GOODS MOVEMENT TASK FORCE

AGENDA

WEDNESDAY, APRIL 19, 2006
9:00 AM – 11:00 AM

ITEM

1.0 CALL TO ORDER AND INTRODUCTION — **Hon. Art Brown, City of Buena Park, Chairperson**

2.0 PUBLIC COMMENT PERIOD

Members of the public desiring to speak on an agenda item or items not on the agenda, but within the purview of this committee, must fill out a speaker's card prior to speaking and submit it to staff. A speaker's card must be turned in before the meeting is called to order. Comments will be limited to three minutes. The Chair may limit the total time for comments to twenty (20) minutes. When you are called to speak, please come forward and state your name for the record.

3.0 CONSENT CALENDAR — **5 minutes**

3.1 Approval Items

3.1.1 Approval of March 15, 2006 minutes
Attachment 3.1.1 — **Page 3**

4.0 INFORMATION ITEMS

4.1 Maritime Goods Movement Coalition Proposal
Attachment
Robert Wyman, Latham and Watkins, 20 minutes

4.2 I-605/SR-91 Needs Analysis
Attachment
Jerry Wood, Director of Transportation and Engineering, Gateway Cities COG, 20 minutes

---

4.3 Goods Movement Communications **Nancy Pfeffer**
Attachment **SCAG**
10 minutes

Staff will provide an overview of SCAG's current goods movement communications efforts.

5.0 STAFF REPORT

6.0 COMMENT PERIOD

Members of the public desiring to speak on an agenda item or items not on the agenda, but within the purview of this committee, must notify the staff and fill out a speaker's card prior to speaking. Comments will be limited to three minutes. The Chair may limit the total time for comments to twenty (20) minutes.

7.0 NEXT MEETING

The date of the next Goods Movement Task Force meeting will be:

Wednesday, May 17, 2006
9-11am
SCAG Offices
San Bernardino A&B Conference Room

8.0 ADJOURNMENT

CALIFORNIA INTERSTATE

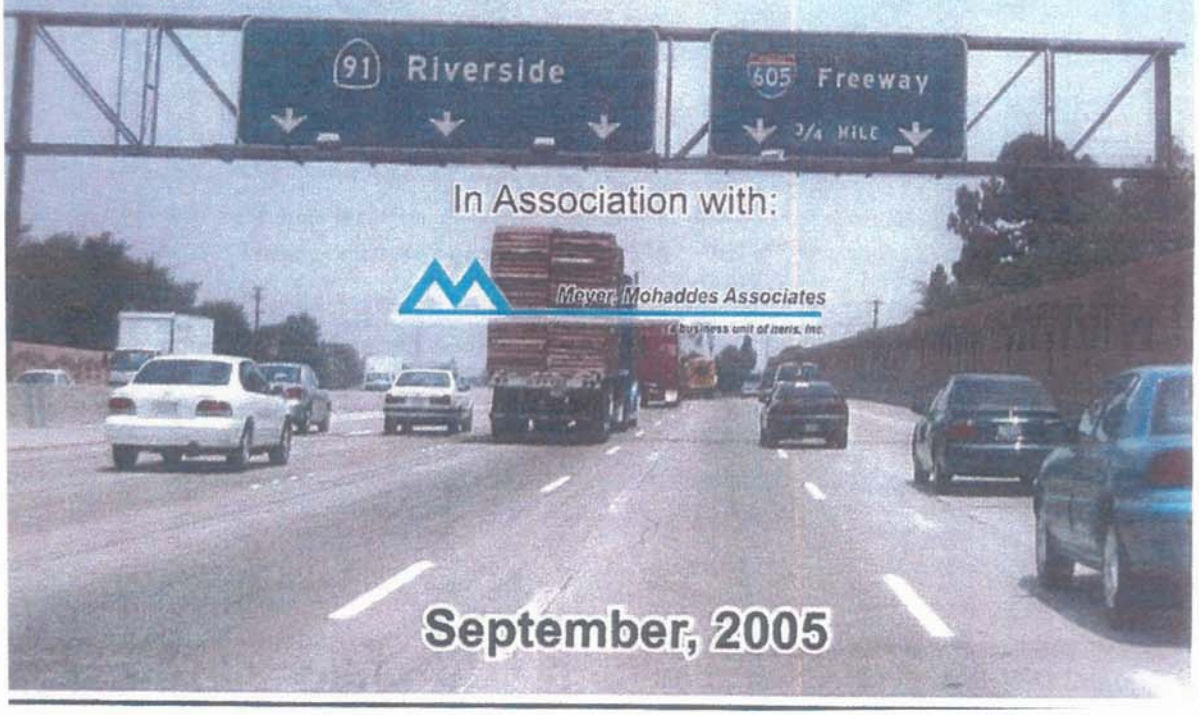
SR-91 / I-605

Needs Assessment Study

Prepared by:

GATEWAY CITIES

COUNCIL OF GOVERNMENTS



In Association with:

Meyer, Mohaddes Associates

a business unit of iteris, inc.

September, 2005

SECTION C
TRAFFIC MODEL

1. TRAVEL DEMAND FORECASTING (TDF) MODEL DEVELOPMENT

The travel demand forecasting (TDF) model used for the SR91/ I-605 Needs Assessment Study is a hybrid model based on SCAG regional model and the Ports of Long Beach and Los Angeles Transportation Study model. The Port model was developed in 2001 and was approved by Ports of Long Beach and Los Angeles for Port area Transportation Planning Studies and environmental studies. Traffic volume projections were forecasted for the year 2030.

a. Land Use

For the purpose of this study, the SCAG model used for the 2004 Region Transportation Plan (RTP) was updated by adding the Ports truck trips to the regional trip tables. The 2000 and 2030 Port truck trips for the four (AM, Mid-day, PM and night time) periods were developed using the Ports TDF model. The Ports truck trips tables were then aggregated back to the SCAG zones system where the Ports of Long Beach and Los Angeles are represented as three zones. The Port trip tables were kept separate from the SCAG Heavy Duty Truck (HDT) trips in order to differentiate the Port truck trips from other truck trips in the model. Special model features include the following:

Grades and Passenger Car Equivalents - An important feature of the SCAG model, which was explicitly accounted for and coded to the network, are locations of steep uphill and downhill grades. Grades are coded in the network as they are in the field, to an accuracy of one percent.

Implementation of Truck Passenger Car Equivalencies (PCEs) - The presence of vehicles other than passenger cars in the traffic stream affects traffic flow in two ways: (1) these vehicles, which are much larger than passenger cars, occupy more roadway space (and capacity) than individual passenger cars, (2) the operational capabilities of these vehicles, including acceleration, deceleration and maintenance of speed, are generally inferior to passenger cars and result in formation of large gaps in the traffic stream that reduce the highway capacity. On long, sustained grades, and segments with impaired capacities, where trucks operate considerably slower, formation of these large gaps can have a profound impact on the traffic stream.

The model uses an Equilibrium Traffic Assignment method, which uses a PCE table for converting Port and other regional trucks to equivalent passenger cars. They include a sliding scale of PCE factors that takes into account the grade, the length of grade and the percent truck traffic.

Port Truck Trip Tables - The port model zone trip tables were developed based on a detailed port area zone system and specialized trip generation rates for autos and trucks in the Ports. Special trip generation rates for autos were developed for the Port studies and applied to the most current 2030 Port forecasts. Port cargo throughout is measured in terms of "Twenty Foot Equivalent Units" (TEU). Truck trip generation for container terminals was developed using the "Quicktrip" model as explained later in this section.

The Quicktrip model is a spreadsheet approach to truck trip generation analysis that was developed as a collaborative effort between the staff of both Ports and a team of consultants. The model builds upon a gate trip generation model that was previously developed, with considerable refinements. It includes detailed input variables such as mode split (rail versus truck moves), time of day factoring, weekend moves, empty return factors and other characteristics that affect the numbers of trucks through the gates. The end product is a forecast of truck trip generation, by type of truck trip, for each hour of the day, by direction. The on-dock rail mode split will vary terminal by terminal based on each terminal's rail capacity. For the POLB the average on-dock rail mode share is 24% for the POLA it is 29%.

