
Local Street
Other Conceptual Street
Existing Access\Drive
Existing Right of Way
Oakland Parcels
Oakland ROW

0 125 250 500 Feet

6th to 7th Street Network

This new network of streets conceptually anticipates development in the area east of 6th and north of Ash Street. It would necessitate a crossing of Ash Creek through the 7th Street right-of-way. The 7th Street crossing of Ash Street is one of only a few realistic remaining opportunities for a north-south connection. The improvements would occur along a mix of existing right-of-way, and dedications as future development requires. The street improvements would enhance local street connectivity, access, and circulation to the current and possible future residents in the eastern portions of Oakland. The streets should be classified Minor Local.

2012 Air Photo

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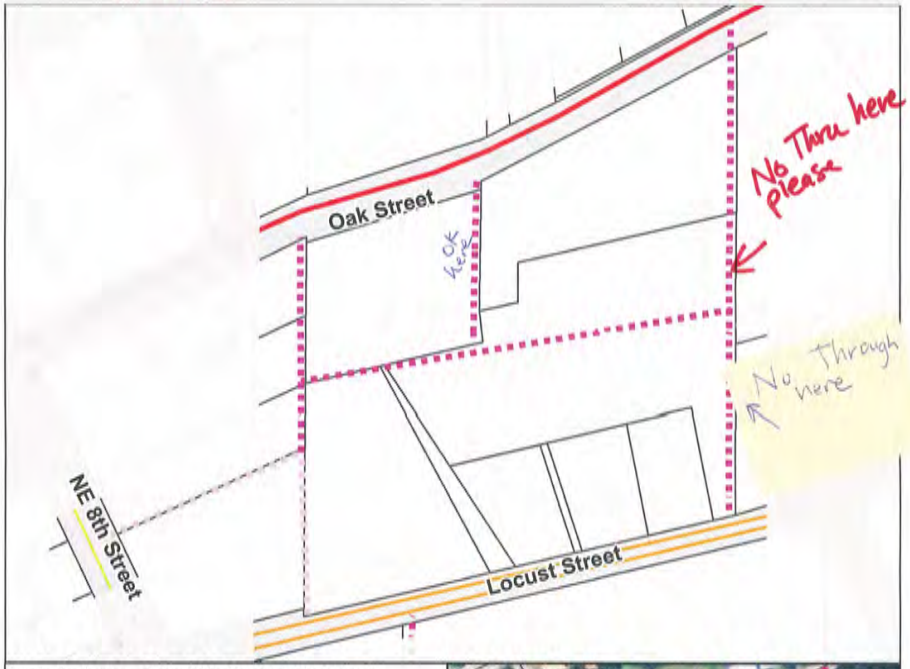
City of Oakland

Auto-Transportation System Alternatives

Site Map A-13

Arterial Street | Other Conceptual Street | Oakland Parcels
Collector Street | Existing Access\Drive | Oakland ROW
Local Street | Stop Sign

0 150 300 600 Feet



Oak to Locust to 8th Street Network

This new network of streets conceptually anticipates development in the large properties between Oak Street and Locust Street and relies on new rights-of-way. The improvements would occur only as required by new development. The Oakland Comprehensive Plan Transportation Policy (6) notes that "A street connecting Wells Lane with Oak Street should be built." The street improvements would improve local street connectivity, access, and circulation to the current and possible future residents in the eastern portions of Oakland. The streets should be classified Minor Local.

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS
Created By: LCOG Jan. 2015

City of Oakland

Auto-Transportation System Alternatives

Site Map A-14

Arterial Street | Other Conceptual Street
Collector Street | Oakland Parcels
Local Street | Oakland ROW

0 125 250 500 Feet

Oak to Locust East Street Connection

This conceptual street, like those shown on Map A-13 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. The street should be classified Minor Local.

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS
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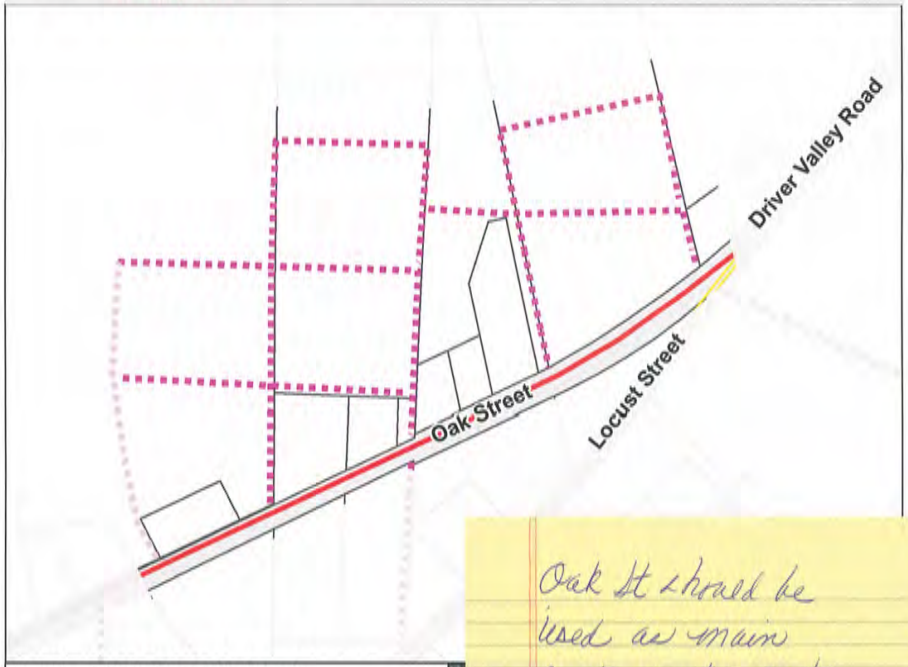
City of Oakland

Auto-Transportation System Alternatives

Site Map A-15

Arterial Street
Collector Street
Local Street
Other Conceptual Street
Existing Access\Drive
Oakland Parcels
Oakland ROW



Oak St should be used as main route east & not allow heavy trucks on Locust St.

North of Oak Street Network

This new network of streets conceptually anticipates development in the large properties north of Oak Street near where it is joined by Locust Street. Several of the proposed streets are existing private roads. The improvements would occur through dedications of right-of-way only when as new development requires. The street improvements would improve local street connectivity, access, and circulation to the current and possible future residents in the eastern portions of Oakland. The majority of streets should be classified as Minor Local with perhaps one Major Local street.

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City of Oakland

Auto-Transportation System Alternatives

Site Map A-17

Collector Street
Local Street
Other Conceptual Streets
Existing Access\Drive
Oakland Parcels
Oakland ROW
Stop Sign

Wells & 8th Street Network

This new network of streets conceptually anticipates development in the larger properties off of and around SE 8th Street and Wells Road in south-eastern Oakland. The improvements would occur on a mix of existing private street (drives) and other new streets through dedications of right-of-way as development requires. The street improvements would improve access, and circulation to the current and possible future residents in the southeastern portions of Oakland. The streets should be classified as Minor Local.

***Note:** There are documented drainage issues in this area due to storm drain collapse (see Attachment B).

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs

Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS

Created By: LCOG Jan. 2015

City of Oakland

Bicycle System Alternatives

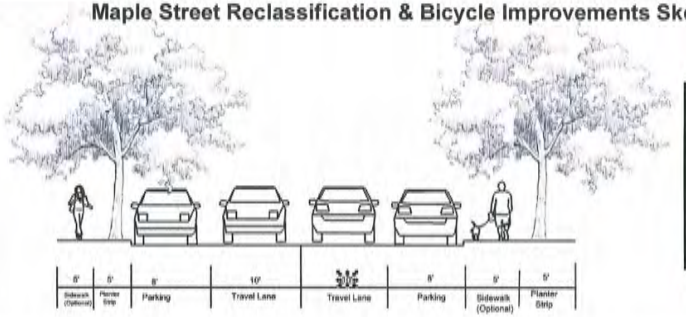
Site Map B-1 - Page 2

sharrow

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland ROW
Arterial Street
Major Collector Street
Minor Collector Street
Major Local Street
Minor Local Street
Dedicated Bike Lane
Proposed Multi-Use Path
Existing Path Improved
Oakland Parcels

0 245 490 980 Feet

Maple Street Reclassification & Bicycle Improvements Sketch



Sharrow Symbol

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS Created By: LGOG Jan. 2015

B2 – 5th Street Reclassification & Bicycle Improvements

Improvement Goals:

-Improve pedestrian amenities

-Improve Drainage Issues

Design Elements:

High Visibility Crosswalks at select locations

Improve Drainage:

1. Convert existing asphalt ditch between roadway and walkway into a "bio-swale" (shown in green in illustration) this will allow water to infiltrate into the soil to lessen the water draining into the storm drain system

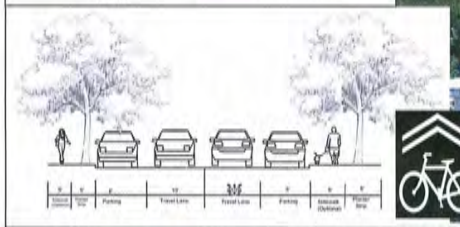
Improvements for this stretch of roadway include designation as bike routes with pavement markings (sharrows and/or signs signs), while maintaining the existing character and on street parking.

Modify intersection at 5th and school entrance into an all-way stop with high-visibility crosswalk treatments.

Street Reclassification Changes:

NE 5th Street (north of Maple St)
"Collector" to "Major Local"

- Stop Sign
- High Visibility Crosswalk
- Existing Path
- Bio-swale



Sharrow Symbol

No stop sign on hill pls

City of Oakland

Bicycle System Alternatives

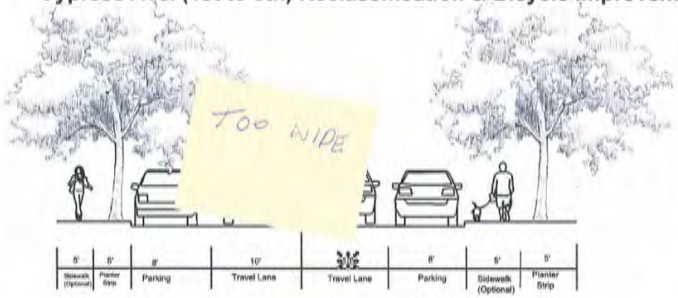
Site Map B-3 - Page 2

Sharrow

Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland ROW
Oakland Parcels
Arterial
Major Collector
Minor Collector
Major Local
Minor Local
Dedicated Bike Lane
Proposed Multi-Use Path
Existing Path Improved

0 162.5 325 650 Feet

Cypress Ave. (1st to 5th) Reclassification & Bicycle Improvements Sketch



Sharrow Symbol

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City of Oakland

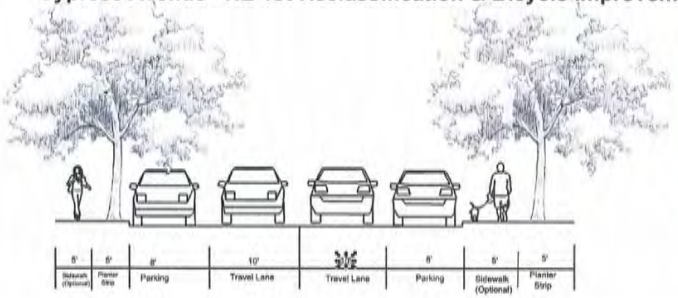
Bicycle System Alternatives

Site Map B-3 - Page 2

Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland ROW
Oakland Parcels
Arterial
Major Collector
Minor Collector
Major Local
Minor Local
Dedicated Bike Lane
Proposed Multi-Use Path
Existing Path Improved

0 162.5 325 650 Feet

Cypress Avenue –NE 1st Reclassification & Bicycle Improvements Sketch



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City of Oakland

Bicycle System Alternatives

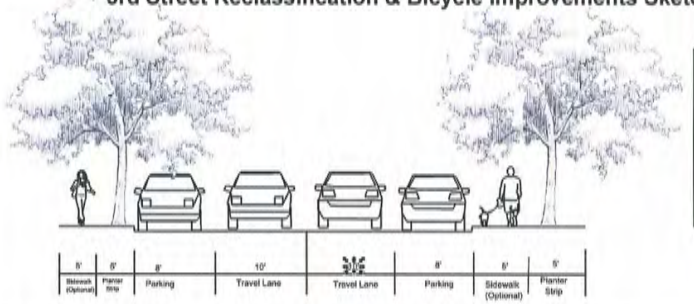
Site Map B-4 - Page 2

sharrow

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland Parcels
Arterial Street
Major Collector Street
Minor Collector Street
Major Local Street
Minor Local Street
Existing Path Improved
Railroad Crossing Alternative
Proposed Multi-Use Path
Dedicated Bike Lane
Oakland ROW

0 380 760 1,520 Feet

3rd Street Reclassification & Bicycle Improvements Sketch



Sharrow Symbol

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Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS
Created By: LCOG Jan. 2015

HILL BETWEEN OAK + PINE ON 3RD CREATES VISIBILITY ISSUES.

City of Oakland

Bicycle System Alternatives

Site Map B-4

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Existing Path Improved
Oakland Parcels
Oakland ROW
Arterial Street
Collector Street
Local Street

0 375 750 1,500 Feet

3rd Street Reclassification & Bicycle Improvements Summary

This summary presents the proposal for 3rd Street, between Apple Street and Cypress Ave, to receive upgrades related to a reclassification from "Arterial" to "Major Collector". Improvements for this stretch of roadway inc ike routes with pavement m l/or signs signs), while maint acter and on street parkir

BIKES BETTER ON 2ND

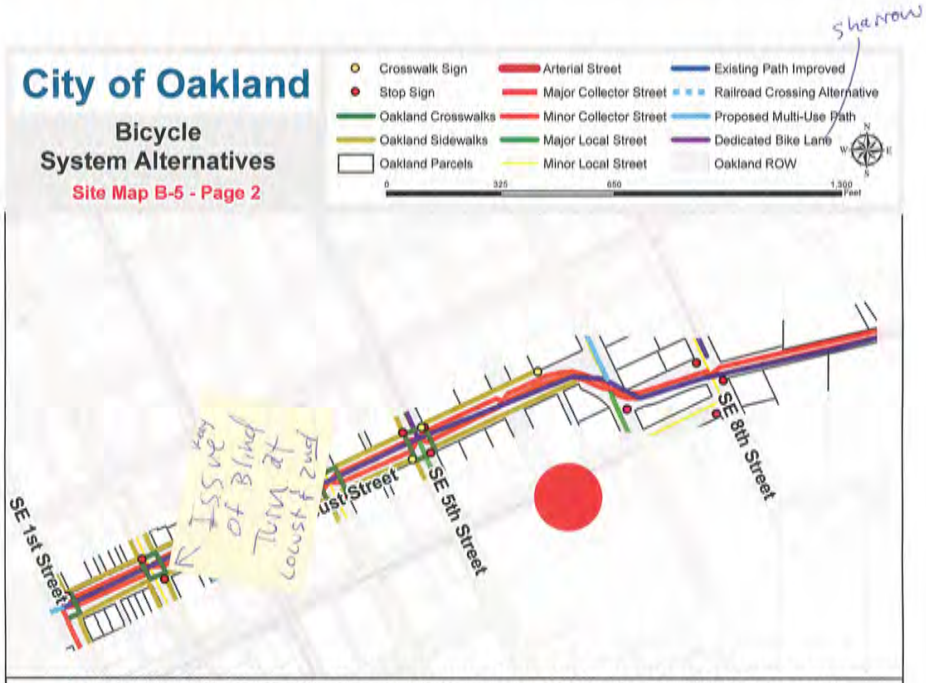
*Note: 3 ed collapsed storm dr age issues in the area (see Attachment B).

