PROJECT PURPOSE

To update the City of Brookings Transportation System Plan (TSP)

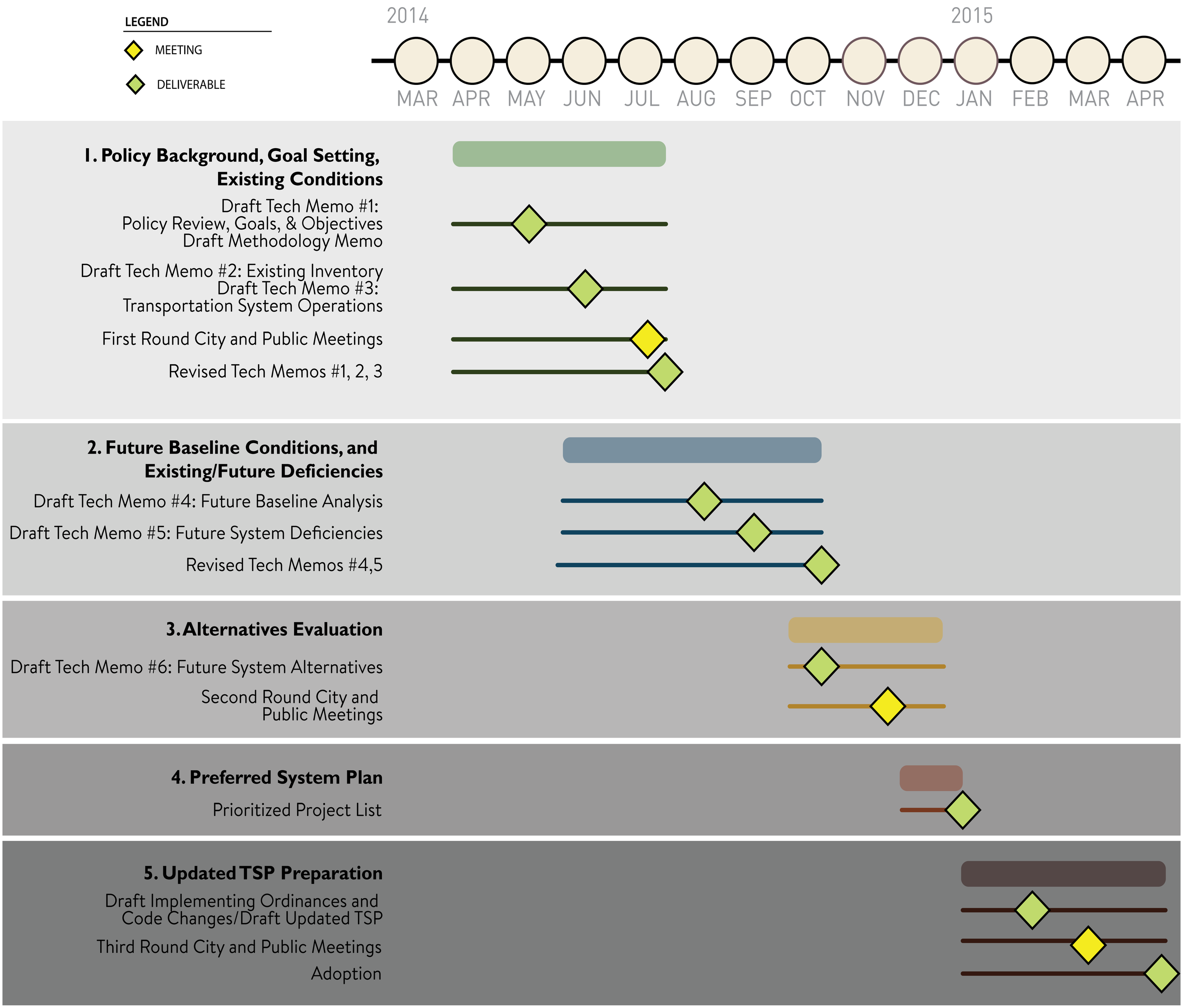
- The TSP is the 20-year action plan for transportation improvements within the Brookings Urban Growth Boundary

In short the Plan will do the following for all modes:

- Evaluate existing and future transportation conditions
- Identify existing and future deficiencies
- Develop transportation system alternatives
- Prioritize realistic transportation project opportunities
- Identify potential funding sources and implementation strategies
- Update code changes and supporting ordinances for implementing the Plan

Brookings
Oregon
TSP UPDATE

SCHEDULE


LEGEND
MEETING
DELIVERABLE
2014
2015
MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR
1. Policy Background, Goal Setting, Existing Conditions
Draft Tech Memo #1: Policy Review, Goals, & Objectives Draft Methodology Memo
Draft Tech Memo #2: Existing Inventory Draft Tech Memo #3: Transportation System Operations
First Round City and Public Meetings
Revised Tech Memos #1, 2, 3
2. Future Baseline Conditions, and Existing/Future Deficiencies
Draft Tech Memo #4: Future Baseline Analysis
Draft Tech Memo #5: Future System Deficiencies
Revised Tech Memos #4,5
3. Alternatives Evaluation
Draft Tech Memo #6: Future System Alternatives
Second Round City and Public Meetings
4. Preferred System Plan
Prioritized Project List
5. Updated TSP Preparation
Draft Implementing Ordinances and Code Changes/Draft Updated TSP
Third Round City and Public Meetings
Adoption

DRAFT TSP GOAL

To provide a balanced, multi-modal, safe, convenient, economical, and efficient transportation system for Brookings.

