

SR 710 Environmental Study

Alternatives Analysis

Stakeholder Outreach Advisory Committee Meeting No. 4 – November 15, 2012



Preliminary - Not for Distribution



Agenda

- Public Outreach Update
- Update on Part 1 – Alternatives Analyses
 - Recap of SOAC Meeting #3
 - Initial Discussion on Goods Movement
 - Fact Checks
 - Refinement of Alternatives
- Next Steps

Ground Rules

- Q&A after each section of the presentation
- Focus questions on information presented
- General comments and Q&A at the end

Outreach Update: August – November 2012

- Elected Official Briefings
- Forums and Panels
- Community-Based Groups
- Information Sessions
- All Communities Convening

Elected Official Briefings

- **Senator Carol Liu**

- **Congress**

- Xavier Becerra
- Judy Chu
- Adam Schiff

- **Assembly**

- Mike Eng
- John Perez

- **Supervisors**

- Michael Antonovich
- Gloria Molina

- **City of Los Angeles**

- Mayor's Office
- Council District 14

- **Alhambra**

- **Duarte**

- **Glendale**

- **San Marino**

- **Monterey Park**

Forums and Panels

- **City Council Presentations**

- Pasadena
- South Pasadena
- San Gabriel
- Rosemead

- **Informational Forums**

- Pasadena Council District 6
- South Pasadena
- LA Council District 14
- SGV COG Transportation Committee
- SGV COG Transportation Summit
- SGV Service Council

- **Stakeholder Outreach Advisory Committee Meetings**

- August 30, 2012
- November 15, 2012

Community-Based Groups

- Neighborhood Councils
- Homeowners Associations
- Employment Centers
- Business Community
- Faith-Based Organizations, etc.

Information Sessions

- Goods Movement – 1st Quarter 2013
- Air Quality – 2nd Quarter 2013
- Tunnel Safety – 3rd Quarter 2013
- Frequently Asked Questions – Ongoing
- Fact Checks - Ongoing
- Others to be determined – 2013 / 2014

January/February 2013 All Communities Convening - Open Houses

- Save-the-Date Announcements
- Confirming Locations and Venues

Update on Part 1 – Alternatives Analysis

- Recap of SOAC Meeting #3
- Update on Alternatives Analysis
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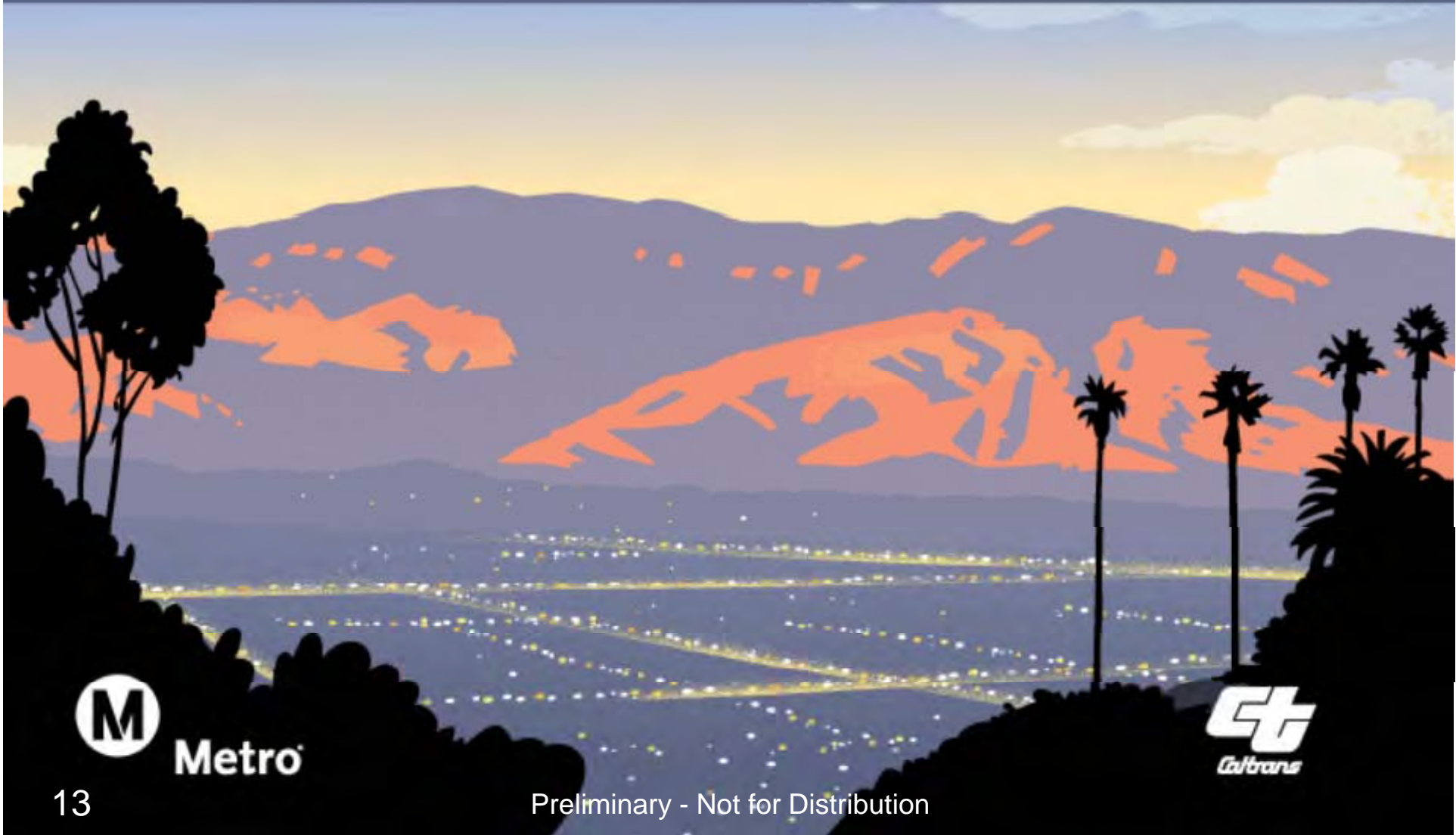
Recap of SOAC Meeting No. 3

- Summary results of conceptual engineering and technical studies
- Performance of alternative concepts
- Discussion on the development of hybrid/variation alternatives

Feedback Received During SOAC No. 3/TAC No. 7

- Basis for the selection of intersection hot spots
- Provide cost of alternatives
- Consider hook ramps and other low build options mentioned by South Pasadena
- Consider tolled scenario for freeway tunnel
- Consider no-trucks scenario
- Requested backup for the purpose and need
- Tunnel ventilation
- Need update on Goods Movement

Goods Movement Discussion



Goods Movement Concerns

- What is the preferred mode to transport goods?
- How do the ports influence truck traffic in the study area?
- Is congestion caused by trucks?
- Is goods movement from the ports a primary driver for the study need?

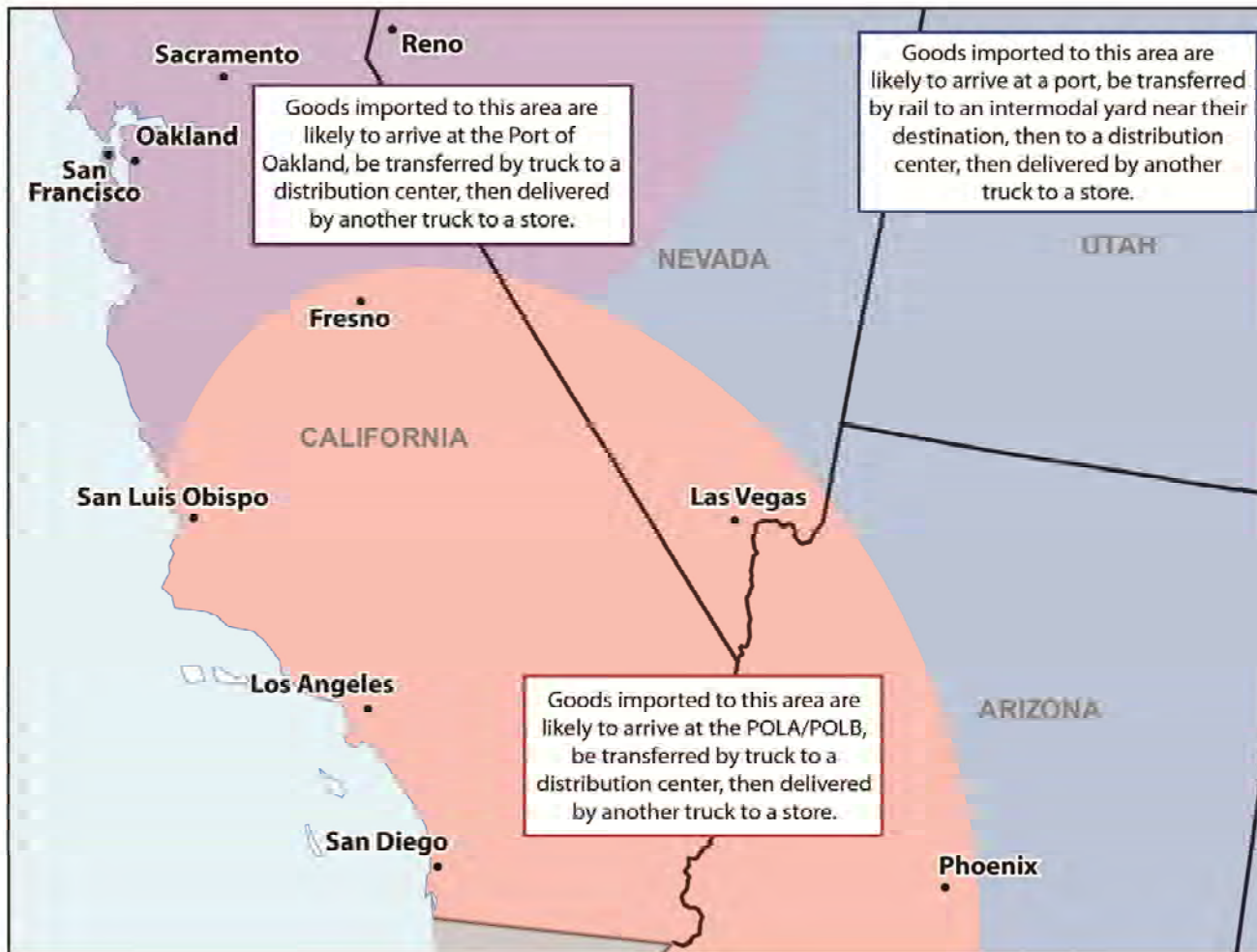
Types of goods movement in Southern California