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS
Created By: LCOG Jan. 2015

City of Oakland

Bicycle System Alternatives

Site Map B-5 - Page 2



Locust Street Reclassification & Bicycle Improvements Sketch & Summary

Objective:

- operate as a medium volume street (by Oakland standards
- keep through traffic off
- 25 mph speed
- Keep trucks off of it
- Have bike and ped amenities (bike path desired)

Locust has an 80 foot right of way and about 46 feet of existing street pavement

Recommendations:

Option 1: Design the street to have bike lanes

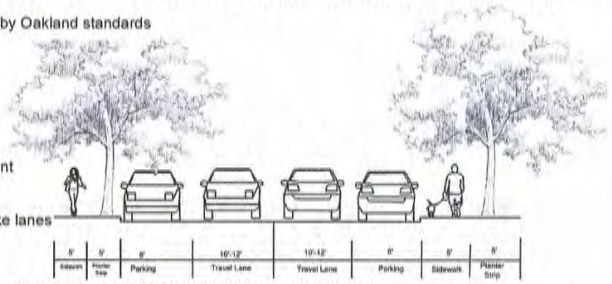
- Planter strip and side walk
- 6 food bike lane
- 10 foot travel lanes in each direction
- 8 foot parking-currently the street can be restriped to have bike lanes on both sides but and parking on one side. If parking on both sides is wanted the existing pavement will have to be widened

Option 2: Sharrows

- On street parking on both sides
- Stripe the travel lanes to have sharrows to designate as a bike lane

Both Options: to help divert traffic from using locust 2nd, 3rd, and 5th streets should be changed to all way stops. The multiple stopping along Locust will:

- Slow traffic
- Keep through traffic off of locust-the multiple stop signs will deter drivers from this routs the stops will case delay
- The stop signs will help provide a safer crossing across locust for pedestrians at these crossings



Sharrow Symbol

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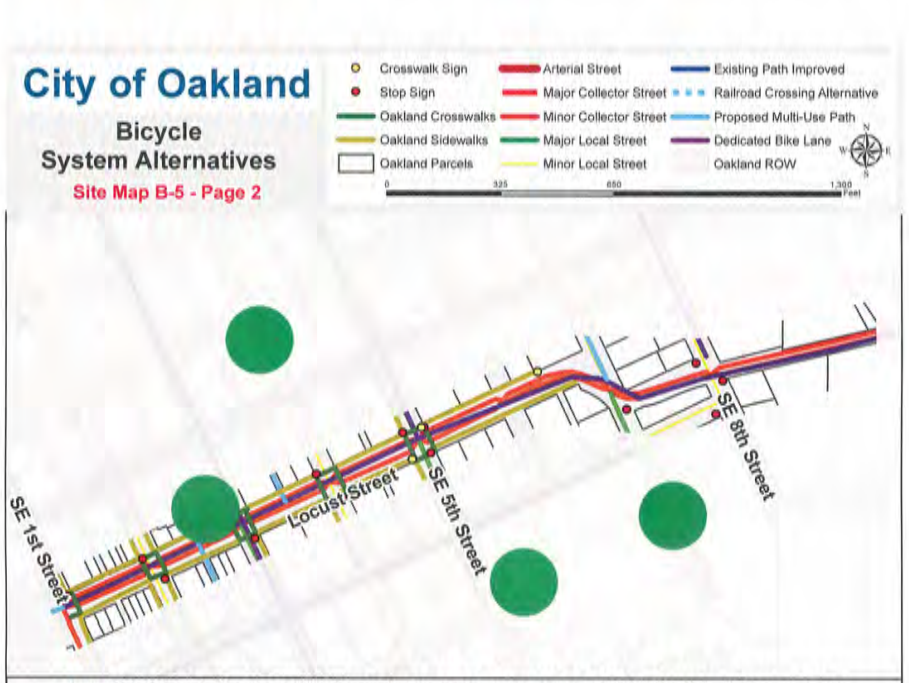
City of Oakland

Bicycle System Alternatives

Site Map B-5 - Page 2



Locust Street Reclassification & Bicycle Improvements Sketch & Summary

Objective:

- operate as a medium volume street (by Oakland standards
- keep through traffic off
- 25 mph speed
- Keep trucks off of it
- Have bike and ped amenities (bike path desired)

Locust has an 80 foot right of way and about 46 feet of existing street pavement

Recommendations:

Option 1: Design the street to have bike lanes

- Planter strip and side walk
- 6 food bike lane
- 10 foot travel lanes in each direction
- 8 foot parking-currently the street can be restriped to have bike lanes on both sides but and parking on one side. If parking on both sides is wanted the existing pavement will have to be widened

Option 2: Sharrows

- On street parking on both sides
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- Keep through traffic off of locust-the multiple stop signs will deter drivers from this routs the stops will case delay
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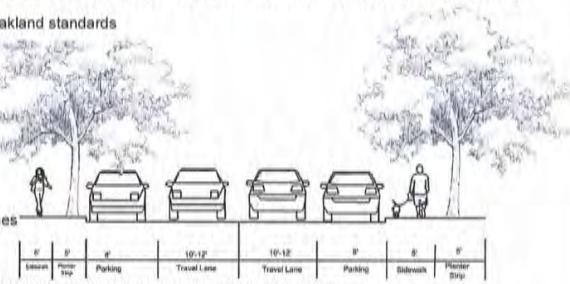

Sharrow Symbol

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Have better access / improvement to 6th for alt for Rts to School Hill

BETTER DRAINAGE FOR STREET & EXISTING SIDEWALK HELPS TO PROMOTE EXISTING IMPROVEMENTS.

STC

P1 – 5th Street Reclassification & Pedestrian Improvements

Improvement Goals:

-Improve pedestrian amenities

-Improve Drainage Issues

Design Elements:

High Visibility Crosswalks at select locations

Improve Drainage:

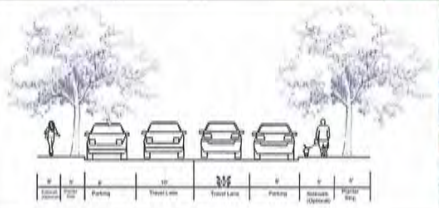
1. Convert existing asphalt ditch between roadway and walkway into a "bio-swale" (shown in green in illustration) this will allow water to infiltrate into the soil to lessen the water draining into the storm drain system

Improve the pedestrian walkway on the east side. Replace walkway with new asphalt with adequate rock base and drainage or concrete walkway. (shown in grey on the illustration)

Modify intersection at 5th and school entrance into an all-way stop with high-visibility crosswalk treatments.

Street Reclassification Changes:
NE 5th Street (north of Maple St)
"Collector" to "Major Local"

- Stop Sign
- High Visibility Crosswalk
- Existing Path
- Bio-swale



NEW 18 inch
Between Oak and Ash

P1 – 5th Street Reclassification & Pedestrian Improvements

Improvement Goals:

-Improve pedestrian amenities

-Improve Drainage Issues

Design Elements:

High Visibility Crosswalks at select locations

Improve Drainage:

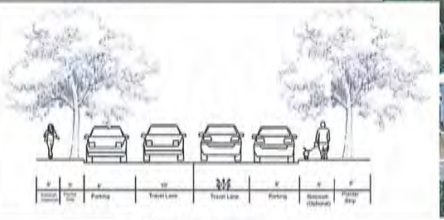
1. Convert existing asphalt ditch between roadway and walkway into a "bio-swale" (shown in green in illustration) this will allow water to infiltrate into the soil to lessen the water draining into the storm drain system

Improve the pedestrian walkway on the east side. Replace walkway with new asphalt with adequate rock base and drainage or concrete walkway. (shown in grey on the illustration)

Modify intersection at 5th and school entrance into an all-way stop with high-visibility crosswalk treatments.

Street Reclassification Changes:
NE 5th Street (north of Maple St)
"Collector" to "Major Local"

- Stop Sign
- High Visibility Crosswalk
- Existing Path
- Bio-swale



City of Oakland

Pedestrian System Alternatives

Site Map P-1

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Existing Path Improved
Oakland ROW
Arterial Street
Collector Street
Local Street
Oakland Parcels

0 270 540 1,080 Feet

5th Street Reclassification & Pedestrian Improvements Summary

This summary presents the reclassification proposal for NE 5th Street, between Oak Street and the School, from "Collector" to "Major Local." NE 5th Street is the only street in town with a dedicated off-street multi-use path. Improvements that are contemplated for this stretch of roadway include reconstructing the multi-use path to improve the surface to include adequate subbase, drainage and crossing treatment, as well as ADA amenities. The area lacks proper drainage. To address the drainage issue it is recommended that the concrete/ asphalt ditch between the roadway and multi-use path be converted to a bioswale to allow water to infiltrate and reduce the impact on the storm drain system. The bioswale should be designed to allow for adequate infiltration but low maintenance (see Attachment B).

MXD Source: \\clsrv111\gis\projects\Cities\oaklandh\Oakland LSNP_GIS\Oakland_GIS_MXDs
Data Source: \\clsrv111\gis\projects\Cities\oaklandh\Oakland LSNP_GIS
Created By: LCOG Jan, 2015

City of Oakland

Pedestrian System Alternatives

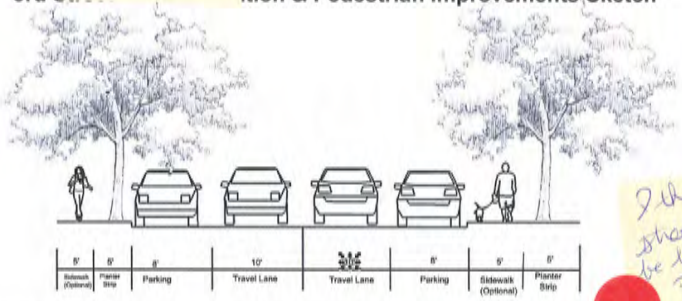
Site Map P-2 - Page 2

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland Parcels
Arterial Street
Major Collector Street
Minor Collector Street
Major Local Street
Minor Local Street
Railroad Crossing Alternative
Proposed Multi-Use Path
Existing Path Improved
Oakland ROW

0 375 750 1,500 Feet

one sidewalk on right side

3rd S... ...tion & Pedestrian Improvements Sketch



I think 2nd street would be better than 3rd street

Agree w/ consideration of 2nd rather than 3rd

Agree That 2nd Is A Better Choice Than 3rd. Less Slope & Better Visibility

MXD Source: \\clsrv111\gis\projects\Cities\oaklandh\Oakland LSNP_GIS\Oakland_GIS_MXDs
Data Source: \\clsrv111\gis\projects\Cities\oaklandh\Oakland LSN

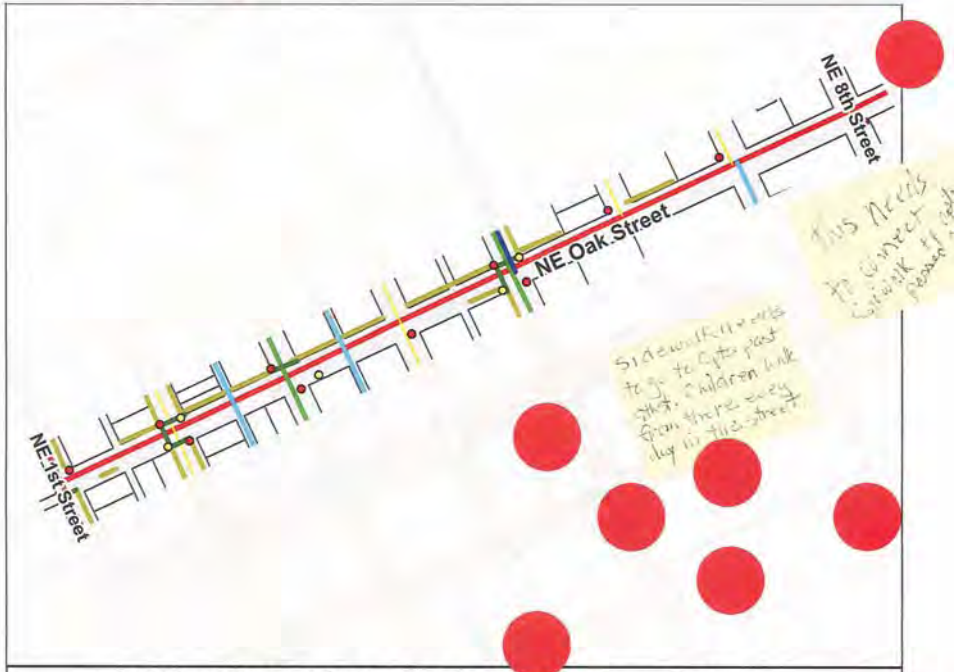
City of Oakland

Pedestrian System Alternatives

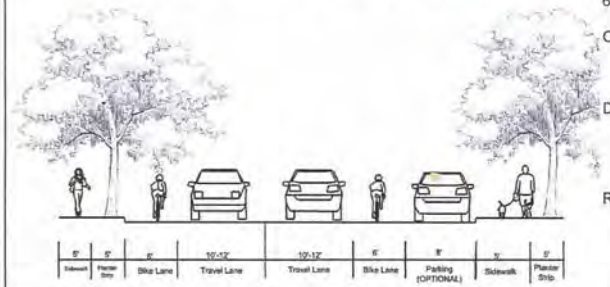
Site Map P-3 - Page 2

Crosswalk Sign
Stop Sign
Oakland ROW
Oakland Parcels
Proposed Multi-Use Path
Existing Path Improved
Oakland Crosswalks
Oakland Sidewalks
Major Collector Street
Minor Collector Street
Major Local Street
Minor Local Street