The Port area peak hour auto, bobtail, chassis and container trip tables were generated based on the forecast year 2030 twenty-foot equivalent units (TEU) using the Quick Trip model. The total estimated TEU throughput for 2030 for both ports is approximately 44.7 million TEU. For the peak month, this equates to 4.1 million TEU. As a comparison, the total ports TEU throughput was determined to be 11.8 million in 2003. Truck trips are classified into bobtail, chassis and container truck trips, representing the major types of truck trips in the ports.

b. Traffic Model Network of Streets and Freeways

The traffic model network used in the SCAG Regional Model is used for the base-case 2030 projections. That network includes the extension of the I-710 to the I-210 and separate truck lanes from the I-710 onto SR 60 to provide connections easterly to the I-15. It also includes other "smaller" truck-related network features.

In summary, the following lists the key specifications/elements for the TDF traffic model:

- Model produces years 2000 and 2030 daily forecast traffic volumes.
- Model contains specialized trip tables for the Ports area, which replaced the SCAG model Port trips in the port area.
- Model includes the 2004 RTP auto and Heavy-Duty Truck (HDT) trip tables
- Model initially uses SCAG network which includes truck lanes on I-710 to SR 60 and then on SR 60 easterly to connections to the SR 57 and I-15

2. SPECIFIC MODEL RUNS FOR THE SR-9/I-605 NEEDS ASSESMENT STUDY

With the addition of the Port truck trip refinements to the SCAG Regional model, multiple 2030 model runs were conducted with a focus on truck traffic patterns. To develop the Port truck trips, it was assumed that about 60% of the Port truck traffic travels during the day and 20% in each of the evening and Hoot (late night) periods.

For the purpose of this study, the study area was defined on the north by the SR-60, on the west by I-710, on the East by the Orange County Line and by the Ports on the south. This window area provides the ability to define future volumes as they relate to trucks and all vehicles for the SR-91 and I-605 freeways and the connecting freeways. Model Runs were conducted for the following scenarios:

- **2000 Base Year Model** – SCAG 2000 Base Year model was validated for the study area. The key validation was incorporation of the time delays for representing the ramp metering at the I-105/I-605 and I-105/I-710 interchanges. Figure 4 and 5 represent the Base Year Model results for Arterial Highways and trucks for 2003 conditions.

- **Scenario #1: 2030 Baseline** – The SCAG 2030 Plan highway network (which includes truck lanes on I-710 and SR-60 freeways) was updated as follows:

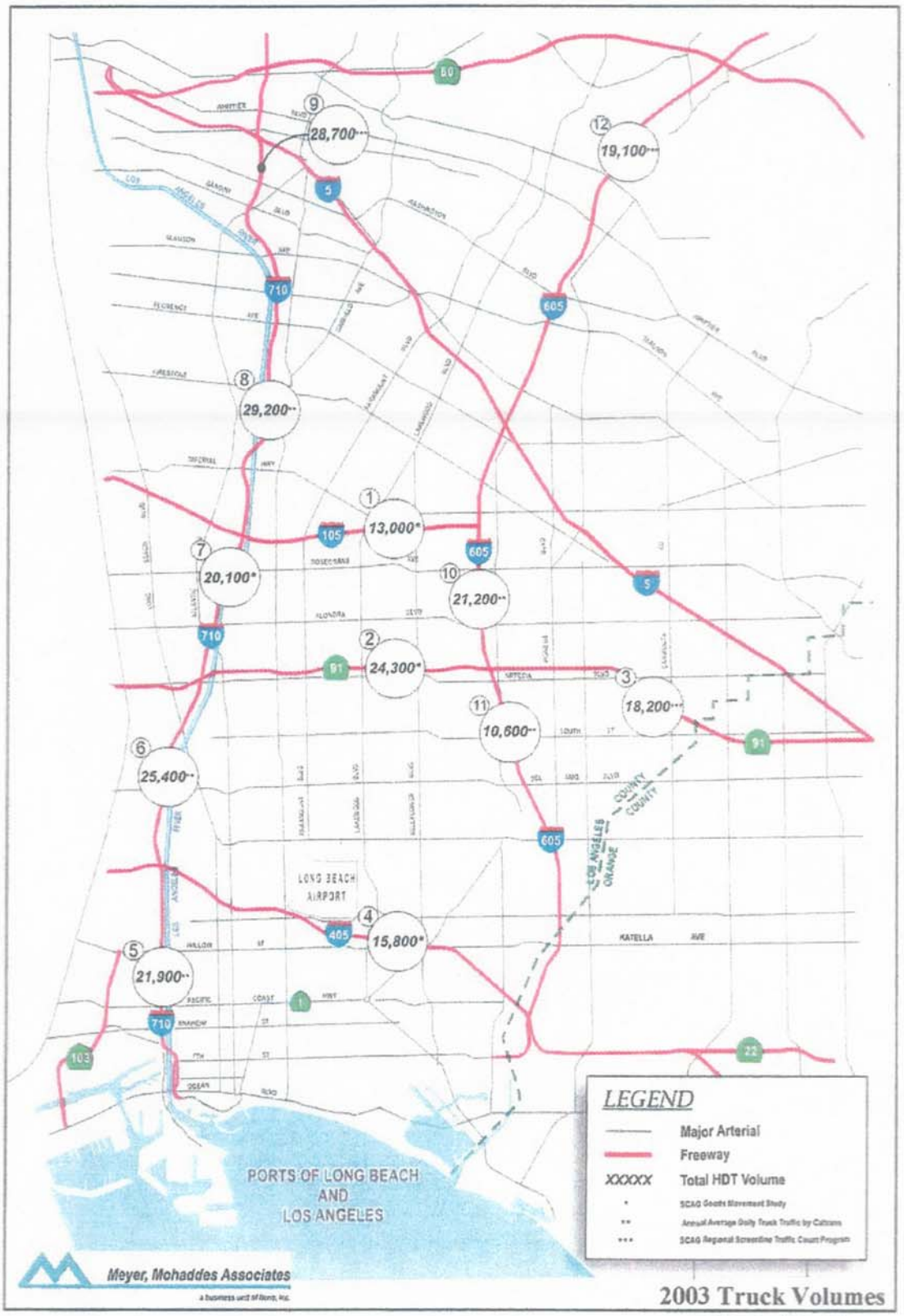
    1. Incorporating the I-710 Locally Preferred Alternative design (but with the I-710 truck lanes continued to the SR 60 freeway)
    2. Elimination of the connection of the I-710 to I-210.
    3. As part of the 2000 base year model validation, additional time delays were added in the model to reflect the ramp metering at the I-105.

    With these assumptions, the 2030 forecast auto and truck traffic volumes are presented in Figures 6, 7 and 8.

- **Scenario #2: 2030 Baseline without Truck Lanes on SR-60** – For Scenario #2, the truck lanes on SR-60 were eliminated from the Scenario #1 highway network and the truck lanes on I-710 terminate at the rail yards. The 2030 forecast auto and truck traffic volumes for this scenario are presented in Figures 9 and 10.

