

APPENDIX H

***I-710 Major Corridor Study Screening
Methodology***, Parsons Brinckerhoff, Inc.,
March 2002

Description of Screening Measures, Parsons
Brinckerhoff, Inc., May 2002

**I-710 Major Corridor Study Screening
Methodology, Parsons Brinckerhoff, Inc., March
2002**

**I-710 Major Corridor Study
Screening Methodology
March, 2002**

Purpose of Screening

Screening will take place during the months of March, April and May. The purpose of screening will be to elicit the technical information needed to identify which alternatives and transportation elements from the initial set are most competitive and should, therefore, be carried into the more detailed evaluation stage of the study. At the conclusion of the Screening task in June 2002, a No Build Alternative, a TSM/TDM Alternative, and three build alternatives will be selected for further analysis. These are called the final set of alternatives.

Key Questions for Screening

During Screening, it is important to focus the analytical effort on key questions and those technical issues that highlight the major differences among the alternatives so that their relative benefits, costs, and impacts can be clearly understood. In certain cases, the predicted benefits, costs, and impacts among some of the proposed improvements are either similar or the differences are relatively small, particularly at this level of project definition. During Screening, these smaller or operational improvements will be grouped together in logical packages so that their combined effects can be examined or deferred to the more detailed stage of Alternatives Evaluation. Examples of where this would occur include the following: TSM/TDM strategies; goods movement strategies; arterial improvements; interchange modifications. The bulk of the screening effort will be devoted to identifying "order of magnitude" differences among the proposed improvements and answering key questions.

The following is a partial list of some of the key questions that have been developed by the project team to date where input from the Technical Advisory Committee, the public, and participating or resource agencies would be helpful to the project team. In most cases, the technical team will need to develop the evaluative information to answer the question.

Answers to these key questions, will help define which alternatives should be carried forward as well as help focus the screening activities. Some of these questions are interrelated.

1. Re: analytical framework for the final alternatives: Do we need a high, medium, and low alternative for the final set of alternatives?
2. Re: analytical framework for the final alternatives: Is it necessary to keep the modal emphasis in the final set?
3. Re: analytical framework for the final alternatives: Do we want to maintain both at-grade and elevated options in the final set?
4. How important are ROW impacts when balanced against capacity improvements, costs?
5. Can we encroach into the Los Angeles River? And if so, how far?
6. Is there an upper limit in cost to "financially feasible?"
7. Is there sufficient physical room to address both the truck (goods movement) problem and add HOV facilities? If not, what is more important? HOVs or Trucks?
8. Are any of the alternatives physically/operationally infeasible? (For example: access/egress ramps to elevated truckway; will an elevated truckway work given to the need to maintain low grades?)
9. How much benefit will be derived from the TSM/TDM strategies?

10. How much truck demand will be attracted to an exclusive facility? Will it be enough to make the alternative viable?
11. If an elevated structure were to be built, what types of vehicles should use the elevated lanes? Trucks? General purpose traffic? HOVs?
12. What kind of ridership is reasonable to expect on the high rail alternative, given that there are no "in revenue service" systems to draw upon for an example?
13. Will the high rail alternative compete with the Blue Line for ridership? And, if so, to what extent?
14. Should factors such as institutional barriers, existing travel behaviors, supply chain practices be factored into the quantitative analysis or should these issues be dealt with on a purely qualitative basis?
15. Others?

Key Screening Activities

During screening, both quantitative and qualitative performance measures will be utilized. The following is a partial list of some of the screening activities that will be employed by the project team that are designed to answer key questions or which will produce information that draws clear distinctions among the alternatives and that can be accomplished within the Screening timeframe with the analytical tools available to the project team. This is not intended to be a comprehensive list as methods to assess operational improvements and financial feasibility are still being discussed among members of the project team.

Estimate Right-of-Way Impacts

- Establish five categories of land use: (1) SCE ROW/Railroads, (2) LA River, (3) Residential, (4) Commercial/Industrial, (5) 4f property.
- Develop a footprint for the interchanges (site-specific, worst case).
- Develop an estimated footprint for ingress/egress facilities, c/d facilities, truck bypass facilities.
- Develop an estimated footprint for the mainlines.
- Develop an estimated horizontal and vertical alignment for the elevated facilities.
- Use GIS to estimate aggregate land takes by five categories.
- Initiate consultation with LACFCD and USACOE regarding LA River encroachment. (Note: May not have definitive answer to this issue by the conclusion of Screening)

Estimate Costs

- Prepare sketch level capital cost estimates, including a rough assessment of ROW costs.
- At this stage, will not include an estimate of O&M costs, but will include liberal contingencies consistent with the planning-level cost estimate.
- Cost estimates/contingencies will also reflect uncertainty, to some extent (i.e., unknowns associated with technology, applications).

Estimate Travel Demand

- Using travel demand volumes developed during the purpose and need phase of the I-710, will develop existing year and future year (2025) travel demand estimates for autos and trucks.

- Existing and future year HOV estimates will be derived from Caltrans and SCAG model mode split data.
- Future year transit estimates will be drawn from MTA's regional model.
- Future year high speed rail estimates are still under discussion.

Estimate Mode/Facility Demand Shift Due to Major Capacity Improvements

- Estimates will be conceptual, broad brush at the screening level
- Travel demand on major facilities include:
 - I-710 mixed flow lanes, autos + trucks (Alts. 1- 12)
 - HOV lanes, including carpools and express buses (Alts. 5, 11)
 - Exclusive truck lanes, with and without toll (Alt. 9)
 - Special purpose lanes, with and without toll (Alt. 10)
 - New riders on high speed rail (Alt. 12)
- Mode/Facility shift estimates include:
 - Estimated truck trip reductions due to goods movement strategies (Alts 2, 10)
 - From autos to transit (Alt. 2)
 - From autos + light rail to HOV (alts 5, 11)
 - from autos + light rail to high speed rail (Alt. 12)
 - trucks from I-710 to Terminal Island Freeway (alt. 10)
- Mode/facility shifts will be estimated based on: travel demand data; truck origin and destination data; HOV origin and destination data; previous model runs; travel demand estimates from other, similar projects.

Estimate Travel Benefits

- Levels of Service on I-710
- Change in V/C across major screenlines to account for arterial improvements
- Change in average travel speeds on I-710, Terminal Island Freeway, major arterials
- Change in estimated travel time by mode
 - Point to Point Travel Time on I-710 from Ocean to SR-60
 - Point to Point Travel Time from Port of LB to ICTF
 - Point to Point Travel Time from Port of LB to UP or BNSF RR Yard
 - Point to Point Transit Travel Time from LB to downtown LA (bus, lrt, hsr)
- Change in Annual Hours of Delay (Recurring Congestion)
- Change in Annual Hours of Delay (Non-Recurring Congestion)

Estimate Safety Benefits

- Change in estimated number of accidents (annual) on I-710 from Ocean Blvd. to SR-60 for each alternative using factors drawn from IDAS (ITS Deployment Analysis System) software.

- Based on change in V/C (capacity improvements)
- Based on improved geometric designs (adjust capacity assumptions)

Assess Environmental / Other Qualitative Factors

- Qualitative assessment of visual/noise issues for elevated facilities, widening.
- Qualitative assessment of potential for disproportionate ROW impact (EJ).
- Qualitative assessment of community cohesion issues (e.g., near Washington Blvd.).
- Qualitative assessment of land use management program (land use incentive zones)
- Qualitative assessment of transportation system issues (regional truck system, HOV system, transit/rail) etc.

Description of Screening Measures, Parsons Brinckerhoff, Inc., May 2002

**I-710 Major Corridor Study
Alternatives Screening Evaluation Matrix**

Description of Evaluation Measures

Mobility

% Vehicles Shifted from I-710 Mixed Flow Lanes in the AM Peak Period (% PCEs Shifted)
as compared to the No Build Alternative, (+) quantitative measure

Derived from year 2025 traffic forecasts, reflects effects of alternatives on volume of am peak period two-way traffic in the mixed flow lanes on I-710, measured as both percentage change in total vehicle volumes (auto + truck) compared with the future No Build alternative, as well as percentage change in passenger car equivalents (PCEs) to better represent change in trucks and their higher impact on roadway capacity utilization. The higher the percentage shifts in vehicles and, more specifically PCEs, the more traffic congestion relief offered by an alternative.

% Persons Shifted from I-710 Mixed Flow Lanes in the AM Peak Period
as compared to the No Build Alternative, (+) quantitative measure

Derived from year 2025 traffic forecasts, reflects effects of alternatives on volume of am peak period two-way person trips on I-710, expressed as percentage change from the No Build alternative, that are shifted from the mixed flow lanes onto other passenger carrying facilities provided by some of the alternatives, specifically HOV lanes in Alternatives 5 and 11, auto only special use lanes in Alternative 10 and high speed rail in Alternative 12. This calculation excludes the counting of drivers of the heavy duty trucks.

Average V/C Ratio in the AM Peak Period, I-710 Southbound Mixed Flow Lanes
(-) quantitative measure

Derived from year 2025 traffic forecasts, reflects effects of alternatives on weighted average congestion levels on the southbound direction of I-710 mixed flow lanes in the am peak period. The volume/capacity (V/C) ratio measures the vehicle demand on a freeway compared to the available roadway capacity, averaged over a specific time period, in this case the am peak period (6-9 am). V/C ratios above 1.00 indicate severe traffic congestion, also characterized as level of service (LOS) F. These volume calculations include the conversion of heavy duty trucks into passenger car equivalents (PCEs), to acknowledge the trucks' greater utilization of roadway capacity as compared to autos.

Minutes Saved, Average Vehicle Travel Time, I-710 SB Mixed Flow Lanes, AM Peak Period
as compared to the No Build Alternative, (+) quantitative measure

Derived from year 2025 traffic forecasts, reflects the effects of alternatives on average vehicle travel time to traverse I-710 from SR-60 to Anaheim Street southbound in the am peak period, expressed as a reduction in minutes of time from the future No Build alternative. The greater the measure, the more time savings offered by an alternative for each vehicle traveling along the mixed flow lanes southbound between SR-60 and Anaheim Street, as compared to the No Build.

Reduction in Recurrent Vehicle Hours of Delay, I-710 SB Mixed Flow Lanes, AM Peak Period
as compared to the No Build Alternative, (+) quantitative measure

Derived from year 2025 traffic forecasts, this measure reflects the effects of alternatives on reducing vehicle hours of delay that occur on I-710 due to traffic congestion during rush hours. This measure compares the performance of the southbound mixed flow lanes on I-710 during the AM peak period. The vehicle delay reductions are annualized and are shown in thousands of hours. The higher the delay reduction, the more effective the alternative is in reducing morning and evening peak traffic congestion compared to the No Build Alternative.

Reduction in Non Recurrent Vehicle Hours of Delay, I-710 Mixed Flow Lanes, Daily
as compared to the No Build Alternative, (+) quantitative measure

Derived from year 2025 traffic forecasts, this measure reflects the effects of the alternatives on reducing vehicle hours of delay attributable to incidents and off-peak traffic congestion. This measure compares the daily performance of the southbound mixed flow lanes on I-710. Hours of delay reductions are added over the period of a year, and are shown in thousands of hours compared to the No Build Alternative. The higher the delay reduction, the more effective the alternative is in addressing off-peak congestion and thus trip reliability.

Average V/C Ratio in the AM Peak Period, Screenlines of N/S Arterials in the Study Area
(-) quantitative measure

Derived from year 2025 traffic forecasts, reflects the effects of alternatives on north/south arterial am peak period traffic congestion as a result of adding capacity to selected north/south arterials in two of the alternatives. Computed as average of northbound and southbound am peak period volume/capacity ratios of all study area arterials crossing 4 different screenlines along the study area. The lower the V/C ratio, the less the aggregate average arterial traffic congestion in the AM peak period.

Average V/C Ratio in the AM Peak Period, Screenlines of E/W Arterials in the Study Area
(-) quantitative measure

Derived from year 2025 traffic forecasts, reflects the effects of alternatives on east/west arterial am peak period traffic congestion as a result of adding capacity to selected east/west arterials in two of the alternatives. Computed as average of eastbound and westbound am peak period volume/capacity ratios of all study area arterials crossing one screenline along the study area. The lower the V/C ratio, the less the aggregate average arterial traffic congestion in the AM peak period

Safety

Reduction in Annual Number of Accidents on I-710, All Lanes (% Reduction of Accidents)
as compared to the No Build Alternative, (+) quantitative measure

Accidents were estimated for each of the alternatives under 2025 traffic conditions on a link by link basis based on estimated changes in volume/capacity ratios. All lanes in both directions of I-710, including new HOV lanes, truck lanes, and special purpose lanes were included in the calculation. The number of accidents for each alternative was then compared to the No Build Alternative. This measure shows the number of accidents that would be reduced by each alternative as well as the percentage of accidents that would be reduced as compared to the No Build Alternative. The higher the accident reduction, the better the alternative is in addressing accident concerns on the freeway.

Qualitative Safety Assessment (Design Perspective)

(+) quantitative measure

The extent to which each alternative would improve the safety of the affected facilities was assessed based on the extent to which each of the alternatives addressed the physical factors that contribute to accidents from an operational as well as design perspective. The affected facilities that were assessed include the I-710 mainline, the local access interchanges, and the freeway-to-freeway interchanges. Each alternative was rated on a score of zero to 10 with 10 being best. Alternatives that positively affected more of the facilities from a design and operational stand-point were rated closer to 10 and those that positively affected fewer of the facilities (or negatively affected some of the facilities) were rated closer to zero.

Environment

Total ROW Impact in Acres

(-) quantitative measure

Estimated total right of way impact of alternative, in acres. Estimated by overlaying “footprint” of physical alternative improvements on existing land uses in the Study Area, compared to existing limits of transportation facility right of way limits. The total sum of seven categories of ROW impact: residential, commercial/industrial, Section 4(f)/community resource, LA River/water channel, power/utility corridor, railroad, undevelopable.

Residential ROW Impact in Acres

(-) quantitative measure

Estimated residential right of way impact of alternative, in acres. Land use category allocations were general and conducted at a sketch-level of precision consistent with the available mapping/conceptual sketches of the alternatives. Both single family and multi-family residential land is included in this category.

Commercial/Industrial ROW Impact in Acres

(-) quantitative measure

Estimated commercial/industrial right of way impact of alternative, in acres. Land use category allocations were general and conducted at a sketch-level of precision consistent with the available mapping/conceptual sketches of the alternatives. Both commercial and industrial land uses are included in this category. Railroad spurs were designated as a commercial/industrial use.

Section 4(f)/Community Resource ROW Impact in Acres

(-) quantitative measure

Estimated Section 4(f)/community resource right of way impact of alternative, in acres. Land use category allocations were general and conducted at a sketch-level of precision consistent with the available mapping/conceptual sketches of the alternatives. Section 4(f) refers to land deemed of sensitive use such as parkland and cemeteries. This category has been broadened to include community use land uses such as schools, firestations and libraries.

Water/Los Angeles River ROW Impact in Acres

(-) quantitative measure

Estimated ROW impact or level of encroachment that each alternative would have on the Los Angeles River Channel or similar Water Use as measured in acres.

Visual Impact (-)

as compared to the No Build Alternative, (-) qualitative measure

Scale:

0 → 10 = No Impact → Worst Case

The assessment of visual impacts of proposed alternative actions is subjective, by its nature. It is based upon the assessor's evaluation of community perceptions related to the visual context of the proposed transportation improvements, and involves estimations of the extent to which the proposed actions/facilities would: be consistent with the existing visual context, visually intrude into the existing context, or visually enhance the existing context. Further, the assessment may include the perspective from the viewer of the proposed actions/facilities as well as the perspective from the user of the proposed actions/facilities.

Noise Impact (-)

as compared to the No Build Alternative, (-) qualitative measure

Scale:

0 → 10 = No Impact → Worst Case

No noise measurements were conducted at the screening level. A qualitative evaluation was made of the potential for increased noise impacts for each of the alternatives based on the following factors: geographic proximity of sensitive receptors; new structures; relative roadway widths; ambient conditions; and proposed modes/vehicle mix. In terms of noise from vehicles, cars are the quietest, medium trucks/buses/light rail transit are about the same, heavy trucks are noisier, and heavy rail, such as high speed rail, tends to be the noisiest.

Environmental Justice Impact (-)

as compared to the No Build Alternative, (-) qualitative measure

Scale:

0 → 10 = No Impact → Worst Case

In February 1994, President Clinton issued Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" which includes the requirement that, to the greatest extent practicable and permitted by law, "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." The I-710 Major Corridor Study Area is through predominantly (i.e., disproportionately high) minority and low-income population areas. These populations are already living with the direct and indirect impacts associated with the existing freeway corridor. A subjective attempt has been made to indicate where those alternative components would have increased impacts upon the minority and low-income residents, expressed primarily in terms of right-of-way (ROW) takings of residential properties. Other factors that may impact minority and low-income populations, to a lesser degree, are the loss of commercial/industrial properties, which may represent employment and/or shopping areas, and the loss of community resources/Section 4(f) properties.

Community Cohesion Impact (-)

as compared to the No Build Alternative, (-) qualitative measure

Scale:

0 → 10 = No Impact → Worst Case

In accordance with NEPA legislation and in recognition of the fact that the most damaging impacts of highway construction, most notably for new highway construction, are those impacts arising from the acquisition of property and the creation of a permanent dividing element through a cohesive community, an assessment was made of the potential impacts to cohesive communities within the study area. The term “cohesive community” is generally applicable to inner-city locations in close-knit ethnic or other types of communities. In these instances, the combination of family ties, religious and ethnic homogeneity, ethnic food stores, restaurants, churches and social clubs are tightly intertwined, frequently in combination with low-cost housing. The disruption of such areas and the forced relocation of population may constitute the destruction or weakening of the existing community.

Cost**Total Estimated Cost (\$ millions)**

as compared to the No Build Alternative, (-) quantitative measure

The costs were developed based on the concepts that were developed for each alternative. Roadway and structure quantities were established at a conceptual level of detail. Other components of the cost were based on percentages of the roadway costs, the miles of freeway affected (drainage, traffic handling, surveillance and communication), or direct measurement from the digitized topography provided by Caltrans (electrical transmission tower relocation). A contingency factor of 50 percent of the roadway and other costs was assumed for this sketch-level of concept development. Alternatives which have an impact on the flow of the Los Angeles River would require mitigation to maintain flow that has not been estimated. Environmental impact mitigation costs have not been estimated. Design and design administration, and construction inspection and administration were included in the cost estimate. Right-of-way costs were developed based on the acreages of impact to several categories of land uses and average unit costs for those land uses based on assessor data from within the corridor.

Average Cost per Mile (\$ millions)

as compared to the No Build Alternative, (-) quantitative measure

The average cost per mile was derived based on the total cost (including construction and right-of-way), and dividing that by the total number of centerline miles affected by each alternative, or in the case of Alternatives 3, 4, and 7, the length of the corridor. This number can be used to represent the alternative cost normalized over the length of the project, to assess the relative scale of the alternatives. It should not be inferred that a project of half the length would have half the cost. Some of the components of the cost are at spot locations (i.e., local access and freeway-to-freeway interchanges) which would result in a cost only if they were included in an alternative.

Constructability

Qualitative Assessment of Ease of Construction

(+) *qualitative measure*

The constructability rating is a qualitative assessment of the varying degrees of difficulty associated with the construction of each alternative both from the constructor's stand-point as well as the I-710 corridor user's stand-point. Each alternative was rated on a score of zero to 10 with 10 being best. Alternatives whose implementation is anticipated to be similarly difficult (or easy) would have the same score, and if no alternative could be considered "easily" implementable, then none would be rated as a 10.

APPENDIX I

***Detail – ROW Analysis, Screening of
Alternatives, Parsons Brinckerhoff, Inc.,
May 2002***

**Estimated Land Use Impacts by Alternative
Preliminary Results in Acres - May 15, 2002**

Land Use Category	Alternative 3 Low General Purpose	Alternative 4 Low Truck	Alternative 5 Medium HOV	Alternative 6 Med. General Purpose	Alternative 7 Medium Truck	Alternative 8 High General Purpose	Alternative 9 High Truck	Alternative 10 High Goods Movement	Alternative 11 High HOV	Alternative 12 High Rail
Section 4(f) Property / Community Resource	0.0	1.2	4.3	4.8	12.2	10.9	3.7	11.5	5.6	2.6
Commercial / Industrial	2.5	41.1	60.4	75.9	172.7	112.1	78.2	129.8	90.4	25.6
Power / Utility Corridor	0.8	25.9	11.8	21.3	18.9	36.9	62.0	56.8	45.6	12.3
Residential	10.6	16.8	25.3	27.5	78.7	61.6	36.3	70.8	45.6	17.7
Railroad Use	0.0	0.5	5.2	3.7	20.5	13.8	8.4	27.3	11.1	43.8
Undeveloped	0.0	3.0	5.1	6.2	14.5	11.9	12.9	12.1	7.3	6.0
Water / Los Angeles River	0.0	1.1	4.3	11.7	21.0	20.5	49.4	25.4	17.3	16.1
Totals	13.9	89.5	116.5	151.1	338.5	267.5	250.9	333.6	222.8	124.0

Note: Does not include arterials

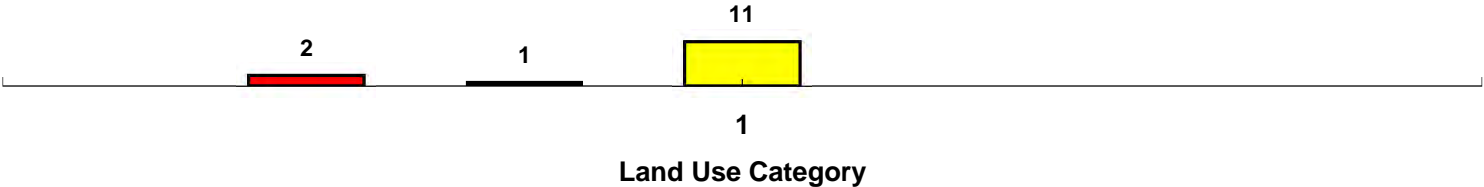
**Estimated Land Use Impacts by Alternative
Preliminary Results in Acres - May 15, 2002**

Local Jurisdiction	Alternative 3 Low General Purpose	Alternative 4 Low Truck	Alternative 5 Medium HOV	Alternative 6 Med. General Purpose	Alternative 7 Medium Truck	Alternative 8 High General Purpose	Alternative 9 High Truck	Alternative 10 High Goods Movement	Alternative 11 High HOV	Alternative 12 High Rail
BELL	0.8	18.5	28.2	31.5	23.2	44.4	30.9	43.0	44.3	1.1
BELL GARDENS	1.7		5.7	5.4	25.8	13.1		14.3	14.3	
CARSON			0.5			2.1		10.9	3.1	0.6
COMMERCE	8.9	33.6	27.0	46.6	115.4	58.3	27.2	50.9	26.7	
COMPTON			2.5	0.8	4.1	6.8	19.3	7.5	8.5	5.4
COUNTY OF LA	0.5	0.5	9.0	6.7	7.8	28.7	18.0	30.5	22.7	3.7
CUDUHY										0.2
HUNTINGTON PARK										8.8
LONG BEACH		29.0	36.4	45.7	119.0	88.0	139.8	115.5	97.7	59.3
CITY OF LA								31.2		9.6
LYNWOOD			0.6		5.4	2.5	6.3	3.0	3.6	1.1
PARAMOUNT			0.7		1.3	2.0	5.4	4.2		9.6
SOUTH GATE	2.0		4.5	4.0		18.3	2.3	19.3	0.2	18.1
VERNON		8.0	1.5	10.5	36.6	3.5	1.8	3.5	1.8	6.7
Totals	13.9	89.5	116.5	151.1	338.5	267.5	250.9	333.6	222.8	124.0

Note: Does not include arterials

Alternative 3 - Estimated Impact By Land Use Category

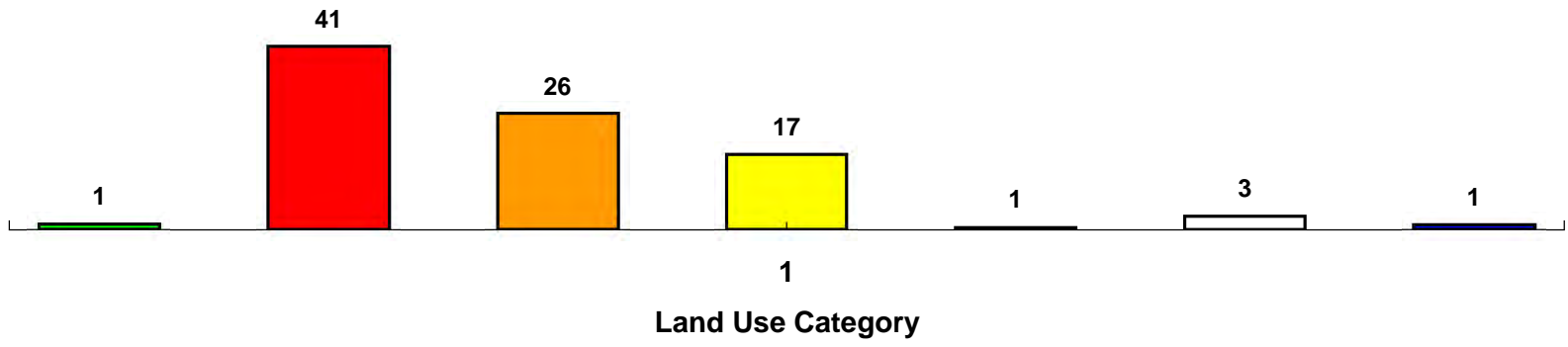
Acres



■ 4(F)/CR ■ C/I ■ P/UC ■ RES ■ RR □ UNDEV ■ W/LAR

Alternative 4 - Estimated Impact By Land Use Category

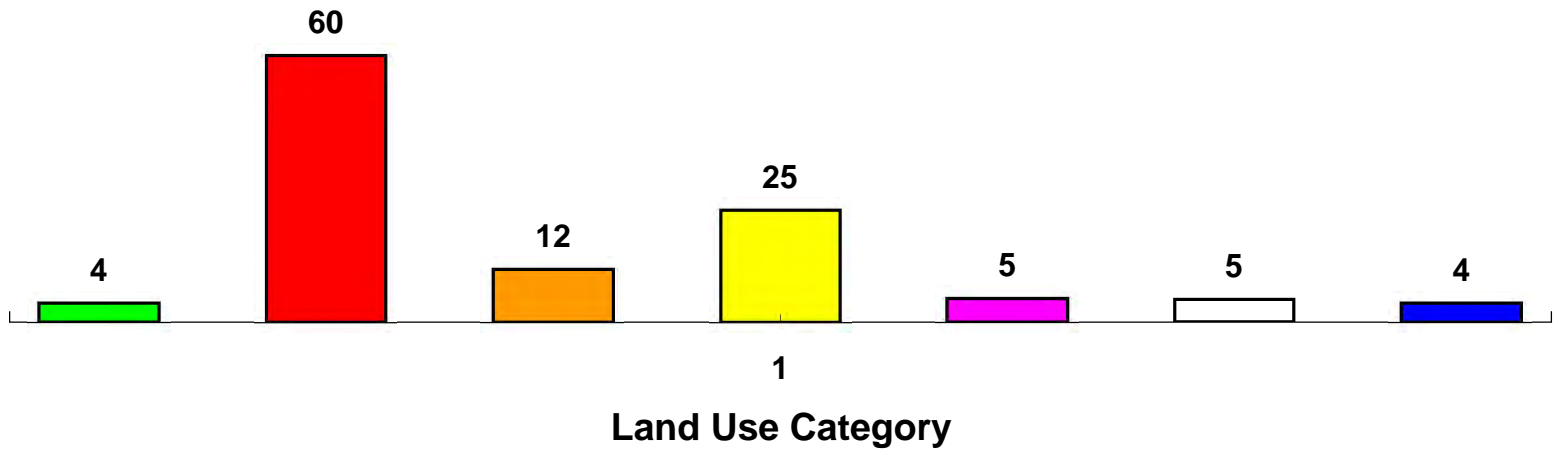
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4(F)/CR C/I P/UC RES RR UNDEV W/LAR

Alternative 5 - Estimated Impact By Land Use Category

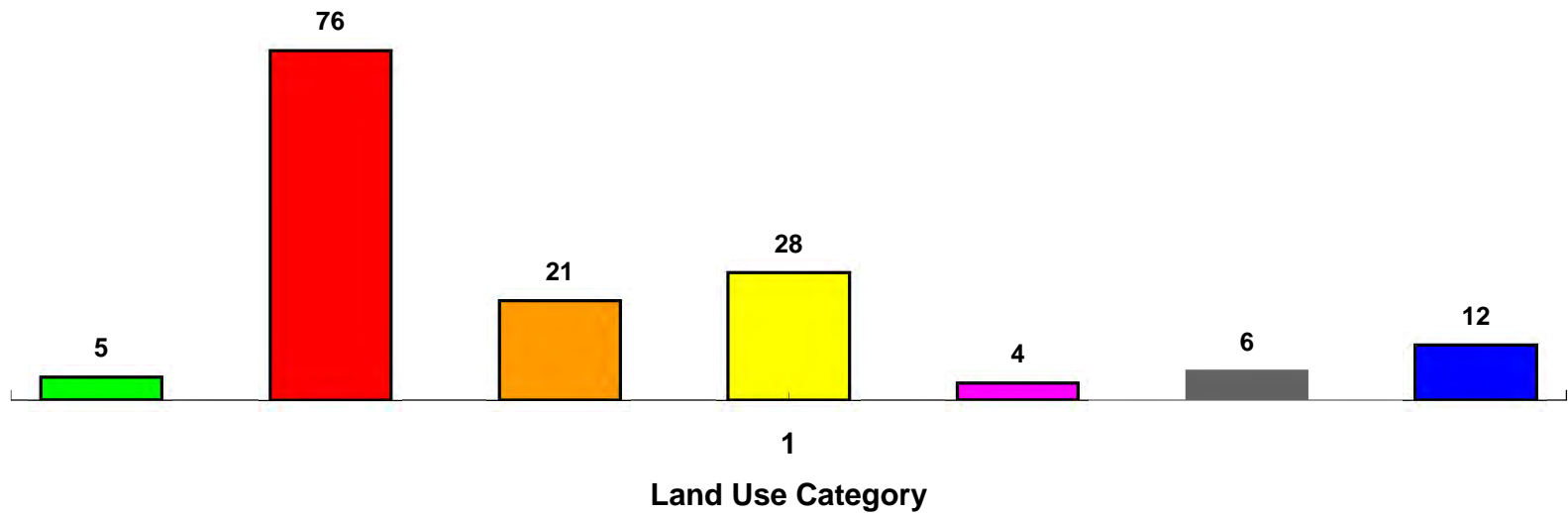
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■ 4(F)/CR ■ C/I ■ P/UC ■ RES ■ RR □ UNDEV ■ W/LAR

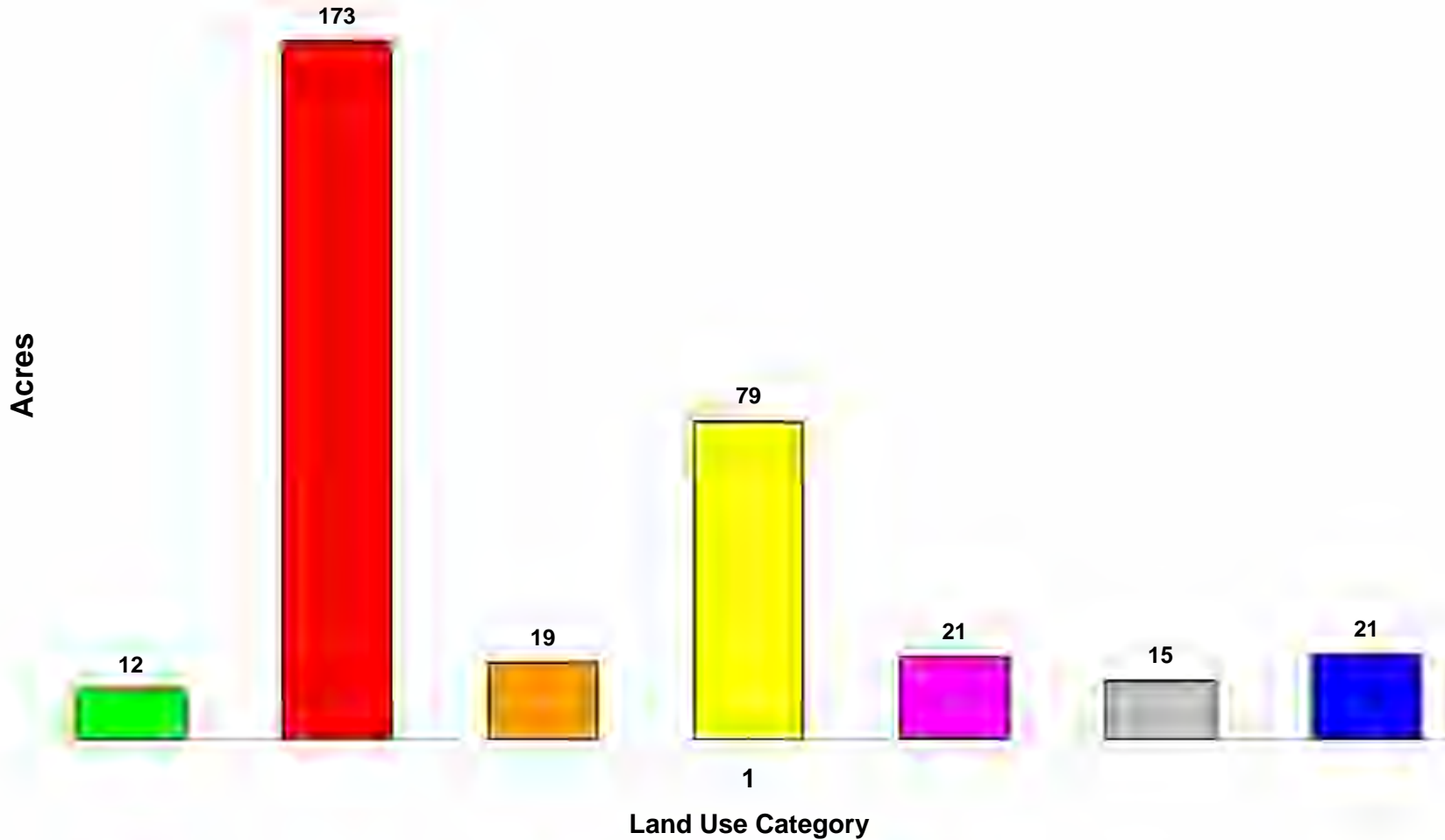
Alternative 6 - Estimated Impact By Land Use Category

Acres



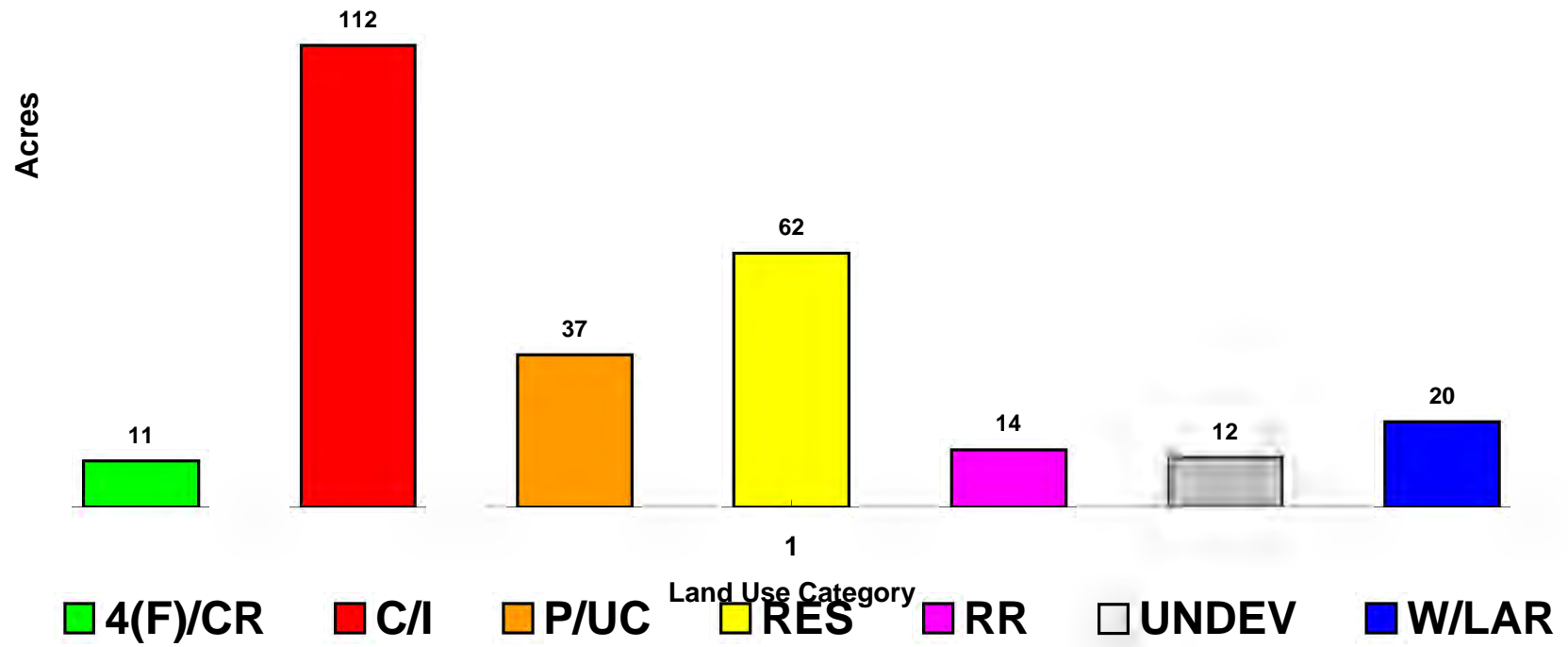
4(F)/CR **C/I** **P/UC** **RES** **RR** **UNDEV** **W/LAR**

Alternative 7 - Estimated Impact By Land Use Category



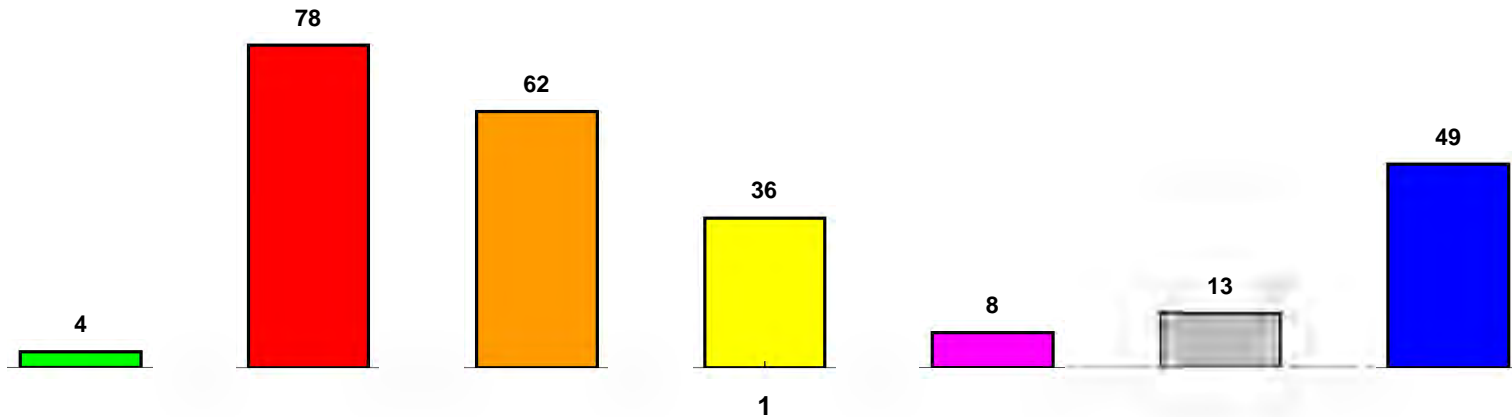
■ 4(F)/CR ■ C/I ■ P/UC ■ RES ■ RR ■ UNDEV ■ W/LAR

Alternative 8 - Estimated Impact By Land Use Category



Alternative 9 - Estimated Impact By Land Use Category

Acres



Land Use Category

4(F)/CR

C/I

P/UC

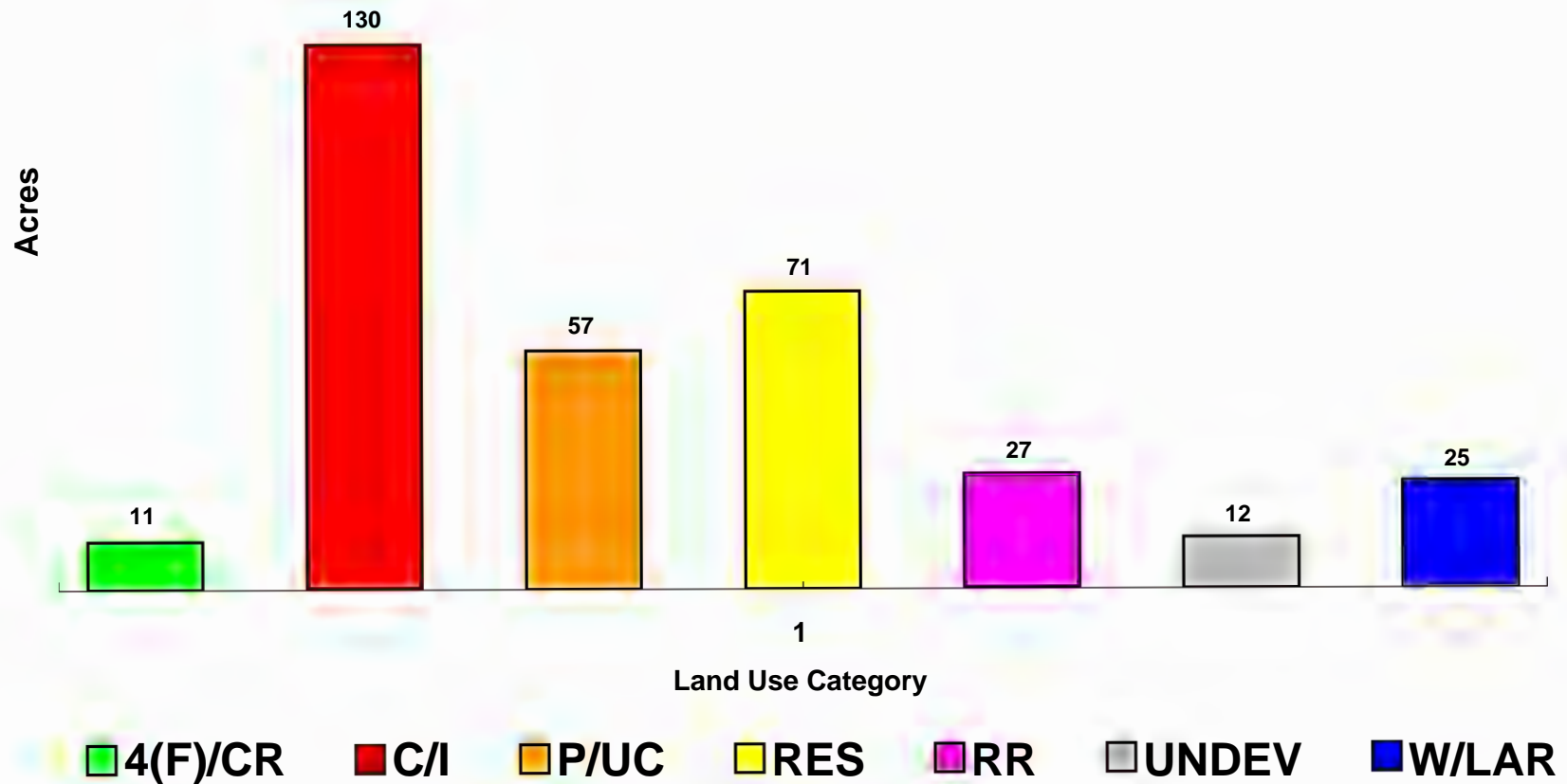
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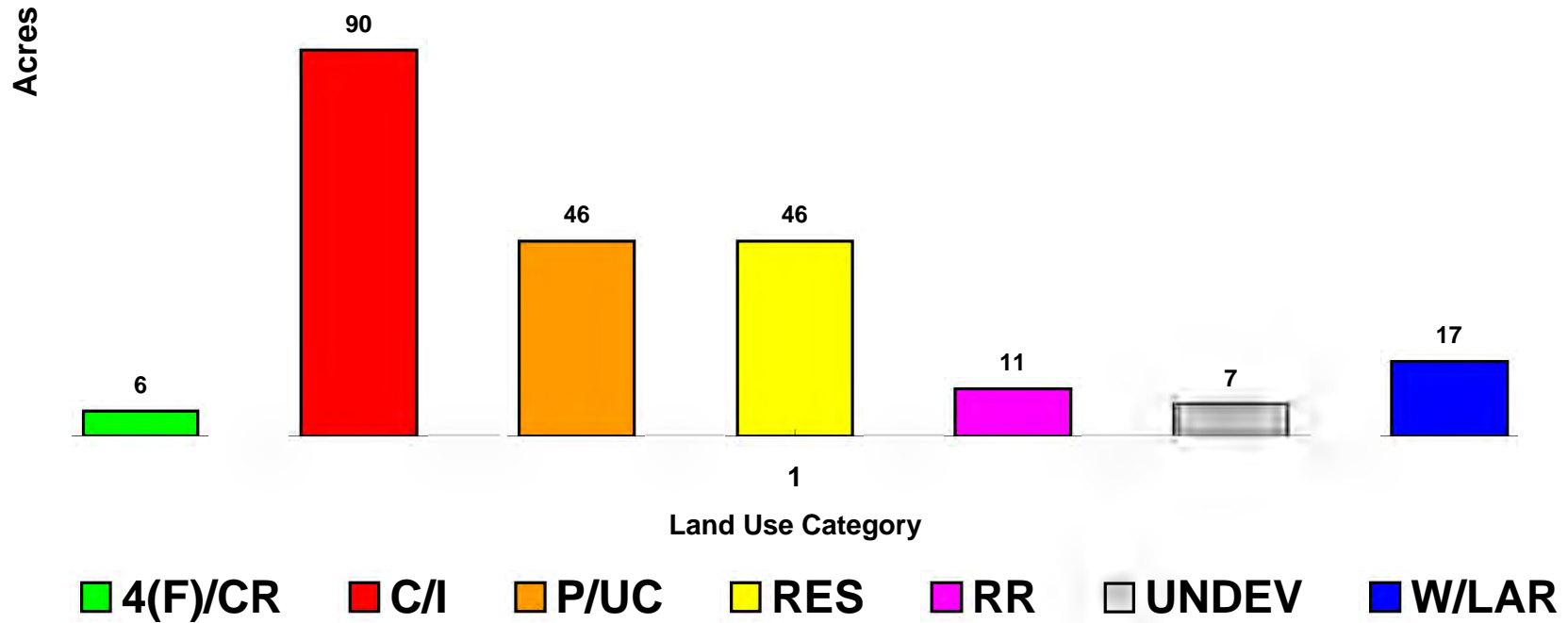
UNDEV

W/LAR

Alternative 10 - Estimated Impact By Land Use Category

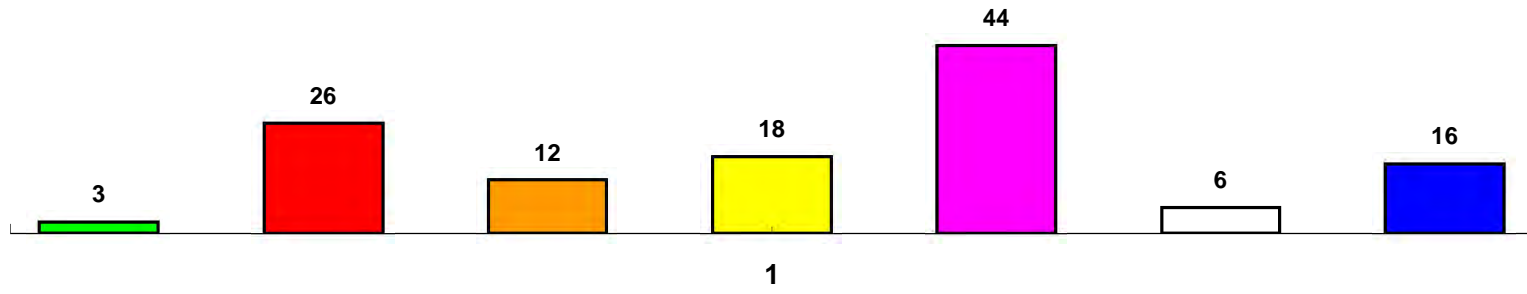


Alternative 11 - Estimated Impact By Land Use Category



Alternative 12 - Estimated Impact By Land Use Category

Acres



■ 4(F)/CR

■ C/I

■ P/UC

■ RES

■ RR

□ UNDEV

■ W/LAR

Land Use Category

APPENDIX J

Detail – Capital Cost Estimates, Screening of Alternatives, Parsons Brinckerhoff, Inc., May 2002

I-710 Major Corridor Study Screening Alternative Cost Estimates

	Cost to Construct	Right-of-Way Cost	Total Cost	Miles	Total Cost per Mile	Right-of-Way Cost per Square Foot	Percentage Greater/Less Than Average
Alternative 3 -- Low General Purpose	\$671,400,000	\$17,700,000	\$689,100,000	19.5	\$35,338,461.54	\$29.25	10.16%
Alternative 4 -- Low Truck	\$409,200,000	\$88,800,000	\$498,000,000	19.5	\$25,538,461.54	\$22.77	-14.26%
Alternative 5 -- Medium HOV	\$953,500,000	\$140,900,000	\$1,094,400,000	18.8	\$58,212,765.96	\$27.76	4.53%
Alternative 6 -- Medium General Purpose	\$991,400,000	\$176,900,000	\$1,168,300,000	17.4	\$67,143,678.16	\$26.88	1.21%
Alternative 7 -- Medium Truck	\$1,231,900,000	\$431,600,000	\$1,663,500,000	19.5	\$85,307,692.31	\$29.27	10.21%
Alternative 8 -- High General Purpose	\$1,388,900,000	\$306,900,000	\$1,695,800,000	20.4	\$83,127,450.98	\$26.34	-0.83%
Alternative 9 -- High Truck	\$1,907,000,000	\$259,200,000	\$2,166,200,000	17.4	\$124,494,252.87	\$23.72	-10.70%
Alternative 10 -- High Goods Movement	\$2,690,200,000	\$375,400,000	\$3,065,600,000	22.3	\$137,470,852.02	\$25.83	-2.73%
Alternative 11 -- High HOV	\$2,414,800,000	\$244,200,000	\$2,659,000,000	18.8	\$141,436,170.21	\$25.16	-5.27%
Alternative 12 -- High Rail	\$3,387,500,000	\$154,400,000	\$3,541,900,000	23.7	\$149,447,257.38	\$28.59	7.67%
						\$2.24 Standard Deviation	
						\$26.56 Average	

Preliminary Results: May 22, 2002

APPENDIX K

***TSM/TDM Alternative – Description of Goods
Movement Strategies, Cambridge
Systematics, Inc., September 2002***

ENHANCED DESCRIPTION OF GOODS MOVEMENT STRATEGIES (ALTS. 2, 4, 10)

Alternative 2 – TSM/TDM Alternative Section on Goods Movement

- **Empty Container Management**

The purpose of this strategy is to reduce the amount of truck trips on I-710 by eliminating the need for some of the truck movements of empty containers. This would help meet study objectives of improved LOS on I-710 (by reducing truck trips) and improving the efficiency of goods movement. With the current drayage practices, it often takes four or more truck trips to move a container from the terminal to the appropriate receiving warehouse and then back to the container owner. Access restrictions at private storage locations and container retrieval often require intermediate truck trips and transfers to complete a single dray. For example, import containers may leave the port for delivery to the importer; the empty container is returned to the port for storage; the empty container is moved to an exporter for use; and the full container is then moved back to the port for export. More complex versions of this system with additional intermediate trips are possible.

An empty container management system would facilitate direct exchange of empty containers between importers and exporters or off-site storage of empties. Implementation of empty container management systems would require supporting information systems to track and schedule container movements, greater interchangeability of container types, and changes in legal/institutional arrangements associated with liability for and security of containers. Possible incentives to improve empty container management could include:

- Developing a collaborative port security system that provides systemwide access for all port pre-screened truck drivers
- Standardizing containers to provide for use across increased commodities (making exchanges off-site more feasible)
- Tracking and accounting of containers across the entire port that allows for flexibility in time and type of containers retrieved by shippers (e.g. surplus containers - owned, distributed and tracked by the port).

- **Expanded Drayage Truck Emission Reduction Program**

The purpose of this strategy is to reduce truck emissions in the port region. The Gateway Cities C.O.G. is developing a pilot program that provides incentives for truck owners to improve the emissions of their fleet operating in the Gateway Cities Subregion. The improvements in the emissions level can occur through improved emissions control devices put onto vehicles (retrofitting/repowering) and/or replacing older (and high emissions) diesel trucks with newer diesel trucks. Many of the short haul drayage moves between the port and local warehouses are made by owner operators, operating older, high emissions vehicles. These owner operators have more limited capital resources with which to upgrade their equipment. The pilot program will demonstrate how an incentive program could be designed to reach these drayage operators and get them to upgrade their vehicles. The proposed alternative can expand on this ongoing pilot program by:

- identifying (and targeting) owners of high emissions trucks in the port area
- expanding the administrative facilities of the current program (e.g. increased advertising and technical support from program participants) in order to reach a wider audience

- increase the amount of funding available to ensure that more vehicles are upgraded
- provide funding for an alternative fuels option including performing a feasibility study and creating an alternative fueling infrastructure

- **Extended gate hours**

The purpose of this strategy is to reduce the amount of truck trips using the I-710 during peak vehicle hours. This meets the study objective of managing time of day of demand for the I-710. In the current Transportation Master Plan for the Port of Long Beach and Los Angeles, the “best case” scenario analysis includes the assumption that port operations will expand to near 24/7 operations by 2020. Even with these extended operating hours, 40% of the weekday truck trips are projected to occur during the current daytime hours (8:00AM to 5:00PM). This would amount to an increase in truck traffic at the port of 38% during the morning peak (8-9AM) and an increase of 12% during both the midday (2-3PM) and PM peaks (4-5PM) in 2020 compared to 2000.

