



Mobility Challenges and Proposed Evaluation Process

October, 2005



Discussion Topics

- Extent of Mobility Needs
- Improvement Evaluation Process
 - Definition of “Travel Sheds” as an Analysis Tool
 - Proposed Pilot Travel Shed Study

Mobility Challenges

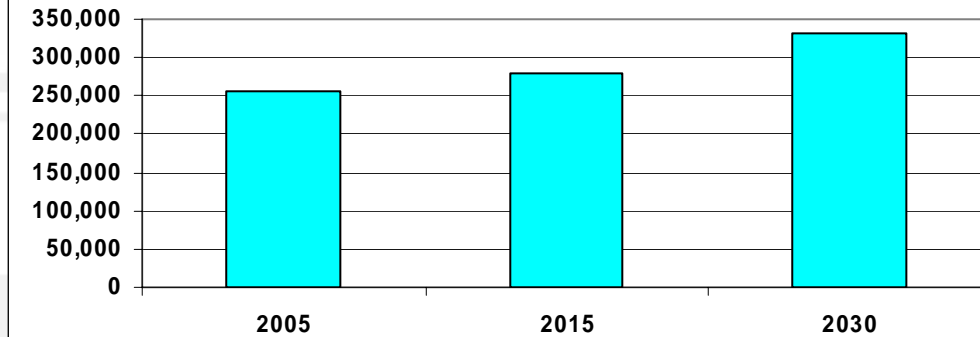


Denver Growth Patterns

- Households and employment are expected to grow in Denver
- 2005 is the base year for the STP
- The STP is evaluating 2015 and 2030 conditions

Growth Projections

Households (Denver)

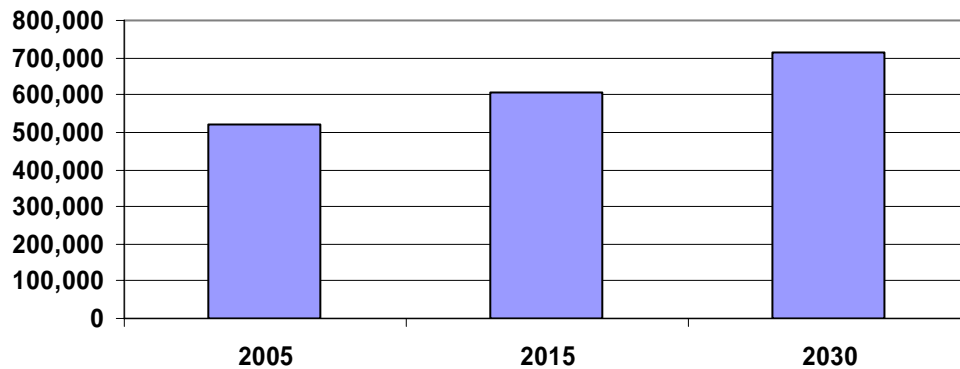


Households - Projected Growth:

2005 to 2015 = 9.9% increase

2015 to 2030 = 18.1% increase

Employment (Denver)