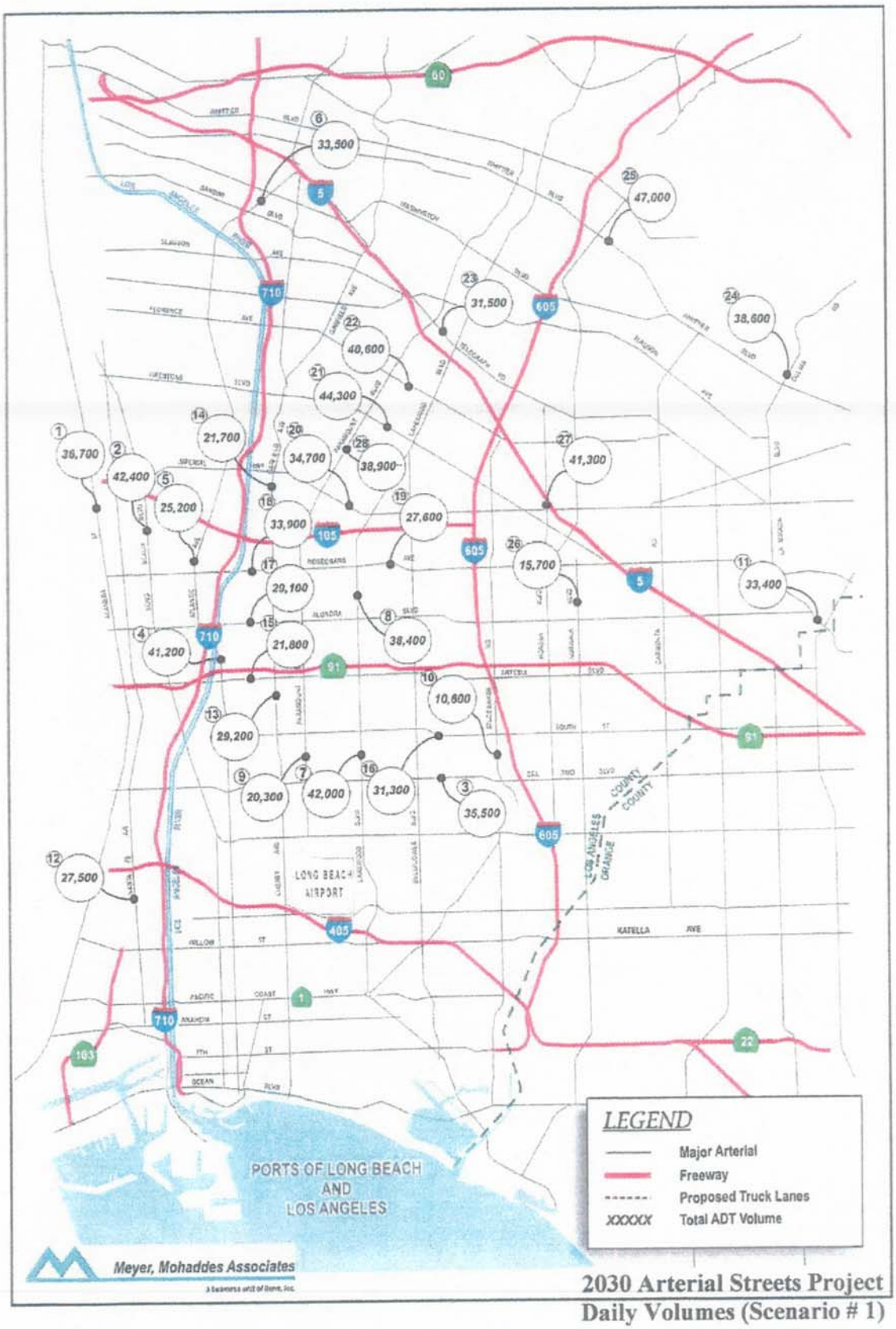
- **Scenario #3: 2030 Baseline without Truck Lanes on SR-60 and Elimination of the I-105 Ramp Metering.** The time delays in the model to reflect the ramp metering at I-105/I-605 and I-105/I-710 were removed. For Scenario #3, the 2030 forecast auto and truck traffic volumes are presented in Figures 11 and 12.

- **Scenario #4: 2030 Baseline without Truck Lanes on SR-60, Elimination of the I-105 Ramp Metering and separate truck ramps at I-710/I-105 Interchange.** Additional truck ramps were added to develop Scenario #4. The 2030 forecast auto and truck traffic volumes are presented in Figures 13 and 14.

