



**STEERING COMMITTEE MEETING #4**  
**JANUARY 30, 2019**

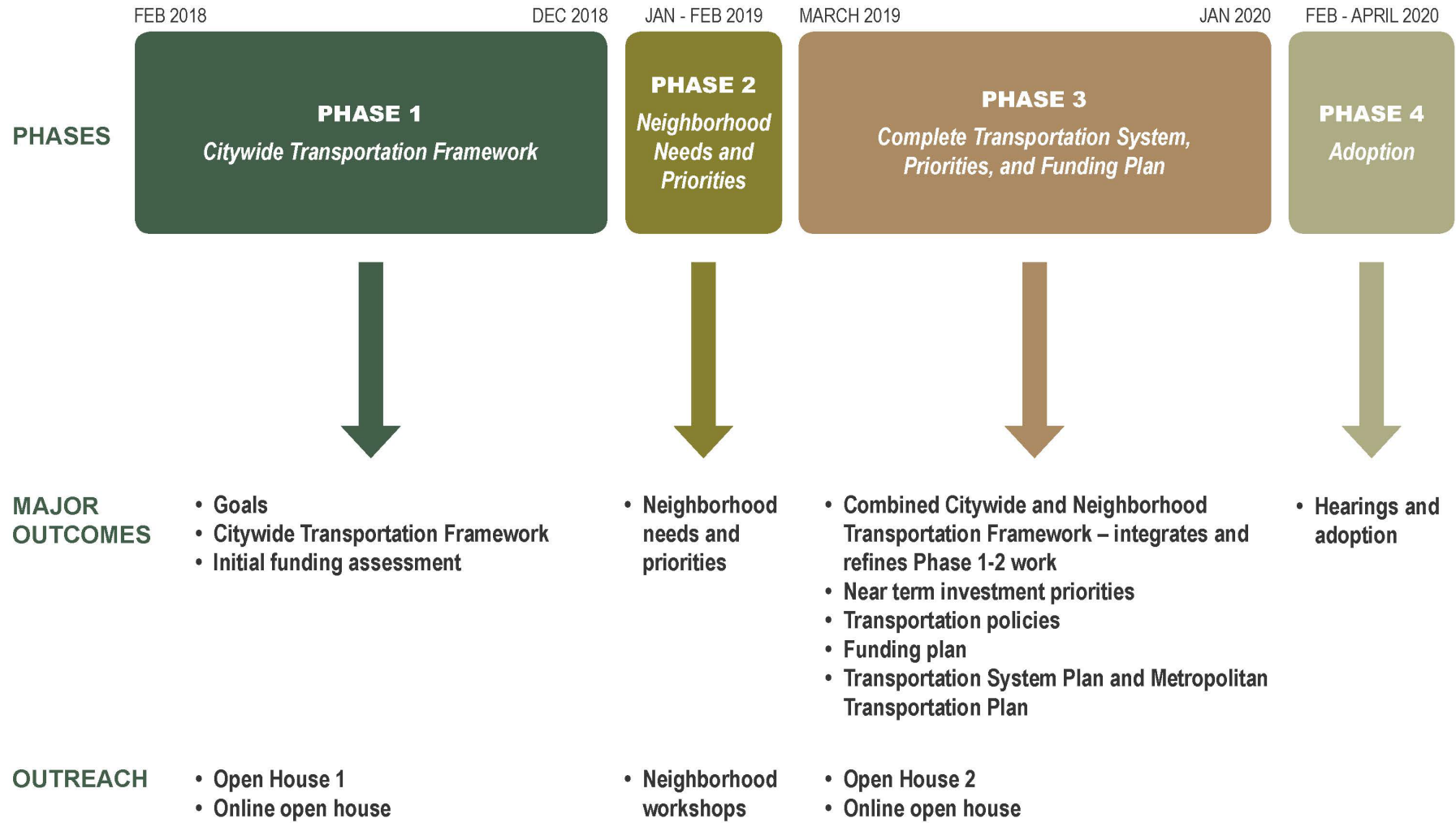


## Approval items:

- Initial Funding Assessment
- Citywide Transportation Framework



# WORK PLAN PHASES (2018-2020)



## CTAC WORK SINCE LAST STEERING COMMITTEE MEETING



- September 20: Funding Work Group Meeting
- September 21: Brown Bag on City's Comprehensive Plan
- October 22: CTAC Meeting – Mid-Point Phase 1 Check-in
- October 25: Brown Bag on Low Stress Network
- October 31: Funding Work Group Meeting
- November 7: MPO Technical Advisory Meeting
- November 13: CTAC meeting -- Initial Funding Assessment
- December 4: CTAC Meeting – Citywide Framework Part 1
- December 5: MPO Technical Advisory Meeting
- December 11: CTAC Meeting – Citywide Transportation Framework Part 2
- January 18: Brown Bag on Emerging Technology
- January 23: Brown Bag on Transportation Safety Action Plan

# INITIAL FUNDING ASSESSMENT

# WHAT DOES “FUNDING” SUPPORT?



## Street maintenance

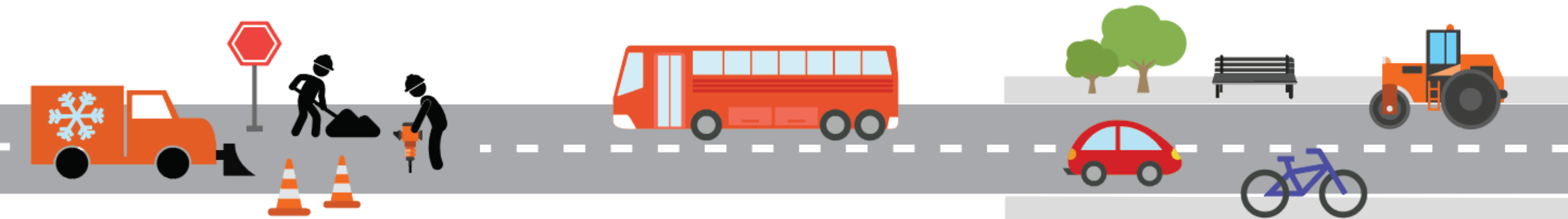
- Operations
- Preservation

## Public transit

- Funds allocated to Cascades East Transit

## New transportation infrastructure and systems

- Highways
- Local roads and bridges
- Multi-modal (bike/ped, ADA)
- Other programs





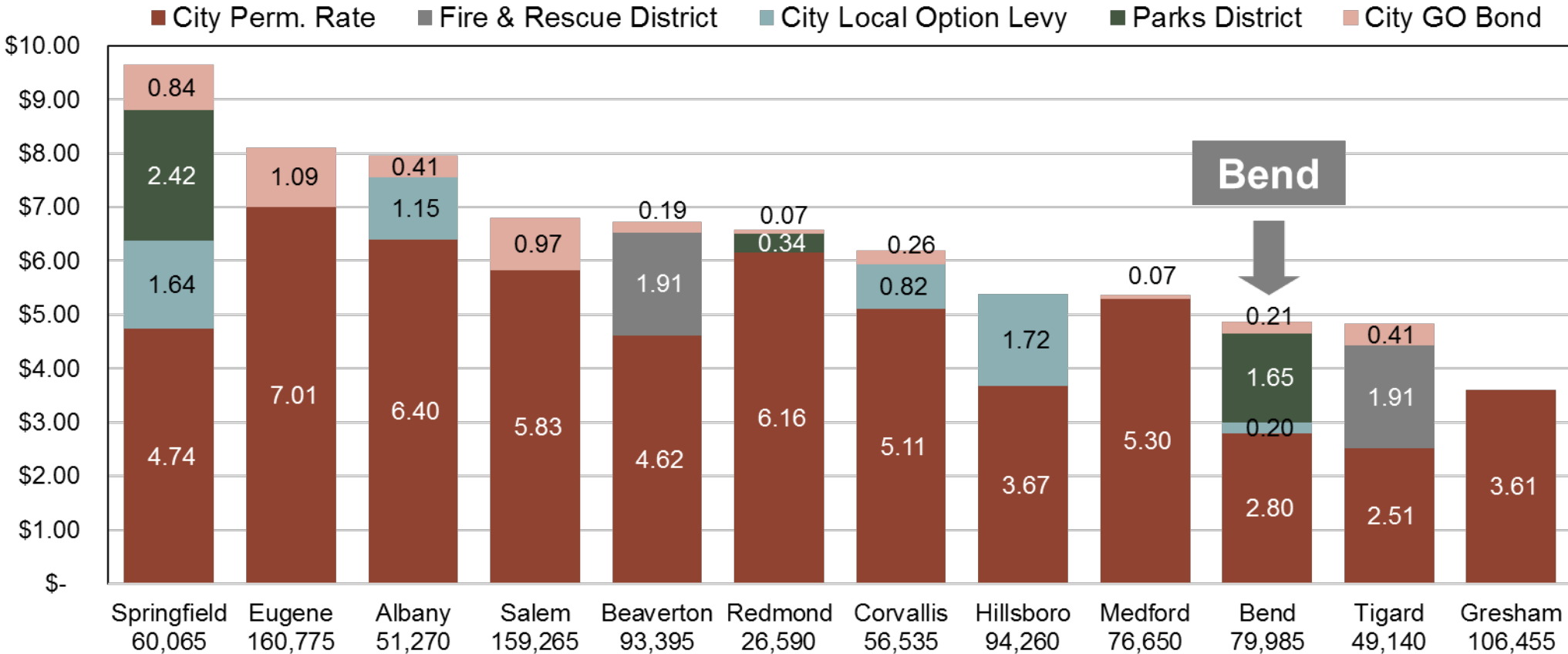
- Limited, variable federal and state funding
- Fuel tax is declining (vehicle efficiency) and not keeping up with inflation
- No dedicated usage fee (e.g. water or wastewater)
- Limitations on property taxes and general fund revenues
- Local funding sources are uncertain. Some sources must be approved by public vote, others fluctuate with the economy and are restricted in usage.

