TRANSCO TRANSPORTATION SUMMIT

PLANNING PROCESS AND TOOLS FOR ADVANCING PROJECTS AND OUTCOMES

Presented by:
Bruce Haldors - Transpo Group

June 8, 2011

Lincoln County
Adams County

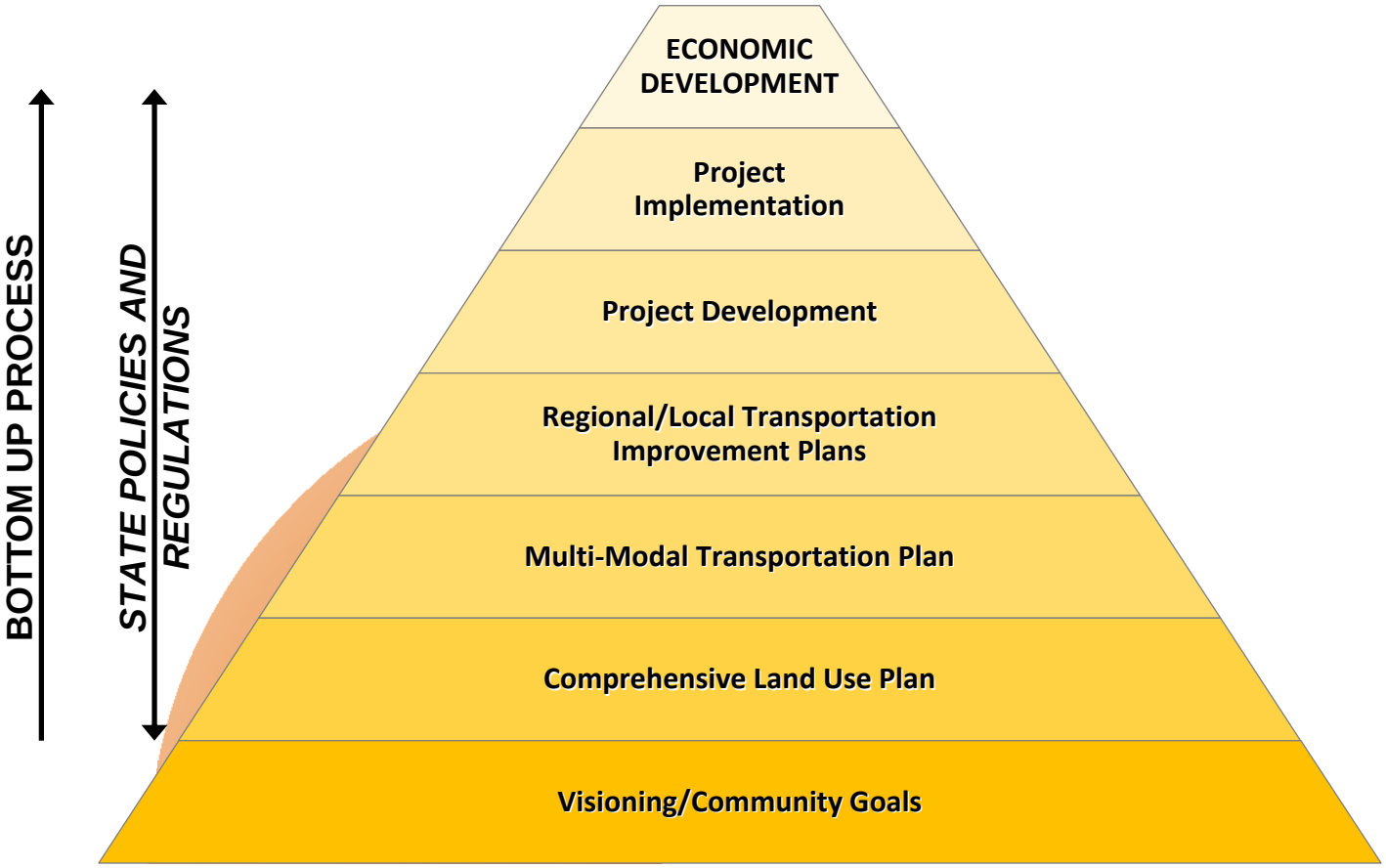
Presentation Outline

- Planning Process
- Tools and Applications
- Specific Examples

How do we document existing conditions and forecast future conditions?

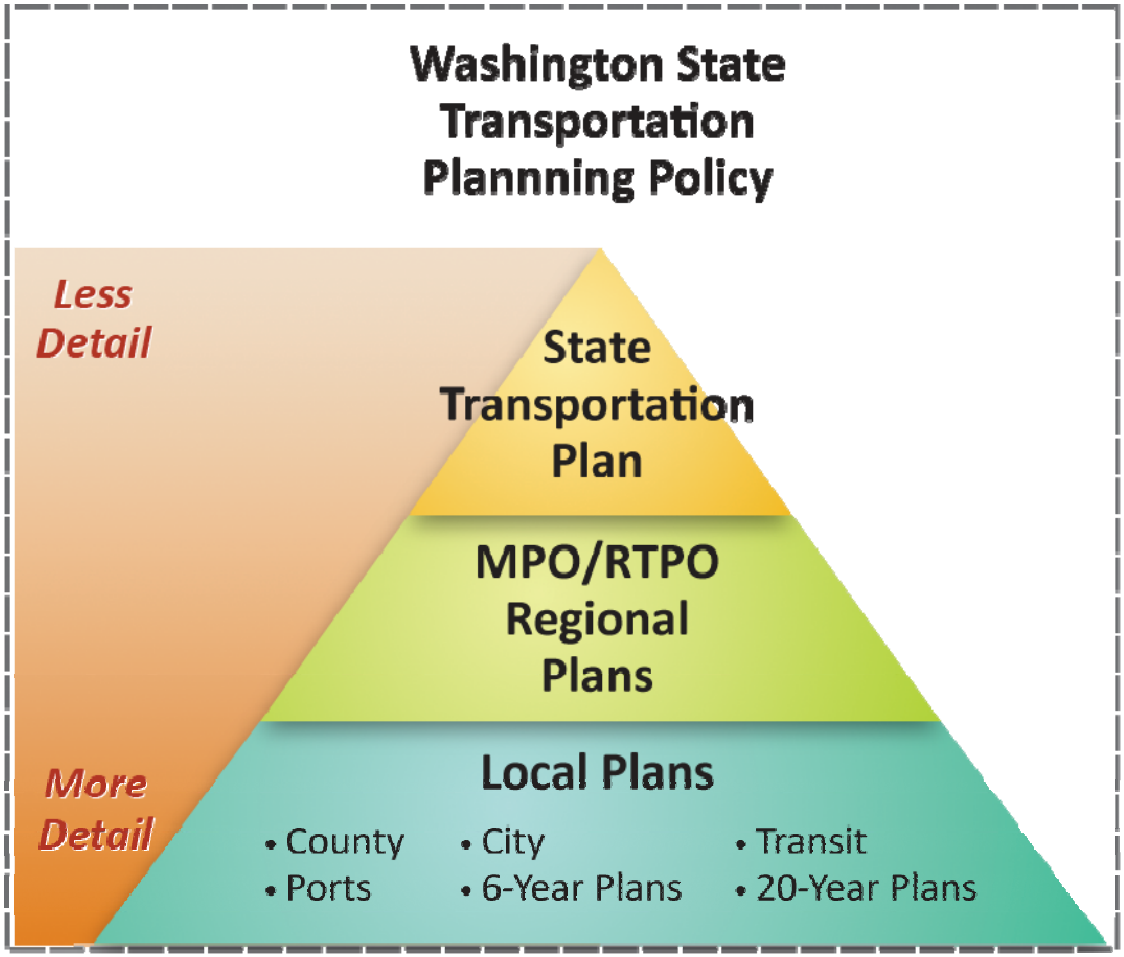
The planning process is about cooperation and is a bottom up approach

Planning Process



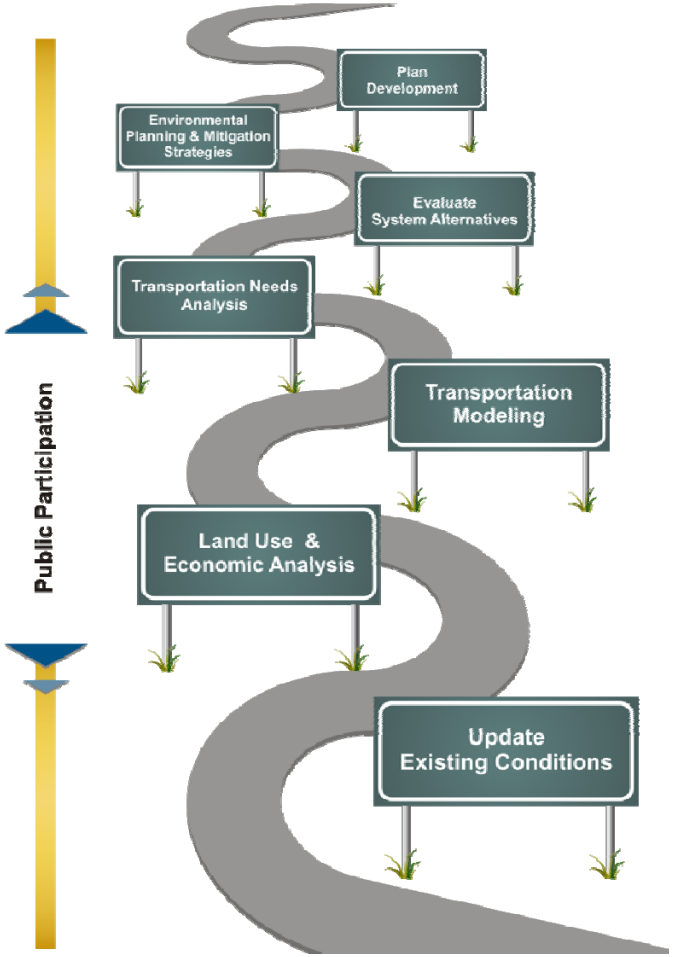
The process is meant to establish a consistent and meaningful method of making transportation decisions on a regular basis.

Transportation Plan Relationships



Each plan is related to the others, and each cycle of the planning process effects each of the other plans.

Transportation Plan Development

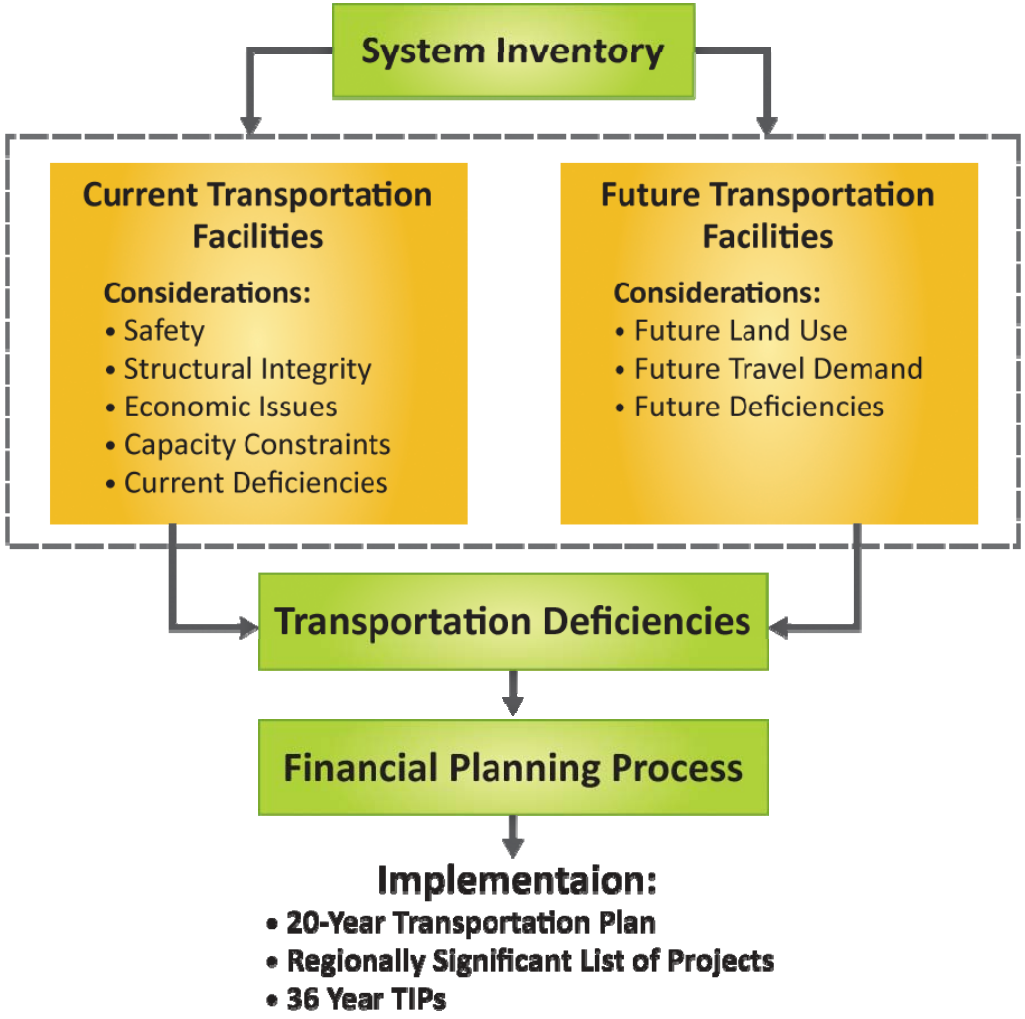


A roadmap for transportation decisions provides plans and priorities to support growth and an efficient transportation system