0 255 510 1,020 Feet



Oak Street Reclassification & Pedestrian Improvements Sketch



60 Foot Right-of-way

Objective:
* Encourage through traffic to use this street

Design Considerations:
* Need for on-street parking
* Truck traffic
* Higher volume streets

Recommendations:
* Sidewalk and planter strips
* Separated bike facilities - bike lanes
* On-Street parking - one or both sides
* Crossing across 3rd & 5th street to have enhanced pedestrian crossings

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS Created By: LCOG Jan 2015

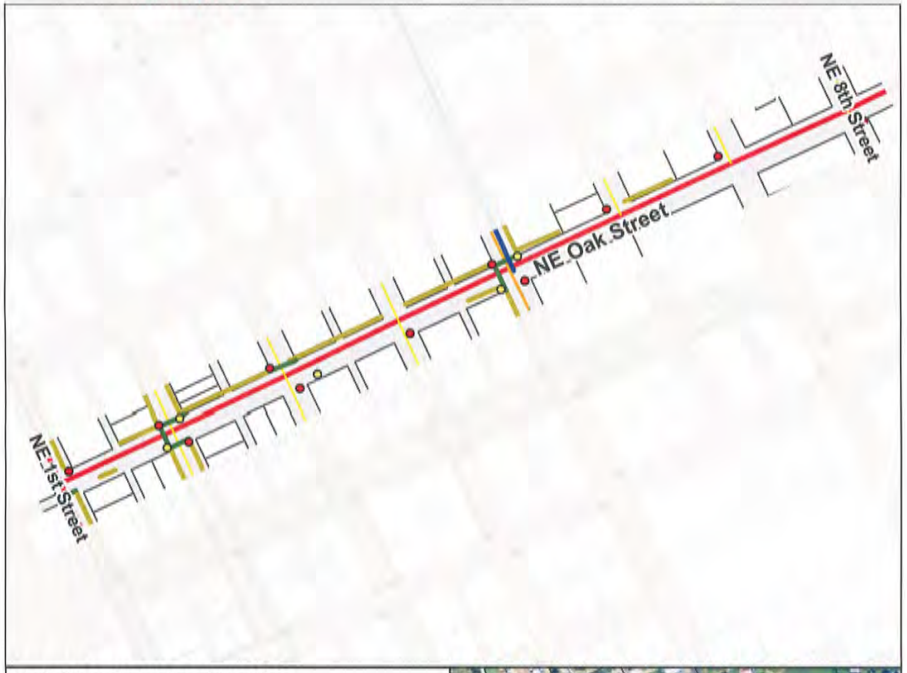
City of Oakland

Pedestrian System Alternatives

Site Map P-3

Crosswalk Sign
Stop Sign
Oakland ROW
Oakland Parcels
Existing Path Improved
Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Collector Street
Local Street

0 255 510 1,020 Feet



Oak Street Reclassification & Pedestrian Improvements Summary

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.

***Note:** Oak Street has documented collapsed storm drains, with resulting drainage issues in the area (see Attachment B).

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS Created By: LCOG Jan. 2015

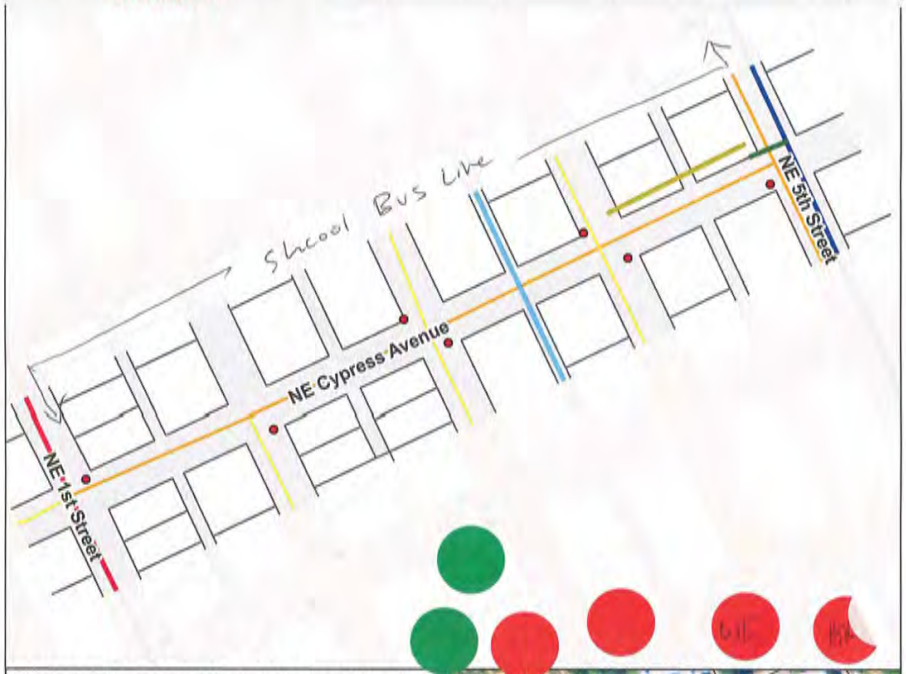
City of Oakland

Pedestrian System Alternatives

Site Map P-4

Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Proposed Multi-Use Path
Existing Path Improved
Oakland Parcels
Oakland ROW
Arterial Street
Collector Street
Local Street

0 162.5 325 650 Feet



Cypress Avenue –NE 1st Reclassification & Pedestrian Improvements Summary

This summary presents the proposal for NE Cypress Avenue, between First Street and 5th Street, to receive upgrades related to a reclassification from "Local" to "Major Local." Cypress Street is the only street north of Oak Street that is paved between First and 5th Streets. Improvements that would be considered for this stretch of roadway include sidewalk completion on one or both sides.

***Note:** Cypress Avenue has documented drainage issues but is one of only a few streets identified by Public Works as being in "good" condition (see Attachment B).

2012 Air Photo

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS
Created By: LCOG Jan. 2015

City of Oakland

Pedestrian System Alternatives

Site Map P-4

Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Proposed Multi-Use Path
Existing Path Improved
Oakland Parcels
Oakland ROW
Arterial Street
Collector Street
Local Street

0 162.5 325 650 Feet

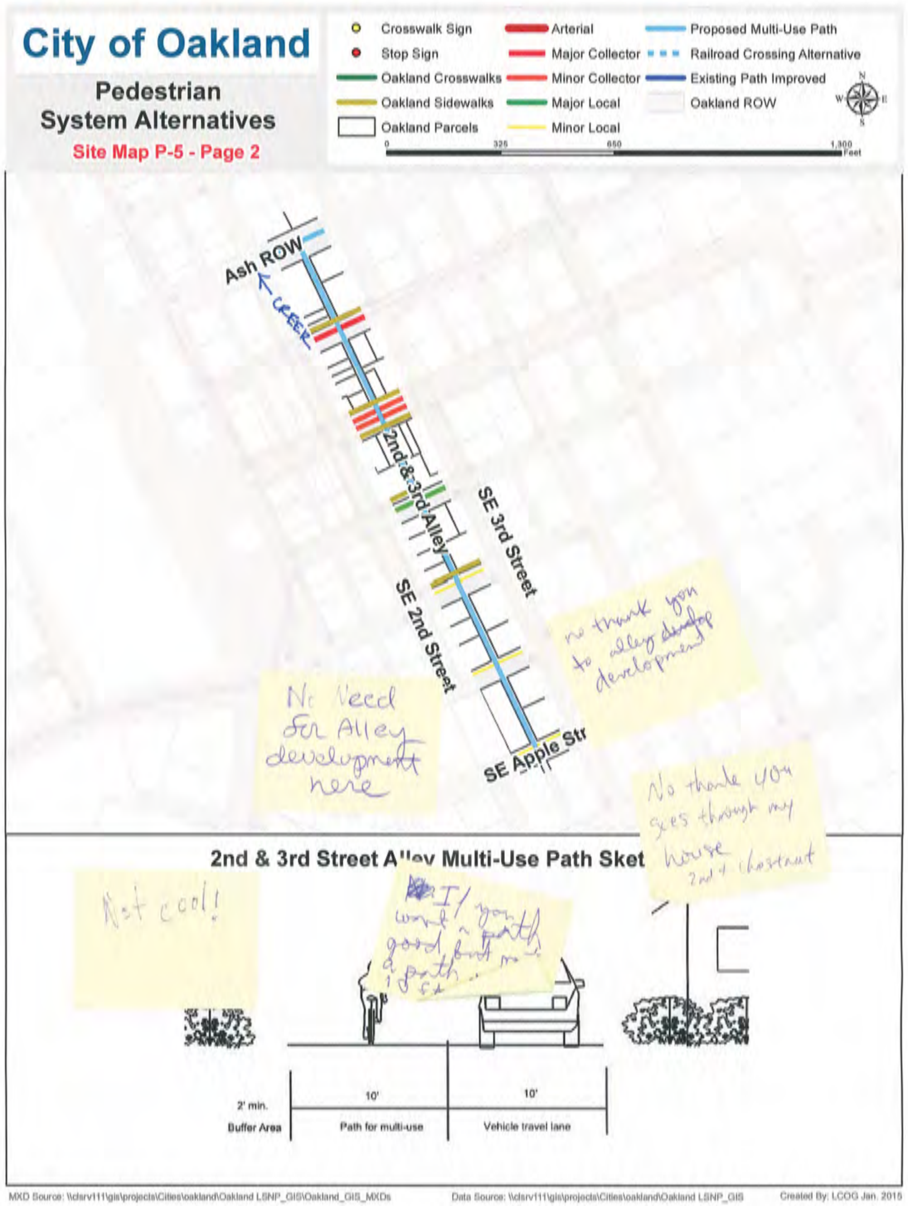
Cypress Ave. (1st to 5th) Reclassification & Pedestrian Improvements Summary

This summary presents the proposal for NE Cypress Avenue, between First Street and 5th Street, to receive upgrades related to a reclassification from "Local" to "Major Local." Cypress Street is the only street north of Oak Street that is paved between First and 5th Streets. Improvements that would be considered for this stretch of roadway include sidewalk completion on one or both sides.

***Note:** Cypress Avenue has documented drainage issues but is one of only a few streets identified by Public Works as being in "good" condition (see Attachment B).

2012 Air Photo

MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS
Created By: LCOG Jan. 2015


City of Oakland
Pedestrian
System Alternatives
Site Map P-5 - Page 2
Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland Parcels
Arterial
Major Collector
Minor Collector
Major Local
Minor Local
Proposed Multi-Use Path
Railroad Crossing Alternative
Existing Path Improved
Oakland ROW
0
325
650
1,300
Feet
Ash ROW
CREEK
2nd & 3rd Alley
SE 3rd Street
SE 2nd Street
SE Apple Str
No need for Alley development here
no thank you to alley development
No thank you goes through my house
2nd & Chestnut
2nd & 3rd Street Alley Multi-Use Path Sket
Not cool!
2' min.
Buffer Area
10'
Path for multi-use
10'
Vehicle travel lane
MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS
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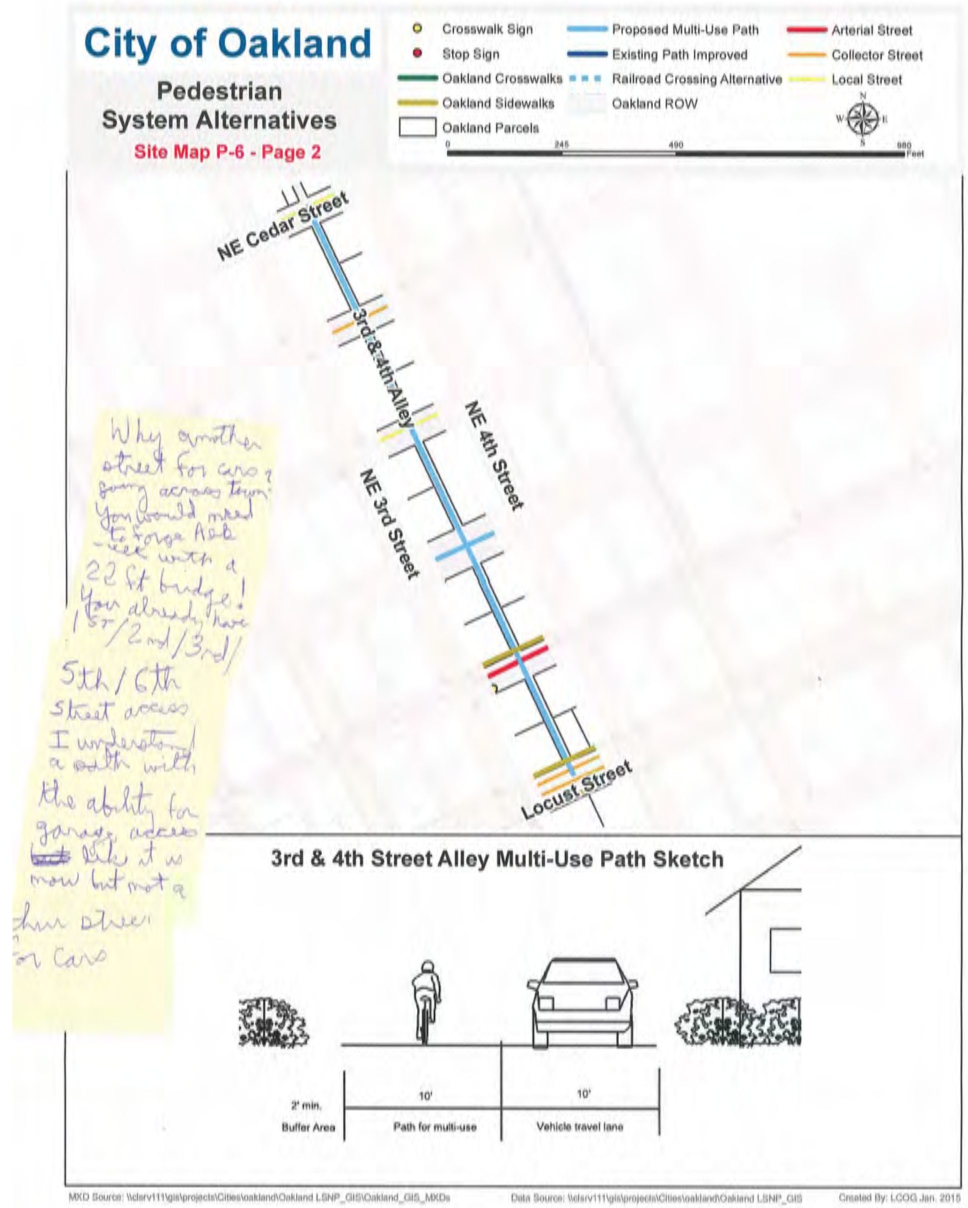

