



## Southern California Association of Governments



# I-405 Corridor Master Plan

Presentation to Streets and Freeways Subcommittee  
October 13, 2015

Corridor Master Plan

# Presentation Overview



- Expectations and Approach
- Corridor Performance
- Operational Issues
- Corridor Projects (Improvement Scenarios)

## Expectations for the Master Plan:

- Master Plan should describe the evolutionary path for the corridor
- Provide a guide for corridor development and improvements
- Ensure operational consistency across jurisdictional borders
- Describe multimodal opportunities

## Approach for the Master Plan:

1. Describe Corridor Infrastructure and Operational Characteristics
2. Define Long-Term Corridor Vision
  - ✓ One Corridor – Seamless Transitions – Efficient Transportation
  - ✓ Innovation – Technology Application – Model for Optimization
  - ✓ Potential Future Expansion and Development
  - ✓ Multimodal Integration - Transit Opportunities & Consideration
  - ✓ Corridor System Management
3. Layout Known Projects/Plans and Identify Gaps/Opportunities
4. Develop and Evaluate 5-6 Realistic Future Scenarios
5. Identify Investment and Funding for Improvements & Projects

# Expectations & Approach



## Review and Coordinate Current Studies:

- Mobility Matrix Studies (San Fernando Valley, West Side, South Bay)
- Other
  - SCAG Regional Value Pricing Study
  - SCAG Regional Aviation Study
  - Caltrans District 12 Managed Lane Study
  - Caltrans HQ Managed Lane Study
  - South Bay Cities COG Measure R Highway Program
  - Gateway Cities COG Studies

# Expectations & Approach



## **Review and Integrate Recent Studies Completed:**

- Caltrans and SCAG I-405 Corridor System Management Plans (CSMPs)
- OCTA Orange County I-405 EIR
- Metro Sepulveda Pass Corridor Systems Planning Study
- SCAG Regional Pricing Study
- Metro I-5/I-405 Connector Study
- South Bay Green Line Study
- Metro 405 Express Lane Study