Transportation Strategy Elements

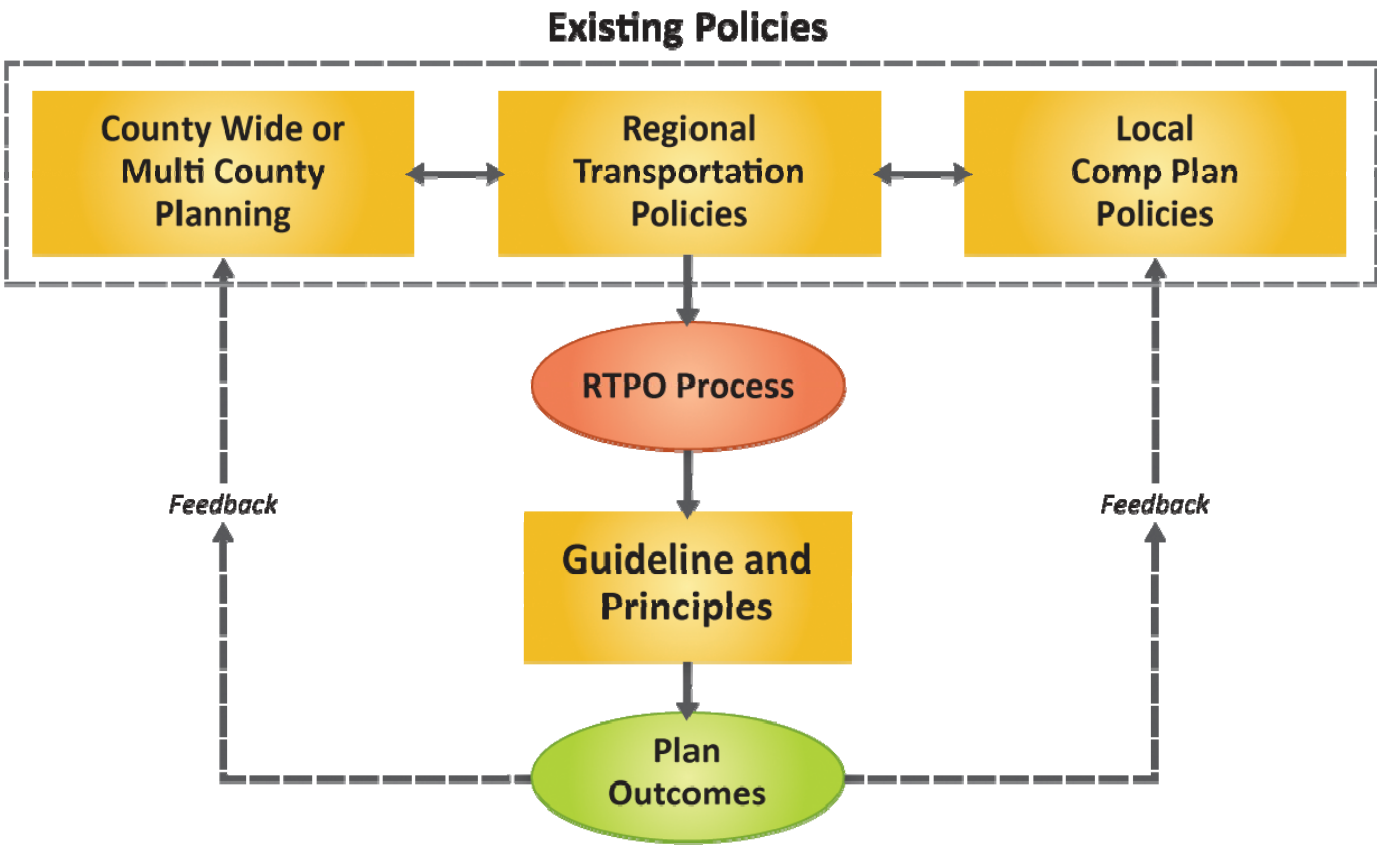
Regional Transportation Strategy identifies priority levels for transportation improvements that guide local jurisdictions and the state in implementing their transportation programs and projects.

Identification of Deficiencies



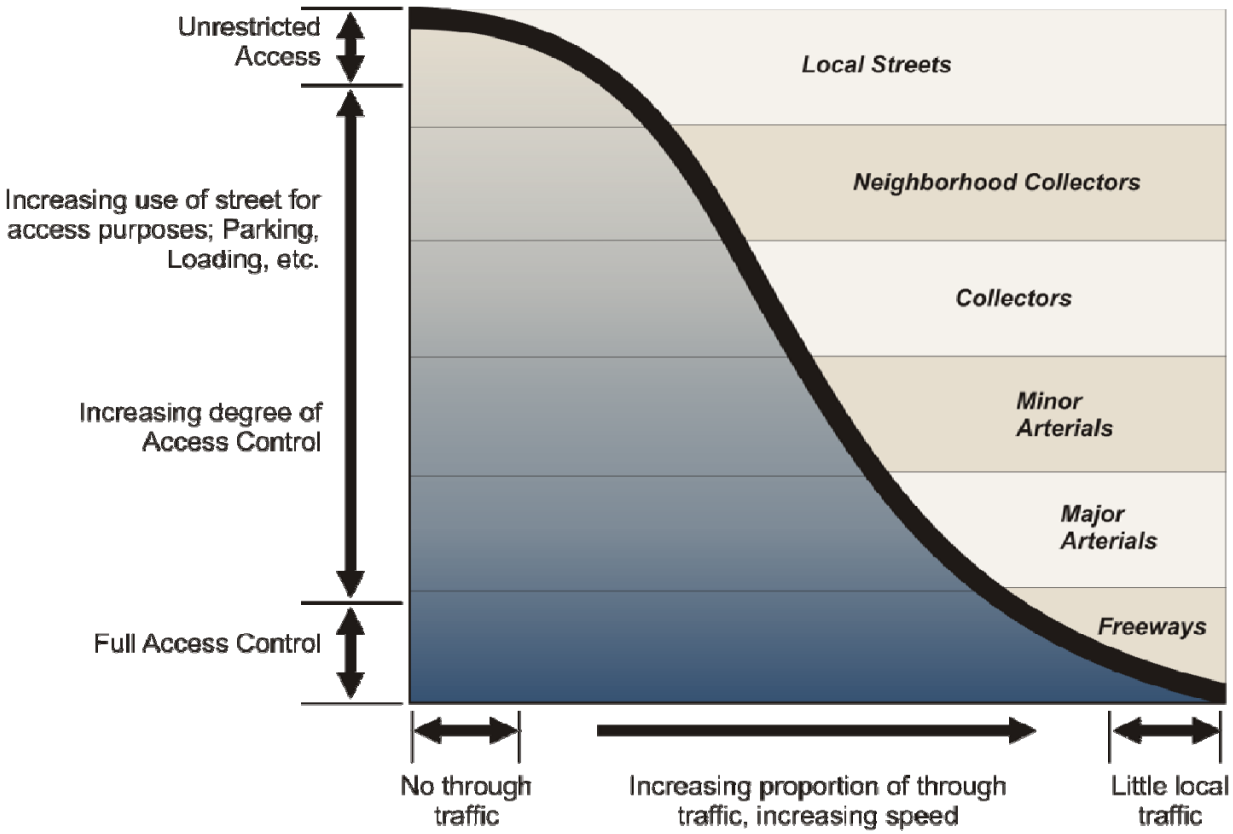
Deficiencies should be regionally prioritized so that local project programming decisions can be made more easily.

Transportation Guidelines and Principles



The guidelines and principles provide a regional framework for the development and update of local comprehensive plans.

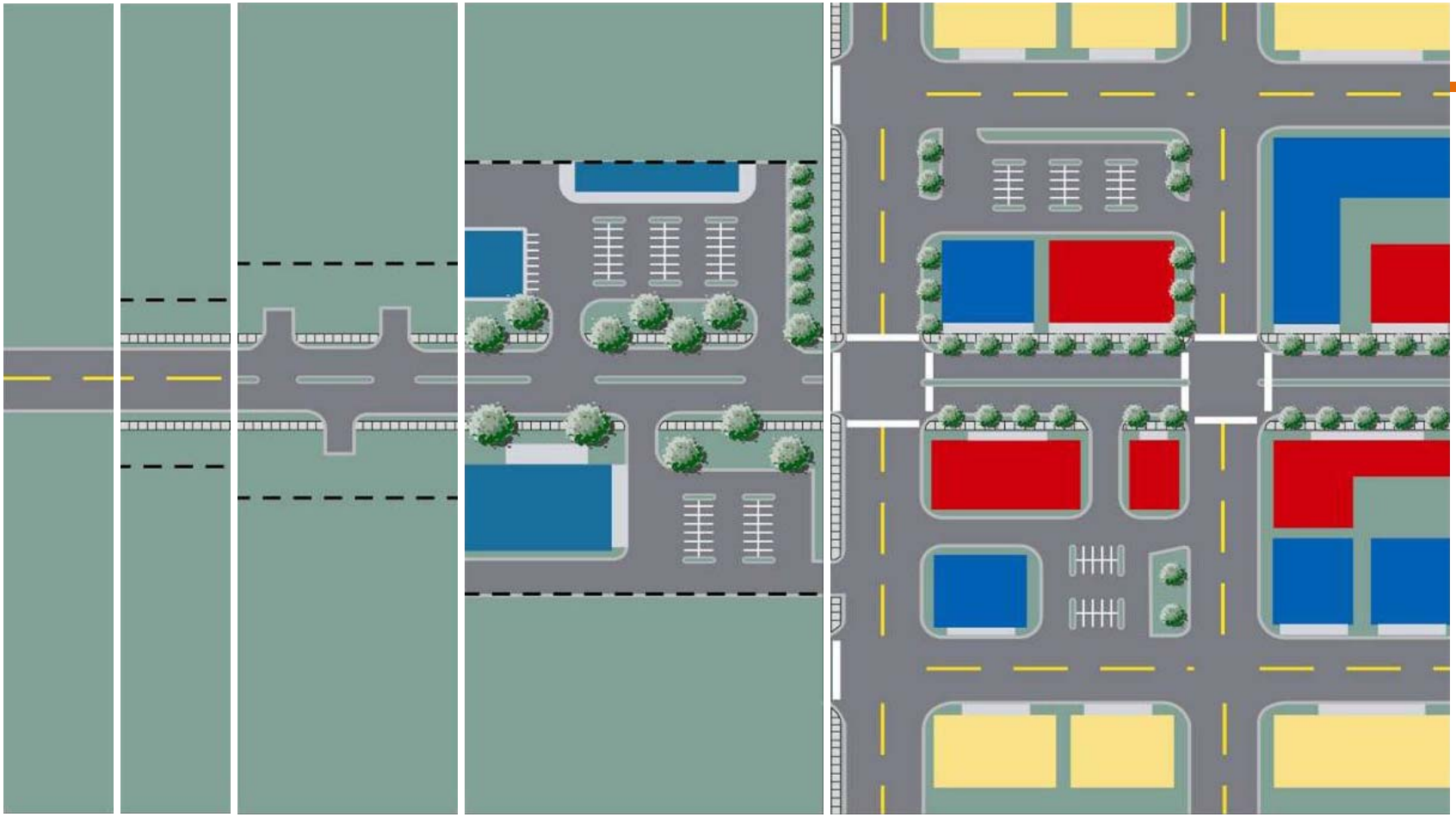
Access v. Mobility



Engineers and Planners have long struggled with Access vs. Mobility

Different measures of effectiveness and desired outcomes shape how access and mobility is provided in a community