City of Oakland
Pedestrian
System Alternatives
Site Map P-6 - Page 2
Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland Parcels
Proposed Multi-Use Path
Existing Path Improved
Railroad Crossing Alternative
Oakland ROW
Arterial Street
Collector Street
Local Street
0
245
490
980
Feet
NE Cedar Street
3rd & 4th Alley
NE 4th Street
NE 3rd Street
Locust Street
Why another street for cars going across town? You would need to forge Ash creek with a 22 ft bridge! You already have 1st/2nd/3rd/5th/6th street access
I understand a path with the ability for garage access like it is now but not a thru street for cars
3rd & 4th Street Alley Multi-Use Path Sketch
2' min.
Buffer Area
10'
Path for multi-use
10'
Vehicle travel lane
MXD Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS\Oakland_GIS_MXDs
Data Source: \\clsrv111\gis\projects\Cities\oakland\Oakland LSNP_GIS
Created By: LCOG Jan. 2015

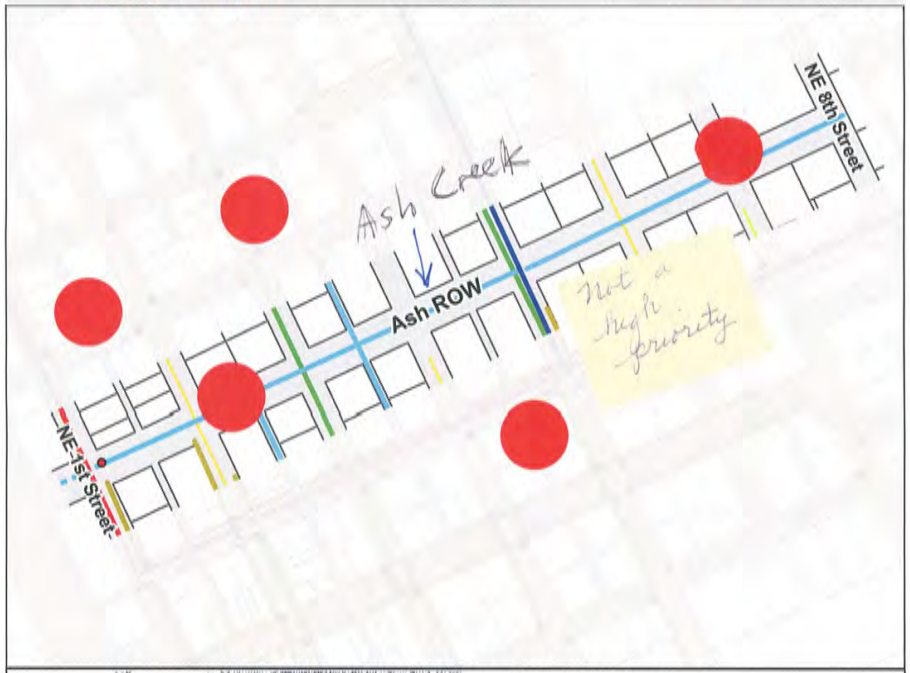
City of Oakland

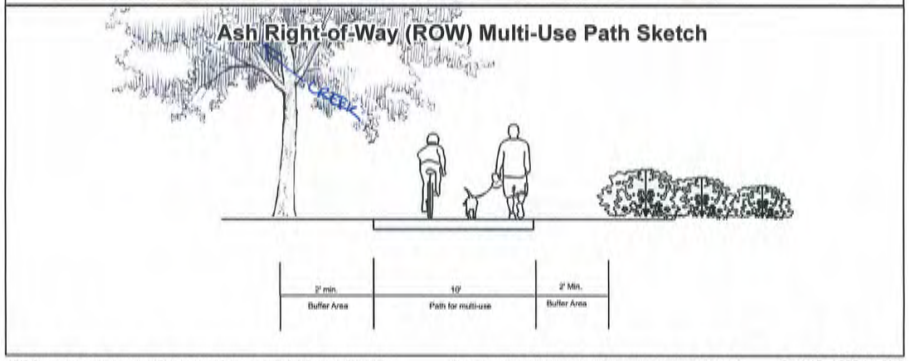
Pedestrian System Alternatives

Site Map P-7 - Page 2

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland ROW
Major Collector Street
Minor Collector Street
Major Local Street
Minor Local Street
Oakland Parcels
Railroad Crossing Alternative
Existing Path Improved
Proposed Multi-Use Path

0 270 540 1,080 Feet





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GREAT IDEA! ROW ALREADY EXISTS - NO NEED TRYING TO OBTAIN ROW. CREATES BETTER PEDESTRIAN CONNECTIVITY TO DOWNTOWN & 5TH ST. TO SCHOOL

Should connect w/ path along creek.

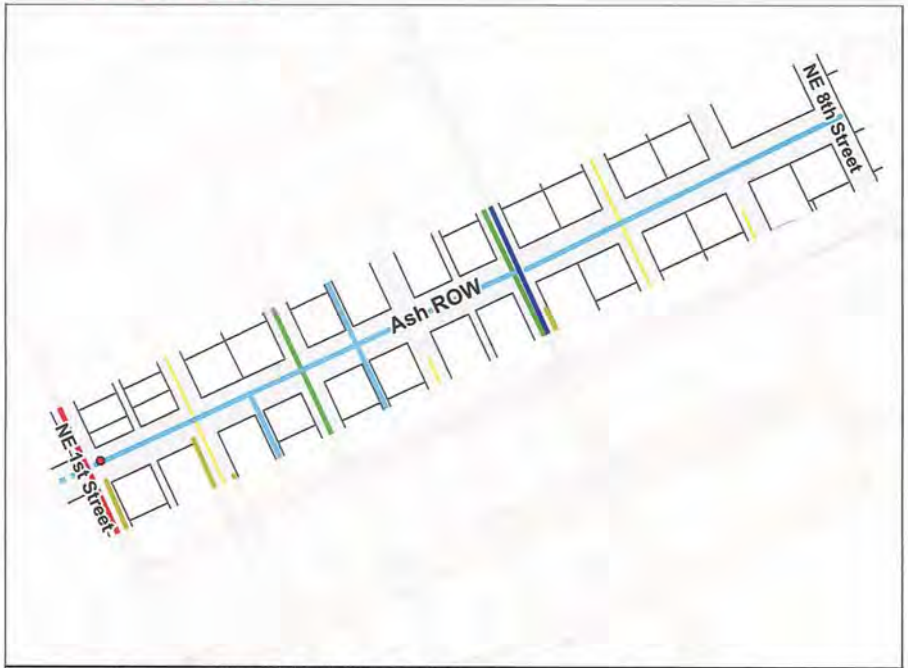
City of Oakland

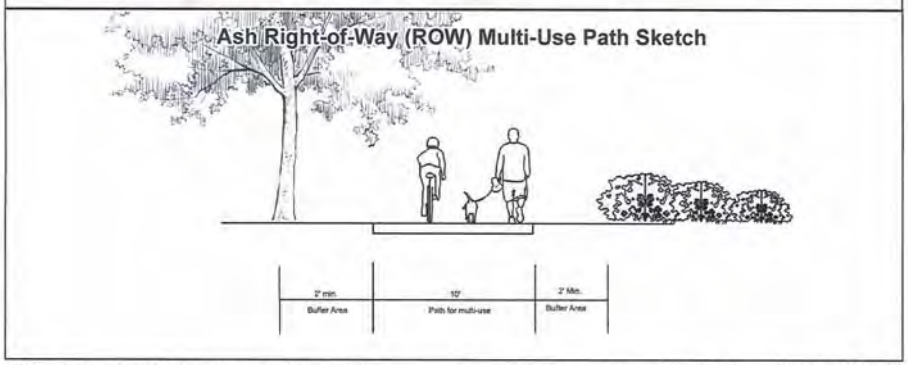
Pedestrian System Alternatives

Site Map P-7 - Page 2

Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Oakland ROW
Major Collector Street
Minor Collector Street
Major Local Street
Minor Local Street
Oakland Parcels
Railroad Crossing Alternative
Existing Path Improved
Proposed Multi-Use Path

0 270 540 1,080 Feet





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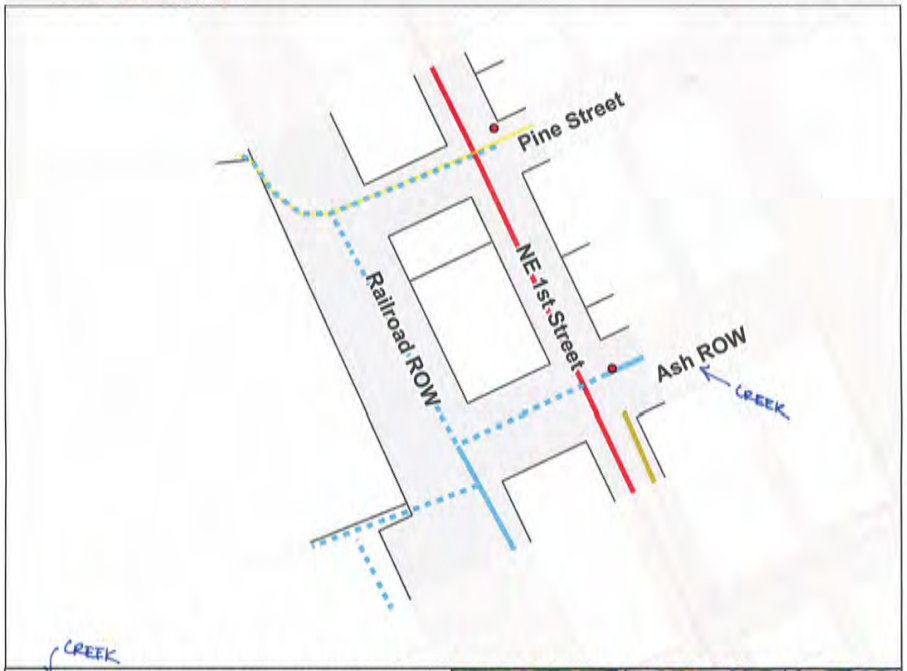
City of Oakland

Pedestrian System Alternatives

Site Map P-8

Stop Sign
Railroad Crossing Alternative
Arterial Street
Oakland Parcels
Proposed Multi-Use Path
Local Street
Oakland ROW
Oakland Sidewalks

0 120 240 480 Feet



CREEK

Ash Right-of-Way (ROW) & Pine Street Railroad Crossing Summary

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 Old 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. It is assumed that no additional crossing could be added. Therefore a crossing is only possible at either Ash OR Pine Street. A third alternative, directly west of the railroad right-of-way (P-10), is included as an alternative to the Ash and Pine Street crossings if necessary, and would utilize the existing Stearns Lane railroad crossing.

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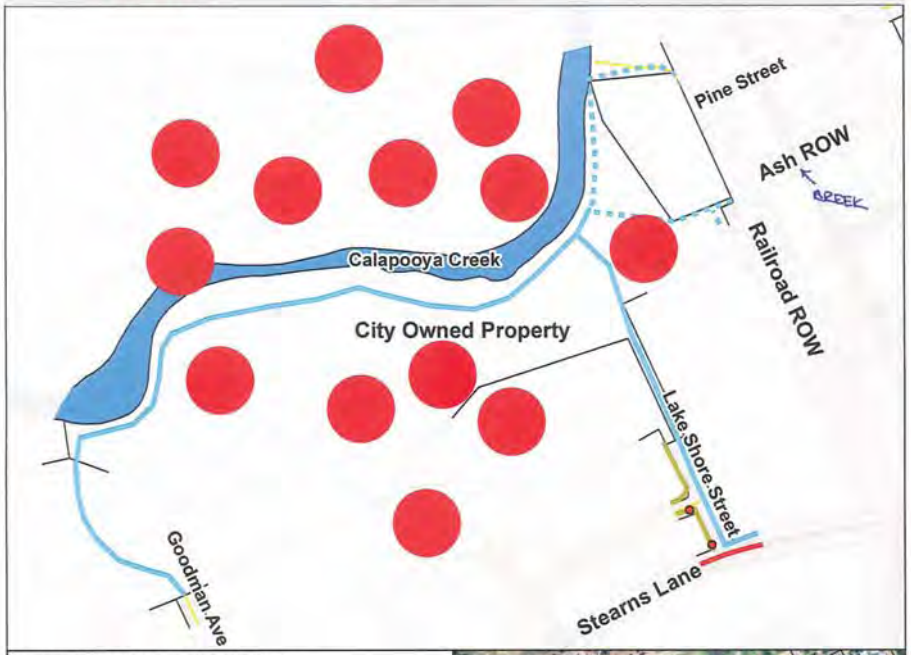
City of Oakland

Pedestrian System Alternatives

Site Map P-9

Stop Sign
Railroad Crossing Alternative
Proposed Multi-Use Path
Oakland ROW
Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Local Street
Oakland Parcels

0 335 670 1,340 Feet



Calapooya Creek Multi-Use Path Summary

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 can be considered as a set of alternatives or phases for a multi-use path system. The system is facilitated by connections through Stearns Park, Goodman Avenue, Lake Shore Street and improvements presented in Alternatives P-7 and P-8. The multiuse path would include hardened surfaces but sections could be set aside for other surface types (uses). The width of the hardened portions of the path would be a minimum of eight feet and would likely be an asphalt construction. One important consideration for the path is the potential impacts to natural resources including the riparian area adjacent to Calapooya Creek. Another important factor is the points of access to the east (across the railroad). Consideration must be given to existing needs for access to the water intake, private property dynamics and ability to use railroad right-of-way.

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Created By: LCOG Jan. 2015

Yes, yes, yes! Then work w/ Sutherlin for a Oakland-Sutherlin Bike & walk path :)

← Oakland-Sutherlin path!

