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

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
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
• 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)

<table>
<thead>
<tr>
<th>Year/I-405 Segment</th>
<th>OC</th>
<th>I-5 to I-110</th>
<th>I-110 to I-605</th>
<th>OC</th>
<th>I-5 to I-110</th>
<th>I-110 to I-605</th>
<th>OC</th>
<th>I-5 to I-110</th>
<th>I-110 to I-605</th>
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<tr>
<td>2009</td>
<td>2,503</td>
<td>1,788</td>
<td>1,955</td>
<td>2,830</td>
<td>2,383</td>
<td>2,376</td>
<td>629</td>
<td>394</td>
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<td>987</td>
<td>549</td>
<td>815</td>
<td>647</td>
<td>362</td>
<td>548</td>
<td>26/mi</td>
<td>11/mi</td>
<td>40/mi</td>
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<td>2011</td>
<td>9</td>
<td>5</td>
<td>16</td>
<td>5</td>
<td>2</td>
<td>12</td>
<td>8</td>
<td>2</td>
<td>10</td>
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</table>

**Fatal**: 114/mi, 65/mi, 185/mi

**Injury**: 114/mi, 65/mi

**PDO**: 11/mi, 40/mi
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

- Orange County: 30%
- South Bay Cities: 18%
- Westside Cities: 14%
- San Fernando Valley: 13%
- Gateway Cities: 12%
- Other: 13%

AM Peak Trips by DESTINATION

- Orange County: 31%
- South Bay Cities: 19%
- Westside Cities: 14%
- San Fernando Valley: 13%
- Gateway Cities: 12%
- Other: 15%
Operational Issues

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)

All freeway to freeway interchanges are overloaded

Google Speed Map (PM Peak)
Local interchanges with collector/distributors do not operate well
Issues...Transit

No transit on the I-405 yet crosses most lines
Long-Term Corridor Vision:

**NOW**
- **Existing Conditions**
  - Deficiencies
  - Inconsistent operations
  - Lack of multimodal infrastructure

**PLANNED FUTURE**
- **Programmed/Planned**
  - Programmed projects
  - Likely Planned projects
  - Address many deficiencies
  - Inconsistent operations
  - Lack of multimodal infrastructure

**VISION**
- **Long-Term Vision**
  - Other Planned projects
  - Additional improvements
  - Consistency concepts
    - Express Lanes/HOT
    - Operations/System Mgmt
  - Multimodal concepts
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
Scenario Development

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