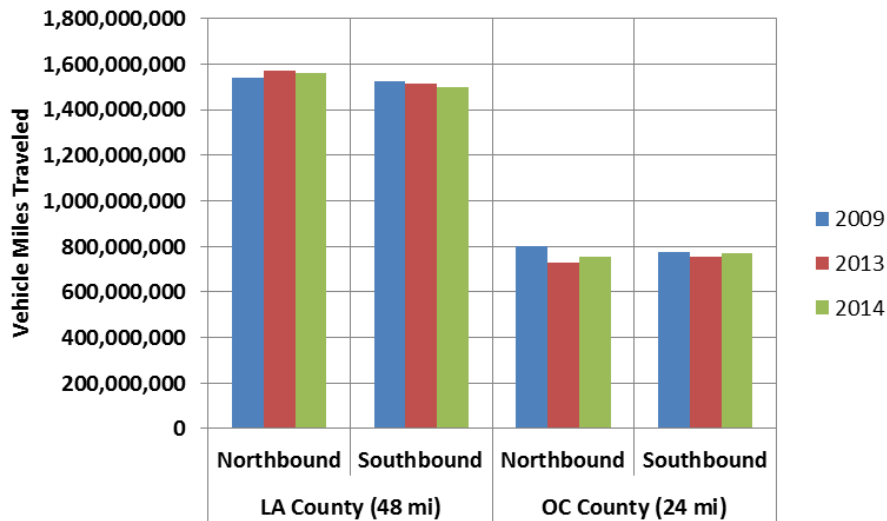
# Corridor Performance



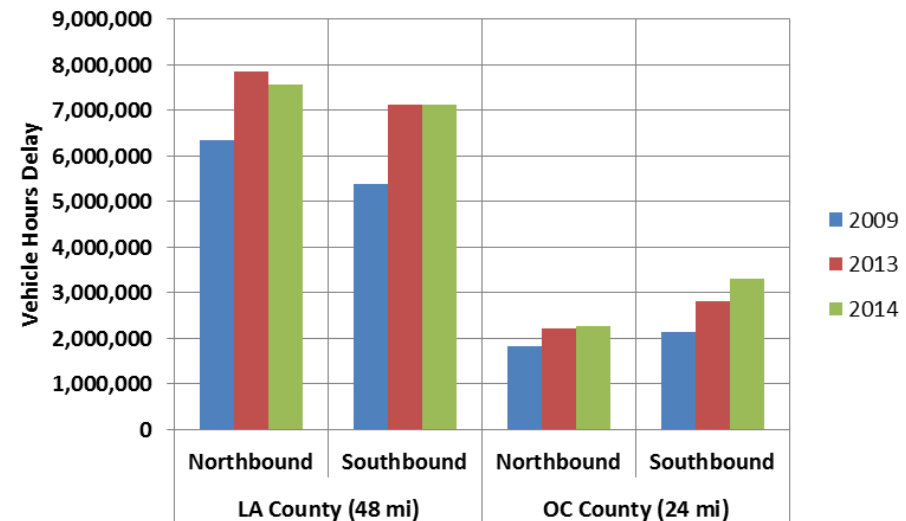
## Existing Conditions

# Corridor Performance

## Vehicle Miles Traveled (Demand)



## Vehicle Hours Delay

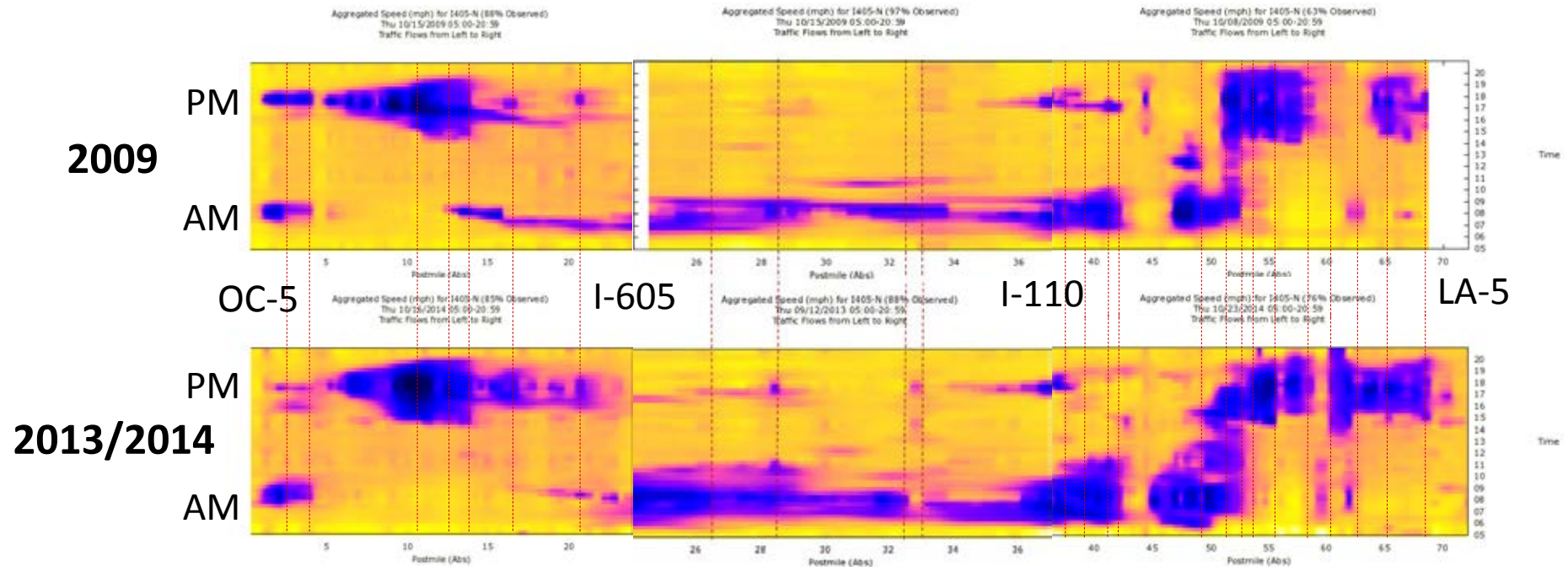


- While VMT or demand has stayed relatively the same since 2009, the congestion delay grew significantly
- OC congestion continues to grow, while LA has somewhat leveled off.