- Delivering goods and services to residents and local businesses
- Ports, railroads (BNSF and Union Pacific), international air cargo (LAX), and national highway network (I-5, I-15, I-40, and I-10)
- Manufacturing, retail sales, wholesale trade, construction, transportation and warehousing, and mining sectors (about 1/3 of region's economy)
- Southern California and domestic exports

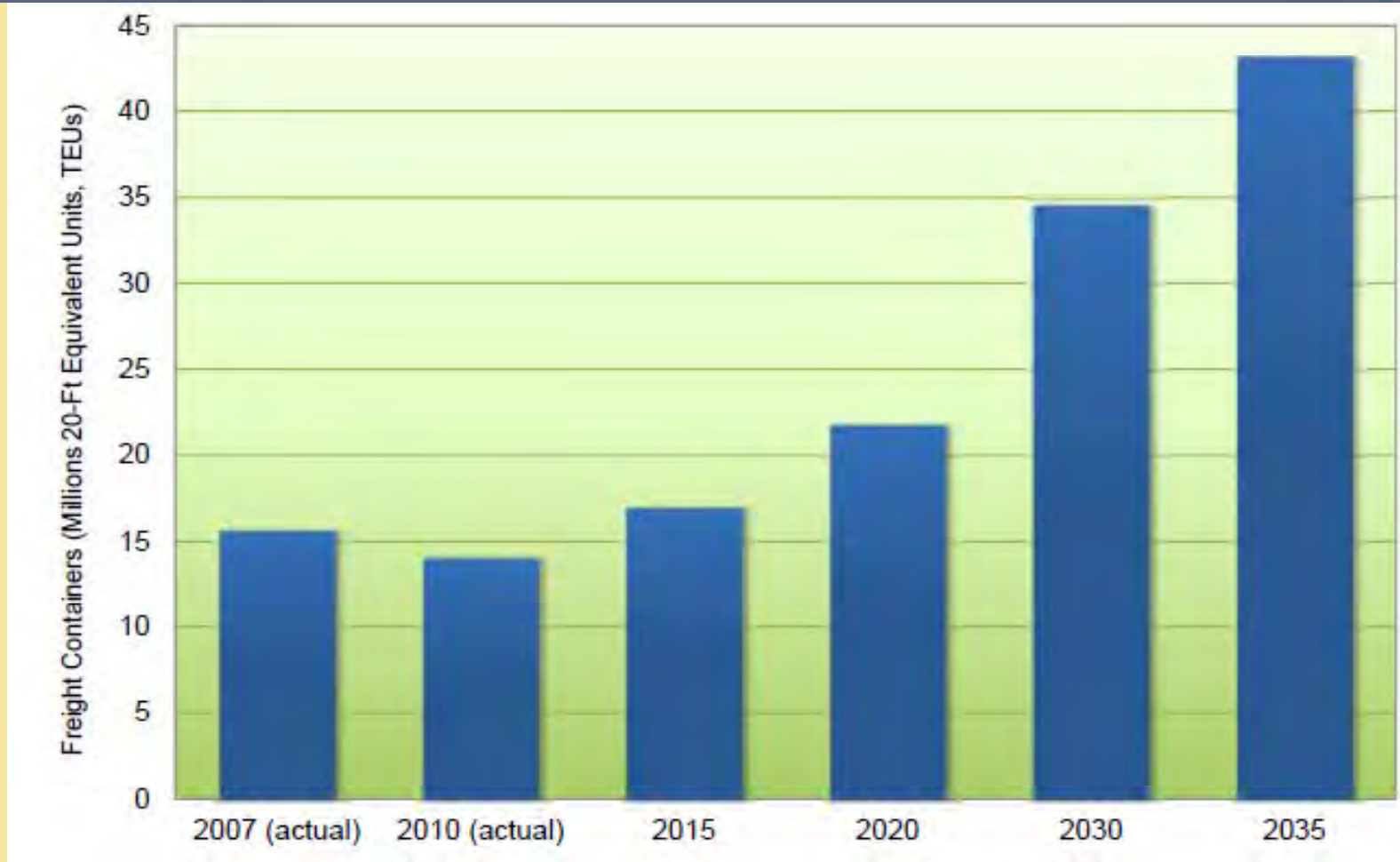
How are goods moved in Southern California?

- Locally – by truck – almost all destinations not served by rail. Thousands of destinations
- Ports goods - transported to a distribution center
 - sorted and mixed with other goods with the same destination
 - truck or rail – depends on distance – up to one day = truck
 - shipping via rail requires an intermodal yard near the destination

Preferred Modes for Goods Movement



Projected Growth at Ports



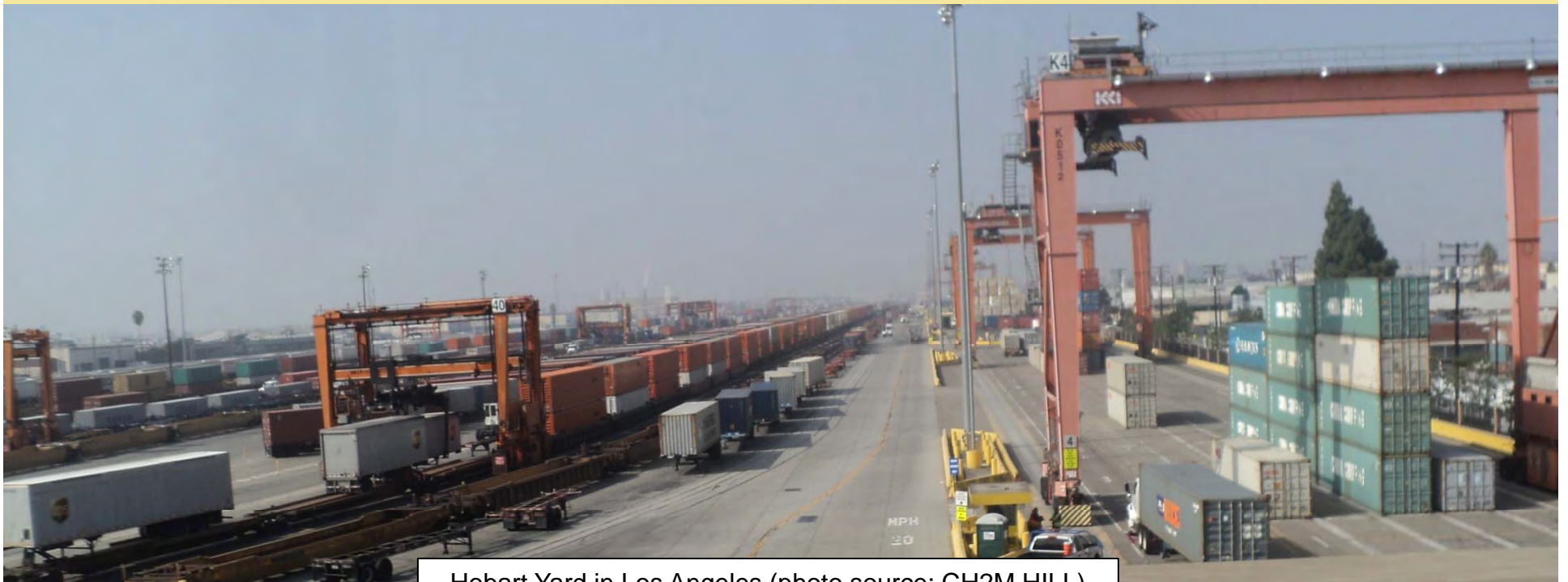
Source: SCAG 2012-2035 Regional Transportation Plan

Definitions

- Rail Yards
- Intermodal Facilities
- Warehouses
- Distribution Centers
- Inland Ports

Rail Yards

- Location where full rail cars of goods are sorted from incoming trains and then added to or grouped into outbound trains



Hobart Yard in Los Angeles (photo source: CH2M HILL)

Intermodal Facilities

- An intermodal facility is a general term describing a location where goods transfer from one mode to another



BNSF yard in San Bernardino (photo source: AECOM)

Warehouses

- Warehouses store goods and provide a facility where products coming in can be sorted to create efficient distribution



Photo source: <http://info.adssolutions.com/Portals/175327/images/distirbution%20software%20for%20small%20business.jpg>

Distribution Centers

- Distribution centers provide additional services to warehouses



Photo source: http://www.go-explore-trans.org/wp-content/uploads/images/HarperCollins_warehouse.jpg

Inland Ports

- An inland port is linked to major seaports, and transfers containers between multiple modes of transportation (i.e., rail and truck), processes international trade and provides value-added services (i.e., manufacturing and distribution)



Virginia Inland Port

Photo source: http://www.ctb.virginia.gov/resources/kr_1_VAInlandPort_Fall07.pdf

How goods get from the location where they are produced or sold to their ultimate destination