Transportation-Land Use Integration



Pavement Management | Right-Of-Way Management | Access Management | Corridor Management | Integrated Land Use & Transportation Plan (Context Sensitive Solutions)

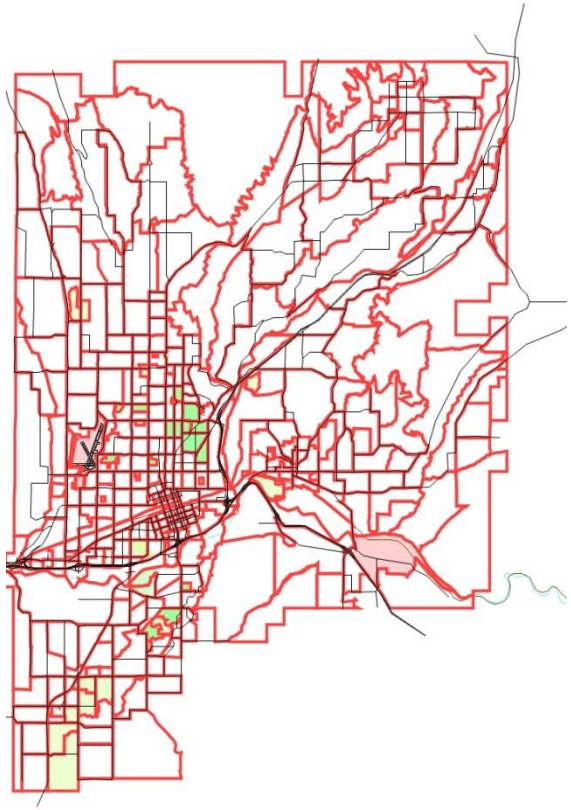
Specific Tools in Developing Plans

- 4 Step Travel Demand Model
- Macro, Meso, and Microscopic
- Geographic Information Systems
- Visualization
- Scenario Planning

Modeling has been used for over 40 years

Better planning tools are increasingly available and cost effective to help understand the impact of decisions on the network and environment

Models



Models do not depict reality

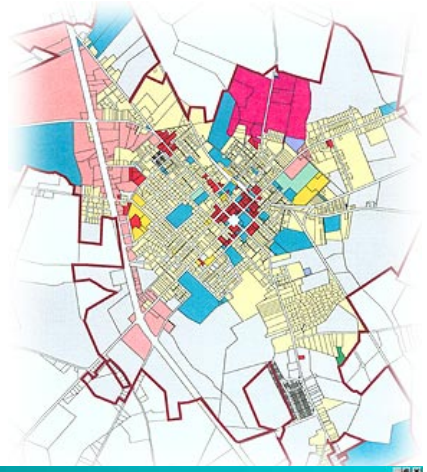
Not all models look good

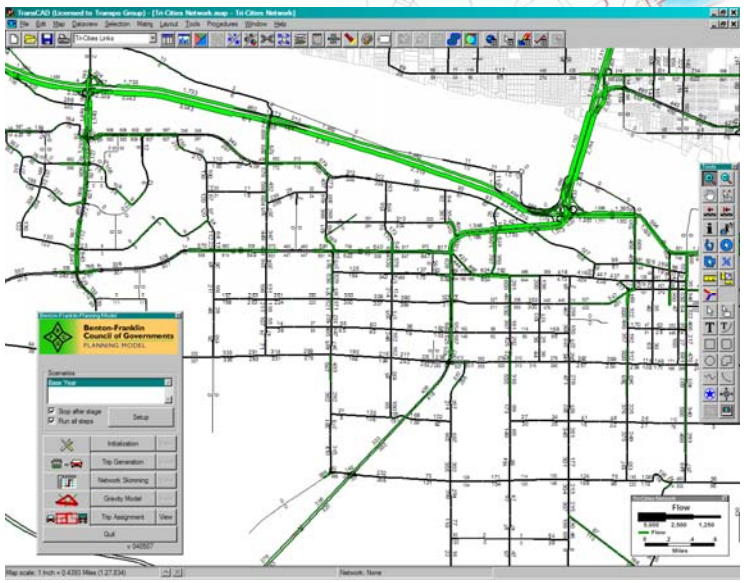
Models have limitations and are only "estimates"

Garbage in Garbage out

4 Step Modeling Process

- Trip Generation
- Trip Distribution
- Mode Split
- Assignment



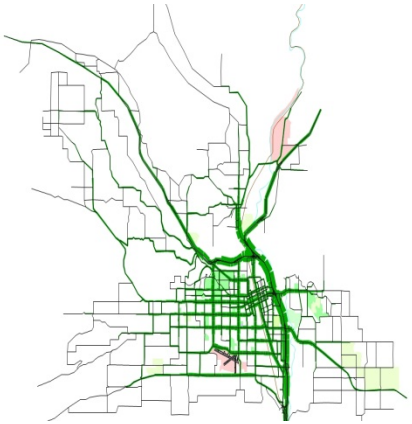


Land use models typically provide the input to the first step of the 4 Step Model

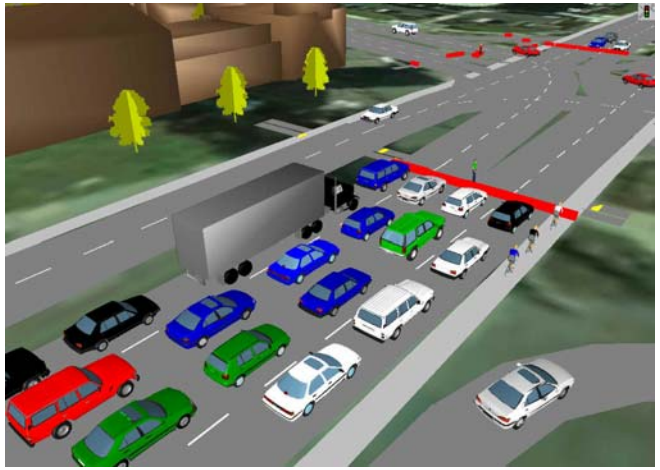
The 4 Step Model predicts the basic "demand" for transportation services and hence helps to identify the "supply" necessary to meet that demand

Modeling Tools

- Macroscopic Models
- Mesoscopic Models
- Microscopic Models



The level of detail gets more refined as one moves from macroscopic to microscopic

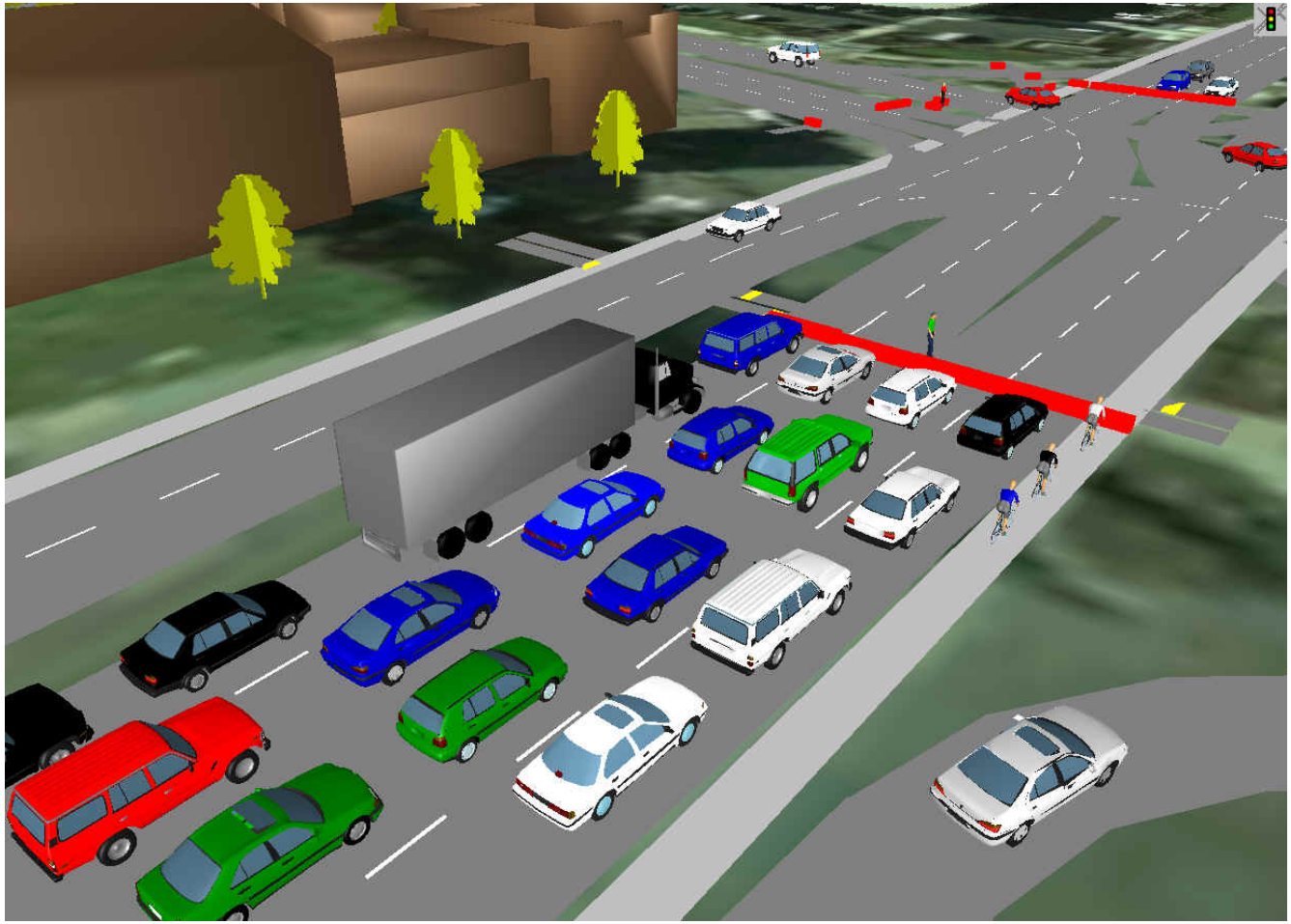


Mesoscopic Models

These models describe activities and interactions of vehicles based on aggregate (macroscopic) relationships.

These models were the predominant traffic analysis tool until the late 90's

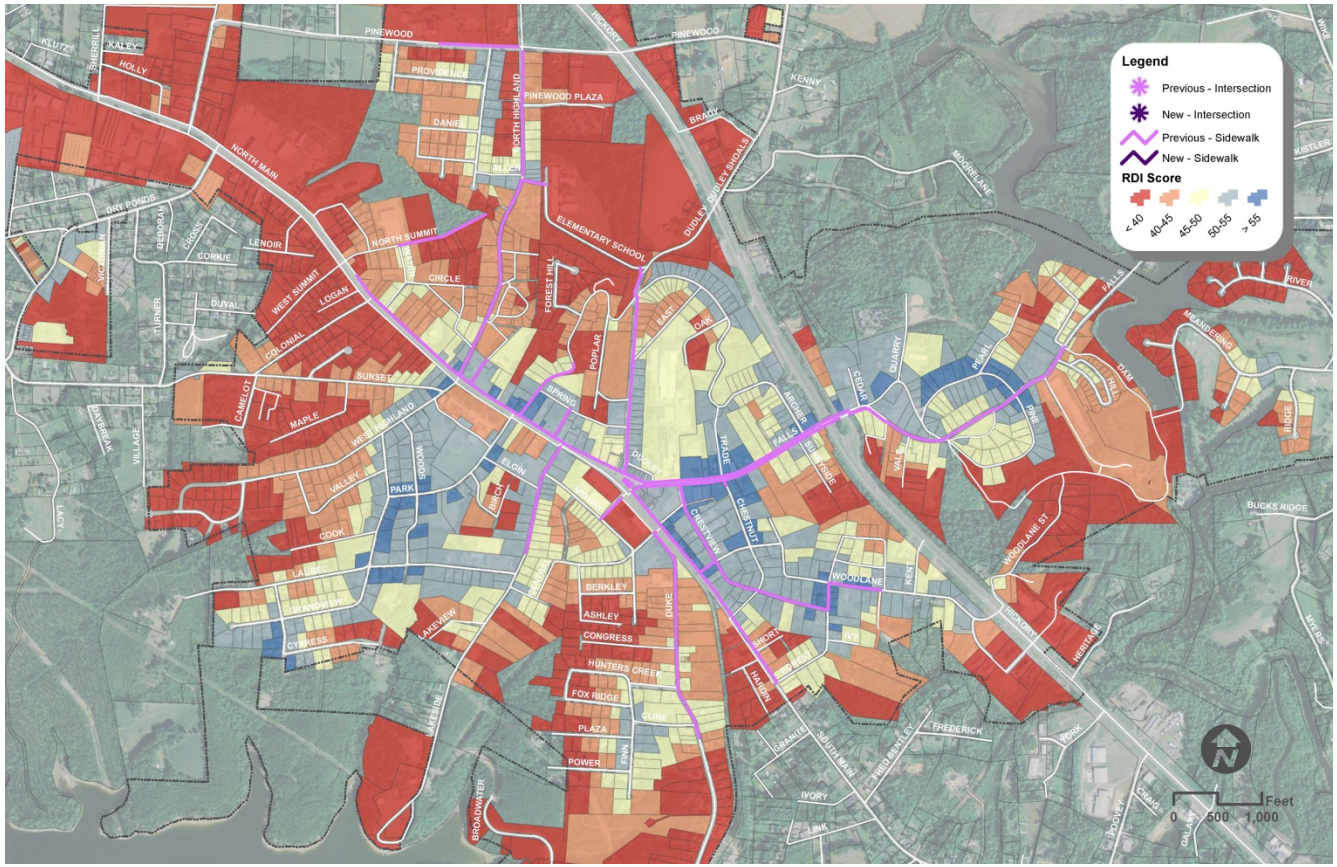
Microscopic Models



Simulation models can show how a system will operate on a second-by-second, vehicle-by-vehicle basis

Simulation modeling allows for efficient testing of multiple alternatives and provides important MOE's

Geographic Information Systems



GIS is used as both an analysis tool as well as a visualization tool.