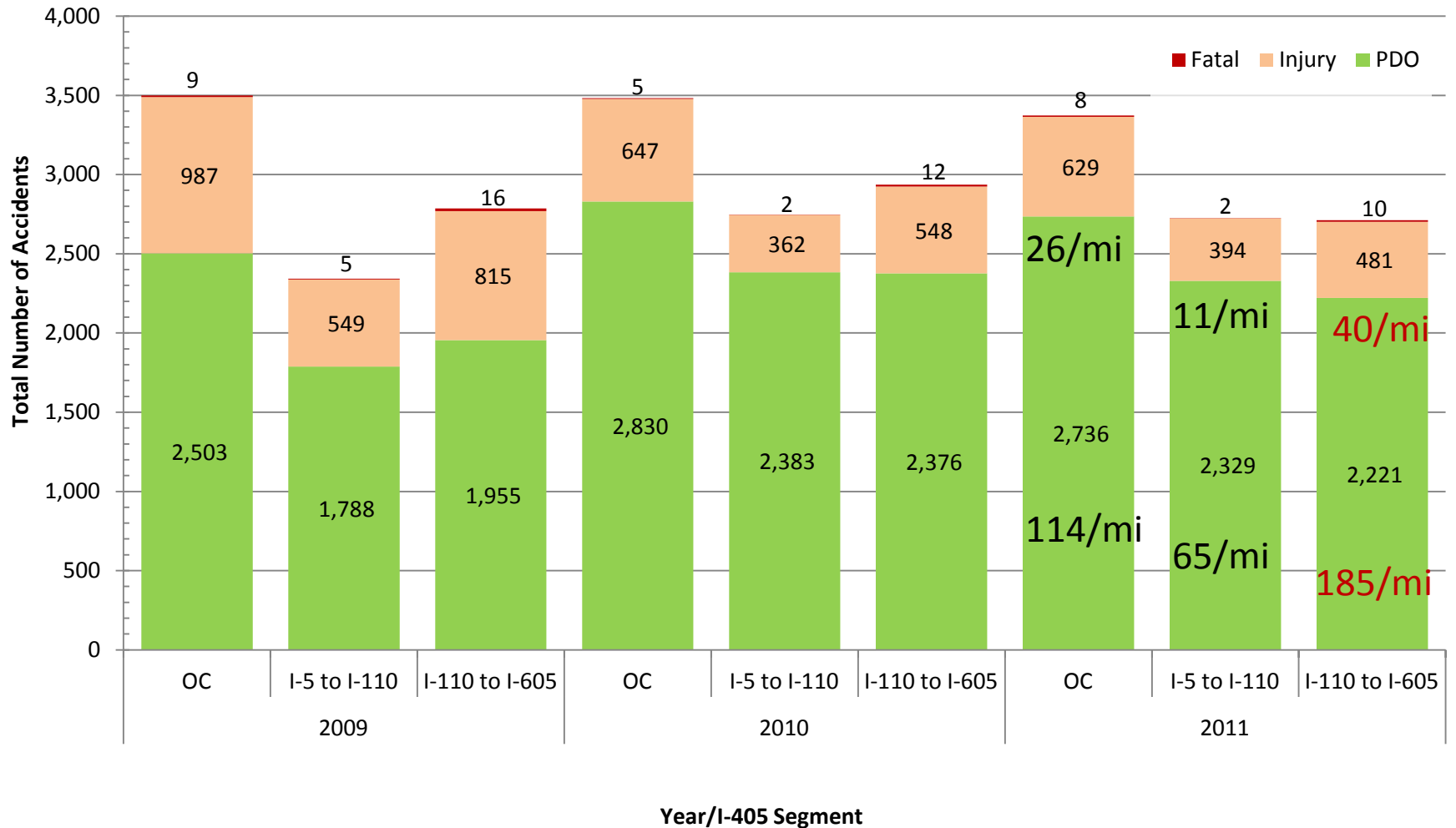
# Corridor Performance

*Speed Contour Diagrams are used to identify bottlenecks and congestion*



- Congestion (blue to black) has grown from 2009, both in intensity (darker color) and size (longer peaks and queues)

