



Developing Bicycle Performance Measures for Integrated Multi-Modal Corridor Management

December 13, 2010

Agenda

- Introduction
- Best Practices
- Group Discussion
- Next Steps and Conclusion





Introduction

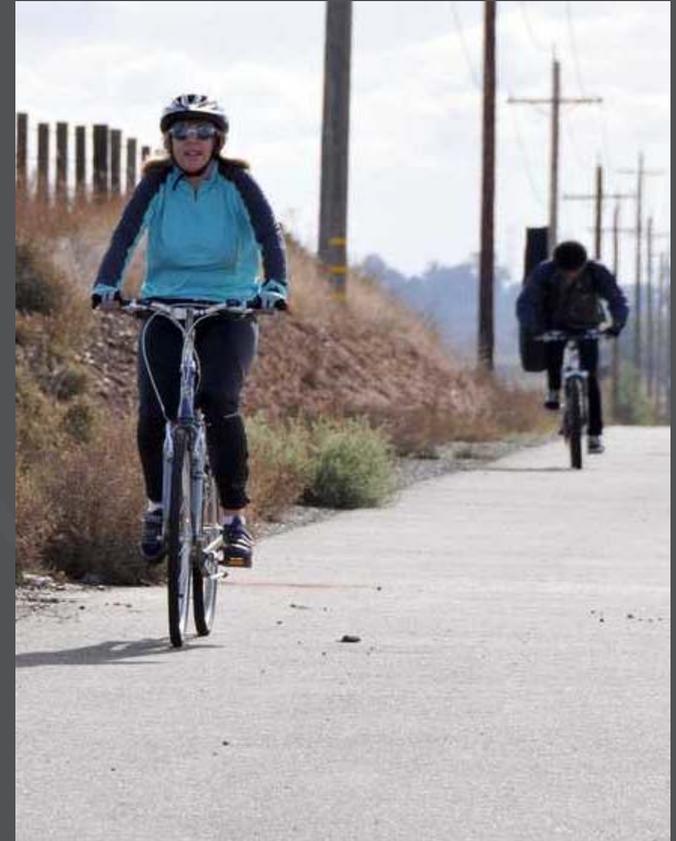
Existing Conditions

- Congestion/delay on high demand travel corridor
- Limited funding and capacity options



Overall Purpose

- Integrated Multi-Modal Corridor Management
 - Brings together:
 - Facility operations
 - Transportation services
 - Capital projects



Project Overview



What is Integrated Multi-Modal Corridor Management?

- Integrates daily system operations with:
 - Management strategies for all modes and across jurisdictions
- Improves the safety and mobility of people and goods along these corridors

First Generation of CSMPs

- Completed in 2009
- Primarily measured the performance of vehicular travel on the State Highway System
 - Lack of performance data for the non-SHS transportation modes
 - Today - committed to improving corridor mobility for all modes

What is the purpose of a Performance Measures?



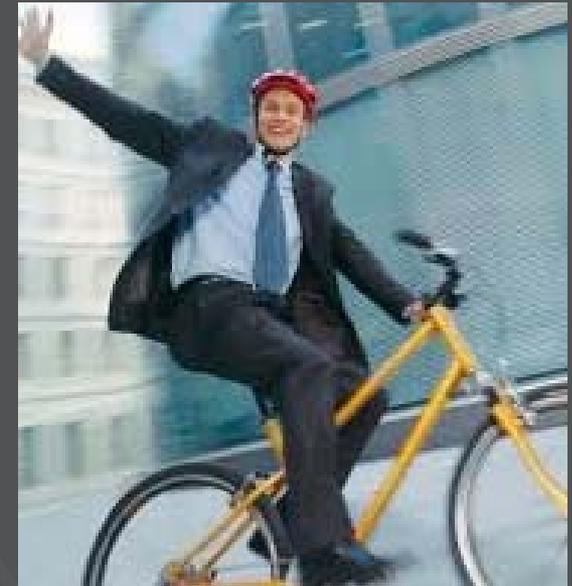
To monitor and bring together facility operations and transportation services on high demand travel corridors for coordinated integrated multi-modal corridor management.