**Transportation is very difficult to fund.**

# LOW PERMANENT TAX RATE



## Property tax revenues for sample Oregon cities, 2015-2016

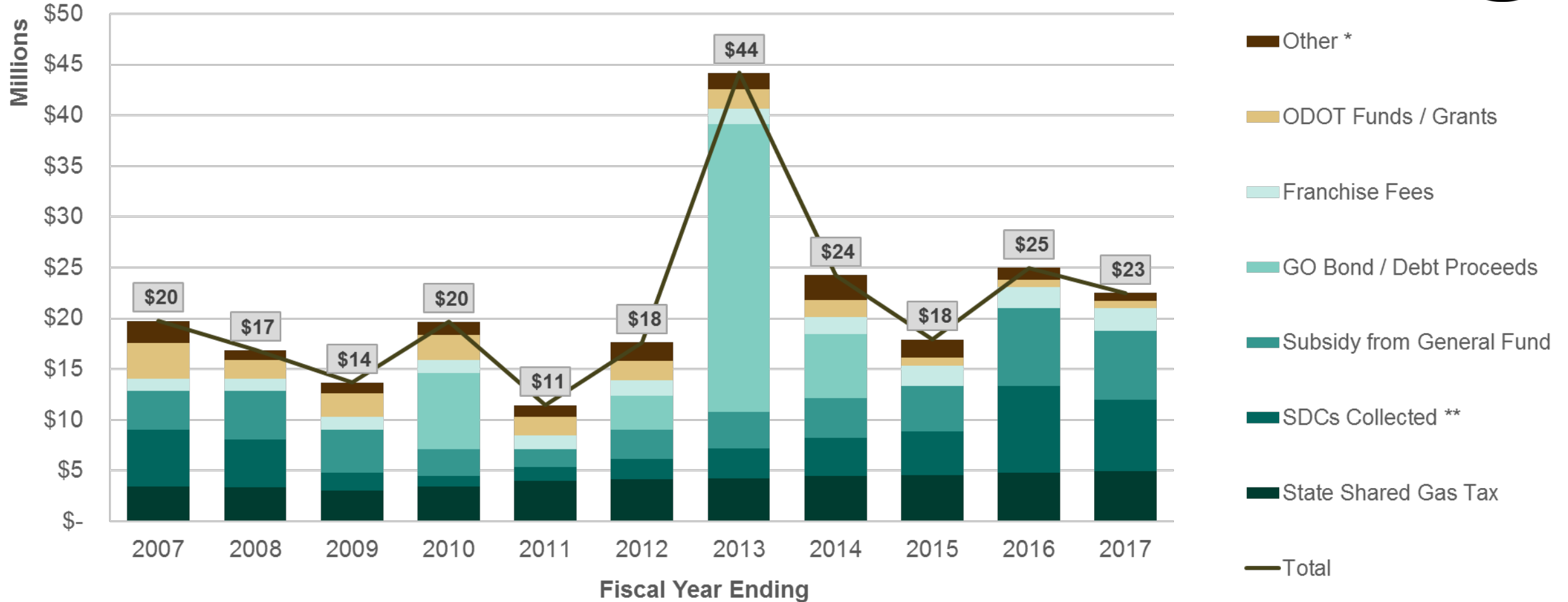


Population data are from PSU population estimates from 2015-2016





# TRANSPORTATION REVENUE SOURCES



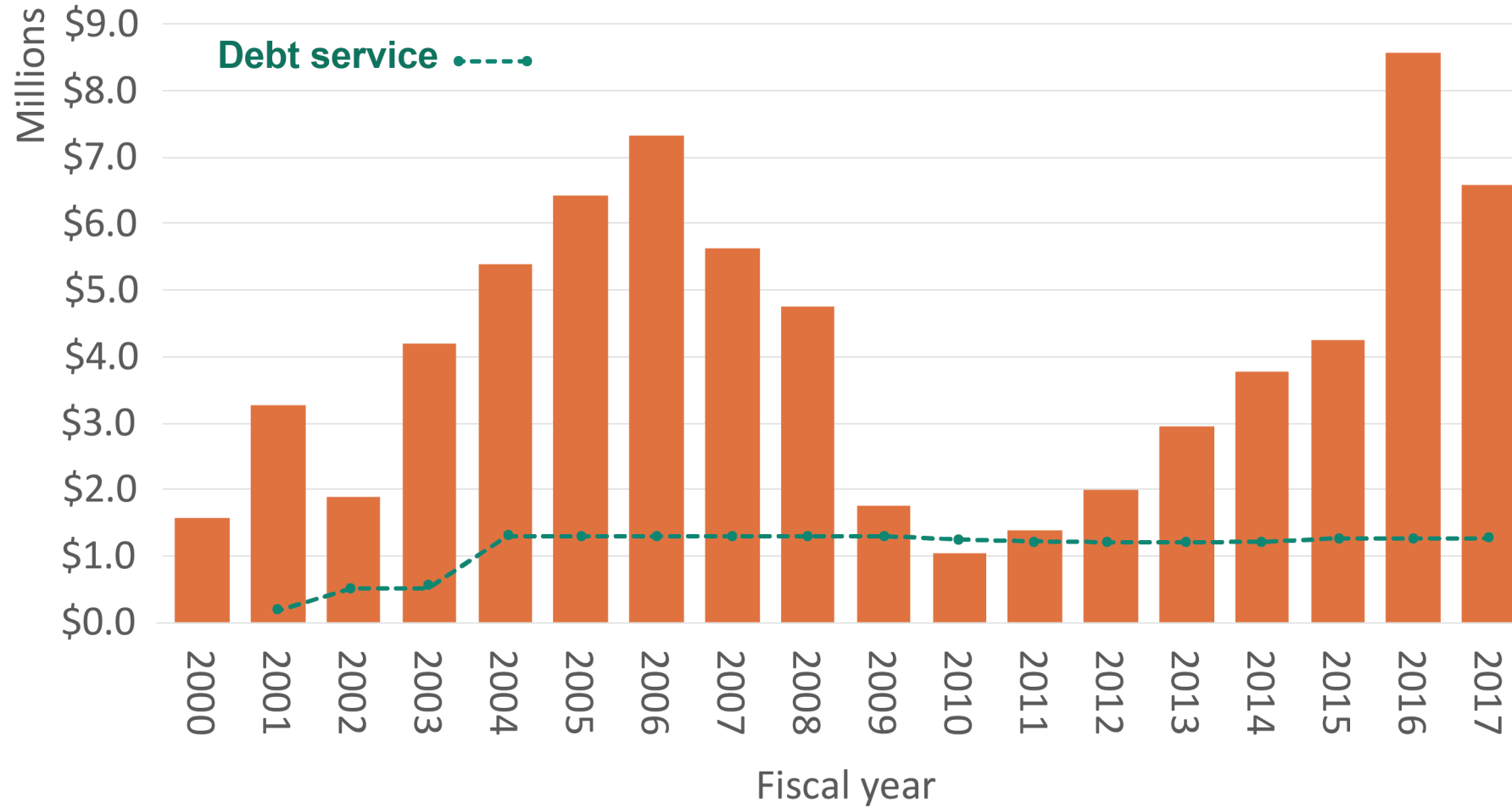
\* Other category includes Developer Contributions, Sale of Assets, Interfund Transfers, Investment Income and other Miscellaneous revenue

\*\* 10-Year SDCs collected was \$43.1M, of which \$30.6M or 71% could be used on eligible projects

# CAPITAL FUNDING FLUCTUATIONS



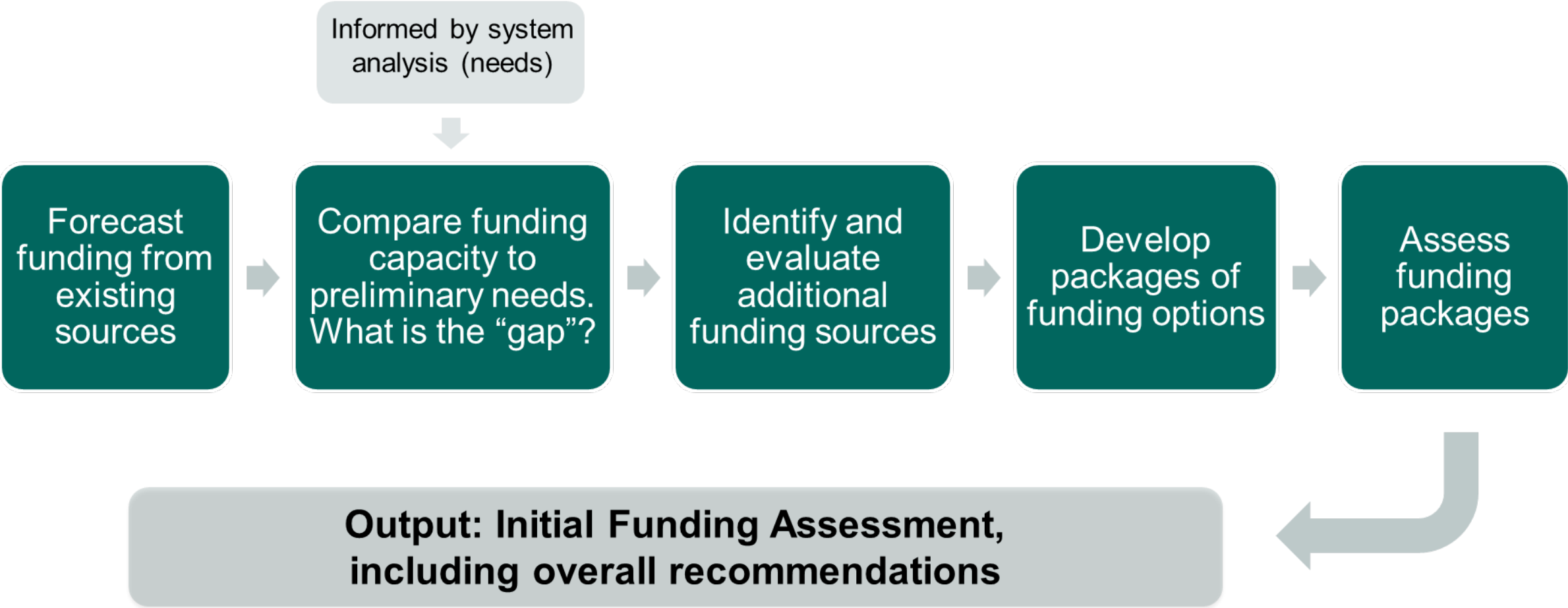
## Bend TSDC annual revenue, 2000-2017





- **We anticipate that CTAC will develop a long list of needs** due to the many deferred transportation projects/maintenance and extent of new growth to plan for in Bend.
- **Communities everywhere are looking to local sources to address funding gaps** due to limited federal and state revenue sources.
- **We have considered potential local funding tools** applicable to Bend's transportation needs, regardless of actual projects identified.

