



# **2011 CALIFORNIA HOV DEGRADATION DETERMINATION REPORT and ACTION PLAN SUMMARY**

**OCTA BOARD MEETING**

**September 23, 2013**



# Requirements

- Prepare HOV Degradation Determination Report.
- DOTs to remedy degradation (180 days).
- Remedy period began on July 31<sup>st</sup>.
- Remedies must be firm and clearly defined.
- Potential Sanctions: Federal funding / project approvals.
- Keep HOV speeds above 45 mph more than 90% of the time.

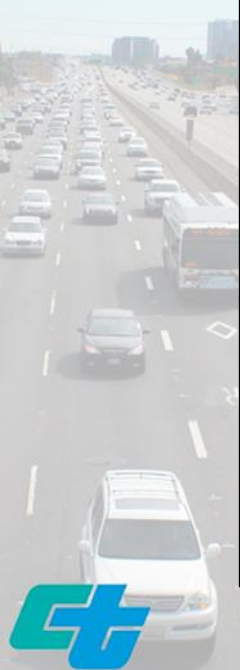
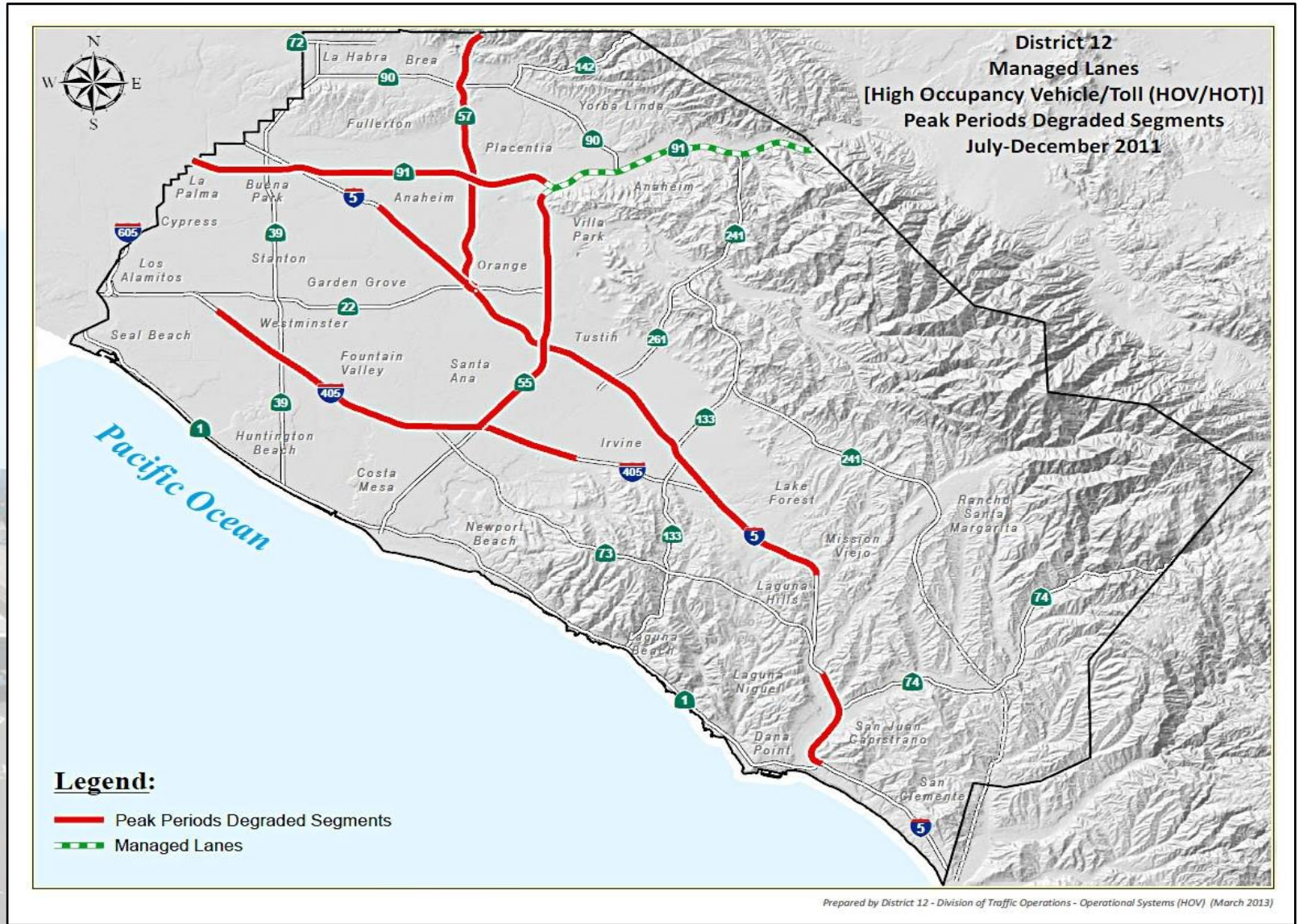