Retail Supply Chain Example

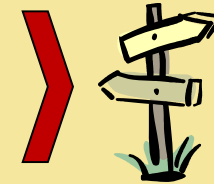
Factory

1,500+ Vendors
4,700+ Factories
60+ Countries



Origin

50+ Countries
4 Consolidators
110 Ports



Distribution

4 Import Warehouses
26 Regional Distribution Centers



Origin Transportation

Carrier

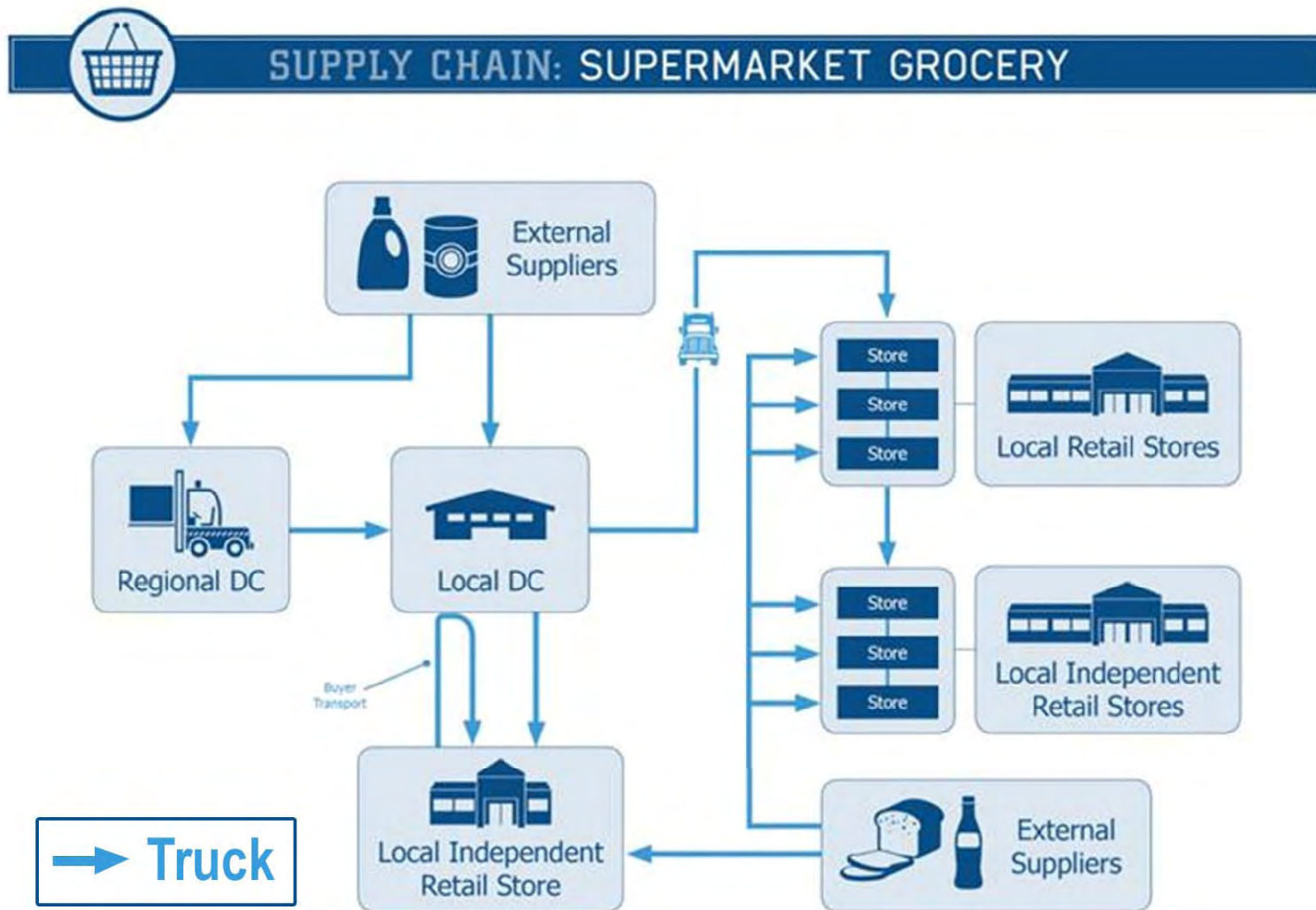
15 Global Ocean Carriers
5 Air Carriers



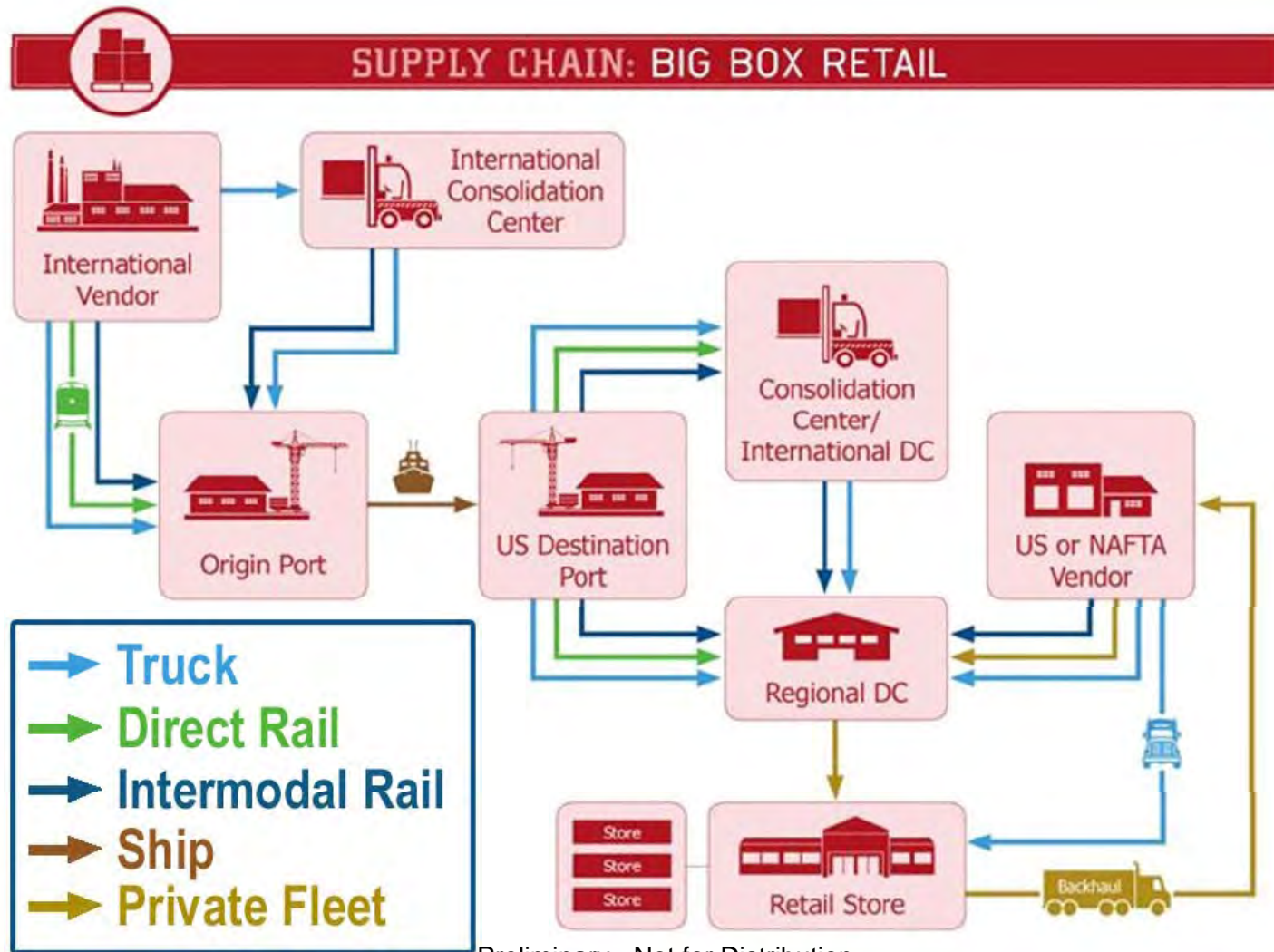
Destination Transportation

11 Dray Providers
4 Rail Providers

How goods get from the location where they are produced or sold to their ultimate destination



How goods get from the location where they are produced or sold to their ultimate destination (cont.)