# FUNDING TASK PROCESS



## WHAT IS THE IFA AND WHY DO WE HAVE IT?



- Defines a **starting place** for funding
- Working ahead to solutions:
  - Generates sideboards for project selection & prioritization
  - Defines the most appropriate funding tools (for later refinement)
  - Facilitates FWG & CTAC discussions & initial decisions
  - Allows later process to be more informed and efficient

## IFA REFLECTS TRANSPORTATION GOALS



- Increase system capacity, quality, and connectivity for all users
- Ensure safety for all users
- Facilitate housing supply, job creation, and economic development to meet demand/growth
- Protect livability and ensure equity and access
- Steward the environment
- **Have a regional outlook and future focus**
- **Implement a comprehensive funding and implementation plan**

# VERY PRELIMINARY CAPITAL FUNDING NEEDS



	Very preliminary capital needs 2020 – 2040 (\$2018)
Preliminary estimated funding needs (project costs from <b>today's</b> needs)*	\$400-450 million
Forecast of revenue from existing tools	\$175-200 million
<b>Est. need for <b>today's</b> capital needs</b>	<b>\$200-250 million</b>

\* Includes project costs from TSDC project list, MTP financially-constrained project list, Deschutes County ITS plan, capital reconstruction of deferred maintenance that is beyond repair. **Does not include UGB Expansion Areas or new projects.**

# PRELIMINARY O&M NEEDS: "KNOWN UNKNOWNNS"



## COSTS:

- Working estimate of expected costs:
  - \$17 – 19 million annually
- More work needed to understand:
  - O&M costs from new projects
  - O&M needs for infill projects
  - Impact of target pavement condition index

## REVENUES:

- Assumes sustained general fund
- Costs likely to be higher

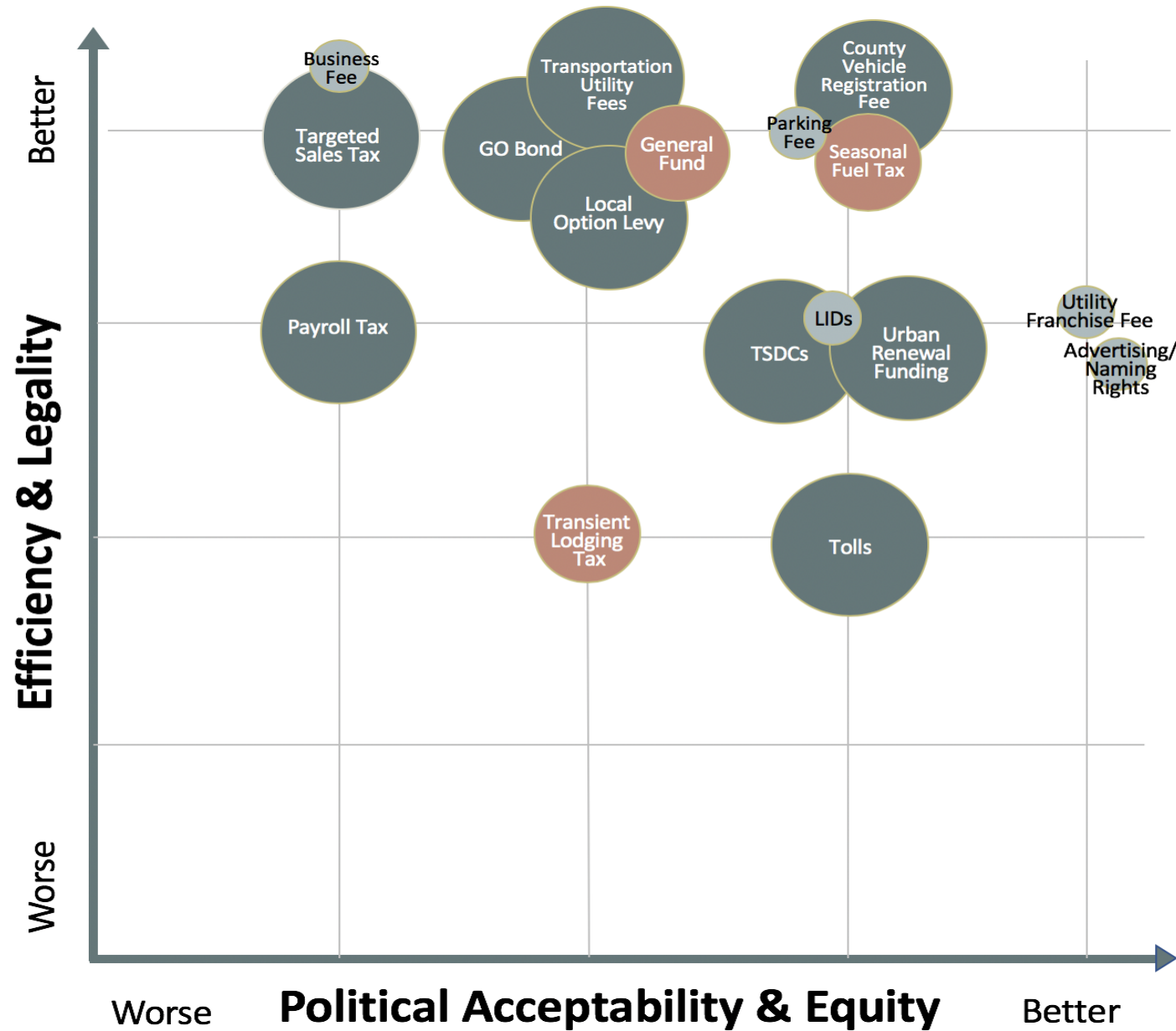


# IDENTIFYING AND EVALUATING POTENTIAL FUNDING TOOLS



Funding Source	Legality	Efficiency	Equity	Political Acceptability	Magnitude of Additional Funding
<i>Existing Funding Sources that Could Potentially Be Expanded</i>					
General Fund allocation (city or county)	Green	Green	Yellow	Yellow	\$\$
Transient Room Tax (TRT)	Yellow	Yellow	Green	Orange	\$
Transportation System Development Charges (TSDCs)	Green	Yellow	Green	Yellow	\$\$\$
Utility franchise fees	Green	Green	Green	Yellow	\$
Business fee	Green	Green	Orange	Yellow	\$
Parking fee	Green	Green	Green	Yellow	\$
<i>Potential New Funding Sources</i>					
Local Improvement Districts (LIDs)	Green	Yellow	Green	Yellow	\$
Property tax: general obligation (GO) bonds	Green	Green	Yellow	Yellow	\$\$\$
Property tax: local option levy	Green	Green	Yellow	Yellow	\$\$\$
Property tax: special road districts	Green	Yellow	Green	Green	\$
Urban renewal funding	Green	Yellow	Yellow	Green	\$\$\$
Transportation utility fees	Green	Green	Yellow	Yellow	\$\$\$
Local seasonal fuel tax (city or county)	Green	Green	Green	Yellow	\$\$
County vehicle registration fee	Green	Green	Green	Yellow	\$\$\$
Payroll tax	Green	Yellow	Orange	Yellow	\$\$\$
Advertising/naming rights	Green	Yellow	Green	Green	\$
Tolls (includes congestion pricing / VMT pricing)	Green	Orange	Green	Yellow	\$\$\$
Sales tax	Green	Green	Yellow	Orange	\$\$\$

# IDENTIFYING AND EVALUATING POTENTIAL FUNDING TOOLS (CONTINUED)



Note: The size of the circle indicates the magnitude of potential revenues.