# I-405 Collisions (TASAS)

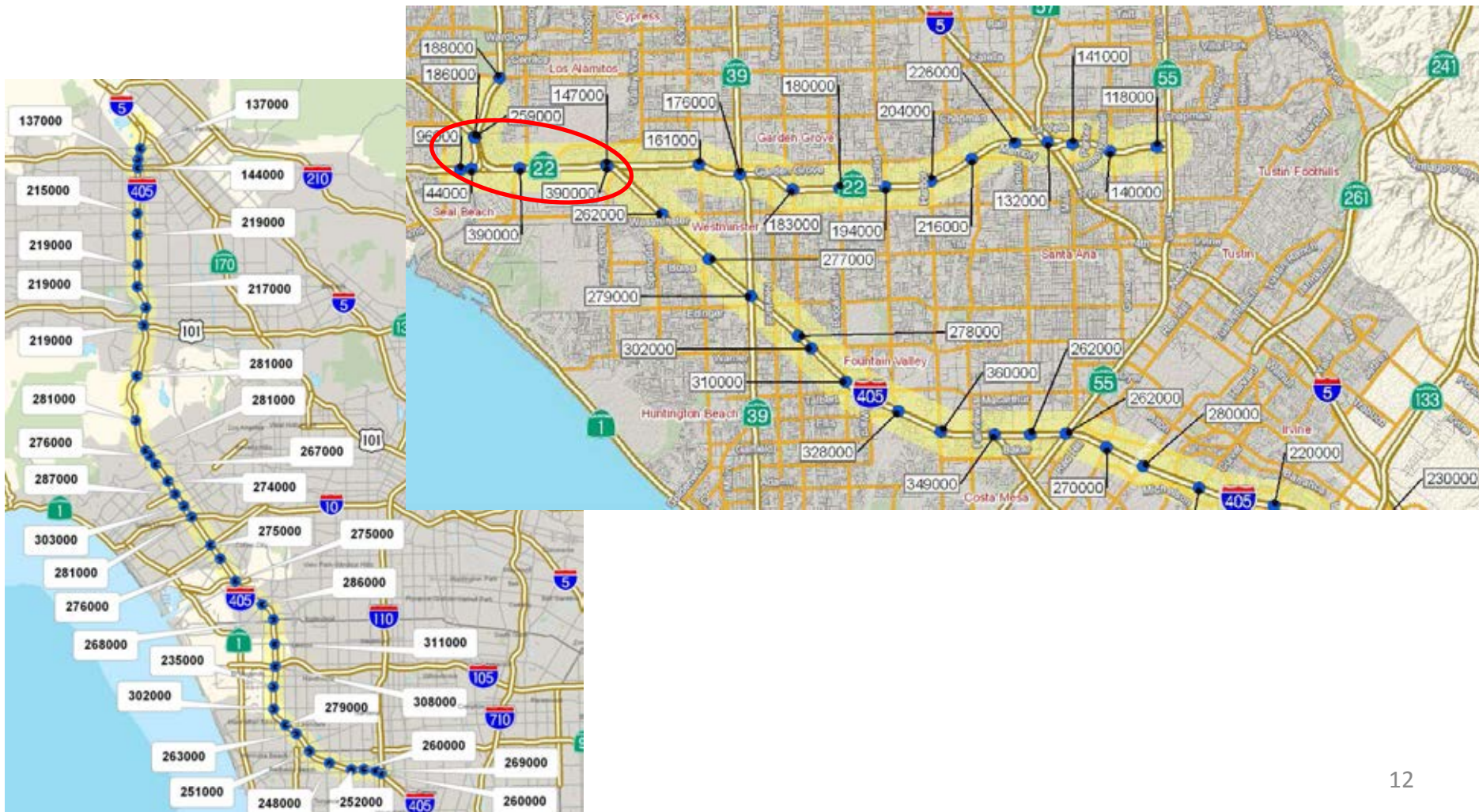


## Why Congestion and Collisions?

- *There are operational issues*

# Operational Issues

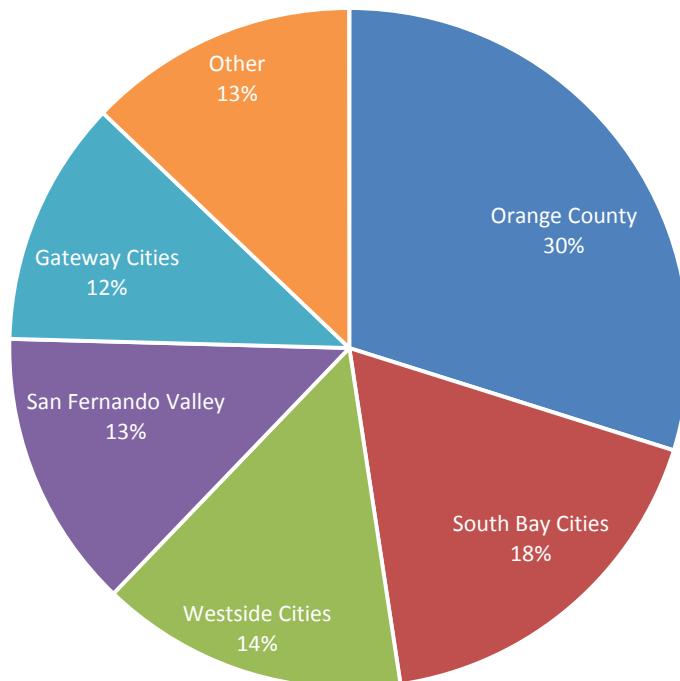
## High Demand (ADT - 390,000):