Optimal pricing policies for port operations can be used to magnify and accelerate the shift away from daytime operations. The basic concept would be to levy fees on users of the port during premium (peak) hours. Pricing policy could involve a mixture of two strategies that are on a continuum of pricing options:

1) Create a disincentive for peak operations (the fee), and thereby “pushing” operations away from daytime hours.

2) Generate revenues from peak operations (fees collected) that are used to subsidize off-peak operations costs (i.e., paying the incremental overtime costs of off-hour dock worker wages), thereby “pulling” some of the existing operations into evening and hoot hours.

The implementation of a daytime port user fee must minimize administrative costs and minimize avoidance by port shippers. Two possible implementation solutions include imposing an “entry fee” on truck drivers as they enter the port or the use of pre-paid transponders on port trucks that automatically deducts a fee for each use of the I-710 during daytime hours.

Fees could be levied by a joint powers entity in the study area and could be collected by terminal operators at the terminal gates.

Alternative 4 – Low Truck Alternative Section on ITS Improvements

The purpose of this strategy is to move trucks on the I-710 more efficiently using the technologies available from Intelligent Transportation Systems (ITS).

- **Explanation of Port ITS Improvements in No Build Alternative and Potential Improvements**

The port has received preliminary funding for an Advanced Transportation Management and Information Systems to apply proven technologies within and in the vicinity of the two Ports. The goal is to provide truckers dispatchers, terminal operators, traffic engineers, system operators and others with seamless traffic surveillance along the Ports’ access points to better assist travel, manage incidents and effectively divert truck traffic to various entrance and exit points of the two Ports. This system can be enhanced through the following activities:

1) Expanding the integration capacity of the proposed system with increased bandwidth, processing speed and/or integration. This would allow the port’s system to accept more data from an expanded installation of ITS in a greater number of arterial corridors and increased ITS coverage on the freeways

2) Providing post-processing support for transmittal of useful data to truck operators. This would take information from public sector ITS and information about traffic and parking conditions at the port and combine it with information about container availability that could be processed to feed information about to private scheduling systems.

- **Explanation of Private Sector Systems Enhancements**

Private sector system enhancements can be tied into the ATMIS systems under development at the port. This would build on the post-processing systems described above by developing advanced scheduling systems that would integrate public data about traffic conditions with private data about container availability, intermodal connection schedules, availability of on-site parking for trucks, etc. This type of information can then flow back into the public sector systems for improved traffic operations management. For example, major shippers at the port can input expected daily (and even hourly) variability in vehicle activities into the system to help refine estimates of recurrent traffic in the port and throughout the system. Additionally, terminal operators can input key operational variables that will influence the speed of goods movement on the terminals, and thereby affect truck traffic downstream. Anticipated changes in the customer base can also be incorporated into long-term traffic flow predictions by the ports' ATMIS system.

Alternative 10 – High Goods Movement Alternative Section on Systemwide Goods Movement Improvements

- **Adding Staging Areas for Trucks**

Under this plan, land can be set aside as staging areas to allow for evening and late night truck deliveries close to the port region. The purpose of this alternative is to reduce the amount of truck traffic on I-710 during peak vehicle hours. Currently, most warehouse and distribution facilities and the marine terminals at the port load/unload trucks during normal business hours. As congestion in the I-710 corridor increases, trucks making long trips to and from these warehouse/terminal facilities must increasingly travel during the morning and evening peak periods if they are to meet their morning and late afternoon pickup and delivery schedules. If staging areas were available at strategic locations throughout the study area, drivers could bring trailers/containers to the staging areas during off-peak hours and they could be delivered after the peak period is over. For example, a driver needing to bring a trailer to a warehouse for a mid-morning delivery could drop the trailer in a staging area the night before and it could be carried by another driver to the final destination after the morning peak period is over. This strategy could also be designed so that staging facilities are located in areas that would divert traffic away from over-utilized facilities like the I-710. Staging areas could either be owned and operated by public entities, or incentives could be provided to private developers to encourage creation of these facilities.

- **New Near Dock Rail Facility**

Near dock rail facilities are rail lines located close to the port's docks (but not on port property). The purpose of near dock rail is twofold. First, it will reduce the amount of truck drayage to inland rail facilities (e.g. Hobart Yard). This will reduce traffic on the I-710, since a significant portion of the truck traffic on the I-710 is from truck trips draying goods to inland rail facilities. In addition, current off-dock rail intermodal yard capacity is severely strained and new capacity will surely be required to handle the tremendous forecast growth in international cargoes. If this capacity is developed remotely from the ports, it will create increased truck VMT and more congestion on the I-710. Near-dock rail at appropriate sites in the study area could reduce the amount of I-710 that would be subject to handling the drayage for this increase in traffic.

- **Land Use Management Program (incentive zones)**

This program would serve two objectives. The first would be to get cities within the study area to plan for growth in truck-intensive land uses through a more collaborative process that would distribute the impacts of this growth in ways that would minimize the negative congestion impacts on the I-710. While each city would still need to pass its own comprehensive plan and its own zoning ordinance, in this alternative, cities would agree to develop a comprehensive land use plan for truck-intensive uses at the sub-regional level prior to adoption of local zoning plans. The second objective that could be met would be to create land use incentives to encourage warehouse/terminal owners to operate in ways that would make more efficient use of existing freight transportation infrastructure (e.g., off-peak operating hours). “Operationally-benign freight zones” could be created that would grant incentives such as zoning bonuses or property tax abatements to owners who were willing to operate facilities in beneficial ways such as over extended hours, with low noise loading/unloading systems, etc.

APPENDIX L

***Conceptual Plans for Alternatives C, D, and
E, Parsons Brinckerhoff, Inc., January 2003***

Appendix L is provided under separate cover and is available for reference with the MTA

APPENDIX M

***I-710 Major Corridor Study Final Set of
Alternatives, Parsons Brinckerhoff, Inc.,
Revised January 2003***



FINAL SET OF ALTERNATIVES

REVISED

JANUARY 2003

Alternative A No Build Alternative

Purpose of Concept

The No Build Alternative consists of those transportation projects that are already planned and committed for 2025, the planning horizon year for the I-710 Major Corridor Study. Consequently, the No Build Alternative represents future travel conditions in the I-710 Study Area and it is the baseline against which candidate transportation alternatives proposed for the I-710 Study will be assessed.

Freeway System

- I-710, from Ocean Boulevard to I-10, pavement and median rehabilitation, selected bridge widenings (no additional capacity)
- I-710, at Atlantic Boulevard/Bandini Boulevard, interchange modifications
- I-710, at Firestone Boulevard, interchange modification (NB side)
- I-5, Orange County Line to I-605, add two HOV lanes and two mixed flow lanes
- I-605, Orange County Line to South Street, add two HOV lanes*
- I-605, Telegraph Road to I-10, add two HOV lanes*
- I-405, I-110 to I-710, add two HOV lanes*
- SR-60, I-605 to I-215, add two HOV lanes
- SR-47, at Ocean Boulevard, interchange improvement
- Deployment of Intelligent Transportation System Improvements on I-710 (approx. 7 Ramp Meter Sites, approx. 25 CCTV Sites)

Roadway System

- Alameda Street/Henry Ford Avenue, SR-47 ramps to SR-91 ramps, widen to six lanes*
- Alamitos Avenue, Ocean Boulevard to Pacific Coast Highway, widen from four to six lanes
- Gerald Desmond Bridge, widen from four lanes to five lanes (climbing lane)*
- New Four-Lane Connector Road to Del Amo Boulevard, Avalon Boulevard to Main Street (@ I-405 junction)
- Del Amo Boulevard, Main Street to Vermont Avenue, widen from two to six lanes
- Sepulveda Boulevard, Alameda Street eastward to the Carson City Limits, widen from two to four lanes
- Ocean Boulevard/Seaside Avenue, Gerald Desmond Bridge to Vincent Thomas Bridge, widen from four to six lanes*
- Atlantic Boulevard, Olympic Blvd. to Whittier Blvd., widen from four lanes to six lanes
- Phase I (approx. 31) and Phase II (approx. 45) intersection improvements for most truck-impacted intersections.
- Signal system upgrades and signal synchronization for several major arterials throughout the I-710 Study Area.

Rail / Transit

- Alameda Corridor, LA/LB Ports to approx. Washington Boulevard, construct double track freight rail expressway, grade separations*
- Pasadena Gold Line, Union Station to Sierra Madre Villa, new LRT line*
- Los Angeles Blue Line, downtown Long Beach to 7th Street/Metro Center in Downtown Los Angeles, platform and operational improvements to existing line*
- Eastside Transit Corridor, Union Station to Pomona/Atlantic in East Los Angeles (County of Los Angeles), new LRT line
- Green Line, miscellaneous capital and operational improvements to existing line
- Bus Service Improvements, miscellaneous operational improvements to existing systems (approx. 20% increase in service levels)

Note: (*) indicates projects that are currently under construction or that have recently been implemented.

Alternative B TSM/TDM Alternative

Purpose of Concept

The Transportation Systems Management/Transportation Demand Management (TSM/TDM) Alternative largely consists of operational investments, policies, and actions aimed at improving goods movement, passenger auto and transit travel, and reducing the environmental impacts of transportation facilities and operations in the Study Area.

Mainlines on I-710

- additional ramp metering (approx. 8 ramp meter sites)
- aesthetics (additional landscaping, hardscape design treatments)
- continuous high-mast illumination (at freeway-to-freeway interchanges: I-405/I-710, SR-91/I-710, I-105/I-710, I-5/I-710, SR-60/I-710)
- improved signage on I-710 (added overhead signs, advanced notification)

Interchanges/Arterials

- I-710 ramp terminus/arterial improvements
 - for example, curb and gutter, including aesthetics improvements
 - mostly in state right-of-way
- parking restrictions on major parallel arterials^a during peak periods

Goods Movement

- empty container management through policies and incentives
- expanded drayage truck emission reduction program
- extended gate hours at the ports
 - move toward 24 hour / 7 days a week operations
 - include all entities in the supply chain

Transit

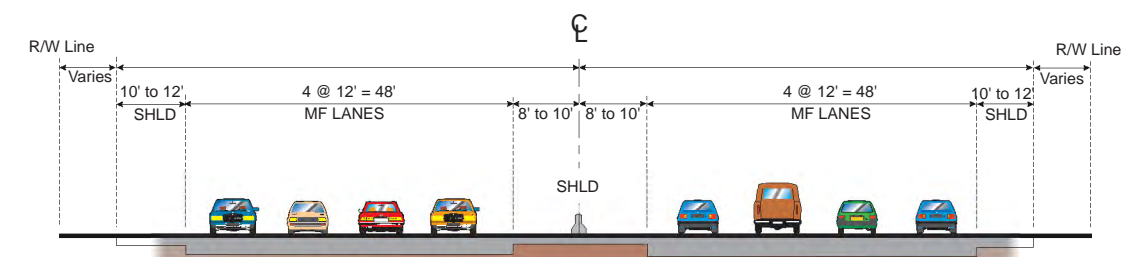
- additional Blue/Green line bus feeder shuttles
- enhanced community bus service (local circulators)

Intelligent Transportation Systems (ITS)

- expand ITS Corridors
 - expand depth of ITS coverage on two identified ITS corridors (I-710/Atlantic; I-105 Corridor)
 - emphasize system connectivity

Notes:

- Atlantic Blvd. (from PCH to SR-60); Cherry Ave./Garfield Ave. (from PCH to SR-60); Eastern Ave. (from Cherry Ave. to Atlantic Blvd.); Long Beach Blvd. (from San Antonio Dr. to Firestone Blvd.)



Remain 4 Mixed Flow Lanes
(Same as Year 2025 Future No Build Conditions)

Alternative C

Medium General Purpose / Medium Truck Alternative

Purpose of Concept

Mid-range capital investment to I-710 focused on improving safety and eliminating operational bottlenecks on I-710 for all vehicle types as well as spot improvements to manage the flow of heavy-duty trucks within the corridor. Alternative C also emphasizes capacity improvements to the most deficient arterials serving as feeders or alternate routes to I-710.

Mainlines

- add one mixed flow lane in each direction for selected I-710 segments:
 - Shoemaker Bridge to just south of I-405 (I-710 becomes 4 lanes in each direction)
 - Imperial Hwy. to Atlantic Blvd. (I-710 becomes 5 lanes in each direction)
- 12' right shoulder where other mainline improvements are constructed
- add a collector-distributor lane system between Atlantic Blvd. and I-5
- add a truck inspection facility adjacent to NB I-710 between Del Amo Blvd. and Long Beach Blvd.
- add truck bypass facilities at freeway-to-freeway interchanges: I-405/I-710; and SR-91/I-710 in combination with I-105/I-710
- add separate truck ramps to two interchanges with high truck volumes: to and from Pacific Coast Highway west of I-710, and to and from Washington Blvd. west of I-710

Interchanges

- add a right-side freeway connector ramp from the collector-distributor lane (see Mainlines above) to NB I-5 at the I-5/I-710^a interchange to be used primarily by trucks and retain the left-side connector to be used primarily by autos (NB I-710 to NB I-5)
- eliminate some of the design deficiencies at the I-405/I-710 freeway-to-freeway interchange
- eliminate some of the design deficiencies at 8 local interchanges^b
- add one new interchange (Slauson Ave.)
- eliminate access at 5 ramp locations:
 - exit from I-710/SB I-405 connector to N. Pacific Pl. (1 ramp)
 - entrance/exit I-710 at Olympic Blvd./Eastern Ave. NB and SB (4 ramps)

Terminal Island Freeway (SR-47/SR-103)

- extend Terminal Island Freeway (SR-103) to I-710 north of I-405, by adding an elevated, four-lane facility that would be used primarily by trucks

Arterials










- arterial capacity enhancements to 10 major arterials^c by adding one lane in each direction
 - consists of either spot widenings to eliminate chokepoints/bottlenecks, restriping, and removal of on-street parking or roadway widening
 - provision of off-street parking, as needed, to replace loss of on-street parking due to restriping
 - includes access management improvements (raised medians, elimination/consolidation of driveways and smaller streets)

Notes

- requires coordination with I-5 Corridor Improvements
- Anaheim St.; Pacific Coast Highway; Willow St.; Del Amo Blvd.; Imperial Highway; Florence Ave.; Atlantic/Bandini Blvds.; Washington Blvd.
- Atlantic Blvd. (from PCH to SR-60); Cherry Ave./Garfield Ave. (from PCH to SR-60); Eastern Ave. (from Cherry Ave. to Atlantic Blvd.); Long Beach Blvd. (from San Antonio Dr. to Firestone Blvd.); Paramount Blvd. (from Carson St. to I-5); Pacific Coast Highway (from SR-103 to Cherry Ave.); Willow St. (from SR-103 to Cherry Ave.); Del Amo Blvd. (from Alameda St. to Cherry Ave.); Firestone Blvd. (from Atlantic Blvd. to Paramount Blvd.); Florence Ave. (from Atlantic Blvd. to Paramount Blvd.)

Alternative C Medium General Purpose / Medium Truck Alternative

LEGEND

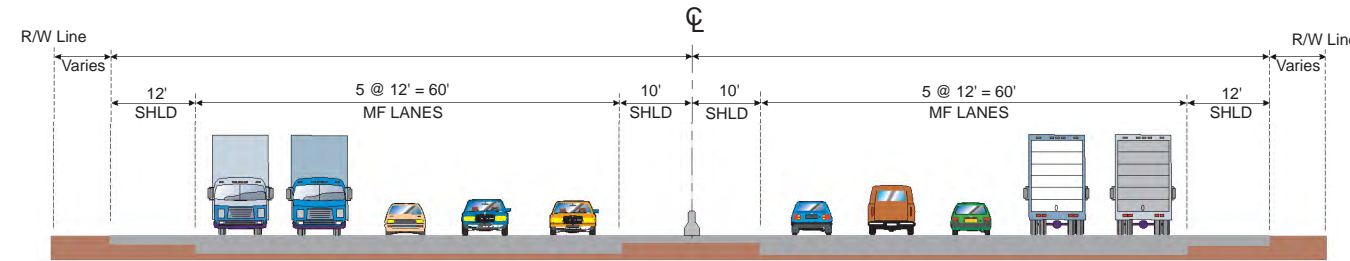
-  Add One Mixed Flow Lane (Each Direction)
-  Interchange Improvement
-  Extended Collector Distributor System
-  New Interchange
-  Arterial Capacity Enhancement
-  Truck Inspection Facility
-  Truck Ramps
-  Truck Bypass Lanes
-  Freeway Extension

Preliminary Concepts, Subject to Change

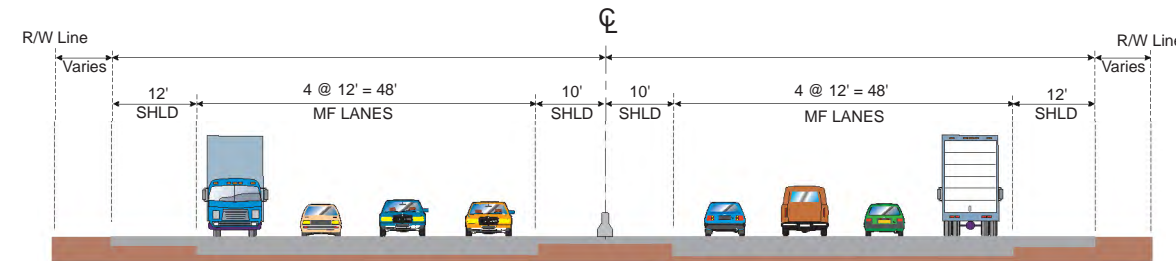


Alternative C
Medium General Purpose / Medium Truck Alternative

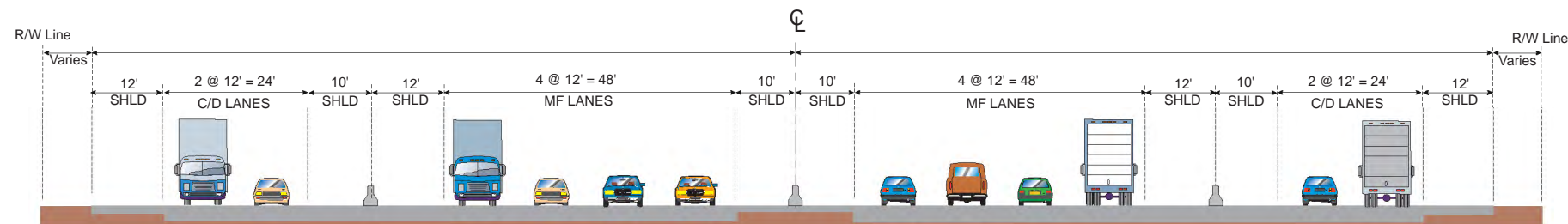
Typical Section - Alternative C
Sample Applications of the Design Concept & Scope



Add 1 MF Lane in Each Direction, between Imperial Blvd. & Atlantic Blvd.



Add 1 MF Lane in Each Direction, between the Shoemaker Bridge Complex & I-405



Collector-Distributor Lane System, between Atlantic Blvd. & I-5

Alternative D

High General Purpose / High HOV Alternative

Purpose of Concept

High level of capital investment focused on improving safety and increasing roadway capacity to address the high traffic volumes along the full length of the I-710 Corridor for all vehicle types as well as improving the travel time and attractiveness of carpools to increase the person-carrying capacity of the regional transportation system.

Mainlines

- add 2 mixed flow lanes in each direction for selected I-710 segments:
 - Pacific Coast Highway to I-405 (I-710 becomes 5 mixed flow lanes in each direction)
 - Imperial Hwy. to Atlantic Blvd. (I-710 becomes 6 mixed flow lanes in each direction)
- add 1 mixed flow lane in each direction for selected I-710 segments:
 - I-405 to Imperial Highway (I-710 becomes 5 mixed flow lanes in each direction)
 - Atlantic Boulevard to I-5 (I-710 becomes 6 mixed flow lanes in each direction)
 - I-5 to SR-60 (I-710 becomes 5 lanes in each direction)
- add an exclusive HOV facility^a for carpools and buses to I-710
 - 2 lanes (1 HOV lane in each direction), generally at grade, from Pacific Coast Highway to I-405 and from Slauson Ave. to Whittier Blvd.
 - 4 lanes (2 HOV lanes in each direction), generally elevated in the median of I-710, from I-405 to Slauson Ave.
 - dedicated ingress/egress points to and from I-710 mainlines for high occupancy vehicles at selected locations^b
 - HOV lanes would operate 24 hours/7 days per week and maintain a 2+ occupancy requirement
- 12i right shoulder where other mainline improvements are constructed

Interchanges

- eliminate some of the design deficiencies at three freeway-to-freeway interchanges: I-405/I-710, SR-91/I-710; I-5/I-710^c.
- add missing NB to SB movements at I-5/I-710 interchange^c
- eliminate some of the design deficiencies at 7 local interchanges^d
- include direct HOV connectors at the I-405/I-710 interchange (NB I-405 to NB I-710; SB I-710 to SB I-405)
- eliminate access at 8 ramp locations:
 - exit from I-710/SB I-405 connector to N. Pacific Pl. (1 ramp)
 - entrance/exit SR-91 at Atlantic Blvd. (2 ramps)
 - exit from NB I-5 to Telegraph Rd. (1 ramp)
 - entrance/exit I-710 at Olympic Blvd./Eastern Ave. NB and SB (4 ramps)

Terminal Island Freeway (SR-47/SR-103)

- add four-lane Alameda Corridor Truck Expressway, between SR-47 and Alameda Street

Arterials

- arterial capacity enhancements to 4 major parallel arterials^e close to I-710 by adding one lane in each direction
 - consists of either spot widenings to eliminate chokepoints/bottlenecks, restriping, and removal of on-street parking or roadway widening
 - provision of off-street parking, as needed, to replace loss of on-street parking due to restriping
 - includes access management improvements (raised medians, elimination/consolidation of driveways and smaller streets)

Transit

- add express bus service on I-710 using the HOV lanes

Notes

- exclusive HOV facility would be designed and constructed so as to not preclude its future development as a high speed rail line between Long Beach and downtown Los Angeles
- between Pacific Coast Highway and Willow St.; within the I-405/I-710 interchange; within the SR-91/I-710 interchange; within the I-105/I-710 interchange; near Slauson Ave.; near Whittier Blvd.
- requires coordination with I-5 Corridor Improvements
- Willow St.; Del Amo Blvd.; Long Beach Blvd.; Imperial Hwy.; Florence Ave.; Atlantic/Bandini Blvds.; Washington Blvd.
- Atlantic Blvd. (from PCH to SR-60); Cherry Ave./Garfield Ave. (from PCH to SR-60); Eastern Ave. (from Cherry Ave. to Atlantic Blvd.); Long Beach Blvd. (from San Antonio Dr. to Firestone Blvd.)

Alternative D

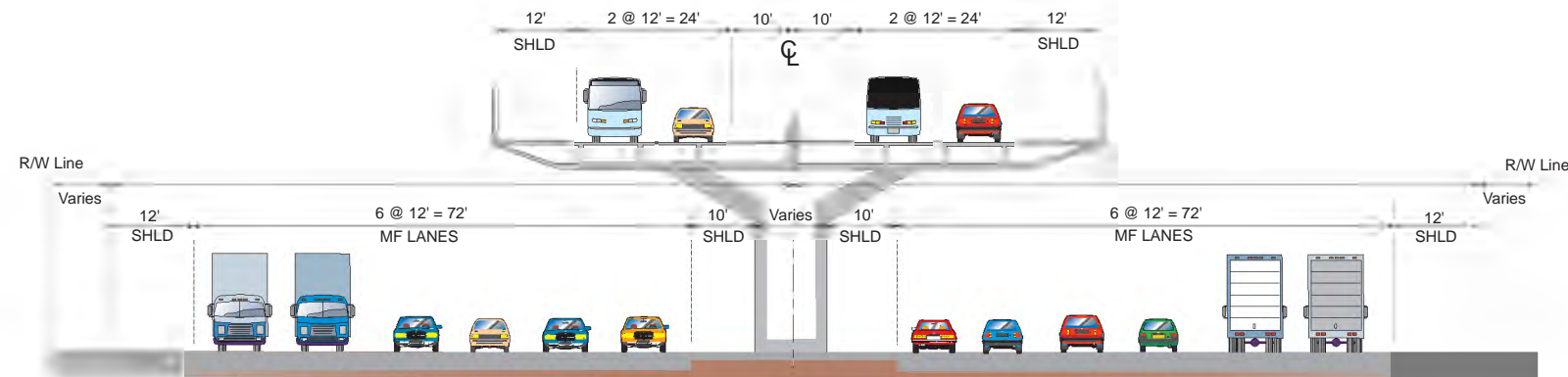
High General Purpose / High HOV Alternative

LEGEND

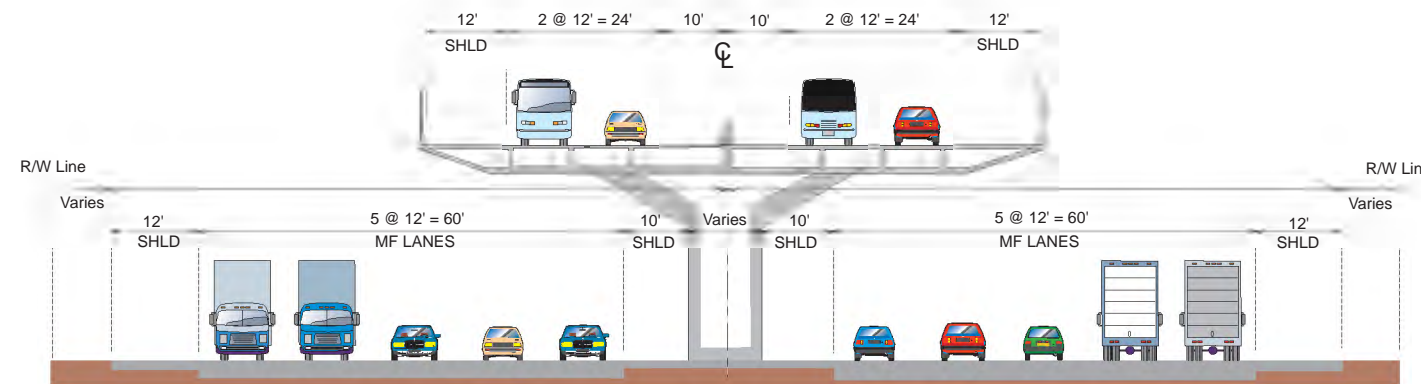
- Add Two Mixed Flow Lanes (Each Direction) with HOV Facility
- Add One Mixed Flow Lane (Each Direction) with HOV Facility
- Add One Mixed Flow Lane (Each Direction)
- Arterial Capacity Enhancement
- Viaduct Connector
- New Interchange
- Interchange Improvement
- HOV Ingress / Egress
- Direct HOV Connectors
- General Purpose Connectors

Preliminary Concepts, Subject to Change

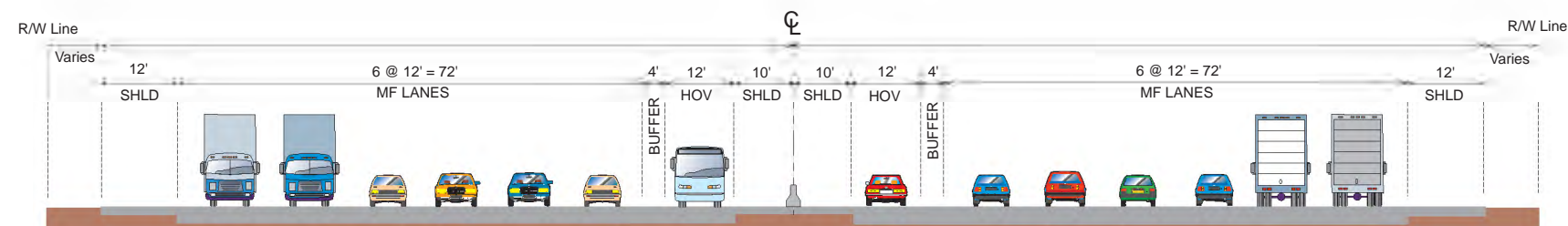




Add 2 MF Lanes in Each Direction and
Add 2 Carpool (HOV) Lanes in Each Direction on Elevated Structure



Add 1 MF Lane in Each Direction and
Add 2 Carpool (HOV) Lanes in Each Direction on Elevated Structure



Add 2 MF Lanes in Each Direction and
Add 1 Carpool (HOV) Lanes in Each Direction

Alternative E High Truck Alternative

Purpose of Concept

High level of capital investment focused on: improving safety; increasing capacity for growing heavy duty truck demand; improving reliability of travel times; and reducing points of conflict between autos and trucks to the greatest extent possible.

Mainline Facility

- exclusive truck facility
 - 4 lanes (2 in each direction) between Willow St. and Whittier Blvd.
 - generally elevated, however, profile was determined based on need to minimize grades and best fit to minimize need for additional right-of-way
 - dedicated ingress/egress points for trucks at selected locations: north of Willow St.; north of I-405; SR-91 interchange (fully directional truck connectors); south of Firestone Blvd. (to and from the north only); Atlantic Blvd. Viaduct (see Interchanges below); south of Whittier Blvd. (to and from the south only)
 - horizontal alignment is in the median or adjacent to I-710 in new, existing state, or Southern California Edison right-of-way depending upon best fit
 - consider tolling option
- exclusive auto facility
 - 4 lanes (2 in each direction) between Shoemaker Bridge and Willow St. in Long Beach
 - generally elevated in the median, however, profile was determined based on need to minimize grades and best fit to minimize need for additional right-of-way
 - ingress/egress points at the termini only
- 12¹ right shoulder where other mainline improvements are constructed

Interchanges

- eliminate some of the design deficiencies at I-5/I-710^a; SR-91/I-710; and I-405/I-710
- add missing NB to SB movements at I-5/I-710 interchange via Atlantic Blvd. Viaduct^a
- add one new interchange (Slauson Ave.)
- eliminate access at 16 ramp locations:
 - exit from I-710/SB I-405 connector to N. Pacific Pl. (1 ramp)
 - entrance/exit I-405 at Santa Fe Rd. (2 ramps)
 - entrance/exit SR-91 at Long Beach Blvd. (2 ramps)
 - entrance/exit SR-91 at Atlantic Blvd. (2 ramps)
 - entrance/exit I-710 at Martin Luther King Jr. Blvd. SB (2 ramps)
 - entrance/exit I-5 at Downey Rd. (2 ramps)
 - exit from NB I-5 to Telegraph Rd. (1 ramp)
 - entrance/exit I-710 at Olympic Blvd./Eastern Ave. NB and SB (4 ramps)

Arterials

- arterial capacity enhancements to 5 major arterials^b that lead to I-710 and that carry very high truck volumes by adding one lane in each direction
 - consists of either spot widenings to eliminate chokepoints/bottlenecks, restriping, and removal of on-street parking or roadway widening
 - provision of off-street parking, as needed, to replace loss of on-street parking due to restriping
 - includes access management improvements (raised medians, elimination/consolidation of driveways and smaller streets)

Notes

- requires coordination with I-5 Corridor Improvements
- Ocean Blvd. (from SR-47 to I-710 connectors, exclusive of the Gerald Desmond Bridge project); Pacific Coast Highway (from SR-103 to I-710); Florence Ave. (from I-710 to Garfield Ave.); 37th St./38th St./Bandini Blvd. (from Alameda St. to I-5); Washington Blvd. (from Alameda St. to I-5)

Alternative E High Truck Alternative

LEGEND

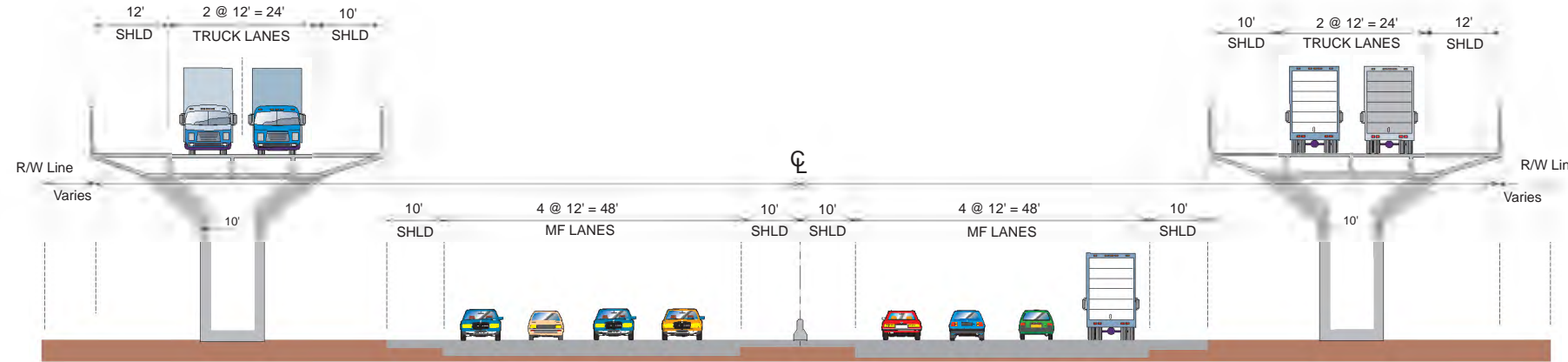
-  Elevated General Purpose Facility
-  Exclusive Truck Facility
-  Interchange Improvement
-  Truck Ingress/Egress
-  New Interchange
-  Arterial Capacity Enhancement

Preliminary Concepts, Subject to Change

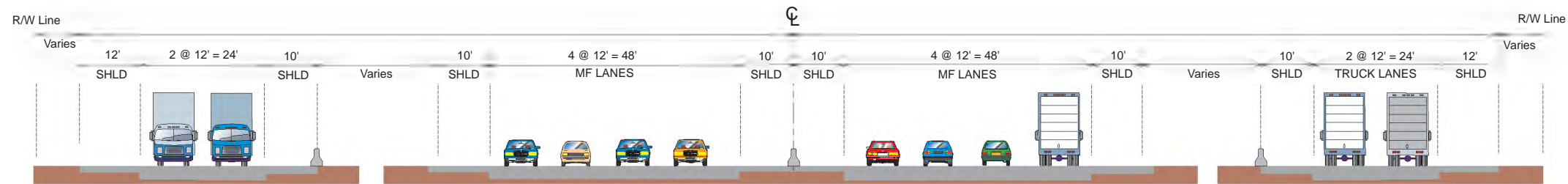


**Alternative E
High Truck Alternative**

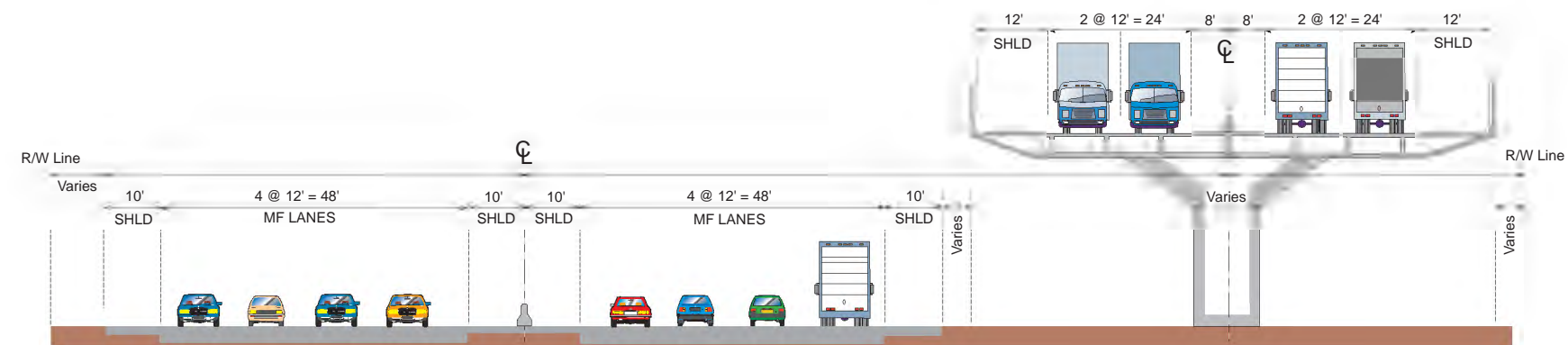
**Typical Section - Alternative E
Sample Applications of the Design Concept & Scope**



Add 2 Truck Lanes in Each Direction on Elevated Structures



Add 2 Truck Lanes in Each Direction



Add 2 Truck Lanes in Each Direction on Elevated Structure

APPENDIX N

A Comparison of Alternatives with Respect to Localized Diesel Particulate Matter Concentrations, Parsons Brinckerhoff, Inc., May 2003

I-710 Major Corridor Study – IDAS Parameters, Rates, Technical Memorandum, Cambridge Systematics, Inc., February 2003

**A Comparison of Alternatives with Respect
to Localized Diesel Particulate Matter
Concentrations, Parsons Brinckerhoff, Inc.,
May 2003**

I-710 MAJOR CORRIDOR STUDY

**A COMPARISON OF ALTERNATIVES WITH RESPECT TO
LOCALIZED DIESEL PARTICULATE MATTER
CONCENTRATIONS**

**Prepared for
LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY**

**Prepared by
PARSONS BRINCKERHOFF**

May 2003

Introduction

Particulate matter from diesel-fueled engines has been identified as a toxic air contaminant (TAC) by the California Air Resources Board (ARB) and diesel particulate matter (DPM) is considered a TAC under California's air toxics program. The I-710 corridor is a major route that is heavily utilized by heavy-duty diesel truck traffic, and alternative design concepts for the expansion of this freeway are being considered that may affect DPM levels along the corridor. The purpose of this analysis is to estimate the potential effects of these concepts on localized DPM levels.

To estimate the relative health effects of the alternatives under consideration for the I-710 Major Corridor Study (MCS), a screening level mobile source air quality dispersion analysis was conducted. The purpose of this analysis was to understand the implications of different actions based on their estimated effect on DPM levels to help identify which elements of the alternatives should be carried forward into the environmental phase for further study. The screening analysis estimated DPM concentrations at selected distances from the I-710 freeway corridor for different design options near two representative roadway segments of I-710 – (1) between I-405 and Willow Street, and (2) between Rosecrans Avenue and Alondra Boulevard. These two sites were selected because residences are located very close to the existing I-710 travel lanes, heavy duty truck volumes are high, and because these locations capture differences in the physical attributes of the proposed alternatives. Future truck volumes for each lane of the various freeway segments were considered under AM peak, midday, PM peak, and nighttime traffic conditions.

The planning horizon year for the I-710 MCS is 2025. Federal planning guidelines and requirements for regionally significant transportation investment studies conducted in the Southern California Association of Governments (SCAG) region, such as the I-710 MCS, require future year analyses. The screening level mobile source air quality dispersion analysis was conducted at a level of environmental detail on par with the general design concepts of the proposed alternatives that were developed for the major corridor study.

It follows that the environmental studies on the Locally Preferred Strategy(ies) prepared in the subsequent environmental phase will include added, more detailed, air quality and health risk analysis consistent with California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) requirements for these environmental documents. This analysis will include consideration of potential mitigation measures, if applicable.

Diesel Particulate Matter

Diesel exhaust, which is produced when an engine burns diesel fuel and is commonly found throughout the environment, is emitted from a broad range of diesel engines: on road diesel engines of trucks, buses and cars and off road diesel engines that include locomotives, marine vessels and heavy duty equipment. Diesel exhaust is a complex mixture of thousands of gases and fine particles (commonly known as soot) that contains more than 40 toxic air contaminants. These include many known or suspected cancer-causing substances, such as benzene, arsenic, formaldehyde, and nickel. The sizes of DPM that are of greatest health concern are those that are in the categories of fine and ultra fine particles. The composition of these particles may be composed of elemental carbon with absorbed compounds such as organic compounds, sulfate, nitrate, metals and other trace elements.

Diesel exhaust particles and gases are suspended in the air, so exposure occurs whenever a person breathes air that contains these substances. The fine and ultra fine particles are

respirable, which means that they can avoid many of the human respiratory system defense mechanisms and enter deeply into the lung. Exposure to diesel exhaust matter comes from both on road and off road engine exhaust that is either directly emitted from the engines or aged through lingering in the atmosphere.

There is limited information on human exposure to just diesel particulate matter but there is enough evidence to indicate that inhalation exposure to diesel exhaust causes acute and chronic health effects. Based upon human and laboratory studies, there is considerable evidence that diesel exhaust is a likely carcinogen. In 1998, the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) completed a comprehensive health assessment of diesel exhaust. OEHHA developed a cancer potency factor using DPM as a surrogate measure for diesel exhaust exposure. This assessment formed the basis for a decision by the California Air Resources Board (ARB) to formally identify particles in diesel exhaust as a toxic air contaminant that may pose a threat to human health. While potential impacts are of concern for diesel exhaust as a carcinogen, DPM also has non-carcinogen adverse health effects. In a recent review, the United State Environmental Protection Agency (USEPA) concluded that diesel exhaust is likely to be carcinogenic to humans, but considered that the exposure estimates in human studies were too uncertain to develop a confident carcinogenic unit risk for USEPA's use. [*Health Assessment Document for Diesel Engine Exhaust*. USEPA EPA/600/8-90/057F. May 01, 2002. U.S. Environmental Protection Agency, Office of Research and Development, National Center for Environmental Assessment, Washington, DC.]

The Scientific Review Panel (SRP) of the OEHHA, after reviewing the available health evidence, concluded the $3 \times 10^{-4} (\mu\text{g}/\text{m}^3)^{-1}$ is a reasonable unit risk factor (URF) for DPM. For evaluating potential risks, based on related studies ARB considers an increased cancer risk greater than ten in a million to be significant. [*Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines*. California Air Resources Board. October 2000.] Since the potential cancer risk of an action is calculated by multiplying the annual average concentration from inhalation by the URF, a change in DPM concentrations of $0.03 \mu\text{g}/\text{m}^3$ would be considered significant.

Microscale Analysis

Analytical Approach

Mobile source dispersion models are the basic analytical tools used in air quality analyses to estimate pollutant concentrations expected under given conditions of traffic, roadway geometry, and meteorology.

CAL3QHC is a line-source dispersion model that predicts pollutant concentrations near congested intersections and heavily traveled roadways. Input parameters include emission rates of free flow and idling vehicles, roadway geometries, site characteristics, background pollutant concentrations, signal timing, and meteorological conditions. CAL3QHC predicts inert pollutant concentrations, averaged over a one-hour period, near roadways using stable meteorological conditions and peak-hour traffic flow. Pollutant concentrations for longer averaging times (e.g., 8-hours, 24-hour, and annual) are then estimated by multiplying the estimated 1-hour values by reasonably conservative persistence factors.

CAL3QHCR is a refinement to CAL3QHC in that it uses actual meteorological data as opposed to an assumed worst-case set of meteorological conditions. A comprehensive data set of hourly meteorological observations, provided by USEPA and compiled by the National Weather Service at the Los Angeles Airport over a period of one year, was used as inputs to the air quality analysis.

[*Meteorological Data*, U.S. Environmental Protection Agency, Technology Transfer Network, Support Center for Regulatory Air Models, through www.epa.gov/scram001/tt24.htm.] CAL3QHCR also allows the use of multiple sets of traffic conditions over a 24-hour period.

In summary, CAL3QHCR was used as the dispersion model for this analysis because of the following reasons:

- High traffic volumes and close proximity to sensitive land uses required more accurate pollutant estimates;
- Forecast traffic conditions for multiple traffic periods (i.e., AM peak, midday, PM peak, and nighttime) could be incorporated; and
- Health-risk assessments are based on estimated annual average pollutant concentrations, and CAL3QHCR can be utilized to directly estimate annual values.

Each freeway segment was considered in the modeling analysis to be an infinite line source. DPM concentrations at fixed distances from the center of the existing roadway were estimated for each design concept. The absolute coordinates from a fixed point, the roadway centerline, were used in order to take into account the different roadway widths of the different I-710 alternatives for purposes of directly comparing their estimated emissions levels to sensitive receptors located adjacent to the freeway.

Pollutant Emission Rates

Vehicular emissions were estimated for the 2025 analysis year using ARB's vehicular emission factor algorithm, EMFAC2002 v2.2. This model is recommended for use by ARB and guidance is given for its use in Caltrans's *The Use of EMFAC 2002 to replace CT-EMFAC A Users Guide*, dated February 27, 2003.

Emission factors were calculated for the South Coast Air Basin using an annual average season. Air basin specific default vehicle registration data, inspection and maintenance program parameters and mileage distribution parameters were used to calculate DPM emission factors.

Since the focus of this analysis is the potential health risks associated with diesel emissions, only tailpipe emissions, and not re-entrained dust from vehicle tires (or break or engine wear), were considered. Emission rates were calculated separately for each lane of I-710 traffic.

Two variables -- analysis year and vehicular (truck) speeds -- notably affected the estimated pollutant concentrations for this analysis, as follows:

- DPM emission factors are forecast to decrease in future years (as compared to existing values) due to increasingly stringent emission controls and the replacement of older, higher polluting, vehicles with newer, less polluting, ones. See Figure 1, which shows the relationship DPM emission factors with analysis year that is included in the EMFAC2002 v2.2 algorithm.
- DPM emission factors decrease with increased vehicular speeds (see Figure 2). This is based on ARB's belief that DPM emission trend closely resembles hydrocarbons. The fact that the I-710 Build alternatives all result in increased vehicular speeds, as compared to the future No Build scenario, is a major reason why estimated concentrations are lower with the Build alternatives. [Note: these results are closely tied with EMFAC2002 v2.2 (most recent version of this model currently available in April

2003). It is presumed that future environmental studies and DPM emissions analyses will incorporate ARB's future updates to the EMFAC model when these occur.]

Traffic Data

The amount of traffic, particularly heavy duty trucks, is projected to more than double on I-710 by the Year 2025. Future year truck volumes for each lane of the various I-710 segments were allocated based on traffic volumes and speeds developed by Cambridge Systematics, Inc. over a 24-hour timeframe according to four time periods. The 24-hour timeframe was divided into AM (6 AM-9 AM), Midday (9 AM-3 PM), PM (3 PM-7 PM) and nighttime (7 PM-6 AM) time periods. Heavy duty truck volumes tend to be highest during the Midday time period, which is why all four time periods were utilized in the analysis rather than relying exclusively on the AM and PM peak periods.

I-710 Design Concepts

Critical distances were estimated at the two analysis sites for the different alternatives given the truck volumes forecast on each lane of travel of each design concept. The alternatives are described in detail in *I-710 Major Corridor Study Final Set of Alternatives, Revised January 2003*. Since the vertical and horizontal configuration of each alternative varies along the full 18-mile length of the I-710 Corridor, typical sections were utilized in the screening level analysis to represent the physical characteristics of the roadway near the two analysis sites. At one of the sites, the truck lanes in Alternative E are transitioning from an at-grade configuration (E1) to an elevated configuration (E2) and thus both options were examined to bracket the results.

The following provides a summary description of some of the key roadway elements near the two sites in each alternative for I-710. See *I-710 Major Corridor Study Final Set of Alternatives, Revised January 2003* for the full list of all of the elements included in each alternative.

Alternative A – No Build

Future travel conditions on I-710 without any new changes. No new construction.

Alternative B – Transportation Systems Management/Transportation Demand Management (TSM/TDM)

Improve signage and aesthetics, provide additional ramp metering, and promote programs that encourage trucks to reduce emissions and to travel during off-peak hours. No new travel lanes.

Alternative C – Medium General Purpose/Medium Truck

- a. Add one mixed flow lane in each direction between Imperial Blvd. & Atlantic Blvd.
- b. Add one mixed flow lane in each direction between the Shoemaker Bridge Complex & I-405.
- c. Add truck bypass lanes between Long Beach Blvd. and Imperial Blvd. Include truck inspection station between Long Beach Blvd. and Del Amo Blvd.
- d. Provide collector-distributor system between Atlantic Blvd. & I-5.

Alternative D – High General Purpose/High HOV

- a. Add two mixed flow lanes in each direction and add one HOV Lane in each direction, generally at grade, between Pacific Coast Highway & I-405.
- b. Add one mixed flow lane in each direction at grade and add two HOV Lanes in each direction generally elevated in the median, between I-405 and Slauson Avenue.

Alternative E – High Truck Alternative

- a. Configuration E1 - Add two truck lanes in each direction, generally at grade on the outside shoulder.
- b. Configuration E2 – Add two truck lanes in each direction, generally on elevated structures located on each side of outside shoulder.

Results of the Microscale Analysis

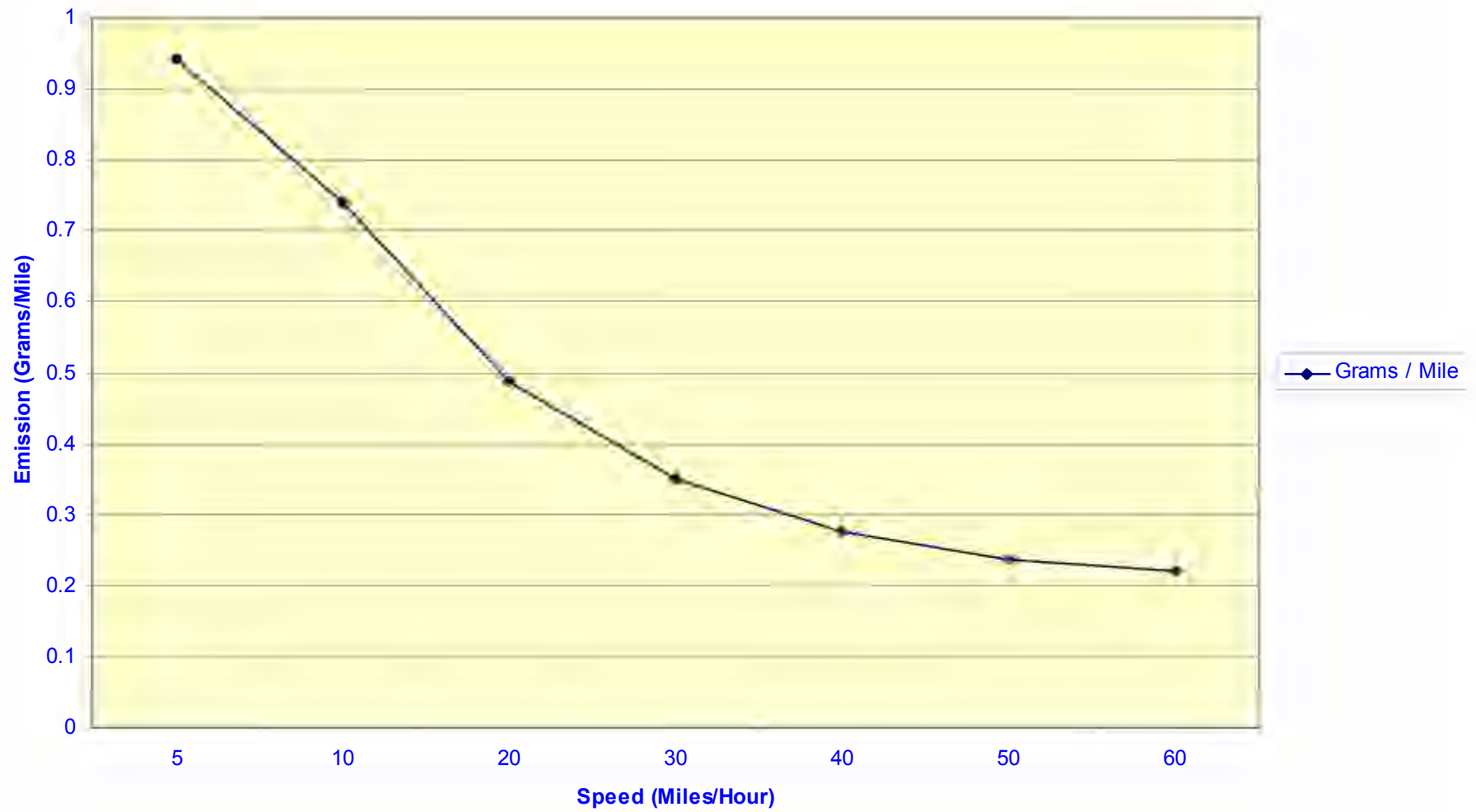
The results of the analysis, which are provided in Tables 1 and 2 and highlighted in Figures 3 and 4, are as follows:

- DPM concentrations are lower under the future Build alternatives than the future No Build scenario due to lower emission rates associated with the higher vehicular speeds;
- Among the Build alternatives, DPM concentrations increase when ground-level truck-only lanes are located in the right-hand lanes (i.e., lanes closest to sensitive land uses);
- DPM concentrations with elevated truck-only lanes (Alternative E2) are lower compared to the ground-level truck-only lanes (Alternative E1), particularly at distances closest to the freeway.
- Alternative C and Alternative E2 exhibit the lowest DPM concentrations of the Build alternatives. Note: The truck bypass lanes contained in Alternative C results in lower DPM concentrations as trucks are able to maintain better speeds since they are routed around pockets of congestion. Between Rosecrans and Alondra, the configuration of the truck bypass lanes is similar to the elevated truck-only lanes in Alternative E2. Between I-405 and Willow Road, some trucks are drawn to the Terminal Island Freeway extension and away from I-710.