# FWG IDENTIFIED THE FOLLOWING TOOLS AS MOST SUITABLE



## Funding mechanisms tied to the use of transportation systems

- Fuel tax with seasonal variation
- County vehicle registration fees
- Transportation utility fees
- Parking fees\*

## Funding mechanisms tied to land value capture

- Urban renewal funding
- Local improvement districts

## Other funding mechanisms

- General obligation bonds
- Transportation SDC increases
- Local option levy
- Targeted sales tax (food and beverage)

\*Outside of downtown; needs further study



Funding tools were combined into “packages” according to different themes:

## 1. Users pay

- Uses funding tools linked to transportation usage, impacts, or benefits

## 2. Simplicity

- Uses as few funding tools as possible; emphasizes a primary funding tool for capital and operations

## 3. Resilience

- Emphasizes year-to-year stability. Uses tools that do not require renewal and that are less subject to market cycles

## 4. Balance

- Aims for a balance of multiple funding tools, with all components of the community contributing to costs



- Principles
- Core tools
- Supplemental tools



- Intentional diversification
- Fairness and equity
- Full funding for priority projects and O&M
- Community buy-in
- Phased implementation
- Be flexible and adapt to the future



- Provide sufficient funds to act as a financial foundation, flexibly meeting City-wide needs
- Best tools:
  - **General obligation (GO) bond**
  - **Transportation utility fee (TUF)**
  - **Fuel tax with seasonal variation**
- Mixed support or questions about:
  - **Transportation system development charges (TSDCs)**
  - **Food and beverage sales tax**

## CORE TOOLS: WHAT DOES THIS MEAN?



- **GO bond, TSDC increase, and/or TUF**
  - Would provide foundational revenue for City-wide capital costs
  - Especially suited to large, highly visible projects that enhance system-wide service
- To provide additional capital revenue and provide operating and maintenance funding, these tools could then be paired with some combination of a:
  - **TUF (for O&M)**
  - **Fuel tax** with seasonal variation
  - **Prepared food and beverage tax**





- Play a specific supporting role in a complete funding package
- Supplemental tools include:
  - Urban renewal
  - Local improvement districts
  - County vehicle registration fee
  - Local option levy
  - Parking fees (for managing parking demand)

## SUPPLEMENTAL TOOLS: WHAT DOES THIS MEAN?



- For targeted investments (such as UGB expansion areas, opportunity areas, sidewalk investments):
  - Urban renewal
  - LIDs
  - Supplemental TSDCs
- For regional needs:
  - County vehicle registration fee
- For targeted O&M (especially deferred maintenance):
  - Local option levy



- CTAC develops project/program priority list
- Funding Work Group uses **IFA principles** to compare combinations of **core & supplemental tools** to fund priority needs
- Leads to funding plan



- Public Comment
- Steering Committee action

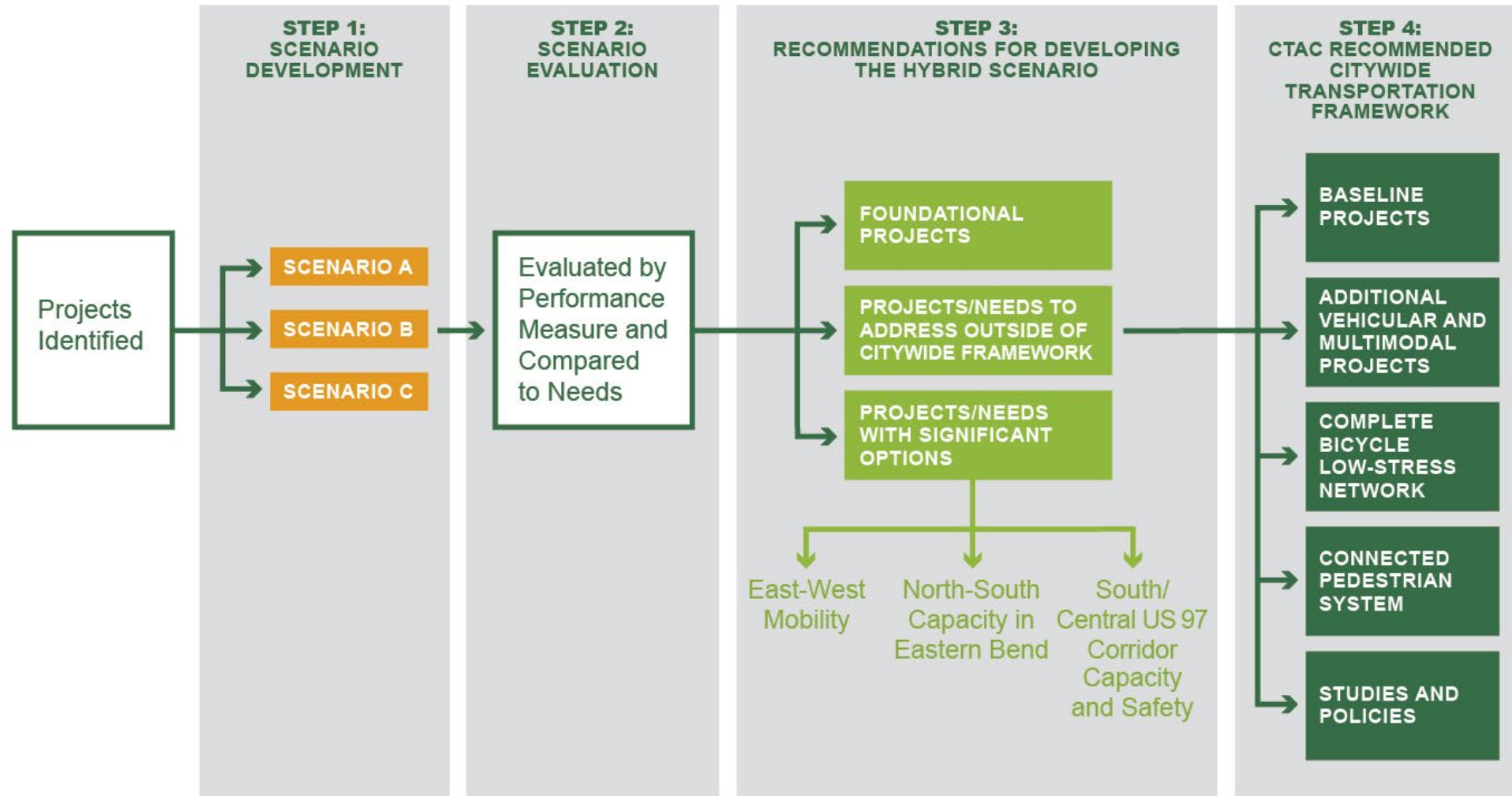
Draft Motion:

*“I move approval of the Initial Funding Assessment recommended by CTAC, with the refinements identified by the Steering Committee.”*

(If any...refinements will be restated as needed.)

# CITYWIDE TRANSPORTATION FRAMEWORK

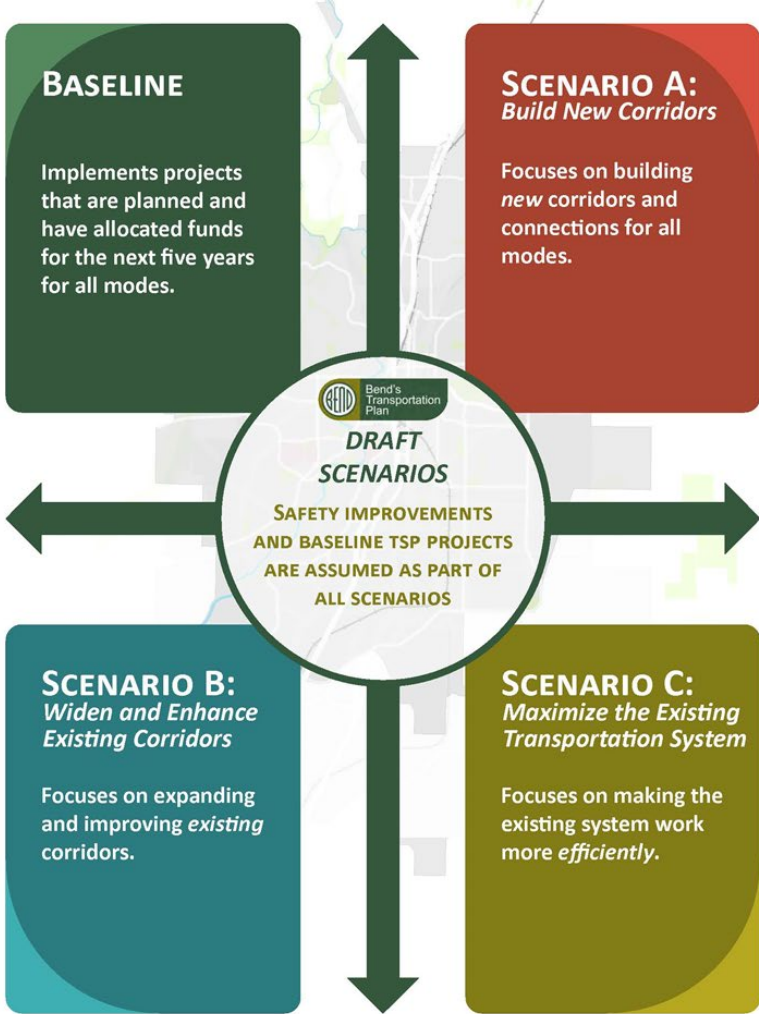
# CITYWIDE TRANSPORTATION FRAMEWORK (CTF) DEVELOPMENT STEPS



# SCENARIO DESCRIPTIONS



- **Scenarios** were developed and evaluated to:
  - *Learn* how different types projects and programs perform
  - *Inform* creation of a Citywide Framework (a hybrid scenario)



# SCENARIO EVALUATION PERFORMANCE MEASURES



Goal	Performance Measure
1: Increase System Capacity, Quality & Connectivity for All Users	<ul style="list-style-type: none"> <li>• Demand-to-capacity ratio</li> <li>• Sidewalk system completeness</li> <li>• Bicycle system level of traffic stress</li> <li>• Completeness of low-stress network</li> </ul>
2: Ensure Safety for All Users	<ul style="list-style-type: none"> <li>• Qualitative assessment of predicted crash rates</li> </ul>
3: Facilitate Housing Supply, Job Creation, & Economic Development to Meet Demand/Growth	<ul style="list-style-type: none"> <li>• Vehicle hours of delay</li> <li>• Peak hour VMT on rural facilities (diversion)</li> <li>• Travel time reliability</li> </ul>
4: Protect Livability & Ensure Equity & Access	<ul style="list-style-type: none"> <li>• Transportation equity</li> <li>• Employment accessibility</li> <li>• Vulnerable populations within 0.25 mile of sidewalks, low-stress bicycle facilities, and transit</li> <li>• Percentage of collector roads with an ADT above 4,000</li> </ul>
5: Steward the Environment	<ul style="list-style-type: none"> <li>• VMT/capita</li> </ul>
6: Have a Regional Outlook & Future Focus	<ul style="list-style-type: none"> <li>• Arterial roadway miles with demand to capacity ratio deficiencies</li> <li>• Potential for alternative funding</li> <li>• Mode split</li> </ul>
7: Implement a Comprehensive Funding & Implementation Plan	<ul style="list-style-type: none"> <li>• Capital cost</li> <li>• Roadway lane miles</li> </ul>