# Degradation Determination

- Measured for 6 months (July to December).
- Degradation has been increasing since 2005.
- Most HOV lanes degraded in 2011.
- Increased in 2012.
- Continues to increase as economy recovers.



# Orange County HOV Lane Degradation Map (July 1 - December 31, 2011)





# Causes of Degradation

- Demand exceeding capacity.
- Bottlenecks.
- Merging.
- Congestion in general purpose lanes (Friction).
- Construction activities.
- Driver behavior.
- HOV violators.



# Remediation Solutions

## Two lanes

- Add second HOV Lane 2+.
- Add second HOV lane and convert to HOT 2+.
- Add second HOV lane and convert to HOT 3+.

## One lane

- Raise HOV occupancy to 3+ and convert to HOT.
- Raise HOV occupancy to 3+.

## Operational Improvements

- Add HOV weaving lane.
- Add HOV direct connectors.
- Increase enforcement.
- Intelligent Transportation Systems / Transportation Demand Management (ITS/TDM).



# Benefits of Solutions

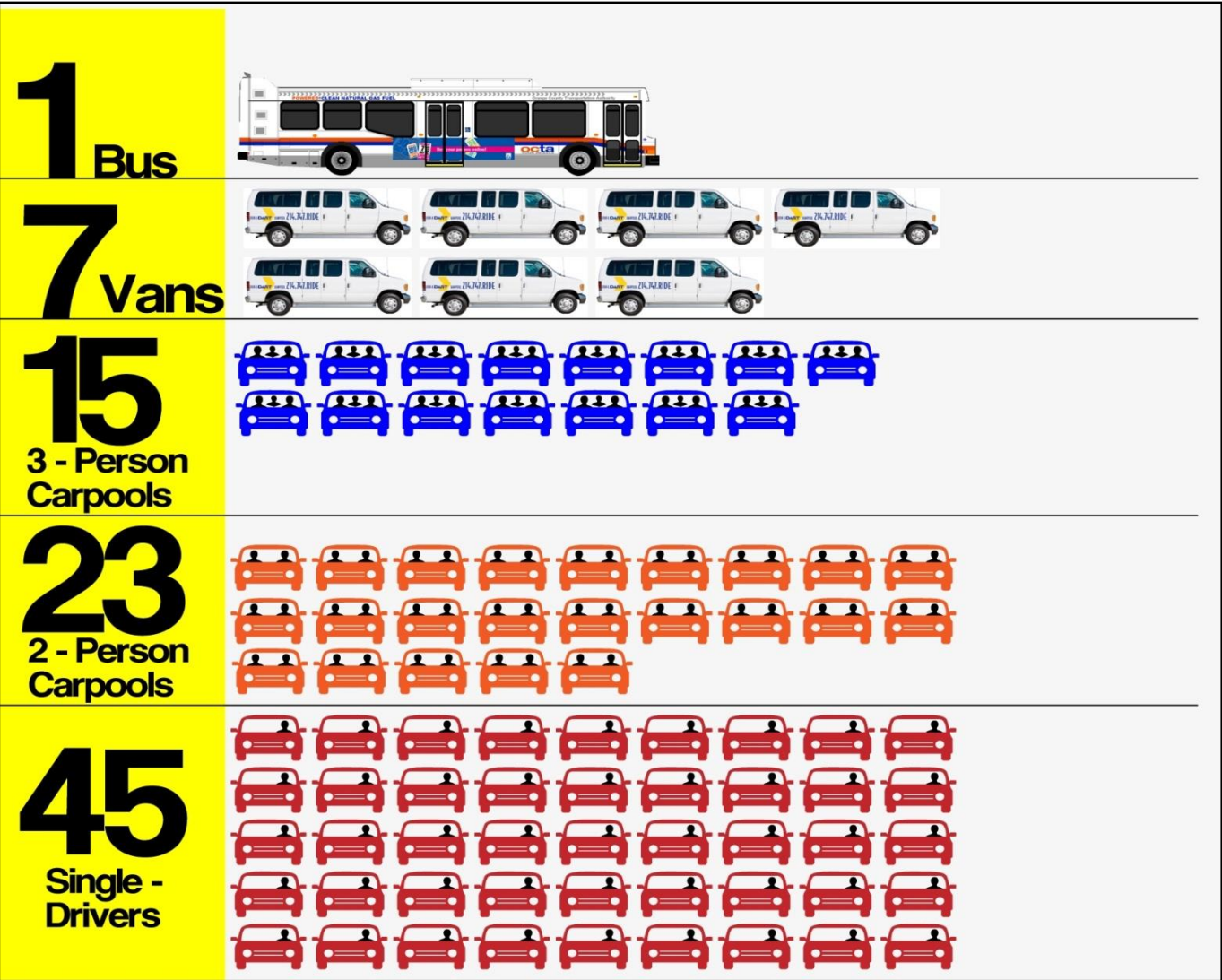
- Increase Capacity.
- Improved HOV operation.
- Higher speed / Decreased travel time.
- Provides travel choices.
- Improved trip reliability.
- Improved air quality.
- Potential transit alternatives.
- Cost sharing.