**FIGURE 1 -
PM10 EMISSION FACTOR TRENDS FOR HHDT
EMISSION vs. YEAR (1990-2025)**



**FIGURE 2 -
PM10 EMISSION FACTOR TRENDS FOR HHDT
EMISSION vs. SPEED**



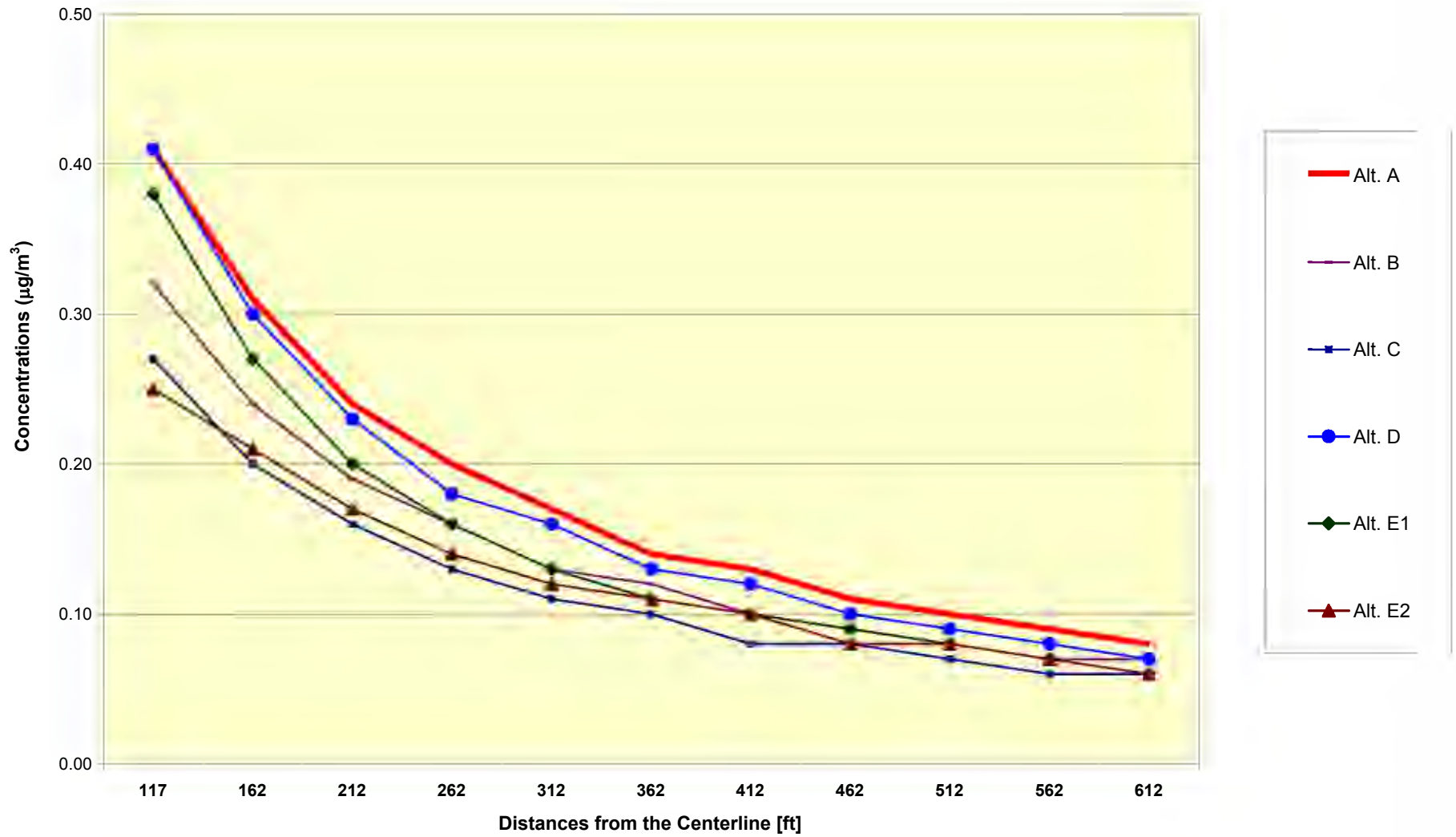
**Table 1 - I-710 Corridor, between I-405 and Willow Road
Annual Exhaust DPM Concentrations and Comparison Between Alternatives ($\mu\text{g}/\text{m}^3$)**

Receptor Distance from Centerline of Roadway	Alt. A (No Build)	Alt. B	Alt. C	Alt. D	Alt. E1 at-grade	Alt. E2 elevated	Impact of Alternatives over the No Build				
							B-A	C-A	D-A	E1-A	E2-A
117	0.41	0.32	0.27	0.41	0.38	0.25	-0.09	-0.14	0.00	-0.03	-0.16
162	0.31	0.24	0.20	0.30	0.27	0.21	-0.07	-0.11	-0.01	-0.04	-0.10
212	0.24	0.19	0.16	0.23	0.20	0.17	-0.05	-0.08	-0.01	-0.04	-0.07
262	0.20	0.16	0.13	0.18	0.16	0.14	-0.04	-0.07	-0.02	-0.04	-0.06
312	0.17	0.13	0.11	0.16	0.13	0.12	-0.04	-0.06	-0.01	-0.04	-0.05
362	0.14	0.12	0.10	0.13	0.11	0.11	-0.02	-0.04	-0.01	-0.03	-0.03
412	0.13	0.10	0.08	0.12	0.10	0.10	-0.03	-0.05	-0.01	-0.03	-0.03
462	0.11	0.09	0.08	0.10	0.09	0.08	-0.02	-0.03	-0.01	-0.02	-0.03
512	0.10	0.08	0.07	0.09	0.08	0.08	-0.02	-0.03	-0.01	-0.02	-0.02
562	0.09	0.07	0.06	0.08	0.07	0.07	-0.02	-0.03	-0.01	-0.02	-0.02
612	0.08	0.07	0.06	0.07	0.06	0.06	-0.01	-0.02	-0.01	-0.02	-0.02
662	0.08	0.06	0.05	0.07	0.06	0.06	-0.02	-0.03	-0.01	-0.02	-0.02
712	0.07	0.06	0.05	0.06	0.05	0.05	-0.01	-0.02	-0.01	-0.02	-0.02
762	0.06	0.05	0.04	0.06	0.05	0.05	-0.01	-0.02	0.00	-0.01	-0.01
812	0.06	0.05	0.04	0.05	0.04	0.04	-0.01	-0.02	-0.01	-0.02	-0.02
862	0.05	0.04	0.04	0.05	0.04	0.04	-0.01	-0.01	0.00	-0.01	-0.01
912	0.05	0.04	0.03	0.05	0.03	0.03	-0.01	-0.02	0.00	-0.02	-0.02
962	0.05	0.04	0.03	0.04	0.03	0.03	-0.01	-0.02	-0.01	-0.02	-0.02
1012	0.04	0.03	0.03	0.04	0.03	0.03	-0.01	-0.01	0.00	-0.01	-0.01
1062	0.04	0.03	0.02	0.04	0.02	0.02	-0.01	-0.02	0.00	-0.02	-0.02
1112	0.04	0.03	0.02	0.03	0.02	0.02	-0.01	-0.02	-0.01	-0.02	-0.02

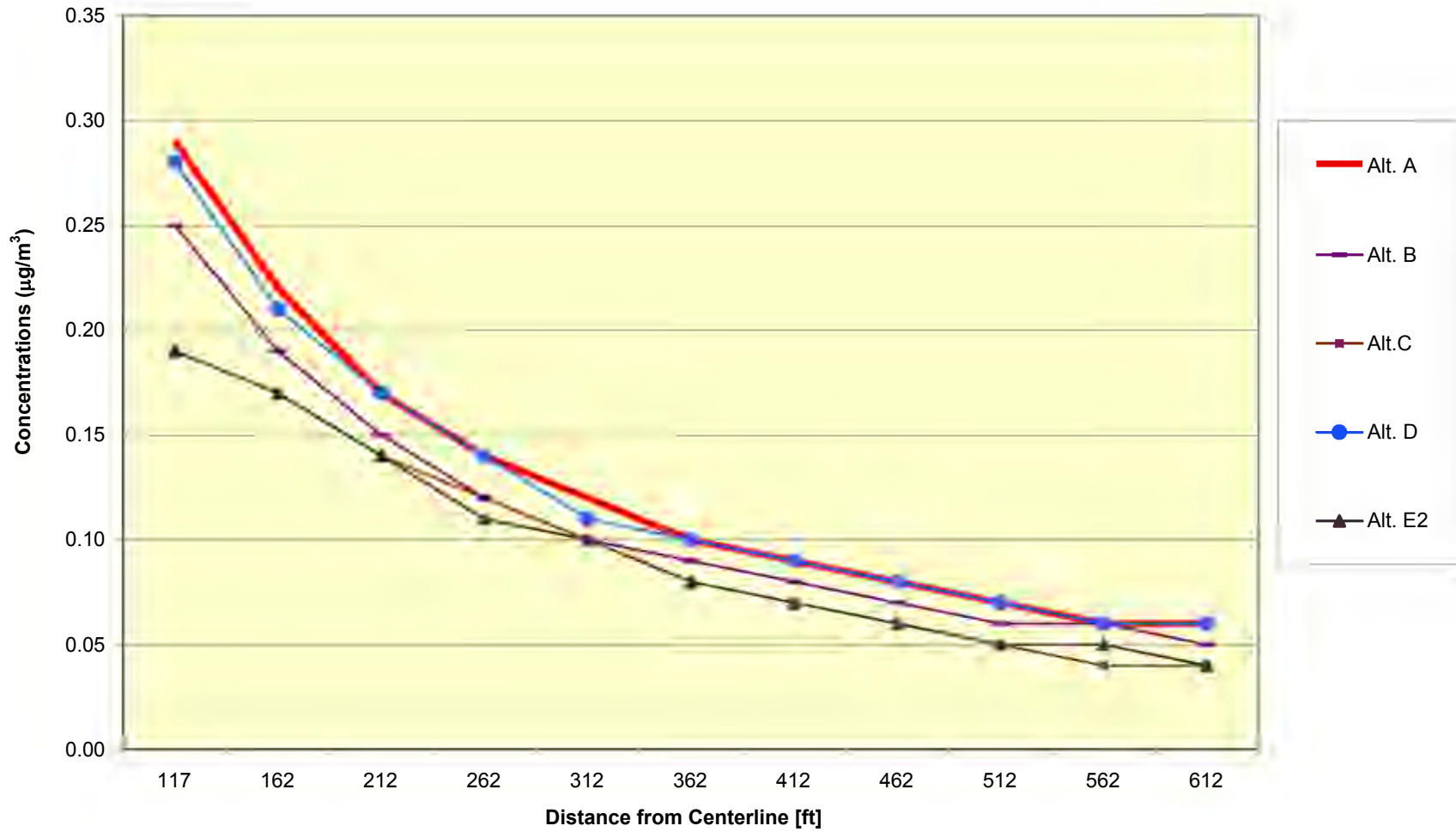
**Table 2 - I-710 Corridor, between Rosecrans and Alondra
Annual Exhaust DPM Concentrations and Comparison Between Alternatives ($\mu\text{g}/\text{m}^3$)**

Receptor Distance from Centerline of Roadway	Alt. A (No Build)	Alt. B	Alt. C	Alt. D	Alt. E2 elevated	Impact of Alternatives over the No Build			
						B-A	C-A	D-A	E2-A
117	0.29	0.25	0.19	0.28	0.19	-0.04	-0.10	-0.01	-0.10
162	0.22	0.19	0.17	0.21	0.17	-0.03	-0.05	-0.01	-0.05
212	0.17	0.15	0.14	0.17	0.14	-0.02	-0.03	0.00	-0.03
262	0.14	0.12	0.12	0.14	0.11	-0.02	-0.02	0.00	-0.03
312	0.12	0.10	0.10	0.11	0.10	-0.02	-0.02	-0.01	-0.02
362	0.10	0.09	0.08	0.10	0.08	-0.01	-0.02	0.00	-0.02
412	0.09	0.08	0.07	0.09	0.07	-0.01	-0.02	0.00	-0.02
462	0.08	0.07	0.06	0.08	0.06	-0.01	-0.02	0.00	-0.02
512	0.07	0.06	0.05	0.07	0.05	-0.01	-0.02	0.00	-0.02
562	0.06	0.06	0.04	0.06	0.05	0.00	-0.02	0.00	-0.01
612	0.06	0.05	0.04	0.06	0.04	-0.01	-0.02	0.00	-0.02
662	0.05	0.05	0.03	0.05	0.04	0.00	-0.02	0.00	-0.01
712	0.05	0.04	0.03	0.05	0.03	-0.01	-0.02	0.00	-0.02
762	0.05	0.04	0.02	0.04	0.03	-0.01	-0.03	-0.01	-0.02
812	0.04	0.04	0.02	0.04	0.02	0.00	-0.02	0.00	-0.02
862	0.04	0.03	0.02	0.03	0.02	-0.01	-0.02	-0.01	-0.02
912	0.03	0.03	0.01	0.03	0.02	0.00	-0.02	0.00	-0.01
962	0.03	0.03	0.01	0.03	0.02	0.00	-0.02	0.00	-0.01
1012	0.03	0.02	0.01	0.03	0.01	-0.01	-0.02	0.00	-0.02
1062	0.02	0.02	0.01	0.02	0.01	0.00	-0.01	0.00	-0.01
1112	0.02	0.02	0.01	0.02	0.01	0.00	-0.01	0.00	-0.01

Figure 3 - DPM Concentrations Versus Distances From the Centerline of Roadway
(between I-405 and Willow Road)



**Figure 4 - DPM Concentrations versus Distances From the Roadway Centerline
(between Rosecrans and Alondra)**



**I-710 Major Corridor Study – IDAS
Parameters, Rates, Technical Memorandum,
Cambridge Systematics, Inc., February 2003**

Memorandum



TO: David Levinsohn, PB

FROM: Janine Waliszewski, Krista Jeannotte, and Michael Fischer

DATE: February 28, 2003

RE: I-710 MCS - IDAS Parameters, Rates

The purpose of this document is to present the proposed model parameters and rates which will be used in IDAS for the I-710 MCS. IDAS has been designed such that the user may adjust the assumptions and default parameter values for the alternatives analysis. This not only allows the user to tailor the analysis to reflect local conditions, but it ensures that IDAS is a transparent and systematic approach to benefits evaluation.

This document addresses the model specific parameters and rates (e.g., value of travel time, accident rates, etc.) and another memo will address the impact values (e.g., capacity improvements, ATIS market penetration and time savings, etc.) associated with the specific ITS components to be included in the No Build and TSM/TDM alternatives. We have identified whether we propose to use the IDAS default values or data specific to the Long Beach or Los Angeles County area, and the source of that data.

Several tables in this memo may be highly technical to someone unfamiliar with IDAS or modeling, in general. If you have any questions about the data or its relevance to IDAS, please feel free to contact us. For most of the data included, we suggest that you focus on the source of the data. Please indicate to us whether these are agreeable to you and, if not, what source/value you would rather we use. Note that complete tables are included for reference and documentation purposes.

In order to proceed with the post processor work in a timely fashion, we are requesting that you provide us with your feedback by Wednesday, March 5, 2003.

We appreciate your time and input. Please feel free to contact us if you have any questions or concerns.

IDAS Setup

Facility Types

Table 1. Facility Type Description and V/C Curves Per Alternative

Facility Type	Description	V/C Curve
Alternatives A - D		
1	Freeway	Freeway
2	Major Arterial	Arterial
3	Minor Arterial	Arterial
4	Collector	Arterial
5	HOV	Freeway
6	Centroid Connector	Arterial
7	Ramp	Ramp
8	HOV MF	Freeway
9	Toll	Freeway
31	Ext Freeway	Freeway
35	Ext HOV	Freeway
38	Ext HOV MF	Freeway
Alternative E		
1	Freeway	Freeway
2	Major Arterial	Arterial
3	Minor Arterial	Arterial
4	Collector	Arterial
5	HOV	Freeway
6	Centroid Connector	Arterial
7	Ramp	Ramp
8	HOV MF	Freeway
9	Toll	Freeway
10	Truck Lanes	Freeway
11	Truck Connectors	Freeway
31	Ext Freeway	Freeway
35	Ext HOV	Freeway
38	Ext HOV MF	Freeway

Source: Kaku.



District

Table 2. District Assignment and Description

District Number	Description
1	Rest of Network
2	Study Area
3	I-710 Mainline

TPM Data

Table 3. Regionalized TPM Data

Centroid Data	
Maximum Centroid Connector	1,392

Area Type Data	Description
1	Urban
2	Suburban/Rural

Source: Kaku.



Import/Travel Demand Model Data

Market Sector

Table 4. Market Sectors Included in Model

Sector Name	Type	Trip Type	Auto Vehicle Occupancy
Drive alone	Auto, single occupancy	Vehicle	1
Carpool	Auto, multiple occupancy	Vehicle	2.3
Light truck	Truck, commercial	Vehicle	1
Medium truck	Truck, commercial	Vehicle	1
Heavy truck	Truck, commercial	Vehicle	1

Source: Kaku.

Benefits Module

Analysis Options

Figure 1. IDAS Analysis Submodules Selection

Analysis Submodules Selection

Active Options

- Assignment
- Re-run Baseline
- Mode Choice
- Time-of-Day
- Induced Demand
- Emissions
- Energy
- Safety
- Travel Time Reliability
- None

Source: FHWA, IDAS.



Volume Delay Curves – Speed Factor

Table 5. I-710 V/C Curve Modification

V/C Ratio	Urban Freeway	Suburban/ Rural Freeway (External Freeways)	Urban Arterial	Suburban/ Rural Arterial	Ramp
0	1.0000	1.0000	1.0000	1.0000	1.0000
0.2	0.9998	1.0000	0.9998	0.9998	0.9998
0.3	0.9988	1.0000	0.9988	0.9988	0.9988
0.5	0.9907	1.0000	0.9907	0.9907	0.9907
0.7	0.9652	0.9999	0.9652	0.9652	0.9652
0.8	0.9421	0.9999	0.9421	0.9421	0.9421
0.9	0.9104	0.9998	0.9104	0.9104	0.9104
1	0.8696	0.9998	0.8696	0.8696	0.8696
1.1	0.8199	0.9996	0.8199	0.8199	0.8199
1.2	0.7628	0.9995	0.7628	0.7628	0.7628
1.4	0.6344	0.9991	0.6344	0.6344	0.6344
1.6	0.5043	0.9984	0.5043	0.5043	0.5043
1.8	0.3884	0.9975	0.3884	0.3884	0.3884
2	0.2941	0.9962	0.2941	0.2941	0.2941
2.5	0.1458	0.9907	0.1458	0.1458	0.1458
3	0.0760	0.9809	0.0760	0.0760	0.0760
4	0.0254	0.9421	0.0254	0.0254	0.0254
5	0.0106	0.8696	0.0106	0.0106	0.0106
6	0.0051	0.7628	0.0051	0.0051	0.0051
12	0.0003	0.1673	0.0003	0.0003	0.0003

Source: Kaku.



Market Sector Selections

Table 6. Market Sectors Prohibited by Facility Type

Facility Type	Market Sector				
	Drive Alone	Carpool	Light Truck	Medium Truck	Heavy Truck
Alternative A-D					
Freeway					
Major Arterial					
Minor Arterial					
Collector					
HOV ¹					
Centroid Connector					
Ramp					
HOV MF	X		X	X	X
Toll					
Ext Freeway					
Ext HOV ¹					
Ext HOV MF	X		X	X	X
Alternative E					
Freeway					
Major Arterial					
Minor Arterial					
Collector					
HOV ¹					
Centroid Connector					
Ramp					
HOV MF	X		X	X	X
Toll					
Truck Lanes	X	X			
Truck Connectors	X	X			
Ext Freeway					
Ext HOV ¹					
Ext HOV MF	X		X	X	X

Source: Kaku.

¹Prohibiting travel on HOV MF facilities will also prohibit travel on the HOV facilities.



Assignment Run Parameters

Table 7. Assignment Run Parameters

Maximum number of iterations	100
Percent equilibrium closure	0.005

Source: Kaku.

Emissions

The emission rates were obtained from the Emfac2002 V2.2 software tool using the parameters listed below.

- Geographical area = Los Angeles County;
- Method = Simple average;
- Calendar year = 2025;
- Season or month = Annual;
- Starting model year = 1980;
- Ending model year = 2025;
- Scenario type = Emfac;
- Output particulate = PM10;
- Output Hydrocarbons = ROG;
- Temperature = 65 degrees (average for Long Beach);
- Relative humidity = 60 percent (average for Long Beach); and
- Speed = 5 to 65 mph (at 5 mph speed intervals).



Table 8. Vehicle Class Percentages for EMFAC2002 Rates

Vehicle Type	Market Sector				
	Drive Alone	Carpool	Light-Heavy Trucks	Medium-Heavy Trucks	Heavy-Heavy Trucks
Light-Duty Auto (Passenger Cars), Non-catalytic	0.00	0.00	0.00	0.00	0.00
Light-Duty Auto (Passenger Cars), Catalytic	0.56	0.96	0.00	0.00	0.00
Light-Duty Auto (Passenger Cars), Diesel	0.00	0.00	0.00	0.00	0.00
Light-Duty Trucks (Weight Class 0-3750), Non-catalytic	0.00	0.00	0.00	0.00	0.00
Light-Duty Trucks (Weight Class 0-3750), Catalytic	0.18	0.00	0.00	0.00	0.00
Light-Duty Trucks (Weight Class 0-3750), Diesel	0.00	0.00	0.00	0.00	0.00
Light-Duty Trucks (Weight Class 3751-5750), Non-catalytic	0.00	0.00	0.00	0.00	0.00
Light-Duty Trucks (Weight Class 3751-5750), Catalytic	0.17	0.00	0.00	0.00	0.00
Light-Duty Trucks (Weight Class 3751-5750), Diesel	0.00	0.00	0.00	0.00	0.00
Medium-Duty Trucks (Weight Class 5751-8500), Non-catalytic	0.00	0.00	0.00	0.00	0.00
Medium-Duty Trucks (Weight Class 5751-8500), Catalytic	0.06	0.00	0.00	0.00	0.00
Medium-Duty Trucks (Weight Class 5751-8500), Diesel	0.00	0.00	0.00	0.00	0.00
Light-Heavy-Duty Trucks (Weight Class 8501-10000), Non-catalytic	0.00	0.00	0.00	0.00	0.00
Light-Heavy-Duty Trucks (Weight Class 8501-10000), Catalytic	0.00	0.00	0.65	0.00	0.00
Light-Heavy-Duty Trucks (Weight Class 8501-10000), Diesel	0.00	0.00	0.14	0.00	0.00
Light-Heavy-Duty Trucks (Weight Class 10000-14000), Non-catalytic	0.00	0.00	0.00	0.00	0.00
Light-Heavy-Duty Trucks (Weight Class 10000-14000), Catalytic	0.00	0.00	0.14	0.00	0.00
Light-Heavy-Duty Trucks (Weight Class 10000-14000), Diesel	0.00	0.00	0.07	0.00	0.00



Table 8. Vehicle Class Percentages for EMFAC2002 Rates (continued)

Vehicle Type	Market Sector				
	Drive Alone	Carpool	Light-Heavy Trucks	Medium-Heavy Trucks	Heavy-Heavy Trucks
Medium-Heavy-Duty Trucks (Weight Class 14001-33000), Non-catalytic	0.00	0.00	0.00	0.00	0.00
Medium-Heavy-Duty Trucks (Weight Class 14001-33000), Catalytic	0.00	0.00	0.00	0.20	0.00
Medium-Heavy-Duty Trucks (Weight Class 14001-33000), Diesel	0.00	0.00	0.00	0.80	0.00
Heavy-Heavy-Duty Trucks (Weight Class 33001-60000), Non-catalytic	0.00	0.00	0.00	0.00	0.00
Heavy-Heavy-Duty Trucks (Weight Class 33001-60000), Catalytic	0.00	0.00	0.00	0.00	0.00
Heavy-Heavy-Duty Trucks (Weight Class 33001-60000), Diesel	0.00	0.00	0.00	0.00	0.99
Line Haul Vehicles (Weight Class 60001+), Non-catalytic	0.00	0.00	0.00	0.00	0.00
Line Haul Vehicles (Weight Class 60001+), Catalytic	0.00	0.00	0.00	0.00	0.00
Line Haul Vehicles (Weight Class 60001+), Diesel	0.00	0.00	0.00	0.00	0.01
Urban Buses, Non-catalytic	0.00	0.00	0.00	0.00	0.00
Urban Buses, Catalytic	0.00	0.00	0.00	0.00	0.00
Urban Buses, Diesel	0.00	0.00	0.00	0.00	0.00
Motorcycles, Non-catalytic	0.01	0.00	0.00	0.00	0.00
Motorcycles, Catalytic	0.02	0.00	0.00	0.00	0.00
Motorcycles, Diesel	0.00	0.00	0.00	0.00	0.00
School Buses, Non-catalytic	0.00	0.00	0.00	0.00	0.00
School Buses, Catalytic	0.00	0.00	0.00	0.00	0.00
School Buses, Diesel	0.00	0.01	0.00	0.00	0.00
Motor Homes, Non-catalytic	0.00	0.00	0.00	0.00	0.00
Motor Homes, Catalytic	0.00	0.03	0.00	0.00	0.00
Motor Homes, Diesel	0.00	0.00	0.00	0.00	0.00

Notes:

¹Used 2025 Emfac2002 vehicle percentages for Los Angeles County.

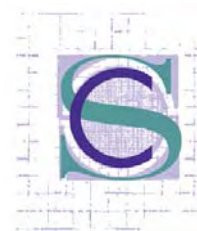
²Drive-alone percentages a function of LDA, LDT1, LDT2, MDT, and MCY.

³Carpool percentages a function of LDA, UB, SBUS, and MH. Increased value of 0.004 for SBUS to 0.01.

⁴Light-heavy truck percentages a function of LHDT1 and LHDT2.

⁵Medium-heavy truck percentages a function of MHDT.

⁶Heavy-heavy truck percentages a function of HHDT and LH. Increased LH to 0.01.

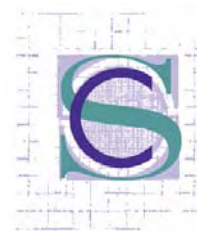


Both running exhaust emissions (grams per mile) and starting emissions (grams per trip) will be included in the analysis. The following list defines the acronyms used in the following emission tables:

- LDA = Light-Duty Auto (Passenger Cars);
- LDT1 = Light-Duty Trucks (Weight Class 0-3750);
- LDT2= Light-Duty Trucks (Weight Class 3751-5750);
- MDV = Medium-Duty Trucks (Weight Class 5751-8500);
- LHD1= Light-Heavy-Duty Trucks (Weight Class 8501-10000);
- LHD2 = Light-Heavy-Duty Trucks (Weight Class 10000-14000);
- MHD= Medium-Heavy-Duty Trucks (Weight Class 14001-33000);
- HHD = Heavy-Heavy-Duty Trucks (Weight Class 33001-60000);
- LHV= Line-Haul Vehicles (Weight Class 60001+);
- UB = Urban Buses;
- MCY= Motorcycles;
- SBUS = School Buses;
- MH= Motor Homes;
- NCAT = Non-catalytic;
- CAT = Catalytic; and
- DSL = Diesel.

Table 9. Reactive Org Gases - Running Exhaust Emissions (Grams/Mile)

Vehicle Type	Fuel Type	Speed (mph)												
		5	10	15	20	25	30	35	40	45	50	55	60	65
LDA	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.096	0.061	0.042	0.03	0.023	0.018	0.015	0.013	0.013	0.012	0.013	0.014	0.016
	DSL	0.433	0.34	0.273	0.224	0.187	0.161	0.141	0.126	0.116	0.108	0.104	0.101	0.101
LDT1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.179	0.118	0.082	0.059	0.045	0.036	0.031	0.027	0.025	0.024	0.025	0.027	0.031
	DSL	0.384	0.302	0.242	0.199	0.167	0.143	0.125	0.112	0.103	0.096	0.092	0.09	0.09
LDT2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.184	0.117	0.08	0.058	0.043	0.035	0.029	0.026	0.024	0.023	0.024	0.026	0.03
	DSL	0.225	0.177	0.142	0.116	0.098	0.084	0.073	0.066	0.06	0.056	0.054	0.053	0.053



**Table 9. Reactive Org Gases - Running Exhaust Emissions (Grams/Mile)
(continued)**

Vehicle Type	Fuel Type	Speed (mph)												
		5	10	15	20	25	30	35	40	45	50	55	60	65
MDV	NCAT	6.56	4.644	3.436	2.659	2.153	1.825	1.622	1.511	1.476	1.514	1.629	1.837	2.171
	CAT	0.301	0.195	0.134	0.097	0.074	0.059	0.05	0.044	0.041	0.04	0.042	0.046	0.053
	DSL	0.226	0.177	0.142	0.117	0.098	0.084	0.074	0.066	0.06	0.057	0.054	0.053	0.053
LHD1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.073	0.047	0.032	0.023	0.017	0.013	0.01	0.009	0.008	0.007	0.007	0.006	0.007
	DSL	0.349	0.274	0.22	0.18	0.151	0.13	0.114	0.102	0.093	0.087	0.084	0.082	0.082
LHD2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.064	0.041	0.028	0.02	0.015	0.011	0.009	0.007	0.006	0.006	0.006	0.006	0.006
	DSL	0.327	0.257	0.206	0.169	0.142	0.122	0.107	0.095	0.087	0.082	0.078	0.077	0.077
MHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.326	0.211	0.143	0.1	0.073	0.056	0.044	0.036	0.031	0.028	0.027	0.027	0.028
	DSL	0.401	0.315	0.253	0.207	0.174	0.149	0.131	0.117	0.107	0.1	0.096	0.094	0.094
HHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	5.208	3.382	2.283	1.604	1.172	0.893	0.709	0.589	0.51	0.463	0.438	0.435	0.451
	DSL	0.535	0.42	0.337	0.276	0.232	0.199	0.174	0.156	0.143	0.134	0.128	0.125	0.125
LHV	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0
UBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	5.998	3.923	2.675	1.899	1.406	1.085	0.872	0.731	0.639	0.583	0.554	0.55	0.569
	DSL	1.853	1.344	1.01	0.786	0.633	0.528	0.456	0.408	0.379	0.363	0.361	0.372	0.396
MCY	NCAT	5.764	4.532	3.729	3.212	2.898	2.74	2.715	2.819	3.067	3.496	4.172	5.212	6.812
	CAT	4.213	3.066	2.352	1.903	1.626	1.468	1.401	1.414	1.51	1.704	2.031	2.554	3.385
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0
SBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	2.565	1.67	1.132	0.797	0.585	0.446	0.355	0.295	0.256	0.232	0.22	0.218	0.226
	DSL	1.065	0.836	0.671	0.551	0.462	0.396	0.347	0.311	0.285	0.266	0.255	0.249	0.249
MH	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.195	0.126	0.085	0.059	0.043	0.033	0.026	0.022	0.019	0.017	0.016	0.016	0.016
	DSL	0.211	0.165	0.133	0.109	0.091	0.078	0.069	0.061	0.056	0.053	0.05	0.049	0.049

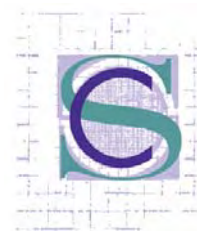


Table 10. Carbon Monoxide - Running Exhaust Emissions (Grams/Mile)

Vehicle Type	Fuel Type	Speed (mph)												
		5	10	15	20	25	30	35	40	45	50	55	60	65
LDA	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	1.414	1.272	1.151	1.047	0.958	0.88	0.812	0.753	0.702	0.657	0.619	0.586	0.558
	DSL	2.558	1.763	1.273	0.961	0.76	0.628	0.544	0.493	0.467	0.464	0.481	0.523	0.595
LDT1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	2.779	2.441	2.169	1.947	1.764	1.612	1.486	1.381	1.295	1.225	1.172	1.135	1.117
	DSL	2.526	1.742	1.257	0.949	0.75	0.621	0.537	0.487	0.461	0.458	0.476	0.517	0.588
LDT2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	2.713	2.429	2.189	1.986	1.813	1.664	1.535	1.424	1.328	1.246	1.177	1.119	1.073
	DSL	1.969	1.358	0.98	0.74	0.585	0.484	0.419	0.379	0.36	0.357	0.371	0.403	0.458
MDV	NCAT	100.7	73.38	56.32	45.53	38.76	34.75	32.8	32.62	34.15	37.66	43.73	53.47	68.87
	CAT	3.616	3.189	2.846	2.565	2.332	2.138	1.974	1.837	1.724	1.634	1.566	1.522	1.508
	DSL	1.979	1.364	0.985	0.744	0.588	0.486	0.421	0.381	0.361	0.359	0.373	0.405	0.46
LHD1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.987	0.657	0.462	0.343	0.269	0.223	0.195	0.181	0.177	0.183	0.199	0.23	0.28
	DSL	2.706	1.866	1.346	1.017	0.804	0.665	0.575	0.521	0.494	0.491	0.509	0.554	0.63
LHD2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.934	0.621	0.437	0.324	0.255	0.211	0.185	0.171	0.167	0.173	0.189	0.217	0.265
	DSL	2.587	1.784	1.287	0.972	0.768	0.636	0.55	0.498	0.473	0.469	0.487	0.529	0.602
MHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	4.368	2.906	2.043	1.517	1.19	0.987	0.864	0.8	0.782	0.808	0.882	1.017	1.239
	DSL	4.604	3.175	2.291	1.73	1.367	1.131	0.979	0.887	0.841	0.835	0.867	0.942	1.071
HHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	116.9	77.76	54.66	40.59	31.85	26.41	23.13	21.4	20.93	21.62	23.6	27.21	33.15
	DSL	3.972	2.739	1.976	1.493	1.18	0.976	0.845	0.765	0.726	0.72	0.748	0.813	0.924
LHV	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0
UBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	34.9	23.22	16.32	12.12	9.511	7.885	6.907	6.392	6.249	6.456	7.046	8.125	9.9
	DSL	11.3	7.113	4.754	3.373	2.542	2.034	1.728	1.559	1.493	1.519	1.64	1.881	2.291
MCY	NCAT	41.81	34.29	29.62	26.94	25.81	26.03	27.65	30.94	36.45	45.23	59.1	81.32	117.8
	CAT	13.55	12.2	11.11	10.23	9.515	8.945	8.516	8.236	8.132	8.256	8.71	9.675	11.49
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0
SBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	29.36	19.54	13.73	10.2	8.002	6.634	5.811	5.377	5.258	5.431	5.928	6.836	8.329
	DSL	9.718	6.701	4.836	3.652	2.886	2.388	2.067	1.872	1.775	1.762	1.829	1.988	2.261
MH	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	3.046	2.027	1.425	1.058	0.83	0.688	0.603	0.558	0.545	0.564	0.615	0.709	0.864
	DSL	2.327	1.605	1.158	0.875	0.691	0.572	0.495	0.448	0.425	0.422	0.438	0.476	0.542

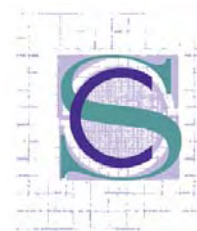


Table 11. Oxides of Nitrogen - Running Exhaust Emissions (Grams/Mile)

Vehicle Type	Fuel Type	Speed (mph)												
		5	10	15	20	25	30	35	40	45	50	55	60	65
LDA	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.118	0.102	0.09	0.08	0.074	0.069	0.065	0.063	0.062	0.062	0.064	0.067	0.072
	DSL	1.914	1.588	1.365	1.216	1.122	1.073	1.063	1.091	1.161	1.28	1.461	1.729	2.12
LDT1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.264	0.223	0.194	0.172	0.156	0.145	0.138	0.135	0.134	0.137	0.143	0.152	0.167
	DSL	1.878	1.558	1.339	1.193	1.101	1.053	1.043	1.071	1.139	1.255	1.434	1.696	2.08
LDT2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.308	0.264	0.231	0.207	0.189	0.176	0.167	0.162	0.16	0.161	0.166	0.175	0.189
	DSL	1.981	1.644	1.413	1.258	1.161	1.111	1.1	1.13	1.202	1.324	1.512	1.789	2.194
MDV	NCAT	2.387	2.51	2.636	2.764	2.895	3.027	3.162	3.298	3.435	3.573	3.711	3.85	3.989
	CAT	0.462	0.394	0.344	0.308	0.281	0.262	0.25	0.243	0.242	0.246	0.255	0.271	0.295
	DSL	1.977	1.64	1.41	1.256	1.159	1.108	1.098	1.127	1.199	1.322	1.509	1.786	2.19
LHD1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.105	0.11	0.116	0.121	0.126	0.132	0.137	0.142	0.148	0.153	0.158	0.164	0.169
	DSL	1.862	1.545	1.328	1.183	1.092	1.044	1.034	1.062	1.129	1.245	1.421	1.682	2.062
LHD2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.104	0.109	0.114	0.12	0.125	0.13	0.135	0.141	0.146	0.151	0.156	0.162	0.167
	DSL	1.689	1.401	1.205	1.073	0.99	0.947	0.938	0.963	1.024	1.129	1.289	1.526	1.87
MHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.291	0.305	0.32	0.335	0.35	0.364	0.379	0.394	0.409	0.423	0.438	0.453	0.468
	DSL	2.509	2.082	1.79	1.594	1.471	1.407	1.394	1.431	1.522	1.677	1.915	2.266	2.779
HHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	3.778	3.969	4.161	4.352	4.544	4.735	4.927	5.118	5.31	5.501	5.693	5.884	6.076
	DSL	2.188	1.815	1.561	1.39	1.283	1.227	1.215	1.248	1.327	1.463	1.67	1.976	2.423
LHV	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0
UBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	2.282	2.397	2.513	2.628	2.744	2.86	2.975	3.091	3.207	3.322	3.438	3.554	3.669
	DSL	24.42	18.68	15.02	12.7	11.28	10.54	10.35	10.69	11.6	13.24	15.89	20.03	26.56
MCY	NCAT	0.998	1.046	1.095	1.145	1.196	1.247	1.298	1.35	1.401	1.453	1.505	1.556	1.608
	CAT	1.211	1.112	1.038	0.984	0.947	0.926	0.917	0.922	0.939	0.97	1.016	1.079	1.162
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0
SBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	1.276	1.34	1.405	1.47	1.534	1.599	1.664	1.728	1.793	1.858	1.922	1.987	2.052
	DSL	11.65	9.669	8.312	7.403	6.832	6.533	6.473	6.645	7.069	7.791	8.897	10.53	12.91
MH	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.201	0.211	0.222	0.232	0.242	0.252	0.262	0.273	0.283	0.293	0.303	0.313	0.324
	DSL	3.432	2.848	2.448	2.18	2.012	1.924	1.906	1.957	2.082	2.294	2.62	3.1	3.801

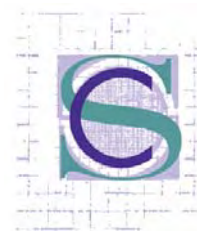


Table12. Carbon Dioxide - Running Exhaust Emissions (Grams/Mile)

Vehicle Type	Fuel Type	Speed (mph)												
		5	10	15	20	25	30	35	40	45	50	55	60	65
LDA	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	945.6	714.5	560.4	456.2	385.4	338	307.6	290.6	284.9	289.9	306.1	335.6	381.8
	DSL	353.2	353.2	353.2	353.2	353.2	353.2	353.2	353.2	353.2	353.2	353.2	353.2	353.2
LDT1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	1,189	898.2	704.4	573.4	484.5	424.8	386.6	365.2	358.1	364.4	384.8	421.8	479.9
	DSL	348	348	348	348	348	348	348	348	348	348	348	348	348
LDT2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	1,189	898.7	704.8	573.7	484.7	425.1	386.9	365.4	358.3	364.6	385.1	422.1	480.2
	DSL	346.1	346.1	346.1	346.1	346.1	346.1	346.1	346.1	346.1	346.1	346.1	346.1	346.1
MDV	NCAT	1,848	1,396	1,095	891.5	753.2	660.5	601.1	567.8	556.7	566.5	598.3	655.9	746.2
	CAT	1,623	1,226	961.6	782.8	661.3	579.9	527.8	498.6	488.8	497.4	525.3	575.9	655.2
	DSL	345.9	345.9	345.9	345.9	345.9	345.9	345.9	345.9	345.9	345.9	345.9	345.9	345.9
LHD1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	2,514	1,672	1,175	873	685	567.9	497.4	460.3	450.1	465	507.5	585.2	713
	DSL	519.1	519.1	519.1	519.1	519.1	519.1	519.1	519.1	519.1	519.1	519.1	519.1	519.1
LHD2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	2,514	1,672	1,175	873	685	567.9	497.4	460.3	450.1	465	507.5	585.2	713
	DSL	519.7	519.7	519.7	519.7	519.7	519.7	519.7	519.7	519.7	519.7	519.7	519.7	519.7
MHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	2,514	1,672	1,175	873	685	567.9	497.4	460.3	450.1	465	507.5	585.2	713
	DSL	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505
HHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	2,514	1,672	1,175	873	685	567.9	497.4	460.3	450.1	465	507.5	585.2	713
	DSL	2,179	2,179	2,179	2,179	2,179	2,179	2,179	2,179	2,179	2,179	2,179	2,179	2,179
LHV	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0
UBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	2,514	1,672	1,175	873	685	567.9	497.4	460.3	450.1	465	507.5	585.2	713
	DSL	2,518	2,518	2,518	2,518	2,518	2,518	2,518	2,518	2,518	2,518	2,518	2,518	2,518
MCY	NCAT	232.5	198.9	172.8	152.5	136.6	124.4	114.9	107.9	102.8	99.56	97.88	97.73	99.1
	CAT	282.6	233.1	199.3	176.5	162	154.2	152	155.5	164.9	181.4	207.2	245.6	302.3
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0
SBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	2,514	1,672	1,175	873	685	567.9	497.4	460.3	450.1	465	507.5	585.2	713
	DSL	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505
MH	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	2,514	1,672	1,175	873	685	567.9	497.4	460.3	450.1	465	507.5	585.2	713
	DSL	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505



Table 13. Sulfur Dioxide - Running Exhaust Emissions (Grams/Mile)

Vehicle Type	Fuel Type	Speed (mph)												
		5	10	15	20	25	30	35	40	45	50	55	60	65
LDA	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.009	0.007	0.005	0.004	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.004
	DSL	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
LDT1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.011	0.009	0.007	0.006	0.005	0.004	0.004	0.004	0.003	0.004	0.004	0.004	0.005
	DSL	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
LDT2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.011	0.009	0.007	0.006	0.005	0.004	0.004	0.004	0.003	0.004	0.004	0.004	0.005
	DSL	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
MDV	NCAT	0.02	0.015	0.012	0.009	0.008	0.007	0.006	0.006	0.006	0.006	0.007	0.007	0.008
	CAT	0.016	0.012	0.009	0.008	0.006	0.006	0.005	0.005	0.005	0.005	0.005	0.006	0.006
	DSL	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
LHD1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.024	0.016	0.011	0.008	0.007	0.005	0.005	0.004	0.004	0.004	0.005	0.006	0.007
	DSL	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
LHD2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.024	0.016	0.011	0.008	0.007	0.005	0.005	0.004	0.004	0.004	0.005	0.006	0.007
	DSL	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
MHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.024	0.016	0.011	0.008	0.007	0.005	0.005	0.004	0.004	0.004	0.005	0.006	0.007
	DSL	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014
HHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.026	0.017	0.012	0.009	0.007	0.006	0.005	0.005	0.005	0.005	0.005	0.006	0.007
	DSL	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021
LHV	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0
UBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.025	0.017	0.012	0.009	0.007	0.006	0.005	0.005	0.004	0.005	0.005	0.006	0.007
	DSL	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024
MCY	NCAT	0.003	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003
	CAT	0.003	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.003
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0
SBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.025	0.016	0.012	0.009	0.007	0.006	0.005	0.005	0.004	0.005	0.005	0.006	0.007
	DSL	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014
MH	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.024	0.016	0.011	0.008	0.007	0.005	0.005	0.004	0.004	0.004	0.005	0.006	0.007
	DSL	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014

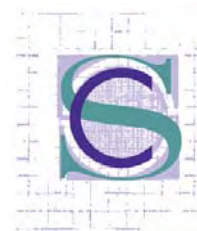


Table 14. PM10 - Running Exhaust Emissions (Grams/Mile)

Vehicle Type	Fuel Type	Speed (mph)												
		5	10	15	20	25	30	35	40	45	50	55	60	65
LDA	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.06	0.039	0.026	0.019	0.014	0.012	0.01	0.009	0.008	0.008	0.008	0.009	0.011
	DSL	0.237	0.186	0.149	0.123	0.103	0.088	0.077	0.069	0.063	0.059	0.057	0.056	0.056
LDT1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.068	0.044	0.03	0.022	0.017	0.013	0.011	0.01	0.01	0.009	0.01	0.011	0.012
	DSL	0.191	0.15	0.12	0.099	0.083	0.071	0.062	0.056	0.051	0.048	0.046	0.045	0.045
LDT2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.149	0.097	0.066	0.048	0.036	0.029	0.025	0.022	0.021	0.02	0.021	0.023	0.027
	DSL	0.12	0.094	0.075	0.062	0.052	0.044	0.039	0.035	0.032	0.03	0.029	0.028	0.028
MDV	NCAT	0.119	0.085	0.063	0.049	0.04	0.034	0.031	0.029	0.028	0.029	0.031	0.035	0.041
	CAT	0.15	0.098	0.067	0.049	0.037	0.03	0.025	0.022	0.021	0.021	0.022	0.024	0.027
	DSL	0.118	0.093	0.075	0.061	0.051	0.044	0.039	0.035	0.032	0.03	0.028	0.028	0.028
LHD1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.049	0.032	0.022	0.015	0.011	0.009	0.007	0.006	0.005	0.005	0.005	0.005	0.005
	DSL	0.059	0.046	0.037	0.031	0.026	0.022	0.019	0.017	0.016	0.015	0.014	0.014	0.014
LHD2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.046	0.03	0.021	0.015	0.011	0.008	0.007	0.006	0.005	0.005	0.004	0.004	0.004
	DSL	0.074	0.058	0.047	0.038	0.032	0.028	0.024	0.022	0.02	0.019	0.018	0.017	0.017
MHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.047	0.031	0.021	0.015	0.011	0.009	0.007	0.006	0.005	0.005	0.004	0.004	0.005
	DSL	0.344	0.27	0.216	0.178	0.149	0.128	0.112	0.1	0.092	0.086	0.082	0.08	0.08
HHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.088	0.057	0.039	0.028	0.021	0.016	0.013	0.011	0.01	0.009	0.008	0.008	0.009
	DSL	0.199	0.156	0.125	0.103	0.086	0.074	0.065	0.058	0.053	0.05	0.048	0.047	0.047
LHV	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0
UBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.091	0.06	0.041	0.029	0.022	0.017	0.013	0.011	0.01	0.009	0.009	0.009	0.009
	DSL	0.68	0.493	0.37	0.288	0.232	0.194	0.167	0.15	0.139	0.133	0.132	0.136	0.145
MCY	NCAT	0.08	0.063	0.052	0.045	0.041	0.039	0.038	0.04	0.043	0.049	0.058	0.073	0.095
	CAT	0.006	0.004	0.003	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.005
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0
SBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.062	0.041	0.028	0.02	0.015	0.011	0.009	0.008	0.007	0.006	0.006	0.006	0.006
	DSL	0.73	0.573	0.46	0.377	0.316	0.271	0.238	0.213	0.195	0.183	0.175	0.171	0.171
MH	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.017	0.011	0.007	0.005	0.004	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	DSL	0.254	0.199	0.16	0.131	0.11	0.094	0.083	0.074	0.068	0.063	0.061	0.059	0.059

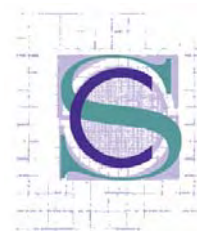


Table 15. Reactive Org Gases - Starting Emissions (Grams/Trip)

Vehicle Type	Fuel Type	Time (Minutes)																	
		5	10	20	30	40	50	60	120	180	240	300	360	420	480	540	600	660	720
LDA	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.014	0.028	0.053	0.077	0.098	0.116	0.133	0.181	0.161	0.17	0.179	0.189	0.198	0.207	0.215	0.224	0.232	0.24
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDT1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.02	0.04	0.076	0.109	0.139	0.165	0.187	0.242	0.219	0.232	0.245	0.257	0.269	0.281	0.292	0.304	0.315	0.326
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDT2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.022	0.044	0.084	0.121	0.155	0.186	0.214	0.306	0.271	0.288	0.304	0.32	0.336	0.351	0.366	0.381	0.396	0.411
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MDV	NCAT	1.088	1.079	1.089	1.138	1.225	1.352	1.405	1.253	1.364	1.475	1.585	1.696	1.807	1.918	2.029	2.14	2.251	2.362
	CAT	0.037	0.073	0.141	0.202	0.258	0.308	0.352	0.479	0.429	0.455	0.48	0.505	0.529	0.553	0.577	0.6	0.622	0.645
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LHD1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.086	0.17	0.328	0.475	0.61	0.733	0.845	1.199	1.158	1.229	1.299	1.368	1.437	1.504	1.571	1.636	1.701	1.765
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LHD2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.082	0.162	0.313	0.453	0.581	0.699	0.806	1.147	1.108	1.176	1.243	1.309	1.374	1.439	1.503	1.566	1.628	1.689
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.21	0.41	0.777	1.101	1.383	1.622	1.818	1.868	1.982	2.093	2.199	2.303	2.402	2.498	2.591	2.679	2.764	2.846
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

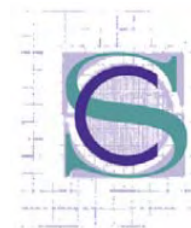


Table 16. Reactive Org Gases – Starting Emissions (Grams/Trip) (continued)

Vehicle Type	Fuel Type	Time (Minutes)																	
		5	10	20	30	40	50	60	120	180	240	300	360	420	480	540	600	660	720
HHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	1.066	2.078	3.939	5.584	7.012	8.224	9.219	9.417	9.992	10.549	11.088	11.608	12.11	12.594	13.06	13.507	13.936	14.347
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LHV	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.543	1.058	2.006	2.844	3.571	4.188	4.695	4.744	5.034	5.315	5.586	5.848	6.101	6.345	6.579	6.805	7.021	7.228
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MCY	NCAT	1.691	1.676	1.692	1.768	1.904	2.1	2.184	1.946	2.119	2.291	2.464	2.636	2.808	2.981	3.153	3.325	3.498	3.67
	CAT	0.275	0.537	1.018	1.443	1.812	2.125	2.382	2.762	2.521	2.661	2.797	2.929	3.055	3.177	3.295	3.408	3.516	3.62
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.327	0.637	1.207	1.711	2.149	2.52	2.825	2.891	3.067	3.238	3.404	3.563	3.717	3.866	4.009	4.146	4.278	4.404
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MH	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.119	0.233	0.441	0.626	0.786	0.921	1.033	1.056	1.121	1.183	1.243	1.302	1.358	1.412	1.465	1.515	1.563	1.609
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

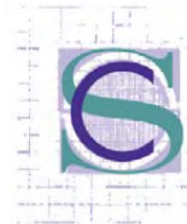


Table 17 Carbon Monoxide – Starting Emissions (Grams/Trip)

Vehicle Type	Fuel Type	Time (Minutes)																	
		5	10	20	30	40	50	60	120	180	240	300	360	420	480	540	600	660	720
LDA	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.188	0.371	0.718	1.043	1.344	1.622	1.878	2.713	2.224	2.373	2.507	2.628	2.734	2.826	2.903	2.966	3.015	3.049
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDT1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.293	0.576	1.112	1.609	2.067	2.486	2.866	3.871	3.262	3.451	3.625	3.783	3.927	4.055	4.168	4.266	4.348	4.415
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDT2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.307	0.606	1.176	1.71	2.208	2.671	3.098	4.558	3.743	4.012	4.253	4.466	4.652	4.81	4.941	5.044	5.119	5.167
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MDV	NCAT	14.908	13.202	10.191	7.717	5.78	4.379	3.516	10.619	16.78	22.287	27.141	31.343	34.891	37.787	40.03	41.62	42.557	42.842
	CAT	0.455	0.896	1.734	2.515	3.239	3.906	4.515	6.39	5.278	5.619	5.929	6.207	6.454	6.669	6.852	7.004	7.124	7.213
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LHD1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.948	1.87	3.637	5.299	6.857	8.311	9.661	13.677	11.856	12.763	13.572	14.283	14.895	15.409	15.824	16.14	16.358	16.478
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LHD2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.989	1.951	3.791	5.521	7.141	8.651	10.051	14.159	12.329	13.256	14.084	14.813	15.443	15.974	16.405	16.737	16.97	17.104
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	3.542	6.94	13.304	19.093	24.306	28.943	33.005	32.597	33.55	34.534	35.55	36.597	37.676	38.786	39.927	41.1	42.304	43.539
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	18.609	36.462	69.9	100.31	127.7	152.07	173.41	170.05	175.02	180.15	185.45	190.91	196.54	202.33	208.28	214.4	220.68	227.13
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

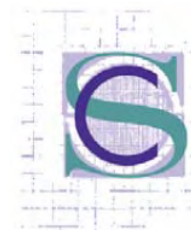


Table 17. Carbon Monoxide – Starting Emissions (Grams/Trip) (continued)

Vehicle Type	Fuel Type	Time (Minutes)																	
		5	10	20	30	40	50	60	120	180	240	300	360	420	480	540	600	660	720
LHV	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	6.441	12.621	24.194	34.721	44.201	52.635	60.021	58.099	59.797	61.552	63.362	65.228	67.151	69.129	71.163	73.253	75.4	77.602
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MCY	NCAT	6.24	5.526	4.266	3.23	2.419	1.833	1.472	4.445	7.023	9.328	11.36	13.119	14.604	15.816	16.755	17.421	17.813	17.932
	CAT	1.582	3.101	5.944	8.53	10.859	12.931	14.746	18.947	14.603	15.032	15.474	15.93	16.399	16.882	17.379	17.89	18.414	18.951
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	5.21	10.208	19.57	28.084	35.752	42.573	48.548	47.737	49.132	50.574	52.061	53.595	55.174	56.8	58.471	60.188	61.952	63.761
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MH	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	2.15	4.212	8.075	11.588	14.752	17.567	20.032	19.705	20.281	20.876	21.49	22.123	22.775	23.446	24.136	24.845	25.572	26.319
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

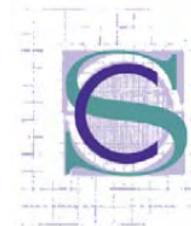


Table 18. Oxides of Nitrogen – Starting Emissions (Grams/Trip)

Vehicle Type	Fuel Type	Time (Minutes)																	
		5	10	20	30	40	50	60	120	180	240	300	360	420	480	540	600	660	720
LDA	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.059	0.067	0.081	0.092	0.101	0.108	0.112	0.119	0.121	0.12	0.119	0.117	0.115	0.112	0.109	0.105	0.101	0.097
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDT1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.077	0.09	0.113	0.131	0.146	0.157	0.164	0.172	0.175	0.174	0.172	0.17	0.167	0.163	0.159	0.154	0.149	0.143
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDT2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.157	0.173	0.202	0.226	0.245	0.26	0.27	0.288	0.293	0.291	0.288	0.283	0.278	0.271	0.263	0.253	0.243	0.231
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MDV	NCAT	0.827	0.899	1.03	1.144	1.24	1.318	1.379	1.402	1.368	1.324	1.269	1.203	1.126	1.038	0.94	0.83	0.71	0.579
	CAT	0.19	0.216	0.262	0.301	0.331	0.354	0.369	0.39	0.396	0.393	0.389	0.383	0.376	0.368	0.358	0.346	0.333	0.318
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LHD1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	1.251	1.359	1.553	1.716	1.848	1.95	2.022	2.172	2.176	2.16	2.135	2.1	2.056	2.002	1.939	1.866	1.784	1.693
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LHD2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	1.199	1.314	1.519	1.691	1.83	1.936	2.009	2.151	2.155	2.139	2.115	2.081	2.038	1.987	1.926	1.856	1.777	1.688
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.741	1.116	1.776	2.313	2.728	3.021	3.192	3.228	3.216	3.198	3.173	3.143	3.106	3.062	3.013	2.957	2.895	2.827
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	3.688	5.556	8.838	11.51	13.58	15.04	15.89	16.07	16.01	15.92	15.8	15.64	15.46	15.24	14.998	14.721	14.412	14.073
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