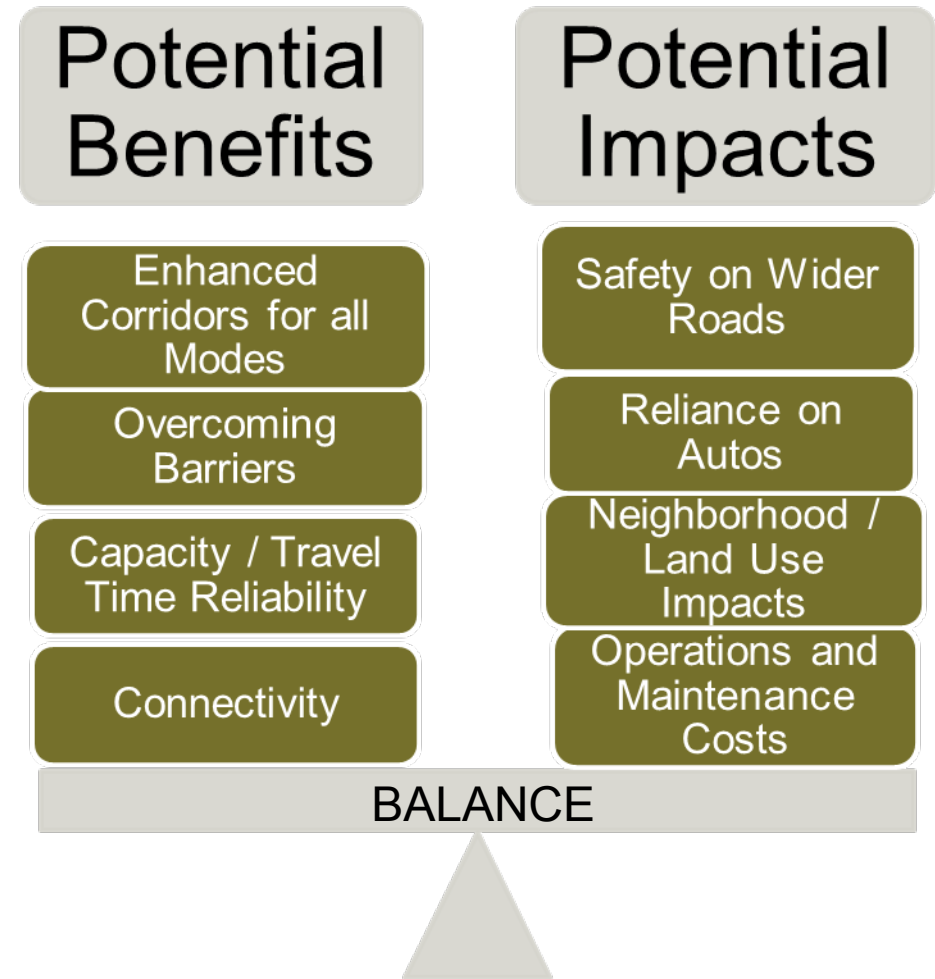
- **ArcGIS Mapping Software**
  - Spatial analysis tool for mapping and quantifying the transportation system
- **Bend-Redmond Regional Travel Demand Model**
  - Future travel forecast tool to predict how much people will travel, by which mode, and by which route
  - Evaluates the regional transportation system (use and system performance)
- **Conveyal Analysis Tool**
  - Accessibility analysis tool to determine what can be reached for different modes of travel
  - Evaluates the local transportation system (opportunity for use)

# KEY EVALUATION FINDINGS – VEHICULAR CAPACITY



- A mix of investments would increase capacity & reduce congestion\*:
  - Building new roads
  - Widening roads
  - Fixing intersection bottlenecks
- There are tradeoffs to consider
- In some locations, accepting more peak hour delay in the future may best meet Bend's goals

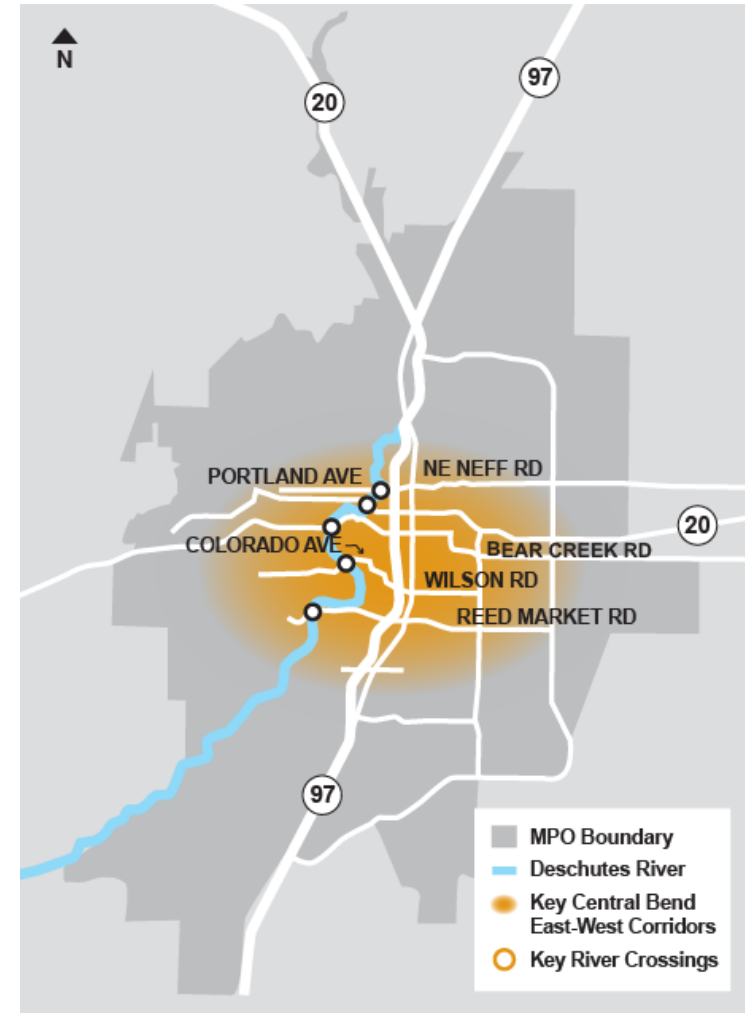
\* Congestion was forecasted using: demand to capacity ratio, vehicle hours of delay, & travel time reliability





## KEY EVALUATION FINDING: CORRIDORS WITH COMPLEX TRADE-OFFS

- East-west capacity in central Bend
  - Deschutes River crossing constraints
  - US 97 interchange capacity constraints
  - Railroad switchyard impacts
  - East-west connectivity gaps surrounding Reed Market Road
- North-south Connectivity in eastern Bend
  - Projected growth on Empire Boulevard and 27<sup>th</sup> Avenue



East-West Capacity in Central Bend Need Area

# KEY EVALUATION FINDING – US 97 CAPACITY AND SAFETY



- Access management & ramp metering appear to have significant benefits
- More detailed evaluation is underway with the US 97 Parkway Study

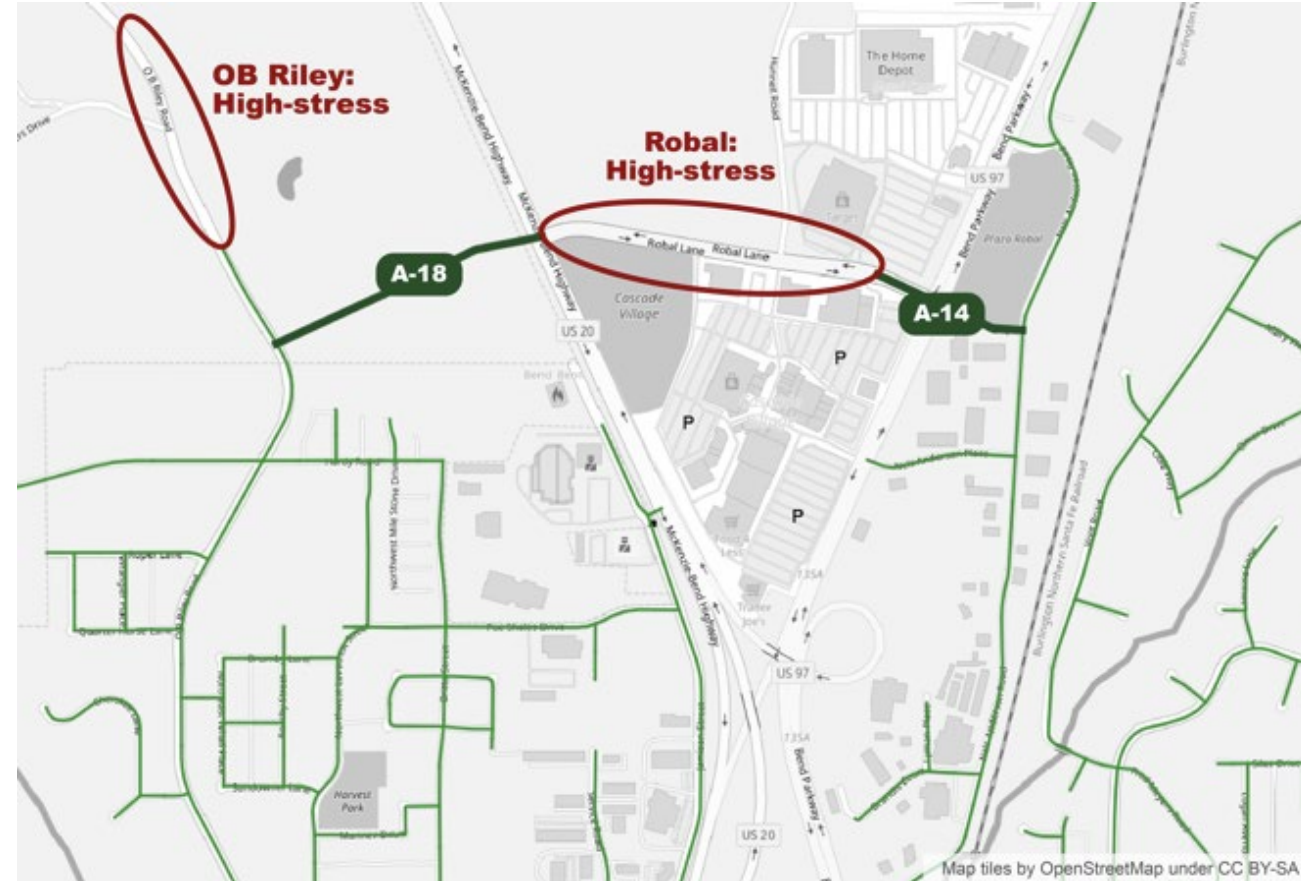


Source: © 2018 Google Maps Streetview

# KEY EVALUATION FINDING – IMPROVING WALKING AND BIKING



- Improving walking and biking requires steps to:
  - Fill key infrastructure gaps
  - Create connectivity with complete corridors throughout the City (including crossings)