DRAFT OBJECTIVES

1. Develop a coordinated transportation system that facilitates the mobility and accessibility of community residents in a safe and efficient manner, and encourages alternatives to and reduced reliance upon the single-occupant automobile.

2. Promote the development and maintenance of all transportation modes including bikeways, pedestrian ways, and public transportation where appropriate to all planned land uses, while minimizing adverse environmental impacts.

3. Cooperate with and support regional public transportation planning efforts, including working with public and private agencies to promote the use of vanpools and park and ride.

4. Promote and give high priority to bike and pedestrian ways in the downtown area, and in the vicinity of Kalmiopsis Elementary School and parks, including development of a Safe Routes to School Action Plan and the identification of locations where bicycle parking may be needed.

5. Protect the function of the airport facilities in the City and develop and implement strategies that minimize conflicts with other transportation modes and adjacent land uses.

6. Coordinate with the Oregon Department of Transportation and Curry County in the planning and provision of transportation services and in the implementation of the ODOT State Transportation Improvement Program (STIP) and provisions of the Oregon Highway Plan (OHP).

7. Utilize the Transportation System Plan for guidance in all land use planning and project development activities.

8. Develop and regularly update, prioritize and maintain a Capital Improvements Program that identifies streets, curbs, sidewalks, bikeways and pedestrian ways that need repair/construction.

9. Involve the public in the transportation planning process to encourage community support for the TSP.

10. Identify projects for Railroad Street to serve as a parallel alternative to US 101, to improve safety, and to reduce congestion of both streets.

11. Participate in regional efforts to expand bicycle facilities beyond city limits to attract tourists to Downtown.

DRAFT EVALUATION CRITERIA

Criteria 1: Connectivity – project or program supports local connectivity by improving connections to residential areas, places of employment, recreational facilities, and/or underserved areas of the community.

Criteria 2: Spot Improvement – project fills in a gap in the existing network, overcomes a barrier, or serves an immediate safety need.

Criteria 3: Funding Likelihood – Readiness and ease of securing a funding source for the project.

Criteria 4: Safety – potential reduction in crash rate/severity or points of conflict.

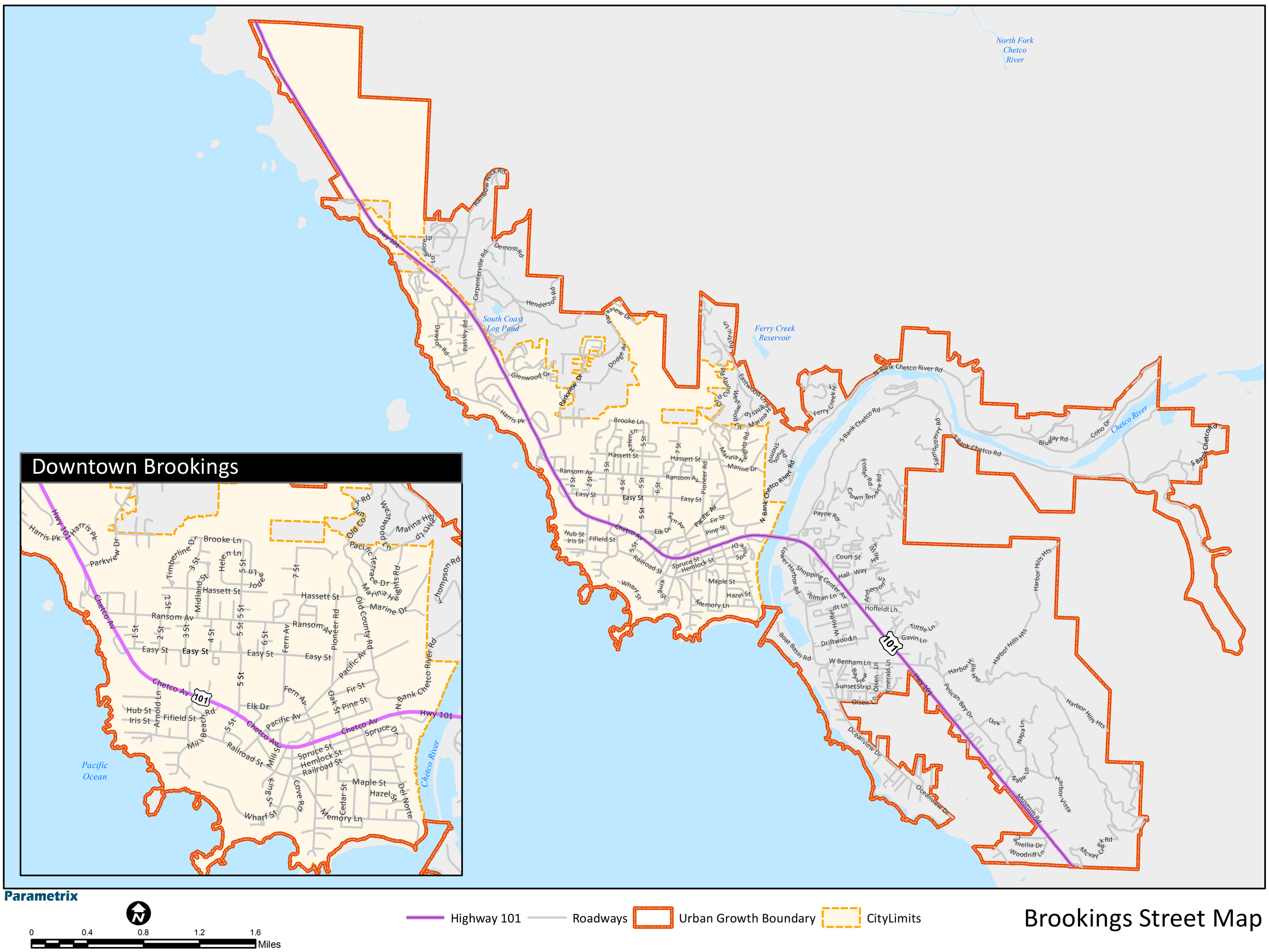
Criteria 5: Land Use – project is supportive of nearby existing and future land uses.