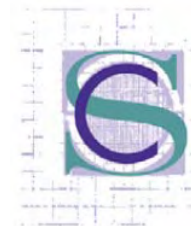


Table 18. Oxides of Nitrogen - Starting Emissions (Grams/Trip) (continued)

Vehicle Type	Fuel Type	Time (Minutes)																	
		5	10	20	30	40	50	60	120	180	240	300	360	420	480	540	600	660	720
LHV	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	2.148	3.237	5.148	6.706	7.91	8.76	9.255	9.358	9.324	9.271	9.201	9.112	9.005	8.88	8.736	8.575	8.395	8.198
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MCY	NCAT	0.284	0.309	0.354	0.393	0.426	0.453	0.474	0.482	0.47	0.455	0.436	0.413	0.387	0.357	0.323	0.285	0.244	0.199
	CAT	0.094	0.142	0.226	0.294	0.347	0.385	0.406	0.408	0.409	0.407	0.404	0.4	0.395	0.39	0.384	0.377	0.369	0.36
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	1.042	1.57	2.497	3.253	3.836	4.249	4.489	4.539	4.522	4.497	4.463	4.42	4.368	4.307	4.237	4.159	4.072	3.976
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MH	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.421	0.634	1.008	1.313	1.549	1.715	1.812	1.833	1.826	1.816	1.802	1.784	1.763	1.739	1.711	1.679	1.644	1.605
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

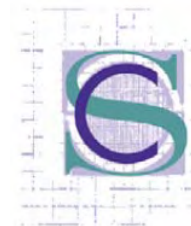


Table 19. Carbon Dioxide – Starting Emissions (Grams/Trip)

Vehicle Type	Fuel Type	Time (Minutes)																	
		5	10	20	30	40	50	60	120	180	240	300	360	420	480	540	600	660	720
LDA	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	12	13.6	17.27	21.58	26.54	32.14	38.39	88.45	100.5	112.6	124.5	136.5	148.4	160.2	171.976	183.717	195.411	207.057
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDT1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	14.85	16.94	21.72	27.28	33.63	40.76	48.68	111.2	126.5	141.7	156.8	171.9	186.8	201.7	216.446	231.132	245.73	260.24
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDT2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	15.02	17.05	21.71	27.18	33.45	40.52	48.4	111.2	126.4	141.6	156.7	171.7	186.6	201.5	216.298	231.036	245.706	260.307
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MDV	NCAT	157.4	170.8	196.8	221.7	245.6	268.5	290.3	392.8	393.1	393.4	393.7	394	394.3	394.6	394.947	395.256	395.564	395.873
	CAT	20	22.95	29.65	37.4	46.19	56.03	66.92	151.7	172.7	193.6	214.3	234.9	255.3	275.6	295.664	315.619	335.421	355.071
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LHD1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	23.72	27.82	36.93	47.23	58.72	71.39	85.26	188.6	215.3	241.8	267.8	293.6	319	344.1	368.922	393.377	417.506	441.309
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LHD2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	23.8	27.88	36.93	47.17	58.61	71.26	85.1	188.6	215.3	241.7	267.7	293.5	318.9	344	368.813	393.295	417.462	441.314
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	9.546	19.04	37.87	56.48	74.89	93.08	111.1	188.9	223.2	255.4	285.6	313.8	340	364.2	386.319	406.43	424.519	440.585
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	9.546	19.04	37.87	56.48	74.89	93.08	111.1	188.9	223.2	255.4	285.6	313.8	340	364.2	386.319	406.43	424.519	440.585
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

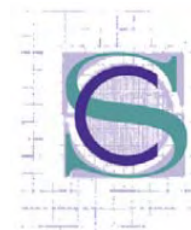


Table 19. Carbon Dioxide – Starting Emissions (Grams/Trip) (continued)

Vehicle Type	Fuel Type	Time (Minutes)																	
		5	10	20	30	40	50	60	120	180	240	300	360	420	480	540	600	660	720
LHV	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	9.546	19.04	37.87	56.48	74.89	93.08	111.1	188.9	223.2	255.4	285.6	313.8	340	364.2	386.319	406.43	424.519	440.586
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MCY	NCAT	35.87	38.93	44.85	50.54	55.99	61.19	66.16	89.53	89.6	89.67	89.74	89.81	89.88	89.95	90.018	90.089	90.159	90.23
	CAT	1.77	3.529	7.019	10.47	13.88	17.26	20.59	35.02	41.37	47.35	52.95	58.18	63.03	67.51	71.613	75.341	78.694	81.672
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	9.546	19.04	37.87	56.48	74.89	93.08	111.1	188.9	223.2	255.4	285.6	313.8	340	364.2	386.319	406.43	424.519	440.586
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MH	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	9.546	19.04	37.87	56.48	74.89	93.08	111.1	188.9	223.2	255.4	285.6	313.8	340	364.2	386.319	406.43	424.519	440.586
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

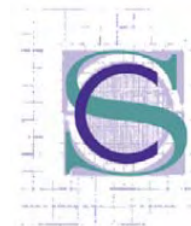


Table 20. Sulfur Dioxide - Starting Emissions (Grams/Trip)

Vehicle Type	Fuel Type	Time (Minutes)																	
		5	10	20	30	40	50	60	120	180	240	300	360	420	480	540	600	660	720
LDA	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0	0	0	0	0	0	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDT1	NCAT	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219	0.219
	CAT	0	0	0	0	0	0	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDT2	NCAT	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216	0.216
	CAT	0	0	0	0	0	0	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MDV	NCAT	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.005	0.005	0.005	0.005
	CAT	0	0	0	0	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.004
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LHD1	NCAT	0.215	0.215	0.215	0.215	0.215	0.215	0.215	0.215	0.215	0.215	0.215	0.215	0.215	0.215	0.215	0.215	0.215	0.215
	CAT	0	0	0	0.001	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.003	0.003	0.004	0.004	0.004	0.004	0.005
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LHD2	NCAT	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322
	CAT	0	0	0	0.001	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.003	0.003	0.004	0.004	0.004	0.004	0.005
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MHD	NCAT	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323	0.323
	CAT	0	0	0.001	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.003	0.004	0.004	0.004	0.004	0.005	0.005	0.005
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HHD	NCAT	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934
	CAT	0	0.001	0.002	0.002	0.003	0.004	0.004	0.005	0.005	0.006	0.006	0.007	0.007	0.007	0.008	0.008	0.008	0.009
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

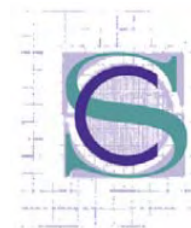


Table 20. Sulfur Dioxide - Starting Emissions (Grams/Trip) (continued)

Vehicle Type	Fuel Type	Time (Minutes)																	
		5	10	20	30	40	50	60	120	180	240	300	360	420	480	540	600	660	720
LHV	NCAT	1.352	1.352	1.352	1.352	1.352	1.352	1.352	1.352	1.352	1.352	1.352	1.352	1.352	1.352	1.352	1.352	1.352	1.352
	CAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0	0.001	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.004	0.005	0.005	0.005	0.005	0.006	0.006
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MCY	NCAT	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	CAT	0	0	0	0	0	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	DSL	0.214	0.214	0.214	0.214	0.214	0.214	0.214	0.214	0.214	0.214	0.214	0.214	0.214	0.214	0.214	0.214	0.214	0.214
SBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.003	0.004	0.004	0.004	0.005	0.005	0.005	0.005	0.005
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MH	NCAT	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934	0.934
	CAT	0	0	0.001	0.001	0.001	0.001	0.001	0.002	0.003	0.003	0.003	0.003	0.004	0.004	0.004	0.004	0.005	0.005
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

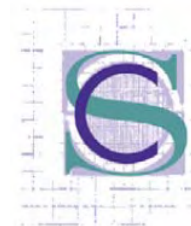


Table 21. PM10 - Starting Emissions (Grams/Trip)

Vehicle Type	Fuel Type	Time (Minutes)																	
		5	10	20	30	40	50	60	120	180	240	300	360	420	480	540	600	660	720
LDA	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.001	0.001	0.002	0.003	0.004	0.005	0.006	0.01	0.011	0.012	0.012	0.013	0.014	0.014	0.015	0.015	0.015	0.015
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDT1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.001	0.001	0.002	0.003	0.004	0.005	0.006	0.01	0.011	0.012	0.013	0.014	0.014	0.015	0.015	0.016	0.016	0.016
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDT2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.001	0.003	0.005	0.007	0.01	0.012	0.014	0.022	0.025	0.027	0.029	0.03	0.032	0.033	0.034	0.034	0.035	0.035
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MDV	NCAT	0.013	0.011	0.009	0.007	0.005	0.004	0.003	0.008	0.013	0.017	0.021	0.024	0.027	0.029	0.031	0.032	0.033	0.033
	CAT	0.001	0.003	0.005	0.008	0.01	0.012	0.014	0.023	0.025	0.027	0.029	0.031	0.032	0.033	0.034	0.035	0.035	0.035
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LHD1	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.001	0.002	0.003	0.005	0.006	0.008	0.009	0.014	0.015	0.016	0.017	0.018	0.019	0.02	0.02	0.021	0.021	0.021
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LHD2	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.001	0.002	0.003	0.005	0.006	0.007	0.008	0.013	0.015	0.016	0.017	0.018	0.018	0.019	0.02	0.02	0.02	0.02
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.001	0.002	0.005	0.007	0.008	0.01	0.011	0.016	0.016	0.017	0.017	0.018	0.018	0.019	0.019	0.02	0.02	0.021
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HHD	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.002	0.003	0.007	0.009	0.012	0.014	0.016	0.022	0.023	0.024	0.024	0.025	0.026	0.027	0.027	0.028	0.029	0.03
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

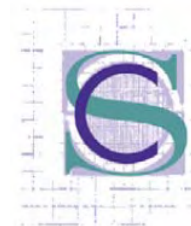
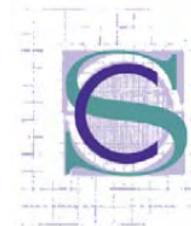


Table 21. PM10 - Starting Emissions (Grams/Trip) (continued)

Vehicle Type	Fuel Type	Time (Minutes)																	
		5	10	20	30	40	50	60	120	180	240	300	360	420	480	540	600	660	720
LHV	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.002	0.003	0.006	0.009	0.011	0.013	0.015	0.02	0.021	0.022	0.022	0.023	0.024	0.024	0.025	0.026	0.027	0.027
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MCY	NCAT	0.02	0.017	0.013	0.01	0.008	0.006	0.005	0.013	0.02	0.026	0.032	0.037	0.041	0.045	0.047	0.049	0.05	0.051
	CAT	0	0	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBUS	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0.001	0.002	0.004	0.006	0.008	0.01	0.011	0.015	0.016	0.016	0.016	0.017	0.017	0.018	0.019	0.019	0.02	0.02
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MH	NCAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAT	0	0.001	0.001	0.002	0.002	0.002	0.003	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.005	0.005	0.005	0.005
	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Fuel Consumption

Table 22. Vehicle Class Fuel Consumption per Market Sector

	Auto Gas	Truck Gas	Truck Diesel
Drive alone	0.59	0.41	0.00
Carpool	0.96	0.03	0.01
Light truck	0.00	0.79	0.21
Medium truck	0.00	0.20	0.80
Heavy truck	0.00	0.00	1.00

Source: EMFAC2002 for Los Angeles County

Notes:

¹Drive-alone percentages a function of LDA, LDT1, LDT2, MDT, and MCY.

²Carpool percentages a function of LDA, UB, SBUS, and MH.

³Light-heavy truck percentages a function of LHDT1 and LHDT2.

⁴Medium-heavy truck percentages a function of MHDT.

⁵Heavy-heavy truck percentages a function of HHD1 and LH.

Table 23. Fuel Consumption Rate (Gallons per VMT) for Freeways

Speed	Auto	Truck Gas	Truck Diesel
0	0.336146	0.886422	0.450
5	0.115161	0.286383	0.696
10	0.087319	0.190539	0.489
15	0.068684	0.133917	0.297
20	0.056054	0.099451	0.185
25	0.047462	0.078033	0.131
30	0.041696	0.064682	0.110
35	0.038009	0.056648	0.112
40	0.035954	0.052416	0.122
45	0.035294	0.051244	0.136
50	0.035959	0.052928	0.153
55	0.038027	0.057759	0.170
60	0.041743	0.066599	0.187
65	0.047566	0.081128	0.204
70	0.047825	0.104425	0.221

Source: EMFAC2002 for Auto and Truck Gas. IDAS for Truck Diesel.

Note: For diesel, use IDAS defaults as Emfac2002 rates do not vary by speed.



Table 24. Fuel Consumption Rate (Gallons per VMT) for Arterials

Speed	Auto	Truck Gas	Truck Diesel
5	0.144	0.275	0.383
10	0.091	0.174	0.241
15	0.073	0.140	0.194
20	0.064	0.123	0.171
25	0.059	0.113	0.157
30	0.056	0.106	0.147
35	0.053	0.101	0.140
40	0.051	0.097	0.135

Source: FHWA, IDAS.

Safety

Table 25. Accident Rates Per Million VMT for Freeway Facilities

V/C Ratio	Fatalities	Injuries	Property Damage Only
0.09	0.0057	0.4473	0.8323
0.19	0.0057	0.4473	0.8323
0.29	0.0057	0.4473	0.8323
0.39	0.0057	0.4473	0.8323
0.49	0.0057	0.4473	0.8323
0.59	0.0057	0.4473	0.8323
0.69	0.0057	0.4473	0.8323
0.79	0.0057	0.499439	0.968762
0.89	0.0057	0.499439	0.968762
0.99	0.0057	0.635815	1.128194
1	0.0057	0.662969	1.240031

Source: 2000 Accident Data on California State Highways (Road Miles, Travel, Accidents, Accident Rates), California Department of Transportation.



Table 26. Accident Rates Per Million VMT for Arterial Facilities

V/C Ratio	Fatalities	Injuries	Property Damage Only
0.09	0.0066	1.5724	2.1949
0.19	0.0066	1.5724	2.1949
0.29	0.0066	1.5724	2.1949
0.39	0.0066	1.5724	2.1949
0.49	0.0066	1.5724	2.1949
0.59	0.0066	1.5724	2.1949
0.69	0.0066	1.5724	2.1949
0.79	0.0066	1.5724	2.1949
0.89	0.0066	1.5724	2.1949
0.99	0.0066	1.5724	2.1949
1	0.0066	1.5724	2.1949

Source: FHWA, IDAS.

Travel Time Reliability

Table 27. Travel Time Reliability

Factor to convert input link capacity to LOS E equivalent	1
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Source: FHWA, IDAS.



**Table 28. Travel Time Reliability - Three-Hour A.M. Peak Period
(Vehicle Hours of Incident Delay per Vehicle Mile)**

Volume/1-Hour Level of Service Capacity	Number of Lanes		
	2	3	4+
0.15	3.71E-08	1.62E-09	5.45E-12
0.3	5.66E-07	5.21E-08	7.22E-10
0.45	2.79E-06	3.97E-07	1.26E-08
0.6	8.63E-06	1.68E-06	9.57E-08
0.75	2.07E-05	5.14E-06	4.61E-07
0.9	4.25E-05	1.28E-05	1.67E-06
1.05	7.78E-05	2.77E-05	4.95E-06
1.2	0.000132	5.41E-05	1.27E-05
1.35	0.000209	9.77E-05	2.91E-05
1.5	0.000316	0.000166	6.12E-05
1.65	0.00046	0.000267	0.00012
1.8	0.00065	0.000413	0.000221
1.95	0.000901	0.00062	0.000389
2.1	0.001245	0.000912	0.000656
2.25	0.00177	0.00135	0.001074
2.4	0.002722	0.002115	0.001742
2.55	0.004772	0.003798	0.003011
2.7	0.009674	0.00828	0.006586
2.85	0.014859	0.012966	0.010231
3	0.01986	0.01744	0.01368

Note: Volume is factored to daily estimate to generate volume/one-hour level of service capacity ratio.



**Table 29. Travel Time Reliability - Four-Hour P.M. Peak Period
(Vehicle Hours of Incident Delay per Vehicle Mile)**

Volume/1-Hour Level of Service Capacity	Number of Lanes		
	2	3	4+
0.2	4.22E-08	1.95E-09	7.44E-12
0.4	6.43E-07	6.28E-08	9.86E-10
0.6	3.16E-06	4.79E-07	1.72E-08
0.8	9.80E-06	2.02E-06	1.31E-07
1	2.36E-05	6.19E-06	6.30E-07
1.2	4.82E-05	1.54E-05	2.28E-06
1.4	8.84E-05	3.34E-05	6.75E-06
1.6	0.000149	6.52E-05	1.73E-05
1.8	0.000237	0.000118	3.97E-05
2	0.000359	0.000199	8.35E-05
2.2	0.000524	0.000322	0.000163
2.4	0.000745	0.000499	0.000302
2.6	0.001052	0.000757	0.000531
2.8	0.00153	0.001152	0.000902
3	0.002431	0.001873	0.001519
3.2	0.004498	0.00359	0.002798
3.4	0.008512	0.007224	0.005687
3.6	0.012546	0.010863	0.008552
3.8	0.01612	0.014113	0.011086
4	0.01986	0.01744	0.01368

Note: Volume is factored to daily estimate to generate volume/one-hour level of service capacity ratio.



**Table 30. Travel Time Reliability - Off-Peak
(Vehicle Hours of Incident Delay Per Vehicle Mile)**

Volume/1-Hour Level of Service Capacity	Number of Lanes		
	2	3	4+
1	1.17E-07	8.46E-09	8.16E-11
2	1.79E-06	2.73E-07	1.08E-08
3	8.81E-06	2.08E-06	1.89E-07
4	2.73E-05	8.78E-06	1.43E-06
5	6.56E-05	2.69E-05	6.91E-06
6	0.000134	6.70E-05	2.50E-05
7	0.000248	0.000145	7.41E-05
8	0.000434	0.000289	0.00019
9	0.000824	0.000591	0.000447
10	0.00217	0.00171	0.00125
11	0.00355	0.00299	0.00231
12	0.00519	0.00442	0.00344
13	0.00656	0.0056	0.00435
14	0.00837	0.00718	0.00561
15	0.0106	0.00925	0.00727

Note: Volume is factored to daily estimate to generate volume/one-hour level of service capacity ratio.

Alternatives Comparison Module (ACM)

This may vary depending on time periods being analyzed.

Table 31. Number of Time Periods Per Year

Number of periods per year	247
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Source: FHWA, IDAS.



Table 32. Dollar Index Adjustment Factors

Adjustments	Default Value
Inflation Rate	3%
Adjusted to	2003 dollars

Source: FHWA, IDAS.

Table 33. Value of Travel Time (1995 Dollars)

Transportation Mode	Dollar Per Hour					
	In-Vehicle Value		Out-of-Vehicle Value		Travel Time Reliability	
	1995	2003	1995	2003	1995	2003
Single-occupancy auto	\$7.04	\$8.92	\$14.08	\$17.83	\$21.12	\$26.75
Multiple-occupancy auto	\$7.04	\$8.92	\$14.08	\$17.83	\$21.12	\$26.75
Commercial truck	\$23.91	\$30.29	\$23.91	\$30.29	\$71.73	\$90.87

Source: California Life-Cycle Benefit/Cost Analysis Model, Caltrans.

Table 34. Fuel Cost (1995 Dollars)

Transportation Mode	Default Value (Dollar Per Gallon)
	1995
Single-occupancy auto	\$0.98
Multiple-occupancy auto	\$0.98
Commercial truck	\$0.98
Local bus	\$0.98
Express bus	\$0.98
Light rail	\$0.98
Heavy rail	\$0.98
All transit	\$0.98
Other	\$0.98

Source: California Life-Cycle Benefit/Cost Analysis Model, Caltrans.



Table 35. Non-Fuel Vehicle Operating Cost (1995 Dollars)

Transportation Mode	Default Value (Dollar Per Gallon)
	1995
Single-occupancy auto	\$0.142
Multiple-occupancy Auto	\$0.142
Commercial truck	\$0.246

Source: California Life-Cycle Benefit/Cost Analysis Model, Caltrans.

Table 36. Emission Costs (1995 Dollars)

Transportation Mode	Default Value (Dollar Per Ton)					
	HC	NOx	CO	Particulates (PM10)	SO ₂	CO ₂
Single-occupancy auto	\$2,500	\$40,211	\$99	\$329,395	\$123,758	\$3.56
Multiple-occupancy auto	\$2,500	\$40,211	\$99	\$329,395	\$123,758	\$3.56
Commercial truck	\$2,500	\$40,211	\$99	\$329,395	\$123,758	\$3.56
Local bus	\$2,500	\$40,211	\$99	\$329,395	\$123,758	\$3.56
Express bus	\$2,500	\$40,211	\$99	\$329,395	\$123,758	\$3.56
Light rail	\$2,500	\$40,211	\$99	\$329,395	\$123,758	\$3.56
Heavy rail	\$2,500	\$40,211	\$99	\$329,395	\$123,758	\$3.56
All transit	\$2,500	\$40,211	\$99	\$329,395	\$123,758	\$3.56
Other	\$2,500	\$40,211	\$99	\$329,395	\$123,758	\$3.56

Source: California Life-Cycle Benefit/Cost Analysis Model, Caltrans for VOC, NOx, CO, PM10, and SO₂; and FHWA, IDAS for CO₂.



Table 37. Fatality Costs (1995 Dollars)

Transportation Mode	Default Value (Dollar Per Fatality)	
	Internal	External
Single-occupancy auto	\$2,276,448	\$401,726
Multiple-occupancy auto	\$2,276,448	\$401,726
Commercial truck	\$2,276,448	\$401,726
Local bus	\$2,276,448	\$401,726
Express bus	\$2,276,448	\$401,726
Light rail	\$2,276,448	\$401,726
Heavy rail	\$2,276,448	\$401,726
All transit	\$2,276,448	\$401,726
Other	\$2,276,448	\$401,726

Source: California Life-Cycle Benefit/Cost Analysis Model, Caltrans.

Table 38. Injury Costs (1995 Dollars)

Transportation Mode	Default Value (Dollar Per Injury)	
	Internal	External
Single-occupancy auto	\$59,810	\$10,555
Multiple-occupancy auto	\$59,810	\$10,555
Commercial truck	\$59,810	\$10,555
Local bus	\$59,810	\$10,555
Express bus	\$59,810	\$10,555
Light rail	\$59,810	\$10,555
Heavy rail	\$59,810	\$10,555
All transit	\$59,810	\$10,555
Other	\$59,810	\$10,555

Source: California Life-Cycle Benefit/Cost Analysis Model, Caltrans.



Table 39. Property Damage Only Costs (1995 Dollars)

Transportation Mode	Default Value (Dollar Per Property Damage Only)	
	Internal	External
Single-occupancy auto	\$5,023	\$886
Multiple-occupancy auto	\$5,023	\$886
Commercial truck	\$5,023	\$886
Local bus	\$5,023	\$886
Express bus	\$5,023	\$886
Light rail	\$5,023	\$886
Heavy rail	\$5,023	\$886
All transit	\$5,023	\$886
Other	\$5,023	\$886

Source: California Life-Cycle Benefit/Cost Analysis Model, Caltrans.

Table 40. Noise Damage Cost (1995 Dollars)

Transportation Mode	Default Value (Dollar Per VMT)
Single-occupancy auto	\$0.0007
Multiple-occupancy auto	\$0.0007
Commercial truck	\$0.0010
Local bus	\$0.00
Express bus	\$0.00
Light rail	\$0.00
Heavy rail	\$0.00
All transit	\$0.00
Other	\$0.00

Source: IDAS.



APPENDIX O

***Detail – Estimated ROW Impacts by Element
by Land Use Category (Alternatives C,D,E)***

***Detail – Estimated ROW Impacts by City,
Total/ Exclusive of Utility ROW (Alternatives
C,D,E)***

***Detail – Estimated ROW Impacts by Cost by
Cost Category (Alternatives C,D,E)***

Parsons Brinckerhoff, Inc., March 2003

Estimated Right-of-Way Impacts by Element by Land Use Category

Alternative C – Medium General Purpose/ Medium Truck Alternative

Component	Sensitive Uses	Commercial/ Industrial	Public/Utility Corridor	Residential	Railroad	Undevelopable Property	TOTAL
Mainline widening	0.1	11.8	7.7	7.9	2.1	2.2	31.8
Anaheim St. Braid		13.6					13.6
Pacific Coast Highway Braid		7.2		4.1			11.3
Willow PARCLO		0.9		3.6		0.1	4.7
405/710		4.8				2.9	7.6
Terminal Island FWY Extension		9.5	17.3	1.0			27.7
Del Amo PARCLO		1.6	2.3				3.9
PCH Truck Ramps		1.6		0.0			1.6
405 Truck Bypass Lanes		7.0	0.8		1.3		9.2
91/105 Truck Bypass Lanes	1.9	4.6	19.6	9.6	0.9	13.2	49.8
Truck Inspection Station			1.6				1.6
Imperial PARCLO		0.1		0.4			0.5
Florence PARCLO		0.8	0.5				1.3
Slauson Diamond 1		4.5	2.1		2.0		8.6
Atlantic/Bandini 1	0.1	25.5			0.6		26.2
CD Roads	0.3	9.7		6.7	0.2		16.9
Washington Truck Ramps		7.0			0.1		7.0
Washington PARCLO	0.3	3.5		6.3	0.6		10.6
5/710 Right Side Ramp	0.1	9.2		0.3			9.6
Totals	2.7	122.9	51.8	39.9	7.8	18.4	243.4

Alternative D – High General Purpose/High HOV Alternative

Component	Sensitive Uses	Commercial/ Industrial	Public/Utility Corridor	Residential	Railroad	Undevelopable Property	TOTAL
Mainline widening	1.7	30.3	27.2	20.9	10.0	10.3	100.5
405/710		9.6	0.8	1.1	0.4	3.2	15.1
91/710	5.6	6.6	16.4	32.8			61.3
5/710	6.0	33.0		22.0			61.0
Willow Diamond				2.6		0.5	3.1
Del Amo Diamond		6.2	2.2				8.4
Long Beach Boulevard		1.0	5.9		0.1		7.0
Imperial Diamond		1.1		2.2		2.1	5.3
Florence Diamond		2.0	0.1	0.5			2.6
Atlantic/Bandini 2	0.4	24.7			0.7		25.8
Washington PARCLO	0.2	9.0		5.2	1.0		15.4
405/710 HOV Connector	1.1	3.2					4.2
Terminal Island FWY Truck Expressway		27.4					27.4
Alondra Interchange		1.3		5.6			6.9
Totals	15.0	155.4	52.6	92.8	12.2	16.0	344.0

Alternative E – High Truck Alternative

Component	Sensitive Uses	Commercial/ Industrial	Public/Utility Corridor	Residential	Railroad	Undevelopable Property	TOTAL
Exclusive Truck Facility	2.8	110.0	47.9	44.3	7.8	31.0	243.7
405 Truck Ramps		0.4	2.1				2.5
405 IC Improvements	2.9	0.4		5.3		0.0	8.6
91 IC Improvements	2.2			5.6			7.8
5 IC Improvements	4.7	36.3		19.2	0.8	0.5	61.4
Slauson PARCLO		7.8	4.0		0.2		11.9
91 Truck Ramps	2.7	0.6	7.1	12.2			22.6
Firestone Truck Ramps		3.2			0.2		3.4
Washington Truck Ramps	0.4	5.1		1.7	0.0		7.3
Totals	15.7	163.8	61.1	88.3	8.9	31.5	369.3

Right-of-Way Impacts by City

	Total Right-of-Way by City			Right-of-Way by City Excluding Utility Right-of-Way		
	Alt. C	Alt. D	Alt. E	Alt. C	Alt. D	Alt. E
Bell	33.5	42.7	41.7	23.6	28.0	37.7
Bell Gardens	8.0	11.2	35.1	8.0	11.2	35.1
Carson	1.6	7.9	0.4	1.6	7.9	0.4
Commerce	38.6	52.6	82.0	38.6	52.6	82.0
Compton	5.7	8.1	18.0	5.7	8.1	17.9
County/East LA	13.5	36.7	18.5	13.5	36.7	18.5
County/Compton Area	1.6	1.7	5.1	1.6	1.7	5.1
County/Rancho Dominguez	0.9	5.1	0.0	0.9	5.1	0.0
Long Beach	109.7	126.3	116.1	69.0	89.4	59.0
City of LA	0.8	27.4	0	0	27.4	0
Lynwood	2.8	3.0	8.9	2.8	3.0	8.9
Paramount	6.8	6.4	5.9	6.8	6.4	5.9
South Gate	10.8	10.3	34.0	10.5	9.3	34.0
Vernon	9.3	4.7	3.6	9.3	4.6	3.6
Total Right-of-Way	243.4	344.0	369.3	191.6	291.4	308.2

Estimated Capital Cost by Cost Category

Alternative B – TSM/TDM Cost Estimate

	<u>Project Cost*</u>	<u>Right-of-Way*</u>	<u>Total Cost*</u>
<u>Mainlines</u>	\$27.0	\$0.0	\$27.0
<u>Interchanges/ Arterials</u>	\$75.9	\$112.0	\$187.9
<u>Goods Movement</u>	\$25.0	\$0.0	\$25.0
<u>Transit</u>	\$26.4	\$0.0	\$26.4
<u>ITS</u>	\$88.6	\$0.0	\$88.6
TOTAL	\$242.9	\$112.0	\$354.9

* 2003 dollars in millions

Alternative C – Medium General Purpose/ Medium Truck Cost Estimate

	<u>Project Cost*</u>	<u>Right-of-Way*</u>	<u>Total Cost*</u>
<u>Mainlines</u>	\$947.5	\$156.9	\$1,104.4
<u>Interchanges</u>	\$382.5	\$200.4	\$582.9
<u>Terminal Island Freeway</u>	\$280.2	\$16.8	\$297.0
<u>TSM/TDM/ Transit</u>	\$168.6	\$0.0	\$168.6
<u>Arterials</u>	\$594.0	\$423.1	\$1,017.1
TOTAL	\$2,372.8	\$797.2	\$3,170.0

* 2003 dollars in millions

Alternative D – High General Purpose/High HOV Cost Estimate

	<u>Project Cost*</u>	<u>Right-of-Way*</u>	<u>Total Cost*</u>
<u>Mainlines</u>	\$1,149.8	\$139.1	\$1,288.9
<u>Interchanges</u>	\$856.8	\$359.6	\$1,216.4
<u>Terminal Island Freeway</u>	\$151.2	\$62.5	\$213.7
<u>TSM/TDM/ Transit</u>	\$210.2	\$39.3	\$249.5
<u>Arterials</u>	\$385.8	\$274.8	\$660.6
TOTAL	\$2,753.8	\$875.3	\$3,629.1

* 2003 dollars in millions

Alternative E – High Truck Cost Estimate

	<u>Project Cost*</u>	<u>Right-of-Way*</u>	<u>Total Cost*</u>
<u>Mainlines</u>	\$1,811.0	\$411.7	\$2,222.7
<u>Interchanges</u>	\$543.6	\$161.3	\$704.9
<u>Terminal Island Freeway</u>	\$0.0	\$0.0	\$0.0
<u>TSM/TDM/ Transit</u>	\$222.8	\$87.8	\$310.6
<u>Arterials</u>	\$128.3	\$91.4	\$219.7
TOTAL	\$2,705.7	\$752.2	\$3,457.9

* 2003 dollars in millions

APPENDIX P

***I-710 Major Corridor Study “Hybrid”
Alternative (Locally Preferred Strategy)
Technical Report, Gateway Cities Council
of Governments, April 2004***

(DRAFT)

I-710 MAJOR CORRIDOR STUDY

**“HYBRID” ALTERNATIVE
(LOCALLY PREFERRED STRATEGY)
TECHNICAL REPORT**

**PREPARED FOR
I-710 TECHNICAL ADVISORY COMMITTEE**

**PREPARED BY
GATEWAY CITIES COUNCIL OF GOVERNMENTS**

**IN ASSOCIATION WITH
MEYER, MOHADDES ASSOCIATES, INC.
AND
NOLAN CONSULTING, INC.**

APRIL, 2004

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SECTION A INTRODUCTION, BACKGROUND AND HISTORY

Introduction

The I-710 Freeway is a vital transportation artery, linking the Ports of Long Beach and Los Angeles to the Los Angeles region and beyond. An essential component of the regional, statewide and national transportation system, it serves both passenger needs and goods movement. Due to a growing population, increasing traffic volumes and existing design deficiencies, the I-710 Freeway has begun to experience serious problems with performance and safety. In the next 20 years, population and employment growth in the Gateway Cities are expected to grow by 20%, and container traffic to and from the Ports of Long Beach and Los Angeles is expected to triple. Without corrective action, the continued decline of the I-710 Freeway's safety and efficiency could yield negative environmental, economic and public health consequences.

In 2001, the Gateway Cities Council of Governments (GCCOG), along with the Los Angeles County Metropolitan Transportation Authority (MTA), Caltrans, and the Southern California Association of Governments (SCAG) decided to work together and funded an extensive study of the I-710 corridor to explore possible solutions. The I-710 Freeway Major Corridor Study (MCS) was implemented to analyze traffic congestion and mobility problems toward the development of multi-modal, timely and cost-effective transportation solutions that preserve and enhance the quality of life of surrounding neighborhoods and communities.

Major Corridor Study Area:

The MCS focused on the transportation system in an area approximately 18 miles long with the following general boundaries:

- State Route 60 (north)
- Lakewood Boulevard (east)
- Ports of Long Beach/Los Angeles (south)
- Wilmington Avenue/Alameda Street (west)

Impacted Area:

The 18-mile corridor area encompasses the following 14 cities and jurisdictions:

- Bell
- Bell Gardens
- Carson
- Commerce
- Compton

- Cudahy
- Downey
- Huntington Park
- Long Beach
- Maywood
- Paramount
- South Gate
- Portions of Unincorporated Los Angeles County, including East Los Angeles
- Vernon
- Port of Long Beach
- Port of Los Angeles

Major Corridor Study Goals

The MCS had the following primary study goals:

- Improve Public Safety
- Improve Public Health (vis a vis Diesel Emissions)
- Improve Mobility (congestion/access)
- Reinvigorate Corridor Communities
- Sustain Regional State and National Economies

Major Corridor Study Implementation and Initial Results

When the MCS was initiated in 2001, the MCS team created an Oversight Policy Committee (OPC) to guide the study and provide recommendations on findings of the study. The OPC comprises 20 public agencies including the 14 area cities and representatives from GCCOG, MTA, SCAG and Caltrans.

The MCS Technical Advisory Committee (TAC) was also formed and consists of representatives from each of the impacted communities, along with local, state and federal resource agencies including MTA, SCAG, CALTRANS, the Ports of Long Beach and Los Angeles, California Highway Patrol (CHP), the Federal Transit Administration (FTA), the Federal Highway Administration (FHWA) and Air Quality Management District (AQMD).

In February of 2002, the OPC/TAC adopted 12 alternatives for the study area for analysis. Over the next several months, the OPC/TAC narrowed the 12 alternatives down to 5 for even more detailed evaluation. The 5 alternatives were evaluated in more detail. During the months of March and April of 2003 the results of that evaluation were presented to the public during a series of TAC meetings and "open houses," in order to gain public input and feedback on the alternatives. Members of the public expressed – and the OPC and TAC agreed -that a greater level of community input and involvement would be needed to produce an alternative to improve the freeway that better reflects the concerns and desires of local residents.

Revised Process

In May 2003, in direct response to community concerns the GCCOG and the funding partners revised the process to include deep and direct input from the community, which will be used to develop a "Hybrid Alternative" (Locally Preferred Strategy) for the MCS area.

Because of the GCCOG's advocacy role and close ties with the cities, it has worked to give the cities and local residents a larger role in the development of the MCS. Each of the 14 cities/jurisdictions along the route of the I-710 were given the opportunity to form a local Community Advisory Committee (CAC), also known as Tier One to ensure their full and accurate representation in the process. Also, a broader, regional corridor Community Advisory Committee, Tier Two, was formed.

The communities bordering the freeway all formed Tier One CAC's. These include the following communities:

- Long Beach
- Carson
- Compton
- Lynwood
- South Gate
- Bell Gardens
- Commerce
- East Los Angeles

Hybrid Alternative Definition

Also, in May 2003, the OPC adopted the following Guiding Principles for the study for the development of the "Hybrid Alternative":

- Minimize "right-of-way acquisitions" (eminent domain) with the objective being to preserve existing houses, businesses and open space.
- Identify and minimize both immediate and cumulative exposure to air toxics and pollution with aggressive advocacy and implementation of diesel emissions reduction programs and use of alternative fuels, as well as in project planning and design.
- Improve safety by considering enhanced truck safety inspection facilities and reduced truck/car conflicts and improved roadway design.
- Relieve congestion and reduce intrusion of traffic into communities and neighborhoods by employing a comprehensive regional systems approach that includes adding needed capacity as well as deploying Transportation Systems Management (TSM) and Transportation Demand Management (TDM) technologies to make full use of freeway, roadway, rail and transit systems.
- Improve public participation in the development and consideration of alternatives and provide technical assistance to facilitate effective public participation.

Status

In September 2003, the GCCOG and MTA began the process of developing the design for "hybrid" alternative. This report summarizes the results of the efforts made in conjunction with the local communities to develop the "hybrid" design that would make the improvements to the I-710 freeway acceptable to them. That process is just being completed working with the local communities and this report and attachments are being submitted to the TAC for their review and comment so that the TAC can forward their comments to the OPC.

SECTION B HYBRID DEVELOPMENT/PRESENTATION

Formation of Tier 1 Community Advisory Committees (CAC)

As stated in the previous section Tier 1 Community Advisory Committees (CAC's) were formed for each of the communities that border the I-710 Freeway. These communities had potential right of way impacts that had been previously identified. These committees primarily focused on key issues and areas that affected their community including health, environmental and quality of life issues, safety and mobility issues as well as economic development and land use issues.

To assist with the formation and coordination of these Tier 1 CAC's, MTA and the GCCOG retained the firm of Moore, Iacofano, Goltsman, Inc. (MIG) to facilitate these groups. The GCCOG also retained an engineer to assist the Tier 1 CAC's in the development of their recommendations for improvements to the I-710 freeway and the corridor.

MIG facilitated the formation of and worked with the following Tier 1 CAC's:

- Carson
- Compton
- Lynwood
- Bell Gardens
- Commerce
- East Los Angeles

The GCCOG engineer worked with the South Gate Tier 1 CAC and the City of Long Beach formed a 710 oversight committee chaired by three city council persons whose districts border the I-710 freeway. The City of Long Beach retained the firm of Diverse Strategies for Organizing (DSO) to facilitate the city's meetings and public coordination.

Tier 1 CAC Responsibilities

The CAC's were charged with the following:

- Solicit community (residents, businesses, institutions, labor, environmental and health interests, etc.) input and engagement on issues of local and regional importance relating to the present and future of the I-710 freeway.
- Encourage a representative and broad base of citizen participation both within and beyond the CAC's.
- Provide a vehicle to incorporate and respond to public input in planning for the I-710 corridor.
- Assist the OPC and the Technical Advisory Committee (TAC) in educating and communicating information about the I-710 MCS.

- Promote constructive dialogue in an environment of trust, credibility and mutual respect in the community outreach process and in the transportation planning process.
- Strive to understand and reconcile competing interests and objectives.
- Develop consensus on a set of corridor solutions, including the hybrid alternative, consistent with the goal of reinvigorating corridor economies and sustaining safe, healthy and vibrant communities.
- Provide a long-term structure for community engagement with future environmental processes; ensuring that the implementation is faithful to the community vision.

Summary or Tier 1 CAC I-710 Design Input Results

Each of the Tier 1 CAC have met numerous ,times and developed a list of their issues and concerns along with a list of the recommendations developed by them for improvements to the I-710 freeway and the corridor. MIG is assembling a report summarizing the results of both the Tier 1 and Tier 2 CAC's of all of the issues, concerns and recommendations developed by them. Appendix C contains a summary of the issues, concerns and recommendations from the Tier 1 CAC's that relate to the just the improvements to the I-710 freeway. There are a number of similar and common issues, concerns and recommendations developed by these various Tier 1 CAC's that can be applied to the design of the I-710 freeway improvements and include the following:

1. Separate cars and trucks as much as possible.
2. Minimize elevated structures.
3. Keep trucks at grade as much as possible.
4. Move the existing centerline of the freeway to take advantage of adjacent property that will minimize impacts to existing homes, parks and businesses.
5. Minimize (or eliminate) property impacts required to improve the I-710 freeway.
6. Use "diamond" type interchange designs to modify some existing interchanges to reduce property impacts at these interchanges.
7. Keep trucks away from existing homes as much as possible.
8. Use the adjacent river to construct additional lanes for the freeway.
9. Relocate utility systems adjacent to the freeway to provide space to improve the freeway.
10. Keep trucks off local streets.
11. Extend any improvements of the I-710 freeway past the SR-60 freeway.
12. Any improvements to the I-710 freeway should include landscaping and aesthetic treatments to beautify the freeway.
13. Construct soundwalls at all sensitive receptive locations.
14. Consider safety in all design improvements.
15. Do not extend the Terminal Island Freeway to the I-710/I-405 interchange (but consider such elimination impacts to the City of Carson).
16. Provide a truck inspection facility.

17. Consider limiting trucks on the I-710 freeway during peak hours and encourage the ports to go to extended hours of operations for truck movements.
18. Consider the Bandini "Alternative" at the I-5/I-710 interchange to reduce the impacts at this location.
19. Consider constructing elevated HOV lanes on the I-5 freeway north and south of the I-710 freeway to reduce adjacent property impacts.
20. The communities along the freeway should benefit economically from the construction of the improvements in the corridor during and after construction.

The preceding list shows how similar the design issues, concerns and recommendations were for all eight of the Tier 1 CAC's. The list of general issues, concerns and recommendations presented above, along with the specific local issues, concerns and recommendations developed by each Tier 1 CAC contained in Appendix C were used to prepare and process the "hybrid" design through each of the Tier 1 CAC's. After receiving and reviewing the lists contained in Appendix C, preliminary concepts were developed and presented to each of the Tier 1 CAC for their review and comment. Based on that review (received at numerous meetings), a locally preferred strategy for the "hybrid" design was prepared. The maps showing this locally preferred strategy are attached by reference.

At the time this report was prepared the Tier 1 CAC's that have supported the reference maps are Long Beach, Carson, South Gate and Bell Gardens. The Tier 1 CAC's in Compton and Lynwood were finalizing their reviews of the maps while this report was being prepared. Both the Commerce and East L.A. Tier 1 CAC's were still reviewing the maps prepared for the "hybrid" for their sections of the I-710 (and the I-5) freeway.

Hybrid Design Discussion/Results

Even though not all of the Tier 1 CAC's have finished their review of the referenced maps, this report was prepared for the I-710 TAC so they could review the design concepts while the Tier 1 CAC's are finalizing their review and comments. Any changes to the design concepts presented herein will be shown to the I-710 TAC before they finish their review of the maps.

A universal theme developed by all of the Tier 1 CAC's was to separate the cars and trucks as much as possible and to minimize the construction of elevated structures. They also requested that safety be a priority design criteria considered in any new "designs" and that the freeway improvements be "modern" in their design. The underlying (and primary) design criteria that affected the design was to minimize right-of-way impacts to adjacent property when considering improvements to the I-710 freeway.

The initial future traffic projections previously performed indicated that ten general purpose lanes were probably required along with 4 separate and dedicated truck lanes. These truck lanes would intercept the trucks leaving the ports and continue north along

the river. The two primary destinations identified for the trucks in these lanes were the SR-91 freeway and the rail yards in Commerce and Vernon. This concept is similar to Alternative "E" developed for the initial MCS in 2001 to 2003 and was the underlying basis for the hybrid design modified to conform to the new design guidelines required by the OPC and the Tier 1 CAC's.

Following the guidelines adopted by the OPC and after meeting with the Tier 1 CAC's, preliminary sketches for improvements to the I-710 freeway were developed and presented to the Tier 1 CAC's for review and comments. This procedure was repeated to process the "hybrid" design through the Tier 1 CAC's making any changes requested by them and doing additional analyses needed to explore new ideas that developed as the designs were examined by the Tier 1 CAC's.

Based on the input and review of the Tier 1 CAC's the appended fourteen maps were prepared and finalized (still subject to some review by some of the Tier 1 CAC's as previously noted). The GCCOG engineer worked between adjacent Tier 1 CAC's when the requirements of the Tier 1 CAC's in one community affected the design of the freeway in another community. All of these "conflicts" were worked out between adjacent communities.

It appears that the fourteen lane facility (ten general purpose lanes adjacent to four dedicated truck lanes) can be constructed with minimal impacts to adjacent property in the communities. This is discussed for each section of the freeway subsequently. In addition to the physical analysis of any possible improvements, a traffic modeling analysis was also performed for the proposed improvements to the freeway. This analysis is contained in Appendix A. The major assumptions are listed in the report prepared by Meyer, Mohaddes Associates (MMA). These major assumptions include continued growth of the ports as shown in the report, the implementation of extended hours of operations at the ports and continued growth in Southern California as estimated by SCAG for the region for the year 2025. With these assumptions MMA analyzed the proposed fourteen lane facility at three different locations to assess whether the facility adequately operated in the future. This report and analysis can only be considered a "snap-shot" of the future operations of this fourteen lane facility at these three locations. A much more detailed traffic model and analysis will be prepared for the future environmental document.

The MMA study indicates that the fourteen lane facility operates adequately in the year 2025. The truck lanes are at capacity in the future at the south end of the project and operate at acceptable levels of service further north. The general purpose lanes operate at very acceptable levels of service at the south end of the project but do not operate at acceptable levels of service at the very north end of the project (north of the I-105 Freeway). Suggestions for further analysis are discussed subsequently. However, the MMA study indicates that the fourteen lane facility appears to be the correct size facility for this corridor (it does not assume any carpool lanes). The subsequent discussion for the proposed improvements will indicate that this fourteen lane facility can be built while

minimizing the impacts to adjacent community properties. Any additional lanes will require a new design approach or additional rights-of-way from the adjacent properties.

The following discusses the design for the freeway section for each community that meets their design guidelines and the design guidelines required by the OPC starting from the south end of the freeway and proceeding to the north.

General Design Comments

The geometric plans (maps) that show the proposed improvements are attached by reference. Typical sections were prepared to show the proposed improvements within each city and those typical sections are included with this report. Caltrans standards were used to develop the designs shown on the referenced maps. However, these standards could not always be met at all locations and design exceptions may be needed to implement the geometric designs shown on the referenced maps. These design exceptions are noted on the referenced maps and will have to be reviewed and approved by Caltrans. If the design exceptions are not acceptable to Caltrans than the geometric designs at certain locations will have to be restudied and the design modified. Any changes will be reviewed with the local community before being finalized. These changes could require additional right-of-way to accomplish.

New soundwalls are shown next to all sensitive noise receptor sites adjacent to the freeway. To the extent possible, it is recommended that these sound walls be constructed prior to the major construction of the freeway. This will help isolate the adjacent property during construction of the freeway.

Many of the existing bridges that cross over the freeway are proposed to be reconstructed for the design shown on the references maps. It is necessary to lengthen them to provide the necessary width underneath them to construct the additional freeway general purpose lanes and the dedicated truck lanes at many locations. The timing and phasing of the construction of these re-built bridges will need to be studied in more detail at a later date.

The typical sections contained with this report show standard width lanes and full shoulders for all typical sections. This was one of the primary objectives of the design. There are a few locations where shoulder widths or lane widths are reduced for a short stretch of the freeway to avoid un-necessary reconstruction of an intercepting freeway. Otherwise, full lane and shoulder widths are proposed for the entire design.

The design includes four dedicated truck lanes that begin at the ramps leading from the ports at the south end and continues these lanes to the rail yards at the north end of the freeway in Vernon and Commerce. Access points and ramps to and from these dedicated truck lanes are shown at various locations and discussed subsequently. Further study will be needed to determine if additional access points and ramps are needed from the dedicated truck lanes for destinations along the freeway or for access from the I-710 freeway.

City of Long Beach (Ocean Blvd. to SR-91 Freeway)

The design guidelines provided by the City of Long Beach for the freeway are listed in Appendix C and were followed to develop the design shown on Maps 1 through 4. Figures 1, 2 and 3 show the typical sections for the freeway improvements for this section of the freeway. Key elements of this design include the following:

1. Freeway improvements were constructed to the east, towards the river.
2. The bridges that cross the freeway are all proposed to be reconstructed and lengthened over the new freeway to provide the necessary space underneath them to construct the proposed freeway improvements.
3. The dedicated truck lanes intercept the trucks as they leave the ramps from the ports heading north and continue far enough south to discharge the southbound trucks from these lanes into the ramps leading into the ports.
4. The Shoemaker Bridge that crosses the river into downtown Long Beach is proposed to be reconstructed and realigned. This is necessary to build the freeway improvements underneath it and to expand the Cesar Chavez Park in downtown Long Beach.
5. The interchanges of Anaheim St., PCH and Willow St. are all reconstructed in a "diamond" type configuration. As shown on the maps, full access at the Anaheim St. and PCH interchanges is maintained for both autos and trucks as requested by the city.
6. To minimize the right-of-way impacts to adjacent property between PCH and Willow St. the freeway design (see Figure 2) is stacked with depressed truck lanes on the bottom and general purpose lanes on top. The community did not want the lanes on top to be above the adjacent river levee and this design is shown in Figure 2. This design will be difficult to build so a constructability analysis was performed for it. This constructability analysis is contained in Appendix B and indicates that it appears the design shown in Figure 2 can be constructed. Much more extensive analysis will be necessary to confirm this. Depressing the truck lanes as much as shown in Figure 2 complicates the constructability and will also require further analysis.
7. It appears that the 10 general purpose lanes will "fit" through the existing openings on the I-710 freeway as it crosses underneath the I-405 freeway but this also will require further analysis to determine if the reconstruction of the I-405 bridges over the I-710 can be avoided. Map No.2 shows the closure of the existing ramps at Wardlow Rd. The impacts of these closures will require further analysis. The impact of the modernization of the connector ramps at the I-710/I-405 interchange will require further study of the interchanges on I-405 at least 2 miles beyond the I-710 freeway in both directions.
8. The dedicated truck lanes continue at grade north of the I-405 along the river and affect two ponds next to the river. A mitigation plan for these impacts will have to be developed. Also, near this location the widening of the

freeway appears to impact the Blue Line bridge over the freeway, which is shown to be reconstructed. This impact needs to be evaluated and verified and a plan developed to re-build this bridge without interfering with the operation of the Blue Line.

9. The typical section shown in Figure 3 shows the dedicated truck lanes using property acquired from SCE. Preliminary discussions with SCE in the past indicated they would cooperate with this design but that design and its costs have to be verified. Truck access ramps are provided near Del Amo Blvd. to provide access and egress from the truck lanes to and from I-710. These ramps will also provide truck access to the dedicated truck lanes from both directions from the I-405 freeway.
10. The extension of the Terminal Island Freeway to the I-710 and I-405 interchange is not included in the design.
11. The dedicated truck lanes continue through the SR-91 freeway and provide truck access ramps to this freeway as shown on Map No.4. The truck only ramps shown on Map No.4 have been determined as the only "necessary" truck ramps. Further study of the impacts of these truck connector ramps on the SR-91 freeway is required at least two interchanges west and east of the I-710 freeway (see Map No. 13 that shows the transition of these truck lanes ramps onto SR-91).
12. The ten general purpose lanes continue through the SR-91 interchange. As shown on the referenced maps, narrower shoulders are proposed for I-710 as these lanes pass through the SR-91 interchange to avoid having to re-build the SR-91 bridges that go over the I-710 freeway. The Artesia Blvd. bridge over I-710 is proposed to be constructed, however, to provide the needed width for the general purpose lanes.

City of Carson (Del Amo Blvd. Interchange)

The city boundaries of the City of Carson only intersect with the freeway in the southwest corner of the Del Amo Blvd. interchange. There appears to be a slight impact to a business in the city at this location and more detailed analysis is needed to see if the property could be avoided or minimized so a full property acquisition is not needed.

The Tier 1 Carson CAC supports the dedicated truck lanes that begin at the ports and run along the river past Carson. However, that committee remains concerned about the impact of the proposed SR-47 freeway extension to Alameda St. (not shown on the enclosed maps) and the additional truck traffic that that design will introduce on Alameda St. through Carson. The traffic modeling report prepared by MMA contained in Appendix A states that about 5 to 10% of the truck traffic will divert from the I-710 onto Alameda St. if the SR-47 extension is built. This is confirmed by the studies prepared by the Alameda Corridor Transportation Authority (ACTA), the proponent for the extension. ACTA had estimated that about 8% of the trucks would be diverted from the I-710 to Alameda St. if the extension were built.

Further study of the destination of these trucks that would use the SR-47 extension to Alameda St. is needed. It is assumed that many of these trucks are accessing the I-405 or SR-91 freeways and, further, many of them will still want to access the dedicated truck lanes along the I-710 freeway. This additional study should include an analysis of an improved interchange of Alameda St. with the I-405 freeway that would allow the trucks using the SR-47 extension and Alameda St. to access the I-710 dedicated truck lanes from that interchange to the I-405 freeway and then onto the dedicated truck lanes at the access ramp provided at Del Amo Blvd. as shown on Map No.3. This could significantly reduce the volume of trucks on Alameda St. north of the I-405 freeway.