## KEY EVALUATION FINDING – MOTOR VEHICLE DEMAND MANAGEMENT

- Reducing demand for motor vehicle trips is important to meet VMT/capita:
  - Transit service investment (shorter headways, greater hours of service)
  - Service connections/technology investment
  - Mobility Hubs to connect to first/last mile modes & services
  - Policies & programs to encourage carpooling & other modes



# CTF OUTCOME: BUILDING A BALANCED SYSTEM



Baseline Project Types	Additional CTF Projects
<p><b>Majority of Identified Projects:</b></p> <ul style="list-style-type: none"><li>• Roadway widening</li><li>• Roadway extensions</li><li>• Intersection capacity and safety improvements</li><li>• Upgrades of roads to "urban" standards</li></ul> <p><b>Other Types of Projects/Programs:</b></p> <ul style="list-style-type: none"><li>• Bicycle greenways</li><li>• Sidewalk infill</li><li>• Citywide safety projects</li></ul>	<ul style="list-style-type: none"><li>• Grade-separated crossings of barriers</li><li>• US 97 interchanges<ul style="list-style-type: none"><li>➤ Removal of signalized intersections</li><li>➤ Added capacity with US 97 North Corridor FEIS</li></ul></li><li>• Citywide low-stress bicycle network</li><li>• Sidewalk &amp; crossings improvement program</li><li>• Intersection capacity &amp; safety improvements</li><li>• Transit system investments<ul style="list-style-type: none"><li>➤ Enhanced service on key corridors</li></ul></li><li>• Travel demand management (TDM)<ul style="list-style-type: none"><li>➤ TDM programs for larger employers/districts</li><li>➤ Parking pricing</li></ul></li><li>• Technology investments<ul style="list-style-type: none"><li>➤ Mobility hubs for first/last mile services connections</li><li>➤ Traffic signal priority for freight and transit</li></ul></li></ul>

# RECOMMENDED CTF: MEETING BEND'S TRANSPORTATION GOALS

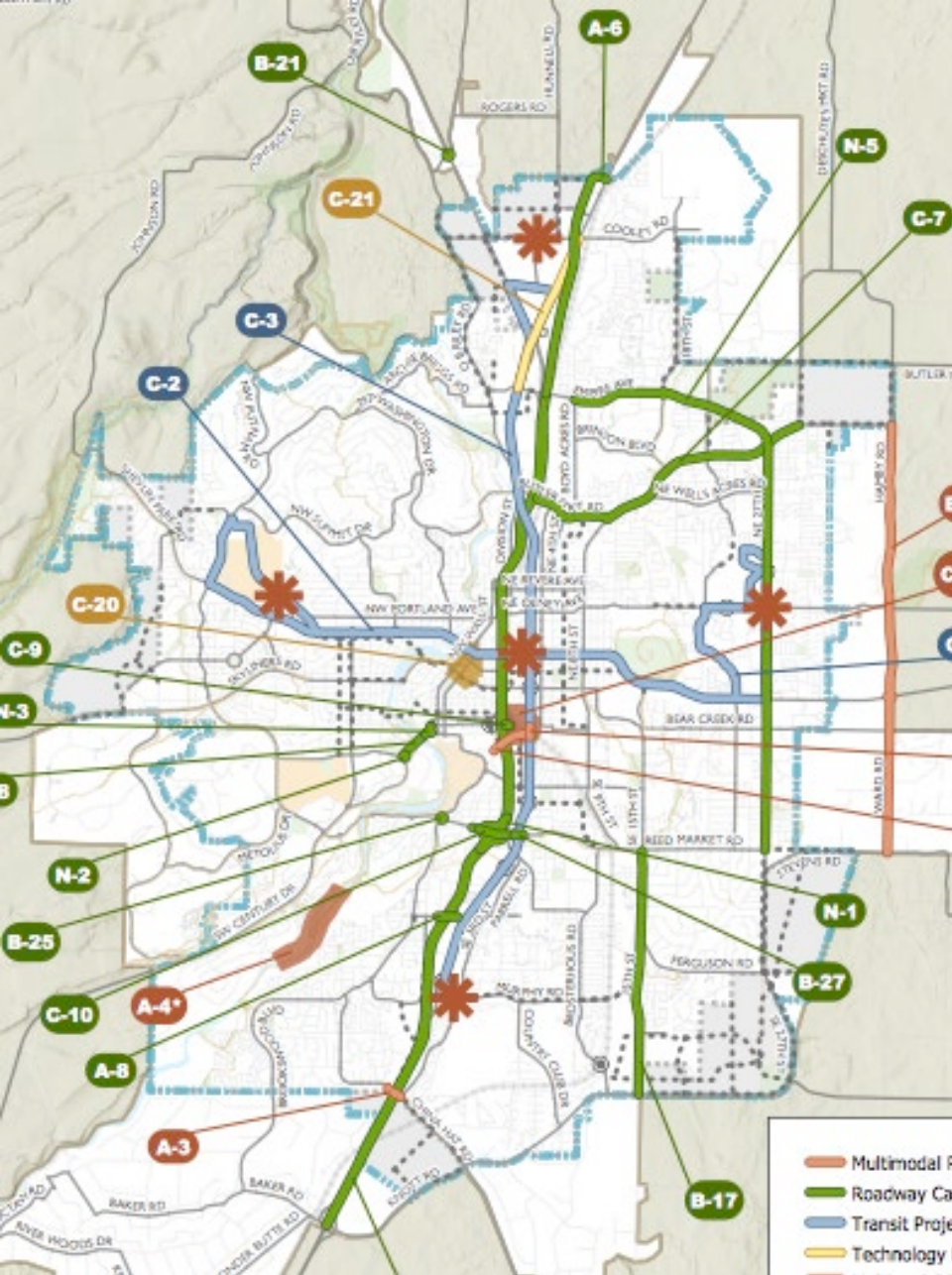


Transportation Goal	Addressed with CTF
Increase System Capacity, Quality, & Connectivity for All Users	✓
Ensure Safety for All Users	✓
Facilitate Housing Supply, Job Creation, & Economic Development to Meet Demand/Growth	✓
Protect Livability & Ensure Equity & Access	✓
Steward the Environment	✓
Have a Regional Outlook & Future Focus	✓
Implement a Comprehensive Funding & Implementation Plan	✓