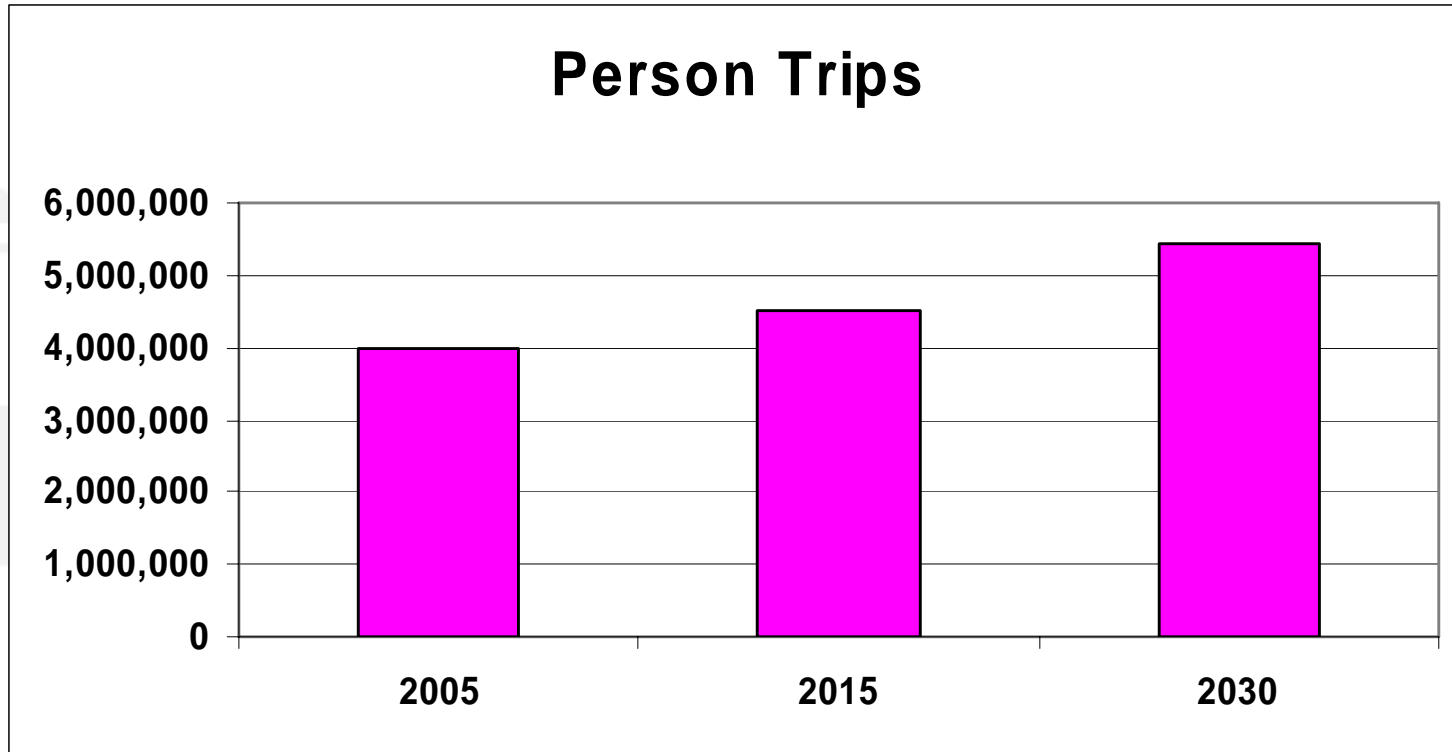


Employment - Projected Growth:

2005 to 2015 = 16.3% increase

2015 to 2030 = 17.4% increase

Travel Demand



Person Trips - Projected Change:

2005 to 2015 = 13.6% increase

2015 to 2030 = 19.8% increase

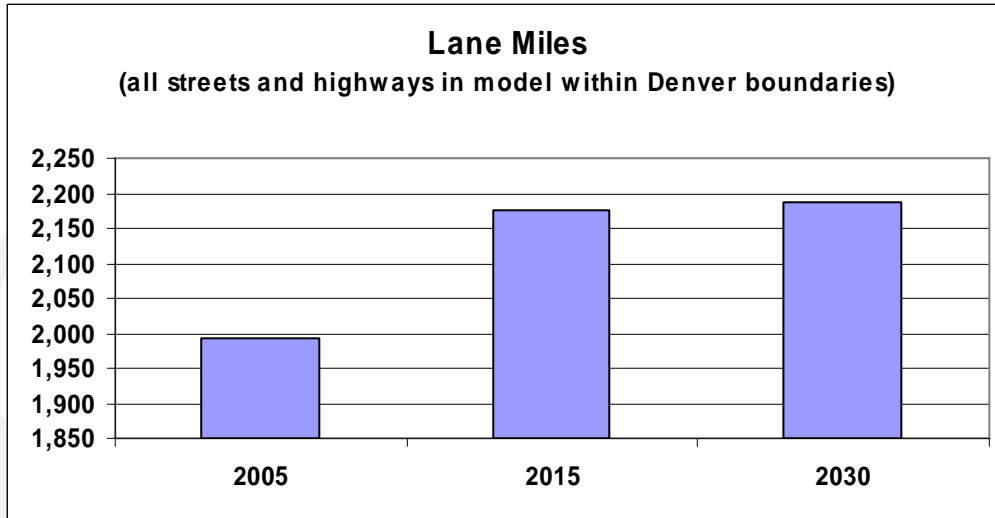
Meeting Transportation Demand

- Denver's transportation network serves these trips
- Major components include
 - Roadway network
 - Transit network (bus and light rail)
 - Bicycle network
 - Pedestrian network
- Roadway and transit networks are analyzed in the STP travel demand model