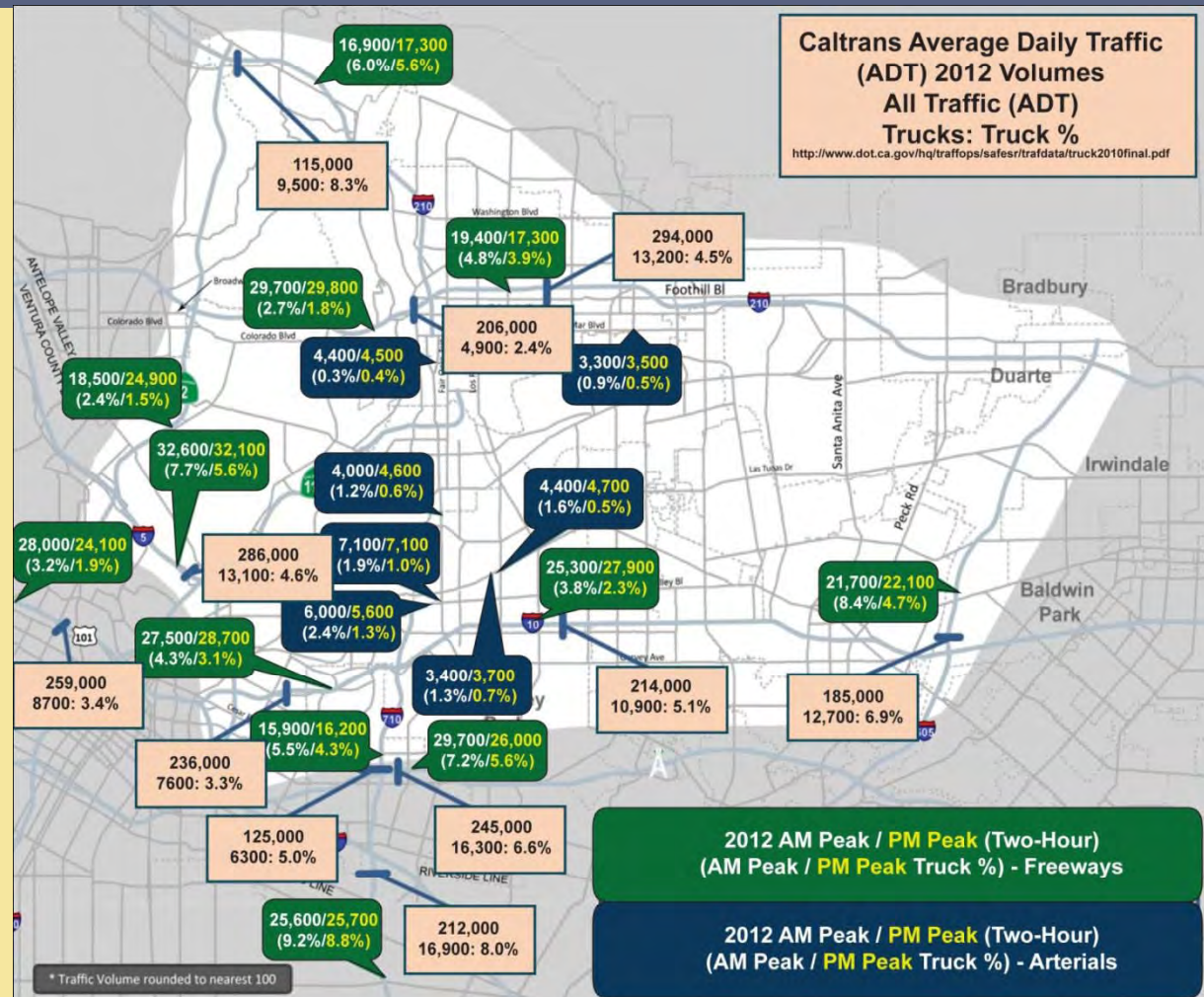
How many trucks are on the roads now?

➤ Freeways:

- 2.8 to 9.2%
- 3.1% on SR 710 north of I-10
 - 1368 trucks/day
 - 44,000 veh/day

➤ Surface streets:

- 0.3 to 2.4%

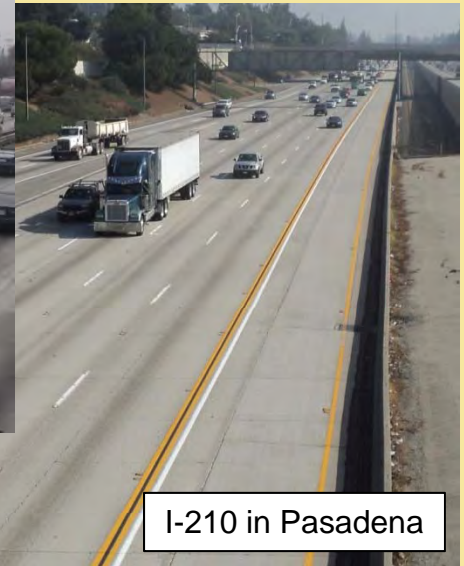
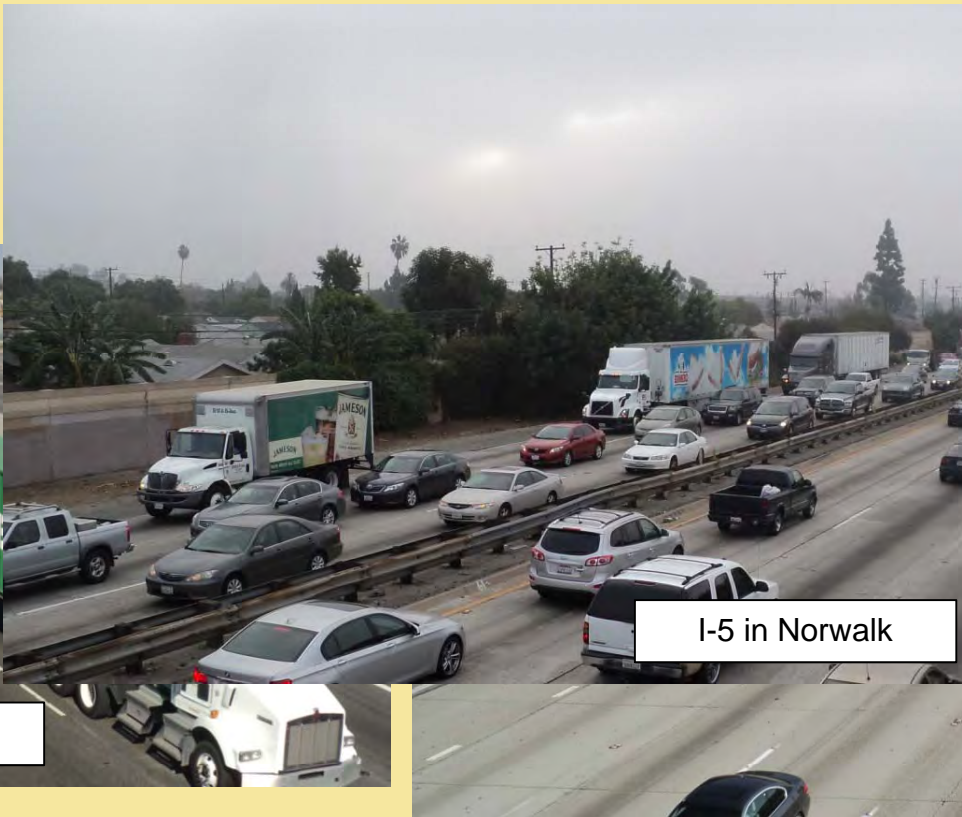


Types of trucks

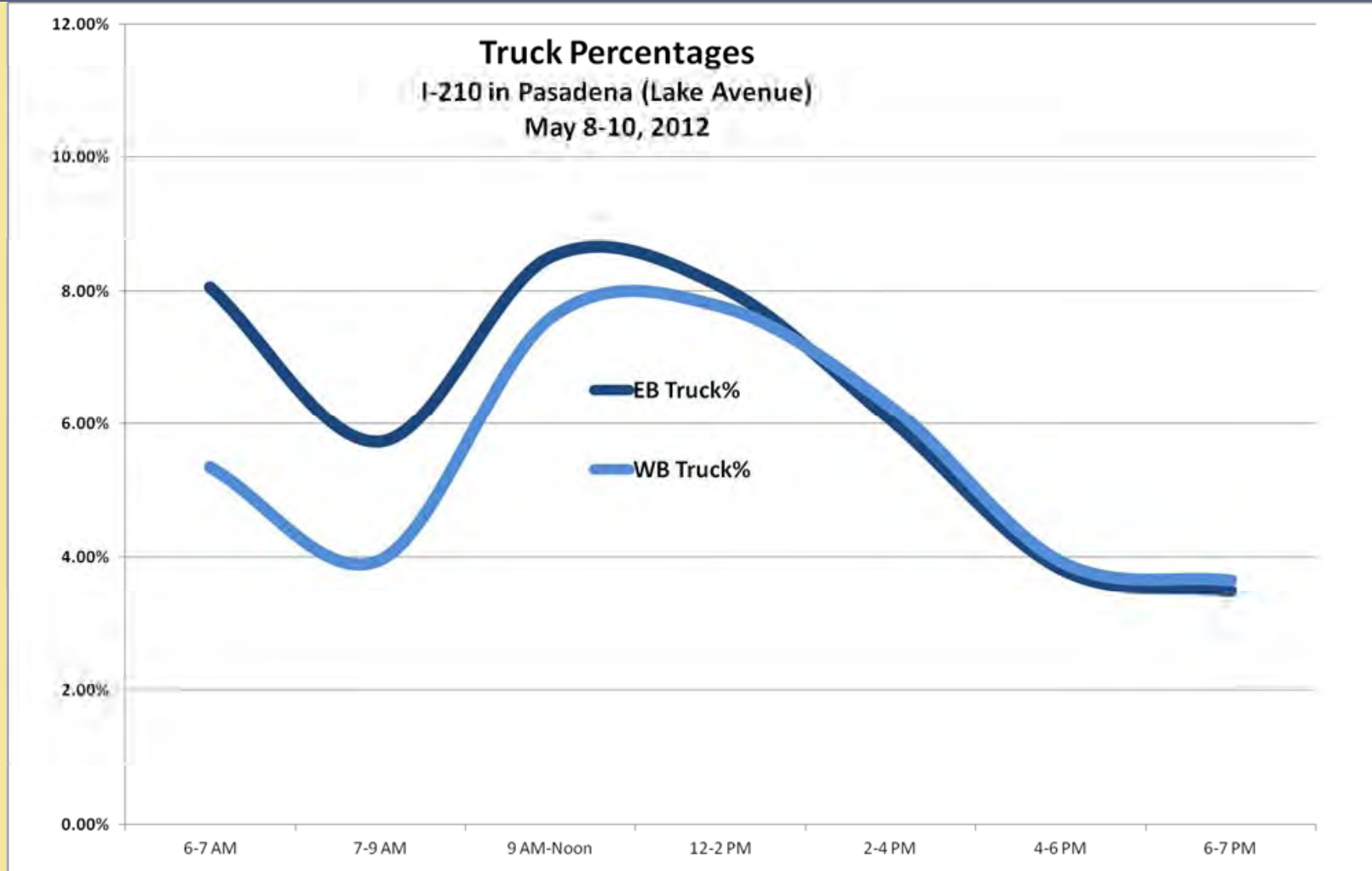


Why does it seem like there are so many trucks on the freeways?