# RECOMMENDED CTF – ADDITIONAL VEHICULAR AND MULTIMODAL PROJECTS

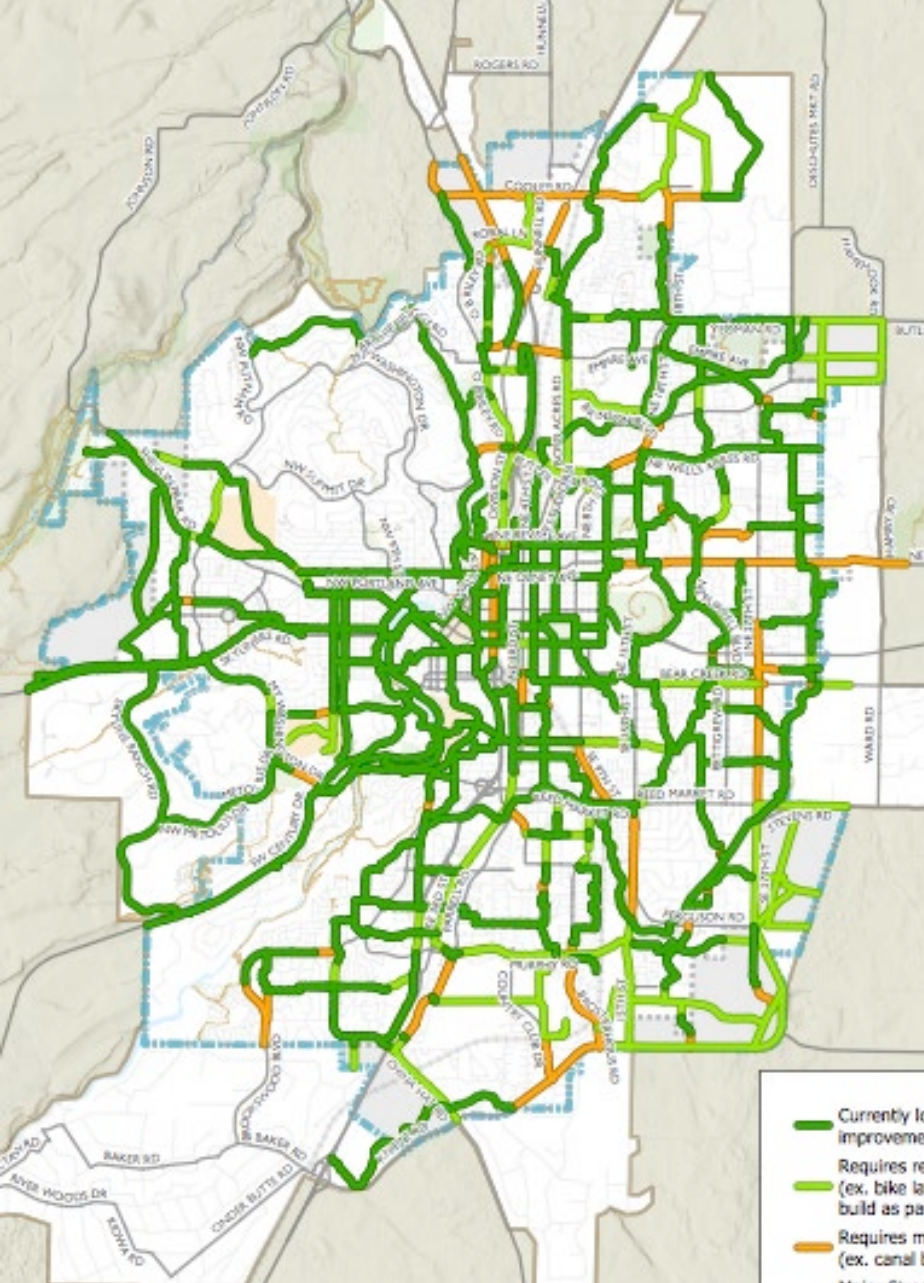


- Grade-separated crossings of barriers
- US 97 interchanges & corridor management
- Intersection capacity & safety improvements
- Corridor improvements on Colorado Avenue
- Corridor improvements on Reed Market Road
- Corridor improvements on Empire & 27<sup>th</sup>
- Transit system investments
- Travel demand management
- Technology investments

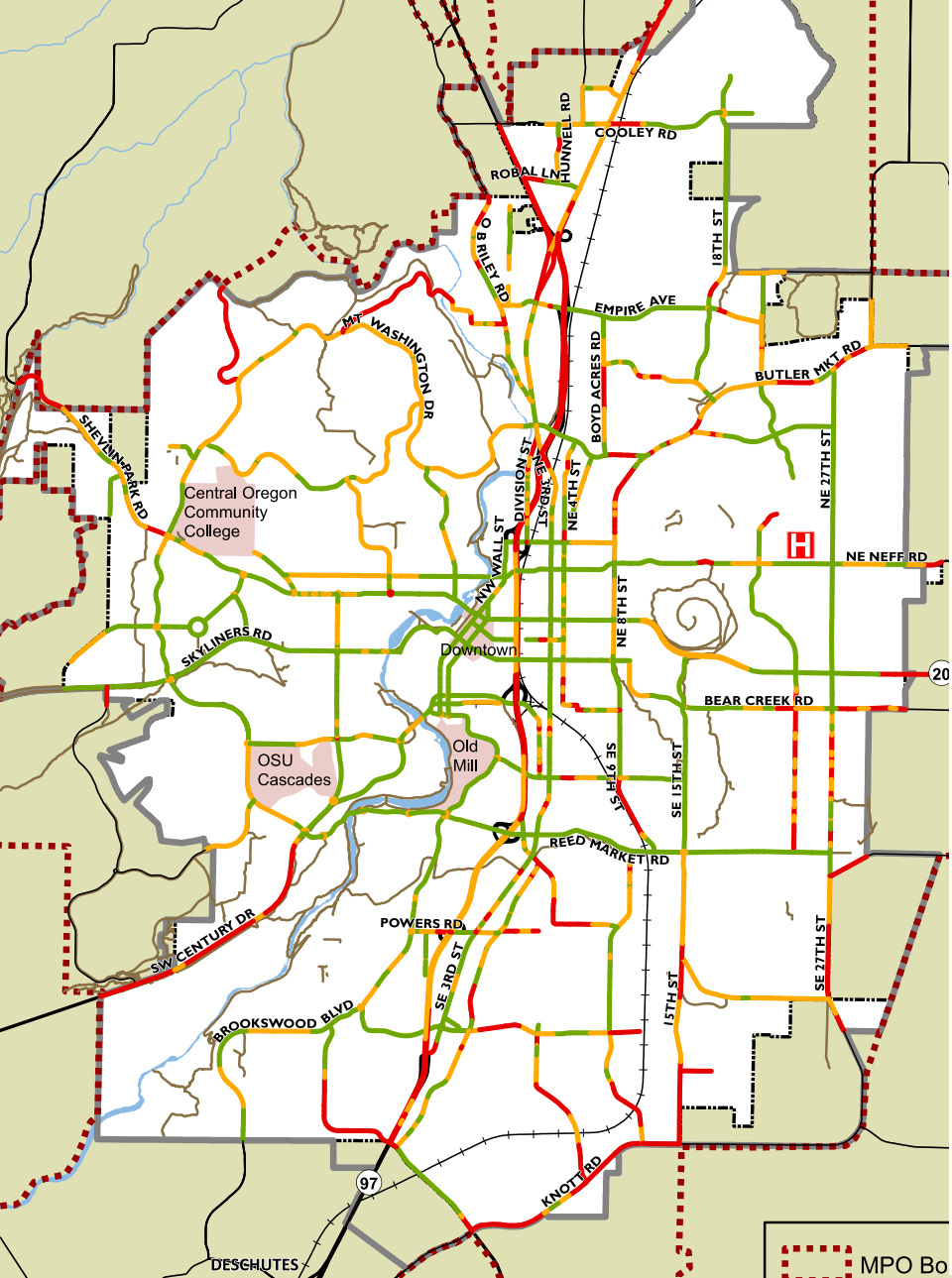
# RECOMMENDED CTF – COMPLETE BICYCLE LOW STRESS NETWORK



- Full implementation of a Citywide bicycle low-stress network (LSN):
  - Use existing low-stress streets & paths
  - Retrofit existing key streets
  - Improve crossings
  - Create appropriate policy & standards



# RECOMMENDED CTF – CONNECTED PEDESTRIAN SYSTEM



- Implement a complete pedestrian system:
  - Identify projects to close sidewalk & crossing gaps on arterials & collectors
  - Create & fund a local sidewalk infill & crossing improvement program

# RECOMMENDED CTF: STUDY ADDITIONAL RIVER CROSSING SOUTH OF REED MARKET ROAD



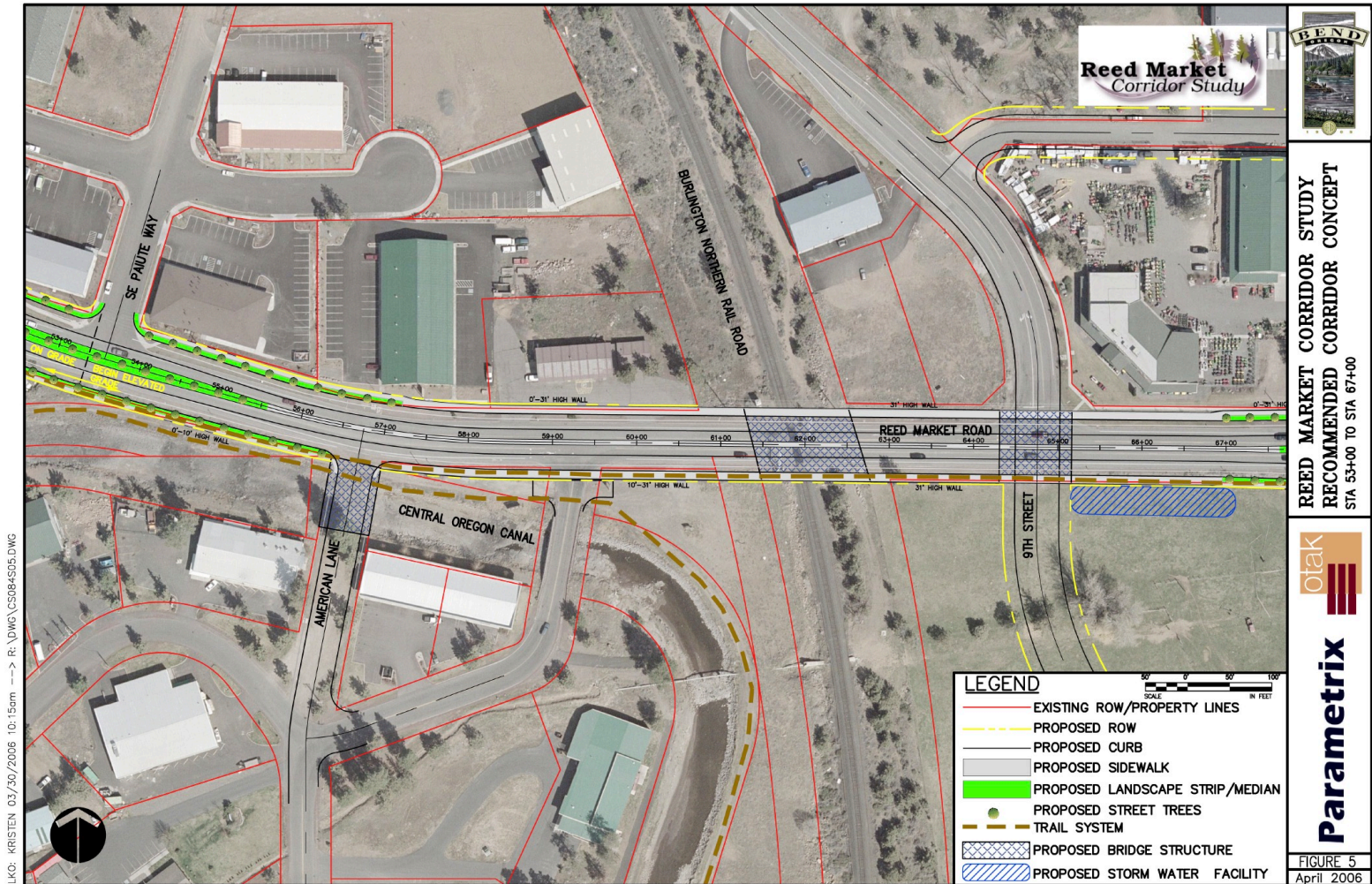
- There is a long-term need for additional east-west capacity
- CTAC recommends a “study project” (A-4) of options, feasibility, & impacts