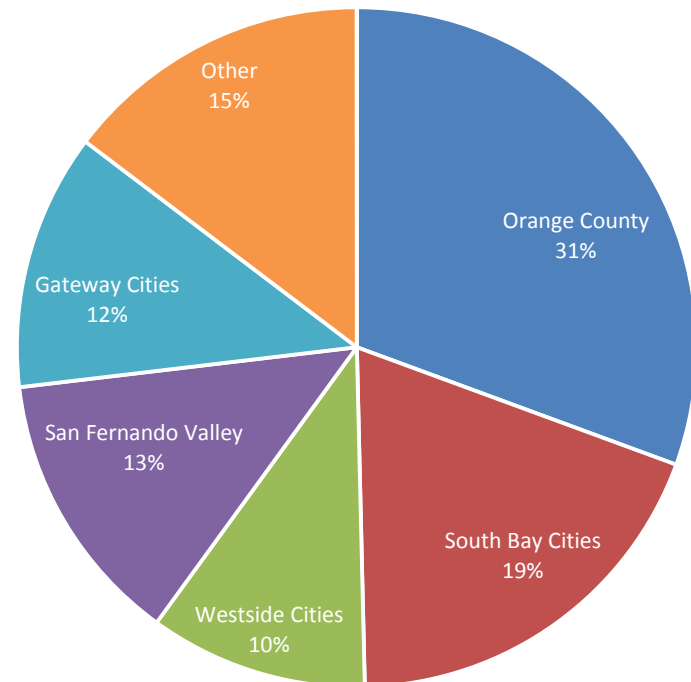
# Corridor Demand Profile

- Origin-Destination patterns show more than 400,000 vehicles crossing LA/OC border daily