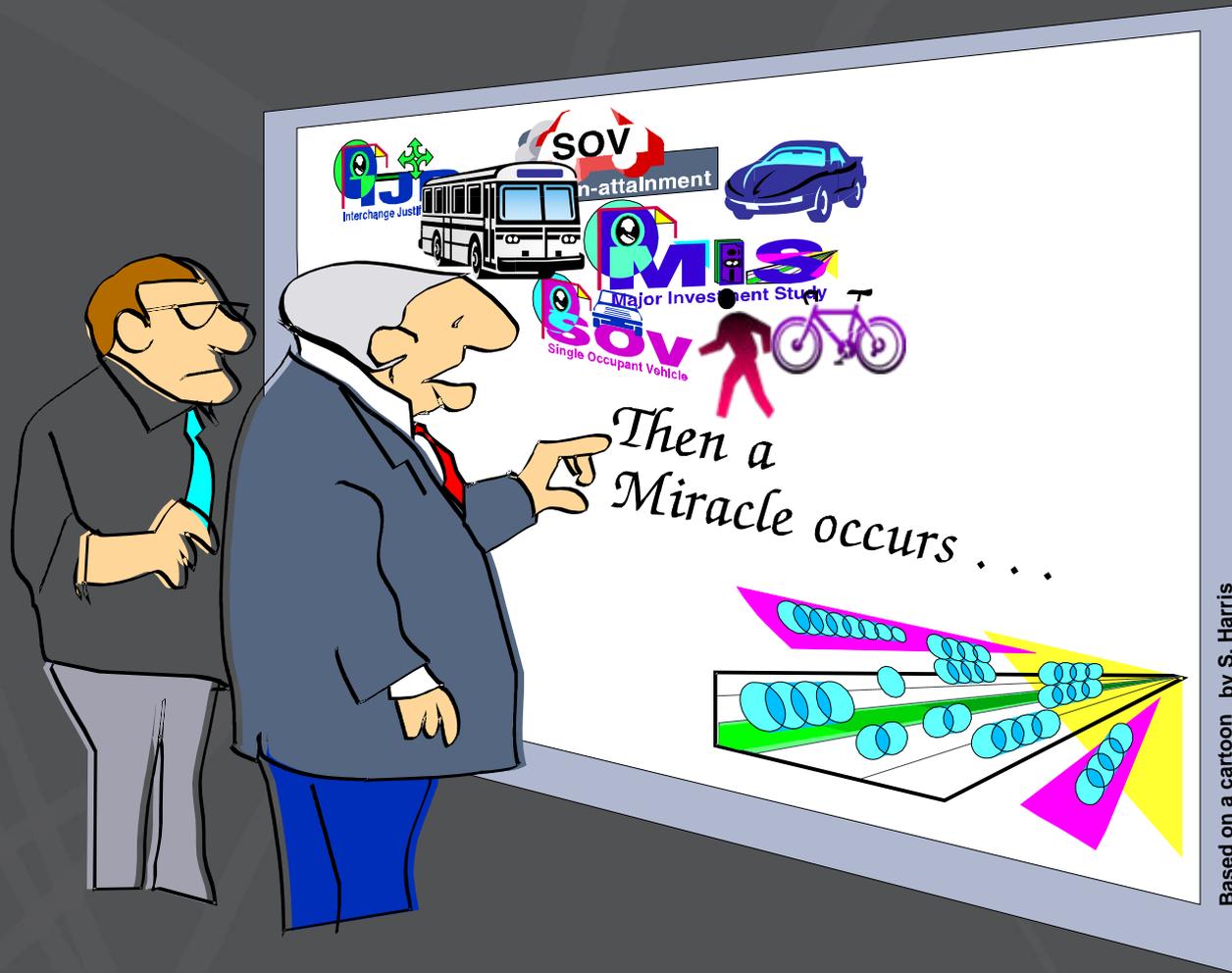


How are Performance Measures Used?