Criteria 6: Cost – minimization of cost for construction and any right-of-way requirements.

Criteria 7: Environmental Impact – impacts by level of significance (low/medium/high) to environmentally sensitive areas, including biological, historic, cultural, and archaeological resources.

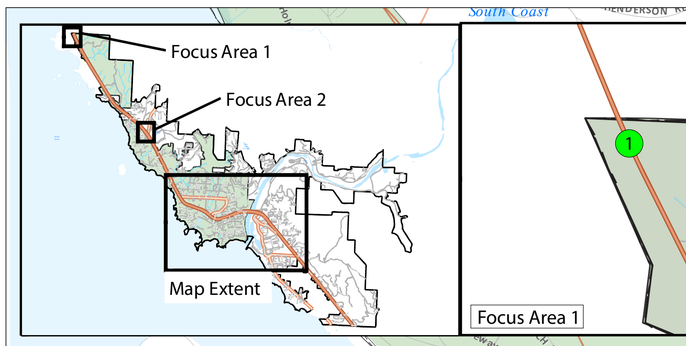
Criteria 8: Impact to Title VI and Environmental Justice Populations - impacts by level of significance (low/medium/high) to environmental justice and Title VI populations (low income, minority and Hispanic populations).

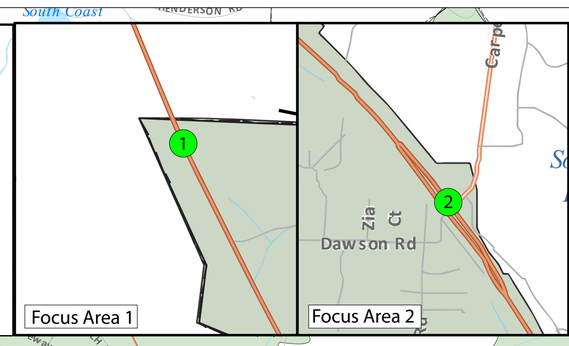
STUDY AREA

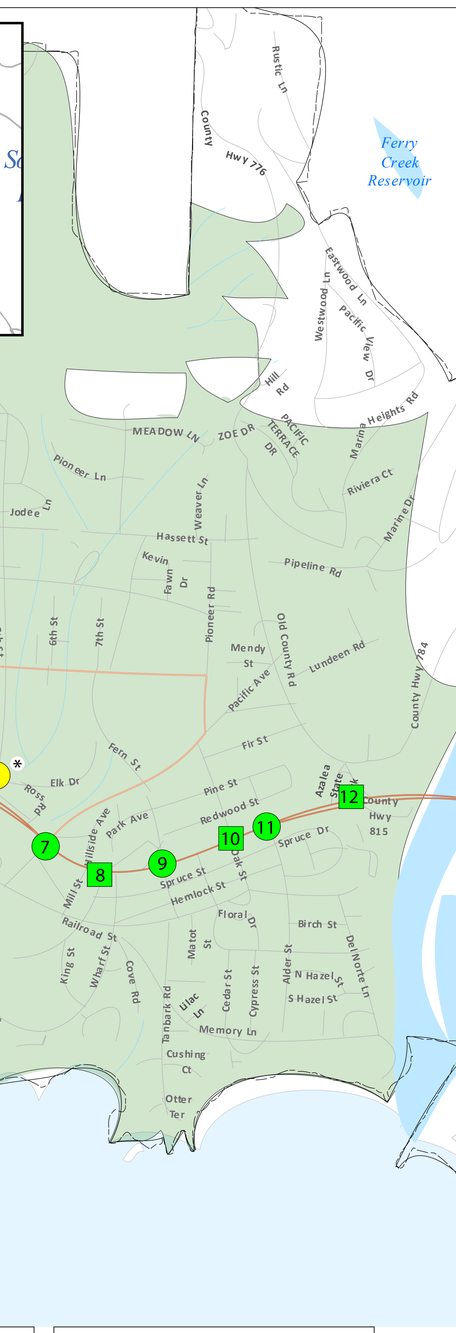


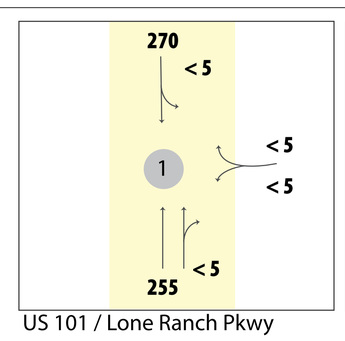
Brookings Street Map

EXISTING VOLUMES AND INTERSECTION OPERATIONS

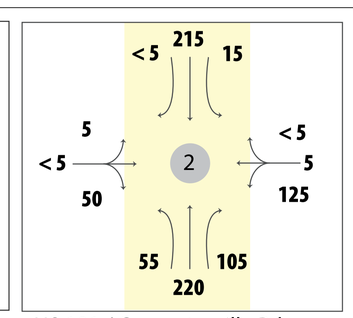




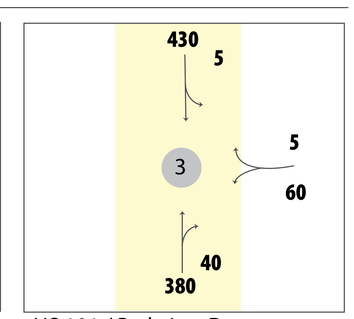




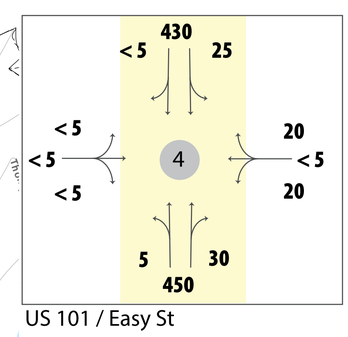
US 101 / Lone Ranch Pkwy



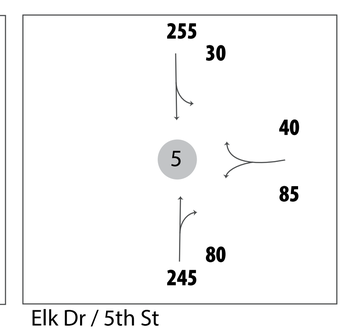
US 101 / Carpenterville Rd



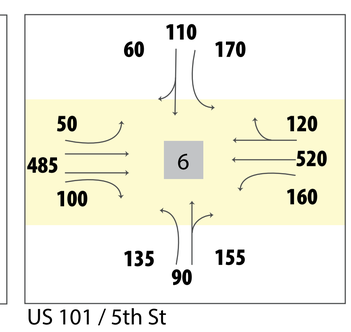
US 101 / Parkview Dr



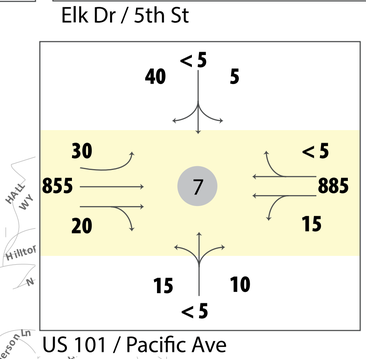
US 101 / Easy St



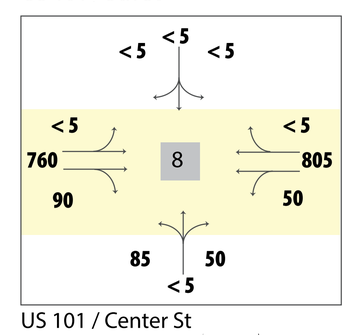
Elk Dr / 5th St



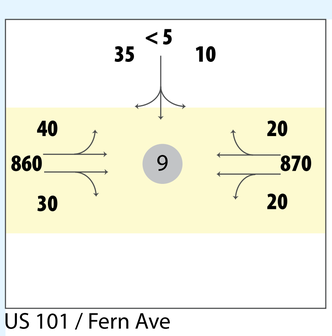
US 101 / 5th St



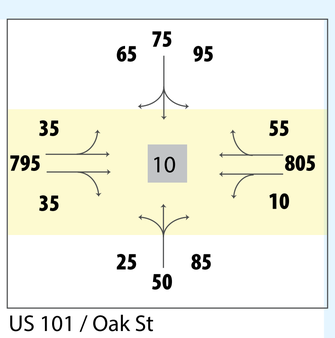
US 101 / Pacific Ave



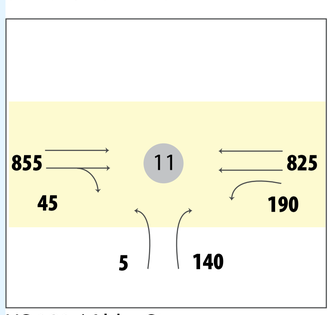
US 101 / Center St