GIS stores, manipulates, evaluates and presents geographically referenced information

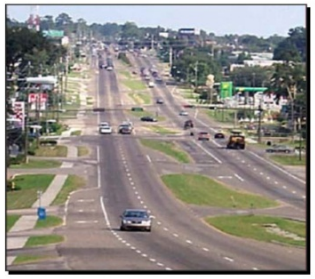
Visualization

Visualization has become much more accessible and available and helps provide context to ideas, plans, and policies

It helps give decision makers more context to how a particular project might impact an environment

Measures of System Performance

Level of Service (LOS)

LOS	What it looks like	Volume/Capacity Ratio
A		< 0.60 • Highest drive comfort • Little Delay • Free Flow
B		0.601 - 0.70 • High degree of drive comfort • Little delay
C		0.701 - 0.80 • Some delays • Acceptable level of driver comfort • Efficient traffic operation
D		0.801 - 0.90 • Some driver frustration • Efficient traffic operation
E		0.901 - 1.00 • Near Capacity • Notable Delays • Low driver comfort • Difficulty of signal progressions
F		> 1.001 • Breakdown flow • Excessive delays

Engineers and Planners have been using a variety of performance measures – the most commonly used is LOS

As systems evolve and information is more readily accessed new multi-modal MOE's are being leveraged

Scenario Planning

- Long-range strategic planning tool
- Engages stakeholders in testing "policy" decisions
- Uses many tools
- Land use, transportation, and environment are iteratively assessed

"A vision is not a forecast but a strategy to preserve the best options"
(Alan Matheson)

Scenario Planning identifies key community values and facilitates discussion and engagement about what is truly important

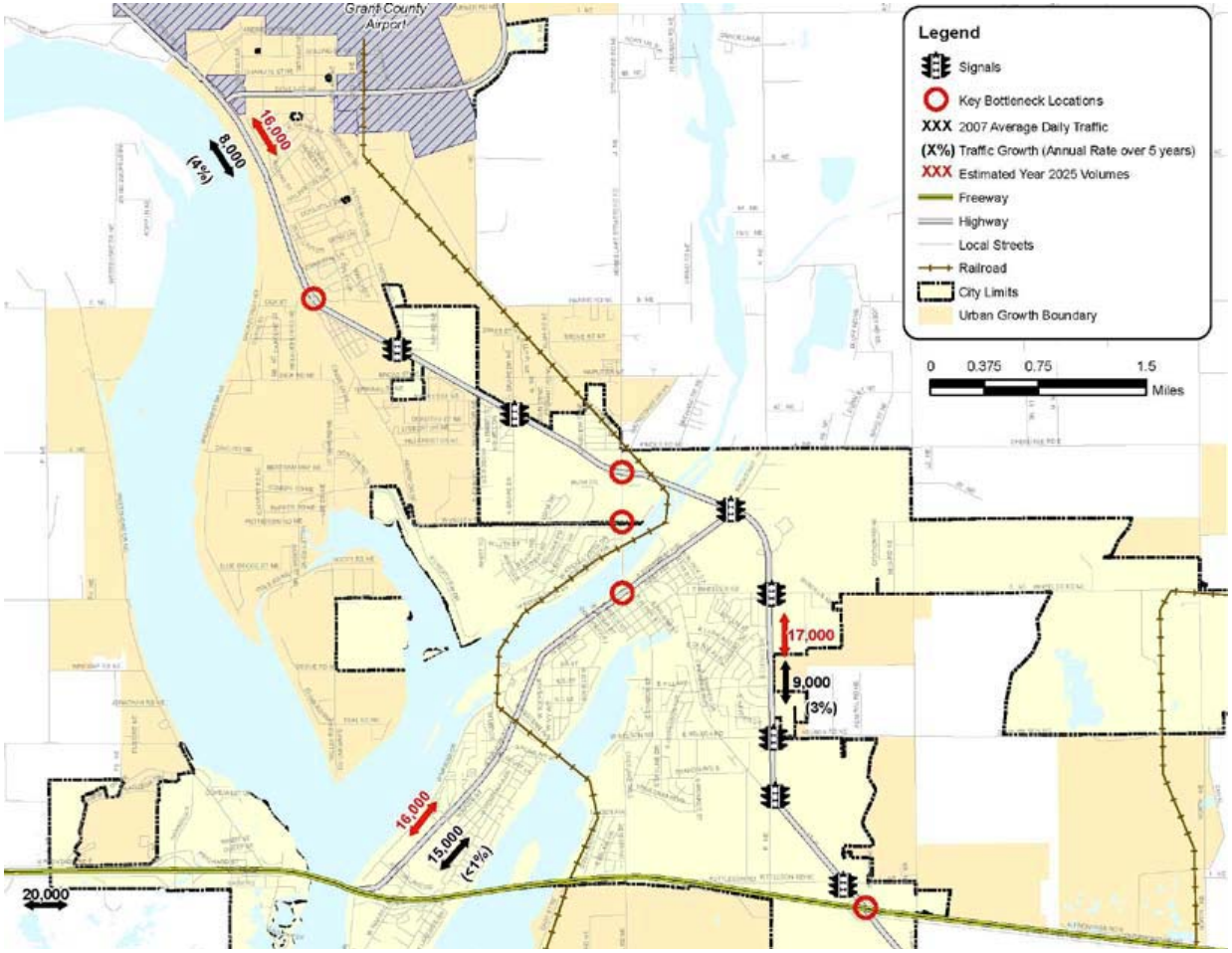
Local Project Example and Tools

- Moses Lake Crossing
- Sketch Planning
- Trip Generation Potential
- Distribution of Traffic
- Environmental Issues
- Project Costing
- Project Implementation Steps

In order for any of the possible bridge locations to be accepted and funded they will need the support of local officials and residents.

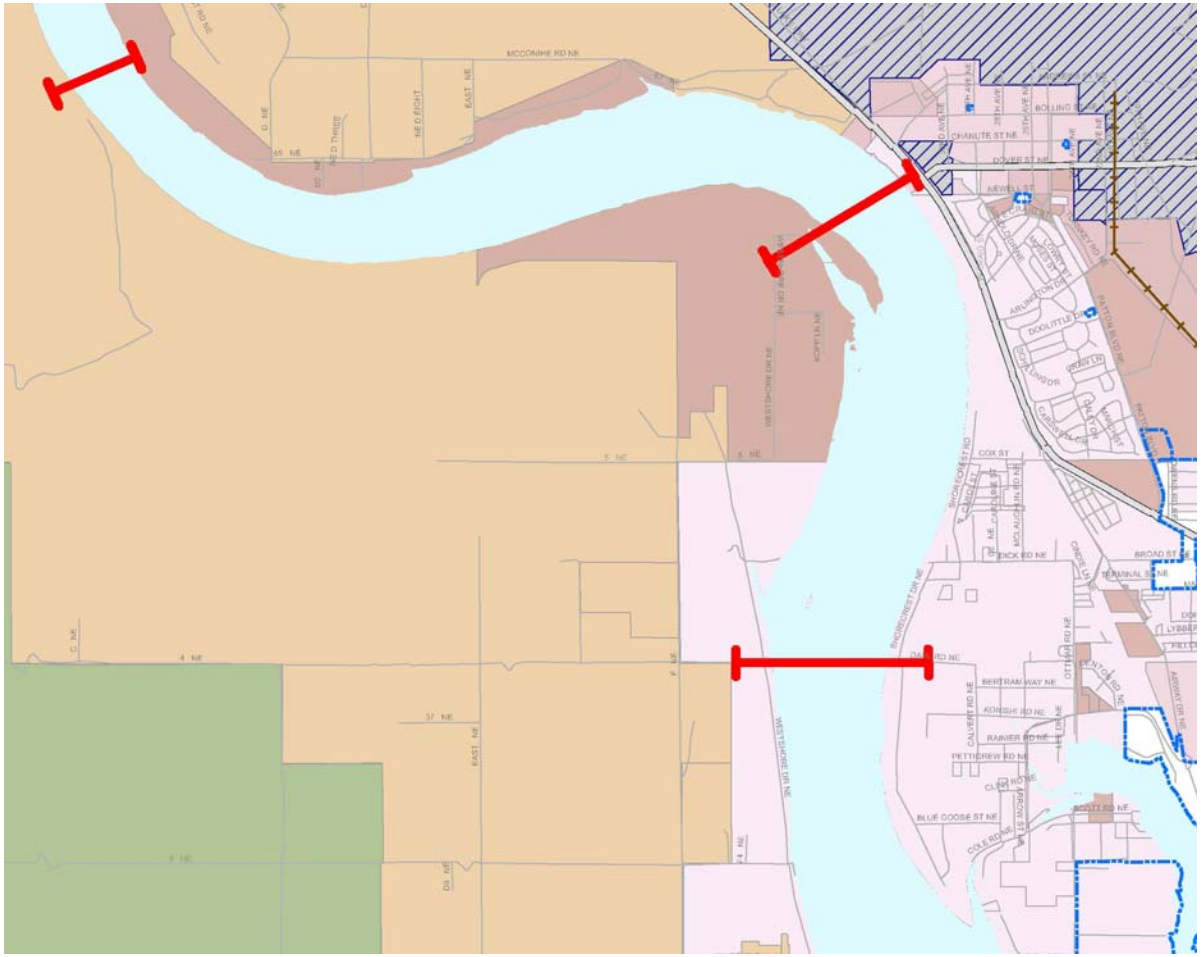
Identifying concerns and issues up front is critical to a projects success

Moses Lake Crossing Existing Conditions



SR 17 provides the primary access to I-90 for both freight moving from the area Ports as well as for much of the commercial development in the City of Moses Lake