- To identify system gaps
- To identify low-cost project opportunities
- To identify project coordination opportunities
- To identify funding partnership opportunities





Based on a cartoon by S. Harris

"I think you should be more explicit here in Step Two"

District 3

- Need for integrated multi-modal corridor management along high demand travel corridors.
- Develop Transit/Bike PMs
- Include with other system PMs for integrated multi-modal corridor management

Why Use Performance Measures in District 3?



- To monitor high demand travel corridors for system gaps
- To identify low-cost mobility opportunities
- To identify efficient and effective system operational strategies and capital improvements
- To assist in identifying and coordinating partnership funding opportunities.



Project Timeline

Project Initiation	September 2010
Research Best Practices	October 2010
Stakeholder Interviews	November 2010
Working Group Sessions	December 2010
Draft Performance Measures	December 2010
Review, Distribute and Receive Comments on Performance Measures	January 2011
Finalize Performance Measures	February 2011

Workshop Objective

- Identify on 1-2 bicycle performance measures
- Determine data and reporting needs for performance measures





Best Practices

Best Practices – Guiding Principles

- Link to organizational goals
- Clear, reliable and credible
- Variety of measures
- Reasonable number and level of detail
- Flexible
- Realistic

Best Practices and Key Themes

- From discussions with RTPAs and Bicycle and Pedestrian Advisory Committee
 - Safety
 - Connectivity
 - Facilities At Regulation
 - System Completion



Best Practices – Case Studies

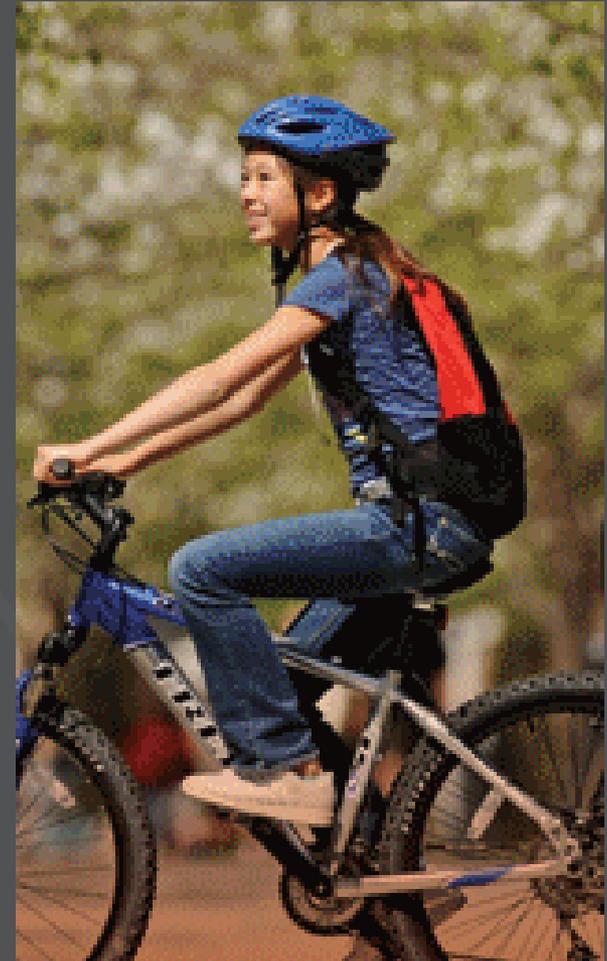
- Alameda County Congestion Management Authority
- City of Seattle
- Vermont Agency of Transportation
- Nationwide Bicycle Performance Measure Survey