City of Compton (SR-91 Freeway to I-105 Freeway)

Maps 4 and 5 show the proposed freeway improvements that are still being studied by the Compton Tier 1 CAC. At the time this report was the CAC had not acted on these plans but seemed to be supportive. The key elements of the designs shown on Maps 4 and 5 are an improved interchange with Alondra Blvd. that does not impact the adjacent properties. This design eliminates the weaving problem with the SR-91 connector ramps to I-710 with the northbound Alondra off-ramp and the southbound Alondra on-ramp. However, the elimination of these weaving problems eliminates access to Alondra Blvd. from westbound SR-91 and eastbound SR-91. This traffic will have to be signed to use the Atlantic Blvd. interchange to access Alondra Blvd. and will have to be studied in more detail at a later date.

Figure 4 shows the typical section for this part of the freeway. It shows the dedicated truck lanes elevated next to the river. This is necessary for the truck lanes to get "past" Alondra Blvd. and Compton Blvd. by going over them. It may be possible to go under each of these bridges provided the river levee can be eliminated and replaced with a river levee wall. This is not proposed at this time but is recommended to be studied at a later date. Soundwalls are shown on the dedicated truck lanes to minimize the broadcasting of sound from these truck lanes. A study is also recommended to determine how to make these truck lanes as aesthetic as possible.

As the truck lanes approach Rosecrans Ave. they are proposed to go under a re-built and extended Rosecrans Ave. bridge and continue through the I-105 interchange at grade. This will require the reconstruction of the northbound on and off-ramps from Rosecrans Ave. as shown on Map Nos. 5 and 6. Just north of the I-105 freeway the maps show the dedicated truck lanes intruding into the river levee. This will have to be approved by the Los Angeles County Flood Control District and the Corps of Engineers and will be achieved by rebuilding the levee to provide the space needed for the dedicated truck lanes. The dedicated truck lanes do not access with the I-105 freeway. The ten general purpose lanes continue through the I-105 interchange and are narrowed to avoid rebuilding the I-105 bridges that crossover the I-710 freeway.

A new ramp is proposed to be constructed from the I-105 connector ramps to join with the southbound Rosecrans Ave. off-ramp to provide new access to the city as requested by the CAC. As shown on the map the design of this new ramp will require a design

exception in order to be constructed. This proposed ramp will reduce the ramp volumes at the southbound Alondra Blvd. interchange and could be an integral part of the construction staging for this section of the freeway.

The City of Compton has similar concerns about additional truck traffic onto Alameda St. as discussed for the City of Carson from the extension of SR-47. A separate truck access on-ramp from eastbound SR-91 is shown to be constructed at the SR-91 interchange. This ramp will allow trucks on Alameda St. to access the dedicated truck lanes along I-710 and should discourage them from continuing north on Alameda St. past the SR-91 freeway if their destinations are the rail yards or north of the rail yards along I-710. A study is recommended to be performed that would study improvements at the Alameda St./SR-91 interchange that would expedite trucks accessing the dedicated truck lanes and the possibility of extending the truck on and off-ramps to Alameda St. along SR-91.

City of Lynwood (Rosecrans Ave. to Imperial Highway)

At the time this report was prepared the Lynwood Tier 1 CAC was still reviewing the proposed design and had not made a final decision about the design.

Map No.6 and Figure 5 show the dedicated truck lanes built over the northbound I-710 lanes for a short duration to avoid property on the west side and the intrusion into the river on the east side. This still requires some intrusion into the river levee and will have to be processed and approved by the Flood Control District and the Corps of Engineers as previously discussed for other sections of the freeway.

The Imperial Highway interchange is reconstructed in a "diamond" configuration to provide the necessary improvement and to avoid adjacent property impacts. The inclusion of possible northbound and southbound loop on-ramps should be studied at a later date to see if those additions, which would improve the operation of the new interchange, could be constructed without impacting adjacent property.

At this location the freeway alignment is shifted toward the river to provide the space to construct the revised interchange. A by-product of this design allows the elimination of the weaving between the Imperial Highway southbound on-ramp with the Martin Luther King Blvd. southbound off-ramp. The City of Lynwood has requested that a study be conducted to determine if new northbound on and off-ramps could be constructed to access Martin Luther King Blvd. from I-710 via a tunnel underneath I-710. That study is not included with this report and will have to be performed at a later date. The proximity of these proposed ramps to the I-105/I-710 connector ramps and the Imperial Highway ramps would make the inclusion of these ramps very difficult to implement.

The reconstruction of the both the Rosecrans Ave. and Imperial Highway interchanges will be very disruptive to access into and from Lynwood. The impacts of these particular reconstruction projects needs to be studied for their impact on the interchanges and ramps from I-105 into and from Lynwood and the need to improve those I-105 interchanges and ramps as part of the I-710 freeway improvement project.

City of South Gate (Imperial Highway to north of Firestone Blvd.)

Access ramps from the dedicated truck lanes are shown just north of Imperial Highway that will allow trucks to access Garfield Ave. These ramps will assist in keeping trucks from using the Firestone Blvd. interchange and improve the operation of the adjacent Garfield Ave./Firestone Blvd. intersection" which has high truck volumes.

Just north of Imperial Highway the dedicated truck lanes are proposed to be constructed on the west side of the freeway (see Map No.7). Figure 6 shows that it is possible to construct the dedicated truck lanes and the general purpose lanes through the City of South Gate at grade with minimal property impacts. The city is requesting that a new bridge at Southern Ave. be built over the river and over the freeway. This is necessary to provide a second entrance to the Thunderbird Villa Mobile Home Park (the only entrance to the park is affected by the proposed truck ramps that connect the dedicated truck lanes to Garfield Ave.) and to assist moving traffic across the freeway when the Firestone Blvd. bridge is being reconstructed. The impacts on the businesses along Southern Ave. west of the freeway are being reviewed with those businesses at the time this report was prepared.

The Firestone Blvd. interchange would be reconstructed with the same ramp configurations as part of the proposed improvements to the I-710 freeway.

City of Bell Gardens (north of Firestone Blvd. to north of Florence Ave.)

The dedicated truck lanes are proposed to be constructed at grade next to the river through the City of Bell Gardens. As shown in the typical section in Figure 7, this design can only be accomplished by building a river levee wall" removing the levee and moving and relocating the DWP transmission towers to provide the space for the dedicated truck lanes. This will require significant coordination with DWP and study and approval by the Flood Control District and the Corps of Engineers to achieve.

As part of this design the Florence Ave. interchange is proposed to be reconstructed in a "diamond" configuration. As discussed previously for the Imperial Highway interchange, northbound and southbound loop on-ramps should be studied to be incorporated with the design shown on Map No.8 to improve the operation of this proposed interchange.

The dedicated truck lanes continue through the City of Bell Gardens next to the river. At the north end of the city, the dedicated truck lanes elevate and cross over to the other side of the freeway for the reasons discussed subsequently.

City of Commerce (Slauson Ave. to north of I-5 freeway and I-5 Freeway)

The Commerce Tier 1 CAC is still evaluating and review the designs for both the I-710 and I-5 improvements. This section only discusses the portion of the I-710 that the committee has indicated they may support.

As shown on Map No.8, a new interchange (single-point type) is shown to be constructed at the location of the existing Slauson Ave. bridge over the I-710 freeway. The communities around this proposed interchange (with the possible exception of the City of Commerce) are requesting this new interchange to improve access to the communities to the west and to relieve the traffic on both Firestone Blvd. and Florence Ave. to the south. The majority of this proposed interchange (and all of the property impacts) is located in the City of Commerce. The businesses affected by the construction of this interchange will have to be acquired and relocated to construct it. At the time of the preparation of this report, the Commerce Tier 1 CAC has indicated they may not be in support the construction of this interchange. The Commerce Tier 1 CAC has reviewed the proposed Slauson Ave. interchange and do not appear to be opposed to the actual design but do not perceive the interchange as beneficial to the city. The construction of this interchange will have to be negotiated between Commerce and the other cities requesting its construction.

The "single-point" interchange design proposed for Slauson Ave. is shown on Map No.8. This will require the construction of a new bridge over the river and over the freeway and the reconstruction of Slauson Ave. in both directions. Also, as noted on Map No.8, auxiliary lanes are needed to the north of this proposed interchange. The dedicated truck lanes are elevated over the railroad delivery tracks and are above Slauson Ave.

Map No.9 shows the extensive reconstruction proposed for the Bandini Blvd. and Atlantic Blvd. interchange. The previously proposed truck viaduct along Atlantic Blvd. is no longer a part of the design. The intent of the design is to move the ramp intersections with Bandini Blvd. and Atlantic Blvd. away from the intersection of Bandini Blvd. and Atlantic Blvd. where the ramps currently intersect. Both the cities of Commerce and Vernon have reviewed and approved the new design shown on Map No. 8. Significant property impacts result from the construction of this new interchange but were determined to be acceptable to the adjacent communities.

The dedicated truck lanes are elevated over the Bandini Blvd./Atlantic Blvd. interchange. The lanes split apart at this location so that ramps can be built from these dedicated truck lanes directly into the rail yards. Both the cities of Vernon and Commerce have requested that the significant number of trucks that are destined for these two rail yards from the ports do not use their local streets to access the entrances to the BNSF and UP rail yards. Map Nos. 9 and 14 show ramps from the dedicated truck lanes directly into the BNSF and UP rail yard entrances. Return ramps are also shown from these two rail

yards. This unique solution will keep trucks from the dedicated truck lanes coming from the south from using local streets to access the rail yards. This design will require special approval of Caltrans to construct. The design will also have to be processed and approved by both BNSF and UP in order to be constructed. The design of these ramps is consistent with the existing truck entrances into the two rail yards. However, the ramps are mostly overhead and the designs can be altered if the truck rail yard entrances are altered.

The truck rail yard ramp designs also include ramps that connect trucks traveling southbound on I-710 to these new rail yard ramps and the return movement. This will keep trucks traveling southbound on I-710 that want access to the rail yards from having to use local city streets. The southbound truck rail yard access ramps are not compatible with the existing Washington Blvd. interchange and ramps. It will probably be necessary to eliminate those ramps. The City of Commerce is considering that option. An analysis of the closure of the Washington Blvd. ramps will have to be performed at a later date. That closure will affect the proposed Bandini Blvd./ Atlantic Blvd. interchange on the I-710 freeway and the proposed improvements to Eastern Ave./Atlantic Blvd. interchange on the I-5 Freeway.

On and off-ramps would be provided from the dedicated truck lanes for access to I-710 freeway for trucks that do not want to access the rail yards. These are shown on Map No. 9.

This report does not include any discussion of the I-5/I-710 freeway interchange as the Commerce Tier 1 CAC is still reviewing the proposed design and has remaining issues and concerns with it.

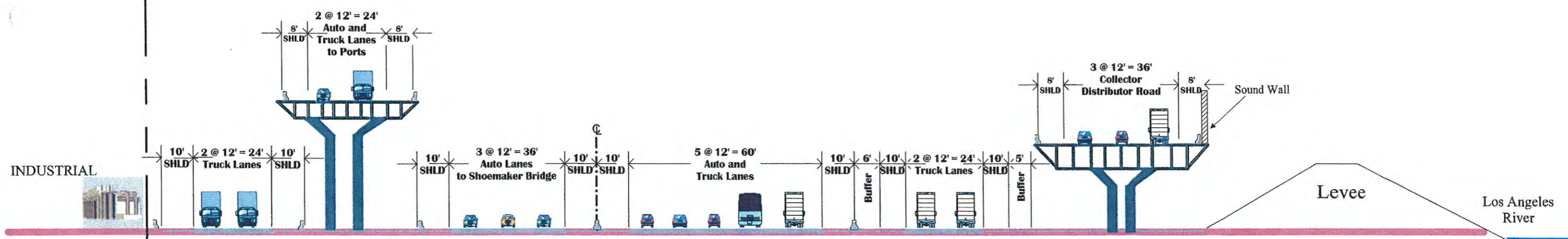
East Los Angeles (I-5 freeway to Valley Blvd. and I-5 Freeway)

At the time of the preparation of this report, the East L.A. Tier 1 CAC was still reviewing and commenting on the conceptual designs that affect their community for both the I-710 and I-5 Freeways. Therefore, this report contains no maps, typical sections or discussions about that section of the project. The I-5 Joint Powers Authority (JPA) has the responsibility for the conceptual design for the I-5 freeway south of the I-710 freeway. The I-5 JPA has previously processed a conceptual design for the I-5 freeway through the City of Commerce in 1998 and received that city's approval of the design. However, while the conceptual plan prepared by the I-5 JPA showed improvements to the I-5/I-710 interchange, the City of Commerce did not approve that design for that interchange or include it with their approval for the improvements to I-5 in 1998. Any improvements at the I-5/I-710 interchange affect both the City of Commerce and East L.A. Discussions continue with the Tier 1 CAC's for both these communities about the improvements at this interchange. The GCCOG and the I-5 JPA are working closely together to address the concerns of these two communities at this location, including re-examining the design of the I-5 freeway south of the I-710 freeway.

An issue that the East L.A. Tier 1 CAC feels need to be addressed is the continuation of any improvements to the I-710 freeway north of SR-60 freeway. If the I-710 freeway is improved, the East L.A. Tier 1 CAC has requested that those improvements need to continue north to Valley Blvd. A map showing these possible improvements to the I-710 freeway north of the SR-60 freeway to Valley Blvd. (north of the I-10 freeway) has been prepared and submitted to the East L.A. Tier 1 CAC for review and comment.



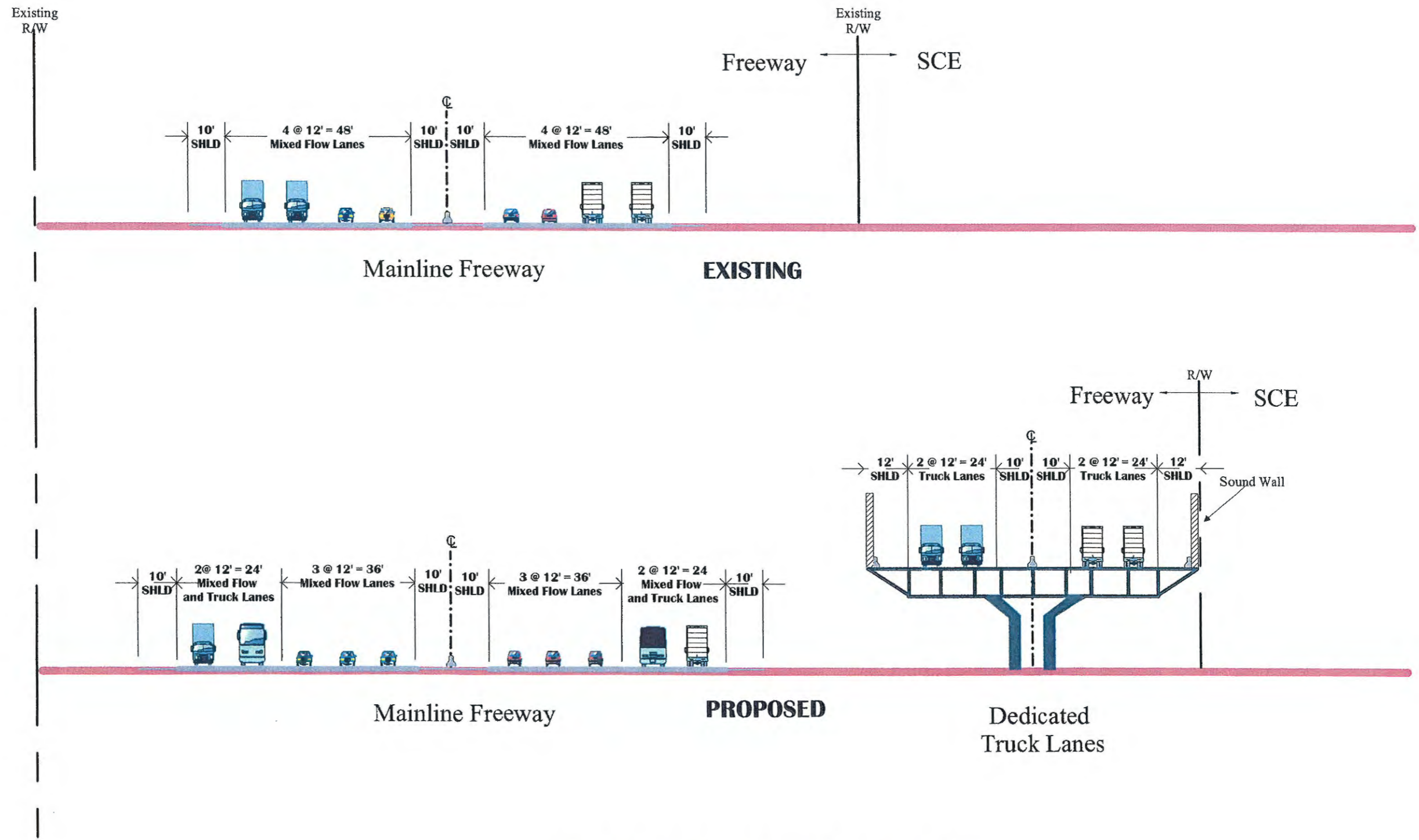
Mainline Freeway **EXISTING**



Mainline Freeway **PROPOSED**

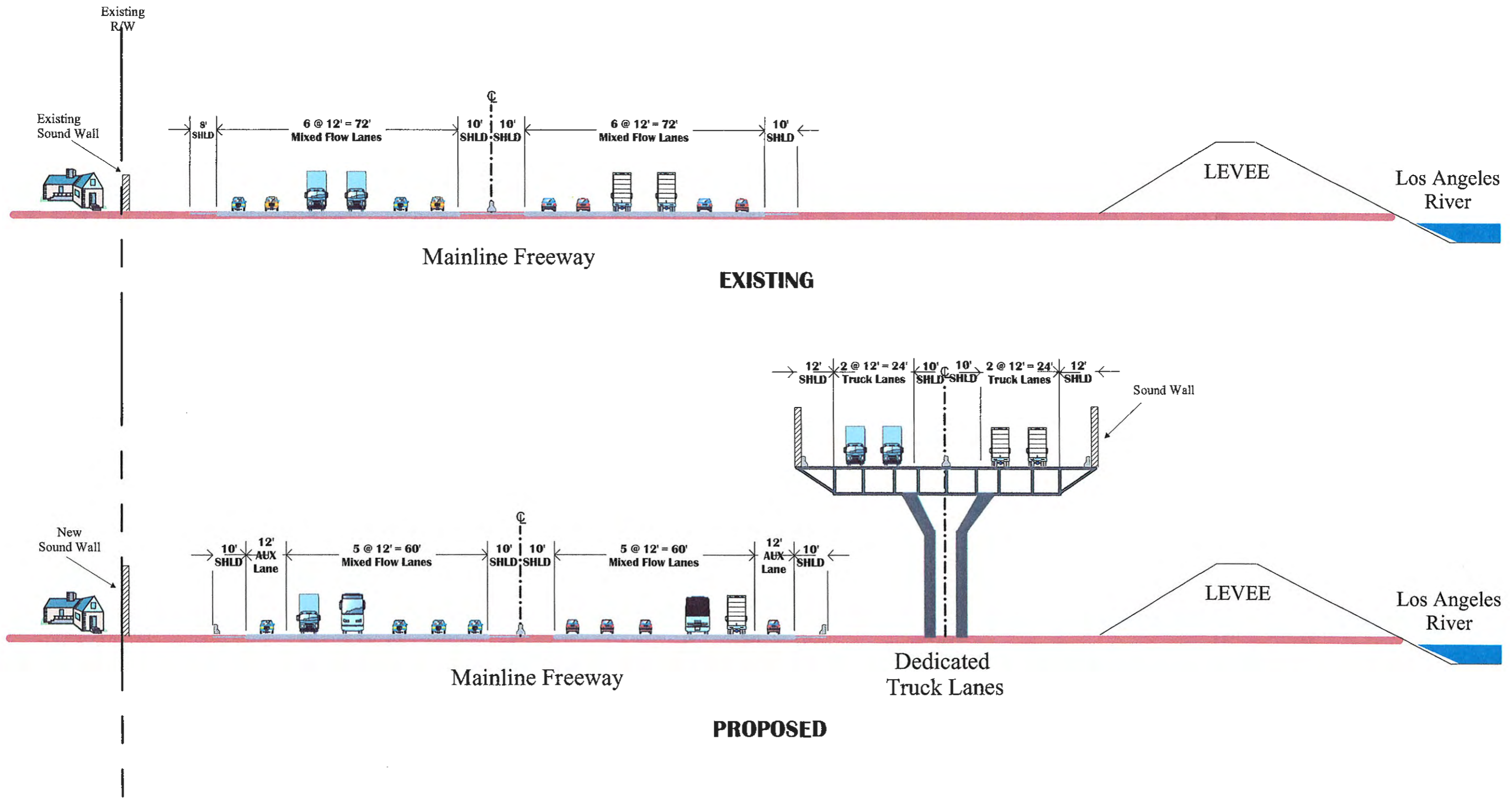
TYPICAL SECTION (Between PCH and Anaheim St.)

FIGURE NO. 1



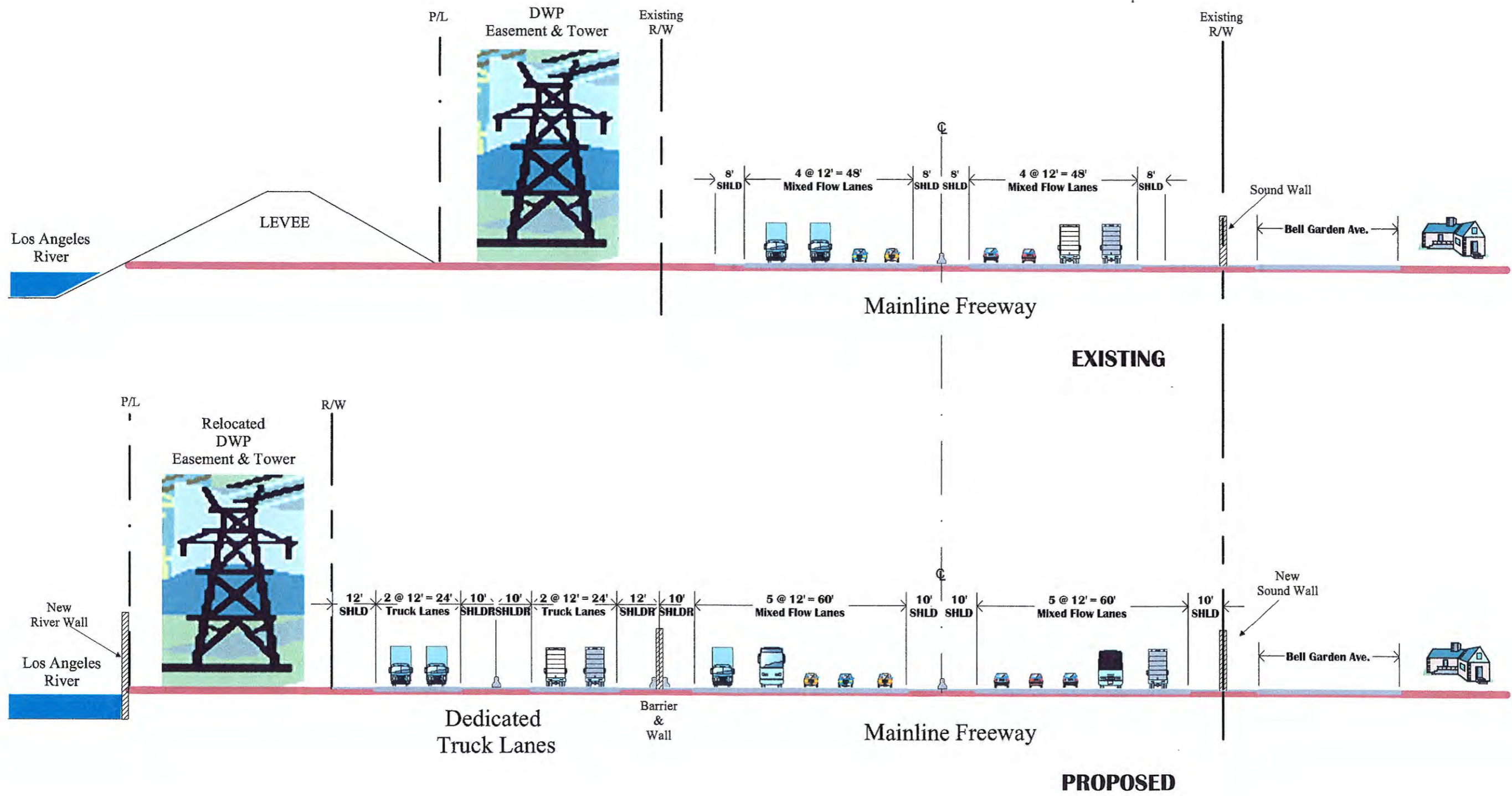
TYPICAL SECTION North of Del Amo

FIGURE NO. 3

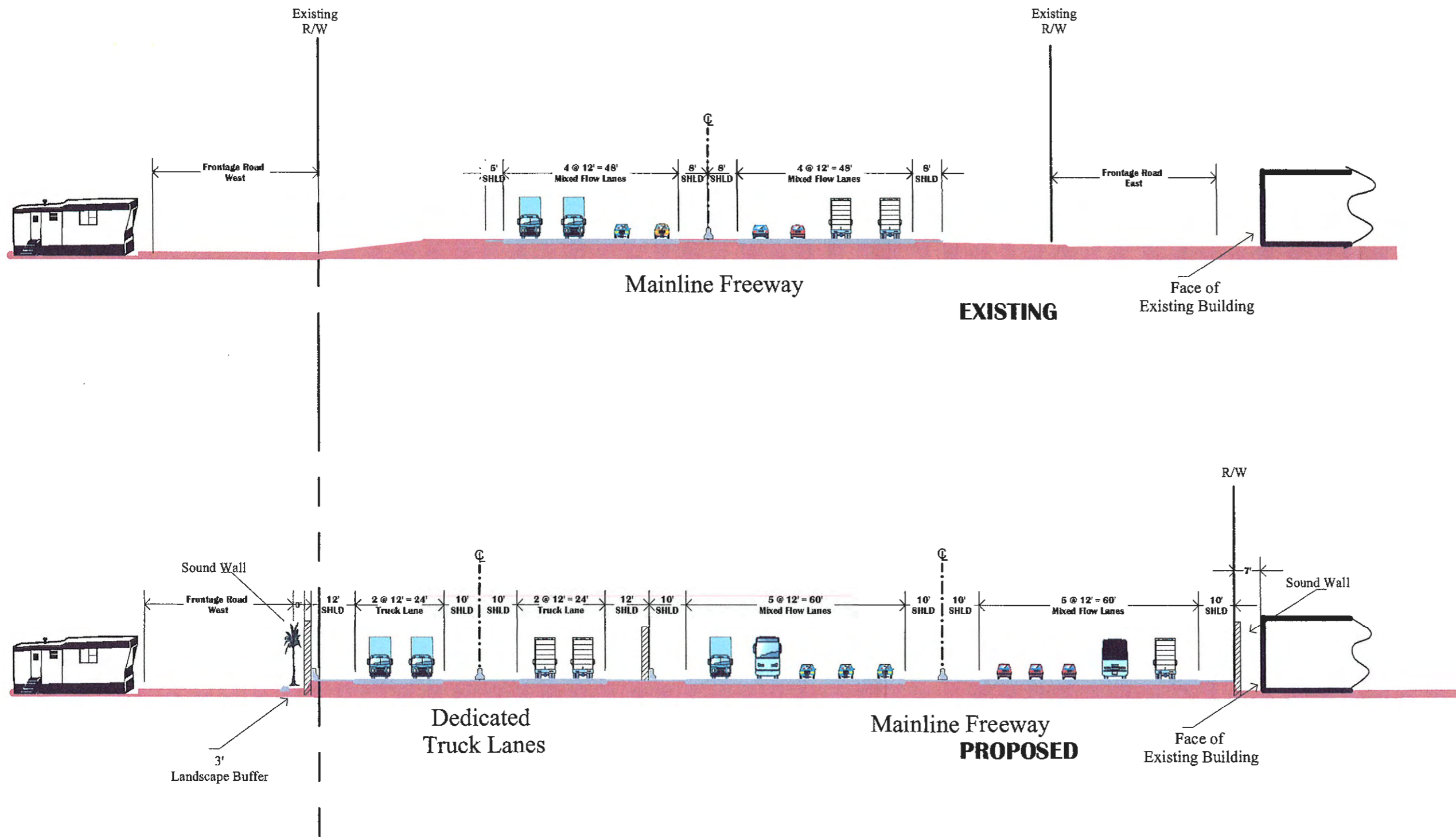


TYPICAL SECTION (Alondra Blvd. to Rosecrans Ave.)

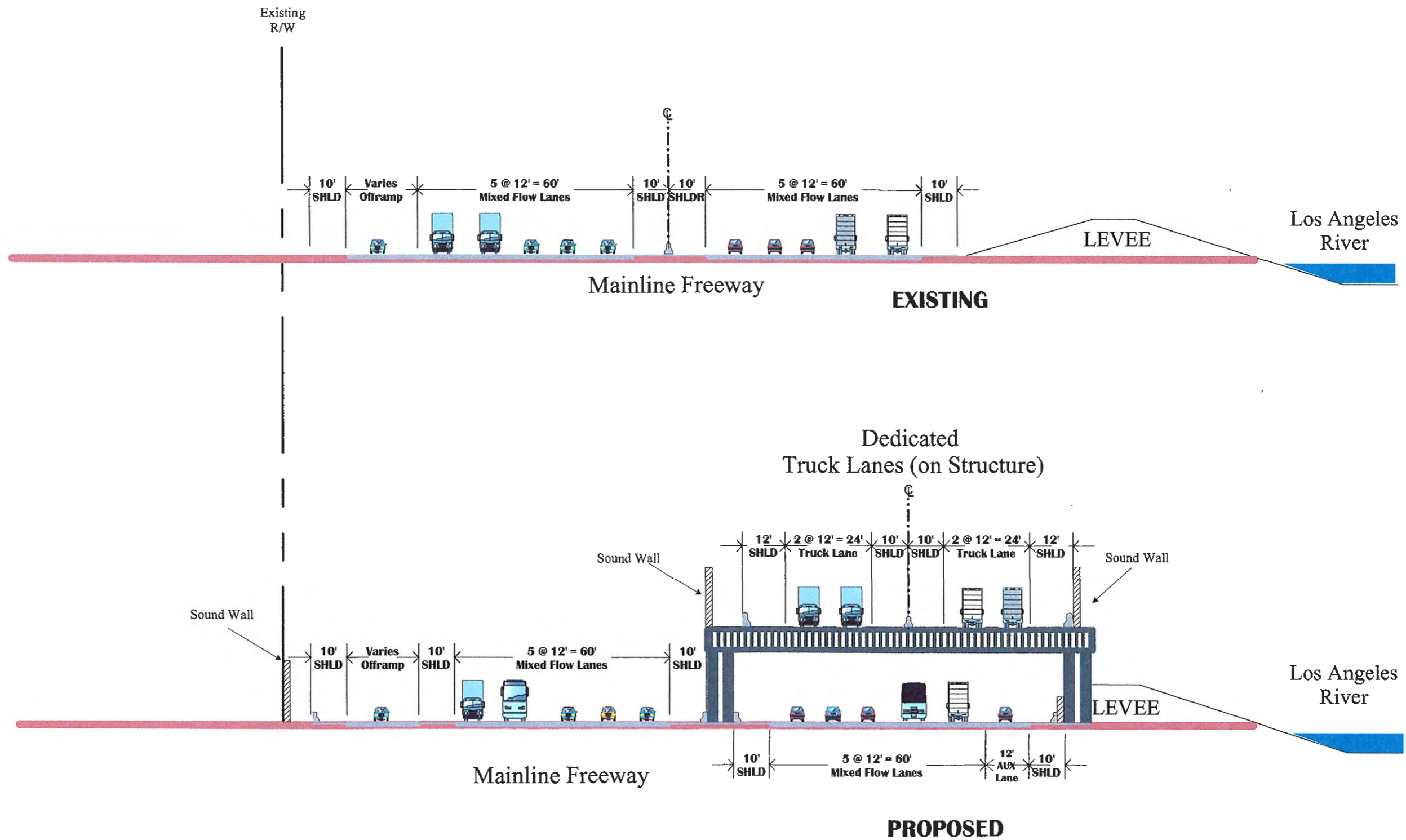
FIGURE NO. 4



TYPICAL SECTION (Firestone Blvd. to Florence Ave.)



TYPICAL SECTION (Imperial Hwy to Firestone Blvd)



TYPICAL SECTION (South of Imperial Hwy)

FIGURE NO. 5

APPENDIX Q

***Detail – Financial Analysis, Hybrid
Design Concept***, Cambridge
Systematics, Inc., June 2004

Truck Survey Results

	POLB	POLA	Both Ports Combined
No. of Valid Surveys	1,827	1,443	3,270
INBOUND TRIP RESPONSES			
Truck Type			
Percent bobtail	26.0%	18.8%	22.8%
Percent chassis	6.0%	7.0%	6.4%
Percent container	67.5%	74.0%	70.4%
Percent other	0.5%	0.2%	0.4%
Truck Type - Total	100.0%	100.0%	100.0%
Origin:			
ICTF	9.9%	18.7%	13.8%
Hobart Yard	13.6%	12.5%	13.2%
ELA Yard	24.9%	22.1%	23.7%
All Off-Dock Rail	48.4%	53.3%	50.7%
Plant/warehouse	33.2%	35.9%	34.4%
Marine Terminal	18.3%	10.8%	15.0%
Origin - Total	99.9%	100.0%	100.1%
OUTBOUND TRIP RESPONSES			
Truck Type			
Percent bobtail	40.5%	40.9%	40.7%
Percent chassis	4.2%	5.3%	4.7%
Percent container	54.7%	53.8%	54.3%
Percent other	0.6%	0.0%	0.3%
Trip Type - Total	100.0%	100.0%	100.0%
Destination			
ICTF	11.3%	22.8%	16.3%
Hobart Yard	9.1%	8.6%	8.9%
ELA Yard	17.2%	14.2%	15.9%
All Off-Dock Rail	37.6%	45.6%	41.1%
Plant/warehouse	39.7%	37.7%	38.8%
Marine Terminal	22.7%	16.7%	20.1%
Destination - Total	100.0%	100.0%	100.0%

Source: Pg. 41 of Port of Long Beach Transportation Study

Year 2000 Truck Traffic By Port, Directionality, Trip End, & Truck Type

Port of Long Beach ¹	Split by Trip End	Split by Truck Type	Empty/ Loaded Split	All Categories
Inbound (Export)²	100%			
On-dock rail	5.0%			0.495%
Off-dock rail	46.0%			
Bobtail		26.0%		1.184%
Chassis		6.0%		0.273%
Container		67.5%		
>Full Container			62%	1.905%
>Empty Container			38%	1.168%
Inter-terminal	17.4%			
Bobtail		26.0%		0.448%
Chassis		6.0%		0.103%
Container		67.5%		
Full Container			44%	0.511%
Empty Container			56%	0.651%
Other inland location	31.6%			
Bobtail		26.0%		0.812%
Chassis		6.0%		0.187%
Container		67.5%		
Full Container			44%	0.928%
Empty Container			56%	1.181%
Outbound (Import)	100%			
On-dock rail	10.0%			3.406%
Off-dock rail	34.0%			
Bobtail		40.5%		4.689%
Chassis		4.2%		0.486%
Container		54.7%		
Full Container			95%	6.017%
Empty Container			5%	0.317%
Inter-terminal	20.5%			
Bobtail		40.5%		2.831%
Chassis		4.2%		0.294%
Container		54.7%		
Full Container			48%	1.835%
Empty Container			52%	1.988%
Other inland location	35.9%			
Bobtail		40.5%		4.951%
Chassis		4.2%		0.513%
Container		54.7%		
Full Container			48%	3.210%
Empty Container			52%	3.477%

1. Split for Port of Long Beach only is 44 percent (Port of Los Angeles accounts for the remaining 56 percent).

2. Split for the Port of Long Beach by inbound (export) direction only is 23 percent

3. Split for the Port of Long Beach by outbound direction (import) only is 77 percent

Year 2000 Truck Traffic By Port, Directionality, Trip End, & Truck Type (Continued)

Port of Los Angeles ¹	Empty/ Loaded Split	All Categories	Empty/ Loaded Split	All Categories
Inbound (Export)²	100%			
On-dock rail	5%			0.598%
Off-dock rail	50.5%			
Bobtail		18.8%		1.135%
Chassis		7.0%		0.423%
Container		74.0%		
Full Container			62%	2.770%
Empty Container			38%	1.698%
Inter-terminal	10.2%			
Bobtail		18.8%		0.230%
Chassis		7.0%		0.086%
Container		74.0%		
Full Container			44%	0.398%
Empty Container			56%	0.507%
Other inland location	34.3%			
Bobtail		18.8%		0.770%
Chassis		7.0%		0.287%
Container		74.0%		
Full Container			44%	1.334%
Empty Container			56%	1.697%
Outbound (Import)³	100%			
On-dock rail	10%			4.409%
Off-dock rail	41%			
Bobtail		40.9%		7.394%
Chassis		5.3%		0.958%
Container		53.8%		
Full Container			95%	9.239%
Empty Container			5%	0.486%
Inter-terminal	15.0%			
Bobtail		40.9%		2.708%
Chassis		5.3%		0.351%
Container		53.8%		
Full Container			48%	1.710%
Empty Container			52%	1.852%
Other inland location	33.9%			
Bobtail		40.9%		6.113%
Chassis		5.3%		0.792%
Container		53.8%		
Full Container			48%	3.860%
Empty Container			52%	4.181%

Source: Port Trans Study MARAD Website for 2002, PIERS data, Port Transportation Study, and ECM Spreadsheet.

Note this worksheet combines the Port survey with other data to get all non-bulk moves in and out of port.

1. Split for Port of Los Angeles trip-end only is 56 percent
2. Split for the Port of Los Angeles by inbound (export) direction only is 21 percent
3. Split for the Port of Los Angeles by outbound direction (import) only is 79 percent

Total Annual Revenue Generation by All Categories of Container Movements (Nominal Dollars)

Year	Total Number of Vehicles	Total Movements	Total Revenue Generation
2000	5,430,888	8,783,868	-
2001	5,740,449	9,153,690	-
2002	6,067,654	9,540,977	-
2003	6,413,511	9,946,571	-
2004	6,779,081	10,371,357	-
2005	7,165,488	10,816,261	\$51,439,508
2006	7,573,921	11,282,259	\$53,295,614
2007	8,005,635	11,770,374	\$55,188,331
2008	8,461,956	12,281,681	\$57,114,269
2009	8,944,287	12,817,308	\$59,069,399
2010	9,578,342	13,554,239	\$61,851,183
2011	10,344,609	14,638,578	\$68,135,263
2012	11,172,178	15,809,664	\$75,057,806
2013	12,065,952	17,074,437	\$82,683,679
2014	13,031,228	18,440,392	\$91,084,341
2015	14,073,726	19,915,623	\$100,338,510
2016	15,199,624	21,508,873	\$110,532,902
2017	16,415,594	23,229,583	\$121,763,045
2018	17,728,842	25,087,950	\$134,134,170
2019	19,147,149	27,094,986	\$147,762,202
2020	20,709,780	29,306,253	\$163,017,752
2021	21,745,269	30,771,566	\$174,592,012
2022	22,832,533	32,310,144	\$186,988,045
2023	23,974,160	33,925,651	\$200,264,196
2024	25,172,868	35,621,934	\$214,482,954
2025	26,431,511	37,403,031	\$229,711,244
2026	27,753,086	39,273,182	\$246,020,742
2027	28,643,272	40,532,877	\$258,990,141
2028	28,643,272	40,532,877	\$264,169,944
2029	28,643,272	40,532,877	\$269,453,343
2030	28,643,272	40,532,877	\$274,842,410
2031	28,643,272	40,532,877	\$280,339,258
2032	28,643,272	40,532,877	\$285,946,043
2033	28,643,272	40,532,877	\$291,664,964
2034	28,643,272	40,532,877	\$297,498,263
2035	28,643,272	40,532,877	\$303,448,228
2036	28,643,272	40,532,877	\$309,517,193
2037	28,643,272	40,532,877	\$315,707,537
2038	28,643,272	40,532,877	\$322,021,687
2039	28,643,272	40,532,877	\$328,462,121
2040	28,643,272	40,532,877	\$335,031,364

Sources: Ports of long Beach, Port of Los Angeles, and Cambridge Systematics, Inc.

Debt Service and Coverage for Project Related Bonds (Nominal Dollars)

Year	Net Revenue	Container Fee Bonds				Net Debt Service	Coverage for Container Fee Bonds	Appreciation Bonds Capital	Coverage for Container Fee + Cap Appreciation Bonds	Operating Reserve + Capital Renewal Funds			Residual Cash Flow	Available for Federal Loan
		Principal	Coupon	Interest						Deposit to Funds	Funds Balance	Coverage w/ Funds		
1 2005	51,439,508	6,697,180	6.10%	32,871,673	39,568,853	1.30	-	1.30	11,870,656	11,870,656	1.60	-	-	
2 2006	53,295,614	7,105,707	6.10%	32,463,145	39,568,853	1.35	1,427,774	1.30	12,298,988	24,169,644	1.96	-	-	
3 2007	55,188,331	7,539,156	6.10%	32,029,697	39,568,853	1.39	2,883,710	1.30	12,735,769	36,905,412	2.33	-	-	
4 2008	57,114,269	7,999,044	6.10%	31,569,808	39,568,853	1.44	4,365,200	1.30	13,180,216	50,085,628	2.71	-	-	
5 2009	59,069,399	8,486,986	6.10%	31,081,867	39,568,853	1.49	5,869,147	1.30	2,871,152	52,956,780	2.83	10,760,248	6,803,363	
6 2010	61,851,183	9,004,692	6.10%	30,564,161	39,568,853	1.56	8,008,980	1.30	-	52,956,780	2.90	14,273,350	10,316,465	
7 2011	68,135,263	9,553,978	6.10%	30,014,874	39,568,853	1.72	12,842,888	1.30	-	52,956,780	3.06	15,723,522	11,766,637	
8 2012	75,057,806	10,136,771	6.10%	29,432,082	39,568,853	1.90	18,167,921	1.30	-	52,956,780	3.24	17,321,032	13,364,147	
9 2013	82,683,679	10,755,114	6.10%	28,813,739	39,568,853	2.09	24,033,977	1.30	-	52,956,780	3.43	19,080,849	15,123,964	
10 2014	91,084,341	11,411,176	6.10%	28,157,677	39,568,853	2.30	30,496,025	1.30	-	52,956,780	3.64	21,019,463	17,062,578	
11 2015	100,338,510	12,107,257	6.10%	27,461,595	39,568,853	2.54	37,614,616	1.30	-	52,956,780	3.87	23,155,041	19,198,155	
12 2016	110,532,902	12,845,800	6.10%	26,723,052	39,568,853	2.79	45,456,457	1.30	-	52,956,780	4.13	25,507,593	21,550,708	
13 2017	121,763,045	13,629,394	6.10%	25,939,459	39,568,853	3.08	54,095,028	1.30	-	52,956,780	4.42	28,099,164	24,142,279	
14 2018	134,134,170	14,460,787	6.10%	25,108,066	39,568,853	3.39	63,611,278	1.30	-	52,956,780	4.73	30,954,039	26,997,154	
15 2019	147,762,202	15,342,895	6.10%	24,225,958	39,568,853	3.73	74,094,380	1.30	-	52,956,780	5.07	34,098,970	30,142,084	
16 2020	163,017,752	16,278,812	6.10%	23,290,041	39,568,853	4.12	85,829,418	1.30	-	52,956,780	5.46	37,619,481	33,662,596	
17 2021	174,592,012	17,271,819	6.10%	22,297,033	39,568,853	4.41	94,732,695	1.30	-	52,956,780	5.75	40,290,464	36,333,579	
18 2022	186,988,045	18,325,400	6.10%	21,243,452	39,568,853	4.73	104,268,105	1.30	-	52,956,780	6.06	43,151,087	39,194,202	
19 2023	200,264,196	19,443,250	6.10%	20,125,603	39,568,853	5.06	114,480,529	1.30	-	52,956,780	6.40	46,214,815	42,257,929	
20 2024	214,482,954	20,629,288	6.10%	18,939,565	39,568,853	5.42	125,418,035	1.30	-	52,956,780	6.76	49,496,066	45,539,181	
21 2025	229,711,244	21,887,674	6.10%	17,681,178	39,568,853	5.81	137,132,104	1.30	-	52,956,780	7.14	53,010,287	49,053,402	
22 2026	246,020,742	23,222,822	6.10%	16,346,030	39,568,853	6.22	149,677,872	1.30	-	52,956,780	7.56	56,774,017	52,817,132	
23 2027	258,990,141	24,639,415	6.10%	14,929,438	39,568,853	6.55	159,654,333	1.30	-	52,956,780	7.88	59,766,956	55,810,070	
24 2028	264,169,944	26,142,419	6.10%	13,426,434	39,568,853	6.68	163,638,797	1.30	-	52,956,780	8.01	60,962,295	57,005,409	
25 2029	269,453,343	27,737,106	6.10%	11,831,746	39,568,853	6.81	167,702,950	1.30	-	52,956,780	8.15	62,181,541	58,224,655	
26 2030	274,842,410	29,429,070	6.10%	10,139,783	39,568,853	6.95	171,848,386	1.30	-	52,956,780	8.28	63,425,171	59,468,286	
27 2031	280,339,258	31,224,243	6.10%	8,344,609	39,568,853	7.08	176,076,730	1.30	-	52,956,780	8.42	64,693,675	60,736,790	
28 2032	285,946,043	33,128,922	6.10%	6,439,931	39,568,853	7.23	180,389,642	1.30	-	52,956,780	8.56	65,987,548	62,030,663	
29 2033	291,664,964	35,149,786	6.10%	4,419,066	39,568,853	7.37	184,788,812	1.30	-	52,956,780	8.71	67,307,299	63,350,414	
30 2034	297,498,263	37,293,923	6.10%	2,274,929	39,568,853	7.52	189,275,965	1.30	-	52,956,780	8.86	68,653,445	64,696,560	
31 2035	303,448,228	-	6.10%	-	-	n/a	233,421,714	1.30	-	52,956,780	n/a	70,026,514	70,026,514	
TOTALS	5,210,879,760	538,879,887		648,185,691	1,187,065,578		2,821,303,469			52,956,780		1,149,553,934	1,046,674,917	

I-710 Corridor Improvements

Funds Available for I-710 Improvements

Truck Volumes North of Pacific Coast Highway										
Time Period		I-710		I-47/I-103		Henry Ford Ave/ Alameda St		I-110		
		In	Out	In	Out	In	Out	In	Out	
2010 AM Peak	Number	965	595	207	149	187	101	364	244	
	% of Total	41.9%	36.6%	9.0%	9.2%	8.1%	6.2%	15.8%	15.0%	
2010 Midday Peak	Number	936	1,006	191	173	268	284	420	455	
	% of Total	34.7%	36.0%	7.1%	6.2%	9.9%	10.2%	15.6%	16.3%	
2010 PM Peak	Number	486	760	116	140	139	203	206	352	
	% of Total	33.3%	37.9%	8.0%	7.0%	9.5%	10.1%	14.1%	17.6%	
Sum of Above	Number	2,387	2,361	514	462	594	588	990	1,051	
	% of Total	37.3%	36.8%	8.0%	7.4%	9.3%	9.5%	15.4%	16.4%	

Percent of Funds Available for I-710 Improvements		
Low Estimate	37%	Assume % funds available = % of truck volume north of Pacific Coast Highway on I-710
High Estimate	84%	Assume % funds available = Total less % of truck volume north of Pacific Coast Highway on I-110

Total Funds

Raised: \$1,407,504,694

Funds Available for I-710 Improvements		
Low Estimate	\$521,478,859	Assume % funds available = % of truck volume north of Pacific Coast Highway on I-710
High Estimate	\$1,183,722,688	Assume % funds available = Total less % of truck volume north of Pacific Coast Highway on I-110

Breakdown of Revenue by Financing Mechanism

Calendar Year	NET REVENUE	Container Fee Bonds	Percent of Revenue	Capital Appreciation Bonds	Percent of Revenue	Federal Loan	Percent of Revenue	Revenue Unavailable for Financing	Percent of Revenue
1999	-								
2000	-								
2001	-								
2002	-								
2003	-								
2004	-								
1 2005	51,439,508	39,568,853	77%	-	0%	-	0%	11,870,656	23%
2 2006	53,295,614	39,568,853	74%	1,427,774	3%	-	0%	12,298,988	23%
3 2007	55,188,331	39,568,853	72%	2,883,710	5%	-	0%	12,735,769	23%
4 2008	57,114,269	39,568,853	69%	4,365,200	8%	-	0%	13,180,216	23%
5 2009	59,069,399	39,568,853	67%	5,869,147	10%	6,803,363	12%	6,828,037	12%
6 2010	61,851,183	39,568,853	64%	8,008,980	13%	10,316,465	17%	3,956,885	6%
7 2011	68,135,263	39,568,853	58%	12,842,888	19%	11,766,637	17%	3,956,885	6%
8 2012	75,057,806	39,568,853	53%	18,167,921	24%	13,364,147	18%	3,956,885	5%
9 2013	82,683,679	39,568,853	48%	24,033,977	29%	15,123,964	18%	3,956,885	5%
10 2014	91,084,341	39,568,853	43%	30,496,025	33%	17,062,578	19%	3,956,885	4%
11 2015	100,338,510	39,568,853	39%	37,614,616	37%	19,198,155	19%	3,956,885	4%
12 2016	110,532,902	39,568,853	36%	45,456,457	41%	21,550,708	19%	3,956,885	4%
13 2017	121,763,045	39,568,853	32%	54,095,028	44%	24,142,279	20%	3,956,885	3%
14 2018	134,134,170	39,568,853	29%	63,611,278	47%	26,997,154	20%	3,956,885	3%
15 2019	147,762,202	39,568,853	27%	74,094,380	50%	30,142,084	20%	3,956,885	3%
16 2020	163,017,752	39,568,853	24%	85,829,418	53%	33,662,596	21%	3,956,885	2%
17 2021	174,592,012	39,568,853	23%	94,732,695	54%	36,333,579	21%	3,956,885	2%
18 2022	186,988,045	39,568,853	21%	104,268,105	56%	39,194,202	21%	3,956,885	2%
19 2023	200,264,196	39,568,853	20%	114,480,529	57%	42,257,929	21%	3,956,885	2%

Breakdown of Revenue by Financing Mechanism

Calendar Year	NET REVENUE	Container	Percent	Capital	Percent	Federal	Percent	Revenue	Percent	
		Fee Bonds	of Revenue	Appreciation Bonds	of Revenue	Loan	of Revenue	Unavailable for Financing	of Revenue	
20	2024	214,482,954	39,568,853	18%	125,418,035	58%	45,539,181	21%	3,956,885	2%
21	2025	229,711,244	39,568,853	17%	137,132,104	60%	49,053,402	21%	3,956,885	2%
22	2026	246,020,742	39,568,853	16%	149,677,872	61%	52,817,132	21%	3,956,885	2%
23	2027	258,990,141	39,568,853	15%	159,654,333	62%	55,810,070	22%	3,956,885	2%
24	2028	264,169,944	39,568,853	15%	163,638,797	62%	57,005,409	22%	3,956,885	1%
25	2029	269,453,343	39,568,853	15%	167,702,950	62%	58,224,655	22%	3,956,885	1%
26	2030	274,842,410	39,568,853	14%	171,848,386	63%	59,468,286	22%	3,956,885	1%
27	2031	280,339,258	39,568,853	14%	176,076,730	63%	60,736,790	22%	3,956,885	1%
28	2032	285,946,043	39,568,853	14%	180,389,642	63%	62,030,663	22%	3,956,885	1%
29	2033	291,664,964	39,568,853	14%	184,788,812	63%	63,350,414	22%	3,956,885	1%
30	2034	297,498,263	39,568,853	13%	189,275,965	64%	64,696,560	22%	3,956,885	1%
31	2035	303,448,228	-	0%	233,421,714	77%	70,026,514	23%	-	0%
TOTALS		5,210,879,760	1,187,065,578	23%	2,821,303,469	54%	1,046,674,917	20%	155,835,797	3%

APPENDIX R

I-170 TIER 2 Community Advisory Committee Meeting Agendas, Meeting Minutes

**I-710 Major Corridor Study
TIER 2 COMMUNITY ADVISORY COMMITTEE
Meeting #1**

Tuesday, February 3, 2004
6:30-9:00 p.m.
Progress Park Community Center
15500 Downey Avenue
Paramount, California

AGENDA

- I. Welcome
- II. Roll Call and Introductions
 - Facilitation Team – Susan Gilmore (MTA) & Pat McLaughlin/Sam Gennawey/Esmeralda Garcia (Moore Iacofano Goltsman Inc. – MIG)
 - Roll Call of Committee Members by Self-Introduction
- III. Overview of Agenda and Meeting Objectives - MIG
- IV. Review of I-710 MCS Project– Richard Powers (Gateway Cities COG)
 - History
 - Guiding Principles
- V. CAC Process & Organizational Issues - MIG
 - Tier 2 Committee Purpose
 - Discussion of Member Expectations for the Process and the Corridor
 - Determination of Additional Meeting Protocols: Attendance, Ground Rules, Process for Decision-making & Identification of Consensus Alternative

- VI. Review Tier 1 Process to Date: Tier 1 Presentations of Community-Level Issues and Opportunities:
 - Bell Gardens
 - Carson
 - Commerce
 - East Los Angeles
 - Long Beach
 - Lynwood
 - South Gate

- VI. Identification and Potential Selection of Supplemental Members
 - Review Background of Tier 2 Members
 - Identification and Potential Selection of Supplemental Members

- VII. Identify Additional Committee Information and Resource Needs

- IX. Public Comment – Members of the public wishing to speak before the Committee should fill out a speaker card.

- X. Next Steps & Adjournment

I-710 MAJOR CORRIDOR STUDY

TIER TWO - CORRIDOR LEVEL ADVISORY COMMITTEE MEETING #1

PROGRESS PARK

PARAMOUNT, CALIFORNIA

TUESDAY, FEBRUARY 3, 2004

6:30 – 9:00 P.M.