System Summary (STP Model)

Elements of Travel Demand Model	Summary Statistics				
	2005	2015	% Change (2005 to 2015)	2030	% Change (2015 to 2030)
Person Trips	3,982,000	4,525,000	13.6%	5,422,000	19.8%
Lane Miles (all streets and highways in model within Denver boundaries)	1,993	2,175	9.1%	2,188	0.6%
Peak Period Bus Vehicle Hours (all routes that serve areas within Denver boundaries)	2,670	3,136	17.5%	3,693	17.8%
Peak Period Rail Vehicle Hours (all routes that serve areas within Denver boundaries)	228	1,355	494.3%	1,428	5.4%

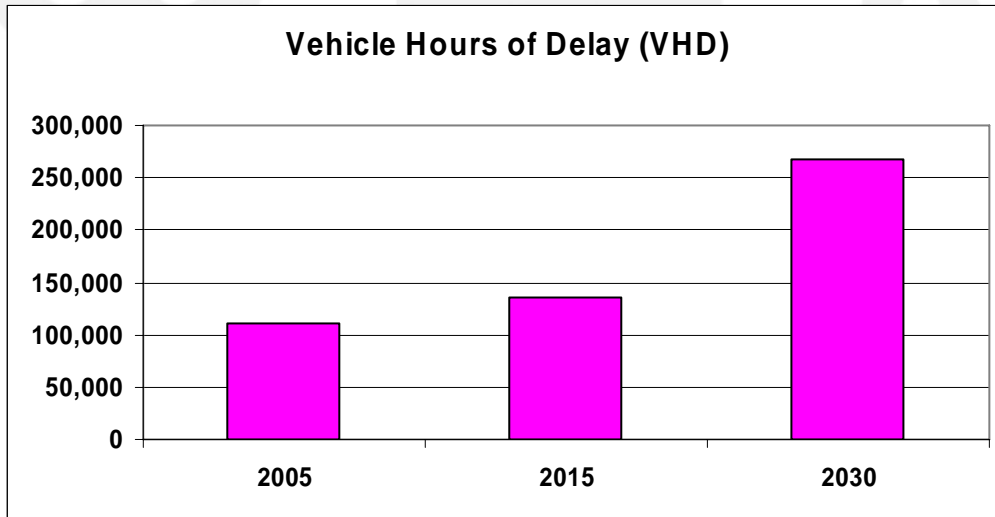
Increase in Congestion



Lane Miles - Projected Change:

2005 to 2015 = 9.1% increase

2015 to 2030 = 0.6% increase



VHD - Projected Change:

2005 to 2015 = 22.9% increase

2015 to 2030 = 97.0% increase

Transportation Challenges

- Committed improvements through 2015 will maintain mobility levels in Denver with moderate congestion increases
- Currently planned improvements (DRCOG 2030 Regional Transportation Plan) for 2015 to 2030 do not meet projected mobility needs