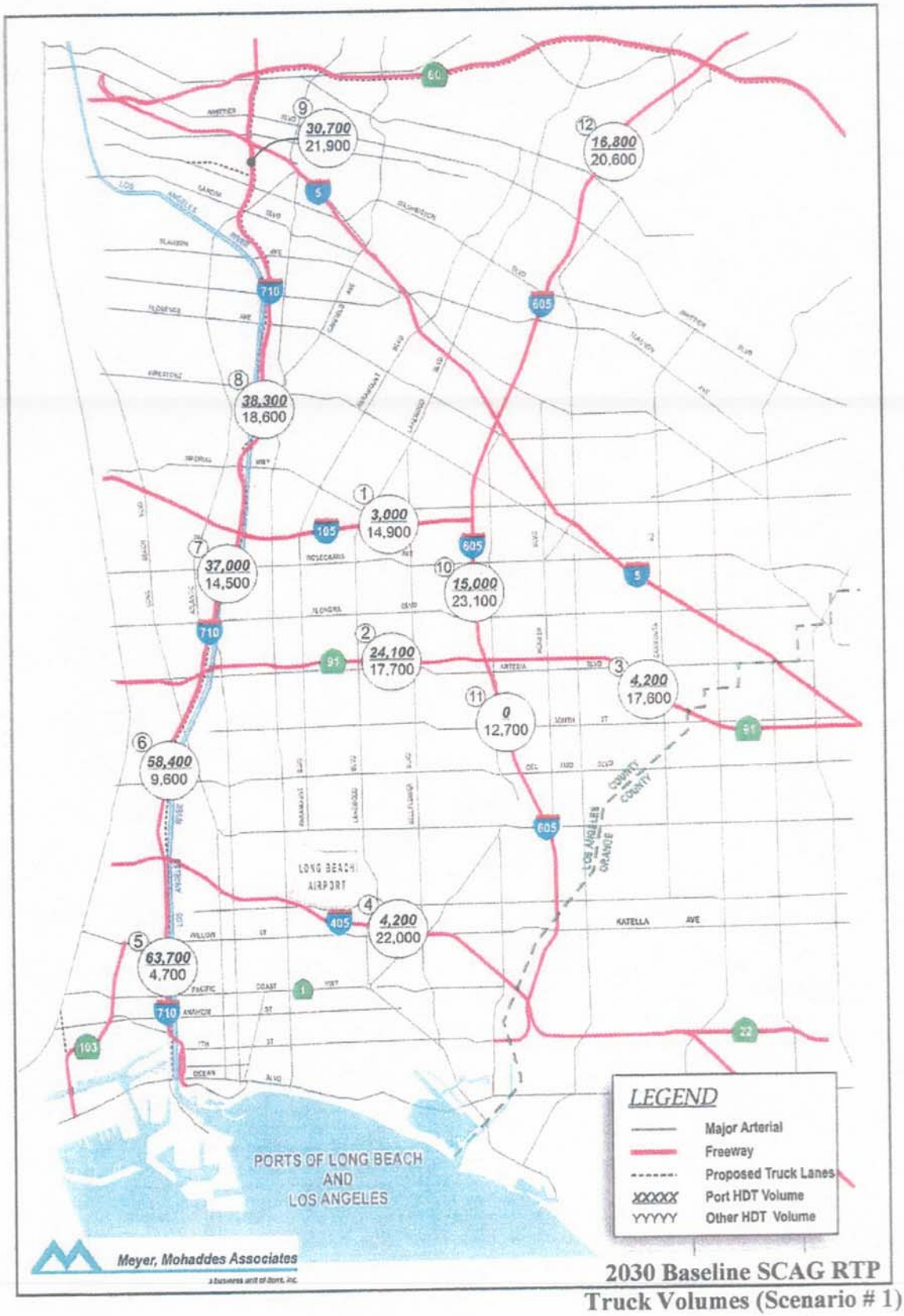


2003 Truck Volumes

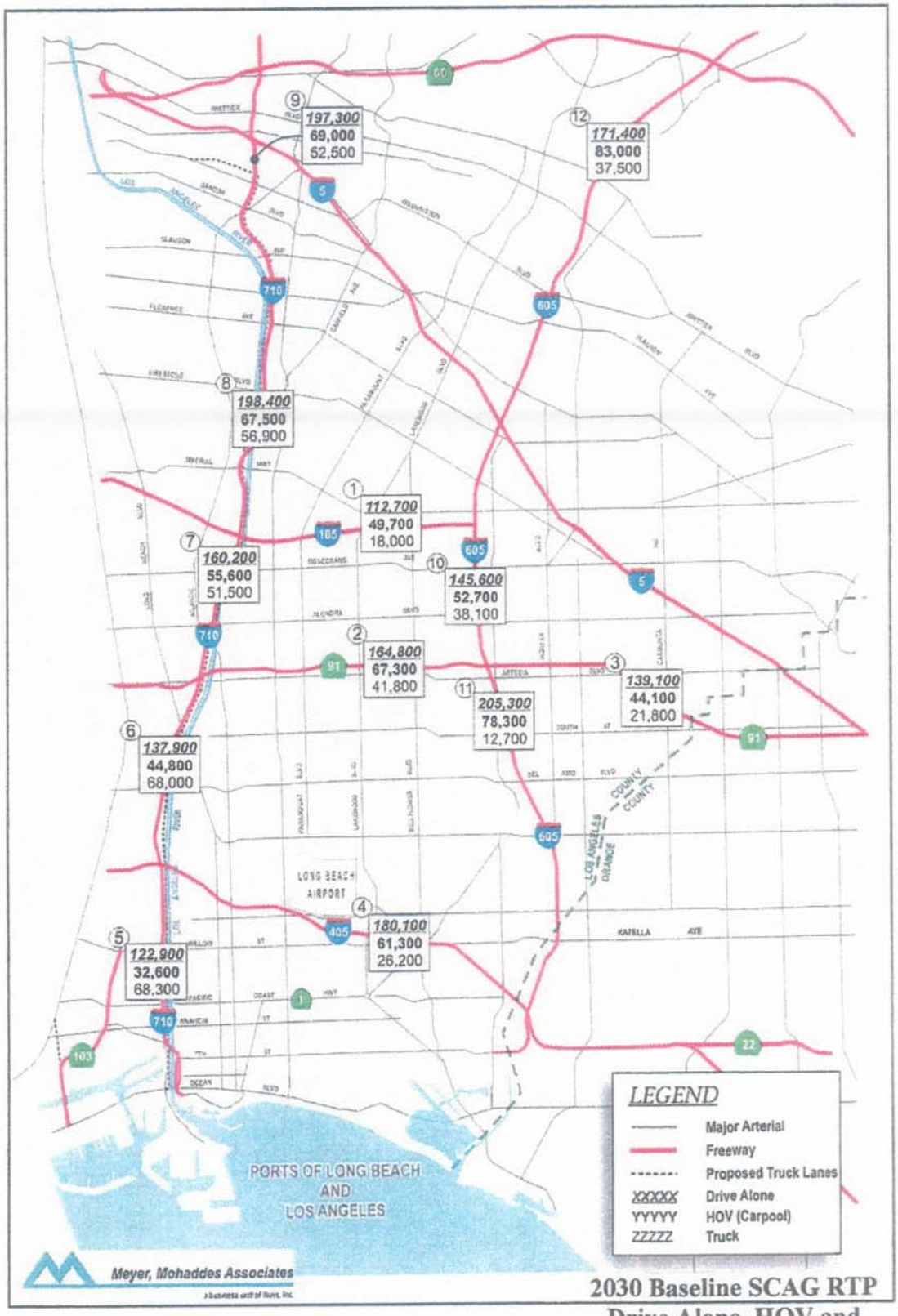
Figure No. 5



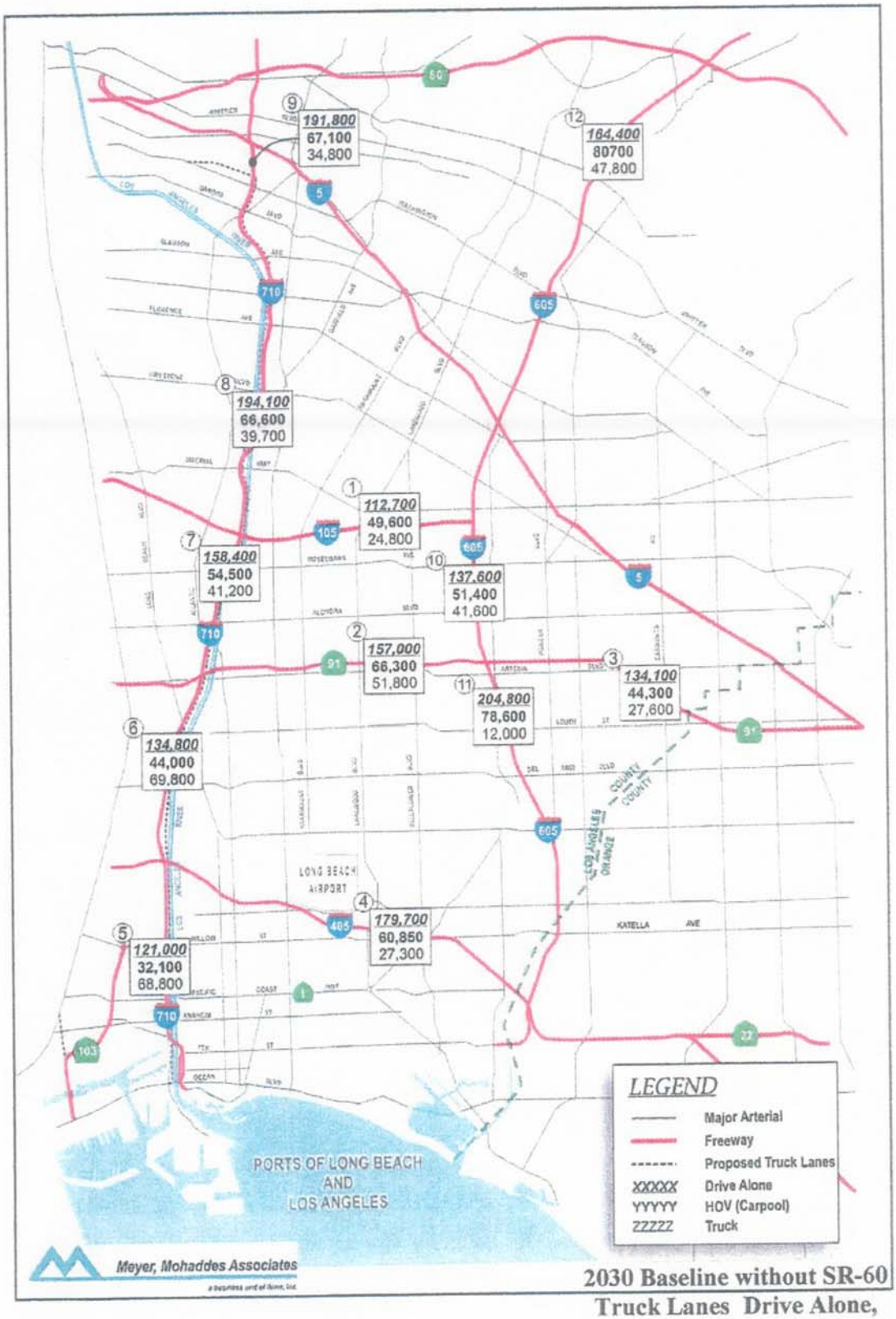
2030 Arterial Streets Project
Daily Volumes (Scenario # 1)
Figure No. 6