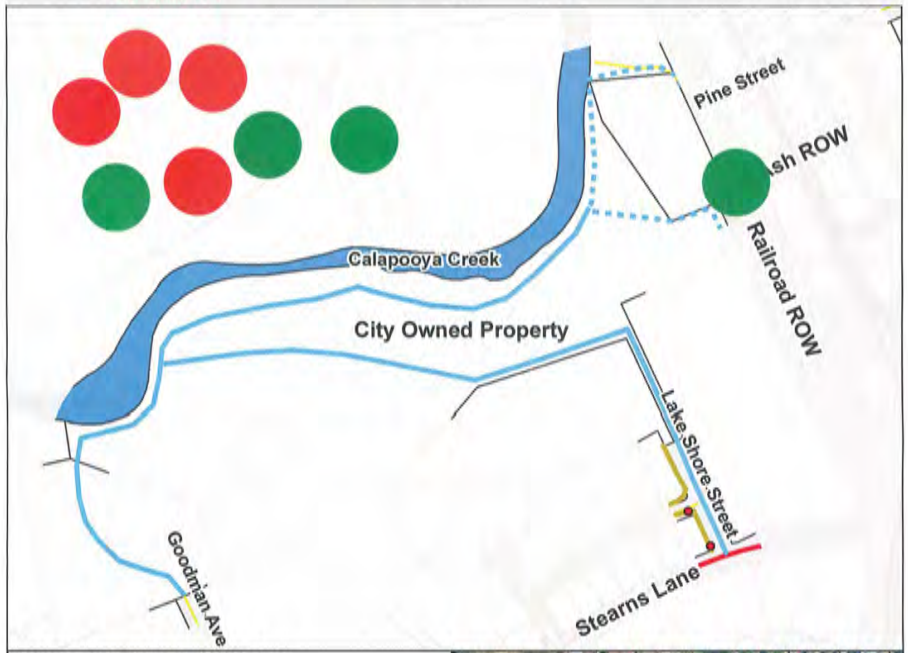
City of Oakland

Pedestrian System Alternatives

Site Map P-9

Stop Sign
Railroad Crossing Alternative
Proposed Multi-Use Path
Oakland ROW
Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Local Street
Oakland Parcels

0 335 670 1,340 Feet



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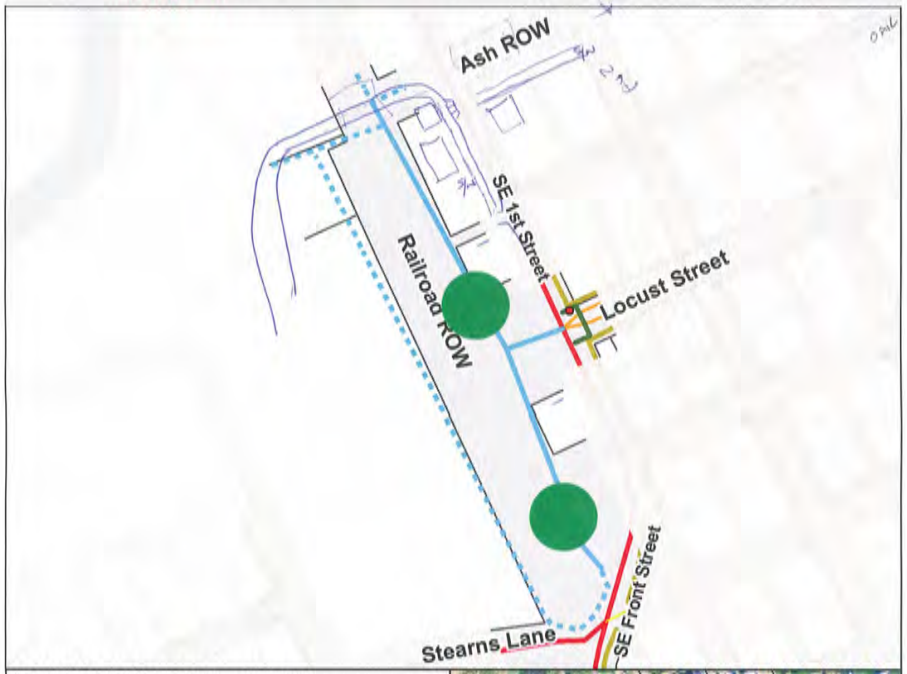
City of Oakland

Pedestrian System Alternatives

Site Map P-10

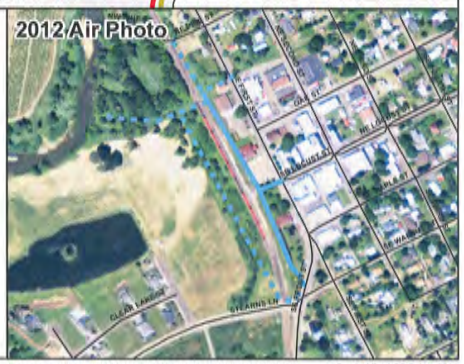
Crosswalk Sign
Stop Sign
Oakland Crosswalks
Oakland Sidewalks
Arterial Street
Collector Street
Local Street
Oakland Parcels
Railroad Crossing Alternative
Proposed Multi-Use Path
Oakland ROW

0 215 430 860 Feet



Railroad Right-of-Way (ROW) Multi-Use Path Summary

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 First Street/Old Highway 99 with lower sections of First Street/Old Highway 99 and Stearns Lane. In combination with other conceptual paths, this could complete a nearly two mile network of off street paths in Oakland. The proposal includes a connection to the west side of Locust Street.



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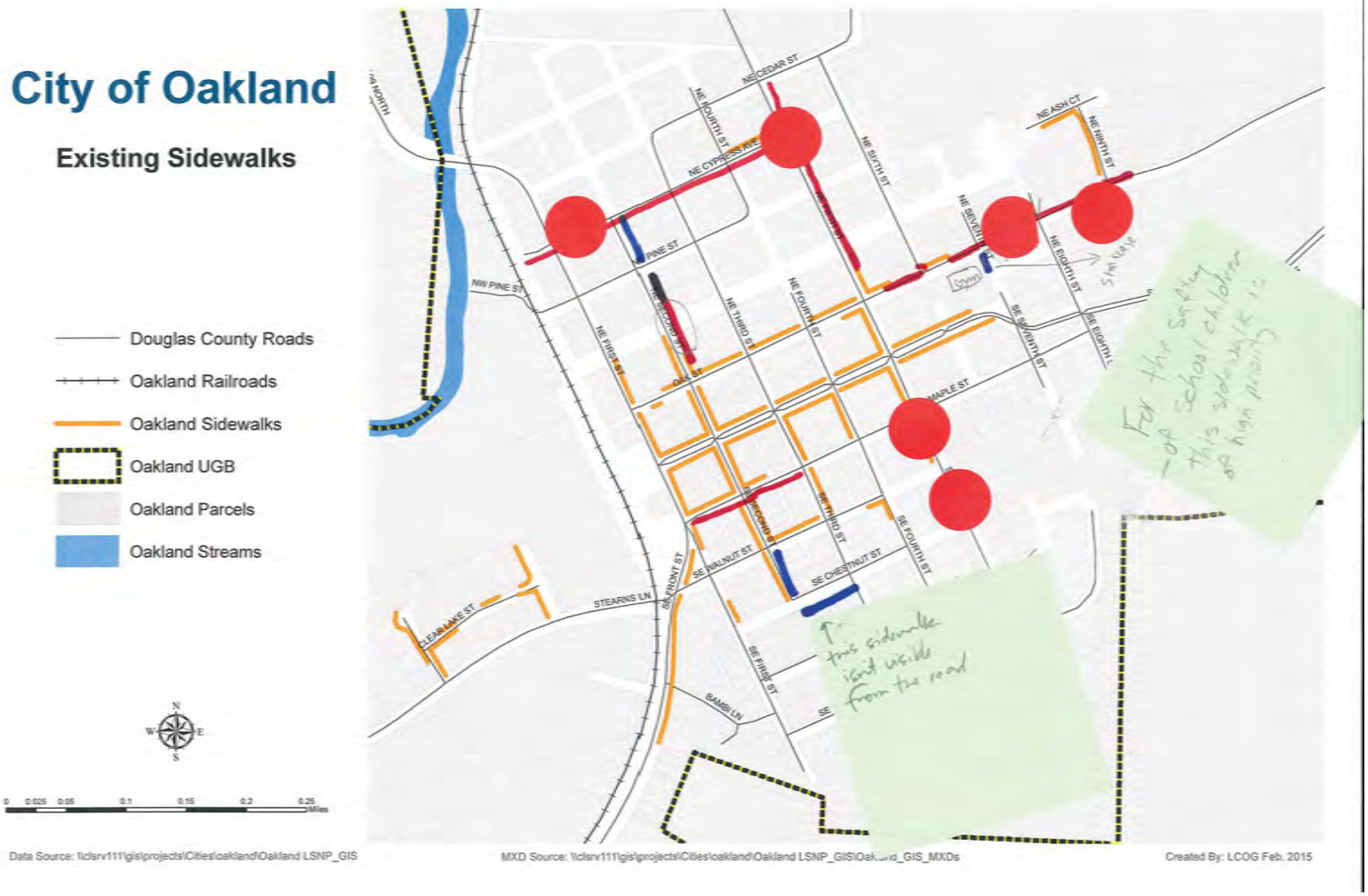
City of Oakland

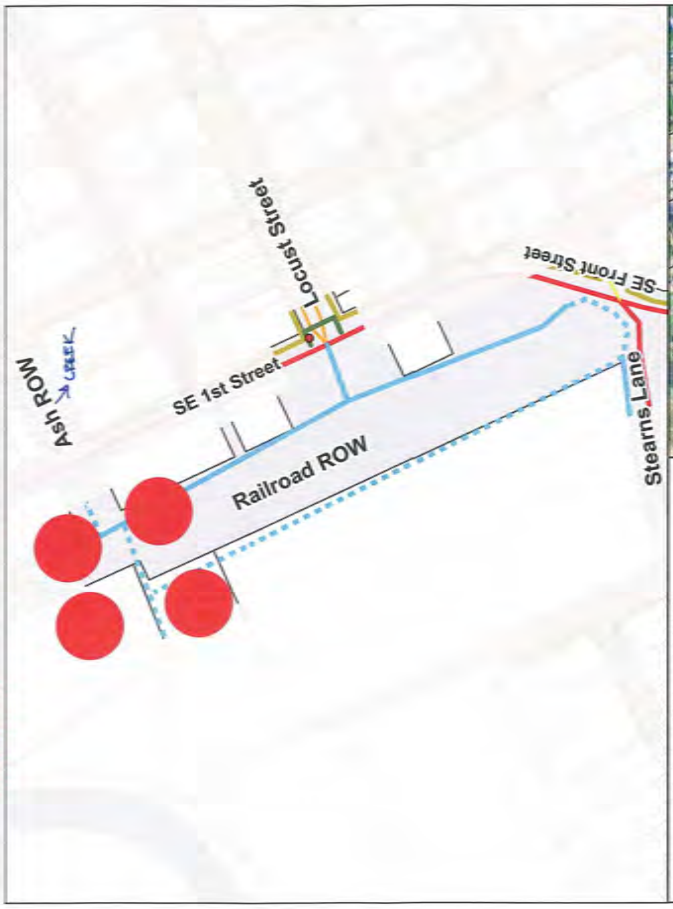
Existing Sidewalks



City of Oakland

Pedestrian System Alternatives

Site Map P-10



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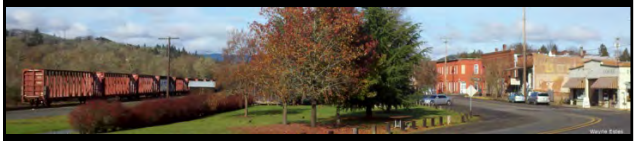
PowerPoint Presentation
Advisory Committee Meetings
September 16, 2014

Oakland Local Street Network Plan

Project Advisory Committee



Why Lane Council of Governments (LCOG)?

Background

Infrastructure and other woes in Oakland

- Collapsed storm drains
- Water and wastewater deficiencies
- Connectivity challenges
- Street Maintenance challenges
- Possible need for code updates
- Desire for improved bike and ped environment
- *Absence of coordinated planning posing a challenge to securing grants and other funding opportunities as one means for addressing these challenges.*

Transportation & Growth Management

A partnership between the Department of Land Conservation and Development (DLCD) and the Oregon Department of Transportation (ODOT), the Oregon Transportation and Growth Management Program (TGM) supports community efforts to expand transportation choices for people. By linking land use and transportation planning, TGM works in partnership with local governments to create vibrant, livable places in which people can walk, bike, take transit or drive where they want to go.

2011-2012-2013

Third time was the charm!

$90,000

Oakland Local Street Network Plan

- Help the City comprehensively identify opportunities for transportation network improvements, and most importantly, priorities and clear actions for making those improvements.
- Identify a logical and efficient system of local, collector and arterial streets to best serve existing and future uses
- Assess needs and opportunities for improving bicycle and pedestrian connectivity.
- Building upon the efforts of the City to provide safer streets for schools and businesses.

Benefits

- Clearer priorities for transportation system improvements
- Improved access to funding opportunities of all kinds
- A plan that reflects broad public input
- Safer streets and paths for all ages and modes of travel
- Research and evaluation of a bike and hike trail in Oakland as well as a connection between Oakland and Sutherlin.

Benefits

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Oakland Local Street Network Plan

Task 1: Project Management and Public Involvement

Objective: provide foundation for successful Plan development by ensuring adequate project management, public involvement and initial public outreach.

Task 2: Existing Policies, Plan Goals and Objectives

Objective: identify existing laws, plans and policies that impact development of the Plan, and establish overarching Plan goals and objectives. Inventory and evaluate the existing transportation network, and develop a methodology for analysis of existing conditions, future conditions and alternatives analysis.

Oakland Local Street Network Plan

Task 3: Develop and Evaluate Alternatives

Objective: develop, evaluate and document street network alternatives.

Technical Memorandum 4

Proposed connectivity, safety, geometric, ADA and transit improvements. Design concept-level diagrams, review of resource conflicts, development of planning-level cost estimates. Impacts and benefits to bike-ped, freight and safety.

Technical Memorandum 5

Design standards , Cross-sections by functional classification

Technical Memorandum 6

Funding (current, future, City, County, State, Federal, other)

Oakland Local Street Network Plan

Task 4: Preferred Alternatives

Objective: to develop a set of preferred alternatives from information developed in Task 3, and a list of potential ordinance and code changes.