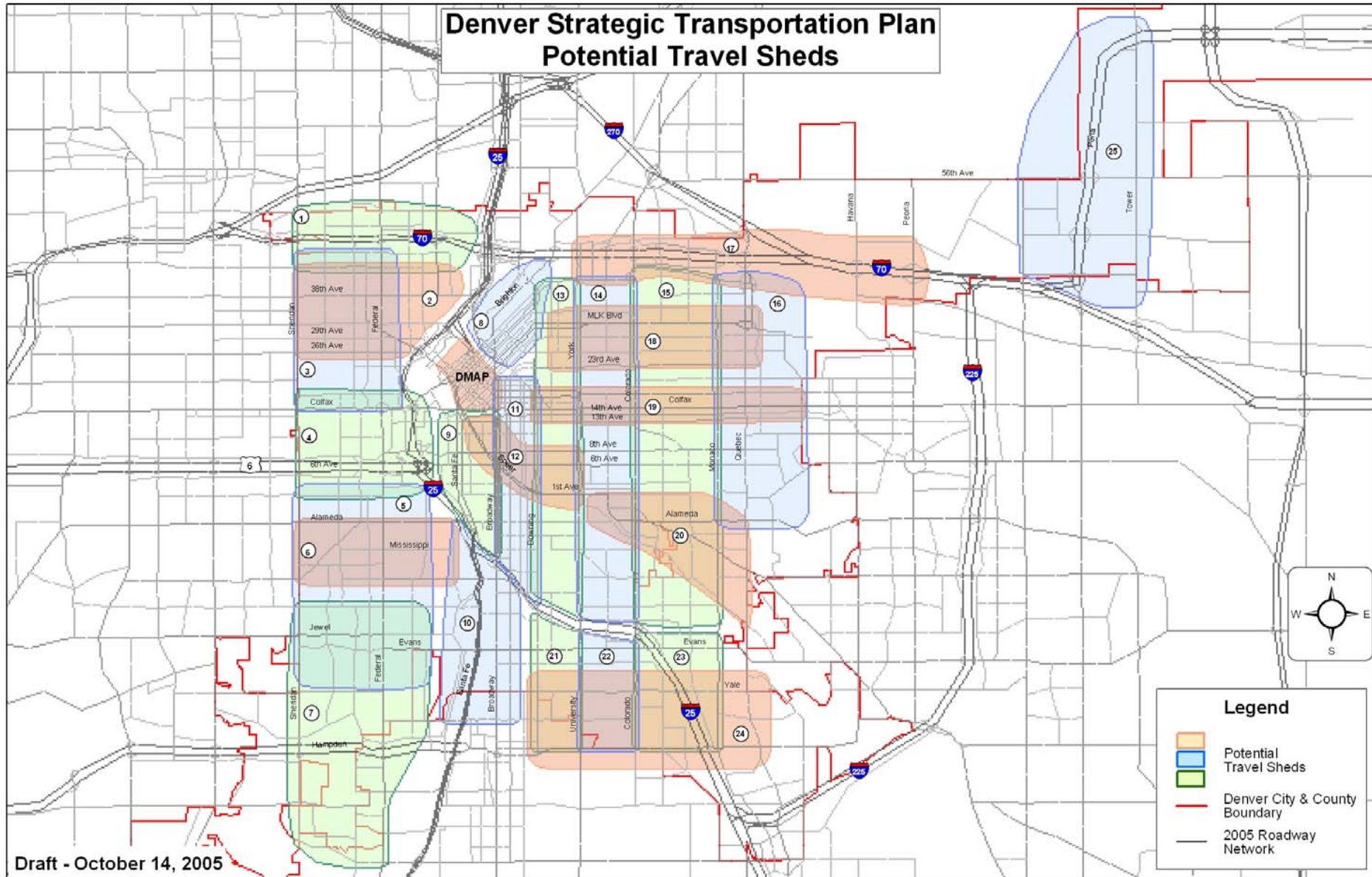
Defining Travel Sheds



Mobility Issues Vary by Location

- Areas were defined throughout Denver that are called “Travel Sheds”
- Travel sheds will be used as an analysis tool
- Boundaries were based on:
 - similar origin-destination patterns
 - characterization of travel patterns
 - geographic features

Denver Strategic Transportation Plan Potential Travel Sheds



Draft - October 14, 2005

Pilot Sheds

- Three pilot sheds have been identified
- Remaining 22 travel sheds will be evaluated based on results of pilot analyses