**AM Peak Trips by ORIGIN**



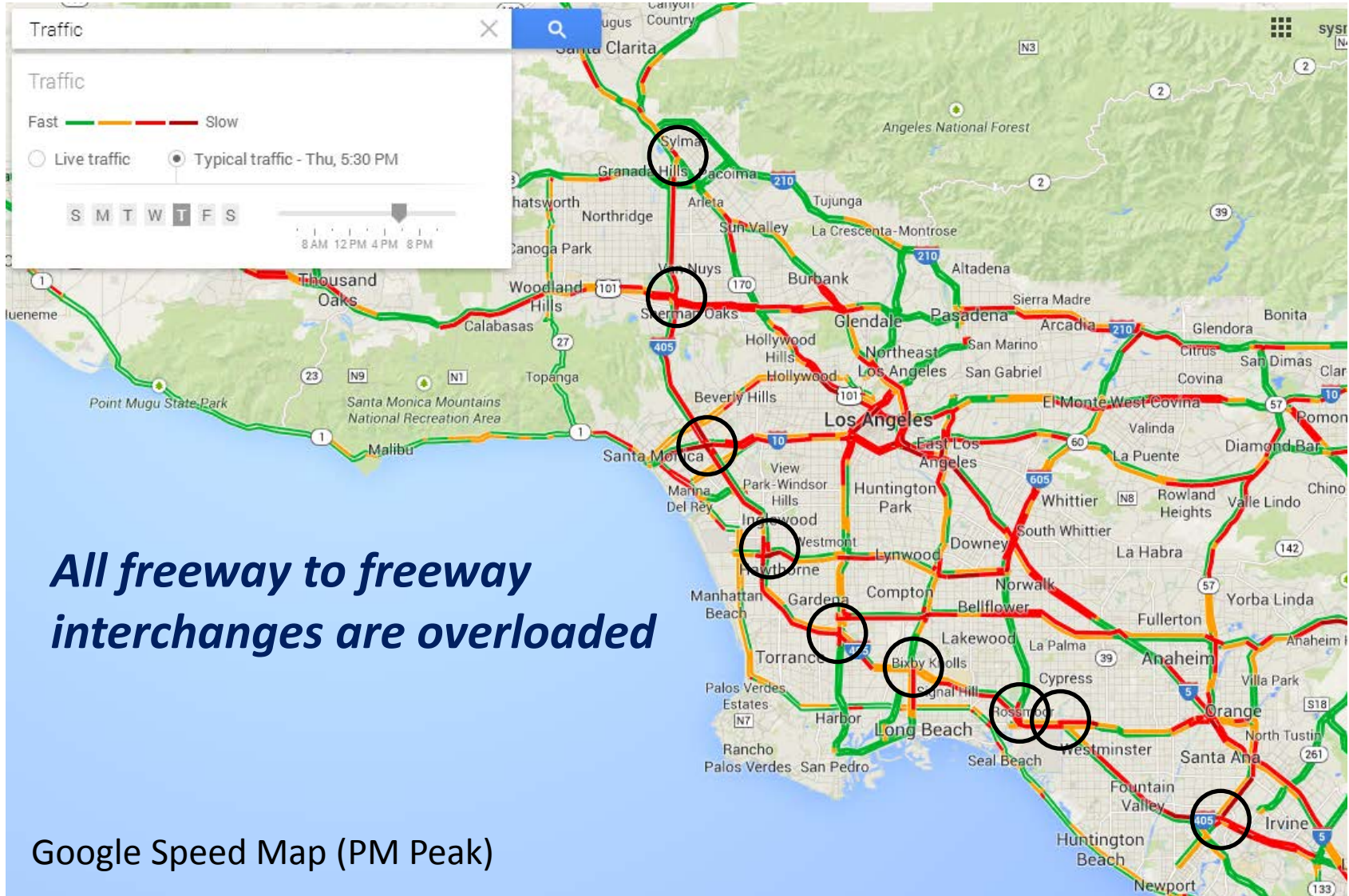
**AM Peak Trips by DESTINATION**



## Roadway Infrastructure Characteristics:

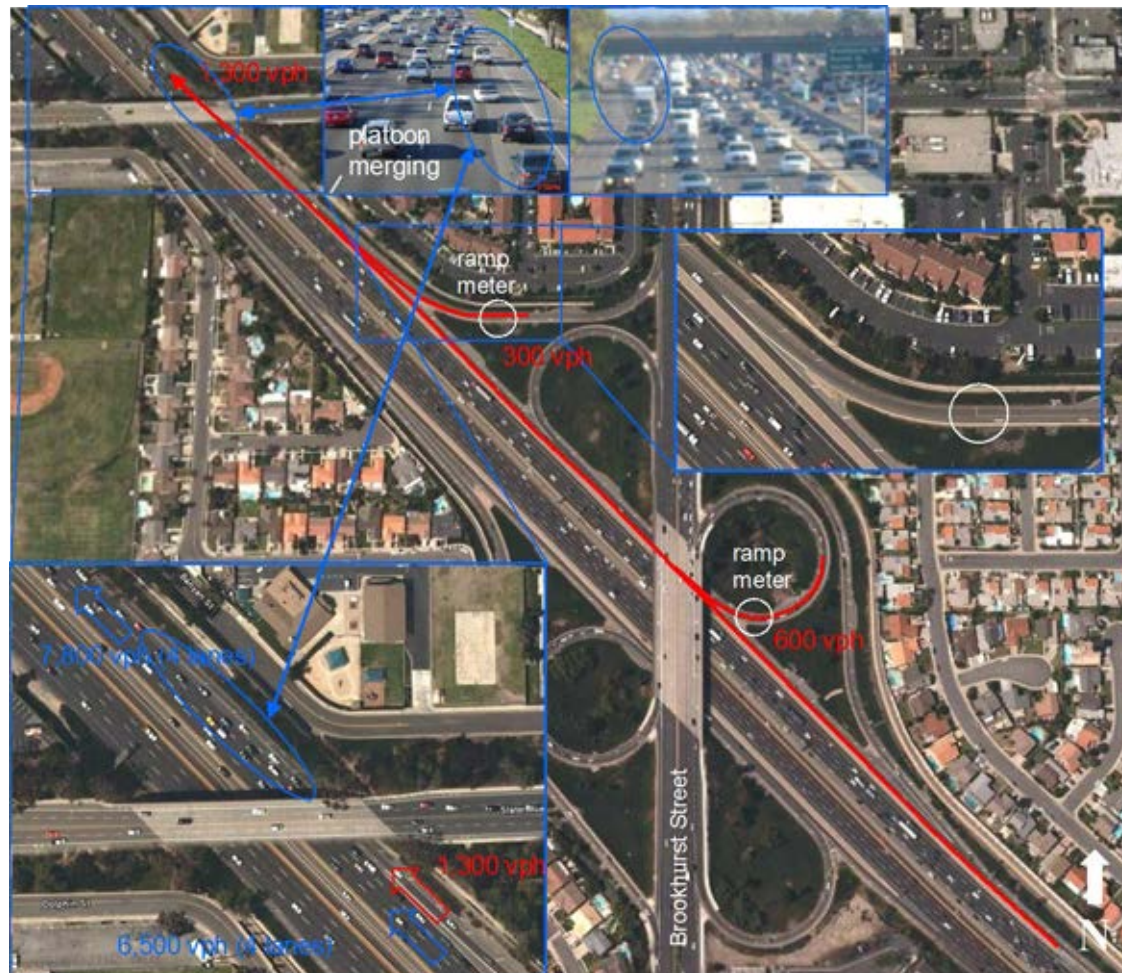
- Capacity inconsistencies and bottlenecks
- Deficient freeway to freeway interchanges
- Deficient local interchanges (collector-distributor, isolated ramps, insufficient storage, etc.)
- Safety elements (shoulders, barriers, Table C's, etc.)