Technical Memorandum 7

Recommended preferred bicycle, pedestrian, auto and transit improvements

Technical Memorandum 8

Plan and code changes necessary for implementation of the preferred alternatives and City transportation vision.

Oakland Local Street Network Plan

Task 5: Draft City of Oakland Local Street Network Plan

Objective: to develop a draft local street network plan and associated ordinances for consideration by the public and the City Council and Planning Commission.

Volume I – Projects

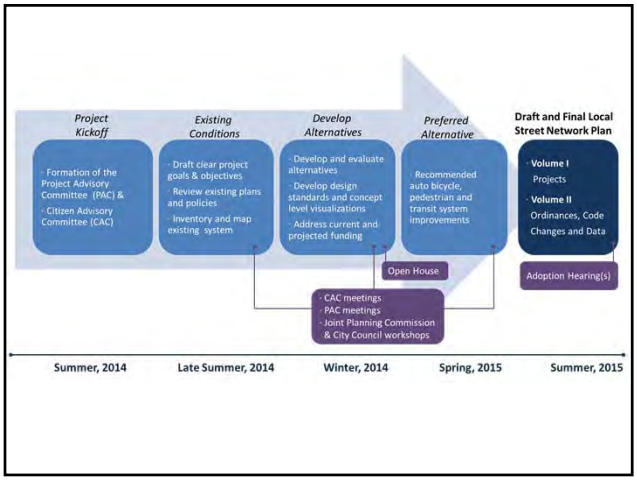
- Summary of projects, costs, benefits and priority
- Project Prospectus Sheets (one for each project included in Plan, see "Sample Project Prospectus Sheet Front" and "Sample Project Prospectus Sheet Back" for example)
- Implementation Section (a basic "how-to" set of instructions for implementing each project)

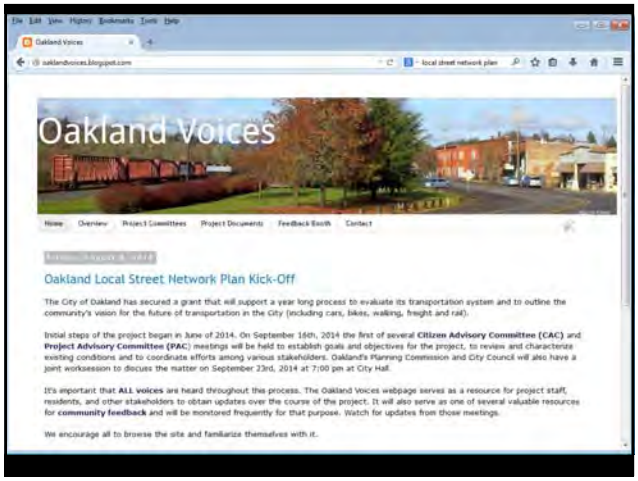
Volume II – Policies and Data

- Goals, policies and objectives
- Detailed description of existing and planned transportation facilities and services, including type, classification, lanes, traffic control devices and posted speeds
- Road Plan, Bicycle Plan, Pedestrian Plan, Transit Plan
- Funding (current, projected and potential)

Volume III – Appendices

All TMs and other supporting data for the Plan





Draft Technical Memorandum 1

Goals and Objectives

Goal 1: Overall Transportation System 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.

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.

Goal 3: Transportation and Land Use Maximize the efficiency of Oakland's transportation system through effective land use planning

Goal 4: Street System Provide a well planned, comprehensive street system that serves the needs of the Oakland UGB and its residents.

Goals and Objectives (continued)

Goal 5: Balanced Transportation System Facilitate the development of bike lanes, sidewalks, multiuse paths and transit in the Oakland UGB to provide more transportation options for Oakland residents and visitors

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 UGB

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.

Evaluation Criteria

1. Provides safe, efficient, and effective movement of goods, services, and people.
2. Provides safe and well integrated opportunities for pedestrian and bicycle pathways.
3. Provides adequate access for emergency service vehicles.
4. Sustainable and Feasible Costs for Construction and Maintenance.
5. Minimizes energy consumption in terms of vehicle miles traveled as well as in terms of street construction and maintenance
6. Supports downtown as the major commercial service area.
7. Provides access to lands for development

Draft Technical Memorandum 2

Existing Plans, Policies, and Standards

Statewide Planning Goal 12:

According to Goal 12 a transportation plan shall

1) consider all modes of transportation including mass transit, air, water, pipeline, rail, highway, bicycle, and pedestrian;
2) be based upon an inventory of local, regional, and state transportation needs;
3) consider the differences in social consequences that would result from utilizing differing combinations of transportation modes;
4) avoid principal reliance upon any one mode of transportation;
5) minimize adverse social, economic, and environmental impacts and costs;
6) conserve energy;
7) meet the needs of the transportation disadvantaged by improving transportation services;
8) facilitate the flow of goods and services so as to strengthen the local and regional economy; and
9) conform with local and regional comprehensive land use plans. Each plan shall include a provision for transportation as a key facility.

Draft Technical Memorandum 2

Existing Plans, Policies, and Standards

Transportation Planning Rule (OAR 660-12-055 (6)):

Rule administering Goal 12. Fairly prescriptive.

In 1996 during the City of Oakland's periodic review evaluation, the City requested and was granted a full exemption from the requirements of the Transportation Planning Rule (under OAR 660-12-055 (6)).

Our Work Plan – Intergovernmental Agreement

Draft Technical Memorandum 2

Existing Plans, Policies, and Standards

State of Oregon Transportation Plan

Oregon Transportation Plan, 1992
Aviation System Plan, 2000
Bicycle/Pedestrian Plan, 1995
Transportation Safety and Action Plan, 1995
Public Transportation Plan, 1997
Oregon Highway Plan, 1999
Rail Freight and Passenger Plan, 2001

The plans provide a framework for cooperation between ODOT and local jurisdictions and offer guidance to cities and counties for developing local modal plans.

Draft Technical Memorandum 2

Existing Plans, Policies, and Standards

Douglas County Comprehensive Plan (Transportation Element) (2004)

Douglas County has jurisdiction over a number of Oakland streets

Not many facilities or plans that appear to be called out specifically

Bike Route between Oakland and Sutherlin

Draft Technical Memorandum 2

Existing Plans, Policies, and Standards

City of Oakland Plans and Ordinances

Comprehensive Plan

Zoning Ordinance

Design Standards

Subdivision Ordinance

Fire Codes

Other State Agencies
DEQ, DLS, DLCD, ODFW

Draft Technical Memorandum 3

System Inventory

Map 1 - Land Use – Vacant Lots
Map 2 - Oakland Zoning
Map 3 - Oakland Comprehensive Plan Designation/ Right-of-Way
Map 4 - Street Jurisdiction & Safety
Map 5 - City Functional Classification
Map 6 - County Functional Classification
Map 7 - Existing Road Conditions
Map 8 - Existing Bike-Pedestrian System/Activity Centers
Map 9 - Rail/Bridges/Culverts
Map 10 - Natural Resources
Map 11 - Topography
Map 12 - Aerial
Map 13 - Conceptual Bike-Pedestrian Routes
Map 14 - Conceptual Street Classification

PowerPoint Presentation
City Council and Planning Commission
September 23, 2014

Key Feedback
Citizen Advisory Committee
Project Advisory Committee

September 16, 2014

What we heard CAC/PAC

ROW

- The existing Comprehensive Plan Policies prohibiting ROW vacation should be reconsidered
  - Consider criteria for the identification of potential ROW vacations.
    - Might there be need for the right-of-way in the next twenty years?
    - Does the right-of-way exhibit characteristics that make it clearly undevelopable/unusable?
    - Can the public right of way serve purposes beyond vehicle access? (walking, hiking paths, utility, etc.)
- Establish a committee for determining right-of-way criteria and evaluating currently unimproved rights of way
- LCOG can assist with mapping needs.

What we heard PAC/CAC

Conceptual Bike Routes --

- Noted some additional alternatives for bike-ped route connecting town to resource lands west of the railroad.
  - Ash Street ---
  - Stearns Avenue --- Full Route
- Added some existing Douglas County Bicycle Routes:
  - Dr. Warren Kadas Scenic Loop (Class IIIs)
  - The Ron Hjort - Rochester Bridge Loo (Class IIIs)
  - Oakland-Sutherlin Route (Class III)

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 IIIs: A Class III bikeway which is signed only. A Bicycle Route is a Class IIIs Bikeway.

What we heard PAC/CAC

Other Bike-Ped

- Keep "walking" in mind when bike paths are discussed.
- Possible four way stop at Fifth and Oak
- Possible stop sign on Cedar and Fifth
- Cypress Avenue is used heavily for School pedestrian traffic
- Perhaps Cole and other student volunteers could conduct a basic walking inventory (observing current walking behavior for students) Which paths do they frequent? Etc.

Other Auto

- Possible treatments or mechanisms to encourage through traffic to use Oak Street instead of Locust.

What we heard PAC/CAC

Outreach

Event—Oakland Community Resources Team
- Combine with Open House?
- Possible ideas?
- Combined with Safe Routes to Schools

What we heard PAC/CAC

Historic District

Research Historic District Considerations

Although the standards outlined in the historic district ordinance (Ord. 456), almost exclusively address "structures," "landmarks" are also noted, including "bridges," "sites," "signs," or "other objects of historic importance." These are all elements which transportation projects might influence. Also of note is the fact that orientation to streets, sidewalk placement, as well as fencing and landscaping features are all factors for review relative to historic design review (where required).

What we heard PAC/CAC

Other Map Fixes

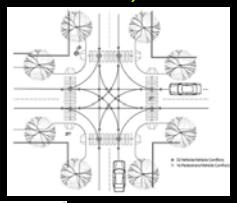
- Made some changes to the following maps:
  - Conceptual Streets Map (some concerns over a number of bike-ped streets).
  - Road Conditions
  - Existing Bike-Ped Map (Addition of routes for crossing the railroad).
  - Still intending to add more crash sites to the Safety map
  - Intending to add a ROW map
  - Intending to add a more detailed utility infrastructure map (including condition)

Next Steps

Developing Alternatives

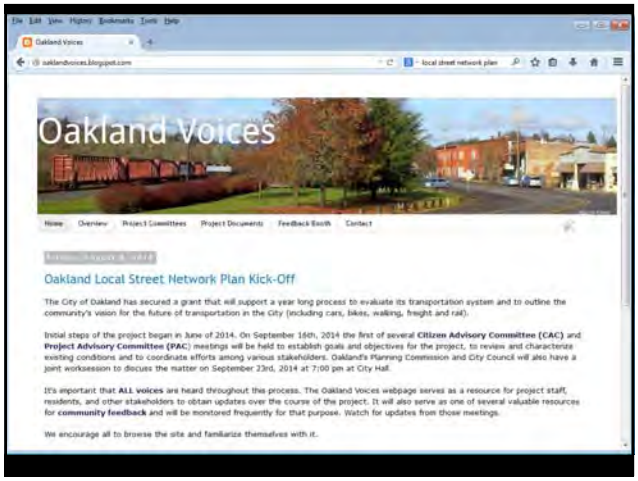
Street Classifications

Intersection Dynamics



Design Standards

Sequencing Improvements



Key Feedback
Planning Commission
City Council
Joint Worksession

September 16, 2014

What we heard from PC/CC

General

- Spruce Street ROW – what is the status??
- Crystal Lane is a problematic component of the Oakland –Sutherlin Bike Route (incline). The "curves" (Old Highway 99) might be a more appealing (and natural) alternative for Oakland Residents
- Bridge repair is taking place currently (reports Linda West)
- Welcome sign on the north end of town is something that has long been desired/needed
- Linda noted that a campground is being constructed up Driver Valley Rd and that is expected to draw more people through town.

What we heard from PC/CC

Oak Street

- People drive about 35 MPH because it looks like "that kind of a road" (even though it is signed for 25)
- Trade-offs for adding four way stop on Oak ---safer perhaps but County is trying to preserve its "function" for Oak as a collector (higher speeds).
- Consider treatments that are more context sensitive (flashing lights when children need to cross).
- Bike improvements for Cypress need to be considered (heavily used by students)
- Stop sign patterns could be reviewed (seemingly random)
- Would a stop on Cypress and Cedar be too many?

What we heard from PC/CC

Other

- Strong support for event in partnership with Oakland Community Resources Team for outreach.
- More comfort with revised Conceptual Streets map, but still some need for review and refinement
- Council and Planning Commission will work with LCOG to evaluate ROWs that may be appropriate for being addressed differently than they are now (not necessarily vacation).

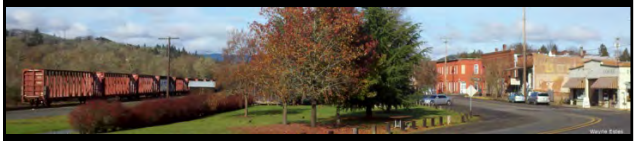
PowerPoint Presentation

Advisory Committee Meetings

February 10, 2015

Oakland Local Street Network Plan

February 10, 2015



Oakland Local Street Network Plan

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Oakland Local Street Network Plan

- ○ **Task 1: Project Management and Public Involvement**
- ✓ **Task 2: Existing Policies, Plan Goals and Objectives**
- ✓ **Task 3: Develop and Evaluate Alternatives**
- ○ **Task 4: Preferred Alternatives**
- ○ **Task 5: Draft City of Oakland Local Street Network Plan**

Oakland Local Street Network Plan

Task 3: Develop and Evaluate Alternatives

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Proposed connectivity, safety, geometric, ADA and transit improvements. Design concept-level diagrams, review of resource conflicts, development of planning-level cost estimates. Impacts and benefits to bike-ped, freight and safety.