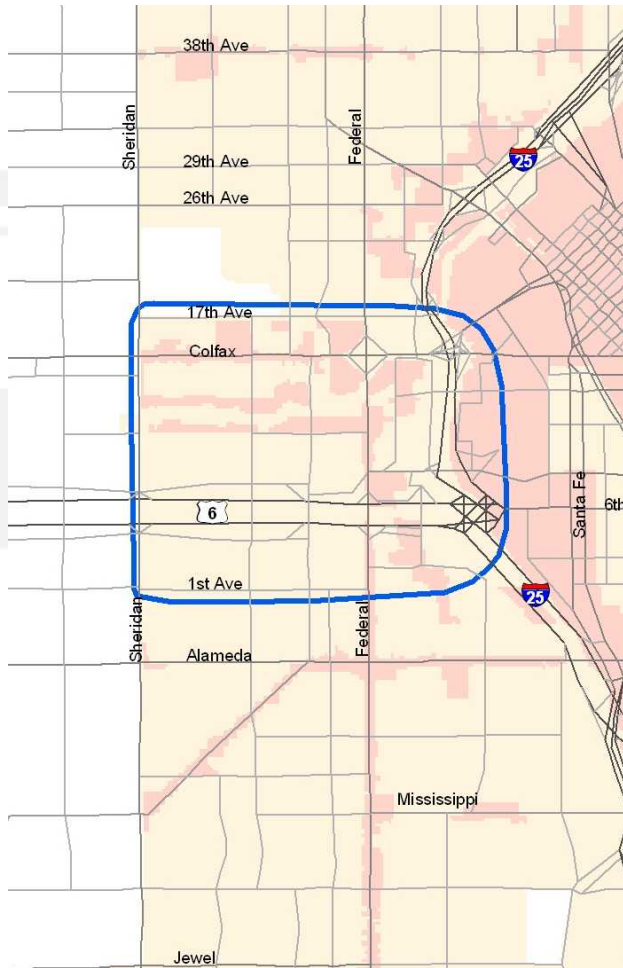
Pilot Travel Shed Study

- Selected three travel sheds as pilots
- Test the following elements:
 - Overall Process
 - Definition of travel sheds
 - Problem identification
 - Evaluating potential improvement strategies

Pilot Shed Selection

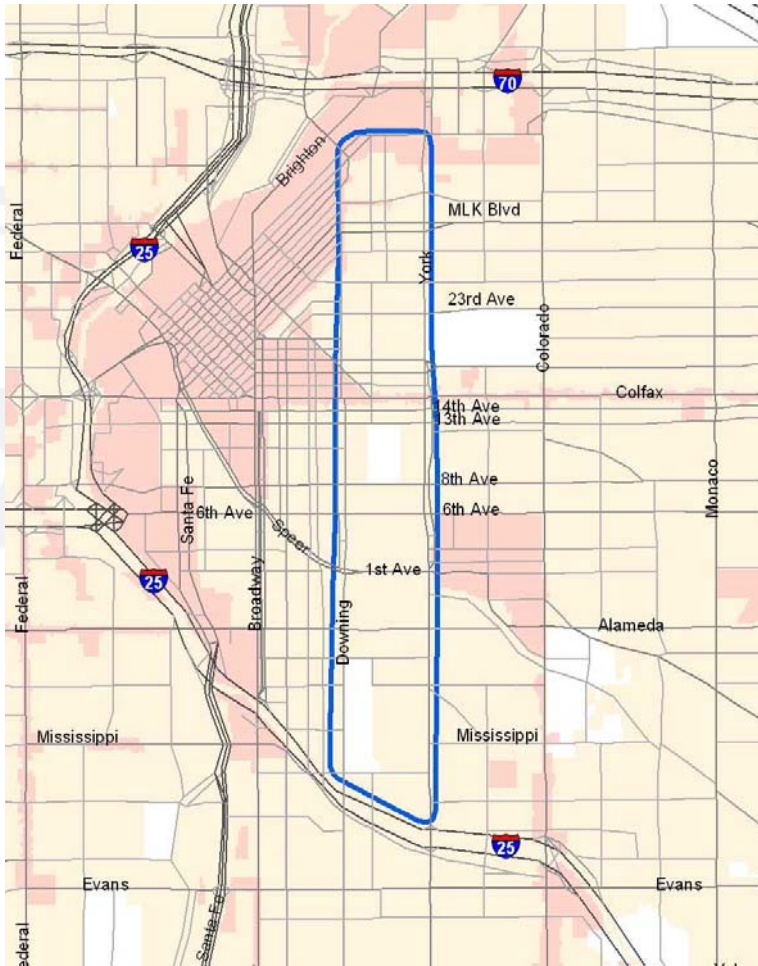
- Travel demand growth (2015 and 2030)
- Transportation system capacity
- Planned investments
- Land use characteristics
- Geographic distribution