MEETING NOTES

SUMMARY

On Tuesday, February 3, the Tier Two Corridor Level Advisory Committee met to discuss issues related to the I-710 freeway. The charge of this Committee is to review key local issues and opportunities identified by the Tier One Community Advisory Committees, consider issues of local and regional importance from a corridor-wide perspective and provide recommendations to the I-710 Major Corridor Study Oversight Policy Committee (OPC). Members invited to attend the first meeting of the Tier Two Committee included: 1) the elected chairpersons of the Tier One Committees; 2) the designated representative of each of the other cities in the corridor; 3) members appointed by the OPC to represent business, environmental, labor and academic interests and expertise in the corridor and 4) the chair of the I-710 Technical Advisory Committee. A roster of members who attended is attached. Pat McLaughlin of Moore Iacofano Goltsman, Inc. (MIG) facilitated the discussion and Esmeralda Garcia (MIG) graphically recorded the discussion.

Ms. McLaughlin welcomed the group and introduced the I-710 Major Corridor Study Facilitation Team. She reviewed the agenda and explained the meeting objectives, which included: review the Advisory Committee process, receive an update on the Tier One process to date, discuss member expectations and goals for the process, review member interests and expertise and identify potential additional members to be named to the committee. She introduced Richard Powers, Executive Director of the Gateway Cities Council of Governments, who provided an overview of the I-710 Major Corridor Study history and the Oversight Policy Committee's Guiding Principles.

MEETING DISCUSSION

Expectations

Ms. McLaughlin asked the group to state expectation of the process during the self-introductions. The following outlines the members' expectations of the process.

- Continued public participation/involvement beyond Phase I
 - Business
 - Residents
 - Labor
- Develop partnerships with other corridor communities and stakeholders
- Engage in creative long-term planning for the corridor and communities

- Strengthen political and policy-level support – especially for funding of future improvements
- Consider open space, focusing on preservation and development of partnerships that lead to sustainability
- Look at balancing international trade with the local economy
- Conduct effective regional transportation planning that supports economic balance
- Develop long-term as well as short-term solutions

Issues and Opportunities

The Committee discussed a number of issues related to the I-710 freeway and opportunities to address these issues. *(Note: The issues and opportunities have been organized in categories consistent with the information gathered during the Tier I Committee Meetings.)*

Health

Health is an issue of concern and needs to be identified as an issue of major importance in the Major Corridor Study.

Issue	Opportunity
Pollution from diesel emissions	Pollution reduction strategies <ul style="list-style-type: none"> • Control devices (catalysts), filters, retrofits, and restriction of truck operations • Engine/truck replacements • Conversion programs • Use of alternative fuels (emulsified diesel, biodeisel) • Increase inspection and oversight of polluting trucks
Damage to health from emissions	

Community Impact

Issue	Opportunity
Threat of right-of-way acquisitions especially in communities with low-income residents <ul style="list-style-type: none"> • Homes • Businesses • Parks 	Identify alternative truck routes Design to avoid impacting homes, businesses and parks

Safety

Issue	Opportunity
Increase in truck traffic creates safety hazards	<ul style="list-style-type: none"> • Increased inspections • Regulations • Maintenance programs • Separate truck and auto traffic

Congestion

Issue	Opportunity
Increase in goods movement	Consideration of 24/7 port operations
	Sharing impacts of corridor and balancing movement of goods between trucks & ships in the south and trucks & rail in the north
	Local traffic mitigation as a short term solutions
	Use other freeways as routes for trucks
	Use of other ports

Other

Issue	Opportunity
	Working with labor as a resource during construction phase

Ground Rules, Group Processes and Protocols

Ms. McLaughlin asked the group to develop a set of group ground rules and guidelines for processes and protocols. In response, committee members recommended the following:

- Meetings will begin and end on time
- The COG will send committee members materials in advance of the meetings
- Given the short timeframe and importance of meetings, members will make all efforts to attend. However, if absolutely necessary, substitutes may attend as authorized by their appointing authority:
 - For Tier One: The Tier One Committee
 - For Other Cities: The City appointing authority (Council)
 - For OPC Appointees: No alternates were anticipated or appointed by the OPC.

Additional Representatives

After reviewing member expertise and interests, and following public comment, the Committee unanimously voted in Angelo Logan as an additional member representing the Coalition for Environmental Health and Justice.

Expert Resources

The Committee requested that representatives from the following be invited to attend the regular meetings of Tier Two as expert resources:

- BNSF & UP Railroads
- Alameda Corridor Transportation Authority (ACTA)
- California Highway Patrol (CHP)
- California Department of Transportation (Caltrans)
- Southern California Air Quality Management District (AQMD)
- Port of Los Angeles and Long Beach representatives

Resource Presentations

In addition, the Committee requested that the COG arrange for the following resource presentations to the Committee:

- State legislation and legislative remedies
- Alternative fuels
- Regulatory processes and opportunities

Additional Documentation

The Committee requested that the COG provide the following additional resource documents prior to the next Tier Two meeting:

- The five alternatives considered by the Oversight Policy Committee in Spring of 2003
- Environmental Justice Guidelines

Next Meetings

The Committee determined that the majority of members would prefer the following meeting dates:

- Thursday, February 26
- Thursday, March 11
- Thursday, March 25 (if needed)

All meetings will be held starting at 6:30 p.m. and ending at 9:00 p.m.

Public Comment

One public comment concerning the need for environmental justice awareness was received.

Adjournment

The meeting adjourned at 9:15 p.m.

**TIER II COMMUNITY ADVSORY COMMITTEE
FOR THE I-710 MAJOR CORRIDOR STUDY
Tuesday, February 3, 2004**

**Progress Park
15500 Downey Avenue, Paramount, California**

SIGN-IN SHEET

NAME	SIGNATURE
1. Glenna Amos	<i>Glenna Amos</i> (email) glenna.amos@eddon.com
2. Harold Arsenian	<i>Harold Arsenian</i> (E-mail) Harold.Arsenian@ATMail.com
3. Ed Avol	<i>Ed Avol</i> (email) ed.avol@usc.edu
4. Hamid Bahadori	<i>Hamid Bahadori</i> (E-mail) h.bahadori@calit2.org
5. Gerald Burgess	<i>Gerald Burgess</i> (E-mail) g.burgess@compton.edu
6. Victor Caballero	<i>Victor Caballero</i> (E-mail) VCABALLERO@FIESTAATAMI.COM
7. Malcolm Carson	<i>Malcolm Carson</i> (mail) (email)
8. Louis Diaz	<i>Louis Diaz</i> (MAIL)
9. Clifford Dunbar	<i>Clifford Dunbar</i>
10. Bob Eula	<i>Bob Eula</i>
11. Belinda Faustinos	<i>Belinda Faustinos</i> (email) bfaustinos@mea.org
12. Larry Galvan	
13. Steve Goodling	<i>Steve Goodling</i> (E-MAIL)
14. Fernando Guerra	
15. Francisco Gutierrez	
16. Patricia Herrera	<i>Patricia Herrera</i> (mail)
17. Alan Hose	<i>Alan Hose</i> (Mail & Phone Call)
18. Randy Kendrick	<i>Randy Kendrick</i> (E-mail) r.kendrick@calit2.org
19. Joseph Magaddino	<i>Joseph Magaddino</i> (email) magaddino@csulb.edu
20. Domenick Miretti	
21. Elisa Nicholas	<i>Elisa Nicholas</i>
22. Harold Omel	<i>Harold Omel</i> (E-MAIL) P.A.O.M.E.L.COM
23. Servando Ornelas	<i>Servando Ornelas</i> (E-mail)
24. Bill Pagett	<i>Bill Pagett</i> (E-mail) bpagett@Paramount.ca.gov
25. Noel Park	<i>Noel Park</i> (E-mail) noel.park@mea.org
26. Ray Park	<i>Ray Park</i> (E-mail) ray.park@mea.org
27. Luis Romero	<i>Luis Romero</i> (E-mail) lromero@LAUSD.k12.org
28. Patty Senecal	<i>Patty Senecal</i> (E-mail) psenecal@TRANSOPORT.MAIL.CA.GOV
29. Richard Slawson	
30. Harold Tseklenis	<i>Harold Tseklenis</i> (E-mail) h.tseklenis@mea.org
31. Linda Vitale	
32. Rod White	<i>Rod White</i> (mail)
33. Harold Williams	<i>Harold Williams</i> (E-mail)
34. Charles Woo	

**I-710 Major Corridor Study
TIER 2 COMMUNITY ADVISORY COMMITTEE
Meeting #2**

Thursday, February 26, 2004
6:30-9:00 p.m.
Teamsters Building Auditorium
3888 Cherry Avenue
Long Beach, California

AGENDA

6:30 – 6:35 p.m.	I.	Introductions and Roll Call by Self-Introduction	Pat McLaughlin, MIG
6:35 – 6:40 p.m.	II.	Overview of Agenda	Pat McLaughlin
6:40 – 7:00 p.m.	III.	Resource Presentations <ul style="list-style-type: none">• Alameda Corridor• Shipping Trends	ACTA (invited) Joe Maggadino
7:00 – 7:10 p.m.	IV.	Recap of February 3 Tier 2 Meeting <ul style="list-style-type: none">• Approval of Meeting Summary	Pat McLaughlin
7:10 – 8:40 p.m.	V.	City and Corridor Issues and Opportunities <ul style="list-style-type: none">• Issues and Opportunities - Individual City/Tier 1 Representatives• Committee Commentary• Emerging Opportunities• Identification of Additional Information and Facts Needed	Committee Members (Facilitated by Sam Gennawey, MIG)
8:40 - 8:55 p.m.	VI.	Public Comment	
8:55 – 9:00 p.m.	VII.	Summary and Next Steps	Sam Gennawey Pat McLaughlin

IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE COG OFFICE AT (562) 663-6850. NOTIFICATION 48 HOURS PRIOR TO THE MEETING WILL ENABLE THE COUNCIL OF GOVERNMENTS TO MAKE REASONABLE ARRANGEMENT TO ENSURE ACCESSIBILITY TO THIS MEETING.

**I-710 MAJOR CORRIDOR STUDY
TIER 2 COMMUNITY ADVISORY COMMITTEE
MEETING #2 SUMMARY
FEBRUARY 26, 2004**

INTRODUCTIONS AND REVIEW OF AGENDA

Facilitator Pat McLaughlin of MIG opened the meeting and asked Tier 2 Committee members to introduce themselves, including the city or organization they represented. She reviewed the agenda and introduced the evening's two resource presentations – Dr. Joe Maggadino of Cal State University Long Beach and Art Goodwin of the Alameda Corridor Transportation Authority and author of the Q&A document included in the Committee's agenda packet.

RECAP OF FEBRUARY 3, 2004 TIER 2 MEETING AND APPROVAL OF MEETING SUMMARY

Ms. McLaughlin briefly reviewed the outcomes from the Tier 2 meeting. Two representatives of the Committee expressed concerns that the meeting notes did not adequately reflect the strength and nature of comments on certain issues – most notably health issues. The Committee deferred approval of the meeting notes to the March 11 Committee meeting to allow MIG to amend them and add comments submitted by the Committee.

ISSUES AND OPPORTUNITIES DISCUSSION

Ms. McLaughlin introduced Sam Gennaway from MIG as the discussion facilitator for the evening. Mr. Gennaway reviewed the objectives for the discussion, which were:

- Document all of the issues along the I-710 corridor by individual City and corridorwide
- Determine commonalities of issues and begin discussion of potential opportunities, leading to the next meeting's discussion of common views of opportunities and solution, along with identification of differences.

He stated that cities would be called on in alphabetical order to outline their issues and opportunities and that the expert and interest group representatives on the Committee would then be asked to give their perspective on issues. Following is a synopsis of individual and common issues raised, along with potential opportunities.

City of Bell

Not present

City of Bell Gardens

- The three greatest concerns expressed by community members have been:
 - Health and air pollution
 - Safety
 - Property acquisition
- Congestion on arterials from neighboring cities is also a significant concern
- Trucks do not adhere to designated routes – enforcement is needed
- Speed limits should be enforced
- There is concern about impacts on the City's park and casino

- Landscaping is needed along the freeway

City of Carson

- What the 710 is to Long Beach, the 110 is to Carson
- The Alameda Corridor causes problems for the City
- The potential bridge extension is a concern
- Too much truck traffic causes air and noise pollution
- Traffic on Alameda Boulevard impacts residents

City of Commerce

- Pollution and health impacts are the #1 concern
- The 710 and Interstate 5 improvements threaten homes and parks, which are already in short supply in the corridor
- Commerce and the area are becoming an intermodal hub, causing a whole range of problems: light and noise, safety, impacts on land and impacts on the local economy
- Rail yards are full to capacity
 - Access causes congestion. Atlantic/Bandini need to be reconfigured.
 - Washington Boulevard is backed up with trucks past Slauson

City of Compton

- There is a lot of concern with the human impact of the 710 corridor
- There is a housing crisis and displacement and taking of homes is making the situation worse
- The impact to businesses will “run down” our community
- Sound barriers are needed
- Compton Creek is a resource that needs to be considered
- Overall, natural resource impacts, including urban runoff, are concerns
- There is impact beyond the 710 – for example, what happens to the 91 corridor?
- Safety is a concern for our residents
- The impact to arterials if there are improvements to the freeway
- The economic benefits to the corridor communities need to be addressed

City of Cudahy

- The 710 has a negative impact on the community
- Use of the Alameda Corridor is a concern – we do not understand why it has not met public expectations

City of Downey

- Health impacts are a concern
- There is no access to the City of Downey from the West
- Cut through truck traffic causes safety and congestion problems

Community of East Los Angeles

- Homes and business should not be taken
- The 710 has a negative impact on Brooklyn and Cesar Chavez

- The 3rd Street exit should be changed so that a hard right is made on 3rd.
- Land acquisition that was planned moves the freeway closer to homes
 - There are already too many community facilities close to the freeway
- Air quality and health are great concerns and should be addressed through alternative fuels and enforcement
- Enforcement of the speed limit is lacking
- Goods movement should be diverted to other ports
- Policies should encourage 24/7 port operation
- Policies should encourage use of the Alameda Corridor
- Provide local businesses with incentives to accept delivery during non-peak hours
- Any expansion to I-710 would create a bottleneck at ELA

City of Huntington Park

Not present

City of Long Beach

- Health is the #1 concern
 - This includes noise impacts
- The #2 issue is preservation of homes
- Port expansion is a concern to citizens. Improvement to the 710 could enable the Port to expand further
- Some solutions to pollution are:
 - Decrease the idling of ships and implement a clean ship policy
 - Reduce truck and auto emissions
- Inspection is spotty at the ports, which impacts security
- Refineries create a plume from the ports
- Aesthetics of the corridor should be improved.
- Long Beach is developing design concepts which should be incorporated
- San Pedro and Wilmington are impacted by ports and 710 Freeway issues and these impacts should be considered

City of Lynwood

- Concerns were submitted at the last meeting (*note: a copy of the summary is attached*)
- Health is the #1 issue
- Safety and community impacts are also concerns.
- Access to our city is an issue – there is only one way from the 105 freeway
- A light rail line should be part of any improvements to the freeway

City of Maywood

Not Present

City of Paramount

Not Present

City of South Gate

- Health is a large concern
- Ancillary roads are in poor repair:
 - Garfield
 - Alameda
 - Lakewood
 - Firestone
- Signals should be synchronized
- The Metro Rapid idea should be applied to trucks
- Port expansion can have negative effects on cities
- Balance economic development is needed – warehouse industries are not the best businesses for our community
- It is important to pay attention to aesthetics, which are important to keep and attract residents

City of Vernon

- Railyards are eating up property
- Parking lots do not equal jobs
- Trucks should be required to have clean fuels
- There should be dedicated truckways into railyards – BNSF and UP should be at the table
- There should be a near-dock intermodal facility
- The Ports should have 24/7 operations
- The City's issues, raised in numerical order are:
 1. Dedicated truck lanes
 2. Near dock state of the art intermodal facility
 3. Reconfiguration of Atlantic and Bandini
 4. Heavy impact on Washington Blvd.
 5. Need for an exit at Slauson
 6. 24/7 port operations with goods movement from harbor to intermodal facilities from 11-4 AM
 7. Too many warehouses as a result of growing imports
 8. The inter modal facility at the USAF site at Bandini and Atlantic

ISSUES IDENTIFIED BY EXPERT AND INTEREST GROUP REPRESENTATIVES

The expert and interest group representatives were asked to provide their insight on issues that had been raised – and any additional issues that needed to be considered by the committee as a whole. The following is a synopsis of these observations by category:

Rivers, Watersheds and Open Space

- Runoff and watershed health need to be addressed
- Permeable surfaces should be retained
- The 710 should be viewed as a way to increase open space with the Los Angeles River, including bikeways and pedestrian access
- Improvements should create linkages with open space and river property
- Schools, parks and open space are scarce and important resources for communities and children in the corridor – special care should be placed on protecting them.

Community Engagement and Committee Process

- There should be meaningful participation in the 710 corridor
 - There is concern with a consultant-run process
 - The group should move forward, not continue to just re-iterate issues discussed at the last meeting
- The ports should be at the Committee meetings
- There are global issues such as the changing economy, increase in imports and pollution that are not solvable by simply addressing them via 710 Freeway improvements or port restrictions. The Committee should also focus on more immediate, implementable improvements such as safety barriers, traffic and neighborhood intrusion of trucks.
- Set long term goals and develop immediate solutions to address congestion
- This is a corridor. As such, we should improve transit access as well.

Health Impacts

- The #1 issue is air quality and health
- Widening the freeway only brings it closer to homes, schools and parks, exacerbating the problem
- There should be a policy to deal with the impacts before expanding the freeway: health, air quality, the community
- Health costs should be calculated and their offset on economic benefits should be measured
- Polluters should be required to subsidize community and health programs required as a result of their pollution
- The pollution issues is national – there needs to be action in Washington, D.C on aggressive pollution reduction strategies
- Clean fuel initiatives should include trucks, trains and ships
 - All vehicles are polluters
- California vehicles are not the largest part of the problem – vehicles from other states and nations are a large part of the problem
- Truck replacement is a start but we need to accelerate it
- Health impacts of moving from the freeway to arterials should be considered
- Noise is a considerable issue corridor wide

Jobs and Economic Development

- Impact on jobs from warehousing and imports is a significant negative
- We should require companies who locate here to employ here
- There is a question as to whether this shift to warehousing and distribution is a sustainable economy.
- We need to determine the net impact of international trade on communities – is it a positive or a negative?
- There are significant “upstream impacts” of port expansion to accommodate the increase in imports – specifically, replacement of manufacturing with warehousing
- The corridor is very important to the economic health of the City of Long Beach. The perception of accessibility to the larger Los Angeles urban area is key.

Public Policy

- NAFTA has created the need for more cross-border controls
- There is an issue of whether to accommodate the growth or prevent it
- One argument is that trucks will continue to move goods with or without imports into the ports.
- Alternative locations for imports will merely change the direction of flow – it is currently from the port to Los Angeles and national consumers. Stemming port growth will only change some of the flow from the Inland Empire into the Los Angeles area
- One opportunity is to re-direct trans-ship containers
- Policies for implementation with the corridor include:
 - 24/7 Port operation
 - Use caps on the Alameda Corridor
 - Alternate parking for trucks
 - Labor policies

Other Issues for Consideration

- East-west and north-south arterials are part of the 710 Plan
- Signal synchronization is being implemented and should be complete within the 5-year timeframe.
- Homeland security at the ports is a concern

PUBLIC COMMENT

One public comment was received.

MEETING CONCLUSION

The meeting concluded at 9:15 p.m. The next two meetings are scheduled for Thursday, March 11 and Thursday, April 1 at 6:30 p.m. in the Teamsters Building Auditorium.

**TIER II COMMUNITY ADVISORY COMMITTEE
FOR THE I-710 MAJOR CORRIDOR STUDY
Thursday, February 26, 2004**

Teamsters Local 848
3888 Cherry Avenue, Long Beach

SIGN-IN SHEET

NAME	SIGNATURE
1. Glenna Amos	<i>Glenna Amos</i>
2. Harold Arsenian	<i>Harold Arsenian</i>
3. Ed Avol	<i>Ed Avol</i>
4. Hamid Bahadori	<i>Hamid Bahadori</i>
5. Gerald Burgess	
6. Victor Caballero	
7. Malcolm Carson	<i>J.M. Carson</i>
8. Roberto Chavez	<i>Roberto Chavez</i>
9. Louis Diaz	<i>Louis Diaz</i>
10. Clifford Dunbar	<i>Clifford Dunbar</i>
11. Bob Eula	<i>Bob Eula</i>
12. Belinda Faustinos	PRESENT
13. Larry Galvan	<i>Larry Galvan</i>
14. Steve Goodling	<i>Paulina Mason</i>
15. Fernando Guerra	
16. Patricia Herrera	
17. Alan Hose	<i>Alan Hose</i>
18. Randy Kendrick	
19. Angelo Logan	<i>Angelo Logan</i>
20. Joseph Magaddino	<i>Joseph Magaddino</i>
21. Domenick Miretti	<i>Domenick Miretti</i>
22. Elisa Nicholas	<i>Elisa Nicholas</i>
23. Harold Omel	

Tier II Community Advisory Committee for the I-170 Major Corridor Study
 February 26, 2004
 Sign-in Sheet Continued.

	<u>NAME</u>	<u>SIGNATURE</u>
24.	Servando Ornelas	<i>Servando Ornelas</i>
25.	Bill Pagett	<i>Bill Pagett</i>
26.	Noel Park	<i>Noel Park</i>
27.	Ray Park	<i>Ray Park</i>
28.	Luis Romero	<i>Luis Romero</i>
29.	Patty Senecal	<i>Patty Senecal</i>
30.	Richard Slawson	
31.	Harold Tseklenis	<i>Harold Tseklenis</i>
32.	Linda Vitale	<i>Linda Vitale</i>
33.	Rod White	<i>Rod White</i>
34.	Harold Williams	
35.	Charles Woo	

OTHER ATTENDEES:

	<u>NAME</u>	<u>SIGNATURE</u>
1.	<i>ED TERRIS from Servando</i>	<i>Ed Terris</i>
2.		
3.		
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**I-710 Corridor Study Facilitation
TIER 2 COMMUNITY ADVISORY COMMITTEE
Meeting #3**

Thursday, March 11, 2004
6:30-9:00 p.m.
Teamsters Building Auditorium
3888 Cherry Avenue
Long Beach, California

AGENDA

- | | | | |
|------------------|------|--|----------------------|
| 6:30 – 6:35 p.m. | I. | Introductions and Roll Call by Self-Introduction | |
| 6:35 – 6:40 p.m. | II. | Review and Approval of Meeting #1 Summary, as Amended and Meeting #2 Summary | |
| 6:40 – 6:45 p.m. | III. | Process Overview and Next Steps | Sam Gennawey,
MIG |
| 6:45 – 7:00 p.m. | IV. | Review, Confirmation and Outline of Issues Defined at February 26 Meeting <ul style="list-style-type: none">• Health & Air Quality• Safety• Jobs and Economic Development• Congestion & Mobility• Design Concepts• Community Impacts and Enhancements• Other | Sam Gennawey,
MIG |

7:00 – 8:30 p.m. V. Review and Discussion of Ideas & Opportunities: Proposals to Date and Additional recommendations Proposed by Committee

- Health & Air Quality
- Safety
- Jobs and Economic Development

8:30 – 8:45 p.m. VI. Public Comment

8:45 – 9:00 p.m. VII. Meeting Recap and Next Steps

IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE COG OFFICE AT (562) 663-6850. NOTIFICATION 48 HOURS PRIOR TO THE MEETING WILL ENABLE THE COUNCIL OF GOVERNMENTS TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.

***I I-710 MAJOR CORRIDOR STUDY
TIER 2 COMMUNITY ADVISORY COMMITTEE
MEETING #3 SUMMARY
MARCH 11, 2004***

INTRODUCTIONS AND REVIEW OF THE AGENDA

The third meeting of the Tier 2 Community Advisory Committee Meeting was held on Thursday, March 11, 2004 at the Teamsters Building Auditorium in Long Beach. Facilitator Sam Gennawey, of Moore Iacofano Goltsman, Inc., opened the meeting at 6:30 p.m. by welcoming participants and asking them to introduce themselves and state the city or organization they represent. Mr. Gennawey then reviewed the agenda with the group. The following resource persons were introduced: Jerry Wood, Engineering Consultant, Gateway COG; California Highway Patrol Officers Morrison and Howard; T.L. Garrett, Port of Los Angeles and Kerry Cartwright, Port of Long Beach; Richard Hollingsworth, Gateway Cities Partnership; Carol Gomez, AQMD; and Mario Gutierrez, California Department of Transportation.

REVIEW AND APPROVAL OF FEBRUARY 3, 2004 TIER 2 MEETING SUMMARY

Mr. Gennawey reviewed the first meeting's summary with the committee. It was suggested that the summary be amended as follows: Under the issue "Pollution from diesel emissions" the opportunity, "Increase inspections and oversight of polluting trucks", should be included as an additional bullet. All of the opportunities enumerated would then relate to both issues listed, "Pollution from diesel emissions," and "Damage to health from emissions".

REVIEW AND APPROVAL OF FEBRUARY 26, 2004 TIER 2 MEETING SUMMARY

The Committee then reviewed the summary from the second meeting. It was recommended that the summary be amended to include the name of Belinda Faustinos, who was in attendance on February 26, 2004 but did not appear as present on the sign-in sheet.

MEETING DISCUSSION

Mr. Gennawey reviewed the categories that the Committee would use to create a framework, or outline, for their recommendations for resolving key issues and concerns. The group concurred with the first six categories of issues (see Issues Categories below). Members then recommended adding two more categories, Noise and Decision-making Process. They further concurred that the category of Community Impacts, Enhancements and Quality of Life would include issues relating to open space and that Health and Air Quality would include dust and certain noise impacts, although the issue of noise was significant enough to warrant a separate category.

ISSUE CATEGORIES

1. Health and Air Quality (includes dust)
2. Safety
3. Jobs and Economic Development
4. Congestion and Mobility
5. Design Concepts
6. Community Impacts, Enhancements and Quality of Life (Open Space will be included in this category)
7. Noise

8. Decisionmaking Process: Roles, Involvement, and Environmental Justice

Mr. Gennawey then facilitated the discussion, which began with the committee's top priority issue, Health and Air Quality.

HEALTH AND AIR QUALITY

The Committee began with a discussion of aspects of the issue that should be emphasized. These included:

- Health impacts of pollution on children, particularly those who attend schools and day care centers located along the corridor.
- The health community is increasingly concerned that a large number of very small particles of pollutants can enter the respiratory system and lead to damage to the cellular system.
- Focus of the committee's efforts should be on reduction of pollution; too much emphasis is placed on "no net increase."
- An overall public policy question, "How much the L.A. basin carry?" should be addressed.
- It is important to create a baseline to determine an accurate measure of the level of pollution.
- Root causes of pollution include Port expansion and the increase in the amount of imported goods.
 - There is an overall increase in truck traffic as a result of increased imports and shipping.
 - All transportation corridors are impacted.
- Federal action is needed to enact legislation to address pollution.
 - Some have observed that the Southeast Los Angeles does not comply with Federal Standards for Air Quality.
- Overall reduction of truck and shipping pollutants is needed for all modes, including:
 - Trucks
 - Equipment
 - Trains
 - Boats and Ships
- Hidden costs, including negative health effects, are currently paid for by taxpayers – and by communities along the corridor.
- If 24/7 is adopted, it is important to ensure Port efficiency so that trucks can move in and out quickly.
 - The trucking industry supports 24/7 under these conditions.

Potential Opportunities, Strategies and Solutions

Mr. Gennawey facilitated, and Paul Tuttle of MIG graphically recorded, the Committee's identification of potential opportunities, strategies and recommendations to address the Health and Air Quality issue.

Impact Analysis

- Define mass and type of particulates that need to be reduced and measure the sources.
- Conduct a study of level of impacts from increased trucking and shipping.
- Direct funds for a study of the feasibility of handling increased goods coming to into the Ports of Long Beach and Los Angeles before determining improvements
 - Study alternatives to reduce imports into the community and the Port.

- Develop long-term measures to deal with impacts.
- All EIR studies should include:
 - Emission impacts of all modes of transportation, including trucks, buses, rail and yard equipment
 - Impacts on school children riding buses on public thoroughfares
 - Impacts on all schools, daycare and public facilities serving children within ¼ mile of the I-710

Management and Enforcement

- Use enforcement (such as penalties), inspections, and incentives to control emissions:
 - First, identify the baseline
 - Implement measures to comply with existing standards
 - Determine the levels of overall reduction that is required
 - Ensure actual reduction, not just “no net increase”
 - Since the issue requires controls beyond the local level, state and federal legislation is needed.
- Require ships to use electrical power when in port.
- Infrastructure Improvements
- Install permanent monitoring stations to measure truck and train emission levels. (Current temporary stations provide inadequate and inconsistent levels of information).
- Implement road improvements.
 - Improve road surfaces
 - Improve roadway alignment

Alternative Fuels

- Make the use of alternative fuels a priority.
 - Reduce use of out-of-state fuel.
 - Couple this strategy with efficiency and alternative fuel requirements.
 - Implement Federal rules identified under MATES II to control trucks.
- Establish a fund that all truckers or shippers must pay into, with funds repaid in the form of rebates, to those who adopt the use of clean air engines for vehicles.
 - Ensure that this program accomplishes the goal of decreasing pollution rather than a pay-to-pollute program.

Fleet Modernization

- Continue programs to upgrade trucks, such as the Fleet Modernization Clean Air Program.
 - Require that only 1993 and newer trucks be used at the Port.
 - Extend programs to retrofit engines of trucks produced before 1984 retrofit engines of trucks produced through 1984, if possible.

Fees and Incentives

- Include incentives to change vehicle operations. Consider modeling a fee or tax rebate structure after the one used for recycling fees.
- Levy fees on containers to fund air quality improvements and hidden costs:
 - Health care

- Alternative fuels
- Construction of I-710 infrastructure
- Beautification of the corridor, including tree-planting to help improve air quality
- Allow fees and revenues to stay local to deal with area impacts.
- Address current barriers in foreign trade policy (e.g. taxes not allowed) and re-interpret as port fees.
- Require that all vehicles, trucks, ships and trains serving the Port use clean-burning fuel engines.
 - If an incremental approach is used, start with requiring bio-diesel fuel.

Legislative and Policy Actions

- Support pending Bills in the Transportation Committee:
 - AB 2041 (Amend to make sure money stays local, and, in particular, is earmarked for 710 corridor communities)
 - AB 2042 (Zero net increase in air pollution for any expansion at the ports)
 - AB 2043 (Maritime Task Force)
- The Committee should lobby elected officials, at both local and federal (Congressional) levels to implement legislation that funds programs to alleviate air pollution.
 - Get the community involved so that they can advocate for needed legislation.

Conditions for Approval of Improvements

The Committee discussed a further recommendation that conditions for approval be attached to future expansion of the I-710, specifically making approval of new I-710 improvements contingent on first installing measures to reduce air quality impacts. Other Committee members expressed concern that, given the long lead time for planning and designing major capital improvements, that consideration be given to initiation of planning and design while air quality improvements were still being implemented.

AIR QUALITY REPORT

Carol Gomez, of the AQMD, described the MATES II study. The study provided the basis to implement truck rules and regulations to help alleviate the most heavily polluted areas in the LA basin, including the I-710 corridor communities.

QUESTION & COMMENTS

A committee member asked whether air quality of southeast LA is out of compliance with federal standards. Ms. Gomez stated that she would get the answer to the question and that it would be supplied at the next meeting.

HIGHWAY SAFETY

Richard Powers, of the Gateway Cities Council of Government, provided a presentation of Safety Initiatives adopted and promoted by the Oversight Policy Committee (OPC) and currently being implemented. Mr. Powers indicated that these initiatives had been developed subsequent to an I-710 safety workshop sponsored by the OPC in which Caltrans and the California Highway Patrol (CHP). He described the progress on the six elements of the recommendations.

1. Public education and awareness
 - Materials are being produced.

2. Enhanced enforcement
 - CHP has stepped up targeted enforcement
3. Concrete median barriers
 - Caltrans has funding to install concrete median barriers along the entire length of the freeway; these will be installed in phases.
4. Truck inspection facilities
 - Design concepts are being developed.
5. Technology approaches
 - These are designed to improve traffic flow and also reduce emissions through real-time information.
6. Improve infrastructure
 - Specific safety-related design improvements are being identified as part of the current I-710 Major Corridor Study.

Potential Opportunities, Strategies and Solutions

In discussion of potential opportunities, strategies and recommendations to deal with the issue of Safety, the Committee expressed support for safety improvements recommended by the OPC and made the following additional recommendations:

Impact Analysis

- Explore the rate structure and business models of trucks leaving ports, to learn more about potential obstacles for compliance with safety standards.

Management and Enforcement

- Limit truck traffic during peak hours.
- Increase enforcement of autos, specifically reduction of speeding.
- Target enforcement of car drivers, who are more likely to cause accidents than truck drivers.
- Meter truck movements out of the Ports to control the flow of trucks onto the freeway.

Infrastructure Improvements

- Increase the height of median barriers to achieve a twofold objective: increased protection and decreased slowing to view accidents.
- Separate trucks from cars.
- Consider building elevated roadways or truck lane in the riverbed.
 - However, the riverbed should be kept and improved as an open space river corridor, to increase green space as much as possible.
- Improve lighting and signage.
- Provide sound walls to reduce noise impacts to neighborhoods.
- Improve infrastructure, particularly off-ramps, shoulders, etc. Specific areas include:
 - The I-105/710 interchange
 - Atlantic Boulevard
 - Lynwood Avenue
 - Washington Boulevard/710 Interchange.
- Eliminate unnecessary off-ramps.
- Implement diamond rather than cloverleaf interchanges.

- Re-surface the I-710.

Operational Improvements

- Expand Big Rig Tow program. (A demonstration program to get disabled trucks off freeway as quickly as possible).
- Increase efforts to re-route traffic when freeway segments are shut down.
- Synchronize lights on Alameda and all major thoroughfares.
- Turn off CHP patrol car lights to limit rubbernecking.

Fees and Incentives

- Provide incentives to encourage more people use public transportation.
 - MTA should have an opportunity to discuss their efforts to improve and encourage the use of public transportation.
- Secure funding to implement the median barriers by 2007.
- Install a meter system (similar to the on-ramp metering) to control trucks coming out of the port along with incentives or penalties to support the system.
- Extend support for a truck replacement program to get newer and safer trucks.
 - Revise the rate structure to support truck upgrades.

PUBLIC COMMENTS

Mr. Gennawey noted that several members of the public had submitted requests to speak. Comments and suggestions presented were:

Julia Asmus, Ron Hoyt (Bell Gardens residents)

- There should be no expansion or property takes for freeway improvements

Ron Hoyt

- Autos and trucks going to the port on I-710 cause problems. In the short-term:
 - Restrict all 3-axles vehicles to night hours only
 - Restrict 18-wheel trucks from using the I-710 during rush hours
 - Port operations should be extended 24-7
 - Increase enforcement of speed limits and trucks inspection.
- In the long-term:
 - Use DWP right-of-way along the riverbed for expansion
 - Relocate power lines in Bell Gardens area to allow use of the riverbed
 - Implement a (future-oriented) automated conveyor system to transport trailers to rail yards

Clara Solis

- Freeway exits should be improved on residential streets to reduce speeds. Improvements should include speed bumps, double fines for speeding in residential neighborhoods and implementation of regular monitoring systems.
- Conduct additional education for car drivers should be educated about how long it takes trucks to stop; consider using comic strips.

Miguel Rodriguez

- Health studies should look at 1-mile radius impacts along the corridor and prevailing winds should be taken into account.

Tier 2 Committee Member Comments

- Dr. Avol noted that at 100 meters (about 1/8 of a mile) concentration of particles drops off to ambient levels. Schools and daycare centers are at higher risk, based on the proximity. There is little benefit in going beyond 100 meters for specific corridor measurements.
- Mr. Carson noted that Dr. Ed Blakely, urban planning professor at Berkeley, has developed drawings of a conveyor system for the Port of Oakland. He suggested that staff locate the drawings.

JOBS AND ECONOMIC DEVELOPMENT

Richard Hollingsworth, economic development for Gateway COG, made a presentation regarding Jobs and Economic Development. Mr. Hollingsworth began by stating that his professional role is to help ensure sustainability for the area by examining three aspects: 1) the economy, 2) the environment, and 3) equity. He made the point that excessive use of the freeway is fueled by population growth among the area's residents, as well. Port growth is not the only factor. He suggested that the Committee consider the following questions:

- How much larger do we want to get?
- What kind of transportation hub do we wish to be?
- What do we wish to be in the future?

Mr. Hollingsworth stated that pollution absolutely must be addressed; he pointed out that the jobs provided by the logistics industry fit the education level of the majority of people who live in communities surrounding the I-710, and that those entry-level jobs provide opportunities for advancement into middle class income levels. However, the real costs of providing those jobs are not borne by the logistics industry, including hidden costs such as damage to health, lost productivity due to congestion.

Mr. Hollingsworth suggested that the Tier 2 Committee needed additional economic data to make wise decisions. He suggested that a cost-benefit analysis be conducted in the next phase to determine the true costs of balancing the elements of the economy, the environment, and equity. Through the cost-benefits analysis, it would be possible to accurately highlight the costs that this region is paying for benefits that other less-impacted areas—including the entire nation--enjoys.

COMMITTEE COMMENTS

The Committee concluded with additional comments under Jobs and Economic Development

- These are global and nationwide issues that other ports throughout the county and world are dealing with.
- A breakdown of jobs created by the logistics industry for each city, area/location is needed.

MEETING CONCLUSION

The meeting ended at 9 pm. The next meeting is scheduled for April 1, 2004. Mr. Gennaway stated that the next meeting would begin with a discussion of potential opportunities and solutions under

Jobs and Economic Development and would also identify potential opportunities and solutions under other areas identified by the Committee.

**I-710 Corridor Study Facilitation
TIER 2 COMMUNITY ADVISORY COMMITTEE
Meeting #4**

Thursday, April 1, 2004
6:30-9:00 p.m.
Teamsters Building Auditorium
3888 Cherry Avenue
Long Beach, California

AGENDA

- 6:30 – 6:35 p.m. I. Introductions and Roll Call by Self-Introduction
- 6:35 – 6:40 p.m. II. Review and Approval of Meeting #3 Summary
- 6:40 – 6:45 p.m. III. Process Overview and Next Steps Sam Gennawey, MIG
- 6:45 – 8:30 p.m. IV. Review and Discussion of Ideas & Opportunities: Proposals to Date and Additional Recommendations Proposed by Committee: Sam Gennawey, MIG
- Jobs and Economic Development
 - Noise
 - Congestion & Mobility
- Additional Topics for Discussion, As Time Permits:
- Community Impacts, Enhancements and Quality of Life, Including Open Space
 - Design Concepts
 - Processes for Decisionmaking: Environmental Justice, Roles and Future Involvement
- 8:30 – 8:45 p.m. VI. Public Comment
- 8:45 – 9:00 p.m. VII. Meeting Recap and Next Steps

IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS

MEETING, PLEASE CONTACT THE COG OFFICE AT (562) 663-6850.
NOTIFICATION 48 HOURS PRIOR TO THE MEETING WILL ENABLE
THE COUNCIL OF GOVERNMENTS TO MAKE REASONABLE
ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.

***I I-710 MAJOR CORRIDOR STUDY
TIER 2 COMMUNITY ADVISORY COMMITTEE
MEETING #4 SUMMARY
APRIL 1, 2004***

INTRODUCTIONS AND REVIEW OF THE AGENDA

On Thursday, April 1, 2004, the fourth meeting of the Tier 2 Community Advisory Committee Meeting was held at the Teamsters Building Auditorium in Long Beach. Sam Gennawey, facilitator, of Moore Iacofano Goltsman, Inc., opened the meeting at 6:30 p.m. He welcomed Tier 2 Committee Members. They introduced themselves and the city or organization they represent. Members present were Glenna Amos, Harold Arsenian, Ed Avol, Hamid Bahadori, Malcolm Carson, Roberto Chavez, Louis Diaz, Clifford Dunbar, Bob Eula, Belinda Faustinos, Larry Galvan, Angelo Logan, Joseph Magaddino, Domenick Miretti, Clara Solis, Bill Pagett, Noel Park, Ray Park, Patty Senecal, Harold Tseklenis, and Rod White. Mr. Gennawey reviewed the agenda with the group and then introduced the following members of the audience who were attending as resources persons: Jerry Wood, Engineering Consultant, Gateway COG; Richard Hollingsworth, Gateway Cities Partnership; Art Goodwin, Alameda Corridor Transportation Authority; La Donna DiCamillo, BNSF Railway; Kerry Cartwright, Port of Long Beach and Carol Gomez from the AQMD.

REVIEW OF MARCH 11, 2004 TIER 2 MEETING SUMMARY

After reviewing the third meeting's summary, committee members suggested the following revisions:

- On page 2 in the discussion of "Health and Air Quality" the fourth bullet should state: *Two overall public policy questions should be addressed, "How much traffic can the I-710 carry? And how much can the LA basin bear in terms of the correlated environmental impacts?"*
- On page 2, in the section of Impact Analysis, the third bullet should read: *Before improvements are determined, a study should be conducted to determine the physical and environmental impacts of the increased goods movement that is projected for the Ports of Long Beach and Los Angeles.*
 - *Study the feasibility of alternative entry points for imported goods.*
- On page 3, in the discussion of "Alternative Fuels," under the bullet "Make the use of Alternative Fuels a priority", there should be another bullet added: *The use of alternative fuels must become mandatory as a condition for I-710 improvements to proceed.* Also, it was recommended that the third sub-bullet be revised to state: *Implement federal rules identified in the MATES II report to help improve air quality.*
- On page 4, the last bullet in the section "Fees and Incentives" should be amended to state: *Require that all vehicles, trucks, ships and trains serving the Port and using the I-710 use clean-burning fuel engines.*
- On page 4, in the paragraph entitled "Conditions for Improvements," the sentence should state: *The committee discussed a further recommendation that conditions for approval be attached to future expansion of the I-710, specifically making approval of new I-710 improvements contingent on first*

developing a plan to reduce air pollution to below current levels and implementing measures to reduce air quality impacts.

Page 4 AIR QUALITY REPORT –members asked us to clarify the intent of MATES II. We need to refer to AQMD.

- On page 5, the fourth bullet in the section “Infrastructure Improvements,” should be revised to state: *Improve lighting and the size of signage.*
- On page 7, in the section Tier 2 Committee Member Comments, the first sentence should be revised to state: *Dr. Avol noted that although, at 100 meters (about 1/8 of a mile) concentration of particles drops off to regional levels, schools and daycare centers that are in close proximity to the I-710 corridor remain at higher risk. He cautioned that, due to dispersion, measurements of air pollution levels taken at 100 meters or more from the I-710 may not adequately reflect the impacts.*

Mr. Gennawey started the facilitated discussion with the first item on the agenda item, Jobs and Economic Development.

JOBS AND ECONOMIC DEVELOPMENT

Mr. Gennawey recalled that the previous Tier 2 meeting had ended just after a presentation by Richard Hollingsworth, Economist and Executive Director of the Gateway Cities Partnership. Mr. Hollingsworth then briefly summarized the key points of his past presentation:

- In general, the educational attainment level of people who reside in the I-710 corridor is low. According to a corridor study, sixty to seventy percent of residents over the age of 25 do not have a high school education and the attrition rate (high school student drop-out rate) is 54%.
- There are jobs that are leaving the corridor and currently, there is no industry that can replace them.
- The area cannot attract biotech or any other type of industry.

The committee discussed the implications of the information presented by Mr. Hollingsworth and impacts to the economic health of the corridor.

- The poor air quality related to Port and logistics industry profoundly decreases the quality of life and property values.
- “Ugly” sound walls, the volume of trucks and trains, the statewide problem of aging infrastructure are conditions that have attributed to the decrease in the quality of life along the corridor communities.
- The current infrastructure in local corridor cities is not sufficient to retain high paying/professional workers.
- There is a need to reduce communities’ over-reliance on jobs that damage the quality of life by supporting the development of other industries.
- We need to look at alternatives to our current industry and look at other waterfront cities (Boston, New York, Melbourne and London) as examples of renovation.
- Since we have become an information-based economy, there is a greater divergence of income and this needs to be addressed in our corridor.

- In the past, the corridor cities have not seen an economic benefit from the goods movement industry but have had a severe impact to our quality of lives.

Potential Opportunities, Strategies and Solutions

The Committee then identified opportunities and strategies that address the economic impacts of the corridor:

- Raising education levels is an important, long-term solution.
- Develop and promote training and internship opportunities for youth and young adults
 - Urge all cities to provide opportunities for young people
 - Support collaboration between cities, Gateway COG, community colleges, and unions
 - Train students in skills needed for international trade
 - Programs should be earmarked for local residents as much as possible
- Foster adult education and vocational training programs as an alternative to colleges such as ROP and occupational training.
- Establish sustainable green economies by moving away from oil-dependent economies and creating an alternative fuel-based economy.
 - Make decreasing harmful emissions a goal of all industry
 - Support business development through funding (SBA-type loans, for example) and technical assistance, such as incubator industries for environment/retrofits. Place special emphasis on local small business development.
 - Emphasize the use of new engine (Hydrogen Fuel) technologies and fuel cell industries
 - Retrofit diesel engines to use hydrogen and other alternative fuels
 - Build the hydrogen highway
 - Provide alternative fuel stations
 - Encourage and enforce the use alternative fuels
 - Link to the 2006 nationwide fuel standards
- Promote industries that reduce pollutants
 - Set targets and goals
 - The I-710 shall become the “Green Industry Corridor”
- Develop a series of strategies that describe the type of industry that will support the corridor in the future and how much larger we want to become.
- A new industry represents an opportunity for revitalization and redevelopment of the central LA basin. Industries that offer the greatest multiplier effect and those that would improve the region’s quality of life should especially be encouraged.
- The committee needs to present the OPC a baseline number of current air quality to help set standard/target for air quality improvements.
- Place a cap on container growth, although some members expressed that such a cap would hinder economic growth and the full economic impacts should be explored before they would recommend it.

Possible Funding Opportunities

- Use container fees to help fund opportunities identified

- Education and training
- Home improvements and neighborhood improvements
- Mitigate years of environmental injustice.
- The next phase should conduct a cost/benefit analysis of the international goods movement industry. We should decide what kind of trade center we want to be.
- The Gateway Cities establish a district, such as an assessment district that could help fund education and training.

NOISE

The committee began to discuss opportunities and strategies to address noise along the corridor. Their comments are summarized below.

Truck Traffic Noise

- How will 24/7 truck traffic impact communities?
 - Special truck routes are needed through several communities.
 - Truck access should be limited through neighborhoods.
- Improve technology/retrofit old, noisy trucks.
- Prevent trucks from parking on streets.
- Prevent trucks from idling in neighborhoods.
 - Provide truck parking --with “plug-in” opportunities, where possible.
- Repaving can reduce noise 15-18%.
- Retrofit school windows with double glazed windows
- Provide new air conditions and filters for schools along freeways.
- Plant trees with big leaves to help mitigate sound (and air pollution).
- A combination of noise mitigation methods is needed, including improving technology of trucks, providing sound walls and landscaping

Funding

- Some state is available for sound walls.

Sound walls

- Sound walls are needed in all communities adjacent to the I-710 corridor..
 - Sound walls should be consistent in appearance, attractive and well designed.
 - Plant ivy on the walls to discourage graffiti.
- Provide sound walls on bridges and near schools to muffle sound and improve safety.
- Ensure that sound walls/noise abatement methods go in first on projects. If left to the end, there may not be funding available.
- Double decking equals increased noise; sound walls are therefore especially important for those communities where it may occur.

Trains

- Heavy rail is particularly noisy and difficult for communities.
(Committee members requested from the Gateway COG up-to-date information about methods to alleviate heavy rail noise.)
- The use of conveyors to transport goods would decrease noise.

PROCESS

The discussion then centered on the Process for this phase of the project. Mr. Powers, of the Gateway Cities Council of Government, explained that the study was currently in the “Issue Development Phase.” The role of the Tier 2 Committee is to define the issues and recommend strategies for addressing them. The process was intended to provide a format for discussion and to memorialize issues and strategies. Their recommendations would be compiled in a Draft Final Report to go to the Oversight Policy Committee for their review, consideration, and subsequent adoption. It would also be the responsibility of the Tier 2 Committee to identify the community issues that would be addressed in a subsequent EIR/EIS for the project. The Committee was assured that they would be provided adequate time to complete their work in a thoughtful manner. Committee members also suggested that, because the group represents a broad range of interests and can work productively, the Committee should continue to work together to resolve beyond the scope of the study.

PUBLIC COMMENTS

A member of the audience expressed this opinion:

- The City of Compton is not in favor of the Terminal Island extension as trucks that may be diverted to Alameda Street will negatively impact the city. He encouraged Committee members to bear this in mind. –Mayor Eric Perroding

MEETING CONCLUSION

After announcing that the next Tier 2 Meeting would be held on April 22, 2004, with the location yet to be determined, Facilitator Sam Gennawey concluded the meeting at 9:30 pm.

**I-710 Corridor Study Facilitation
TIER 2 COMMUNITY ADVISORY COMMITTEE
Meeting #5**

**Thursday, April 22, 2004
6:30-9:00 p.m.**

**Carson Community Center
Hall A - 3 Civic Plaza
Carson, CA 90745**

AGENDA

- | | | | |
|------------------|------|---|----------------------|
| 6:30 – 6:35 p.m. | I. | Introductions and Roll Call by Self-Introduction | |
| 6:35 – 6:40 p.m. | II. | Review and Approval of Meeting #4 Summary | |
| 6:40 – 6:45 p.m. | III. | Process and Schedule Update | Richard Powers |
| 6:45 – 8:30 p.m. | IV. | Review and Discussion of Ideas & Opportunities: Proposals to Date and Additional Recommendations Proposed by Committee: <ul style="list-style-type: none">• Congestion & Mobility• Community Impacts, Enhancements and Quality of Life, Including Open Space• Design Concepts• Processes for Decisionmaking: Environmental Justice, Roles and Future Involvement | Sam Gennawey,
MIG |
| 8:30 – 8:45 p.m. | VI. | Public Comment | |
| 8:45 – 9:00 p.m. | VII. | Meeting Recap and Next Steps | |

IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE COG OFFICE AT (562) 663-6850. NOTIFICATION 48 HOURS PRIOR TO THE MEETING WILL ENABLE THE COUNCIL OF GOVERNMENTS TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.

**I-710 MAJOR CORRIDOR STUDY
TIER 2 COMMUNITY ADVISORY COMMITTEE
MEETING #5 SUMMARY
APRIL 22, 2004**

INTRODUCTIONS AND ROLL CALL BY SELF-INTRODUCTION

On Thursday, April 22, 2004, the fifth meeting of the Tier 2 Community Advisory Committee Meeting was held at the Carson Community Center in Carson. Sam Gennawey, facilitator, of Moore Iacofano Goltsman, Inc. opened the meeting at 6:30 p.m. He introduced Jim Dear, the City of Carson Mayor, who welcomed Tier 2 Committee Members. Mayor Dear briefly discussed the importance of this undertaking for both the economics of Carson and the people of the corridor. The committee members introduced themselves and the city or organization they represent.

REVIEW AND APPROVAL OF MEETING #3 SUMMARY

After reviewing the third meeting's summary, committee members suggested one revision: include the name of the representative from BNSF (La Donna DiCamilla) on the first paragraph of page one. The committee members approved the minutes.

MEETING DISCUSSION

Mr. Gennawey reviewed the agenda with the group and introduced the following members of the audience who were attending as resource persons: Jerry Wood, Gateway Cities COG Consulting Engineer. Mr. Gennawey started the facilitated discussion with the first item on the agenda Congestion and Mobility.

CONGESTION AND MOBILITY

During this discussion, participants offered their suggestions and recommendations for non-freeway solutions to help increase mobility and curb congestion including, synchronized signals and mass transit. There were several issue categories that committee members discussed:

ISSUE CATEGORIES

1. Impacts of Construction
2. Alternative Transit
3. Port Regulations (and the effects of "making the pipe bigger")
4. Health and Air Quality
5. Quality of Life and Safety
6. Freeway Repair and Maintenance
7. Alameda Corridor
8. Extended Port Hours
9. Federal/State/Local Policy Consistency
10. Strategic Plan
11. Process

IMPACTS OF CONSTRUCTION

- This discussion revolved around the ramifications of concurrent construction on multiple freeways. Without an adequate plan in place, congestion could drastically increase.

ALTERNATIVE TRANSPORTATION

The committee discussed the importance of encouraging alternative modes of transportation including light rail, freight rail, cycling and pedestrian travel. Several specific suggestions included:

- Build a light rail system along the I-710 corridor.
- Encourage biking and pedestrian travel by creating more bike paths and widening bridges (specifically Rio Hondo) to accommodate travel.
- The Port should extend light rail lines from Willow to the port entries to make the shipping process more efficient.
- Take trucks off the freeway by transporting more goods via rail.

PORT REGULATIONS & “EFFECTS OF MAKING THE PIPE BIGGER”

The committee members voiced concerns that this plan was not treating the causes of the problem, rather providing temporary congestion relief. Comments from committee members included:

- If this plan focuses on increasing the volume of traffic traveling through the corridor, there may be temporary relief, but it's not a permanent solution. Congestion relief strategies are very short-term solutions. If the Port's traffic is not curbed by 2025, the congestion will be just as bad, but at the expense of the corridor communities who sacrificed for highway expansion.
- This plan is a temporary reactive fix versus the proactive solution we should be aiming for. This plan has consequences for the communities along the I-710. This plan should not enable the growth of the problem.
- This plan treats the symptoms, but the real issue is not that the freeways are too small but that the ports (Los Angeles, San Diego and Long Beach) bring through more traffic than the freeway can handle. More proactive radical thinking is necessary to improve this problem.
- The Port of Los Angeles is important, but it should not operate at the expense of those living along the I-710 corridor. One member suggested an underground tunnel pathway for trucks.
- It is important to note that the Port and truck traffic has increased partly due to the increasing population demanding more goods.
- There must be limitations placed on incoming Port traffic. We need to do something that discourages Port traffic.
- Committee member suggested that all Ports should collectively develop a plan for dispersing anticipated traffic among the Ports, “sharing the wealth” and “sharing the burden.” A focus could be on west coast ports, but all ports (US, Canada and Mexico) should be considered.

HEALTH AND AIR QUALITY

- The issue of maximum operation is a concern due to negative health impacts. Noise pollution is a real problem.
- There was a suggestion to use container fees to mitigate health impacts, and reduce traffic coming through the ports. This should be agreed upon by all the west coast ports as not to push the problem on someone else.
- There is legislation on the port, I-710 and other freeways relating to air quality.
- The pollution around rail yards is extremely bad because of the 24-7 locomotive operation. This plan should mitigate locomotive and rail yard emissions..