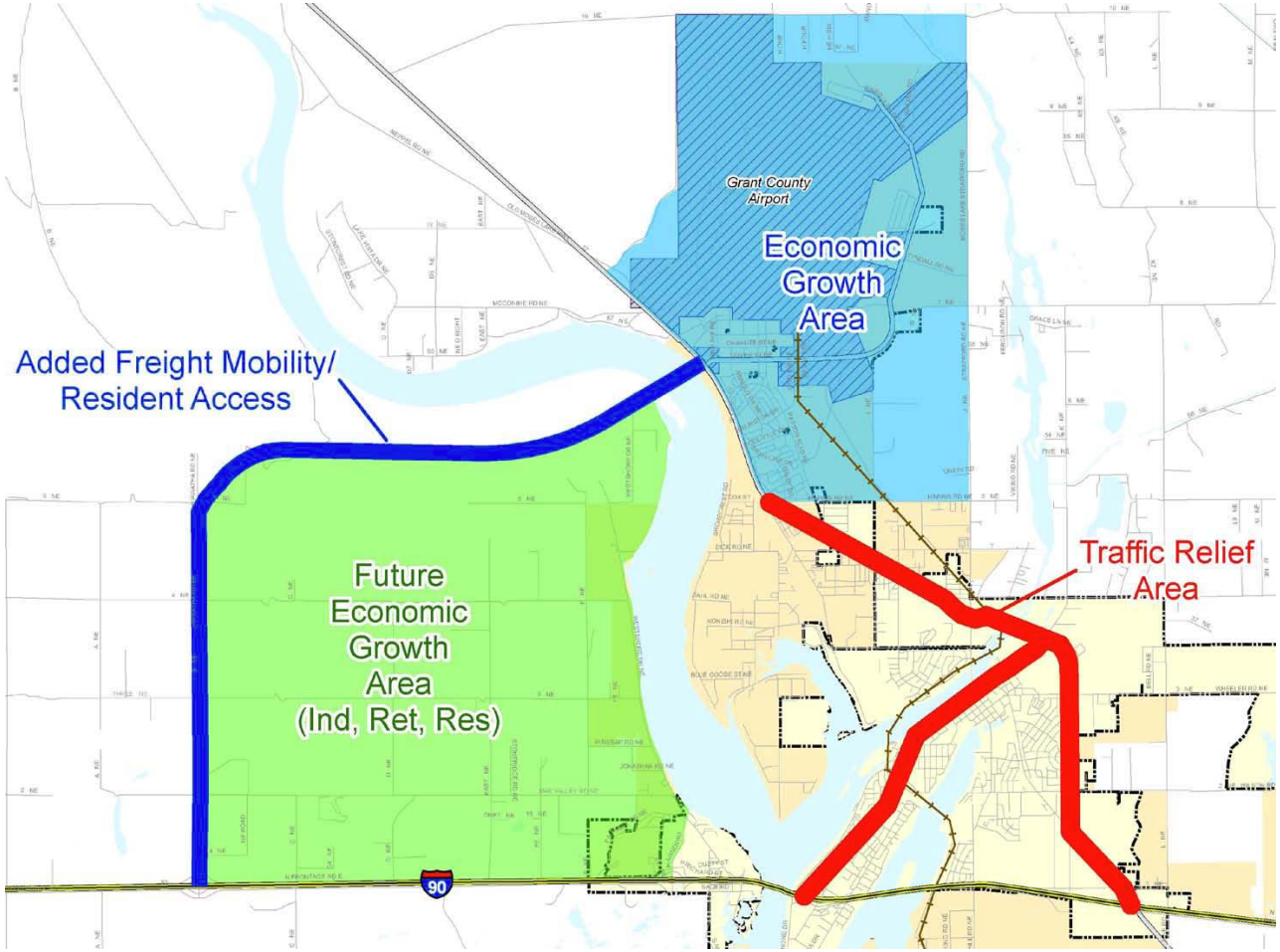
Moses Lake Crossing



"Quantifying" the need in the near term can be challenging.....

Aligning a project to a community vision and economic development program is critical

Moses Lake Crossing Feasibility Study



The purpose of the project was to evaluate alternatives to improve the movement of people and goods across Moses Lake between the northern area of the city and I-90 on the west side of the lake

Potential Bridge Crossing Benefits

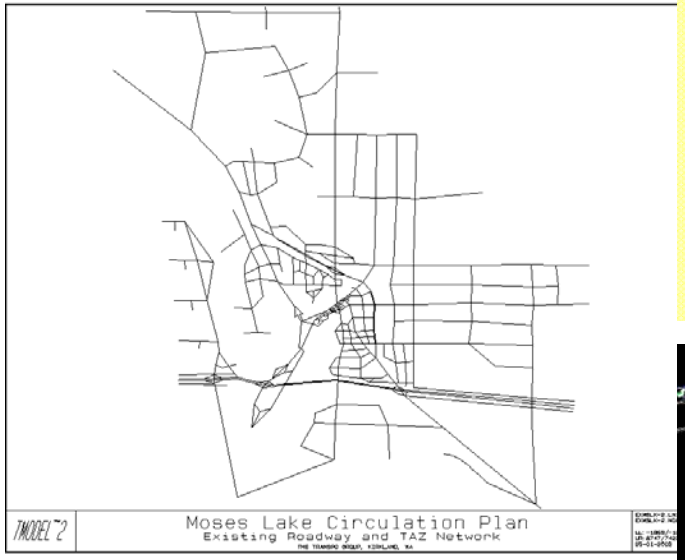
- Freight Mobility
- Port Access
- Access Redundancy/Security
- Enable Growth
- Emergency Access
- Corridor Preservation
- Resident/Commuter Access

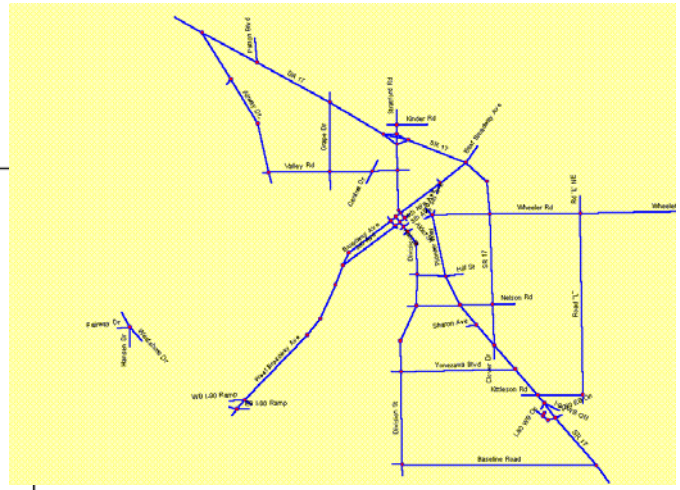
Improved connectivity would facilitate further economic development

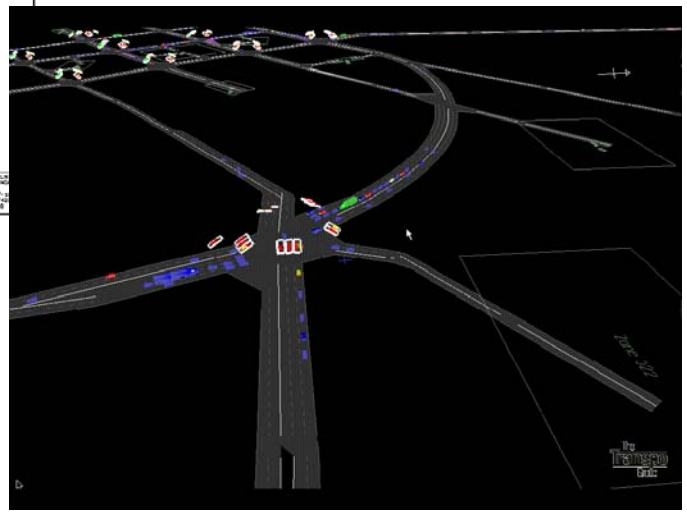
The bridge is forecast to carry approximately 11,500 ADT

Costs were estimated to be > $200M

2001 Moses Lake Circulation Plan



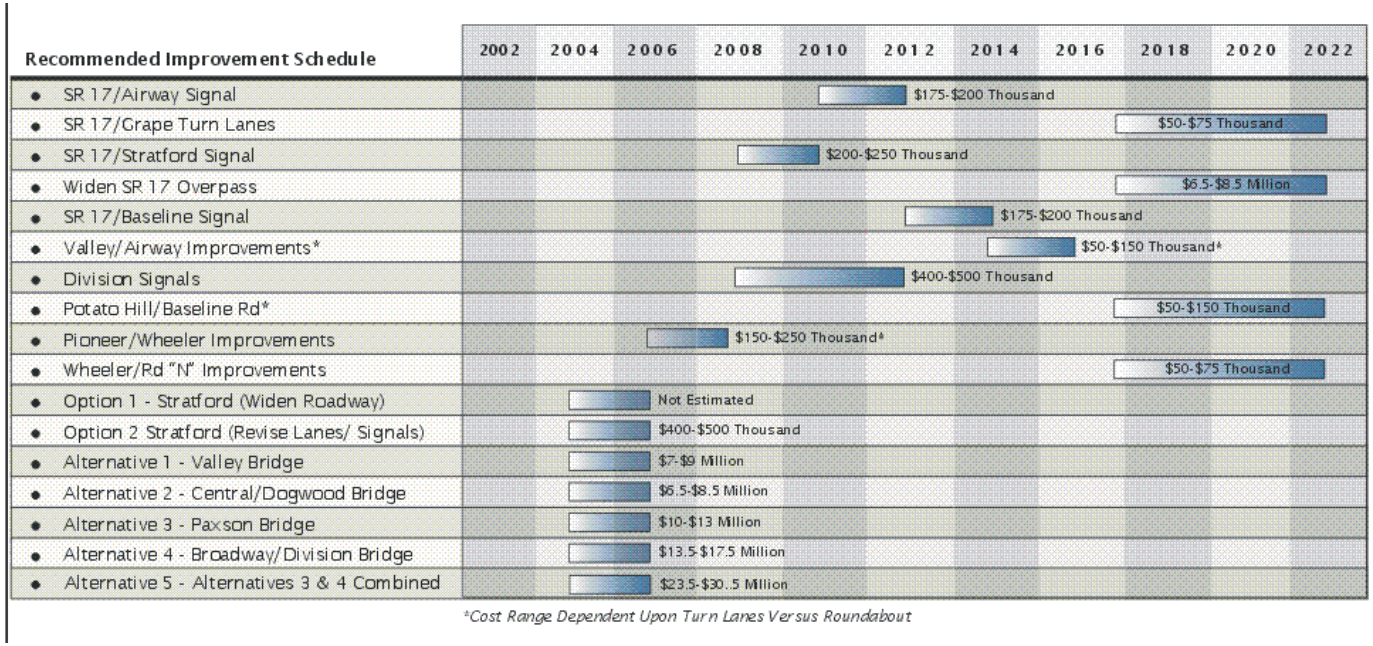




Recommended Project List

- **SR 17/Baseline Rd. Signal**
- **Widen SR 17 Overpass of I-90.**
- **SR 17 Ramp/Strafford Rd. Traffic Signal.**
- **SR 17/Grape Drive Turn Lane.**
- **SR 17/Airway Dr. Signal**
- **Pioneer Rd./Wheeler Rd modifications**
- **Division Street Traffic Signals**
- **Potato Hill Rd./Baseline Rd. Improvements**
- **Valley Rd./Airway Dr. Improvements**
- **Wheeler Rd./"N" Rd. Improvements**

Moses Lake Circulation Plan



What happened?

How?

Why?

Why Not?

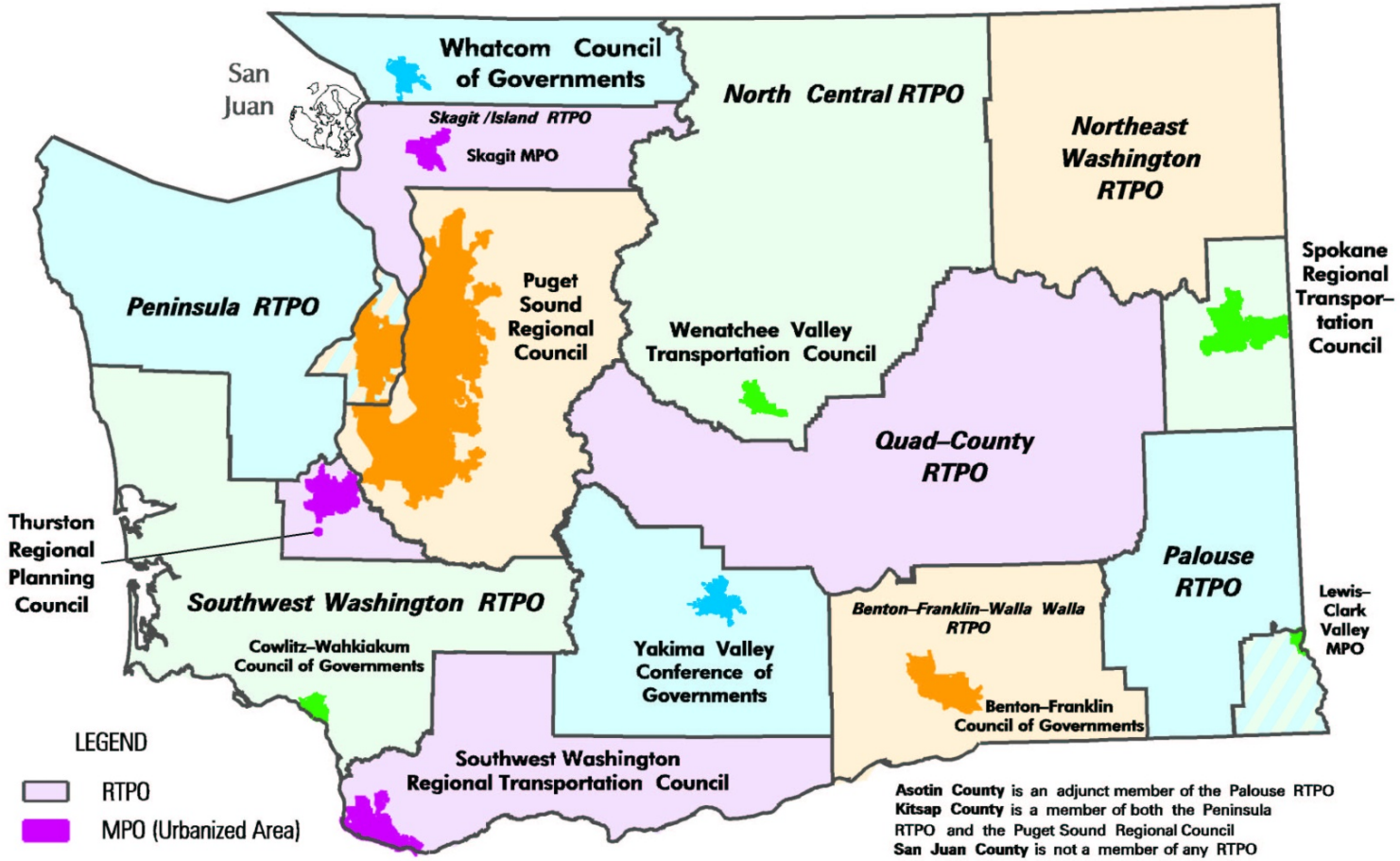
How do work together to move projects forward?