2030 Baseline SCAG RTP
Truck Volumes (Scenario # 1)
Figure No. 7

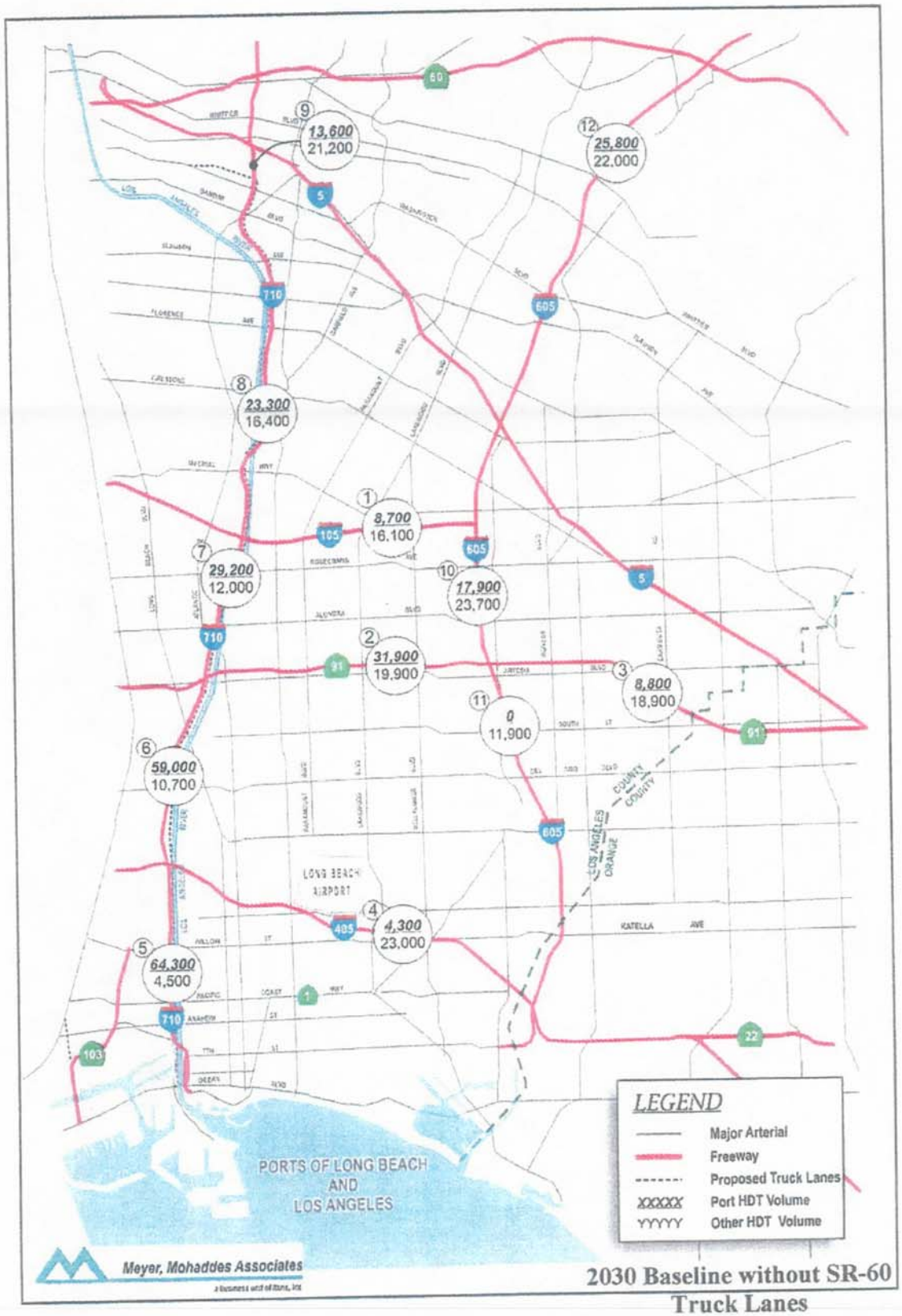


2030 Baseline SCAG RTP
Drive Alone, HOV and
Total Truck Volumes (Scenario # 1)
Figure No. 8

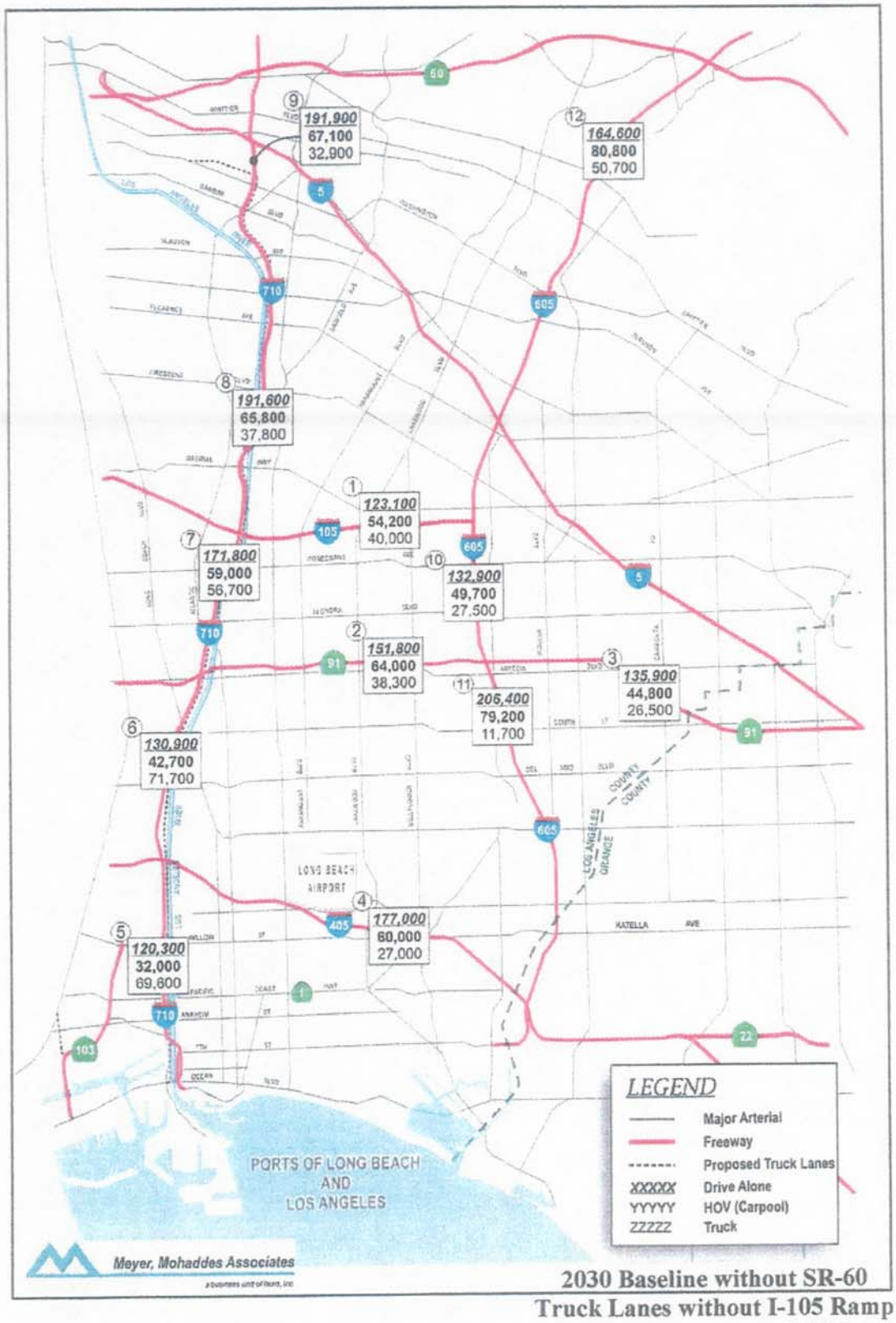


2030 Baseline without SR-60 Truck Lanes Drive Alone, HOV and Total Truck Volumes (Scenario # 2)

Figure No. 9

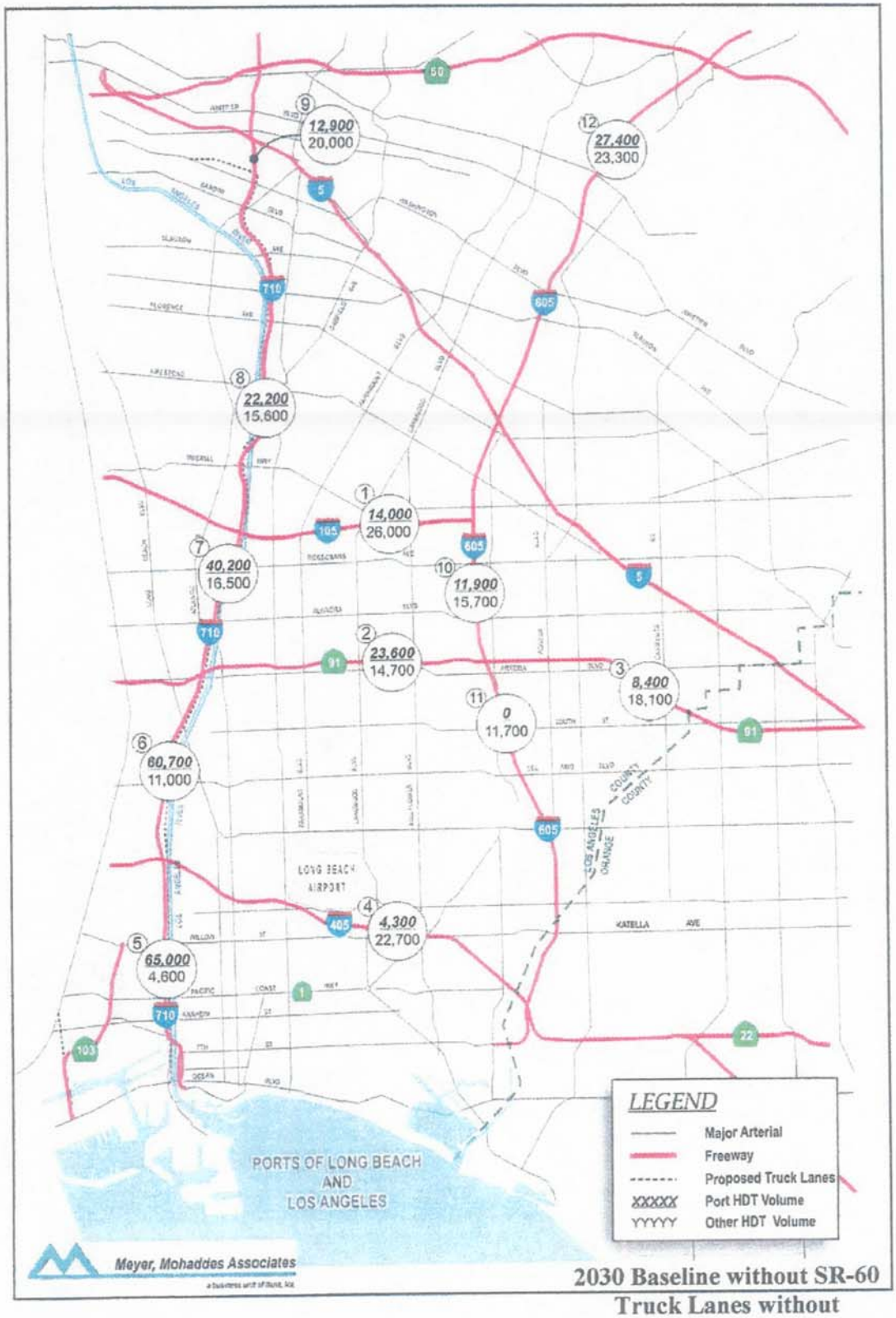


2030 Baseline without SR-60 Truck Lanes
Truck Volumes (Scenario # 2)
Figure No. 10