# RECOMMENDED CTF: STUDY RAILWAY SWITCHYARD RELOCATIONS OR OVER-CROSSINGS



- Rail crossings & train switching affects Travel Time Reliability
- Solutions are costly & challenging
- CTAC recommends a “study project” to look at options, feasibility and benefit/cost of:
  - Relocating switchyard outside of the City, and/or
  - Constructing over-crossings of at-grade crossings (Reed Market to Revere)



## RECOMMENDED CTF: BALANCING INVESTMENTS IN 5-LANE CORRIDORS



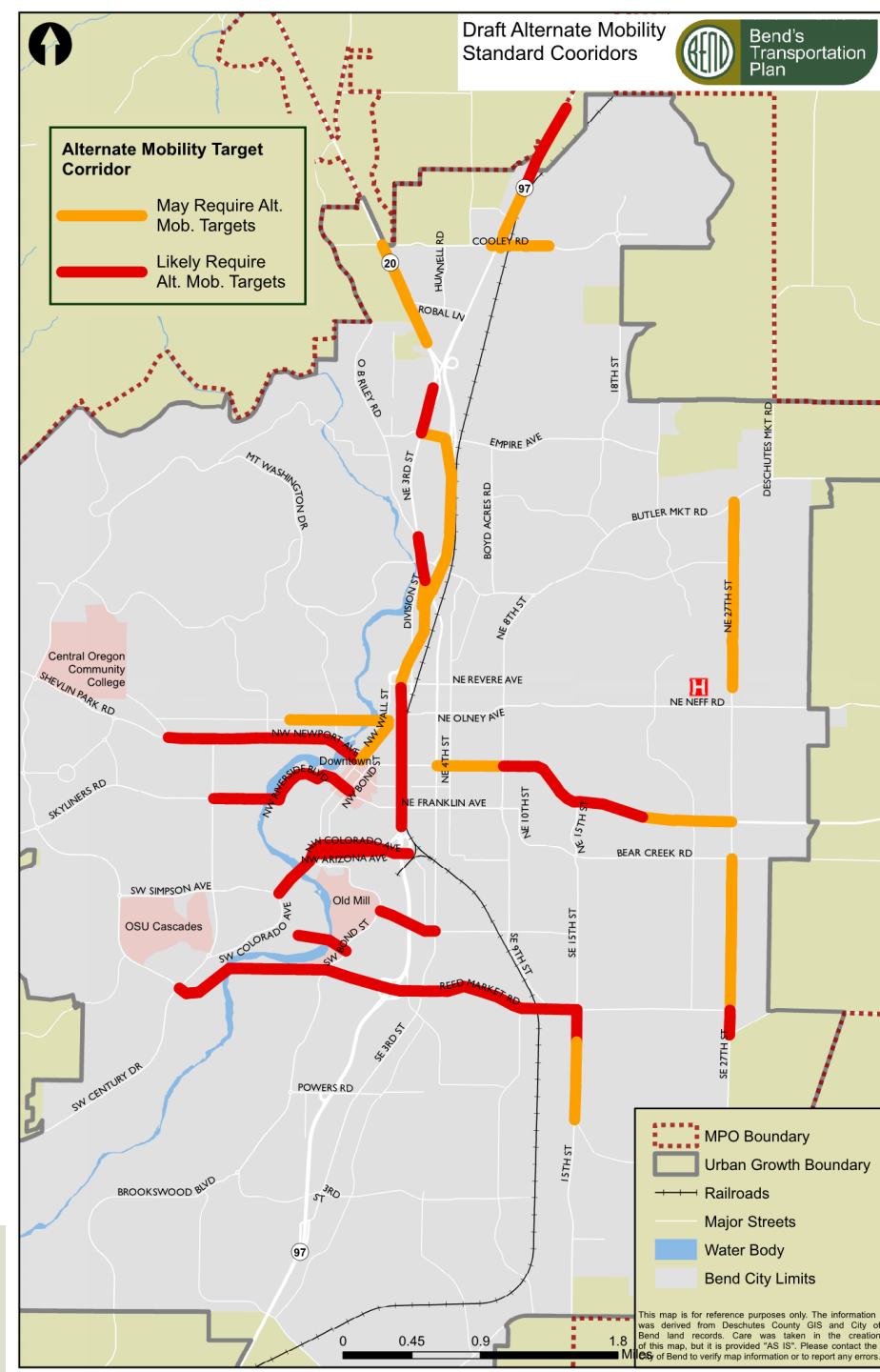
- For Colorado Avenue (Simpson to Industrial) & Empire-27<sup>th</sup> (Boyd Acres to Reed Market), implement improvements with a phased approach:
  - Identify the corridor as a long-term 5-lane facility in the TSP/MTP
  - Preserve/obtain right-of-way for 5 lanes
  - Include key intersection capacity/safety projects (e.g., multi-lane roundabouts) to add capacity to the corridor over-time as interim improvements
  - Monitor growth, changing trends in how people travel, & revisit long-term needs with each plan update (including assessing alternate solutions)
  - Consider widening to 5-lanes when “triggered” as a last step



# RECOMMENDED CTF: ALTERNATE MOBILITY STANDARDS

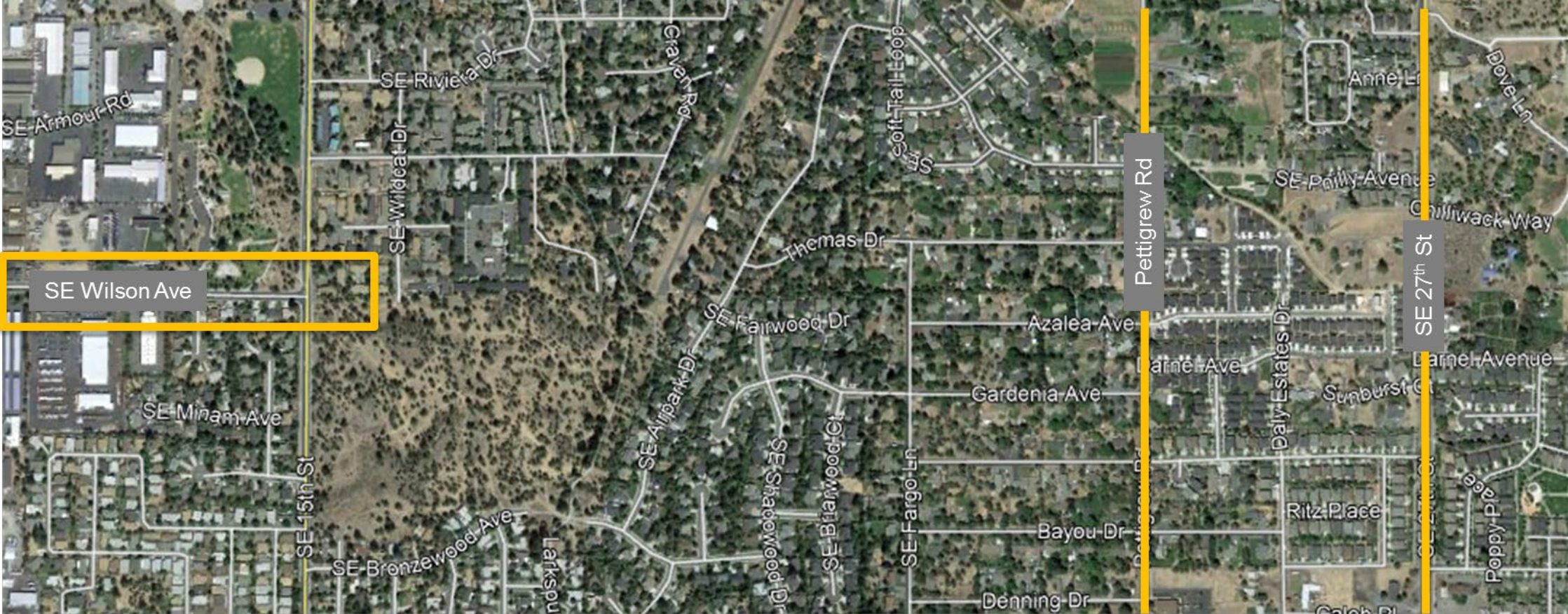
- Some corridors may need alternate mobility targets that:

- Increase the threshold for allowable peak hour congestion
- Consider average weekday instead of seasonal peak traffic demand conditions (for ODOT facilities)
- Consider the duration of congestion (i.e., how many hours of congested conditions are acceptable)
- Consider travel time reliability
- Consider emergency response needs





# REMAINING NEED FOR STEERING COMMITTEE DIRECTION: WILSON AVENUE EXTENSION AREA



## REMAINING NEED FOR STEERING COMMITTEE DIRECTION: WILSON AVENUE EXTENSION OPTIONS



### Potential Options:

- a) Approve a project for the Citywide Transportation Framework, including the type of connection (collector or local street connections) & the eastern limit (Pettigrew Road or 27<sup>th</sup> Street); or
- b) Request further evaluation in Phase 2 of the work program to determine the feasibility, impacts, & benefits of a collector corridor vs. local street connections; or
- c) Approve a study for the Citywide Transportation Framework to examine this need in more detail, including a targeted public outreach component, at a later time.

**Staff recommends advancing Option B.**

## ADDITIONAL RECOMMENDATION FOR STEERING COMMITTEE



Support implementation of other in-process Transportation Plans:

- Deschutes County ITS Plan
- City of Bend and Deschutes County Transportation Safety Action Plans (TSAPs)
- Cascades East Transit (CET) Transit Plan



- Public Comment
- Steering Committee action

Draft Motion:

*“I move approval of the Citywide Transportation Framework recommended by CTAC, with the refinements identified by the Steering Committee.”*

(If any...refinements will be restated as needed.)