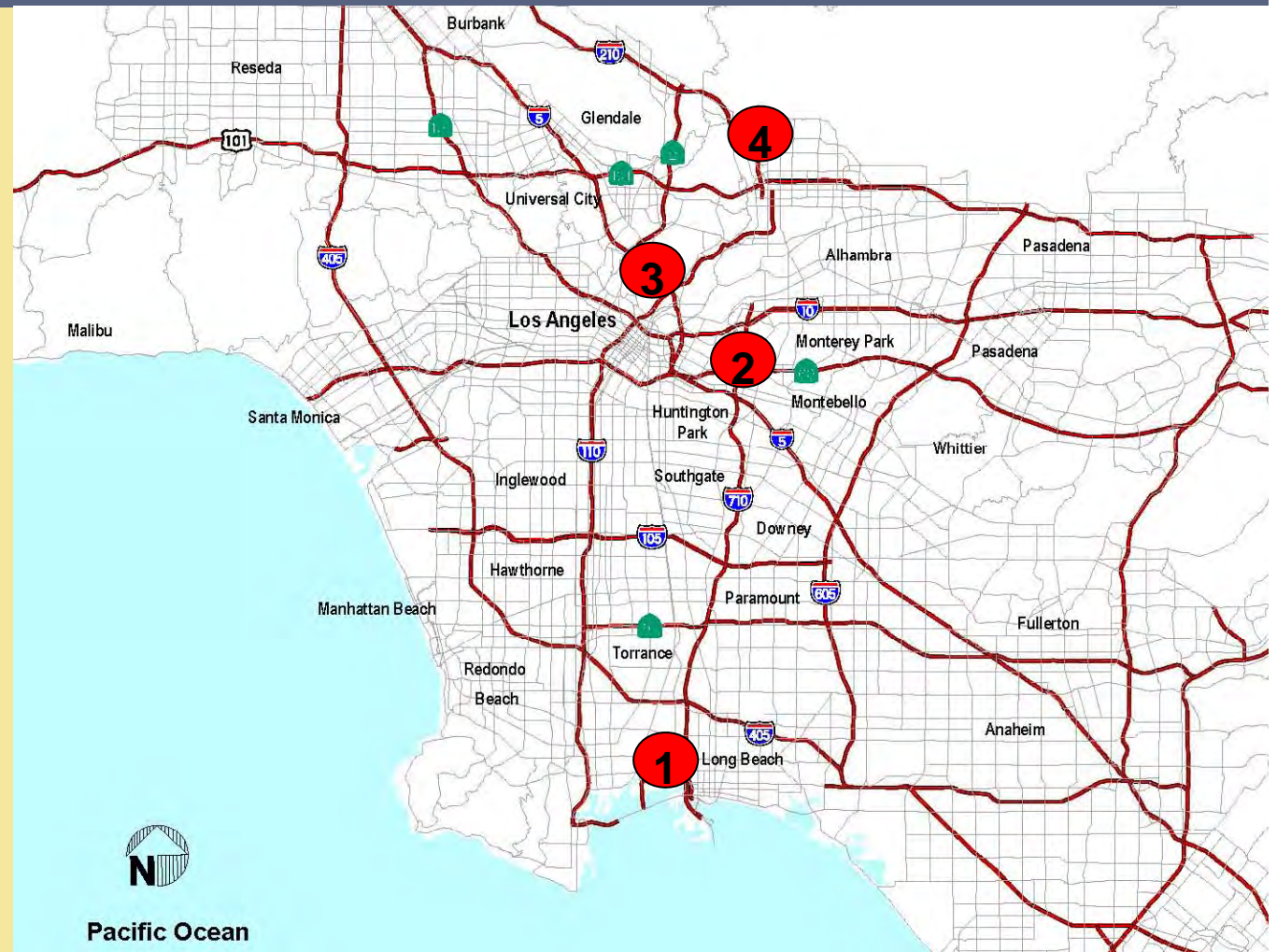
- Trucks typically represent 3 to 9% of peak traffic
- Larger size



Truck percentages are highest mid-day



Freeway videos (mid-day, November 7, 2012)



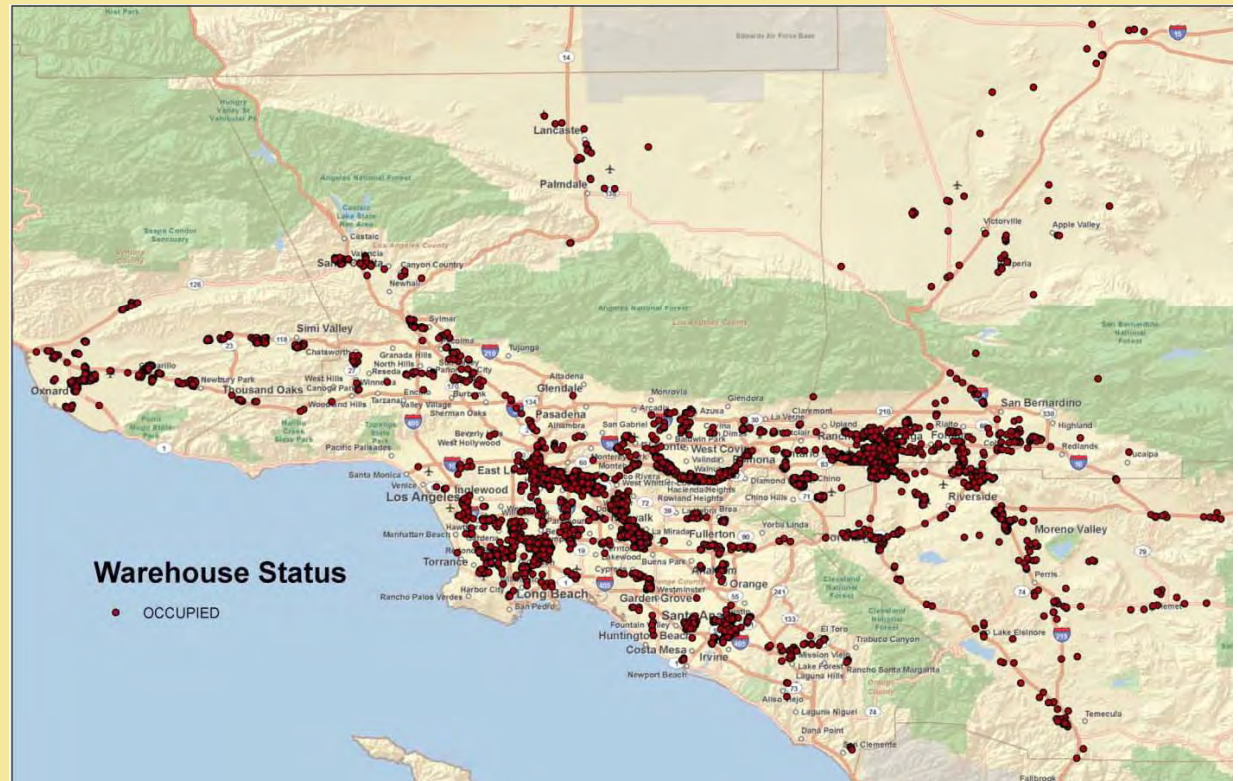
Freeway videos (mid-day, November 7, 2012)



Pacific Ocean

Location of distribution centers

- 200,000 square feet to over 1,000,000 square feet
- Tied to freeways, and occasionally rail spurs
- Availability of large, flat parcels



Do all trucks in the region carry goods that originate at the ports?

- Widely held misperception is that all trucks include goods from the ports being shipped out of the region
 - 20+ million people in SoCal needs goods
 - Most imports are in consumer goods in shipping containers or machinery/vehicles.
 - High volume of local trucks
- SCAG reports over 85% of the truck traffic in the region starts and ends inside the SCAG region. Over 92% of trucks are not coming/going directly from the ports.