QUALITY OF LIFE AND SAFETY

The issue of improved quality of life for residents along the corridor was a major discussion thread. Some suggestions to improve the quality of life are:

- Increase safety on the 91 freeway in Compton.
- Encourage a revitalization effort, including:
 - Increasing open space, for example converting old manufacturing plants and utility corridors,
 - Preserving wetlands,
 - Graffiti removal,
 - Redesign of chain fences,
 - Update dilapidated building/ landscaping,
 - Sound walls,
 - Growth limitation, and
 - Follow the design of the I-5 freeway in Anaheim near Disneyland.

FREEWAY REPAIR AND MAINTENANCE

The committee members raised several issues regarding repairs and comments on specific freeways.

- The freeways need to be repaved.
- Repair freeway ramps.
- Repave several Boulevards, including: Atlantic, Santa Fe, Del Amo and Long Beach Boulevard.
- Close the 710 on ramp at Washington for easier access to the 5-North.
- Add on and off ramps to the 105 freeway.
- Provide an alternative to the 710 freeway.

ALAMEDA CORRIDOR DISCUSSION

- Provide signage to let people know about Alameda Street as an alternate route to the I-710.
- Alternative uses of the Alameda Corridor have not fully been used.
- The Alameda corridor will reach capacity in 20-25 years.

EXTENDED PORT HOURS

- Through extended hours of operation, the Port could double its traffic.

- The Port is asking taxpayers to spend billions of dollars to achieve a solution, but the Port is not willing to compromise and run night shipments.
- Though extending the hours of operation would decrease congestion, it raises quality of life issues for families because of its impact during leisure time (late afternoon, evening, weekends)

FEDERAL/STATE/LOCAL POLICY CONSISTENCY – NAFTA

- The Bush Administration allowing more open entry for Mexican trucks is in conflict with the work of the Tier 2 Committee. It is essential to make sure that federal government policies support local efforts to clean up the ports and roads.

STRATEGIC PLAN

- The cities along the corridor should band together and write a strategic plan. The ports have one and so should the communities. The Tier 2 committee should continue beyond this immediate process, develop the plan, and see it through implementation.

COMMUNITY IMPACTS, ENHANCEMENTS AND QUALITY OF LIFE, INCLUDING OPEN SPACE

Belinda Faustinos from the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy presented an outline of both funded and planned projects along the I-710 corridor which aim to increase open space, parks and recreational opportunities and improve both water and air quality. Some of these projects include, enhancing the bike path on either side of the river and establishing additional wetlands and open spaces.

PROCESS

There was an extensive discussion regarding the process, specifically how the OPC would incorporate the committees’ comments. The group expressed a lack of clarity about the outcome of their energy, time and work on the Tier 2 Committee. They voiced concerns that their input might be ignored, marginalized or that the process was here solely to satisfy a public involvement requirement. Committee members expressed dedication for working on the I-710 issues that affect their communities and would like more information about how the OPC will use their comments. Some specific concerns and questions focused on how their input is formalized into the process and what are the types of results that the committee can expect to see.

Richard Powers, Executive Director of the Gateway Cities Council of Governments, explained that there were three processes, or tracks, occurring concurrently. Each track provides information that will be provided to the OPC prior to their decision making.

The OPC will receive recommendations from three distinct groups:

1. The Corridor Cities and the County – The City Council in each city and the County Board of Supervisors for the unincorporated areas will be taking a

position, based on input from their Tier 1 CAC's, (where Tier 1 CAC's exist) that is forwarded to the OPC.

2. The Technical Advisory Committee (TAC) which is comprised of public works officers from each city and the county and a number of other agencies including the AQMD and the CHP and others.
3. The Tier 2 Committee – Which represents each of the communities and a broad group of stakeholders..

Once the OPC receives the input from the three distinct groups, they have three options:

- Receive and file.
- Go forward based on the recommendations as presented.
- Modify the recommendations, seek clarification.

If the process goes forward then it enters the EIR/EIS phase, which is estimated to take approximately 2 years to complete. Speaking only from the perspective of the COG, it will be the COG staff recommendation that the local community involvement component continue and the Tier 2 in some form stay in place to provide ongoing advice and input as corridor agreements progress.

It is anticipated that each City Council and the Board of Supervisors will be taking a formal action on both the infrastructure and a series of policy issues such as air quality, safety, noise, community enhancements, etc.

It is expected that the OPC will meet two or three times, once to receive the information, another meeting or two to evaluate and deliberate prior to reaching a conclusion. The OPC can apply conditions to their actions to reflect various issues and recommendations.

Committee members suggested that the Tier 2 Committee take the following action:

- Create a short concise list of issues that are unanimously important to the committee. This will create a clear standard of bottom line issues that the group could say must be incorporated in the plan for the committee to support it.
- Articulate the process in writing in a clear way, concise way.
- Send out OPC meeting notices and agenda so committee members are aware of the meetings. It was clarified that Tier 2 members can personally attend and contribute public comments at the OPC meetings.

DESIGN CONCEPTS

Jerry Wood, Gateway Cities COG Consulting Engineer, presented the design concepts and offered some program background. There have been over 100 meetings in the last 6 months. Mr. Wood stated that he started with a blank slate and went to the Tier 1 groups and cities and tried to reflect what the communities wanted. He said that he believes there

is a consensus for the I-710 designs because the community has participated in this process. The maximum design possible, with minimum right-of-way impacts, is 14 lanes with 10 general and 4 dedicated truck lanes. This was evaluated with an assumption of 60% truck traffic during the day and 40% in off hours. This could be done; whether we should do it is up to the policy makers. The committee members offered several comments:

- Brought a letter as matter of record
- Commented on the straightforwardness and transparency of the process.
- Several Tier 1 representatives commented that the designs reflected what their groups wanted or requested.
- Discussed the impact on parks and open spaces. This design creates more open space in several parks.
- Committee members stated that they did not know that 14 lanes was the starting point.
- Support AB 1397 to mitigate rail yard pollution and asked about procedures for supporting legislation in the future.

MEETING CONCLUSION

Mr. Gennaway briefly recapped the major discussion points and announced the next meeting the committee would: review I-710 Freeway Community Enhancements, discuss the process and develop strategies. After announcing that the next Tier 2 Meeting would be held on May 6th from 6:30 pm-9:00 pm at Bateman Hall in Lynnwood, Mr. Gennaway concluded the meeting at 9:10 pm.

**I-710 Corridor Study Facilitation
TIER 2 COMMUNITY ADVISORY COMMITTEE
Meeting #6**

**Thursday, May 6, 2004
6:30-9:00 p.m.**

**Bateman Hall, City of Lynwood
11331 Ernestine Avenue
Lynwood, CA**

AGENDA

- | | | |
|------------------|---|---|
| 6:30 – 6:35 p.m. | I. Introductions and Roll Call by Self-Introduction | |
| 6:35 – 6:40 p.m. | II. Review and Approval of Meeting #5 Summary | Sam Gennawey,
MIG |
| 6:40 – 8:00 p.m. | III. Presentation of Design and Enhancements Opportunities <ul style="list-style-type: none">• Tier 1 Community Representative Presentations• Discussion | Tier 1
Representatives
with Jerry Wood,
COG Engineer |
| 8:00-8:15 p.m. | IV. Review and Discuss Tier 2 Committee Findings and Opportunities Report Draft | Pat McLaughlin
and Sam
Gennawey, MIG |
| 8:15-8:30 p.m. | V. Resource Questions (Time permitting) | |
| 8:30 – 8:45 p.m. | VI. Public Comment | |
| 8:45 – 9:00 p.m. | VII. Meeting Recap and Next Steps | |

IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE COG OFFICE AT (562) 663-6850. NOTIFICATION 48 HOURS PRIOR TO THE MEETING WILL ENABLE THE COUNCIL OF GOVERNMENTS TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.

DRAFT MEETING SUMMARY

**I-710 MAJOR CORRIDOR STUDY
TIER 2 COMMUNITY ADVISORY COMMITTEE
MEETING SUMMARY
MAY 6, 2004**

INTRODUCTIONS AND ROLL CALL BY SELF-INTRODUCTION

On Thursday, May 6, 2004, the sixth meeting of the Tier 2 Community Advisory Committee Meeting was held at Bateman Hall in Lynwood. Sam Gennawey, facilitator, of Moore Iacofano Goltsman, Inc. opened the meeting at 6:30 p.m. Mr. Gennawey briefly reviewed the agenda stating the focus of this meeting was to discuss the desired community enhancements from Long Beach to East Los Angeles, as articulated by the Tier 1 representatives. Mr. Gennawey asked committee members to voice conflicts or additional enhancements not mentioned. The committee members introduced themselves and the community or organization they represent.

REVIEW AND APPROVAL OF MEETING #5 SUMMARY

Mr. Gennawey noted that Belinda Faustinos' presentation on "Community Impacts, Enhancements and Quality of Life, Including Open Spaces" was not included in the draft summary but will be added to the final summary. After reviewing the fifth meeting's summary, committee members suggested four revisions:

- Page 3, in the Alameda Corridor section, add the word *discussion* to the heading. The committee discussed the Alameda Corridor, but this heading is misleading implying the group had reached a consensus.
- Page 3, in the Freeway Repair and Maintenance section, under the "repave several boulevards" bullet, add Long Beach Boulevard.
- Page 3, in the Freeway Repair and Maintenance section, under the "add on and off ramps" bullet, change the 91 to the 105 freeway.
- Page 3, in the Freeway Repair and Maintenance section, strike the bullet stating, "the 91 cannot solve the Port traffic problem, we should try to shift the traffic to residential streets."

After acknowledging those changes will be incorporated into the meeting summary, the committee members approved the meeting 5 summary.

PRESENTATION OF DESIGN AND ENHANCEMENT OPPORTUNITES

Mr. Gennawey facilitated as the communities with Tier 1 committees presented their design and enhancement opportunities. Each of the I-710 corridors represented (Long Beach, Carson, Compton, Lynwood, Paramount, South Gate, Bell Gardens, Bell, Maywood, Cudahy, Downey, Vernon, Commerce and East Los Angeles) had specific opportunities/enhancements for their communities and this summary reflects highlights from each presentation. In addition to the comments summarized by community, there was committee consensus that several issues were extremely important. The largest issue for each community was improving air quality and decreasing pollution. All representatives agreed

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that the high levels of pollution pose a significant threat to residents' health and must be mitigated as part of this process. Other shared topics of concern included: quality of life, health, safety, mobility and noise pollution.

Tier 1 representatives presented their committee findings and had a variety of comments, both specific and general, regarding design and enhancement opportunities; the highlights of these, as well as related discussion points, are set forth below.

LONG BEACH (Mr. Alan Hose, Community Representative)

- Build attractive sound walls before highway construction begins.
- Complete proposed mitigations prior to beginning construction. (Produce an EIR)
- Two layer -double deck truck lanes along the river may help increase mobility.
- Rebuild 405 interstate to make the ramps smoother. This comment sparked discussion regarding the impact to neighborhoods on the east side heading towards Sutter. To minimize the impact to communities, the engineers tried to move the truck lanes closer to the Blue Line.
- Expand Chavez Park taking wetland preservation into consideration. The addition of new off ramps could negatively impact the wetlands.
- The port must reduce emissions before new construction projects begin.
- Improve vegetation and landscape

CARSON (Mr. Ray Park, Tier 1 Representative)

- A general stress on improving safety,
- Construct freeway improvements,
- Improving air quality by at least 20-30%. This could be accomplished by curbing Port development and reducing pollution from trucks, trains and ships.
- The community is concerned that, because Carson is surrounded by several major freeways and corridors (710 East, Alameda St. and the 110) additional mitigation measures will be required in order to mitigate health effects (air quality, noise, increase truck traffic) caused by both ports.
- Any and all mitigation measures that are listed in the Final EIR will be in-place in all cities prior to starting any new freeway construction projects. Historically, construction projects begin without the environmental impact mitigation measures in-place, which causes the communities to suffer greater harm during construction phases.
- Proposed alternate truck lanes.

COMPTON (Mr. Roberto Chavez, Tier 1 Representative)

- Improving the social and economic vitality of the community,
- Increase job training, employment opportunities and education programs for residents,
- Preserve and improve Compton Creek focusing on minimizing construction run-off.
- Improve the poor air quality, through supporting a "no net increase" in pollution policy
- Improve the quality of life,
- Improve safety through public information campaigns
- Improve Alameda Street and reduce truck traffic through residential areas,
- Reduce the impact for area homes,

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- Evaluate the impact of adding truck lanes to the 91 freeway (ending at the 605)
- The design minimizes the right of way impacts for Compton.
- Connect the bike trails along the Compton Creek to the LA river

LYNWOOD (Mr. Rod White, Tier 1 Representative)

- Increase safety through public information campaigns,
- Heighten freeway barriers,
- Improve the lighting along the I-710 freeway,
- Improve air quality through reducing emissions,
- Improve on and off ramps,
- Improve quality of life through sound walls and landscaping. The loss of parks is a large negative impact for communities,
- Meter the Port truck traffic to limit truck traffic during peak hours,
- Proposed an elevated truck deck on the 710,
- Reduce congestion through: evaluating traffic flows (i.e. Rosecrans), synchronizing the 710 corridors, and building an elevated truck lane adjacent to the 710. The current plan supports this through building a dedicated truck lane, improving Rosecrans, and improving the Imperial highway interchange. Tier 1 representatives reviewed this plan.

PARAMOUNT (Mr. Gerald Burgess, Community Representative)

- The LA River acts as a buffer to the city. Any suggested building on the river is not favored.
- Concerns over adding on and off ramps to the 710 freeway and building a double deck lane on of 710 freeway,
- Improve access to Rosecrans and Garfield from the 105,

SOUTH GATE (Ms. Glenna J. Amos, Tier 1 Representative)

- A focus on improving health and safety,
- Reducing noise and dusts through constructing an attractive sound wall,
- Increasing mobility through: alternative transportation, improving bus routes, enhancing Garfield, improving the Imperial interchange, widening the Rio Hondo/Garfield bridges, building a thorough fare through Southgate and metering trucks out of the Port.
- Study the impacts of local arterials to determine improvements to streets, interchanges, etc.
- Improve railroad bridges for access during construction,
- Provide compensation to businesses that might lose money because of construction,
- Maintain Tier 2 community committee through construction for ongoing input,
- Maximize and preserve parks and open spaces, including the Rio Hondo Restoration Park and the Del Amo-Dominguez Gap Project.
- Some important enhancements that appear on the engineers sketches are:
 - Increasing entrances to the Mobile home park,
 - Connecting Garfield through currently vacant property,
 - Add a small tunnel entrance to the mobile home park, and

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- Minimize right of way impacts to businesses.

BELL GARDENS (Mr. Clifford Dunbar, Tier 1 Representative)

- Echoing the concerns of other communities pertaining to health, air quality and quality of life.
- Improve signage on the freeway,
- Preserving open spaces and trees. The community did not want to give up space for highway expansion.
- Increasing mobility through removing trucks from the freeway,
- Move towers over toward the river and build a sound wall to better protect homes,
- The engineer noted that there were minor river intrusions, which the Tier 1 members reviewed and supported.
- Is there an impact to the bike trail on the wet side of the river? The overall goal is to provide a lateral bike trail on each side of the freeway.
- The community wants a plan that improves their community.

BELL (Julie Gonzales, Tier 1 Representative)

- Improving air quality,
- Improving quality of life,
- Compensating business owners,
- Building sound walls,
- Removing graffiti,
- Improving mobility through, improving the Slauson on ramp, opposing a Slauson off ramp, improving Florence/Firestone, mimicking the Atlantic and Bandini solution and supporting the concept of a 14-lane freeway.

MAYWOOD

Maywood does not have a Tier 1 Committee and Maywood's representative was not present at this meeting. Angelo Logan advised that he is aware that a majority of Maywood residents are opposed to a Slauson off-ramp

DOWNEY (Mr. Harold Tseklenis, Community Representative)

- Improving health, noise, congestion and safety.
- This effort aims to increase the quality of life for corridor residents, not to increase the Port's capacity. The Port's congestion should not extend to residential streets. This is a parallel effort involving road expansion and stabilizing Port growth.
- Possible expansion to eight dedicated truck lanes.
- Provide a tunnel under the freeway for additional lanes to accommodate truck traffic, if more than eight lanes are needed.
- The 710 expansion is a short-term solution, but what about 2050?

VERNON (Mr. Harold Arsenian, Community Representative)

- Preserve jobs.
- Negative impacts on this job hub if the railroads acquire more land.

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- Increase mobility (similar to Atlantic Bandini Interchange) and improve the Carmony interchange.
- Minimize the freeway impact, if larger, it may have less community impact.
- Prepare an environmental document.
- Send a liaison from Tier 2 to the next phase. Tier 2 is expected to continue until the freeway is built when it becomes an advisory committee.
- Engineers commented that this maximum 14-lane design is projected to handle traffic through 2025 at adequate levels of service. “Adequate” or acceptable levels of service operate at 80-90% capacity. Currently the 710 is about a D-E (30 mph).

CITY OF COMMERCE (Mr. Bob Eula, Tier 1 Representative)

- Decrease pollution,
- Increase safety,
- Improve the terrible noise and dirt problem,
- Build new barriers and repave ramps.
- Some specific recommendations include: close the Washington on/off ramp, make Atlantic and Telegraph the on-ramp for the I-5, examine the impact of Bandini and Garfield on home loss, and oppose the Slauson on/off ramp.
- The representative commented that the new metering signal installed by Caltrans causes truck traffic to back up for miles. It is essential to receive community input.
- Increase locomotives and crews because containers are backed up on the rail lines. Aim to get trucks off the freeway and into rail yards.
- Research and use alternative fuels.
- Important to keep trucks off of the local streets.
- Build a new interchange on Bandini and Atlantic.
- Suggests moving cargo, not with trucks, but through the corridor on a conveyor belt.
- The dedicated lanes should use the best technology available, not diesel trucks.
- Bandini/Washington Boulevard should be the first priority when funds become available.

EAST LOS ANGELES (Mr. Gustavo Camacho, Tier 1 Representative)

- Decrease congestion on the on/off freeway to reduce pollution.
- East LA is an extremely complex area surrounded by many freeways (i.e. I-710/I-5/I-60)
- The representative noted that 70,000 cars travel along Whittier on a day-to-day basis.
- East Los Angeles is a densely populated community with little open space.
- Opposed to losing homes or businesses
- Build sound walls with trees and vines to increase eye appeal and reduce graffiti. East LA should not “look like a jail.”
- More time is necessary to examine these complex issues. Each time engineers meet with community representatives, there are more suggestions and ideas to incorporate.
- The two issues that concern East Los Angeles are its commerce and complexity.
- Reduce traffic on local streets by closing some of the off ramps.
- Desire extending the 710 or studying a tunnel to run through South Pasadena.
- Maintain space on both sides of the soundwalls.

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- Increase the medians to reduce lights from on-coming traffic.
- Remove graffiti.
- Limit the Port capacity to the highway capacity, thinking about the long-term.
- Increase truck lanes.
- Increase tunnels.

This plan will ultimately be based on the consensus of the corridor communities. Mr. Gennaway discussed what it means to ultimately achieve consensus, but at this point the focus is on resolving any significant conflicts. The Tier 2 Committee members agreed that there are no major conflicts south of Washington.

Funding

The project funding relating to sources, amount and timeframe was discussed. Funding for this project will most likely come in small pieces over time, and projects will need to be prioritized when funding becomes available. Transportation funding is programmed many years in advance, so construction may not be immediate. If the Highway Bill passes, funding will be available more immediately. There are other funding sources besides federal funding, for example the Firestone project was funded through an MTA call for projects.

REVIEW AND DISCUSS TIER 2 COMMITTEE FINDINGS AND OPPORTUNITES REPORT DRAFT

Pat McLaughlin, of Moore Iacofano & Goltsman, Inc. and Katherine Padilla of Katherine Padilla & Associates introduced the Findings and Opportunities Report Draft. This report summarizes the major issues and presents key findings and recommended strategies. The Organizing Principles deal with both corridor issues and those that extend beyond the corridor. There were several comments and suggestions on this draft document including:

- Increase the Port's involvement in the air quality discussion. The Port must support a "zero tolerance" policy for pollution increase, or the Tier 2 Committee cannot support the document moving forward. Federal compliance is essential and the Committee Members want to aim for higher standards.
- Separate the strategies, policies and conditions in the report.
- Propose actual policies as part of the report.
- Public health, personal health and economic health are important concerns for committee members.
- Add specific committee member suggestions from the past six meetings for improving air quality (i.e. container fees, alternate fuel) to the air quality section, which is currently too vague. Consultants responded that this document is a general overview and are in the process of developing a much more detailed report complete with an action matrix.
- This committee should articulate conditions for approval before discussing strategies.
- The report should include facts illustrating the degree of pollution in the corridor communities.
- Examine whether the suggestions the Tier 2 is making are plausible and executable.
- Are these really "organizing principles" or just a cluster of subject areas? To have organizing principles don't we need a baseline to go back and test against?

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- Needs filters criteria to evaluate.
- Need to quantify the air quality discussions.
- This problem is a direct derivative of Port growth.
- The report should have more specificity included. The committee members desire a bold, accurate and specific portrayal of their comments. One committee member suggested breaking into subcommittees to discuss the issues in more detail.
- The report should reflect the issues the Committee has formed consensus over.
- Process and Product (reflects what comes out of the group).

PUBLIC COMMENT

Paulette Bradley, a Lynwood Personnel Commissioner, appreciates this effort and Lynwood's involvement in this process.

ASSEMBLYMAN LOWENTHAL BILLS

Luiz Marquez, represented Assemblyman Lowenthal, making a brief presentation and answering questions. Assemblyman Lowenthal has been working on three bills to improve air quality, which are:

AB 2041: This bill aims to stabilize impacts of pollution. (Appropriations)

AB 2042: This bill provides incentives to support off peak hours operation. (Assembly floor)

AB 2043: This bill creates a statewide ports committee to deal with a long-term strategy to tackle port related issues. (Appropriations)

One of the Tier 2 representatives asked whether Assemblyman Lowenthal supported 1397, the train idling bill. Mr. Marquez replied that the Assemblyman Lowenthal has been focused on the bills mentioned above, but is currently researching this bill.

BNSF

LaDonna DiCamillo and John Chavez from the BNSF made a presentation detailing steps the railroads have and are taking to improve air quality. Some highlights from the presentation are:

- Rail is more efficient and three times cleaner than trucks.
- The railroads have reduced emissions before required by enforcing the Clean Air Act five years in advance of forced federal compliance.
- The railroads plan to have retrofitted their fleets and rebuilt their locomotives with new cleaner burning technology in five years. These updates, occurring before normal wear and tear requires vehicle replacing, will reduce the nitrogen oxides and other harmful particulates by 50%.
- The BNSF urges voters not to support AB 1397 because of its vague language on the railroads "fair share" of emissions reduction. The railroad's fear the "fair share" may be excessive and inadvertently increase pollution by putting more trucks on the road.

MEETING RECAP AND NEXT STEPS

Mr. Gennawey Briefly recapped the major discussion points and announced the next committee meeting tentatively set for May 20th from 6:30 to 9:00 at Bateman Hall in Lynwood. Mr. Gennawey concluded the meeting at 9:05 pm.

**I-710 Corridor Study Facilitation
TIER 2 COMMUNITY ADVISORY COMMITTEE
Meeting #7**

Thursday, June 10, 2004
6:30-9:00 p.m.

Carson Community Center
Carson Domiguez Ballroom
3 Civic Plaza

AGENDA

- | | | | |
|------------------|------|--|---|
| 6:30 – 6:35 p.m. | I. | Introductions and Roll Call by Self-Introduction | |
| 6:35 – 6:40 p.m. | II. | Review and Approval of Meeting #6 Summary | Sam Gennawey, MIG |
| 6:40 – 7:10 p.m. | III. | Process Review, Update and Next Steps <ul style="list-style-type: none">• Phase I – Major Corridor Study
• EIR/EIS Phase Presentation | Pat McLaughlin, MIG

Ron Kosinski,
Deputy District
Director, Caltrans |
| 7:15-8:15 p.m. | IV. | Review and Discuss Tier 2 Committee Draft Report on Major Opportunity/Strategy Recommendations | Pat McLaughlin and
Sam Gennawey, MIG |
| 8:30 – 8:45 p.m. | VI. | Public Comment | |
| 8:45 – 9:00 p.m. | VII. | Meeting Recap and Next Steps | |

IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE COG OFFICE AT (562) 663-6850. NOTIFICATION 48 HOURS PRIOR TO THE MEETING WILL ENABLE THE COUNCIL OF GOVERNMENTS TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.

I-710 MAJOR CORRIDOR STUDY
TIER 2 COMMUNITY ADVISORY COMMITTEE
Carson Community Center

MEETING #7
JUNE 10, 2004

MEETING SUMMARY

INTRODUCTIONS AND ROLL CALL BY SELF-INTRODUCTION

On Thursday, June 10, 2004, the seventh meeting of the Tier 2 Community Advisory Committee Meeting was held at Carson Community Center. Sam Gennawey, facilitator, of Moore Iacofano Goltsman, Inc. welcomed the committee at 6:30 p.m. and announced to the committee that they did not have a quorum. He explained that the committee could review information but could not take any action. There were two presentations prior to a quorum. Mr. Gennawey then briefly reviewed the agenda stating the focus of this meeting was to discuss the Tier 2 Committee Draft Report on Major Opportunity/Strategy Recommendations.

Committee members in attendance were: Ed Avol, Hamid Bahadori, Gustavo Camacho, Malcolm Carson, Louis Diaz, Clifford Dunbar, Bob Eula, Belinda Faustinos, Allen Hose, Angleo Logan, Domenick Miretti, Elisa Nicholas, William Pagett, Noel Park, Ray Park, Harold Tseklenis, and Rod White.

PROCESS REVIEW, UPDATE AND NEXT STEPS

Mr. Gennawey explained to the group that their report is one of the last steps in this phase of the process. He introduced Ron Kosinski, Deputy Director District 7, Caltrans to explain the EIR/EIS process.

EIR/EIR PHASE PRESENTATION

Mr. Kosinski provided an overview of the process. He stressed that public agencies, such as Caltrans and FHWA, involved in overseeing any EIR/EIS process must always maintain a neutral position about the contents of the document until decision-makers approve the final document. He explained that the EIR/EIS process is guided by CEQA/NEPA guidelines, Environmental Justice laws and the National Historic Preservation Act. Mr. Kosinski described the steps associated with environmental analysis.

Mr. Kosinski described the EIR/EIS process as a tool that begins early in the process to insure that community impacts are considered. Scoping is the first phase in the process and includes talking to the local residents early in the process to identify significant community issues. During the scoping phase, the agencies also work with experts, such as biologists, who conduct research within the potential project area. There is ongoing dialogue with the community and input is provided on alternatives to assist planners and engineers in their work. After analyzing the input gathered during the scoping, mitigation measures to

minimize potential environmental impacts are identified. This process can take between two to three years.

Mr. Kosinski stated that the work of the Tier 2 Community Advisory Committee can be incorporated into the input for scoping for any future projects along the I-710 corridor.

COMMITTEE COMMENTS

- It is important that the Tier 1 representatives present the Tier 2 Draft Report on Major Opportunity/Strategy Recommendations to their constituents as soon as possible, as it will form the foundation for identification of I-710 issues/concerns for future scoping.
- The EIR will not solve all of the communities' issues and therefore the Tier 2 needs to state a strong position to the OPC so that Tier 2 and the communities can have a leadership role and set the tone for the overall CEQA process, rather than be in a reactive mode
- Project implementation should be conditioned on meeting environmental objectives.

ORANGE LINE MAGLEV PRESENTATION

Al Perdon, Executive Director of the OrangeLine Development Authority, conducted a presentation of the OrangeLine MagLev system. Studies of the proposed system are currently underway. The OrangeLine is a high-speed magnetic levitation (or Maglev) system that is intended to connect Orange and Los Angeles counties in an aerial "monorail" alignment using existing freeway corridors. The presentation also described the environmental advantages that the system would have over alternative rail or trucking systems. These included: lower noise, air pollution and energy consumption, and less community disruption through right-of-way acquisition and visual intrusion. Several committee members asked whether the OrangeLine could be used to move freight containers. Mr. Perdon responded that it would be possible to retrofit the passenger cars to accommodate cargo pallets. The notion that Maglev could possibly be used to move freight from the ports to inland locations was mentioned

REVIEW AND APPROVAL OF MEETING #6 SUMMARY

At 7:45 P.M. it was announced that Mr. Gerald Burgess had arrived and that there was now a quorum. The committee reviewed the May 6, 2004 Meeting #6 summary and made the following revisions:

- On Page 2, in the City of Long Beach section, in the fourth bullet, change the referenced rail line from Green Line to Blue Line.
- Page 2, under the City of Carson section, beneath the fourth bullet, add the words at the end of the sentence, "will require additional mitigation measures in order to mitigate the health effects (air quality, noise, increase truck traffic) caused by both ports."
- Also, in the Carson section, under the fifth bullet, omit the complete sentence and add the following sentences instead, "Any and all mitigation measures that are listed in the

Final EIR will be in-place in all cities prior to the start of any freeway new construction projects. Historically, construction projects begin without the environmental impact mitigation measures in-place, which causes the communities to suffer greater harm during construction phases.”

- Page 3, in the City of Paramount section, omit the last bullet: “Need additional light rail.”
- Page 4, in the City of Downey section, beneath the third bullet, create a new bullet that states: “Provide a tunnel under the freeway for additional lanes to accommodate truck traffic, if an excess of eight lanes is needed.”
- On page 5, in the paragraph beginning with the sentence-- “This plan will ultimately be based on the consensus . . . -- revise/shorten the last sentence of the paragraph to state, “ The Tier 2 Committee members agreed that there are no major conflicts south of Washington.”

REVIEW AND DISCUSSION OF TIER 2 COMMITTEE DRAFT REPORT ON MAJOR OPPORTUNITY/STRATEGY RECOMMENDATIONS

The Committee reviewed the first section, Public Health, and suggested revisions in language and formatting. They also re-emphasized the importance of allowing sufficient time for thoughtful review and discussion. The consultant team informed the committee that facilitation staff is available to conduct a next meeting to review the rest of the document. The consultant team proposed that the committee forward any further revisions or comments via e-mail or fax before June 16. The consultant team will incorporate these edits before the next meeting.

PUBLIC COMMENT

There was no public comment.

MEETING RECAP AND NEXT STEPS

Mr. Gennaway briefly recapped the discussion and reviewed the recommended revisions, including reformatting, of the Tier 2 Committee Draft Report on Major Opportunity/Strategy Recommendations. He announced that the next Tier 2 Meeting was set for Tuesday, June 29, 2004 from 6:30 to 9:00 pm. at Progress Park in Paramount. Mr. Gennaway concluded the meeting at 9:15 pm.

**I-710 Corridor Study Facilitation
TIER 2 COMMUNITY ADVISORY COMMITTEE
Meeting #8**

Tuesday, June 29, 2004
6:30-9:00 p.m.

Progress Park Community Center
15500 Downey Avenue
Paramount, CA

AGENDA

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|------------------|------|---|--|
| 6:30 – 6:35 p.m. | I. | Introductions and Roll Call by Self-Introduction | |
| 6:35 – 6:40 p.m. | II. | Review and Approval of Meeting #7 Summary | Sam Gennawey,
MIG |
| 6:40 – 6:50 p.m. | III. | Process Review, Update and Next Steps | |
| 6:50-8:30 p.m. | IV. | Review and Discuss Tier 2 Committee Findings and Opportunities Report Draft | Sam Gennawey
and Esmeralda
Garcia, MIG |
| 8:30 – 8:45 p.m. | VI. | Public Comment | |
| 8:45 – 9:00 p.m. | VII. | Meeting Recap and Adjourn | |

IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE COG OFFICE AT (562) 663-6850. NOTIFICATION 48 HOURS PRIOR TO THE MEETING WILL ENABLE THE COUNCIL OF GOVERNMENTS TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.

DRAFT MEETING SUMMARY

I-710 MAJOR CORRIDOR STUDY
TIER 2 COMMUNITY ADVISORY COMMITTEE
Progress Park

MEETING #8
JUNE 29, 2004

MEETING SUMMARY

INTRODUCTIONS AND ROLL CALL BY SELF-INTRODUCTION

On Thursday, June 29, 2004, the eighth meeting of the Tier 2 Community Advisory Committee Meeting was held at Progress Park Community Center. Sam Gennawey, facilitator, of Moore Iacofano Goltsman, Inc. opened the meeting at 6:30 p.m. and reviewed the agenda. The primary purpose of this meeting was to continue to discuss the Tier 2 Committee Draft Report on Major Opportunity/Strategy Recommendations.

Members in attendance were Glenna Amos, Harold Arsenian, Ed Avol, Hamid Bahadori, Gerald Burgess, Gustavo Camacho, Malcolm Carson, Clifford Dunbar, Bob Eula, Belinda Faustinos, Larry Galvan, Julie Gonzalez, Patricia Herrera, Allen Hose, Bobbi Kimble, Joseph Magaddino, Elisa Nicholas, Bill Pagett, Noel Park, Ray Park, Patty Senecal, Harold Tseklenis, and Rod White.

REVIEW AND APPROVAL OF MEETING #7 SUMMARY

After reviewing the June 10, 2004 Meeting #7 summary, committee members asked that the meeting summary reflect the lack of a quorum at the beginning of meeting #7.

REVIEW AND DISCUSSION OF TIER 2 COMMITTEE DRAFT REPORT ON MAJOR OPPORTUNITY/STRATEGY RECOMMENDATIONS

The Committee reviewed and discussed the chapters on Economic Development and Safety. The committee's comments are reflected in the Draft #4.

PUBLIC COMMENT

There was no public comment.

MEETING RECAP AND NEXT STEPS

Mr. Gennawey briefly recapped the discussion and reviewed the recommended revisions to the Tier 2 Committee Draft Report on Major Opportunity/Strategy Recommendations. He announced that the consultants would be available on Tuesday, July 13 and 27 to facilitate additional meetings in an effort to complete revisions to the report. Gennawey concluded the meeting at 9:15 pm.

**I-710 Corridor Study Facilitation
TIER 2 COMMUNITY ADVISORY COMMITTEE
Meeting #9**

Tuesday, July 13, 2004
6:30-9:00 p.m.

Progress Park Community Center
15500 Downey Avenue
Paramount, CA

AGENDA

- 6:30 – 6:35 p.m. I. Introductions and Roll Call by Self-Introduction
- 6:35 – 6:40 p.m. II. Tier 2 Recognition of the Work of the Committee Lynda Bybee, Deputy Executive Officer, Metro Community Relations
- 6:40 – 6:45 p.m. III. Review and Approval of Meeting #8 Summary Pat McLaughlin, MIG
- 6:45 – 6:55 p.m. IV. Process Review and Protocol
- 6:55-8:40 p.m. V. Review and Discuss Tier 2 Committee Findings and Opportunities Report Draft #4**
- 8:40 – 8:50 p.m. VI. Public Comment
- 8:50 – 9:00 p.m. VII. Meeting Recap and Next Steps

IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE COG OFFICE AT (562) 663-6850. NOTIFICATION 48 HOURS PRIOR TO THE MEETING WILL ENABLE THE COUNCIL OF GOVERNMENTS TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.

**I-710 MAJOR CORRIDOR STUDY
TIER 2 COMMUNITY ADVISORY COMMITTEE
PROGRESS PARK**

**MEETING # 9
July 13, 2004**

MEETING SUMMARY

INTRODUCTIONS AND ROLL CALL BY SELF-INTRODUCTION

The ninth meeting of the Tier 2 Community Advisory Committee Meeting was held at Progress Park in Paramount, CA., on Tuesday, July 13, 2004. Patricia McLaughlin, Principal of Moore Iacofano Goltsman, Inc. served as facilitator. She opened the meeting at 6:30 p.m. beginning with self-introductions. She briefly reviewed the agenda stating that the focus of this meeting was to continue the discussion of the Tier 2 Committee Draft Report on Major Opportunity/Strategy Recommendations. Prior to the Discussion Lynda Bybee, Deputy Executive Officer, Metro Community Relations provided an update on the Major Corridor Study and thanked the committee members for their efforts.

REVIEW AND APPROVAL OF MEETING #8 SUMMARY

Committee members confirmed that they had reviewed the summary. The summary was approved as written.

REVIEW AND DISCUSSION OF TIER 2 COMMITTEE DRAFT REPORT ON MAJOR OPPORTUNITY/STRATEGY RECOMMENDATIONS

The Committee reviewed and discussed two chapters of the Report: 1) Noise, and 2) Congestion and Mobility. The Committee's comments and suggested revisions are reflected in Draft #5. During the discussion a committee member suggested that it would be helpful to review the Strategies prior to the Synopsis of Findings in each chapter of the report. The committee agreed to follow this process for the remaining the chapters. It was also requested that Strategy #6 "*Support Capacity Enhancement Improvements for the I-710 Freeway upon meeting the conditions recommended in this report*" be moved from the Mobility and Congestion chapter to the Design Concepts chapter. Discussion of this chapter will occur when the committee reviews the Design Concepts chapter.

PUBLIC COMMENT

Mr. Gilbert Roque, who stated that he was speaking on behalf of the City of Commerce and East Los Angeles, thanked members for their commitment and participation on the Committee.

MEETING RECAP AND NEXT STEPS

Ms. McLaughlin briefly recapped the discussion and reviewed the recommended revisions of the Tier 2 Committee Draft Report on Major Opportunity/Strategy Recommendations.

She announced that the next Tier 2 Meeting would be held on Tuesday, July 27 from 6:30 to 9:00 pm. at Progress Park. Ms. McLaughlin stated that the Committee's review of the Draft Report would continue at the July 27 Meeting. She encouraged members to provide written comments/suggested revisions before the meeting, so that the new Draft would reflect all suggested revisions for Committee review. Ms. McLaughlin concluded the meeting at 9:15 pm.

**I-710 Corridor Study Facilitation
TIER 2 COMMUNITY ADVISORY COMMITTEE**

Meeting #10
Tuesday, July 27, 2004
6:30-9:00 p.m.

Progress Park Community Center
15500 Downey Avenue
Paramount, CA

AGENDA

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|------------------|--|------------------------|
| 6:30 – 6:35 p.m. | I. Introductions and Roll Call by Self-Introduction | |
| 6:35 – 6:40 p.m. | II. Review and Approval of Meeting #9 Summary | Pat McLaughlin,
MIG |
| 6:40 – 8:40 p.m. | III. Review and Discussion of Tier 2 Committee Report Draft # 5, Chapters on:
Congestion & Mobility
Community Enhancements | |
| | IV. Recap of Tier 1 Community Design Concepts and Review of Community Design Chapter | Tier 1 CAC
Members |
| | V. Review and Discussion of Environmental Justice Chapter | |
| | VI. Review and Discussion of Process Chapter | |
| 8:40 – 8:50 p.m. | VII. Public Comment | |

8:50 – 9:00 p.m. VII. Meeting Recap and Adjourn

IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE COG OFFICE AT (562) 663-6850. NOTIFICATION 48 HOURS PRIOR TO THE MEETING WILL ENABLE THE COUNCIL OF GOVERNMENTS TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.

I-710 MAJOR CORRIDOR STUDY
TIER 2 COMMUNITY ADVISORY COMMITTEE
PROGRESS PARK

MEETING # 10
July 27, 2004

MEETING SUMMARY

INTRODUCTIONS AND ROLL CALL BY SELF-INTRODUCTION

On Tuesday, July 27, 2004, the tenth meeting of the Tier 2 Community Advisory Committee Meeting was held at Progress Park in Paramount. Patricia McLaughlin, Principal of Moore Iacofano Goltsman Inc., opened the meeting at 6:30 p.m. with committee self-introductions. Ms. McLaughlin introduced members of the project team: Susan Gilmore, of the MTA, and Esmeralda Garcia, of MIG, Inc., and briefly reviewed the agenda. She stated that the purpose of the meeting was to continue the discussion of the Tier 2 Committee Draft Report on Major Opportunity/Strategy Recommendations.

Committee members in attendance were: Glenna J. Amos, Harold Arsenian, Ed Avol, Hamid Bahadori, Gustavo Camacho, D. Malcolm Carson, Louie Diaz, Bob Eula, Belinda Faustinos, Julie C. Gonzales, Allen Hose, Roger Holman, Bobbi Kimble, Angelo Logan, Joe Magaddino, Mandy McLaughlin, Bill Pagett, Noel Park, Ray Park, Patty Senecal, Rod White, Larry Galvan.

REVIEW AND APPROVAL OF MEETING #9 SUMMARY

Committee members reported that they had reviewed the Meeting #9 Summary. It was requested that the Summary be revised to reflect the committee's discussion and decision that *Strategy #6: "Support Capacity Enhancement Improvements for the I-710 Freeway upon meeting the conditions recommended in this report"* be moved from the Mobility and Congestion chapter to the Design Concepts chapter instead. Therefore, Committee review and discussion of this strategy would occur at a subsequent meeting with the Design Concepts chapter.

REVIEW AND DISCUSSION OF TIER 2 COMMITTEE DRAFT REPORT ON MAJOR OPPORTUNITY/STRATEGY RECOMMENDATIONS

Congestion and Mobility Discussion

The Committee reviewed and discussed the Congestion and Mobility chapter of the Draft Report. Revisions to the Report were recommended after suggestions were made and the implications explored through open dialogue. The revisions will be incorporated in Draft #6, which will be distributed to all committee members for review at the new Tier 2 Meeting.

Design Concepts Discussion

The committee began to discuss the potential for a "project" after one of the committee members pointed out that the work they have accomplished cannot lead to studies without a

project. One committee member asked that they take an informal poll to gauge the Committee's support for a project. A dialogue continued and it was concluded that a project is not out of the question; however, the Tier 2 committee needs to focus on the conditions to any improvements.

Ms. McLaughlin introduced Jerry Wood, Engineering Consultant, of Gateway Cities Council of Government. Mr. Wood stated that he had worked closely with several Tier 1 Committees to develop a locally preferred strategy (design concept) to alleviate safety and congestion issues of the I-710, and that the strategy had been approved by Tier 1 Committees. Ms. Garcia, of MIG, who facilitated the Tier 1 Committees, further clarified the engagement process through which communities had taken an active role in, first, defining their issues and concerns and, then, developing their list of Community Ideas to address those concerns. She explained that Mr. Wood had then worked with communities to develop the locally preferred strategy to also help address their concerns.

Several committee members expressed a wide range of opinions and concerns, including the following:

- The Tier 2 Committee had not yet agreed to support a design concept, or improvements that increased capacity
- The status quo is intolerable—and steps leading to a preferred design concept must be taken to improve the I-710
- It is necessary to approve a “project” (“to serve as a vehicle”) in order to proceed towards implementation of other recommended strategies.
- The EIR process of the locally preferred design concept would provide an opportunity for additional community review of issues and mitigation measures.

After discussion, several members emphasized that it is important for the Committee to first reach agreement on the conditions that must be met in order to improve the quality of life in the I-710 Corridor. It was suggested that, based on that shared understanding and agreement on conditions, consensus on a design concept of a locally preferred strategy may develop. One member expressed gratitude for the opportunity to serve on the Tier 2 Committee in which community issues and concerns—as well as a diverse range of views--could be discussed in an open manner. The committee concluded that it is important for Tier 2 to support the recommendations made by the Tier 1 CAC's by focusing the Tier 2 committee's work on conditions.

PUBLIC COMMENT

No audience members asked to speak before the group.

MEETING RECAP AND NEXT STEPS

Ms. McLaughlin briefly recapped the discussion. She announced that the next Tier 2 Meeting would be held on Thursday, August 12 from 6:30 to 9:00 pm. at Progress Park. She encouraged members to provide written comments/suggested revisions before the meeting, so that the Draft #6 would reflect all suggested revisions for Committee review. Ms. McLaughlin concluded the meeting at 9:15 pm.

I-710 Corridor Study Facilitation
TIER 2 COMMUNITY ADVISORY COMMITTEE

Meeting #11

Thursday, August 12, 2004

6:30-9:00 p.m.

Progress Park Community Center

15500 Downey Avenue

Paramount, CA

AGENDA

- | | | |
|------------------|--|---|
| 6:30 – 6:35 p.m. | I. Introductions and Roll Call by Self-Introduction | |
| 6:35 – 6:40 p.m. | II. Review and Approval of Meeting #10 Summary | Pat McLaughlin,
MIG |
| 6:40 – 8:40 p.m. | III. Review and Discussion of Tier 2 Committee Report Draft # 7, Chapters on: <ul style="list-style-type: none">▪ Community Design | Tier 1 CAC
Members/Pat
McLaughlin |
| | IV. Review and Discussion of Chapters on: <ul style="list-style-type: none">▪ Environmental Justice▪ Process▪ Health and Air Quality | Pat McLaughlin,
MIG |
| 8:40 – 8:50 p.m. | VII. Public Comment | |
| 8:50 – 9:00 p.m. | VII. Meeting Recap and Adjourn | |

IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE COG OFFICE AT (562) 663-6850. NOTIFICATION 48 HOURS PRIOR TO THE MEETING WILL ENABLE THE COUNCIL OF GOVERNMENTS TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.

I-710 MAJOR CORRIDOR STUDY
TIER 2 COMMUNITY ADVISORY COMMITTEE
PROGRESS PARK

MEETING # 11
August 12, 2004

MEETING SUMMARY

INTRODUCTIONS AND ROLL CALL BY SELF-INTRODUCTION

On Thursday, August 12, 2004, the eleventh meeting of the Tier 2 Community Advisory Committee Meeting was held at Progress Park in Paramount. Patricia McLaughlin, Principal of Moore Iacofano Goltsman Inc., opened the meeting at 6:00 p.m. with committee self-introductions. Ms. McLaughlin introduced members of the project team: Susan Gilmore, of the MTA, and Esmeralda Garcia, of MIG, Inc., and briefly reviewed the agenda. She stated that the purpose of the meeting was to continue the discussion of the Tier 2 Committee Draft Report on Major Opportunity/Strategy Recommendations, specifically the chapters on Community Enhancements, Design Concepts, Environmental Justice and Process.

Committee members in attendance were: Glenna J. Amos, Hamid Bahadori, Malcolm Carson, Louie Diaz, Bob Eula, Allen Hose, Angelo Logan, Joe Magaddino, Mandy McLaughlin, Noel Park, Ray Park, Patty Senecal, Rod White, Larry Galvan, Elsa Nicholas, and Harold Tseklenis.

REVIEW AND APPROVAL OF MEETING #9 SUMMARY

Committee members reported that they had reviewed the Meeting #10 Summary. Mr. Galvan stated that he was present at the last meeting and that the meeting summary should reflect this. The meeting summary was approved with this change.

REVIEW AND DISCUSSION OF TIER 2 COMMITTEE DRAFT REPORT ON MAJOR OPPORTUNITY/STRATEGY RECOMMENDATIONS

The Committee completed review of the Community Enhancements chapter and the edits are reflected in the report draft #8. After some discussion during the review of Design Concept chapter, the committee unanimously agreed that this chapter should reflect support for the ideas generated by the Tier 1 CAC even if conflict exists between the different communities. The committee felt it is important that the Tier 1 CAC recommendations be reflected in the Tier 2 report. The Community Ideas Matrices will be incorporated into the report appendix. Edits to the chapter have been incorporated. The Committee continued to review the chapters on Environmental Justice and Organization & Process. Draft #8 reflects these edits.

PUBLIC COMMENT

No audience members asked to speak before the group.

MEETING RECAP AND NEXT STEPS

Ms. McLaughlin briefly recapped the discussion. Ms. Gilmore stated that the facility would be available on August 19 or 26 for the committee to review the chapter on Health. The Committee agreed to meet on Thursday, August 26 from 6:30 to 9:00 pm. at Progress Park. She encouraged members to provide written comments/suggested revisions before the meeting, so that the Draft #8 would reflect all suggested revisions for Committee review. Ms. McLaughlin concluded the meeting at 9:00 pm.

TIER 2 COMMUNITY ADVISORY COMMITTEE

Meeting #12

Thursday, August 26, 2004

6:30-9:00 p.m.

Progress Park Community Center
15500 Downey Avenue
Paramount, CA

AGENDA

- 6:30 – 6:35 p.m. I. Introductions and Roll Call by Self-Introduction
- 6:35 – 6:40 p.m. II. Review and Approval of Meeting #11 Summary Pat McLaughlin, MIG
- 6:40 – 7:00 p.m. III. Recap/Review of Tier 2 Committee Report Draft # 8, Edits to Chapters on:
▪ Environmental Justice
▪ Process Pat McLaughlin
- 7:00 – 7:45 p.m. IV. Review and Discussion of Chapter on:
▪ Health and Air Quality Pat McLaughlin
- 7:45 – 8:15 p.m. V. Review and Discussion of Chapters on:
▪ Organizing Principles (including sections on Financial Considerations and Conditions)
▪ Executive Summary Pat McLaughlin
- 8:15-8:30 p.m. VI. Public Comment

8:30-8:55 p.m. VII. Finalization/Approval of Report by Pat McLaughlin
Tier 2 and Discussion of
Presentation to OPC in September

8:55 – 9:00 p.m. VIII. Meeting Recap and Adjourn

IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE COG OFFICE AT (562) 663-6850. NOTIFICATION 48 HOURS PRIOR TO THE MEETING WILL ENABLE THE COUNCIL OF GOVERNMENTS TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.

I-710 MAJOR CORRIDOR STUDY
TIER 2 COMMUNITY ADVISORY COMMITTEE
PROGRESS PARK

MEETING # 12
August 26, 2004

MEETING SUMMARY

INTRODUCTIONS AND ROLL CALL BY SELF-INTRODUCTION

On Thursday, August 26, 2004, the twelfth meeting of the Tier 2 Community Advisory Committee Meeting was held at Progress Park in Paramount. Patricia McLaughlin, Principal of Moore Iacofano Goltsman Inc., opened the meeting at 6:00 p.m. with committee self-introductions. Ms. McLaughlin introduced members of the project team: Susan Gilmore, of the MTA, and Esmeralda Garcia, of MIG, Inc., and briefly reviewed the agenda. She stated that the purpose of the meeting was to continue the discussion of the Tier 2 Committee Draft Report on Major Opportunity/Strategy Recommendations, specifically the chapter on Health and Air Quality.

Committee members in attendance were: Glenna J. Amos, Harold Arsenian, Hamid Bahadori, Gerald Burgess, Gustavo Camacho, Malcolm Carson, Clifford Dunbar, Bob Eula, Belinda Faustinos, Julie Gonzalez, Patricia Herrera, Roger Holman, Alan Hose, Bobbi Kimble, Angelo Logan, Mandy McLaughlin, Domenick Miretti, Bill Pagett, Noel Park, Ray Park, Patty Senecal, Harold Tseklenis, Rod White.

REVIEW AND APPROVAL OF MEETING #11 SUMMARY

Committee members reported that they had reviewed the Meeting #11 Summary. The meeting summary was approved as written.

REVIEW AND DISCUSSION OF TIER 2 COMMITTEE DRAFT REPORT ON MAJOR OPPORTUNITY/STRATEGY RECOMMENDATIONS

The Committee reviewed of the Health and Air Quality chapter. The Committee had minor edits to this chapter that will be incorporated. The committee also reviewed the Executive Summary of the report. After the discussion, the committee members in attendance unanimously approved the Tier 2 Report on Major Opportunity/Strategy Recommendations on a roll call vote.

PUBLIC COMMENT

No audience members asked to speak before the group.

MEETING RECAP AND NEXT STEPS

Ms. Gilmore stated that the Oversight Policy Committee is scheduled to meet on September 30 to receive and file the Tier 2 Report. The Committee decided to create a subcommittee to prepare the presentation to the OPC. The members of the subcommittee are: Malcolm

Carson, Bob Eula, Belinda Faustinos, Alan Hose, Bobbi Kimble, Angelo Logan, Joseph Magadino, Harold Tseklenis, Rod White, Dr. Avol. The Gateway COG will coordinate logistics with the subcommittee and provide support as needed.

The meeting was adjourned at 9:00 PM.

APPENDIX S

***Major Opportunity/Strategy
Recommendations and Conditions, TIER
2 Community Advisory Committee, August
2004***

I-710/MAJOR CORRIDOR STUDY
Tier 2 Community Advisory Committee

**Major Opportunity/Strategy Recommendations
and Conditions**



August, 2004

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Acknowledgements

TIER 2 COMMITTEE MEMBERS

Glenna J. Amos*
City of South Gate

Harold Arsenian*
City of Vernon

Dr. Ed Avol
USC School of Medicine

Hamid Bahadori
Automobile Club of Southern California

Gerald Burgess*
City of Paramount

Victor Caballero*
City of Huntington Park

Gustavo Camacho*
East Los Angeles

Malcolm Carson
Legal Aid Foundation of Los Angeles

Roberto Chavez*
City of Compton

Louis Diaz
International Brotherhood of Teamsters

Clifford Dunbar*
City of Bell Gardens

Bob Eula*
City of Commerce

Belinda Faustinos
San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy

Larry Galvan*
City of Cudahy

Julie C. Gonzalez*
City of Bell

Steve Goodling
Long Beach Area Convention and Visitors Bureau

Patricia Herrera*
City of Long Beach

Roger Holman*
City of Long Beach

Alan Hose*
City of Long Beach

Tom Houston*
City of Compton

Randy Kendrick
City of Bell

Bobbi Kimble*
City of Long Beach

Angelo Logan
Coalition for Environmental Health and Justice

Dr. Joseph Magaddino
California State University at Long Beach

Mandy McLaughlin*
City of Compton

Dr. Domenick Miretti
Marine Clerks Association

Dr. Elisa Nicholas
Long Beach Alliance for Children with Asthma

Harold Omel*
City of Long Beach

Servando Ornelas*
East Los Angeles

Bill Pagett
Technical Advisory Committee Chair

Noel Park
San Pedro Peninsula Homeowners Coalition

Ray Park*
City of Carson

Luis Romero*
City of Maywood

Patty Senecal
Transport Express

Harold Tseklenis*
City of Downey

Linda Vitale*
City of Long Beach

Rod White*
City of Lynwood

Harold Williams
South Bay Council of Governments

*Designated Tier 1 Community Advisory Committee Member representing corridor communities.