Technical Memorandum 5

Design standards , Cross-sections by functional classification

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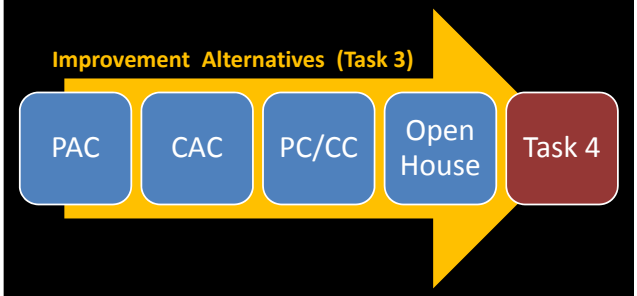
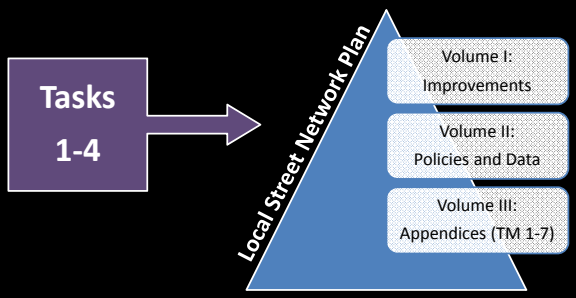
Oakland Local Street Network Plan

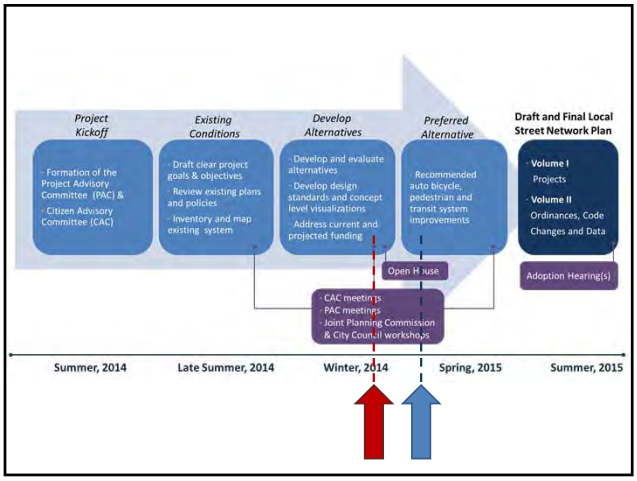
Task 4: Preferred Alternatives

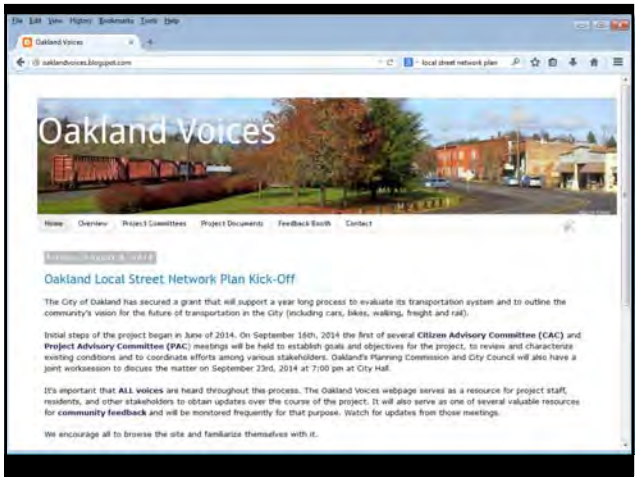


Oakland Local Street Network Plan

Task 5: Draft Local Street Network Plan





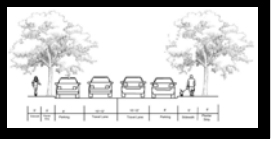


Draft Technical Memorandum 4
System Improvements

- Recommendations continue to be conceptual
  - Open for discussion, reconfiguration or even possible removal
  - Other project can be added
- Current assessment against evaluation criteria was conducted by staff and needs committee review and feedback.
- Improvements are organized by Automobile, Pedestrian, Bicycle and Transit Systems.
- Conceptual Streets –
  - Generally lower priority
  - Fundamental to a Street Network Plan
  - Convey a potential, if not ideal, scenario for connectivity of existing and future development
  - Contingent upon the demands of future development

Draft Technical Memorandum 5
Street Classification and Design Standards

- Recommendations continue to be conceptual
  - Open for discussion, reconfiguration or even possible removal
  - Other project can be added
- Key Points:
  - Existing Functional Classifications (Oakland Comp Plan):
    - Arterial, Major and Minor Collector, Local
  - Proposed Functional Classifications:
    - Arterial, Major and Minor Collector, Major and Minor Local
  - Refinement of Bicycle and Pedestrian Design Standards for Street Classifications.
  - Multi-Use and Bicycle Path Standards



Draft Technical Memorandum 6
Funding

- Recommendations are open for discussion
- Key Points:
  - Existing transportation funding within Oakland
  - Federal and State Grant Programs (particularly addressing trails funding)
  - Potential Funding Sources (and mechanisms)
  - Planning level costs (not including common co-occurring drainage issues)

Key Proposed Street Improvements:

A-1 Oak and 1st Street & Locust Street and 1st
A-2 Locust Street and Seventh Street
A-3 Oak Street and 5th Street

P-1 Fifth Street (Oak street to the school)
P-3 Oak Street (1st Street to 8th Street)
B-5 Locust Street (Apple Street to Cypress Street)

P-2 Third Street (Apple Street to Cypress Street)
P-4 Cypress Avenue & NE 1st (1st Street around to 5th Street)
B-1 Maple Street (Front Street to 7th Street)

A1

1st – Oak
1st-Locust

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

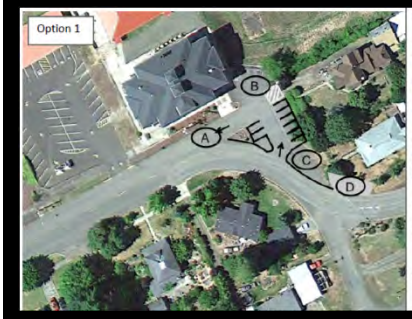
SE First Street (north of Maple St)
Objective:
- Serve as a City "Main Street" functionality for all modes
- Reduce travel speeds

Design Considerations:
- There is 60 ft. ROW
- 1st street (north & south of intersection) will have bike lanes (arterial designation)

Design Recommendations:
- Sidewalks and planter strips on both sides
- Parking on one side only
- 6 ft. bike paths on both sides
- 12 ft. travel lanes

A2

Locust - 7th



Design Elements:

A: One way traffic flow through parking area

B: Do-not block area for house access

C: New curb line and parking designation

D: 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.

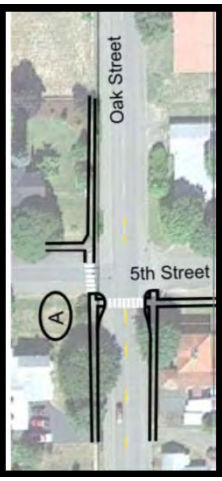
Street Reclassification Changes:

Locust Streets
"Collector" to "Minor Collector"

SE 7th Street
"Local" to "Minor Local"

A3

Oak - 5th



DESIGN ELEMENTS:

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

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.

Street Reclassification Changes:

P-1 5th Street

Design Elements:

High Visibility Crosswalks at select locations

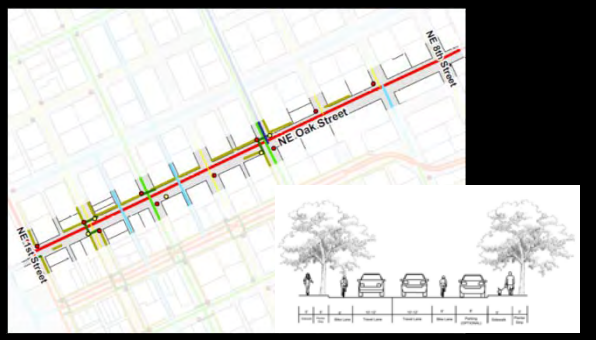
Improve Drainage:

1. Convert existing asphalt ditch between roadway and walkway into a "bio-swale" (shown in green in illustration) this will allow water to infiltrate into the soil to lessen the water draining into the storm drain system

Improve the pedestrian walkway on the east side. Replace walkway with new asphalt with adequate rock base and drainage or concrete walkway. (shown in grey on the illustration)

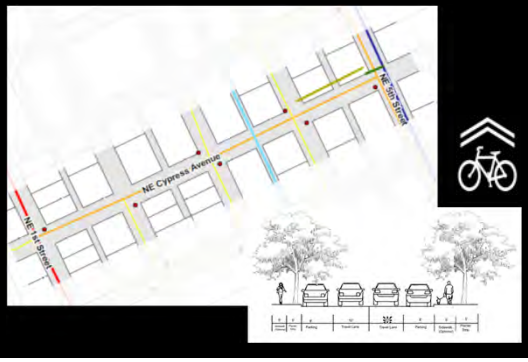
Modify intersection at 5th and school entrance into an all-way stop with high-visibility crosswalk treatments.

P-3 Oak Street



P-2 3rd Street

P-4 Cypress Street



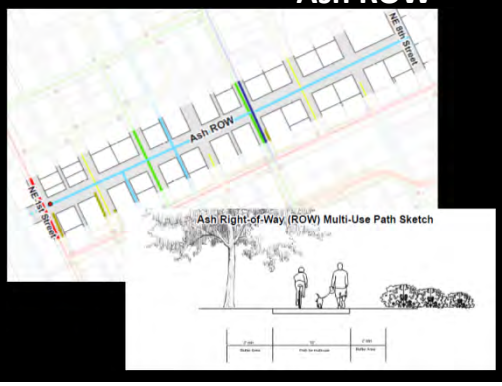
B-1 **Maple Street**

B-4 **Locust Street**

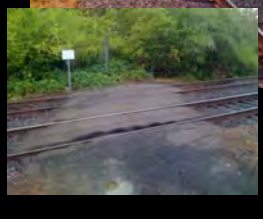
Key Proposed Path Improvements:

P-7 Ash Street Right-of-Way Path
P-8 Ash Right-of-Way (ROW) & Pine Street Railroad Crossings
P-9 Calapooya Creek Multi-Use Path (through city owned open space property)

P-7 **Ash ROW**



P-8 RR Crossings



P-9 Calapooya Path

Evaluation Criteria

1. Provides safe, efficient, and effective movement of goods, services, and people.
2. Provides safe and well integrated opportunities for pedestrian and bicycle pathways.
3. Provides adequate access for emergency service vehicles.
4. Sustainable and feasible costs for construction and maintenance.
5. Minimizes energy consumption in terms of vehicle miles traveled as well as in terms of street construction and maintenance
6. Supports downtown as the major commercial service area.
7. Provides access to lands for development

How critical is the need for the project(s)?

How urgent is that need?

Table 1: Automobile System Concepts/Alternatives

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	Affordability and maintenance	Is it critical ?	Is it urgent?
Intersections											
A-1	1	2	4	5	5	2	3	5		4	4
A-2	1	1	2	4	3	3	2	3		4	4
A-3	1	2	3	4	5	4	3	4		5	5
A-4	1	2	2	2	5	4	2	1		5	5
A-5	3	1	2	3	4	4				?	?
Conceptual New Streets											
A-6	3	5	4	2	4	5	3	1		4	3
A-7	3	3	3	1	2	2	3	1		3	2
A-8	3	4	4	2	4	5	3	1		4	3
A-9	4	5	5	2	2	2	3	1		3	2
A-10	5	5	3	2	3	5	4	1		3	2
A-11	5	4	3	1	4	5	4	1		3	1
A-12	5	5	3	1	3	5	4	1		4	1
A-13	5	5	4	1	4	3	3	1		4	1
A-14	4	5	3	1	4	2	3	1		3	1
A-15	5	3	3	1	3	2	1	1		3	1
A-16	3	3	3	3	2	3	1	1		2	2
A-17	3	5	5	1	4	3	2	1		3	1
A-18	5	3	3	5	2	1	2	1		3	3

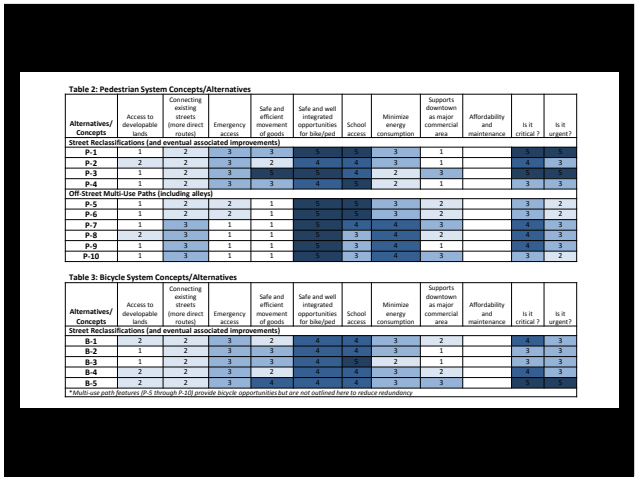


Table 2: Pedestrian System Concepts/Alternatives

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	Affordability and maintenance	Is it critical ?	Is it urgent?
Street Reclassifications (and eventual associated improvements)											
P-1	1	2	3	3	5	5	3	1		5	5
P-2	2	2	3	2	4	4	3	1		4	3
P-3	1	2	3	5	5	4	2	3		5	5
P-4	1	2	3	3	4	5	2	1		3	3
Off-Street Multi-Use Paths (including alleys)											
P-5	1	2	2	1	5	5	3	2		3	2
P-6	1	2	2	1	5	5	3	2		3	2
P-7	1	3	1	1	5	4	4	3		4	3
P-8	2	3	1	1	5	3	4	2		4	3
P-9	1	3	1	1	5	3	4	1		4	3
P-10	1	3	1	1	5	3	4	3		3	2

Table 3: Bicycle System Concepts/Alternatives

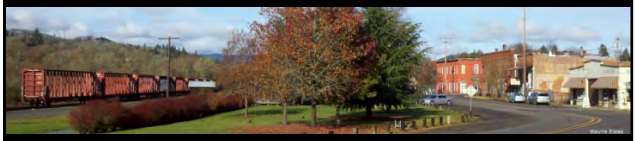
Alternatives/ Concepts	Access to developable lands	Connecting existing streets (more direct routes)	Emergency access	Safe and efficient movement of goods	Safe and well integrated opportunities for bike/ped	School access	Minimize energy consumption	Supports downtown as major commercial area	Affordability and maintenance	Is it critical ?	Is it urgent?
Street Reclassifications (and eventual associated improvements)											
B-1	2	2	3	2	4	4	3	2		4	3
B-2	1	2	3	3	4	4	3	1		3	3
B-3	1	2	3	3	4	5	2	1		3	3
B-4	2	2	3	2	4	4	3	2		4	3
B-5	2	2	3	4	4	4	3	3		5	5

**Multi-use path features (P-5 through P-10) provide bicycle opportunities but are not outlined here to reduce redundancy*

PowerPoint Presentation
Advisory Committee Meetings
April 20, 2015

Oakland Local Street Network Plan

April 20, 2015



Oakland Local Street Network Plan

- Help the City comprehensively identify opportunities for transportation network improvements, and most importantly, priorities for making those improvements.
- Identify a logical and efficient system of local, collector and arterial streets to best serve existing and future uses
- Assess needs and opportunities for improving bicycle and pedestrian connectivity.
- Building upon the efforts of the City to provide safer streets for schools and businesses.