Preliminary - Not for Distribution

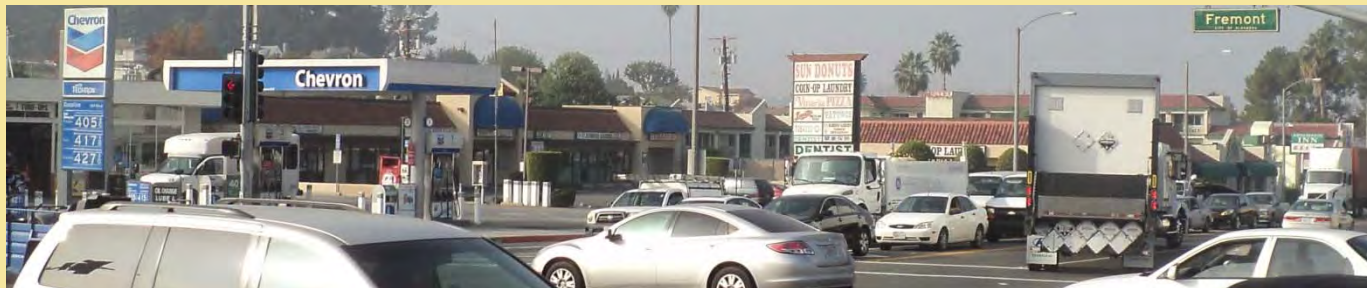
Future truck traffic increases

- No Build: Total freeway truck volumes on an average freeway in the study area will increase from 10,900 trucks/day to 16,700 trucks per day in 2035
- Total truck VMT will increase by 50% from 2008 to 2035

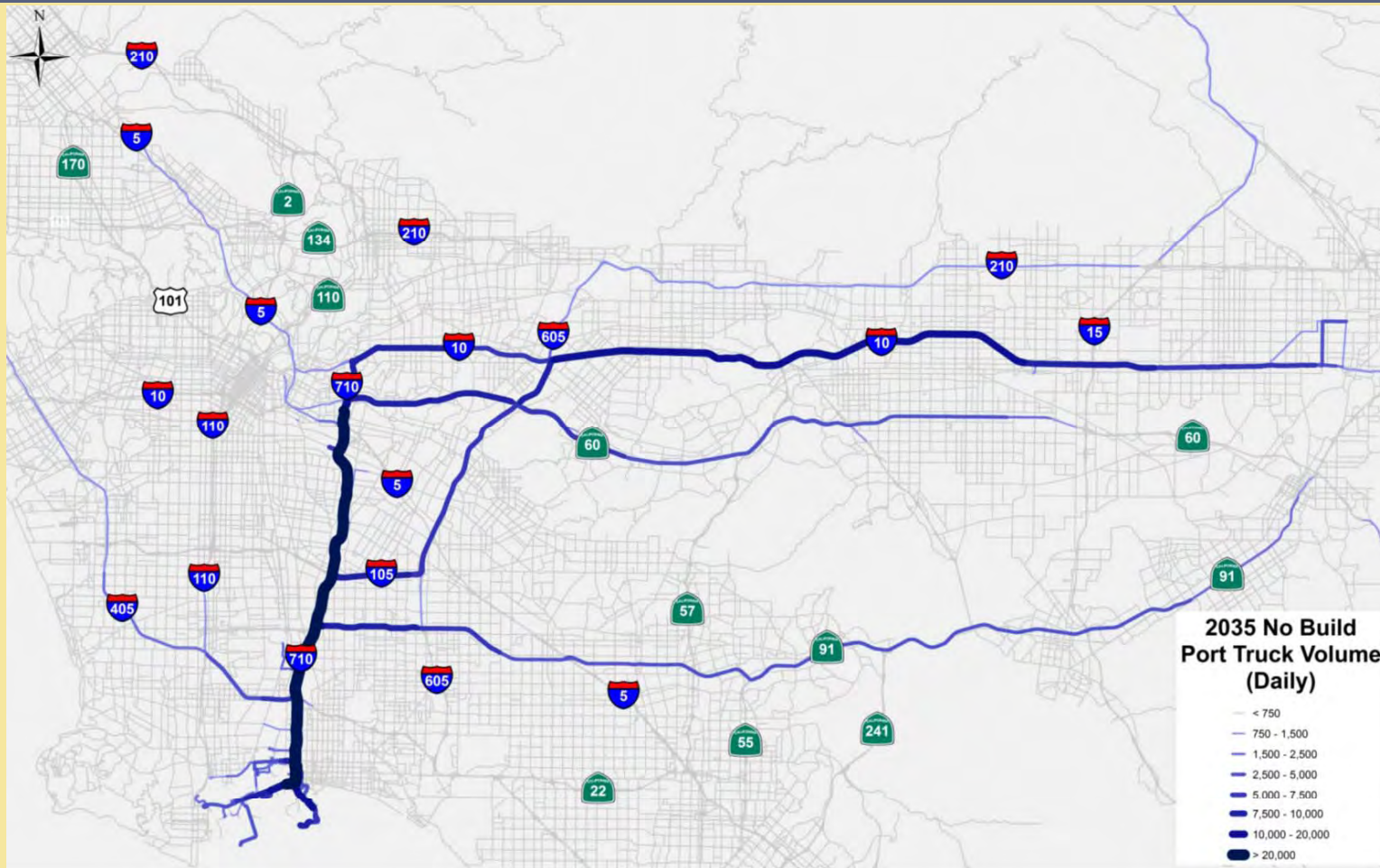
Source: SCAG Travel Demand Model (2008 RTP)

If a tunnel were constructed, would truck traffic to and from the north increase?

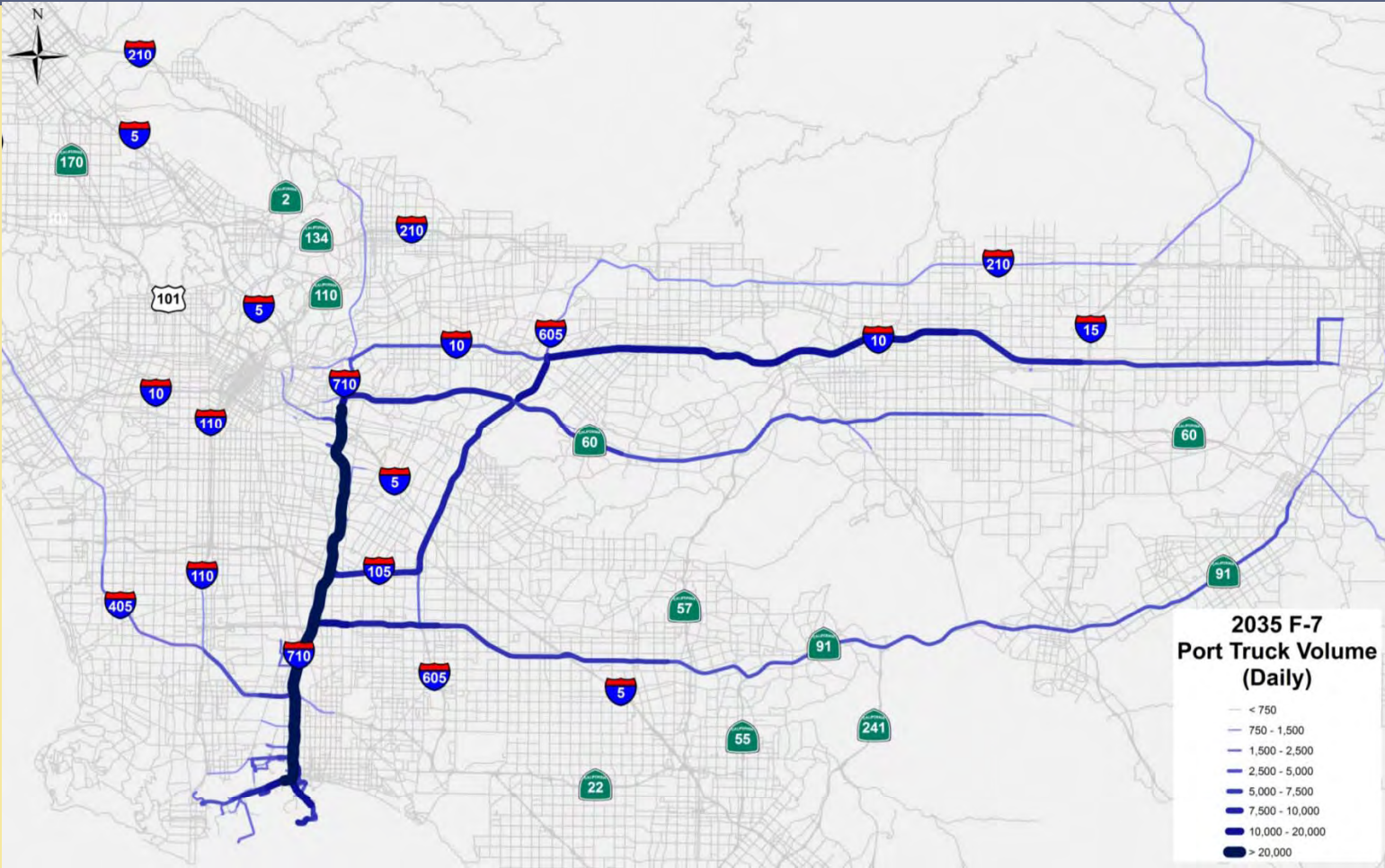
- The land use patterns for the major distribution centers and freight facilities are well established.
- Most distribution centers in Southern California are located near freeways in south Los Angeles County and the Inland Empire.
- Construction of a tunnel would not be expected to alter truck traffic destinations – the number of port trucks going north would not change.
- Local trucks might shift off surface streets and other freeways to use a tunnel.