TRANSPORTATION PLANNING & ECONOMIC DEVELOPMENT

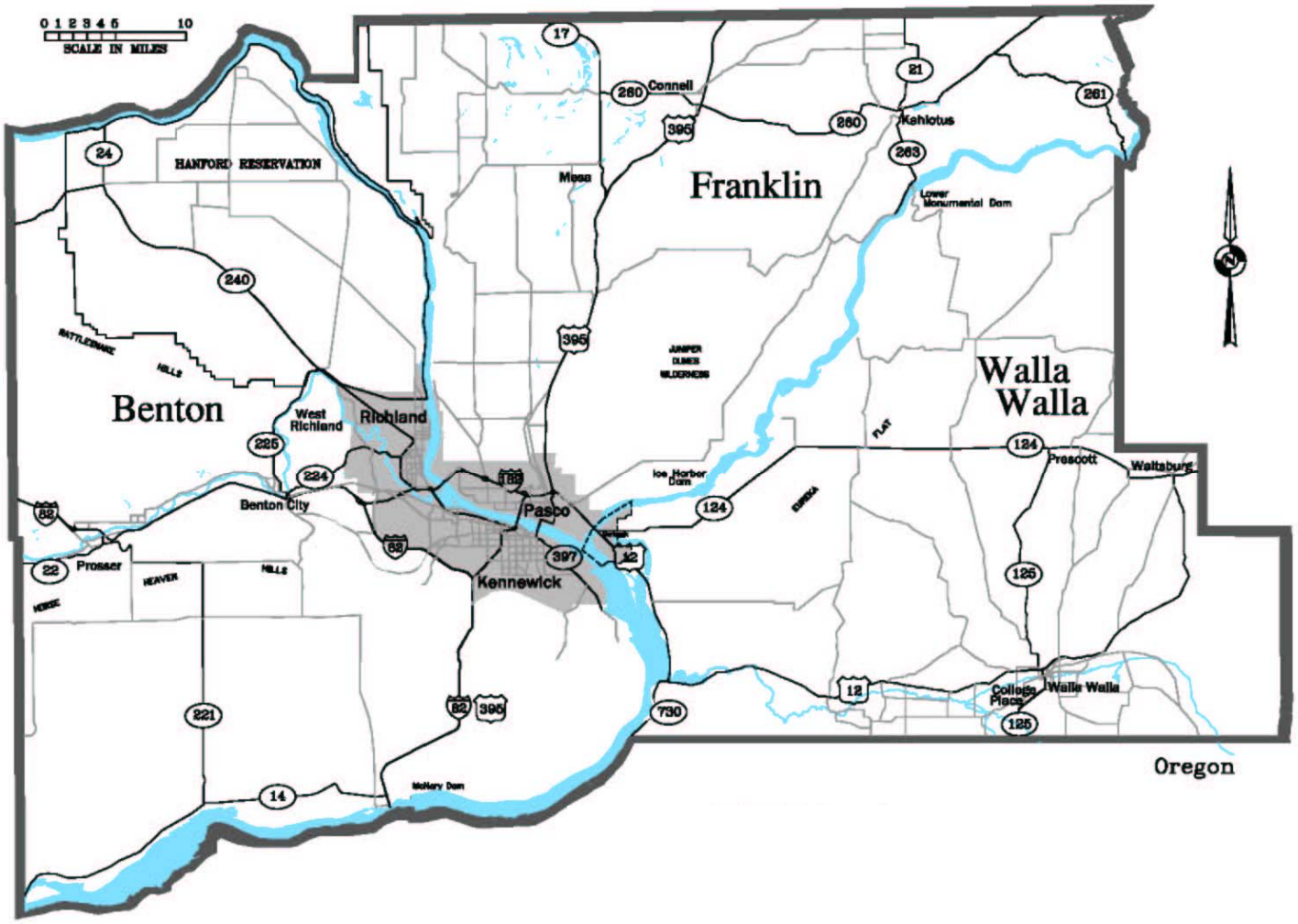
Presented by
Mark Kushner, Transportation Director
Benton-Franklin Council of Governments

TRANSCO SUMMIT
Big Bend Community College ATEC
June 8, 2011

Regional and Metropolitan Transportation Planning Organizations



BENTON-FRANKLIN-WALLA WALLA RTPO



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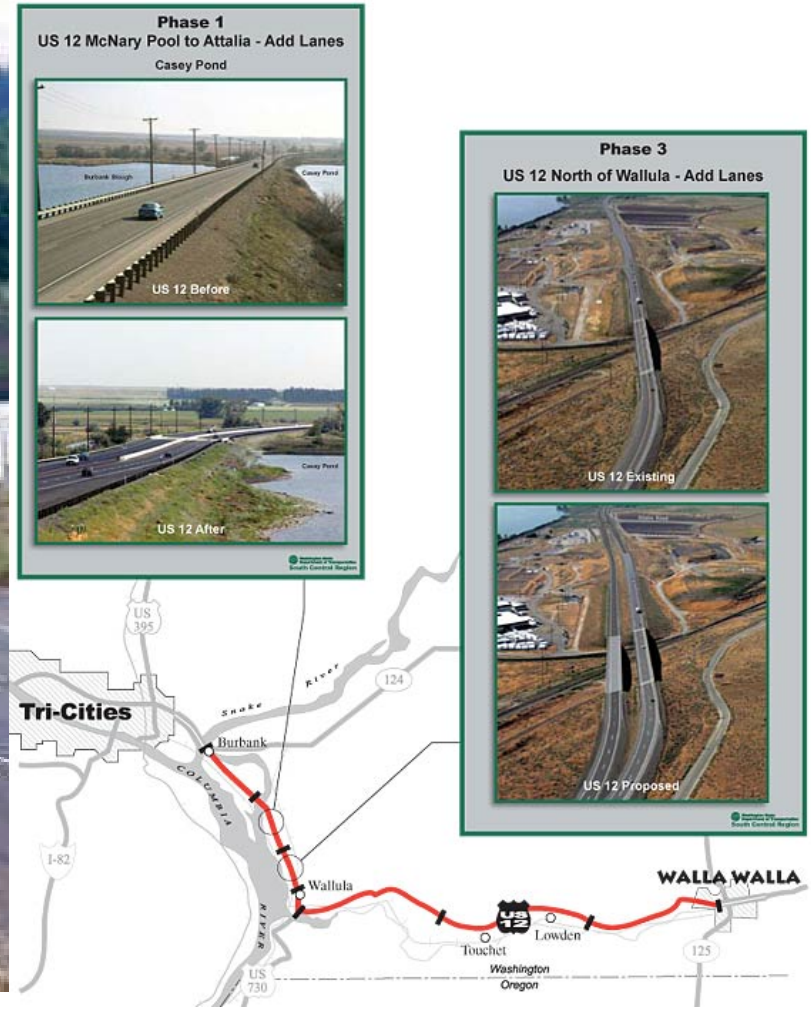
REGIONAL ECONOMICS

CONSIDERING BOTH
URBAN & RURAL

POWER OF PARTNERSHIPS

FOUR LANING OF US HIGHWAY 12



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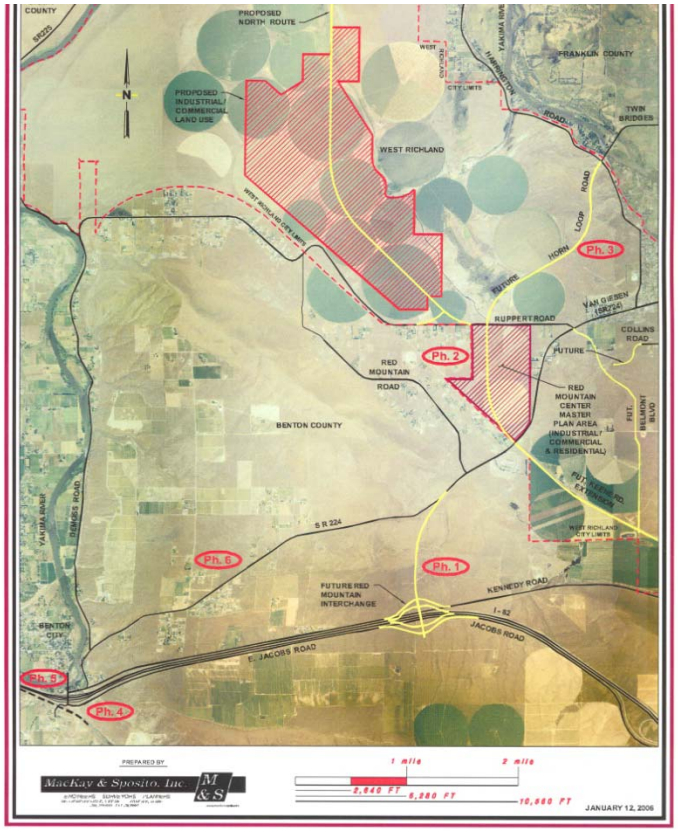

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Railex Project

Walla Walla County, Washington

"Streamlining Produce Distribution"

Railex Funding Partners

Railex, LLC	**Approximately $20,000,000**
Land Purchase	
Warehouse (200,000 square feet)	
Initial Rail Improvements	
Union Pacific Railroad	**Approximately $30,000,000**
110 Railcars	
Four Locomotives & Crew	
State of Washington	**$ 4,400,000**
CERB Grant (Road Improvements)	$ 200,000
Community Development Grant (Water System)	$ 700,000
Capital Budget (Site Infrastructure)	$1,000,000
Transportation Budget (Rail Infrastructure)	$2,500,000