# Issues (Bottlenecks & Deficient ICs)



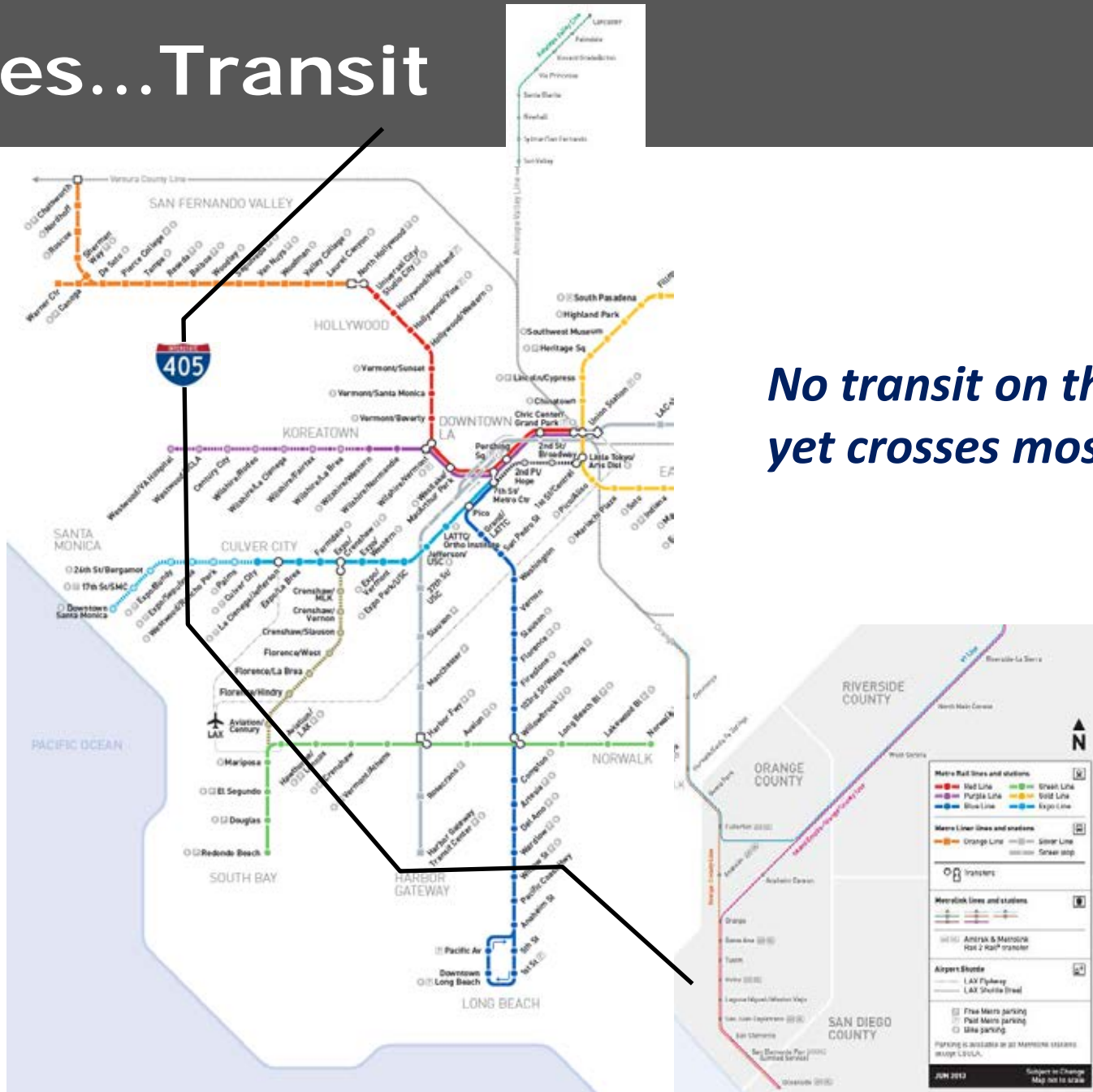
# Issues (Deficient Local Interchanges)