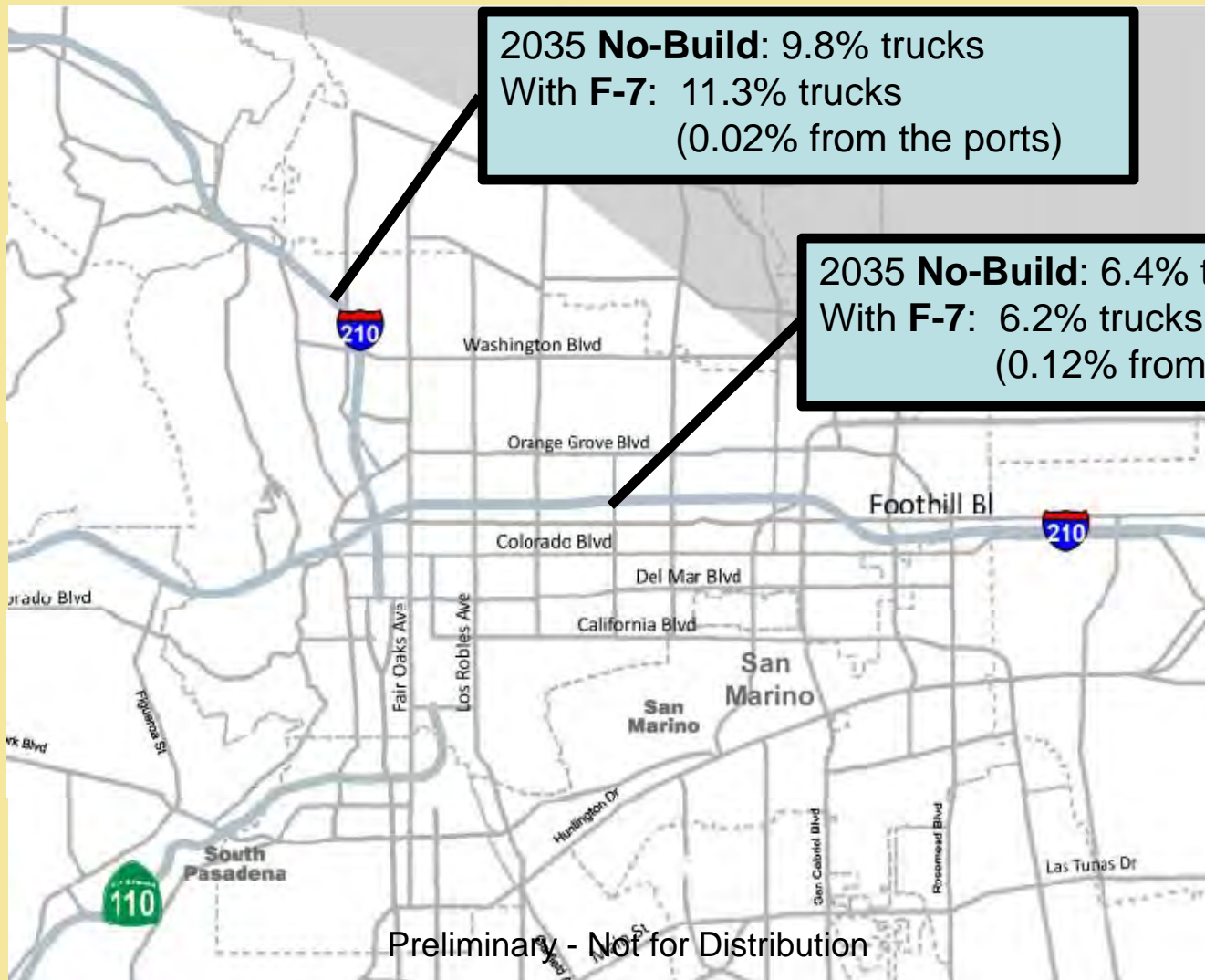
2035 No-Build Port of Long Beach Truck Volume



2035 F-7 Port of Long Beach Truck Volume



What is the change in truck traffic on I-210 if the SR-710 is completed?



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Goods Movement Summary

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Fact Checks



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Forecasted Level of Service of Freeway Tunnel (No Tolls)

- Based on 2008 RTP
 - LOS C during opening year
 - LOS D or better in 2035

Misinformation: LOS F in opening year

Tunnel Safety & Ventilation

- Emergency elements
 - Adhere to state and local Fire Marshal requirements
 - Include response to emergency situations
 - No vehicles with flammable/hazardous cargo
 - Water suppression system
- Ventilation
 - No intermediate shafts
 - Scrubbers at each end to treat PM
 - Catalytic converters for CO and NOx

Misinformation: No Fire Life Safety components

Tolled Scenario

- Traffic volume in tunnel would vary depending on toll pricing
- The tolled tunnel is expected to improve congestion on freeways and local streets
- The level of improvement will vary depending on the amount of toll

Misinformation: Tolling causing congestion on arterial streets

Refinement of Alternatives



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Alternatives from AA for Further Study

Element of Need	Objective	Alternatives														
		No Build	TSM/TDM	BRT-6x	BRT-6	BRT-6x	LRT-4x	LRT-4	LRT-6	F-2	F-5	F-6	F-7x	H-6		
Regional Transportation System	1) Minimize travel time	1	2		2	2	3	3						5		
	2) Improve connectivity and mobility	1	1		2	2	2	2						4		
Freeway System in the Study Area	3) Reduce congestion on freeway system	1	2		1	1	1	1						5		
Local Street System	4) Reduce congestion on local street system	1	1		1	1	1	1						6		
Transit System in the Study Area	5) Increase transit ridership	1	4		6	6	7	7						1		
Environmental & Communities	6A) Right of way	7	7		7	7	7	7						7		
	6B) Human environment	6	6		6	6	6	6						5		
	6C) Natural environment	7	7		7	7	5	5						5		
Consistency with Plans	7) Consistency with regional plans and strategies	1	6		6	6	6	6						6		
Provide Financially Feasible Transportation Solutions	8) Maximize cost-efficiency of public investments	7	7		7	7	4	4						6		

Refinement Objectives

- Enhance performance or reduce impacts of selected alternatives
 - Identify weak elements of each alternative
 - Determine elements that could be added to enhance performance
 - Identify alternatives that could be combined
 - Refine elements to improve performance or reduce impacts

TSM/TDM Alternative

- Reduce R/W needs for intersection/street improvements
- Continue to identify ITS, Active Transportation, and TDM options to enhance further
- Evaluate solutions to further improve traffic operations
- Review improvements further with local jurisdictions

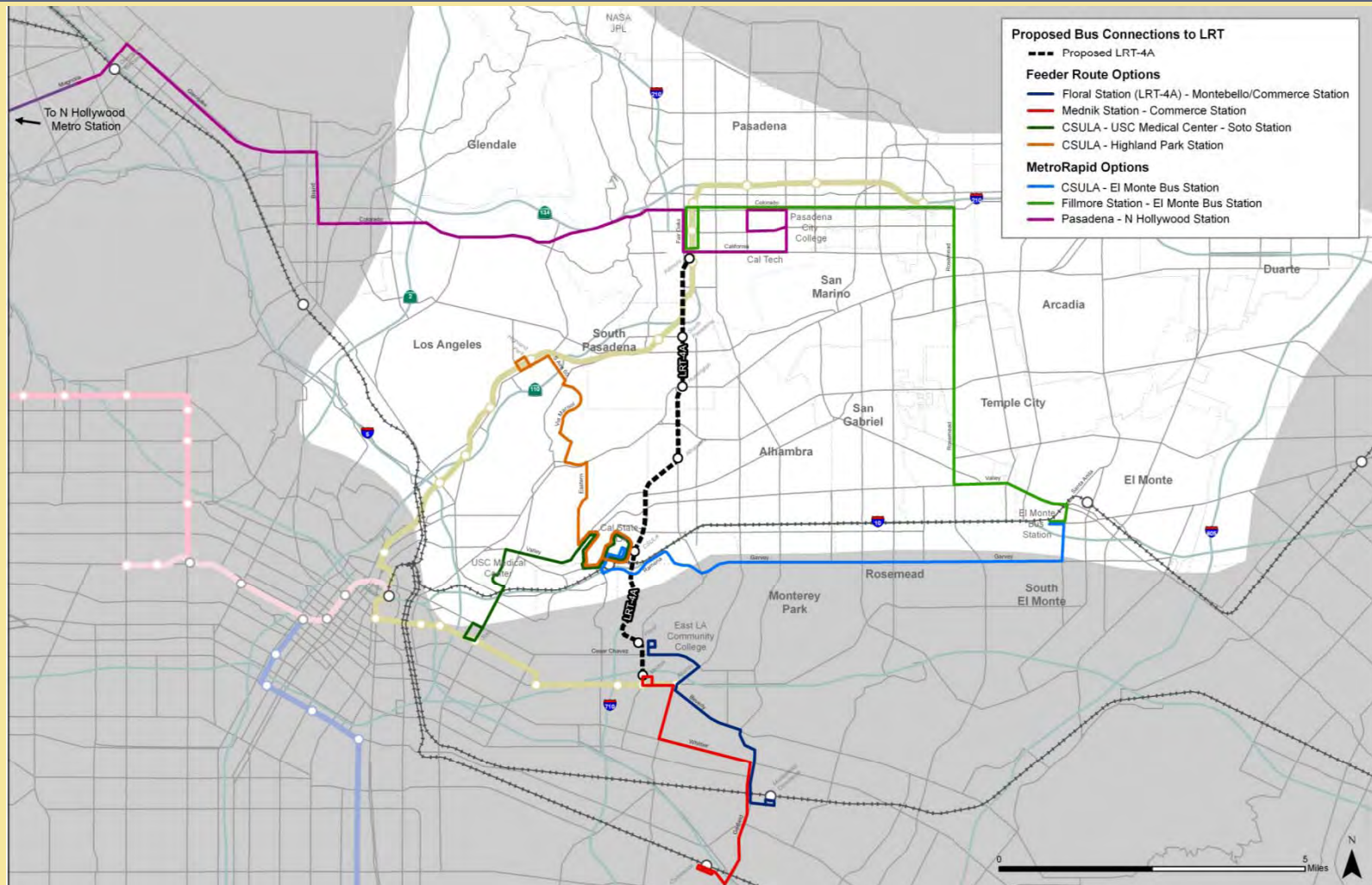
BRT Alternative

- Reduce impacts to on-street parking
- Improve local traffic operations by adding elements from the TSM/TDM Alternative
- Improve speed & reliability of BRT
 - Queue bypass at intersections
 - Off-board fare payment
 - Enhanced stations and access to stations
 - Development of exclusive lanes; or
 - Evaluate use of freeway tunnel