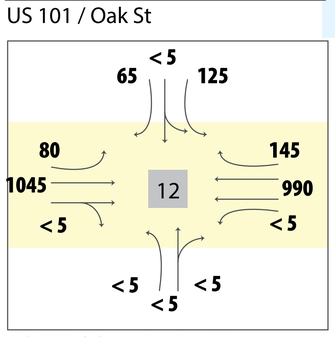
US 101 / Fern Ave



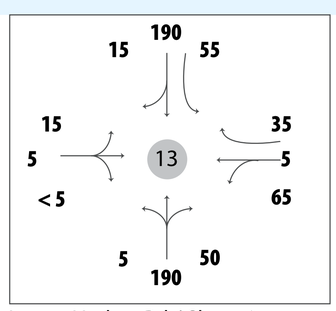
US 101 / Oak St



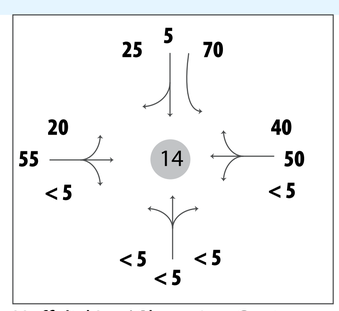
US 101 / Alder St



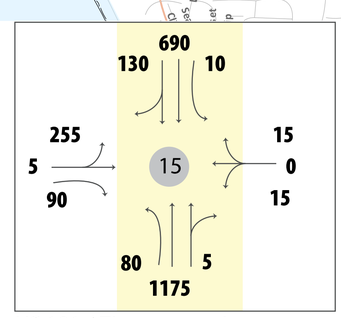
US 101 / Constitution Way



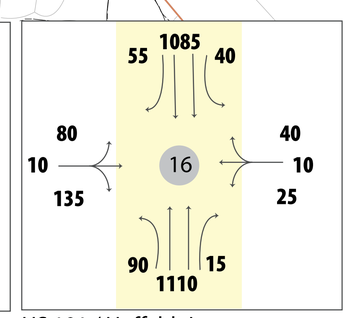
Lower Harbor Rd / Shopping Center Ave



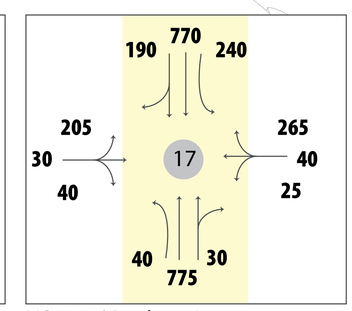
Hoffeltd Ln / Shopping Center Ave



US 101 / Zimmerman Ln



US 101 / Hoffeldt Ln



US 101 / Benham Ln

Urban Growth Boundary
CityLimits
Orientation of US 101

Unsignalized Intersection
Signalized Intersection

Mobility Standards

V/C Ratios: <0.5 | 0.5 - 0.7 | 0.7-0.9 | >0.9

Level of Service *: A-B | C-D | E | F

COLLISION HISTORY

- A total of 169 reported crashes occurred in Brookings Urban Growth Boundary between 2008 and 2012.
- Majority of crashes (101 or 60%) resulted in property-damage only crashes.
- Over half of the crashes (98 or 58%) occurred at intersections.
- Highway 101 segment crash rates in Brookings Urban Growth Boundary well below similar crash rates along other ODOT similar state highways.
- ODOT's 2012 Safety Priority Index System (SPIS) analysis included 1 location (US 101 at Oak Street) in the top 15 percent, and 2 locations (US 101 between Willow Street and Alder Street, US 101 at Hoffeldt Lane) in the top 10 percent of all locations statewide.