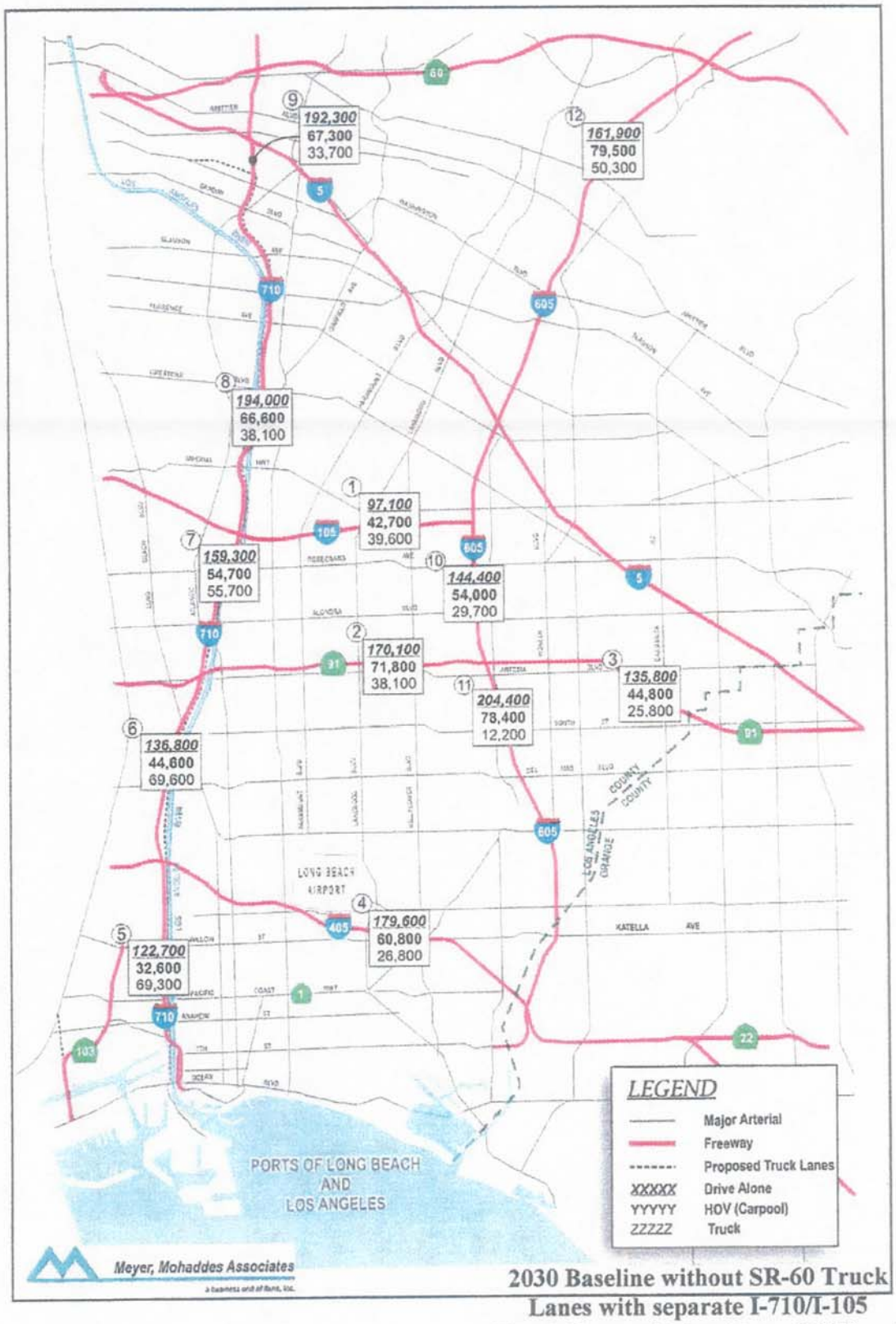


2030 Baseline without SR-60 Truck Lanes without I-105 Ramp Metering Drive Alone, HOV and Total Truck Volumes (Scenario # 3)

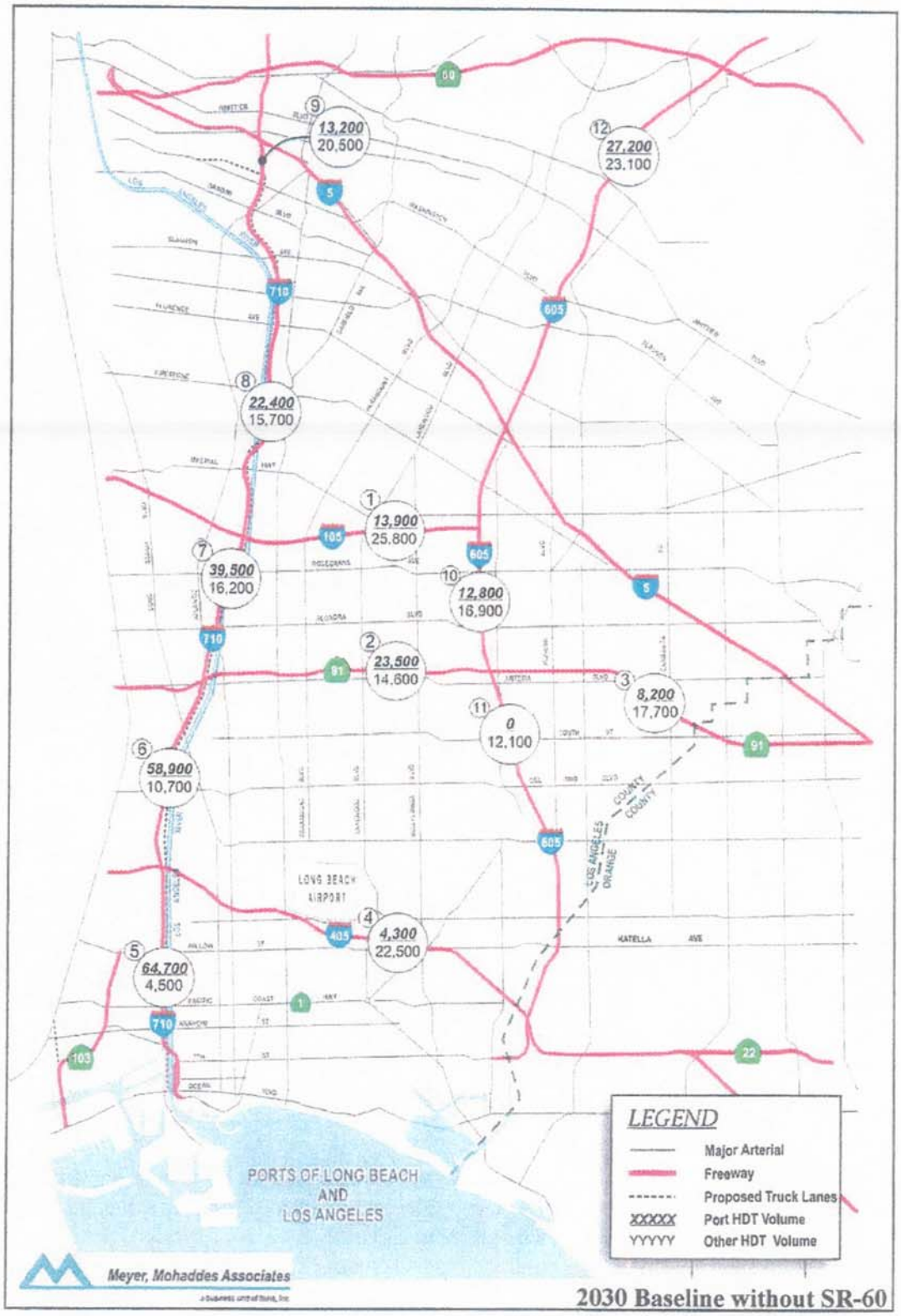
Figure No. 11



2030 Baseline without SR-60 Truck Lanes without I-105 Ramp Metering Truck Volumes (Scenario # 3)
Figure No. 12



2030 Baseline without SR-60 Truck Lanes with separate I-710/I-105 Truck Ramps, Drive Alone, HOV and Total Truck Volumes (Scenario # 4)
Figure No. 13