LRT Alternative

- Reduce R/W and construction impacts due to at-grade segments
 - Focus on LRT-4A
- Improve local traffic operations by adding elements from the TSM/TDM Alternative
- Improve transit ridership by creating bus feeder service to stations

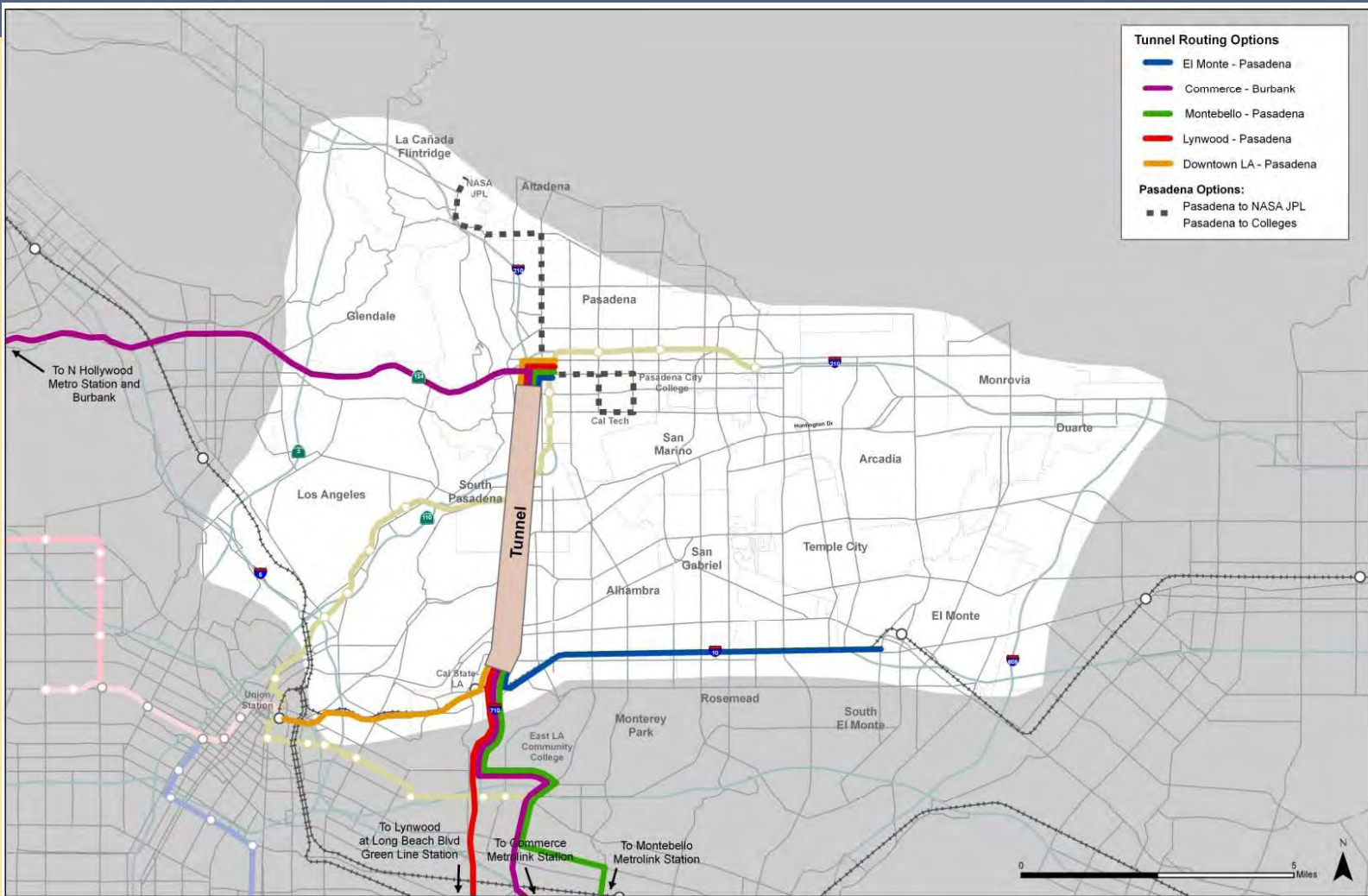
Bus Feeder Concepts for LRT



Freeway Alternative

- Improve transit ridership
 - Add bus service element from TSM/TDM Alternative
 - Evaluate BRT service in tunnel
- Improve local traffic operations by adding elements from the TSM/TDM Alternative
- Evaluate toll and non-toll alternatives
- Consider truck restriction variation

BRT Routing Concepts for Freeway Alternative



Alternatives with Variations for Further Consideration

1. No Build
 2. TSM/TDM (with refinements)
 3. BRT (with TSM/TDM and refinements)
 4. LRT (with TSM/TDM and bus feeder service)
 5. Freeway
 - A – Freeway with TSM/TDM*
 - B - Freeway with TSM/TDM and tolls*
 - C – Freeway with TSM/TDM and BRT through the tunnel*
- *With and without trucks studied for each

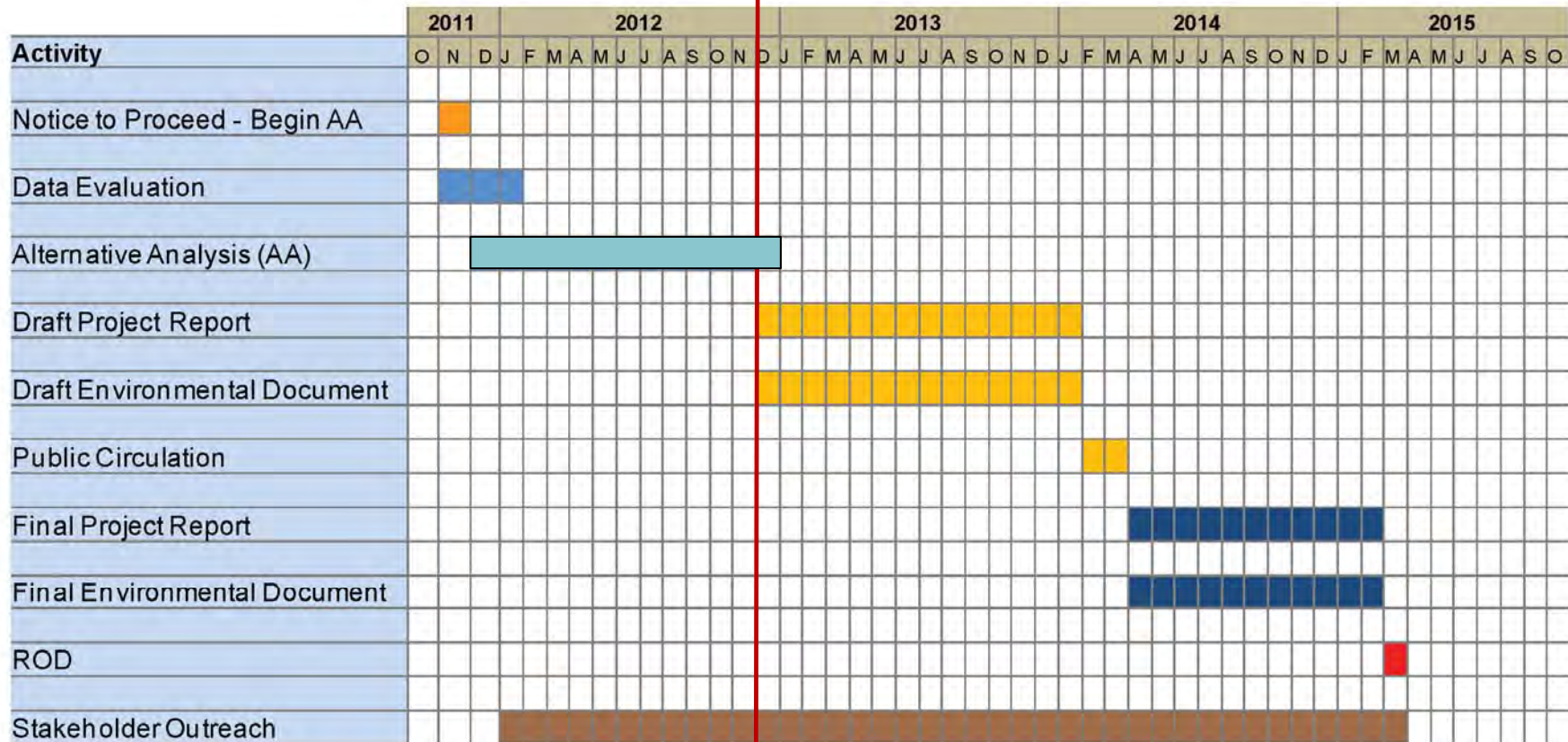
Next Steps



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Study Schedule Update



Meeting Dates

- **2013 SOAC/TAC Meeting Schedule**
 - February 2013
 - April 2013
 - July 2013
 - September 2013
 - November 2013

Alternatives Analysis Report

- Summarizes work performed over the past several months
- Includes results of conceptual engineering and preliminary technical study evaluation
- Describes the basis of selecting alternatives for further evaluation

Alternatives Analysis Report (cont)

- Executive Summary
- CH 1: Need and Purpose
- CH 2: Alternatives Considered
- CH 3: Transportation Systems Performance
- CH 4: Environmental Impacts and Planning Considerations
- CH 5: Cost Considerations
- CH 6: Public Participation
- CH 7: Evaluation Summary and Recommendations
- CH 8: Appendices



Next Steps

- Completing Alternatives Analysis Report by December 2012
- Perform validation of 2012 RTP Model
- Continue to refine alternatives
 - Improve performance
 - Minimize impacts
 - Perform preliminary engineering
 - Begin preparation of technical studies
- Cooperating/participating agencies meeting
- Hold periodic outreach meetings

Open Discussion