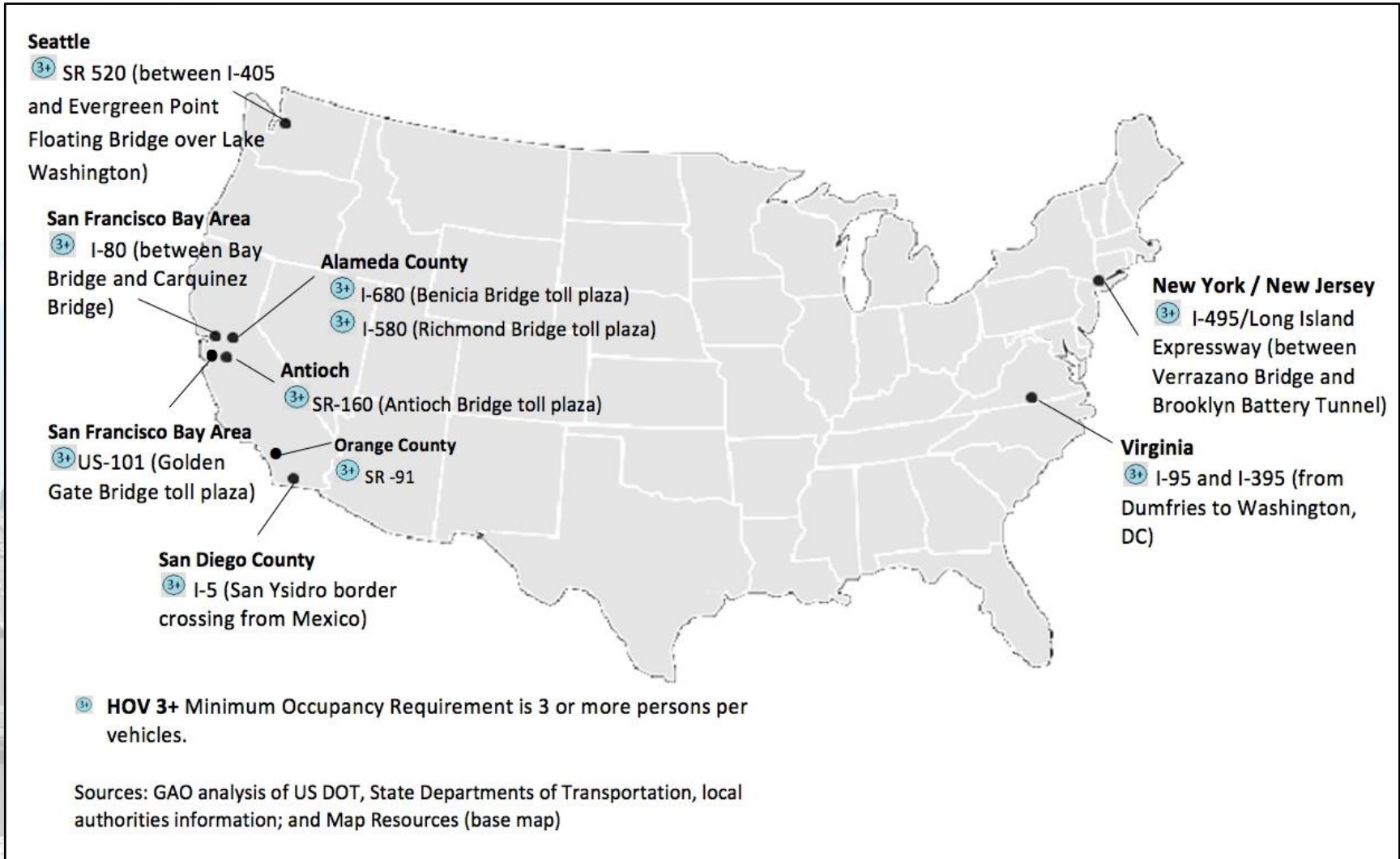


# HOV Lanes Move More People

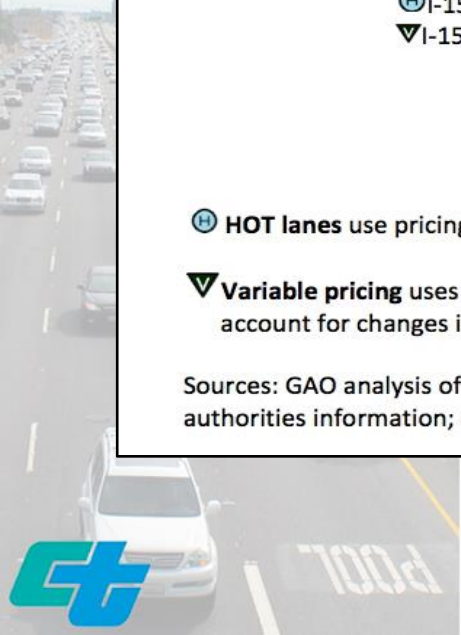
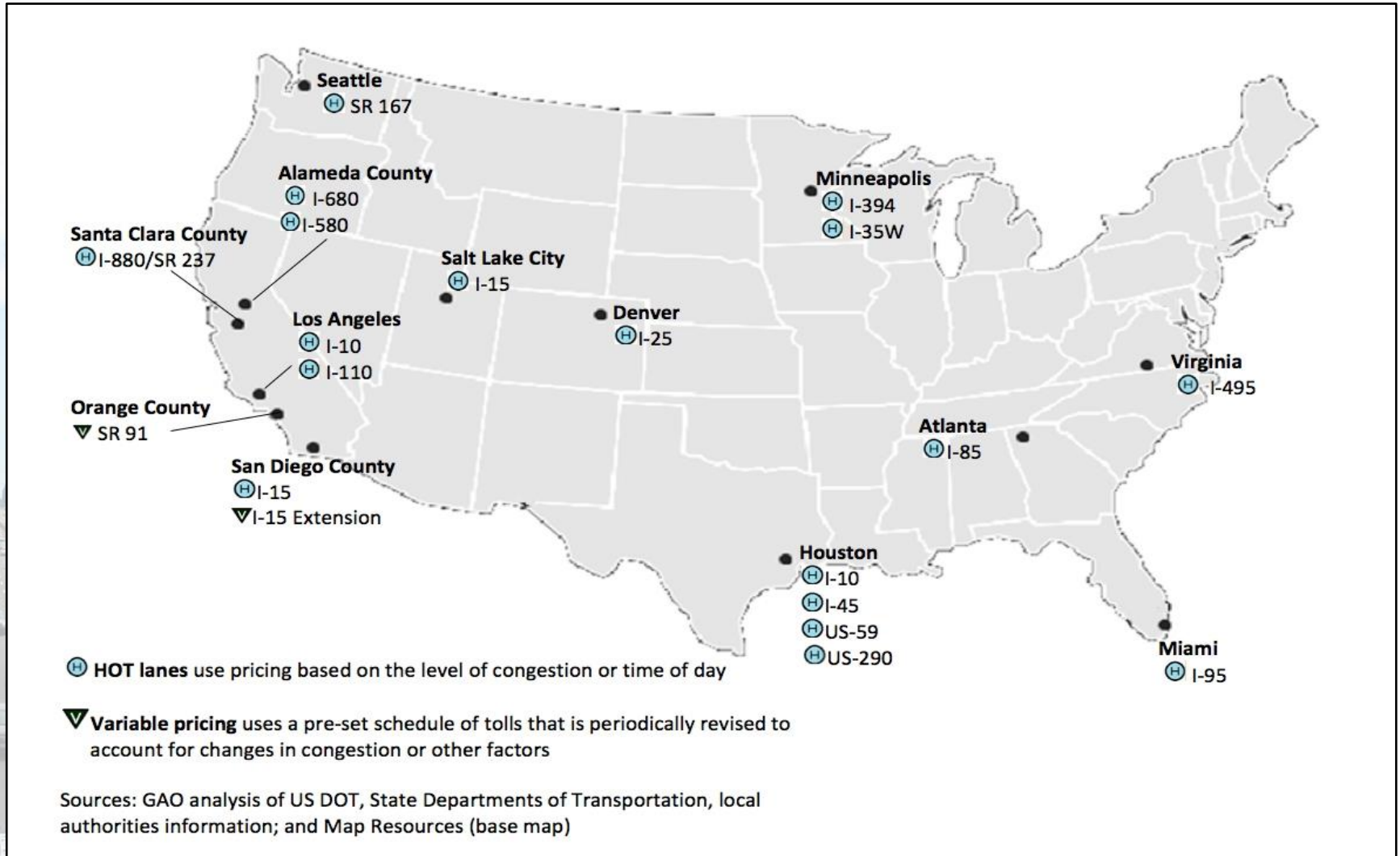
## Number of Vehicles to Carry 45 People



# HOV 3+ Systems in the U.S



# Existing Priced Facilities in the US (2013)



- Working with FHWA on acceptable remedies.
- 2012 Degradation Report.
- Regional Transportation Plan/Sustainable Communities Strategy (2012-2035).
- District 12 HOV Assessment Study.
- Orange County Managed Lane Feasibility Study.
- SCAG Regional Express Lane Network Study.
- District 12 Managed Lane Public Participation Contract.
- I-405 Managed Lanes Project Study Report (Orange County).
- I-405 (OC Line to LAX) HOV to HOT Feasibility Study.
- Deputy Directive 43-R (DD-43R) Managed Lanes.
- New Managed Lanes Manager.



# THANK YOU

## QUESTIONS OR CONCERNS?

**James Pinheiro, PE**

Deputy District Director, Caltrans District 12  
Operations & Maintenance

Email: [James.Pinheiro@dot.ca.gov](mailto:James.Pinheiro@dot.ca.gov)

Additional information:

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