Pilot Study Travel Sheds



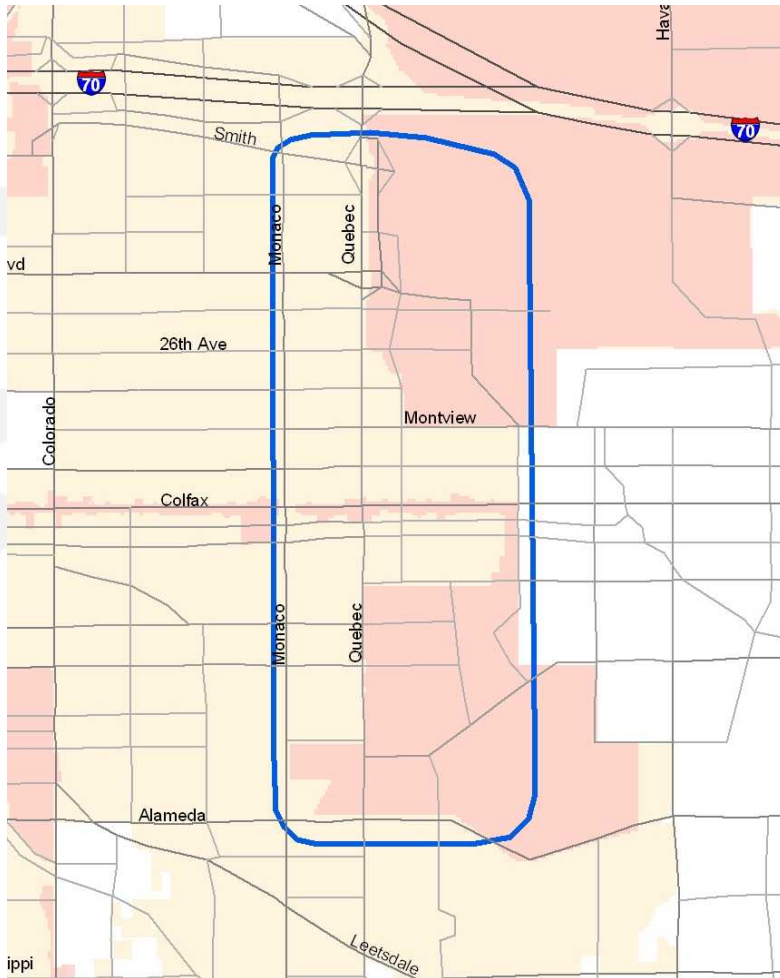
- Pilot Shed A:
 - 17th Ave to 1st Ave
 - Sheridan to I-25
 - Includes 6th Ave west of I-25