- Two crashes involved pedestrians
- Seven crashes involved bicyclists

PEDESTRIAN AND BICYCLE NETWORK

BIKE PARKING

LANDSCAPED CURB EXTENSION

BIKE/PEDESTRIAN REFUGE

RAPID FLASH BEACON

CROSSWALK SIGNAL

COUNTDOWN SIGNAL

WAYFINDING

Existing Sidewalk
Existing Bike Lane
Planned Trail
City Limits
Urban Growth Boundary

HASSETT ST
HASSETT ST
MARINE DR
CAMEO CT
RANSOM AV
KEVIN PL
FAWN DR
PIONEER RD
OLD COUNTY RD
CLAIR LN
EASY ST
6 ST
FERN AV
MENDY ST
5 ST
PACIFIC AV
FIR ST
MYRTLE ST
ALDER ST
OAK ST
ELK DR
PINE ST
HILLSIDE DR
CHETCO AV
SPRUCE DR
FLEET ST
SPRUCE ST
HEMLOCK ST
RAILROAD ST
MAPLE ST
WHARF ST
COVE RD
TANBARK RD
CEDAR ST
MEMORY LN
BUENA VISTA
KINDEL

Document Path: \\192.168.11.240\Data\GIS\Projects\2014-123 Brookings\MXD\Figure 1 Bike and Pedestrian NetworkR1.mxd

PEDESTRIAN AND BICYCLE NETWORK
Brookings City Limits

Crossings of Highway 101 are challenging in areas with no marked crosswalks and higher vehicle travel speeds

Having no designated place to bicycle on school routes makes it difficult for children to comfortably bike to school

Highway 101 is part of the popular Oregon Coast Bike Route

Existing sidewalks provide quality access for pedestrians throughout much of the city

A significant bikeway gap on Chetco Ave (Hwy 101) makes it difficult for bicyclists to traverse the city comfortably