Alameda County Congestion Management Authority



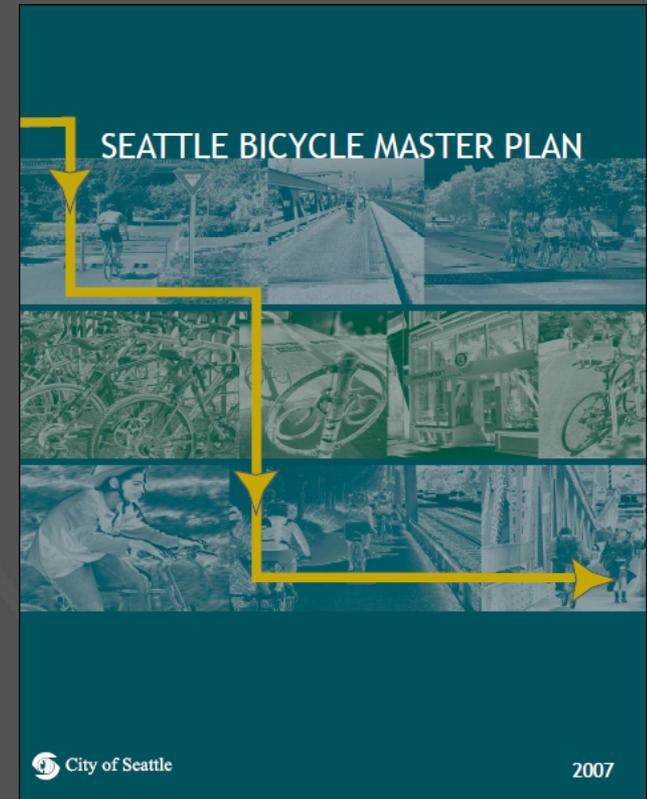
- System Completion
 - Completion of County-wide Bike Plan
 - Required data: Miles and percent completion of Bikeway Plan.*
- Safety
 - Roadway Accidents
 - Required data: Number of accidents/number of miles from Switter/TASIS System*



City of Seattle's Bicycle Master Plan



- Safety
 - Number of reported bicycle crashes per number of bicycles counted and annual traffic volumes
- Connectivity
 - Number of bicycle spot improvements completed
- System Completion
 - Percentage of Bicycle Facility Network completed



Vermont Agency of Transportation



- Safety
 - Reported motor vehicle crashes involving bicyclists
- System Completion
 - Miles of bicycles facilities developed

Vermont Agency of Transportation

Vermont Pedestrian and Bicycle Policy Plan

Submitted by:
WILBUR SMITH ASSOCIATES

in association with
Toole Design Group

January 17, 2008

Nationwide Survey of Bicycle Performance Measures



- Safety
 - Reported motor vehicle crashes involving bicyclists
 - Number of serious injury or fatal pedestrian or bicycle crashes within an area
 - Percentage of all crashes that involve bicyclists
- Facility Specifications
 - Miles of roadway with paved shoulders



Group Discussion

Group Discussion

- Safety
- Connectivity
- Facility Specifications
- System Completion



Safety



Potential Performance Measure:

- Reported motor vehicle crashes involving bicyclists.
 - How could we measure safety for bicyclists in the corridor?
 - How does this relate to inter-modal corridor mobility?

Connectivity

Potential Performance Measure:

- Percentage of connected intersections and roadway sections for bicyclists.
 - How could we measure connectivity for bicyclists in the corridor?
 - How does this relate to inter-modal corridor mobility?

Facility Specifications

Potential Performance Measure:

- Percentage of corridor miles with shoulders at regulation and available for bicyclists.
 - How could we measure system completion for bicyclists in the corridor?
 - How does this relate to inter-modal corridor mobility?

System Completion

Potential Performance Measure:

- Percentage of City and County Bicycle Plan projects completed.
 - How could we measure system completion for bicyclists in the corridor?
 - How does this relate to inter-modal corridor mobility?

Other themes?

- Additional themes and performance measures?
 - How could we measure system completion for bicyclists in the corridor?
 - How does this relate to inter-modal corridor mobility?



Next Steps and Conclusion

Next Steps

- Transit Performance Measure Workshop
December 17, 2010
- Prepare Review Draft Bicycle and Transit Performance Measures
- Solicit input and comments
- Finalize Bicycle and Transit Performance Measures

Thank you for your participation!



- For additional information and feedback:
 - Kelly Eagan
Corridor Planning Manager
US 50, SR 99, South I-5
Caltrans District 3
Planning & Local Assistance
Office: (530) 741-5452



Developing Bicycle Performance Measures for Integrated Multi-Modal Corridor Management

December 13, 2010