2030 Baseline without SR-60
Truck Lanes with separate
I-710/I-105 Truck Ramps
Truck Volumes (Scenario # 4)
Figure No. 14

Southern California Goods Movement Plan and Strategy
April 2006

A Southern California consensus goods movement project list has been provided to the California Department of Business, Transportation & Housing by the Southern California Association of Governments, and the state is supportive of this proposal.[1] The list calls for approximately $6 billion in freight rail investments. These consist of additional mainline capacity and new intermodal capacity to handle this growing segment of international trade. About a third of the rail-related investments are for grade crossing separations, which reduce traffic congestion, improve safety, and reduce pollution. The list also includes approximately $20 billion in highway investments to enable the region to handle the dramatic growth in goods movement. This includes a system of dedicated, toll-financed truck lanes, truck climbing lanes, rebuilt bridges and port access roads, and other freight related projects.

The map on the last page shows the needed enhancements to Southern California's goods movement system. The consensus project list is also included on page 5.

An essential element of improving the region's goods movement system is reducing its current impacts on public health and the environment. Estimates vary as to the total likely cost of this effort, but it must be undertaken. A variety of strategies can be applied to ocean-going vessels, locomotives, trucks, harbor craft, and cargo handling equipment. These include cleaner fuels; cleaner-burning engines; retrofitting of control devices; and numerous other strategies, including operational changes.

A broad consensus is emerging on the best way to implement the program of infrastructure and environmental improvements that will keep goods moving in Southern California. This implementation strategy is described in a consensus document[2] drafted by the Southern California Leadership Council, a broad private-sector coalition. It includes both public and private elements, along the following general lines:

- Funding of infrastructure projects through a combination of public bonds and private user fees
- Funding of environmental improvements through a combination of regulation and incentive programs, combined with fees
- Implementation through a series of Freight Investment Entities or FIEs.

In order to implement this consensus strategy, both federal and state legislative action will be needed. In particular:

---

[1] "Southern California Regional Strategy for Goods Movement: A Plan for Action," February 2005 (amended March 2005), prepared by SCAG. See http://scag.ca.gov/goodsmove/pdf/GoodsmovePaper0305.pdf. The projects in this program are included in the 2004 Regional Transportation Plan (RTP), which has been adopted by the Regional Council of Southern California. These projects are also included in the certified Environmental Impact Report for the 2004 RTP.
[2] Southern California Leadership Council, Draft "Straw Man" Consensus, March 1, 2006.

- State legislation must be passed to allow the use of design-build project delivery and to allow the state and regional and local governments to enter into public-private partnerships (to build toll roads, for example). Permanent dedication of Proposition 42 transportation funds is also essential.
- Federal legislation must be passed to provide incentives for private investment in these projects, as well as to provide additional direct funding for projects that are indisputably of national significance. The proposed National Freight Policy Framework[3] should be further developed with other states through the leadership of California's congressional delegation (and the Goods Movement Caucus).

Goods movement projects must be funded through a variety of traditional and non-traditional revenue sources that do not compete with other transportation priorities. There is substantial consensus on the following key elements:

- **Toll Truckways**

  Dedicated truck tollways that segregate all truck traffic from non-truck traffic along primary goods movement corridors will dramatically increase reliability for users, as well as saving time and fuel costs. It will also improve public health and safety along these dedicated corridors. Tolls can vary based on congestion level. By 2012 this initiative could reduce between 33 and 66 million tons of carbon dioxide (CO2) emissions and 200,000 tons of nitrogen oxides (NOx) per year, while saving 150 million barrels of oil annually.[4]

- **Voluntary User Fees for Cargo Owners**

  Shippers have expressed support for voluntary user fees that are market and mode neutral. In particular, such fees could be used to fund the large rail-highway grade separation project known as the Alameda Corridor East (ACE), much like the methods used on the original Alameda Corridor and currently used for PierPASS. Cargo owners opting to use ACE would pay a voluntary user fee that will return the principal of the bonds used to finance the project. The cargo owners will benefit from decreased travel times, and the community will benefit from decreased noise, pollution, travel delay, and increased safety. In addition, grade separations dramatically increase surface street movement and facilitate the free movement of fire and police vehicles. Only a business solution will attract voluntary fees from the private sector.[5]

---

[3] See http://ostpxweb.dot.gov/freight_policy_framework.html.

[4] Cited but not sourced in Poole, Robert W., Peter Samuel, and Brian F. Chase. "Building for the Future: Easing California's Transportation Crisis with Tolls and Public-Private Partnerships." Reason Foundation Policy Study No. 324, January 2005. pp. 25.

[5] In 2005 SCAG completed the "Port and Modal Elasticity Study" (see http://scag.ca.gov/goodsmove/pdf/FinalElasticityReport0905.pdf) and a related value analysis that were widely reviewed by the private sector. This work showed that significant productivity gains would enable the use of fees without adverse effect on trade through Southern California's ports. See also "Goods Movement in Southern California: The Challenge, The Opportunity, The Solution," September 2005, at http://scag.ca.gov/goodsmove/pdf/GoodsmovePaper0905.pdf.

- **Governor's Strategic Growth Plan**

  The Governor's commitment to infrastructure investment has been welcomed by the business and transportation communities. The state needs to be an active funding participant in goods movement infrastructure and related public health funding. The following criteria should be used in allocating such funding and providing priority in environmental review:

  1) Goods movement systems of regional or statewide significance, including public health related issues
  2) Performance based selection from regionally vetted lists
  3) Degree of readiness for construction/operation
  4) Opportunity for private sector participation and leverage
  5) Environmental and public health clearance obtained.

  While the Governor's initiative, and the related legislative bond proposals, are extremely important, it is also critical to understand that they constitute no more than "seed capital" for the total need in Southern California. Coupled with the federal and local initiatives described here, they will enable our region to benefit and continue to support the nation. Moreover, funds provided by the state should be limited to public benefits and funds from the private sector should be limited to private benefit, including remediation, and all such funds should be maintained in project specific, "lock box" accounts.

- **Incremental Percentage of Customs Revenue**

  In 2003, the ports of Los Angeles and Long Beach together generated $6.6 billion in customs revenue. A portion of the increase in customs revenue over this amount should be designated to pay for goods movement projects of national significance.

- **Freight Infrastructure Investment Tax-Credits**

  In order to entice private industry to invest in goods movement infrastructure, there must be a way for the business community to receive a quantified return on their investment. A tax-credit equity financing model, structured much like the New Markets Tax Credit for community development, could provide an incentive for private industry to invest in transportation infrastructure. Such a proposal is now being considered by Congressman Thomas, Chair of the House Ways & Means Committee. The equity provider would receive tax credit returns calculated on the basis of combined total investment (both debt and equity); a federal tax credit annually projected over a maximum term of 20 years. These tax credits are large enough of a return for the equity investors, essentially leaving the equity principal in the project. An institution must be created to collect and distribute funds for designated projects.[6]

[6] c2group. "Tax Credit Equity Financing for Goods Movement Projects: Financing Synopsis." January, 26 2005

The Southern California Leadership Council suggests the following implementation steps[7]:

1) Provide a mechanism at the federal level for tax-credit bonds for goods movement projects, as described above.
2) Select from a vetted list of transportation improvement projects as a part of a regional system that identifies project cost and the monetary benefits and develop a consensus around these projects by the business community.
3) Form several Freight Investment Entities (FIE) together with several Investment LLPs on a sub-regional or project-specific basis.
4) These FIEs will provide low cost loans and investments for planning, design, engineering, environmental permitting, acquisition, construction and rehabilitation of projects related to facilitating goods movement. Additionally, associated local community mitigation needs may qualify.
5) These FIEs will show the business community the cost benefits of investing in the project.
6) These FIEs will collect funding from tax-credit bonds to pay for projects.
7) These FIEs will build the projects.
8) Either private industry will receive tax-credits and benefit from the project, or alternatively a federal tax credit bond could be issued to pay only the interest on the bonds using incremental customs revenue as the offset.
9) Create a mechanism to ensure that private industry investment is earmarked only for the identified projects in which they are investing.