Sidewalk gaps cause pedestrians to share the road with motor vehicle traffic, which is less comfortable for most people

Downtown Brookings

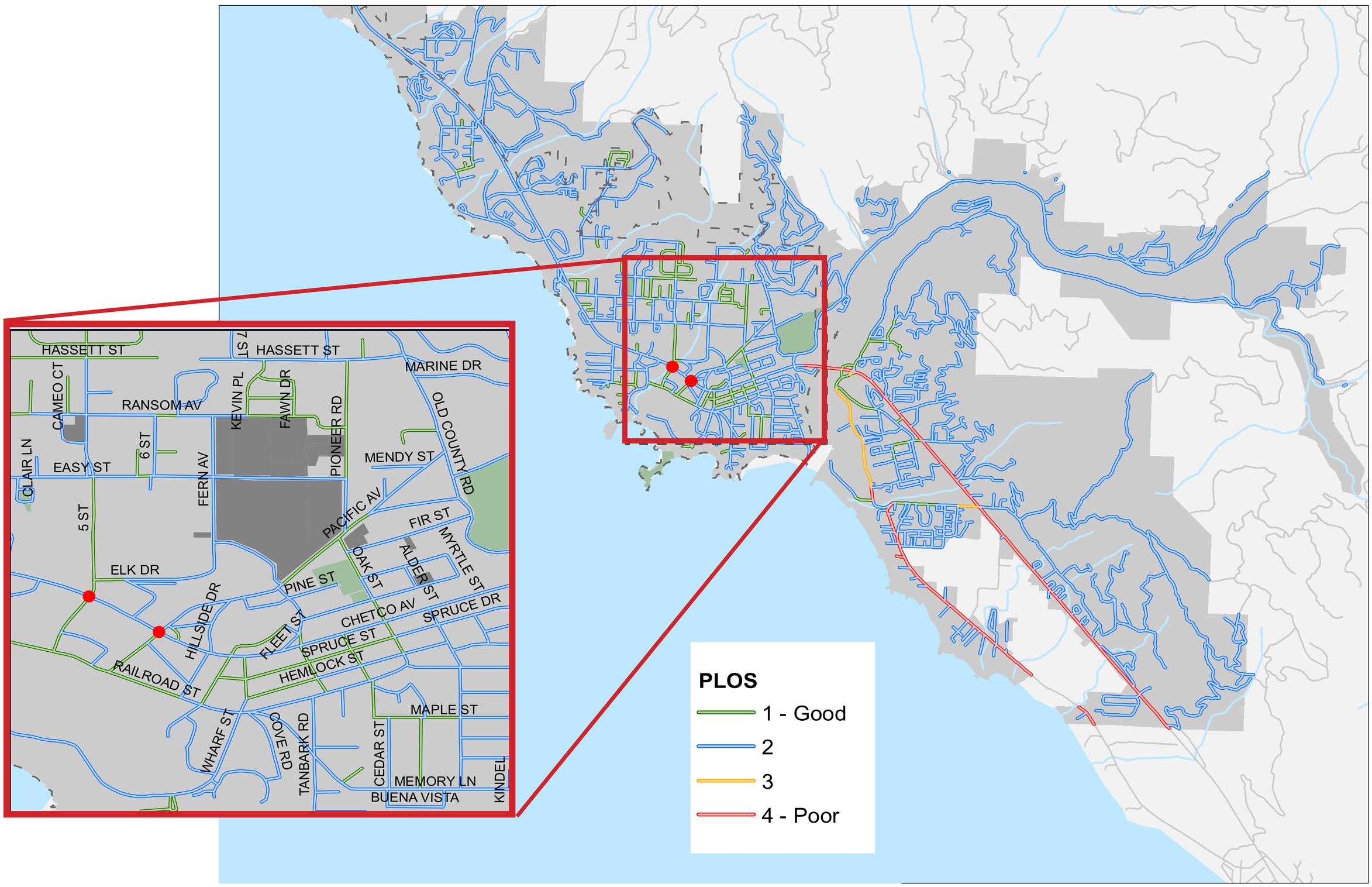
Legend

Existing Sidewalk
- < 5' wide
- 5' to 8' wide
- > 8' wide

- Existing Bike Lane
- Existing Shared Use Path
- Proposed Shared Use Path

- Park
- School
- Planned Unit Development
- City Boundary

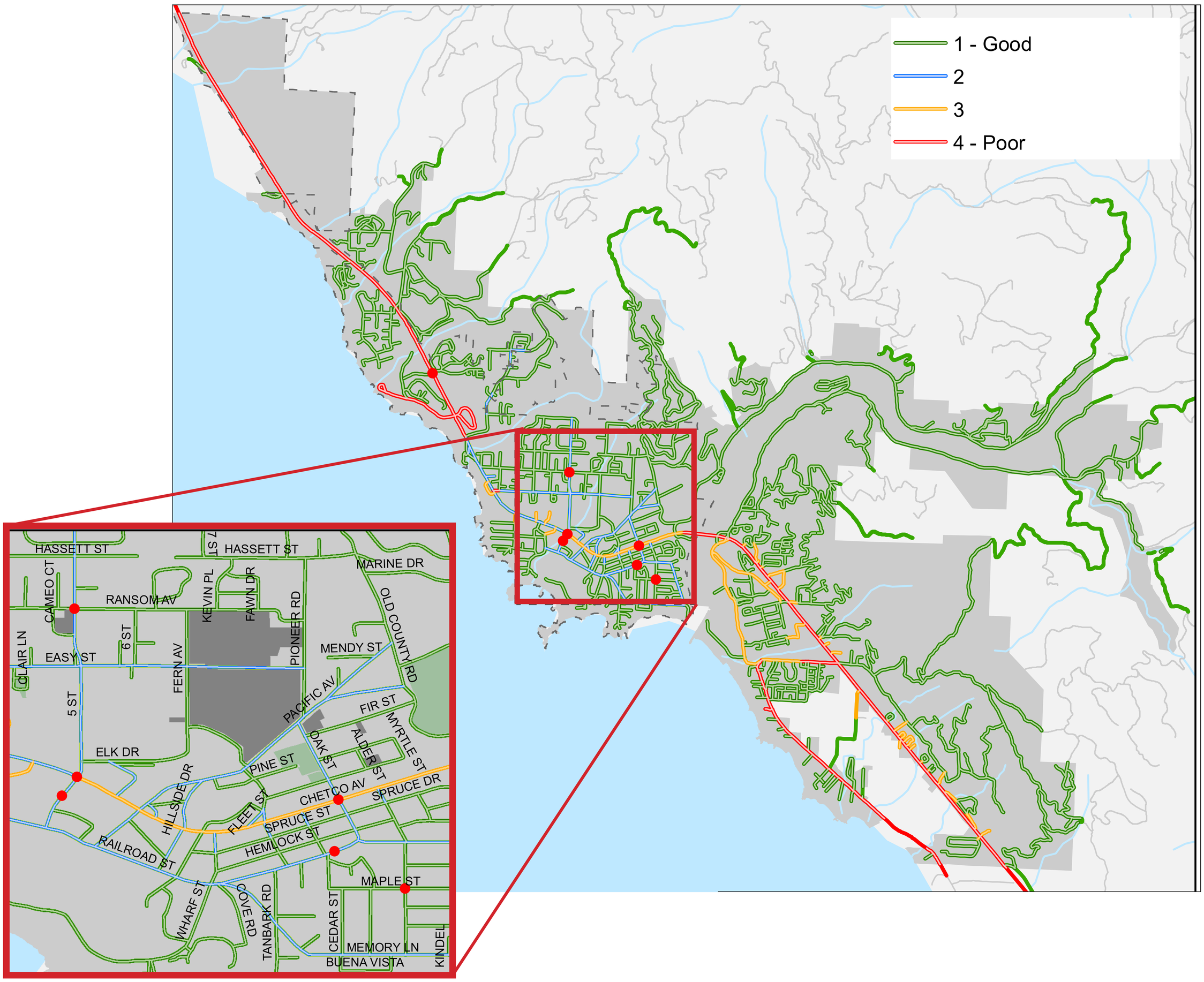
PEDESTRIAN LEVEL OF SERVICE



Pedestrian Level of Service (PLOS) evaluates the existing quality of the pedestrian network and identifies areas that need improvement. This analysis will help prioritize future investments to provide a continuous pedestrian network. The PLOS considers:

- Posted travel speeds
- Buffers such as parked cars or bike lanes
- Continuous dedicated pedestrian space (i.e., sidewalks or trails)

BICYCLE LEVEL OF STRESS



Bicycle Level of Travel Stress (LTS) identifies the quality of the bicycling network for users at different comfort levels. The LTS model shows gaps in the low stress network that are barriers for people who are new or less-comfortable bicycling in traffic. LTS modeling results in four possible street type outcomes:

1 – Most children are comfortable

2 – Most of the adult population are comfortable

3 – Confident cyclists are comfortable

4 – Only the strongest and most experienced cyclists are capable (but not necessarily comfortable)

BENEFITS OF PROMOTING BICYCLING AND WALKING

PROMOTING TOURISM

- In Oregon an overnight bike tourist had 19 times the economic impact of a day tourist.[1]
- The Oregon Coastal Bicycle-related trip expenditures in 2012 were estimated at approximately $57 million, about 3.6 % of all travel related expeinditure in the region.[2]
- More than half of the visitors on the Greenbrier River Trail in West Virginia spend more than $100 per visit and most come from out of state[3]

SAFETY

- Installing bike lanes and traffic calming (e.g., road diets and speed humps) results in fewer injuries and fatalities for all road users.[4]

HEALTH

- Communities with more cyclists (and walkers) have lower obesity than other communities.[5]
- Bicycle commuters provide their employers with an economic advantage by requiring fewer sick days each year and enjoying better overall health. [6]
- Active commuting to work is easier to sustain over the long-term than gym-based exercise programs.[7]