Railex Funding Partners

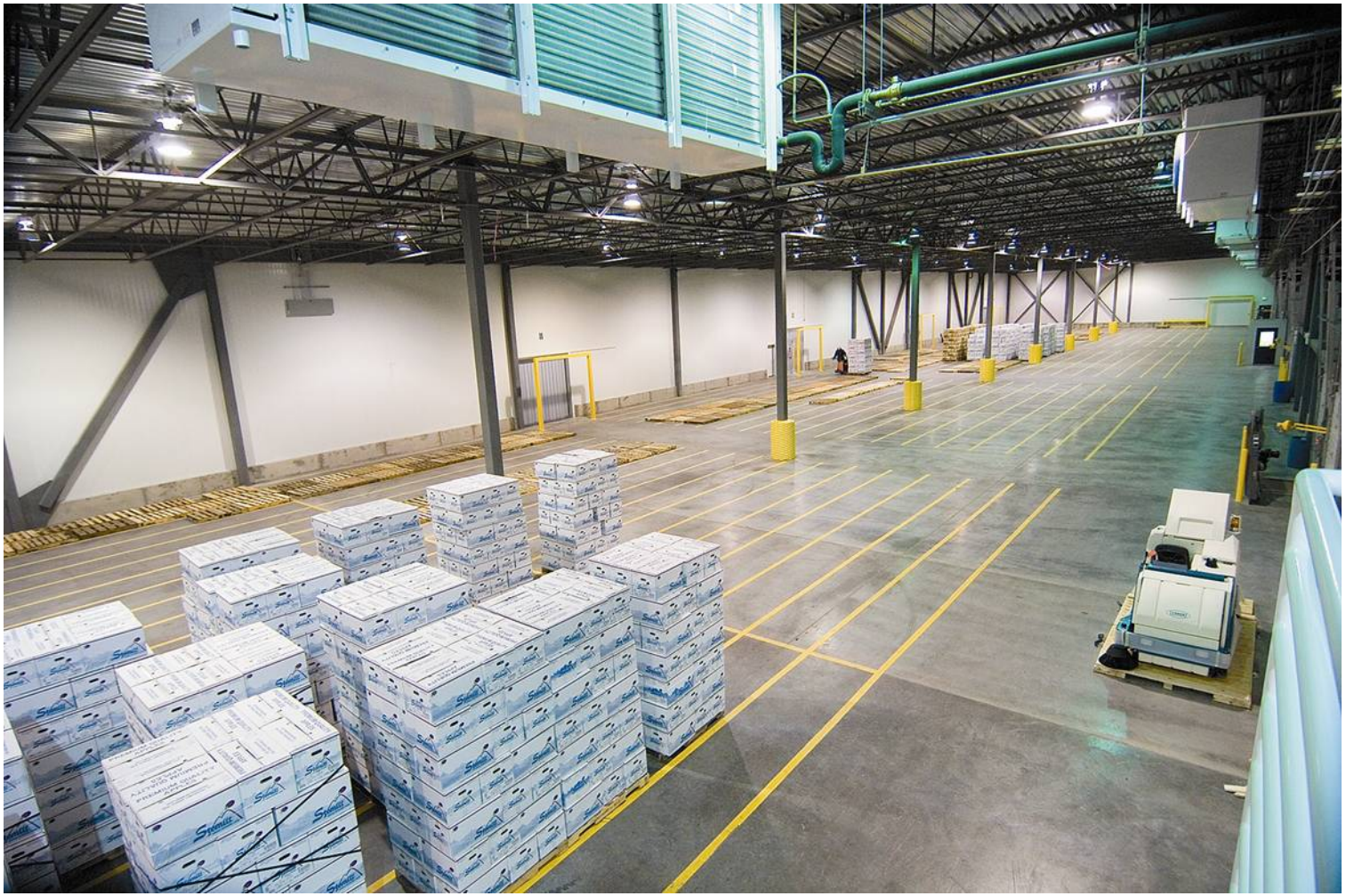
Port of Walla Walla		**$1,701,301**
Capital Fund (Site Infrastructure)	$901,301	
CERB Loan (Road Infrastructure)	$800,000	
Federal Government		**$1,500,000**
Transportation Appropriation (Rail Infrastructure)		
Walla Walla County		**$ 400,000**
.08% Economic Development Sales Tax Grant		

Total Investments $58,001,301

RAILEX SHIPPING VOLUMES

1 Unit Train = 55 Railcars = 200+ trucks per week loading produce into Wallula warehouse

Building dimensions are 1,500 feet long by 140 feet wide.

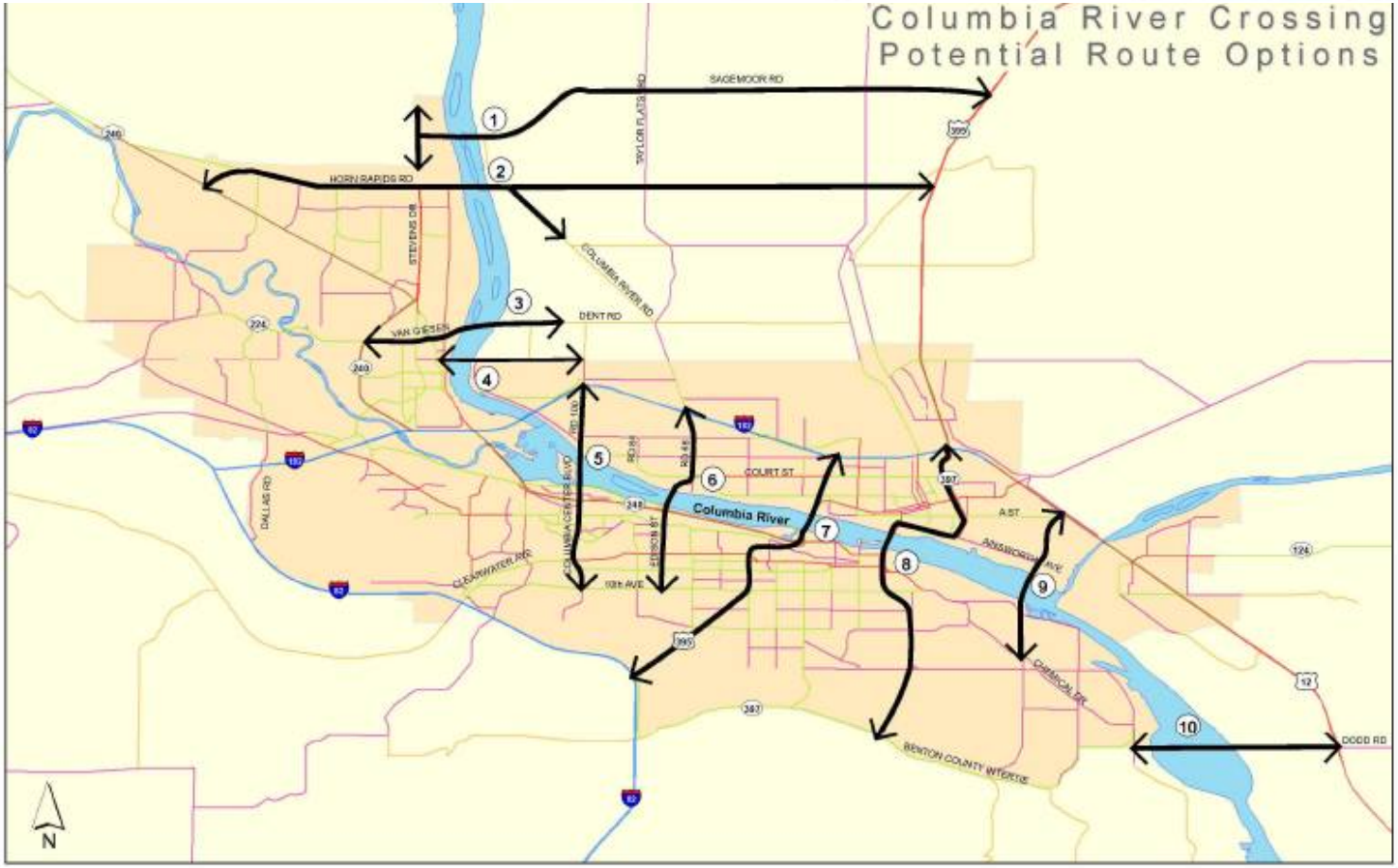


RAILEX SHIPPING VOLUMES

1 Unit Train = 55 Railcars = 8 million pounds of produce per week shipped to East Coast.

RAILEX SHIPPING VOLUMES

1 Unit Train = 55 Railcars x 52 weeks = 416 million pounds of produce per year shipped to the East Coast.



Benton-Franklin Council of Governments

VOTING MEMBERS	JURISDICTION
Bob Olson	City of Kennewick
Bob Hoffman	City of Pasco
Dave Rose	City of Richland
Jim Beaver	Benton County
Bob Koch	Franklin County
Bob Larson	Port of Benton
Skip Novakovich	Port of Kennewick
Bill Clark	Port of Pasco
Michael Fredrickson	Port of Walla Walla
NON VOTING MEMBERS	**AFFLIATION**
Carl Adrian	TRIDEC
Don Whitehouse	WSDOT
Kathy McMullen	Ben Franklin Transit
Lori Sanders	BFCG Board
Jay Marlow	ASCE

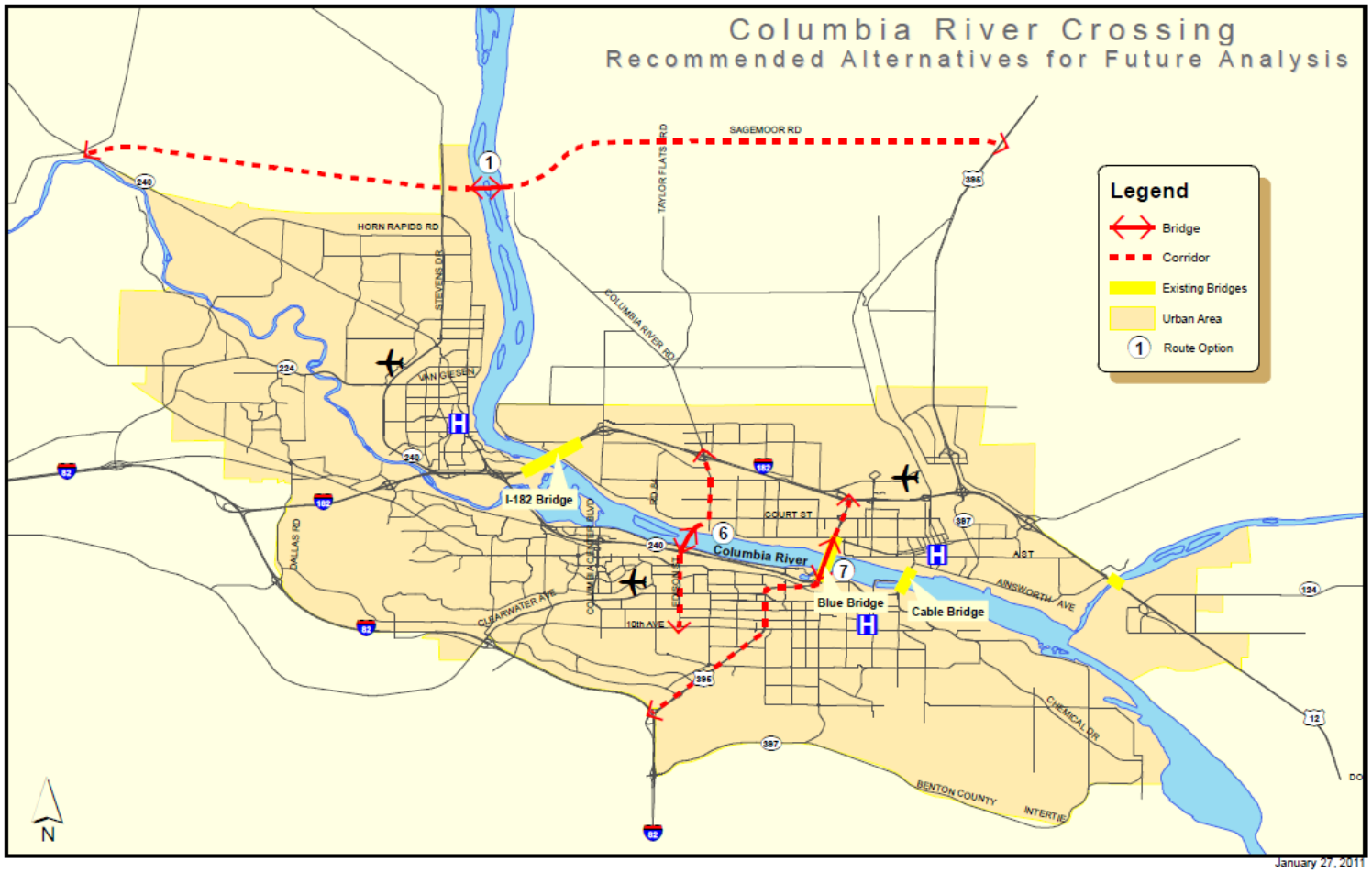
Steering Committee Members

Came to Agreement on:

- ✓ **Request for Proposal**
- ✓ **Scope of Work**
- ✓ **Consultant Selection**
- ✓ **6 river crossing options +4**
- ✓ **10 river crossing options; reduced to 5, then prioritized.**

- Press Releases
- Project Website with Twitter
- 2 Web Based surveys – more than 1,750 responses
- Presence at Benton Franklin County Fair
- Public Meeting held at Chiawana High School Auditorium