In addition to that described above, the following state and federal legislative support is needed:

- **Mobility Project Delivery Laws**

  California law has strict mobility project delivery laws that lag behind innovative procurement arrangements. Changes in state law are needed to allow Caltrans to use the design-build method, which places the design and construction of a transportation project under a single contractor, thus accelerating completion, containing costs, and allowing design flaws to be corrected early. Special purpose (finance, design, build and operate authorities) also need to be created to implement needed projects on a near term, timely and cost effective basis as demonstrated by the Alameda Corridor Transportation Authority.

- **Recognition of Projects of National Significance**

  Due to geographical proximity with Mexico and Asia, along with deep-water ports, California has become a trade gateway to the rest of the nation. Roughly three-quarters of the goods entering Southern California are bound for destinations outside the region. Nearly $200 billion worth of goods transiting these ports in 2000 provided the nation with $208 billion in economic output and generated over $16.4 billion in state and local

[7] Southern California Leadership Council, Draft "Straw Man" Consensus, March 1, 2006.

taxes and 2 million jobs throughout the country.[8] Therefore, it is fair to request a more equitable distribution of federal funding for California goods movement projects of national significance. This can be done through the reauthorization of SAFETEA-LU, or through separate legislation.

Southern California Regional Goods Movement System: Potential Needs[a]

Project	Tentative Total Cost ($Millions)
Alameda Corridor East (ACE)	$2,500
Colton Rail Grade Separation	$90
Rail Capacity Improvements (all counties, includes mitigation measures)[b]	$3,400
Near-Dock Intermodal Facility, LA/LB[c]	TBD
New Rail San Fernando to Antelope Valley[c]	TBD
Port/Rail Intermodal Access, Ventura	$18
Santa Paula Branch Line from Santa Clarita to Port Hueneme[c]	TBD
Shuttle Train Inland Terminal[c]	TBD
Rail/Grade Separation Subtotal	***$6,008***
SR-57 Truck Climbing Lane	$68
SR-91 Truck Storage Lane	$5
SR-115 Improvements	$76
I-15 Truckway	$10,100
East-West Corridor[d]	$4,300
I-5 Truckway[c,d]	TBD
I-710 Corridor/Gerald Desmond Bridge Gateway Program	
• Gerald Desmond Bridge	$605
• I-710 Corridor[e]	$4,500
SR-78/Brawley Bypass[f]	$108
SR-47 Improvements	$420
110 Freeway/SR-47/Vincent Thomas Br.	$23
Highway/Other Subtotal	***$20,205***
Grand Total	**$26,213**

Notes:

a) Costs reflect current dollar estimates—not adjusted for inflation.

b) Costs associated with surface traffic and other mitigation measures may be greater than current cost estimates reflected in the ACE total. Accordingly, additional mitigation needs are accounted for in this rail capacity improvement total.

c) These projects have been identified since the adoption of the financially constrained 2004 Regional Transportation Plan (RTP). Costs still need to be determined for these projects.

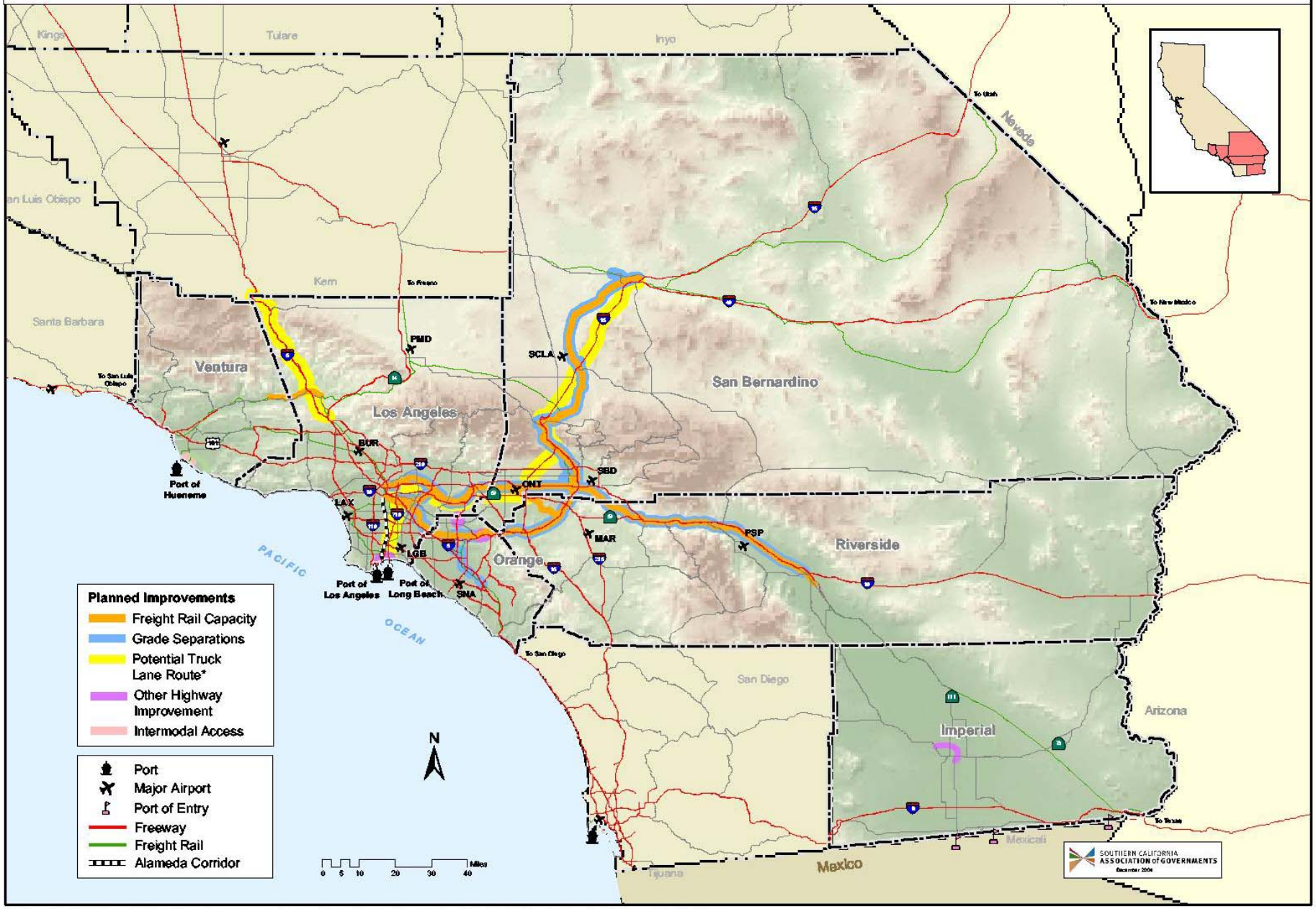
d) Route and scope may change depending on the results of the Multi-County Goods Movement Action Plan (see http://www.metro.net/projects_programs/mcgmap/).

e) The $4.5 billion cost estimate is based upon more recent corridor analyses/studies assuming a broader project scope than what is currently reflected in the 2004 RTP at $2.2 billion.

f) Costs reflect total project costs even though phases may be programmed in the current Transportation Improvement Program.

[8] OnTrac Trade Impact Study, BST Associates in collaboration with Los Angeles County Economic Development Corporation, December 2002.

Needed Additions to the Goods Movement System



* Regarding SR-60 and I-5, route and scope may change depending on the results of the Multi-County Goods Movement Action Plan.