1 Oregon Bike Travel Survey, 2013
2 Oregon Bike Summit Presentation People Powered Motion (2012)
3 Maximizing Economic Benefits from a Rails-to-Trails Project in Southern West Virginia: A Case Study of the Greenbrier River Trail, 2001
4 The Built Environment and Traffic Safety: A Review of Empirical Evidence
5 Walking and Cycling to Health: A Comparison of Recent Evidence from City, State, and International Studies
6 Regelmatig fietsen naar het werk leidt tot lager ziekteverzuim / Regular Bicycling to Work Leads to Fewer Sick Days
7 Randomised controlled trials of physical activity promotion in free living populations: a review

PRELIMINARY MULTIMODAL TREATMENTS

FLASHING BEACON

TRANSIT STOP AMENITIES

CURB EXTENSION

PEDESTRIAN SIGNAL

SHARED USE PATH

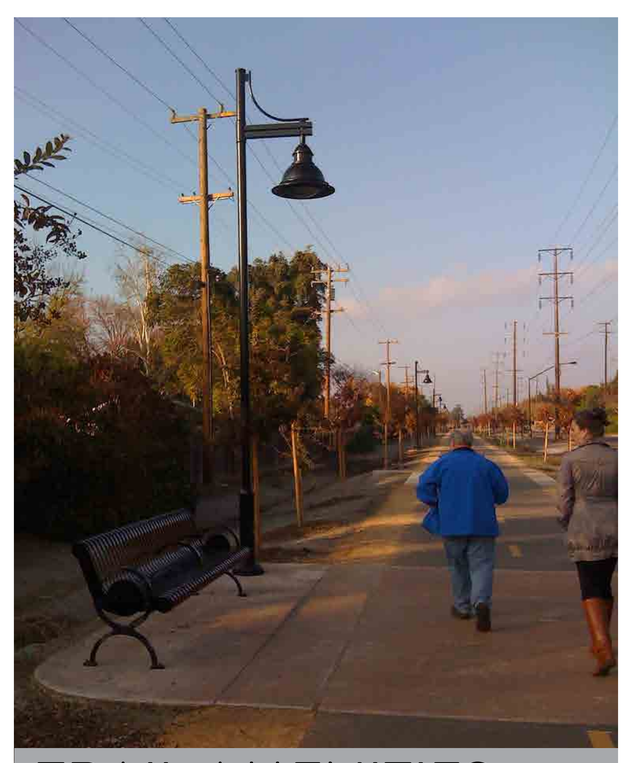
CROSSWALK

PRELIMINARY MULTIMODAL TREATMENTS

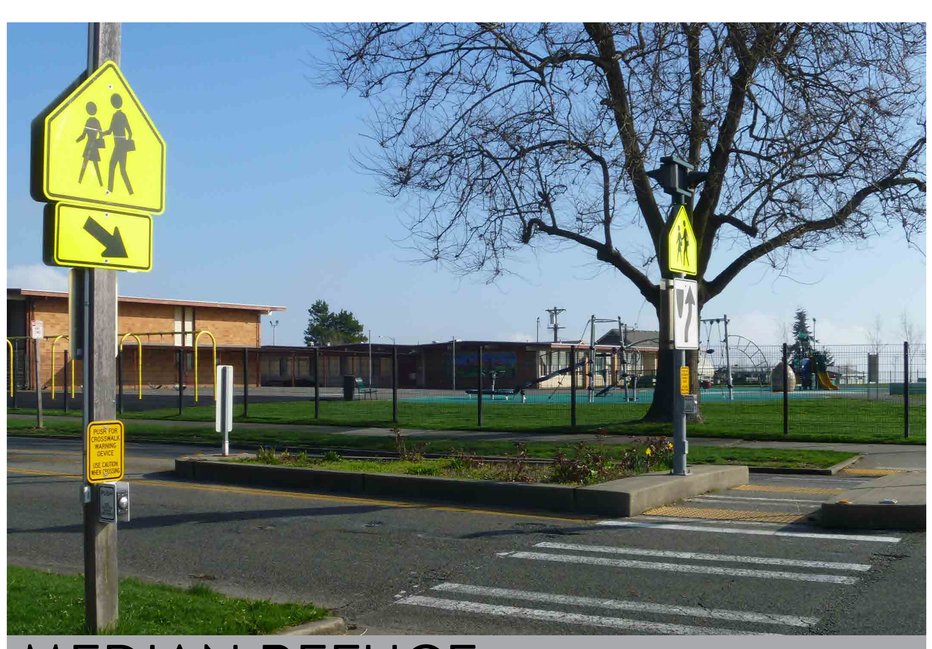
BICYCLE PARKING

WAYFINDING

MIDBLOCK CROSSING



TRAIL AMENITIES



MEDIAN REFUGE

BICYCLE LANES

NEXT STEPS

- Analyze future baseline (No Build) conditions for all modes (Summer 2014)
- Summarize existing and future transportation system deficiencies and needs for all modes (Fall 2014)
- Develop and evaluate system alternatives for all modes including rough order of magnitude costs (Fall 2014)
- 2nd round of Advisory Committee and Public Meetings (Winter 2014)
- Develop prioritized project list (Winter 2014)
- Draft implementing ordinances/code changes (Winter 2014)
- Draft Updated Brookings TSP (Winter 2014)
- 3rd round of Advisory Committee and Public Meetings (Spring 2015)
- Adopt Updated Brookings TSP (Spring 2015)