Benefits

- Clearer priorities for transportation system improvements
- Improved access to funding opportunities of all kinds
- A plan that reflects broad public input
- Safer streets and paths for all ages and modes of travel
- Research and evaluation of a bike and hike trail in Oakland as well as a bicycle connection between Oakland and Sutherlin.

Oakland Local Street Network Plan

- ○ **Task 1: Project Management and Public Involvement**
- ✓ **Task 2: Existing Policies, Plan Goals and Objectives**
- ✓ **Task 3: Develop and Evaluate Alternatives**
- ✓ **Task 4: Preferred Alternatives**
- ○ **Task 5: Draft City of Oakland Local Street Network Plan**

Oakland Local Street Network Plan

Task 4: Recommended Alternatives

Objective: Recommend system improvement alternatives.

Technical Memorandum 7

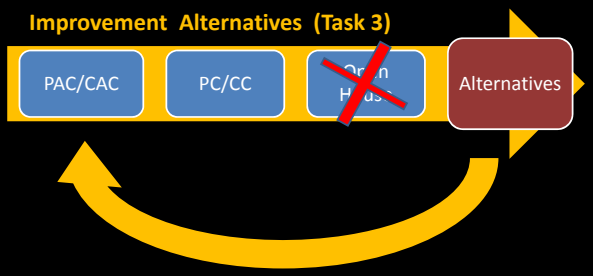
Recommended final connectivity, safety, geometric, and transit improvements. Design concept-level diagrams and summaries, review of resource conflicts, development of planning-level cost estimates. Impacts and benefits to bike-ped, freight and safety.

Technical Memorandum 8

Code and Plan Update Considerations

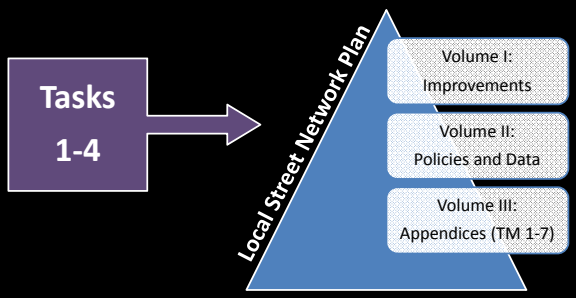
Oakland Local Street Network Plan

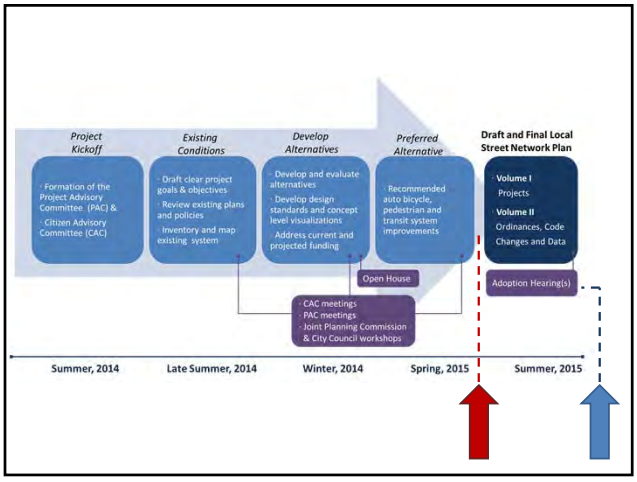
Task 4: Preferred Alternatives

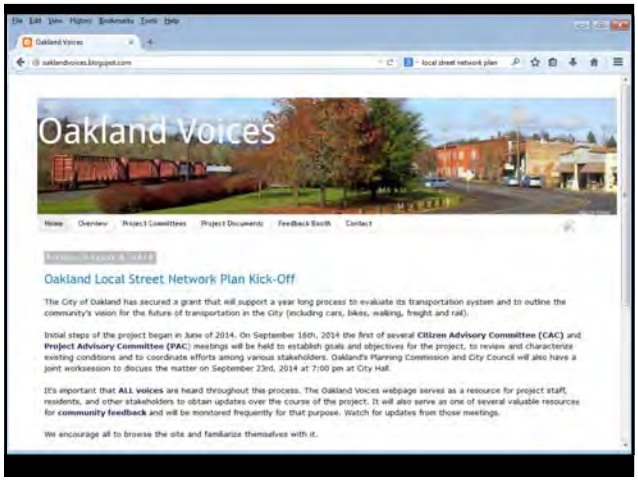


Oakland Local Street Network Plan

Task 5: Draft Local Street Network Plan







Draft Technical Memorandum 7
System Improvements

Intersection/Corridor	Improvement Summary	Cost Summary*
Higher Priority (0-5 years)		
Fifth and Oak Street	Pedestrian Crossing	$25,000-$80,000
Calapooya Creek Multi-Use Path	Multi-Use Path on public open space west of RR	$1,375,000
Ash Creek Multi-Use Path	Multi-Use path in current undeveloped Ask Street ROW	$270,000 – $1,080,000
Multi-Use Path RR Crossing	A Crossing at Ash, Pine or First Street	$690,000 - $1,500,000
First –Locust—Old Hwy 99 Street Intersections	Improvements related to signage and crossings	$275,000
Locust and Seventh Streets	Improvements to curve and city hall parking	$15,000 - $30,000

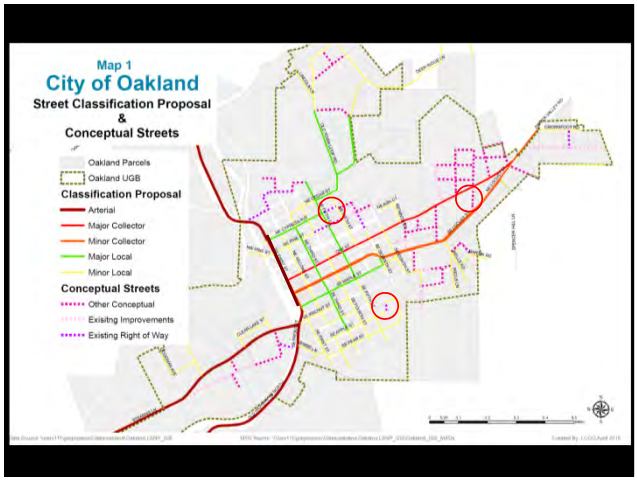
Draft Technical Memorandum 7
System Improvements

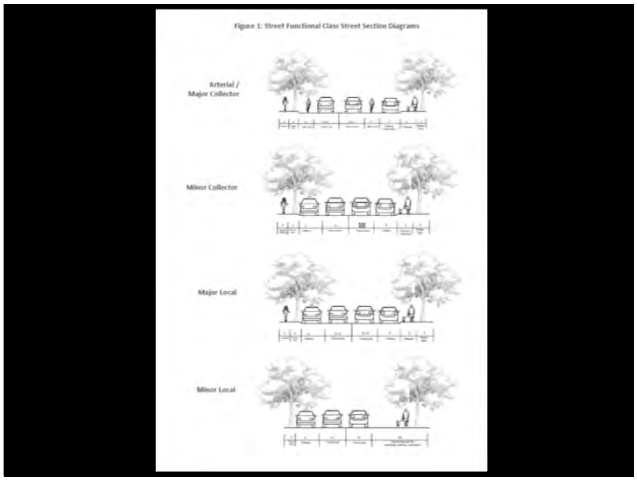
Intersection/Corridor	Improvement Summary	Cost Summary*
Medium Priority (6-15 years)		
Fifth Street segment improvements	Improve path and intersection dynamics between Oak and School	$130,000 - $5,050,000
Locust Street segment Improvements	Bicycle improvements along Locust Street	$30,000 - $400,000
Cypress Avenue Improvements	Pedestrian and bicycle improvements for school traffic	(pending)
Railroad right-of-way East of Old Hwy 99	Utilizing leased parkland for improved connections across Railroad	$550,000

Draft Technical Memorandum 7
System Improvements

Intersection/Corridor	Improvement Summary	Cost Summary*
Lower Priority (16+ years)		
Maple Street Improvements	Bicycle and pedestrian improvements along Maple Street	-
Oak Street Improvements	Bicycle and pedestrian improvements along Oak Street	-
Oak Street to Locust east connection	Connecting Locust and Oak east of Cty Hall	-
Apple Street Connection	Completing the loop of Apple Street near Fifth street.	-
Extending Cypress	Facilitating future connections and connectivity to the east by improving Cypress between 5th and 6th Streets.	-

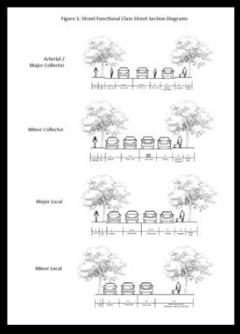
Access to evelopable lands	existing streets (more direct routes)	Emergency access	Safe and efficient movement of goods	Safe and well integrated opportunities for bike/ped	School access	Minimize energy consumption	downtown as major commercial area	Is it crit
High Priority (0-5 years)								
1	2	4	5	5	2	3	5	4
1	1	2	4	3	3	2	3	4
1	2	3	4	5	4	3	4	5
1	3	1	1	5	4	4	3	4
2	3	1	1	5	3	4	2	4
1	3	1	1	5	3	4	1	4
Medium Priority (6-15 Years)								
1	3	1	1	5	3	4	3	3
1	2	3	3	4	4	3	1	3
1	2	3	3	4	5	2	1	3
2	2	3	4	4	4	3	3	4
Low Priority (16+ Years)								
3	5	4	2	4	5	3	1	4
4	5	5	2	2	2	3	1	3
5	5	3	2	3	5	4	1	3





Draft Technical Memorandum 8

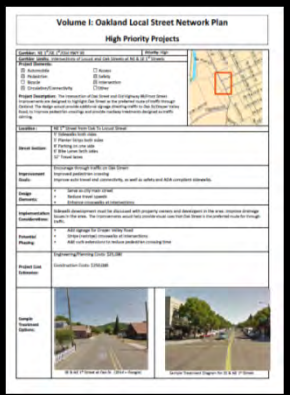
Recommendations for Code and Plan Revision

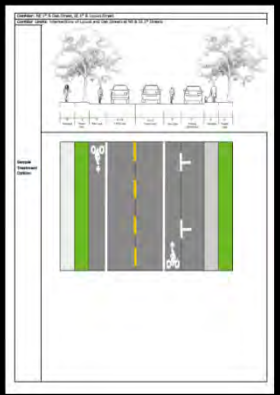


Code/Plan Section	Current themes or specific language	Proposed changes (specific or conceptual)
		described in the LSNP.
Section 40: Blocks	(3) Easements (c) Pedestrian and bicycle ways	Review further
Section 41: Buildings Sites	(2) Access	Review further
Section 48: Public Facility Improvements in Subdivisions	(1) Streets Establishes street improvements required by a developer and directs to design standards. (2) Curbs and Gutters *Curbs and gutters are required to be installed by the developer if any other lot on the same side of the street in the same block has curbs and gutters.* (5) Sidewalks and street trees *Sidewalks and street trees shall be installed to City specifications on one or both sides of an improved public street within or connecting to a subdivision, at the discretion of the Planning Commission…* (6) Bicycle Routes and Lanes	Review further Review further (possibly direct to design standards and consider minor local street standards) Consider: (5) Sidewalks and street trees *Sidewalks and street trees shall be installed to City specifications on one, or both, or neither sides of an improved public street within or connecting to a subdivision, at the discretion of the Planning Commission…* (6) Bicycle Routes and Lanes. Consider the addition of language addressing the use of Sharrows.
Ordinance #267 Sidewalk Ordinance	Construction/reconstruction of sidewalks by abutting property owners. Cost share with City.	Review further
Ordinance #287 Subdivision Ordinance	References to Street Classifications, access, improvements	Ordinance index does not show that #287 was repealed by #504. Consider relevance and reconciliation of overlaps.
Ordinance #343 Flood Hazards	Language about restrictions on development within the floodplain/way	Review for relevance to potential multi-use path improvements in the floodplain/way

Code/Plan Section	Current themes or specific language	Proposed changes (specific or conceptual)
Ordinance #501	Maintenance of Alleys and Street Shoulders	Review further
Oakland Comprehensive Plan		
Natural Features Element	Goal A, Policy 6: Goal B, Policy 3: Vegetation on stream banks	Add something related to paths in floodway Add something to recognize possible need for impacts relative to bike path..
Facilities and Services Element	(E), Policy 6: Concerns the adequacy of parkland and specifically addresses Ash Creek right-of-way as a potential park site. (E), Policy 8: Concerns Ash Creek as a continued major collector of storm runoff. (E), Policy 13: *Public buildings and recreation facilities shall take into account the needs of physically handicapped persons.*	Add clarity about "path" as "park" for Ash Street R-O-W. Consider stronger or more specific language. Review for relevance and consistency with Policy 6. (E), Policy 13, Consider: *Public buildings, sidewalks and recreation facilities shall take into account the needs of physically handicapped persons.* Consider adding a policy specifically addressing support for public recreation multi-use paths Consider adding a policy regarding the coordination of street improvements with stormdrain improvements
Transportation Element	Policy 1: *…Dedicated but undeveloped streets should not be vacated*	Consider clearer language relative to the policy language. Consider and enable the appropriate vacation of right-of-way. Not removing from

Draft Technical Memorandum 6





Other

ROW

- The existing Comprehensive Plan Policies prohibiting ROW vacation should be reconsidered
  - Consider criteria for the identification of potential ROW vacations.
    - Might there be need for the right-of-way in the next twenty years?
    - Does the right-of-way exhibit characteristics that make it clearly undevelopable/unusable?
    - Can the public right of way serve purposes beyond vehicle access? (walking, hiking paths, utility, etc.)
- Establish a committee for determining right-of-way criteria and evaluating currently unimproved rights of way
- LCOG can assist with mapping needs.

Historic District

Research Historic District Considerations

Although the standards outlined in the historic district ordinance (Ord. 456), almost exclusively address "structures," "landmarks" are also noted, including "bridges," "sites," "signs," or "other objects of historic importance." These are all elements which transportation projects might influence. Also of note is the fact that orientation to streets, sidewalk placement, as well as fencing and landscaping features are all factors for review relative to historic design review (where required).