Benton-Franklin Council of Governments



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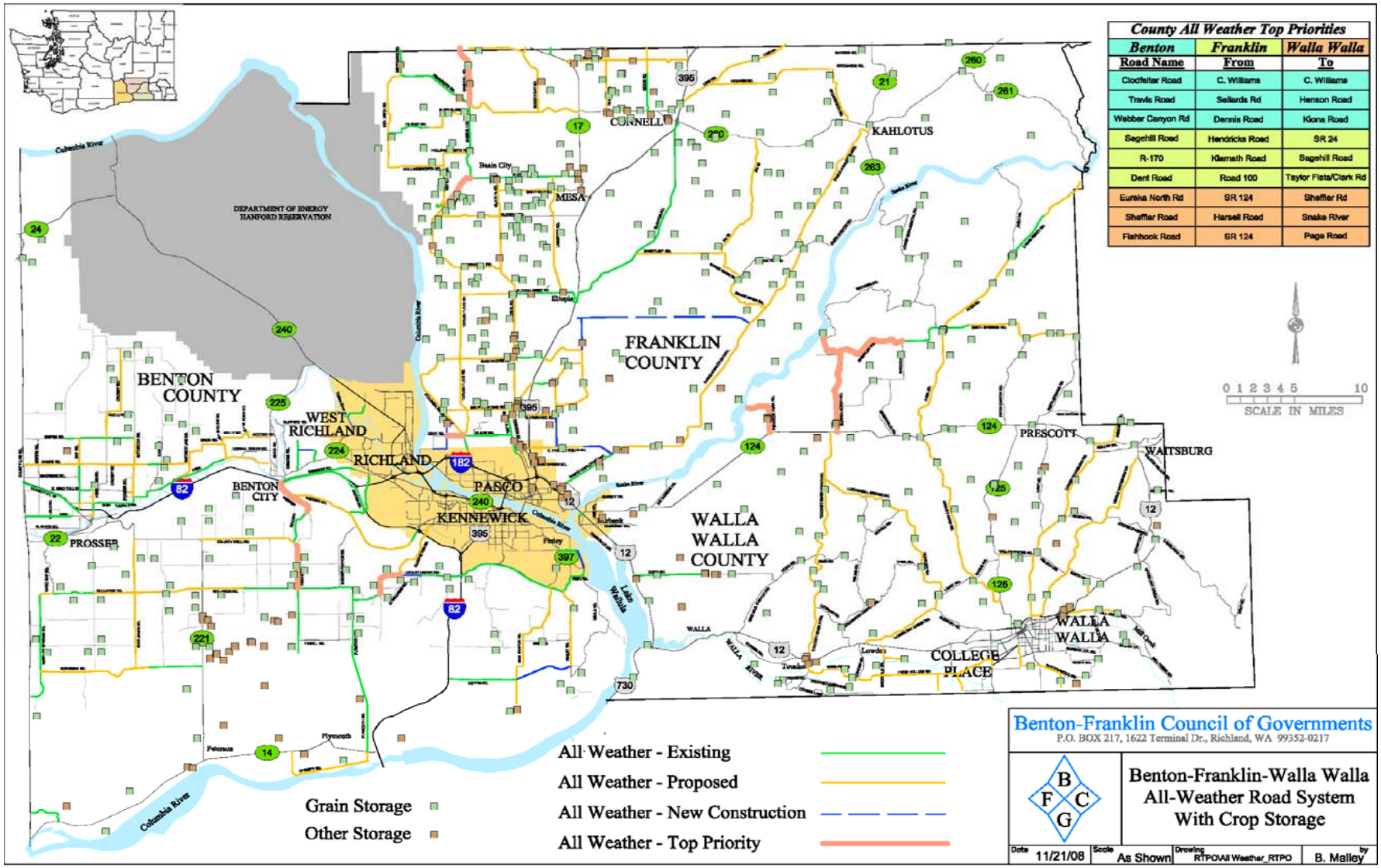
WALLA WALLA/COLLEGE PLACE TRAFFIC CIRCULATION STUDY

- 2004 BFCG completed study using computerized traffic model
- Defined 10 - 15 – 20 year traffic volumes
- Provided 10 and 20 year “build” and “no-build” scenarios
- Recognized extension of Myra Road as alternate to relieve corridor congestion

ALL WEATHER ROADS



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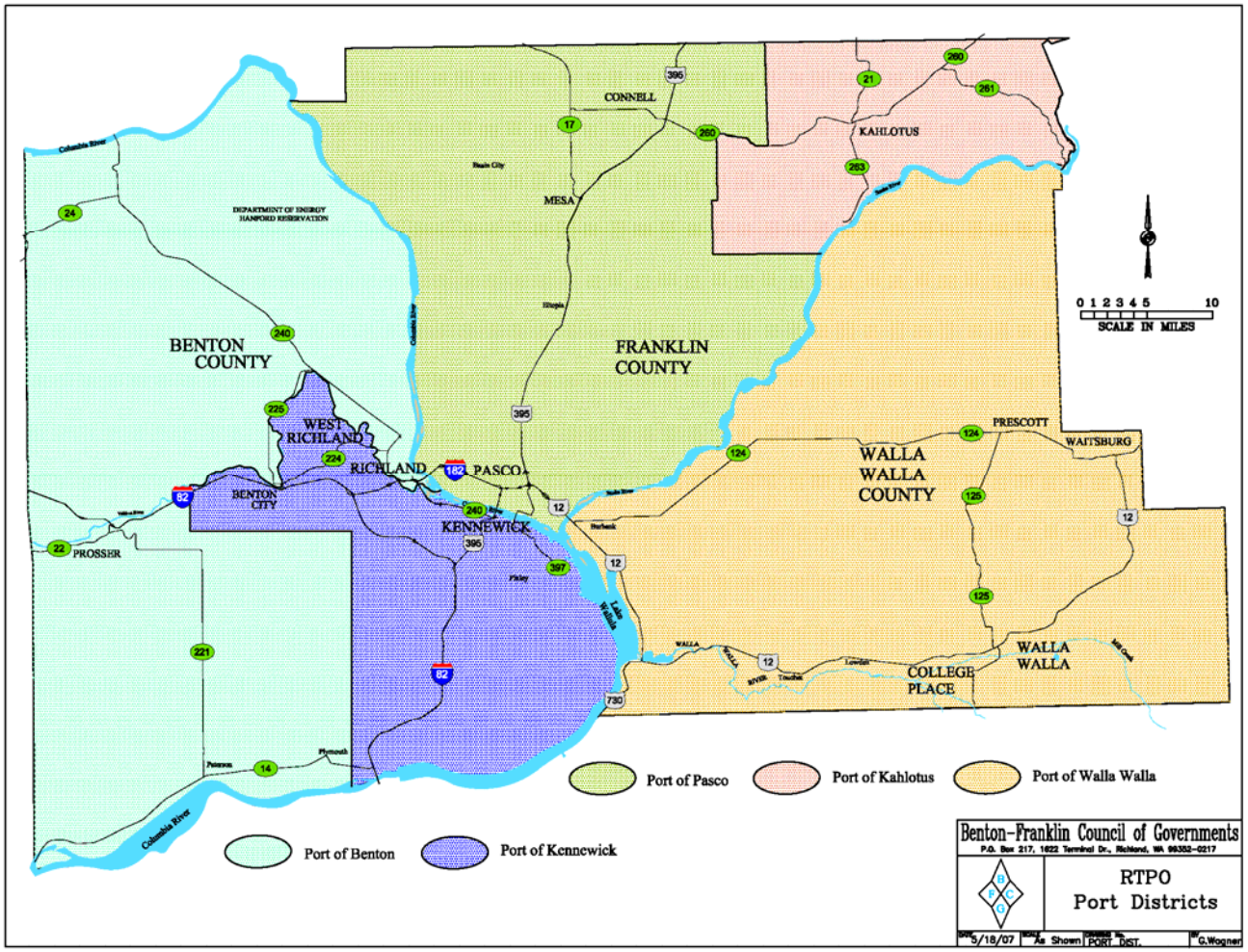
PORT DISTRICTS

DIVERSE & MULTI-MODAL



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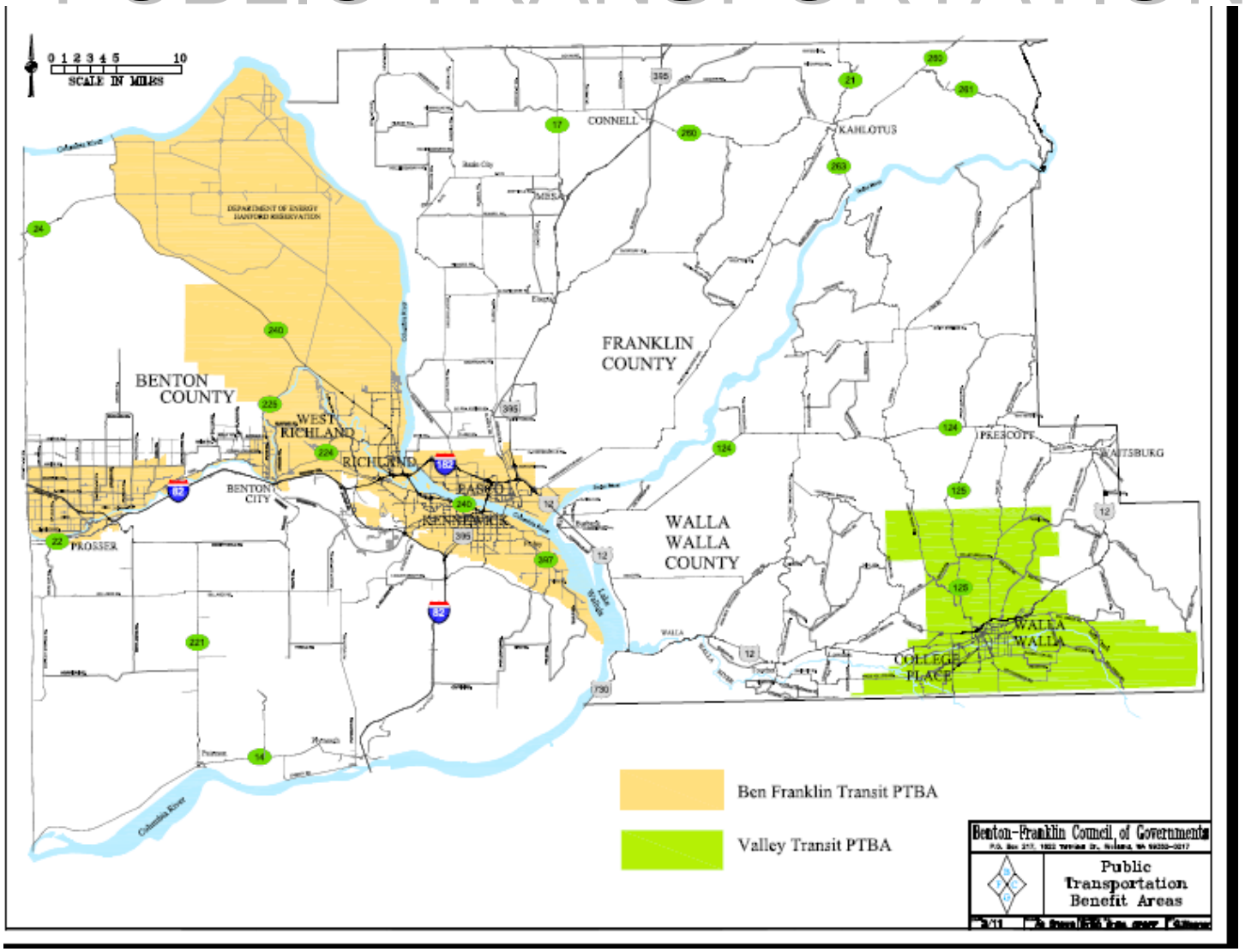
PUBLIC TRANSPORTATION



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LEGISLATIVE EVENTS

INFORMATIONAL FORUM FOR REGIONAL LEGISLATORS

- Legislative Breakfast
- Transportation Committee Tour

HOW THINGS GET DONE

PROCESS

Policy Committees
Technical Committees
Public Involvement

REGIONAL TRANSPORTATION PLAN

Background
System Overview
Goals and Policies
System Deficiencies; LOS; Travel Model
Financial Overview
Projects in RTPO

PRODUCTS

Regional Transportation Improvement Program
Statewide Transportation Improvement Program
Regional Bike/Ped Plan
Regional Freight Rail Report
Socio-Economic Report
Transportation Trends Report

STRUCTURED SUPPORT

RTP GOALS & POLICIES

- Funding Application Criteria
- Project Prioritization Criteria

COMMITTEES

- Public and Private Representation