Pilot Study Travel Sheds



- Pilot Shed B:
 - Downing to University
 - South of I-70 to I-25

Pilot Study Travel Sheds



- Pilot Shed C:
 - Monaco to Yosemite
 - South of I-70 to Alameda

Travel Shed Evaluation Process



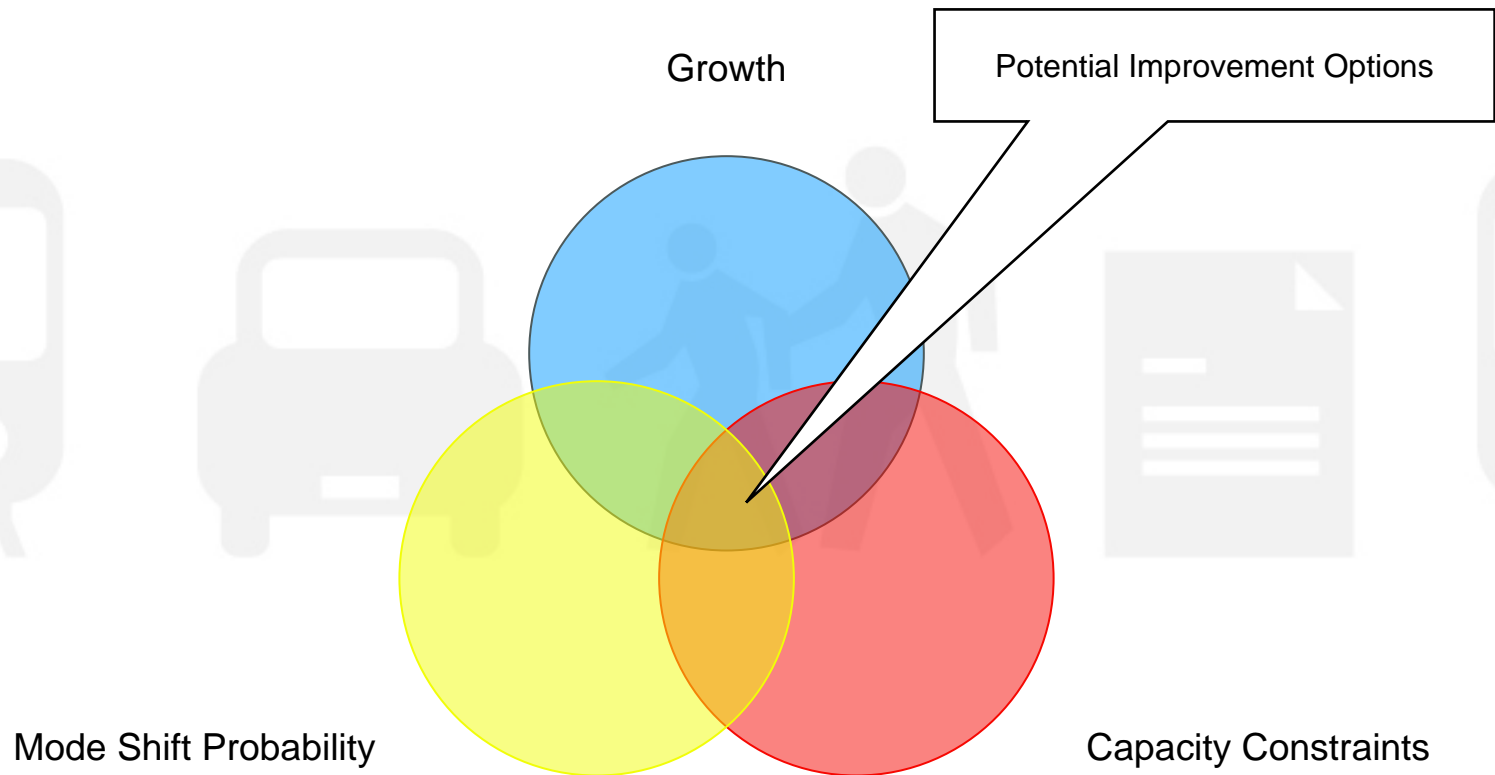
Pilot Study Process Overview

- Step 1:
 - What is the transportation system status within the travel shed?
- Step 2:
 - What improvements best address identified needs?
- Step 3:
 - Are we being consistent with the overall process and other travel sheds?
- Public Input

Step 1 – System Status

- Question:
 - What is the transportation system status within the travel shed?
- Data:
 - Projected growth; congestion; modal capacities
- Process:
 - Evaluate available data regarding travel shed
- Outcome:
 - Growth, capacity constraints, and mode shift potential

Step 1 - Relationships



Step 2a – Identifying Options

- Question:
 - How do we match travel needs with solutions?
- Data:
 - Growth, capacity and potential for mode shift (from Step 1)
 - Long list of improvement types and categories
- Process:
 - Match list to growth, capacity, and modal needs
- Outcome:
 - Short list of improvements by type and category

Step 2b – Improvements

- Question:
 - What improvements best address identified needs?
- Data Used:
 - Short list of improvement types and categories (from Step 2a)
 - Desired outcomes
- Process:
 - Evaluate improvements based on desired outcomes
- Outcome:
 - Improvements that address needs

Desired Outcomes

Area of Transportation System Performance	Desired Outcomes for the Strategic Transportation Plan
Mobility	<ul style="list-style-type: none">• Expand mode choice opportunities• Promote travel behavior changes to decrease reliance on private vehicles• Provide access to all land uses by multiple modes
Efficiency	Provide a transportation system with continuous networks for all modes
Safety	Provide a safe environment for travel by all modes
Reliability	Develop methods to manage and minimize sources of recurring and non-recurring congestion

Desired Outcomes

Area of Transportation System Performance	Desired Outcomes for the Strategic Transportation Plan
Street Character	Provide multi-modal corridors that reinforce desired land use, scale, and character
Land Use	Link land use and transportation systems to enable pedestrian-friendly, mixed-use development patterns
Environmental Sustainability	Decrease levels of air, water, and noise pollution from transportation system sources
Community Livability	Provide a greater range of land use and mobility options to make Denver a more desirable place to live for all of Denver's people

(continued)

Step 3 – Consistency

- Question:
 - Are we being consistent with the overall process and between travel sheds?
- Data used:
 - Findings from each individual travel shed (from Step 2b)
- Process:
 - Compare findings between Pilot Travel Sheds
- Outcome:
 - Identification of consistent evaluation process

Public Input

- Question:
 - Do the process and improvements address mobility needs and community values?
- Data:
 - Focus groups
 - Surveys
- Outcome:
 - Recommendations for travel shed improvements

Next Steps

- The team will
 - Evaluate pilot travel sheds
 - Refine evaluation process
 - Present recommendations for evaluating remaining travel sheds
- Please provide your feedback
 - Future committee meetings
 - Future Town Meetings
 - Visit www.KeepDenverMoving.com