***Local interchanges with collector/distributors do not operate well***



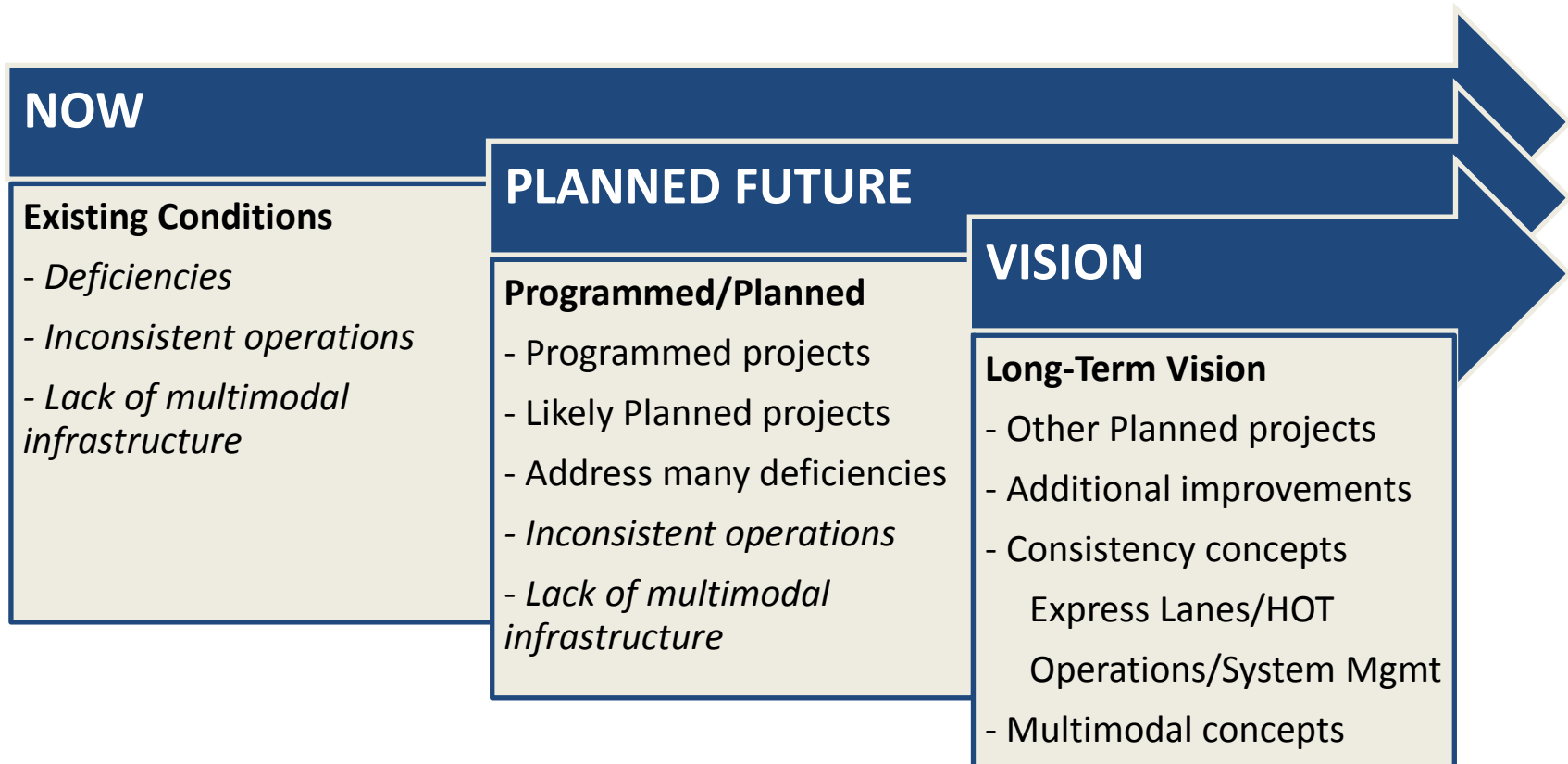


# Issues...Transit



# Scenario Development

## Long-Term Corridor Vision:



# Organization of Projects

## **Organize the many projects along the corridor:**

- There are thousands of projects – need to filter which ones may impact corridor or associated with corridor
- Projects are multimodal – freeway, arterials, transit, bike facilities, etc.
- Not all projects have complete information – costs, schedule, etc.
- Identify which ones are likely to get implemented
- Need to refine the project list and narrow down to relevant

## Potential improvements for additional scenarios:

- **Most likely planned projects**
- **Other relatively inexpensive operational improvements** – only partially quantifiable by travel demand model
- **Other improvement projects** – not all are quantifiable by travel demand model (Mobility Matrix, Special Studies)
- **HOT lane operations** (conversion) – needs integration with Express Lane Study
- **Visionary/expensive projects** – quantifiable by travel demand model
  - North/South High Capacity Transit (e.g., Sepulveda Pass)
  - Freeway Expansion
  - Other?

## **The evolution of the corridor suggests that congestion will continue to be a challenge on the corridor, at least in Los Angeles**

- Even with the more expensive operational improvements, significant congestion will persist
- Either we have to consider more expensive expansion projects or rely on VMT reduction strategies to maintain/reduce congestion:
  - Freeway expansion in Los Angeles likely have to consider additional structures
  - Transit high capacity expansion (as studied by Metro) is expensive and require more funding than currently available

# Next Steps

1. Complete scenario testing using the travel demand model
2. Conduct evaluations
3. Complete the I-405 Master Plan