Note: Some communities had a change in representatives during the process

STAFF SUPPORT

Metro: Lynda Bybee, Susan Gilmore, Ray Maekawa, Ernest Morales

Gateway Cities COG: Deborah Chankin, Richard Powers, Jerry Wood

MIG: Pat McLaughlin, Esmeralda Garcia, Sam Gennawey, Katherine Padilla

Executive Summary

INTRODUCTION

This report presents the final consensus resulting from nine months of deliberations by a broad-based group appointed by I-710 corridor communities and the I-710 Oversight Policy Committee. Known as the Tier 2 Committee, this group represented a broad base of interests, including local communities, academic, environmental, business, community and environmental justice. The most directly impacted communities in the corridor were invited to form community-level committees (known as the Tier 1 Committees). The chairs of these committees were also represented on the Tier 2 Committee, along with a representative named by each City Council in the remaining corridor cities.

The following guiding principles define the priorities of the Tier 2 Committee and reflect the consensus that emerged during this process:

- 1. This is a corridor – considerations go beyond the freeway and infrastructure.**
- 2. Health is the overriding consideration.**
- 3. Every action should be viewed as an opportunity for repair and improvement of the current situation.**

The Committee recognizes that something must be done to address the current congestion and design of the I-710 freeway. The high number of trucks on the freeway uses up capacity and the mix of cars and trucks poses a serious safety concern. The committee agrees that the hybrid design concept presented could accomplish maximum build out in a manner that reflects the Tier 1 CACs' concerns and recommendations for their communities, with the exception of the City of Commerce and East Los Angeles area, which require further study. However, the I-710 corridor is more than just a place for trucks to pass through on their way to their final destination. It is the location of our homes, businesses, schools, parks, and lives. Today, particulates and other pollutants from diesel truck traffic in the I-710 Corridor and the ports of Long Beach and Los Angeles are our communities' primary air-quality-related health concern. **Therefore, the conditions for major infrastructure improvements must be as follows:**

1. Implement a corridor level action plan to improve community air quality.
2. Major infrastructure improvements must be conditioned on achieving air quality goals to protect public health; corridor air quality must comply with county, state and federal standards prior to the start of mainline construction

and the entire project taken as a whole must result in a net reduction in criteria pollutants.

3. Prior to the initiation of the environmental review process, all Tier 1 Community Advisory Committees must have formally endorsed the freeway improvement design concept.
4. Prior to adopting a preferred alternative the OPC must conduct a study and cost benefit analysis of potential goods movement alternatives as an alternative to increasing the capacity of the I-710 Freeway.
5. A study of the impact of construction on air quality, traffic, congestion, noise and impact on surrounding communities must be conducted, and if construction does go forward, specific mitigation plans must be developed and put into effect during the construction process to minimize and mitigate the impact of construction on the surrounding communities.
6. Major infrastructure improvements must be conditioned on achieving a net decrease in noise impacts upon the affected communities.

The Committee recognizes that certain aspects of the design concepts, particularly for designated on-ramps, may be appropriate for implementation prior to addressing the “mainline” issues. However, these improvements cannot be constructed in isolation from all of the other recommendations such as public health, community enhancement, and noise abatement. The I-710 design must take into account the safety and quality of life of the communities in the corridor, including provisions for greenbelts and open space.

This Executive Summary presents a synopsis of our committee’s findings and recommendations, which are presented, in eight topic areas. (Greater detail is provided in the full report.)

HEALTH

Air quality is the number one public health issue. Poor air quality has had significant negative impacts on public, economic, environmental and community health in the corridor. Particulates and other pollutants from diesel truck traffic in the I-710 Corridor and the ports of Los Angeles and Long Beach are our communities’ primary air-quality-related health concern. The first consideration for approval of any improvements within the I-710 corridor must be the project’s ability to reduce air quality impacts. Therefore, these steps must be taken before construction can begin on the “mainline” project to reduce air pollution.

The Tier 2 Committee recommends the following air quality improvement strategies:

1. Develop an action plan to improve air quality in the corridor.
2. Implement a corridor level action plan to improve community air quality.
3. Implement local alternative fuels/electrification and/or hydrogen policies and programs to reduce diesel emissions.
4. Pursue opportunities for incremental improvements.
5. Implement port-specific air quality improvement strategies.

JOBS AND ECONOMIC DEVELOPMENT

The twin ports of the San Pedro Bay generate significant economic benefits for the region as a whole. However, the cost associated with the movement of goods is primarily borne by local communities. These external costs, including increased levels of pollution, have reduced the attractiveness and livability of these communities. To address this imbalance, local residents and businesses must become net beneficiaries of the continued growth in international trade through the local ports. Improvement of air quality and the environment are essential for the area to take advantage of and capitalize on the area's assets. In addition, an investment in education is necessary to continue to diversify the economy and provide economic opportunity for residents.

The Tier 2 Committee recommends the following economic development strategies:

1. Position the I-710 corridor and Gateway communities for a post-oil economy.
2. Create a community environment that attracts and retains businesses and residents who can support a new gateway cities economy.
3. Enable the I-710 corridor and Gateway communities to become more proactive in today's economy.
4. Institute corridor-wide programs and partnerships to equip area residents with the skills needed to move into higher-paying jobs in this new economy.
5. While promoting the importance of all business, specifically recognize small business as an economic driver and foster its growth within the communities.
6. Consistent with current law, advocate policies at the national, state, regional and local levels to require businesses that benefit from any potential I-710 improvements to pay living wages.

SAFETY

The I-710 corridor is one of the most unsafe freeways in the State. Increasing truck traffic, conflicts between cars and trucks, aging infrastructure, and outdated design are all contributing causes to accidents in and around the freeway. The high concentration of older trucks, which frequently become disabled, poses a significant safety hazard, as do truck intrusions into nearby communities and neighborhoods. Just as the Alameda Corridor helped reduce conflicts between trains and automobiles, any improvements to the I-710 corridor must resolve the inherent conflicts between automobiles and trucks.

The Tier 2 Committee recommends the following safety improvement strategies:

1. Continue support and implementation of safety programs.
2. Increase enforcement of traffic and vehicle safety laws and regulations.
3. Increase public and trucker education on safety and neighborhood issues.
4. Implement infrastructure improvements.
5. Separate trucks and cars.

NOISE

Excessive noise is a serious public health concern in the corridor and cannot be resolved by simply building more sound walls. A comprehensive analysis of noise along the corridor must lead to a plan that recognizes the health impacts to our communities and seeks to resolve those impacts by providing appropriate relief. Major infrastructure improvements must be conditioned on achieving a net decrease in noise impact upon the affected communities.

The Tier 2 Committee recommends the following noise control strategies:

1. Provide appropriate and effective sound walls to reduce noise impacts to neighborhoods and schools adjacent to the freeway.
2. Implement noise mitigation programs.
3. Conduct a study to assess how truck traffic from extended gate hours for trucks and 24/7 port operations will impact communities, and assess what mitigations may be appropriate.

CONGESTION AND MOBILITY

The major purpose of congestion relief must be to improve the quality of life and economic vitality of the corridor rather than simply to accommodate port growth. The current corridor capacity is not adequate even for the existing demands in the area. The current conditions along the corridor are simply not acceptable. The Committee suggests an approach that provides multiple options for personal mobility – auto, pedestrian, bike and transit – within the corridor. Likewise, goods movement requires a comprehensive, regional approach that reduces bottlenecks in all segments – ship, truck, and rail.

The Tier 2 Committee recommends the following congestion and mobility strategies:

1. Maximize use of existing infrastructure
2. Implement expanded public transit solutions.
3. Provide a comprehensive bicycle and pedestrian network with connectivity throughout the area.
4. Develop a consistently implemented plan with cities and residents to mitigate construction impacts and maintain access.
5. Support cooperative planning among all ports along the West Coast.

COMMUNITY ENHANCEMENTS

The I-710 corridor is more than just a place for trucks to pass through on their way to their final destination. It is the location of our homes, businesses, schools, parks, and lives. Plans for future improvements to the I-710 are not intended to solely address congestion and mobility problems. Instead a revitalized I-710 must be the catalyst to enhance local communities along the corridor, creating an even more desirable place to live, work, and play. Major infrastructure improvements must also be conditioned on conclusion of satisfactory agreements with the neighboring communities to fully mitigate negative aesthetic impacts and to mitigate the impacts of any increased light and glare.

The Tier 2 Committee recommends the following community enhancement strategies:

1. Preserve existing parks, open space, and natural areas.
2. Develop and implement community enhancement projects.
3. Provide programs to minimize construction impacts.
4. Develop and implement a plan for arterial streetscapes.
5. Mitigate light and glare in surrounding communities.

DESIGN CONCEPTS

A new design concept for I-710 and/or alternative transportation modes for vehicles and goods movement is needed that responds to the specific design recommendations developed by the Tier 1 CACs to minimize or limit take of homes within their communities along I-710. The hybrid design, as developed to date, does a credible job of accomplishing this goal. However, final decisions on project configuration can only be made subsequent to incorporation of the further study of East Los Angeles and City of Commerce and upon completion of cost benefit and environmental studies. The I-710 design must take into account the safety and quality of life of the communities located next to the freeway, including provisions for greenbelts and open space.

The Tier 2 Committee recommends the following design concept strategies:

1. Endorse the specific Tier 1 CAC recommendations included in the Appendix.
2. Support capacity enhancement improvements for the I-710 Freeway upon meeting the conditions recommended in this report, including those recommended by both Tier 1 and Tier 2 CACs.
3. If economic and environmental studies show that expansion of the freeway is necessary, develop new transportation infrastructure for I-710 that separates cars from trucks.
4. If economic and environmental studies show that expansion of the freeway is necessary, locate the new truck lanes in such a way as to minimize community impacts.
5. Redesign unsafe and congested interchanges on I-710.
6. Consider future needs and requirements in implementing any new I-710 design.
7. If economic and environmental studies show that expansion of the freeway is necessary, upgrade of the existing freeway must satisfy criteria detailed in this report.

ENVIRONMENTAL JUSTICE

In the fifty years since the freeway was first built, the corridor has become home to minority and low-income populations. For many years, the people who live within the corridor have shouldered an unfair burden in health, economic, and quality of life issues. Environmental justice requires a mechanism for the meaningful involvement of all people in the transportation decision-making process and to ensure that the low-income and

minority communities receive equitable distribution of the benefits from transportation activities without suffering disproportionate adverse impacts.

The Tier 2 Committee recommends the following environmental justice strategies:

1. Include the corridor communities in the planning process in a meaningful way, including provision of appropriate language translation.
2. Ensure that impacts do not disproportionately fall on low-income people or people of color.
3. Ensure that the benefits from the projects flow to the corridor communities.

ORGANIZATION AND PROCESS

To ensure that the work of the Tier 2 Committee is carried forward as set forth in the full report, a task force of representatives from the Tier 2 CAC, the OPC and the TAC should be established to plan and oversee the implementation of the conditions and recommendations of the Tier 2 CAC.

The Tier 2 Committee recommends the following organization and process strategies:

1. This Tier 2 Report will be formally “agendized” and presented to the OPC when it convenes in September 2004 for its consideration and decision. All Tier 2 members will be invited to the OPC meeting, and the presentation of the Tier 2 report will be delivered by a representative group of Tier 2 spokespersons.
2. Following the OPC’s meeting, there will be a follow-up meeting(s) of the Tier 2 Committee to discuss actions taken by the OPC.
3. Prior to the beginning of any formal EIR for the I-710 Major Corridor Study, Metro (MTA) and the Gateway Cities COG will work with the communities, appropriate agencies, organizations and community groups in developing a collaborative process for community participation in the environmental review process. This process will continue to work collaboratively throughout the EIR process.

CONCLUSIONS AND NEXT STEPS

This report is hereby presented by the Tier 2 CAC to the I-710 Oversight Policy Committee. The Committee expects that its recommendations will be carried forward by the OPC, the Gateway Cities COG, the Los Angeles County Metropolitan Transportation Authority (Metro), the Southern California Association of Governments (SCAG) and the

California State Department of Transportation (Caltrans). Further, we expect our recommendations to be used as required guidance in the planning and development of future corridor improvements. The Committee and the communities we represent expect to have continued formal and meaningful participation in the I-710 corridor improvement process and look forward to working with the OPC and future project sponsors toward an improved and revitalized I-710 Corridor.

I. Introduction

This report documents the recommendations for policies, strategies and conditions developed by the Tier 2 Committee to address I-710 issues, paving the way for a consensus-based corridor solution. The Tier 1 Community Advisory Committee (CAC) chairs represented the Tier 1 Committees on the Tier 2 Committee to ensure that community concerns and recommendations were represented. The Oversight Policy Committee (OPC) will review the findings and recommendations outlined in this report and will use the information to make recommendations for potential action. The Technical Advisory Committee (TAC) will review the recommended strategies generated by the process and consider the implications to the local preferred strategy. This report will also be included in the Major Corridor Study.

Strategic discussions among Tier 2 Committee members occurred over a series of twelve facilitated meetings held from February through August 2004. Building on a foundation of understanding of their own community issues and particular concerns, Tier 2 Committee members began to examine corridor-wide issues and shared their viewpoints with each other in open and thought-provoking dialogues. Experts were available to answer questions and to add clarity to specific concerns.

GUIDING PRINCIPLES

The Foundation of Our Findings

The guiding principles set forth below affirm the Tier 2 Committee's concerns and encompass the values that are important to the communities along the corridor. These principles define the priorities of the Tier 2 Committee and reflect the consensus that emerged during this process. The recommendations in this report support these principles:

1. This is a corridor – considerations go beyond the freeway and infrastructure.
2. Health is the overriding consideration:
 - Public Health (the people)
 - Environmental and Community Health (the place)
 - Economic Health (the resources)
3. Every action should be viewed as an opportunity for repair and improvement of the current situation.

II. Financial Considerations

The Committee recognizes that the strategies, recommendations and conditions in this report will be costly. In order to implement the strategies and policies identified by the Tier 2 Committee it will be necessary to establish appropriate lead agencies and funding sources for these programs. This Committee expects that the project lead agency will be responsible for directing mitigation funds to implement these recommendations. While it is expected that mitigation funds and fees may fund all or portions of these programs, the issues of funding and program implementation are generally beyond the scope of these recommendations and must continue to be addressed by the Tier II CAC and OPC. The Committee also expects that our public officials will bring to bear all available means to implement the community's vision including existing and new regulations, incentives, and funding sources, including appropriate contributions from the goods movement industry

III. Conditions

1. Implement a corridor level action plan to improve community air quality. The State shall levy fees on containers to fund environmental improvements and community programs to address hidden costs attributable to goods movement impacts, including the funding of community health care clinics.
2. Major infrastructure improvements must be conditioned on achieving air quality goals to protect public health. Based on air monitoring data collected by regional air quality agency stations (including, but not limited to, South Coast Air Quality Management District (AQMD) stations in Lynwood and North Long Beach), corridor air quality must be in compliance with State and National Ambient Air Quality Standards prior to the start of freeway construction. Furthermore, the entire 710 corridor improvement project must from inception result in a reduction in criteria pollutants (particulate matter, ozone, nitrogen dioxide, and carbon monoxide) in the corridor and rail and port communities, as compared to 2002 baseline values according to the SCAQMD, State standards, or National Ambient Air Quality Standards, whichever are lower, and that reduction must be maintained. The lowering of emissions shall include those from the ports of Long Beach and Los Angeles. No construction project on the mainline shall move forward until credible, acceptable plans for achieving this reduction are received and approved by the OPC and Tier 2 CAC.
3. Prior to the initiation of the environmental review process, all Tier 1 Community Advisory Committees (CACs) must have formally endorsed (signed off on) the freeway improvement design concept.
4. Prior to adopting a preferred alternative, the OPC must conduct a study of potential goods movement alternatives (such as the use of maglev system for freight movement) as an alternative to increasing the capacity of the I-710 Freeway; this study must include a cost benefit analysis.
5. A study of the impact of construction on air quality, traffic, congestion, noise and impact on surrounding communities must be conducted, and if construction does go forward, specific mitigation plans must be developed and put into effect during the construction process to minimize and mitigate the impact of said construction of the surrounding communities.
6. Major infrastructure improvements must be conditioned on achieving a net decrease in noise impacts upon the affected communities.

IV. Health

SYNOPSIS OF FINDINGS:

Air quality is the number one public health issue. Poor air quality has significant negative impacts on public, economic, environmental and community health in the corridor. Other parts of the environment, such as water quality, are also negatively impacted by goods movement.

Particulates and other pollutants from diesel truck traffic in the I-710 Corridor and the ports of Long Beach and Los Angeles are our communities' primary air-quality-related health concern. Ports and all associated transportation such as trucks, trains, ships, and yard equipment are the major sources of pollution along the I-710 corridor. Cars continue to be a source of air quality and health concerns in the corridor as well, but the continuing increase in port activities has focused corridor community attention on cargo movement-related emissions (ships, trucks, trains, and yard equipment). Noise is also a significant health issue, but because this issue has additional ramifications, it is treated in depth in a separate section of this report.

RECOMMENDED STRATEGIES

- 1. Develop an action plan to improve air quality in the corridor, including the following steps:**
 - a. Establishing a baseline of current levels of pollution from each contributing source using the best available technology.
 - b. Identify the level of air quality impacts from increasing trucking, rail and shipping.
 - c. Determine the approximate costs of health care that can be traced to the differential levels of air pollution to be encountered by corridor community members as a result of the construction effort, if it goes forward as envisioned.
 - d. Study the direct and indirect health and other economic costs on communities and the region caused by global trade and its associated pollution impacts.

- 2. Implement a corridor level action plan to improve community air quality**
 - a. Use enforcement, truck inspections and incentives to control emissions.
 - b. Require air quality improvements in port operation as a condition of project approval.

- c. Encourage the development and expansion of fleet modernization clean air programs.
- d. Levy fees on containers to fund environmental improvements and community programs to address hidden costs attributable to goods movement impacts including:
 - Health care
 - Alternative fuels
 - Improvements/construction of I-710 infrastructure
 - Beautification of the corridor
- e. Develop infrastructure that quantifies emission reductions:
 - Permanent monitoring stations to measure emissions levels in the corridor
- f. Develop and implement improved air quality monitoring techniques.

3. Implement local alternative fuels/electrification and/or hydrogen policies and programs to reduce diesel emissions.

- a. Make the use of alternative fuels a priority.
- b. Discourage use of out-of-state fuel.
- c. All trucks, regardless of origin, must be subject to local, state and federal standards
- d. Require all trucks using the truck lanes on the I-710 to use alternative fuels as defined above, or pollution controls which achieve equal or better results.
- e. Require all railroad locomotives servicing the two ports, or any rail yards connected with port container traffic, to use alternative fuels as defined above, or pollution controls which achieve equal or better results.
- f. Require the Alameda Corridor Authority to prepare a plan to electrify all locomotives involved in its operations.

4. Pursue opportunities for incremental improvements

- a. Retrofit schools, homes and parks to increase protection from noise and pollution.
- b. Identify location and develop facility for one-stop truck inspection.
- c. Provide incentives for businesses to accept off-peak deliveries.
- d. Create programs to assist truck owners with engine/equipment upgrades and retrofits.
- e. Restrict Port-generated traffic onto I-710 until improved fuels programs or other pollution emissions mitigation programs are implemented.
- f. Provide landscaping, specifically including tree planting, to improve air quality.

- 5. Implement Port-specific strategies**
- a. Require ports to develop plans to electrify other terminal operations as a priority.
 - b. Require all rubber tired gantry cranes to be electrified.
 - c. Require all ships docking in the Ports of Los Angeles and Long Beach to shut down all diesel engines and use shore electric power.
 - d. Require the ports to expedite development of effective pollution controls for ships.
 - e. Make mandatory the proposal of CARB to require that ships entering the coastal waters of California switch to low sulfur diesel fuel. Require the ports to provide financial subsidy if necessary to implement this requirement.
 - f. Include trucks, trains and rail yards, marine vessels, and port equipment in clean air initiatives.
 - g. Require all terminal equipment at the ports to operate on alternative fuel as defined by CARB. This includes Liquid Petroleum Gas, Compressed Natural Gas, or Liquid Natural Gas. As an alternative, require all engines to be equipped with pollution control technology, which achieves equal or less emissions.
 - h. Establish a fund that shippers must pay into, that provides rebates to those who adopt the use of clean air engines for vehicles. Ensure that this program accomplishes the goals of decreasing pollution rather than a pay-to-pollute program.

POLICY CONSIDERATIONS

The first consideration for approval of any improvements within the I-710 corridor must be the project's ability to reduce air quality impacts. Air quality in the corridor must be better at the time of construction than it is today. Therefore, these steps to reduce air pollution must be taken before construction can begin on the "mainline" project.

V. Jobs and Economic Development

SYNOPSIS OF FINDINGS

The central location of the Gateway communities and proximity to ports, waterfronts, airports, downtown, Orange County and the Inland Empire has been undercapitalized. The ports provide economic benefit but statistics do not exist that can track these benefits back to specific communities. Therefore, communities are not convinced of the specific level of benefit provided by the ports in comparison to the cost caused by port and freight operation. In recent years, the area has been in transition from high-quality, high-paying manufacturing and aerospace jobs to lower-pay manufacturing and logistics jobs. Improvement of air quality and the environment are essential for the area to take advantage of and capitalize on the area's assets. In addition, an investment in education is necessary to continue to diversify the economy and provide economic opportunity for residents. Finally, there is some measure of competition among the ports, resulting in lack of cooperative planning at the regional, state, national and international levels.

RECOMMENDED STRATEGIES

1. **Position the I-710 corridor and Gateway communities as leaders in the post-oil economy**
 - a. Develop and sponsor job training programs for alternative fuel vehicle retrofit and manufacturing, which will fit into a retrofit program implemented by the lead agency.
 - b. Re-think and re-organize alternative/non-oil methods and operations for goods movement throughout the region.
 - c. Conduct a feasibility study for an alternative transportation system such as Maglev.
2. **Create a community environment that attracts and retains businesses and residents who can support a new gateway cities economy**
 - a. Improve health, air quality and infrastructure.
 - b. Provide economic incentives for industries, and especially environmentally friendly industries, which offer the greatest multiplier effect and improve the region's quality of life.
 - c. Use the experience of other waterfront cities, such as Boston, New York, London, and Melbourne, as models for redevelopment.
3. **Enable the I-710 corridor and Gateway communities to become more proactive in today's economy**

- a. Conduct a cost/benefit analysis of the international goods movement industry to determine the economic impact of international trade on the corridor communities.
 - b. Reduce the communities' over-reliance on jobs that damage the quality of life by supporting the development of other, more community-friendly industries.
 - c. Create or support regional mechanisms for sustainable economic development.
- 4. Institute corridor-wide programs and partnerships to equip area residents with the skills needed to move into higher-paying jobs in this new economy**
- a. Develop and promote education, training and internship opportunities for youth and young adults.
 - b. Build on existing adult education and vocational training programs.
 - c. Establish strategic partnerships between corridor cities, the Gateway Cities COG, community colleges, regional occupational programs, and local business.
 - d. Dedicate an incremental percentage of container fees to partially fund job training and development programs.
 - e. Provide training to allow employees to transition from traditional truck, port and train jobs to alternative transportation systems such as maglev.
- 5. While promoting the importance of all business, recognize small business, as an economic driver, and foster its growth within the communities**
- a. Encourage land use and economic policies that support small business development.
 - b. Promote fee structures and amenities that attract and encourage small business growth.
- 6. Consistent with current law, advocate policies at the national, state, regional and local levels to require businesses that benefit from any potential I-710 improvements to pay living wages. (Note: Consensus was not reached on this specific recommendation. Dissent included, "the concept of living wages is unrealistic and unenforceable.")**

POLICY CONSIDERATIONS

The twin ports of the San Pedro Bay generate significant economic benefits to the Southern California region and the nation as a whole by facilitating the rapid growth in international trade. However, the cost associated with the movement of goods, whether through the ports or the region's arterial highway, freeway or rail corridors, is primarily

borne by local communities. The cities adjacent to the ports as well as the cities bordering the major transportation corridors, especially the I-710, experience increased levels of pollution. These external costs have reduced the attractiveness and livability of these communities. To address this imbalance, local residents and businesses must be net beneficiaries of the continued growth in international trade. Not only must programs be earmarked for local residents and businesses, but companies who locate in corridor communities must also be encouraged to hire locally. In addition, major construction projects should be structured to incorporate effective programs to provide local residents with jobs. At the same time, there is a clear obligation to implement mitigation measures to reduce the adverse effects associated with goods movement.

VI. Safety

SYNOPSIS OF FINDINGS

The I-710 corridor is one of the most unsafe freeways in the State. Increasing truck traffic, conflicts between cars and trucks, aging infrastructure and outdated design are all contributing causes to accidents in and around the freeway. In addition, the high concentration of older trucks is a significant contributing factor to the frequency of disabled big rigs, which pose a significant safety hazard. Truck intrusion into nearby communities and neighborhoods also negatively impacts street safety in these areas. While the Alameda Corridor grade separations have improved the safety of street crossings within the corridor, other freight and rail operations continue to be a source of concern for the communities. Furthermore, the current sub-standard design features of the I-710 significantly contribute to the traffic safety problems associated with the corridor, and demand safety design upgrades and improvements.

RECOMMENDED STRATEGIES

- 1. Continue support and implementation of safety programs**
 - a. Support the Gateway Cities Council of Governments (COG) Safety Initiatives.
 - b. Support implementation of MTA Big Rig Tow program.
 - c. Encourage goods movement industry to revise its rate structure in order to support truck upgrades.
- 2. Increase enforcement of traffic and vehicle safety laws and regulations**
 - a. Establish permanent truck inspection station(s).
 - b. Monitor vehicle speeds and enforce speed limits.
 - c. Support safe driving of trucks through added enforcement.
 - d. Support safe driving of vehicles in the presence of trucks through added enforcement.
 - e. Enforce a truck certification program for all trucks
- 3. Increase public and trucker education on safety and neighborhood issues**
 - a. Utilize CHP materials to increase public awareness.
 - b. Educate drivers about truck stopping speed and distances and truck driver blind spots.
- 4. Implement infrastructure improvements**

VI. Safety

- a. Ensure that median barriers are in place along the full length of the freeway, and that they are high enough to increase protection, minimize traffic delays created by glare and drivers slowing to view accidents.
- b. Improve lighting while fully mitigating light pollution from all sources including port and rail yards.
- c. Improve existing informational signage.
- d. Link signage to Intelligent Transportation Systems (ITS).
- e. Re-surface the I-710 Freeway, making no assumptions that doing so should necessarily add capacity.
 - i. If there is a major corridor improvement on the mainline, provide separate lanes for trucks and vehicles.

POLICY CONSIDERATIONS

Any improvements to the I-710 corridor must resolve the inherent conflicts between automobiles and trucks. Just as the Alameda Corridor helped reduce the conflicts between trains and automobiles, improvements to the I-710 corridor should lead to a safe highway infrastructure that resolves the truck/auto conflict, provides the opportunity to remove unsafe vehicles from the road, and creates a more efficient transportation corridor based on good information and safer geometric design features using the most current highway design standards, while minimizing and mitigating the impacts to the surrounding neighborhoods.

VII. Noise

SYNOPSIS OF FINDINGS

Excessive noise is a serious concern in the corridor. Noise has been shown to impact learning ability, skills development and quality of life. While not all noise can be eliminated, noise can be controlled through design and operational strategies, sound walls and retrofit of homes, schools and equipment. Noise must be controlled and we must find the means to do so.

RECOMMENDED STRATEGIES

- 1. Provide appropriate and effective sound walls to reduce noise impacts to neighborhoods and schools adjacent to the freeway**
 - a. Make sound walls along the freeway consistent in appearance, attractive and well designed. Plant native vines on walls to discourage graffiti.
 - b. Ensure that sound walls and noise abatement treatments are designed, budgeted and installed before construction begins, and take into account steps necessary to shield residents from the noise of construction itself.
 - c. Ensure that additional sound buffers, such as sound walls and landscaping are installed where double decking occurs, to ensure no increase in overall levels in residential areas.

- 2. Implement noise mitigation programs**
 - a. Retrofit homes and schools near the freeway, freight routes and rail yards with double-paned glass and air conditioning or other sustainable methods for reducing noise such as landscaping and window shades.
 - b. Trucks using the corridor must utilize the latest noise reduction technology, including retrofitting of old trucks to decrease noise.
 - c. Implement train noise mitigation for communities near rail yards and rail ways.
 - d. Aggressively enforce train switching and truck engine brake laws.
 - e. Ensure noise mitigation during construction, including mitigation related to truck diversion on all detour routes and “hot spots” in the corridor.
 - f. Design the freeway system so that there is a lower ambient noise level in communities.
 - g. Choose road surfaces that result in lower noise levels. Noise levels associated with any improvements must not exceed CNELs in local land use plans.

3. **Conduct a study to assess how truck traffic from extended gate hours for trucks and 24/7 port operations will impact communities, and assess what mitigations may be appropriate.**
 - a. Designate special truck routes through communities, and create them, if needed, utilizing designs that will result in lower noise and pollution levels in residential neighborhoods.
 - b. Adopt policies and enforcement mechanisms to reduce and prevent truck idling on city streets, and encourage new technologies in this endeavor.
 - c. Consider a mini-truck stop in designated areas to reduce and eliminate truck idling on city streets.

POLICY CONSIDERATIONS

Noise issues go beyond simply building more soundwalls. A comprehensive analysis of noise along the corridor must lead to a plan that recognizes the health impacts to our communities and seeks to resolve those impacts by providing appropriate relief. Future improvements must consider noise as a primary public health issue and find ways to mitigate those impacts.

VIII. Congestion and Mobility

SYNOPSIS OF FINDINGS

Congestion is a significant quality of life issue for area residents and businesses. The major purpose of congestion relief must be to improve the quality of life and economic vitality of the corridor rather than simply to accommodate ports growth. Although the port's growth is a major contributing factor to the increased traffic on the I-710 corridor, the ambient background growth must be considered and mitigated as well. The current corridor capacity is not adequate even for the existing demands in the area. It is necessary to identify multi-modal capacity enhancements along the I-710 corridor and the region to address congestion and mobility. Alternative transportation has been an underdeveloped asset in the corridor, especially mass transportation, bicycle and pedestrian options. Since many corridor and freeway improvements may require construction, we must recognize potential negative impacts from this construction and aggressively plan ahead to deal with them. While expanded hours for the ports can decrease congestion during daytime hours, this policy can also increase nighttime impacts on neighborhoods. Measures are needed to anticipate, plan for and mitigate these impacts.

RECOMMENDED STRATEGIES

- 1. Maximize use of existing infrastructure**
 - a. Synchronize signals along major arterials.
 - b. Consider extended gate hours for trucks and 24/7 port operations if ways can be found to ensure that there will be no impact on adjacent residential areas.
 - c. Encourage full utilization of the Alameda Rail Corridor and vigorously pursue additional use possibilities.
 - d. Support policies that support near dock facilities.
 - e. Regulate port- and rail-generated traffic onto I-710 based on I-710 capacity.
 - f. Encourage use of mass transit.
 - g. Encourage alternative business hours by employers to distribute commuter traffic to non-peak hours.
 - h. Encourage alternative business hours to accommodate trucks during off peak commuter hours, so long as the impact to the community is minimal.
- 2. Transit**
 - a. Create links to other forms of public transportation.

- b. Close gaps in bus service.
 - c. Expand light rail system.
 - d. Make use of alternative transportation such as maglev for port use and people moving.
 - e. Provide incentives for use of mass transit, including rideshare and other modes.
- 3. Provide a comprehensive bicycle and pedestrian network that provide connectivity throughout the area**
- a. Utilize existing bike and pedestrian trails and provide new ones along the Los Angeles River Corridor.
 - b. Establish east-west connections across the freeway to unite communities and provide access to the Los Angeles River bike trail.
 - c. Provide for bike lanes and sidewalks in all aspects of arterial improvements to the I-710 corridor.
- 4. Develop a consistently implemented plan with cities and residents to mitigate construction impacts and maintain access**
- a. Examine truck destinations to create alternate routes.
 - b. Mitigate impacts in all areas that are in proximity to local schools.
 - c. Restrict the construction hours to off-peak hours, and maximize the nighttime construction activities with full consideration for its noise and light impacts.
 - d. Support legislation (such as original language contained in AB2041) to encourage extended gate hours and to help mitigate truck traffic.
- 5. Support cooperative planning among all ports along the West Coast**
- a. Address impacts and develop consistent fee structures and policies with regard to containers.
 - b. Expand cooperative port efforts beyond Los Angeles/Long Beach to West Coast, national and international policies. Support a common fee structure among ports so that there is not an incentive to move freight operations based on fees paid.
 - c. Support legislation (such as in the original AB 2043) to develop and maintain a long-range plan for West Coast port planning and general transportation and distribution. Future port planning must take into account roadway and rail capacity not just terminal capacity.
- 6. Create additional options to address long-term capacity needs.**
- a. Consider long-term impacts of elevated roadways on the local economy and environment.

- b. Study the use of underground truckways to relieve congestion of surface traffic when surface truckways approach “design capacity”.

7. Address and Manage Impact of National Goods Movement Trends on Local Facilities.

- a. Set a goal to redirect a portion of imports destined outside Southern California to other West Coast ports.

POLICY CONSIDERATIONS

The goal of congestion and mobility relief is to improve the movement of goods and people significantly reducing health impacts and enhancing quality of life. The strategies suggest an approach that provides multiple options for personal mobility – auto, pedestrian, bike and transit – within the corridor. Likewise, the outcome for goods movement must be a comprehensive approach towards a regional network that reduces bottlenecks in all segments – ship, truck, and rail – but is not primarily to promote port growth. The current conditions along the corridor are simply not acceptable.

IX. Community Enhancements

SYNOPSIS OF FINDINGS

The I-710 corridor is more than just a place for trucks to pass through on their way to their final destination. It is the location of our homes, businesses, schools, parks, and lives. A significant consideration for all projects is how they enhance and upgrade the natural and built environment along the corridor. A revitalized I-710 must be the catalyst that improves the region's quality of life and makes the area an even more desirable place to live, work, and play.

RECOMMENDED STRATEGIES

1. **Preserve existing parks, opens space and natural areas**
 - a. The design must accommodate additional planned park, open space and wetlands projects in the corridor.
 - b. All mitigation funding for this project related to the impacts on open space, parklands or habitat will be used to implement Los Angeles River and tributary, or other open space, habitat restoration, recreational and educational opportunities within the corridor.
 - c. There must be no net decrease in the amount of permeable surface as a result of the I-710 corridor project.
 - d. Design ramp abandonment and other corridor-related infrastructure improvements to make maximum use of these areas for community open space and enhancement projects.
 - e. There must be no negative impacts to the Los Angeles River, Compton Creek or other open channels in the corridor as a result of this project.
 - f. To the maximum extent possible, landscaping materials used for this project should be local native plants.
2. **Develop and implement community enhancement projects**
 - a. Coordinate with local city redevelopment departments to identify priority enhancement areas.
 - b. Utilize input from CAC to develop community enhancement priorities.
 - c. Emphasize landscaping and aesthetic improvements to major arterial routes within the corridor.
3. **Provide programs to minimize construction impacts**
 - a. Establish construction staging areas in locations with the least amount of impact on local circulation.

- b. Establish a community forum to identify and rectify impacts during construction.
- 4. Develop and implement a plan for arterial streetscapes**
- a. Landscape medians, using native plants and recycled water where possible.
 - b. Utilize signage, which identifies communities and connections to local rivers, i.e., LA, Compton Creek, Rio Hondo, bikeways, parks and historical landmarks.
- 5. Mitigate light and glare in surrounding communities**

POLICY CONSIDERATIONS

As the import/export industry continues to grow and generate traffic in the ports, the corridor communities continue to be burdened without any significant gain. The inherent potential of these communities cannot be fully realized until their perception as unattractive and economically challenged communities is changed. Plans for future improvements to the I-710 are not intended to solely address congestion and mobility problems but to enhance local communities along the corridor. Major infrastructure improvements must also be conditioned on conclusion of satisfactory agreements with the neighboring communities to fully mitigate negative aesthetic impacts and to mitigate the impacts if any increased light and glare.

X. Design Concepts

SYNOPSIS OF FINDINGS

The Committee recognizes that something must be done to address the current congestion and design of the I-710 freeway. The high number of trucks on the freeway uses up capacity and the mix of cars and trucks poses a serious safety concern. Measures must be taken to separate cars from trucks. In addition, the design of the freeway is outdated and contributes to the safety and congestion problem. A new design concept for I-710 and/or alternative transportation modes for vehicles and goods movement is needed that responds to the specific design recommendations developed by the Tier 1 CACs to minimize or limit take of homes within their communities along I-710. The Committee further recognizes that certain aspects of the design concepts, particularly for designated on-ramps, may be appropriate for implementation prior to addressing the “mainline” issues. The Committee further recognizes that in addition to addressing air quality goals, prior to implementation of any mainline major infrastructure improvements there must be a definitive cost benefit analysis and environmental review to determine if there are alternative methods for addressing the capacity and safety deficiencies of the I-710 corridor. Therefore, these recommended strategies are premised on meeting those conditions.

RECOMMENDED STRATEGIES

- 1. Support capacity enhancement improvements for the I-710 Freeway upon meeting the conditions recommended in this report.**
 - a. Actively pursue and finalize the cost benefit and environmental studies required in the above synopsis of findings.
 - b. Advocate the inclusion of the I-710 corridor improvements for special earmark consideration in the federal transportation finance bills. To the extent possible, it is the committee’s desire that truck-related improvements and mitigations be financed by truck and port fees.
 - c. Actively pursue and develop creative funding alternatives to finance the design and capacity enhancement improvements for the I-710 corridor.

- 2. If economic and environmental studies show that expansion of the freeway is necessary, develop new transportation infrastructure for I-710 that separates cars from trucks.**
 - a. Add lanes for trucks that are separate from the I-710 freeway lanes.

- b. Build truck ramps that lead directly from I-710 to the railroad yards to take truck traffic out of neighborhoods and off of local streets.
 - c. Improve the Atlantic and Bandini intersection in the City of Vernon.
 - d. Improve the Atlantic and Bandini interchange to the south (Garfield to I-5 South).
- 3. If economic and environmental studies show that expansion of the freeway is necessary, locate the new truck lanes in such a way as to minimize community impacts**
- a. Utilize property between the existing freeway and the Los Angeles River to minimize taking of residences, local businesses and parks.
 - b. Truck lanes should be located in those lanes that are at the greatest distance from homes, parks and schools to limit noise and emissions impacts on the community.
 - c. Keep trucks at or below grade to reduce potential for noise and visual impacts.
- 4. Redesign unsafe and congested interchanges on I-710**
- a. Implement diamond interchange modifications as recommended by Tier 1 communities.
 - b. Maintain and improve local access to I-710 for residents and businesses.
 - c. Widen bridges that cross and parallel the I-710 to provide sufficient space for cars, bicyclists, and pedestrians.
- 5. Consider the future in implementing new I-710 design**
- a. Provide for future mobility in the long run by preserving options to use advanced technologies for moving goods as these are developed.
 - b. Use utility right-of-way to minimize community impacts.
 - c. Future port planning must take into account roadway and rail capacity, not just terminal capacity.
- 6. If economic and environmental studies show that expansion of the freeway is necessary, upgrade of the existing freeway must:**
- a. Ensure that sufficient capacity is provided for the general public by making improvements to the existing freeway (mainline) as presented by the Tier 1 design concepts.
 - b. The mainline portion of I-710 will be upgraded to modern design standards.
 - c. Continue working with those communities north of the rail yards to finalize design concepts in that area.

POLICY CONSIDERATIONS

We cannot entirely build our way out of congestion. Therefore, any freeway improvements project must be accompanied by other policies and programs such as those described in the congestion and mobility strategies. At the same time, the current status of the I-710 is not acceptable to the communities that depend on it and are affected by it. The hybrid design does a credible job of showing that maximum build out may be accommodated while incorporating community concerns about land use. However, further study is required to determine if there are other feasible alternatives that would substantively address the local communities' concerns. Final decisions on project configuration can only be made subsequent to the cost benefit and environmental studies required in the synopsis of findings. These improvements cannot be constructed in isolation from all of the other recommendations such as public health, community enhancement, and noise abatement. The I-710 design must take into account the safety and quality of life of the communities located next to the freeway, including provisions for greenbelts and open space.

XI. Environmental Justice

SYNOPSIS OF FINDINGS

In the fifty years since the freeway was first built, demographics have changed within the corridor. Today the corridor is home to low-income populations and minority groups, including African American, Asian, Latino, Pacific Islander and Native American communities. For many years, these communities have shouldered an unfair burden in health, economic, and quality of life issues in comparison with residents in other parts of the region. While the I-710 freeway is a critical factor in the region's economy, the localized negative impacts resulting from past transportation projects have more than offset their benefits in the corridor communities. Freeways have dissected some communities, and the operations of the logistics industry have compounded these impacts.

RECOMMENDED STRATEGIES

- 1. Include the corridor communities in the planning process in a meaningful way, including provision of appropriate language translation.**
- 2. Ensure that impacts do not disproportionately fall on low-income people or people of color.**
- 3. Ensure that the benefits from the projects flow to the corridor communities.**

POLICY CONSIDERATIONS

The requirement of the environmental justice is to provide a mechanism for the meaningful involvement of all people in the transportation decision-making process and to ensure that the low-income and minority communities receive equitable distribution of the benefits from transportation activities without suffering disproportionate adverse impacts. In order to ensure equitable outcomes, future I-710 corridor projects must include "implementable" environmental justice policies and procedures that are developed by the locally affected communities. The communities' expectation is that transportation projects in their communities will meet modern standards of safety, design and aesthetics and that all negative environmental impacts will be fully mitigated. The mitigations must be, at a minimum, determined by the Tier 1 communities and other communities which might be impacted by negative environmental impacts.

XII. Organization and Process

SYNOPSIS OF FINDINGS

To ensure that the work of the Tier 2 Committee is carried forward as set forth in this document, a task force of representatives from the Tier 2 CAC, the OPC and the TAC should be established to plan and oversee the implementation of the conditions and recommendations of the Tier 2 CAC.

RECOMMENDED STRATEGIES

- 1. This Tier 2 Report (Major Opportunity/Strategy Recommendations and Conditions) will be formally "agendized" and presented to the Oversight Policy Committee when it convenes in September 2004 (or as soon as possible thereafter) for its consideration and decision. All Tier 2 members will be invited to the OPC meeting, and the presentation of the Tier 2 report will be delivered by a representative group of Tier 2 spokespersons.**
- 2. Following the OPC's meeting, there will be a follow-up meeting(s) of the Tier 2 Committee to discuss actions taken by the OPC.**
- 3. Prior to the beginning of any formal EIR for the I-710 Major Corridor Study, Metro (MTA) and the Gateway Cities COG will work with the communities, appropriate agencies, organizations and community groups in developing a collaborative process for community participation in the environmental review process. This process will continue to work collaboratively throughout the EIR process.**

Appendix A
Strategies Summary Matrix

GUIDE TO INTERPRETING THE STRATEGIES SUMMARY MATRIX

The Strategies Summary Matrix lists the strategies recommended by the Tier 1 and Tier 2 Community Advisory Committees. The purpose of the Summary Matrix is to synopsize these strategies and to track the source of the recommended strategies.

The strategies are organized by the themes developed by the Tier 2 CAC and are referenced as follows:

- H** – Health
- J** - Jobs and Economic Development
- S** -- Safety
- N** -- Noise
- M** -- Congestion and Mobility
- E** -- Community Enhancements
- D** -- Design Concepts
- EJ** -- Environmental Justice
- P** -- Organization and Process

Guide to ID# Column Interpretation:

e.g. H1-a:

H = Located in the Health Section of the Tier 2 Report

1 = Strategy #1 in this Section

a = Designation of the specific recommendation under this Strategy

Source Column

Identifies the source of the recommendation:

- Tier 2
- Tier 1 & Tier 2
- Tier 1 only (note: These appear in *italics* and are strategies that were recommended by many Tier 1 communities, but not specifically called out in the Tier 2 Committee's final report.)

Programs/Policies

Strategies that relate to programmatic and policy recommendations

MCS Transportation Actions

Recommended Major Corridor Study (MCS) construction or mitigation activities to complement improvements to the I-710 mainline.

I-710 Design Concepts

Infrastructure improvement recommendations on the I-710 mainline interchanges.

I-710 Major Corridor Study Strategies Summary Matrix

August-04

					TYPE		
ID#	Strategy Type	Recommendation	Description	Source	I. Programs/Policies	II. MCS Transportation Actions	III. I-710 Design Concepts
HEALTH							
H1-a	Air Quality Improvements	AQ Improvement Action Plan	Establish a baseline of current levels of pollution.	Tier 1 & Tier 2	X		
H1-b			Identify level of air quality impacts from increasing truck, rail and shipping.	Tier 1 & Tier 2	X		
H1-c			Determine costs of health care that can be traced to pollution encountered by corridor community members as a result of construction.	Tier 2	X		
H1-d		Global Trade Expansion: Impact Assessment	Perform studies to determine direct and indirect health and other economic costs on corridor communities and region.	Tier 2	X		
			<i>Determine how other ports are addressing health and air quality issues.</i>	<i>Tier 1</i>	X		
H2-a		Truck Inspection	Use enforcement and increase inspections to control emissions.	Tier 1 & Tier 2	X		
H2-b		Port Emissions Reduction	Condition project approval on air quality improvements in Port operations	Tier 1 & Tier 2	X		
H2-c			Encourage development/expansion of fleet modernization clean air programs	Tier 2	X		
H2-d		Container fees	Impose container fees to generate revenue to enhance corridor communities and address impacts.	Tier 1 & Tier 2	X		
H2-e		Quantify Emissions	Install permanent monitoring stations to measure emissions levels.	Tier 1 & Tier 2	X		
H2-f			Develop and implement improved air quality monitoring techniques.		X		
H3-a	Diesel Emissions Reduction	Alternative Fuels	Support policies that encourage use of alternative fuels.	Tier 1 & Tier 2	X		
H3-b			Discourage use of out-of-state fuel.	Tier 1 & Tier 2	X		
H3-c			Subject all trucks to local, state and federal standards.	Tier 1 & Tier 2	X		
H3-d			Require trucks using I-710 to use alternative fuels or equivalent pollution controls.		X		
H3-e			Require railroad locomotives servicing the two ports to use alternative fuels.	Tier 1 & Tier 2	X		
H3-f			Require the Alameda Corridor Authority to prepare a plan to electrify locomotives involved in its operations.	Tier 1 & Tier 2	X		
H4-a	Environmental Improvements	Emissions Reduction and Mitigation	Retrofit schools, homes and parks to increase protection from noise and pollution.	Tier 1 & Tier 2	X		
H4-b			Identify location and develop facility for one-stop truck inspection.	Tier 1 & Tier 2		X	
H4-c			Provide incentives for business to accept off-peak deliveries.	Tier 1 & Tier 2	X		
H4-d		Truck emissions reduction programs	Create programs to assist truck owners with engine/equipment upgrades.	Tier 1 & Tier 2	X		
H4-e			Restrict Port generated traffic on I-710 until emission mitigation is in place.	Tier 1 & Tier 2	X		
H4-f			Provide landscaping to improve air quality.	Tier 1 & Tier 2	X		
H5-a	Port Air Quality	Alternative Fuels	Require plans for terminal operation electrification	Tier 2	X		

Guide to ID# Column Interpretation

e.g. H1-a:

H = Located in the Health Section of the Tier 2 Report

1 = Strategy #1 in this Section

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					II. MCS Transportation Actions	III. I-710 Design	Concepts
H5-b			Require electrification of port gantry cranes.	Tier 2	X		
H5-c		Ship Operations	Require ships to shut down diesel engines and use shore electric power.	Tier 2	X		
H5-d			Require ports to expedite development of pollution control for ships.	Tier 2	X		
H5-e			Make low sulfur diesel fuel use mandatory.	Tier 2	X		
H5-f		Emissions Control	Include trucks, trains, and rail yards, marine vessels and port equipment in clean air initiative.	Tier 2	X		
H5-g			Require terminal equipment emissions controls.	Tier 2	X		
H5-h		Funding	Establish shipper-funded emissions-lowering incentives.	Tier 2	X		
JOBS AND ECONOMIC DEVELOPMENT							
J1-a	Local Economic Development	Create New Corridor Economy	Provide job training programs for alternative fuel retrofit and manufacturing.	Tier 2	X		
J1-b			Reorganize and re-think alternative methods and operations for goods movement through the corridor that are not reliant on oil.	Tier 2	X		
J1-c			Conduct a feasibility study for alternative transportation system.	Tier 2	X		
J2-a		Support New Corridor Economy	Improve health, air quality and infrastructure to retain businesses and residents.	Tier 2	X		
J2-b			Provide economic incentives for industries which contribute to improving the region's quality of life.	Tier 1 & Tier 2	X		
			<i>Create local jobs to avoid commuting out of the corridor for better paying jobs.</i>	Tier 1	X		
J2-c			Use experiences of other waterfront cities as models for redevelopment.	Tier 1 & Tier 2	X		
J3-a			Conduct a cost benefit/analysis of the international goods movement industry to determine impact on corridor communities.	Tier 2	X		
J3-b	Job Development	Industry Development	Support more community-friendly industries to reduce communities' over-reliance on jobs that damage quality of life.	Tier 2	X		
J3-c			Create or support regional mechanisms for sustainable economic development.	Tier 2	X		
J4-a	Job Training	Education	Develop and promote education, training and internships opportunities for youth and young adults.	Tier 1 & Tier 2	X		
J4-b			Build on existing adult education and vocational training programs.	Tier 1 & Tier 2	X		
J4-c			Establish strategic partnerships between corridor cities, Gateway COG, education and local business.	Tier 2	X		
J4-d		Funding	Dedicate an incremental percentage of container fees to fund job training/development programs.	Tier 1 & Tier 2	X		
J4-e			Provide training to transition employees from traditional logistics jobs to jobs in alternative transportation systems.	Tier 2	X		
J5-a	Small Business Development		Encourage land use and economic policies that support small business development.	Tier 2	X		
J5-b			Promote fee structures and amenities that attract and encourage small business growth.	Tier 2	X		
J6			Encourage policies that promote "living wages" for area logistics businesses.	Tier 2	X		

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					II. MCS Transportation Actions	III. I-710 Design Concepts	
SAFETY							
S1-a	Safety Programs	Advocacy	Support the Gateway Cities Council of Governments (COG) Safety Initiatives.	Tier 2	X		
S1-b		Road Assistance	Support MTA "Big Rig Tow" program.	Tier 1 & Tier 2	X		
S1-c		Truck Upgrades	Encourage goods movement industry to revise its rate structure in order to support truck upgrades.	Tier 2	X		
S2-a	Enforcement	Truck Inspection	Establish permanent truck inspection station(s).	Tier 1 & Tier 2	X		
S2-b		Speed Monitoring	Monitor vehicle speeds and enforce speed limits.	Tier 1 & Tier 2	X		
S2-c		Increased Enforcement	Support safe driving of trucks through added enforcement.	Tier 1 & Tier 2	X		
S2-d			Support safe driving of vehicles in the presence of trucks through added enforcement.	Tier 1 & Tier 2	X		
S2-e		Truck Certification	Enforce a truck certification program for all trucks.	Tier 2	X		
			<i>Create truck driver training and licensing programs.</i>	<i>Tier 1</i>	X		
S3-a	Education	Public/Trucker Education Campaign	Build on existing CHP campaign to increase public awareness.	Tier 2	X		
S3-b			Educate drivers about truck stopping speed and distance and truck driver blind spots.	Tier 1 & Tier 2	X		
S4-a	Infrastructure Improvements	Median Barriers	Provide median barriers along the full length of the I-710 freeway.	Tier 1 & Tier 2		X	
S4-b		Lighting	Improve lighting while fully mitigating light pollution from all sources.	Tier 1 & Tier 2	X		
S4-c		Signage	Improve existing informational signage.	Tier 1 & Tier 2	X		
S4-d		Technology	Link signage to Intelligent Transportation Systems (ITS)	Tier 2	X		
			<i>Utilize computerized message boards to post traffic alerts.</i>	<i>Tier 1</i>	X		
S4-e		Resurfacing	Re-surface the I-710 Freeway (Provide separate lanes for trucks and vehicles if there is a major corridor improvement to the mainline)	Tier 1 & Tier 2		X	
NOISE							
N1-a	Noise Reduction	Sound Walls	Provide sound walls along the corridor that are consistent in appearance, attractive and well designed.	Tier 1 & Tier 2		X	
N1-b			Ensure sound walls are installed before any construction and are designed to mitigate construction impact.	Tier 2		X	
N1-c			Provide additional sound buffers where double decking occurs.	Tier 2		X	
N2-a		Noise Mitigation Programs	Retrofit homes near the freeway, freight routes and rail yards.	Tier 1 & Tier 2	X		
			<i>Provide air conditioning and window programs for residents along the freeway edge.</i>	<i>Tier 1</i>	X		
N2-b			Truck using the corridor must use latest noise reduction technologies.	Tier 1 & Tier 2	X		
N2-c			Provide train noise mitigation for communities near rail yards.	Tier 1 & Tier 2	X		
N2-d		Enforcement	Enforce train switching and truck engine brake laws.	Tier 2	X		
N2-e		Construction Mitigation	Ensure noise mitigation during construction.	Tier 1 & Tier 2	X		
N2-f		Design	Design the freeway system to lower ambient noise levels in communities.	Tier 2			X
N2-g			Use road surfaces that result in lower noise levels.	Tier 1 & Tier 2			X
N3-a		Alternate Routes	Designate special truck routes through communities and use designs that will result in lower noise pollution.	Tier 1 & Tier 2	X		
			<i>Encourage use of some arterials as routes for trucks.</i>	<i>Tier 1</i>	X		
			<i>Encourage use of other freeways as routes for trucks.</i>	<i>Tier 1</i>			
			<i>Provide improved East/West access to other regional freeways.</i>	<i>Tier 1</i>		X	

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					II. MCS Transportation Actions	III. I-710 Design	Concepts
N3-b		Truck Noise Reduction	Adopt policies and enforcement mechanisms to reduce and prevent truck idling on city streets.	Tier 1 & Tier 2	X		X
			<i>Partner with local business to allow shared parking opportunities on existing lots to eliminate truck parking on neighborhood streets.</i>	Tier 1			
N3-c			Consider a mini-truck stop in designated areas to reduce and eliminate truck idling on city streets.	Tier 1 & Tier 2	X		
CONGESTION & MOBILITY							
M1-a	Infrastructure Management	Technology	Synchronize signals at arterials along corridor.	Tier 1 & Tier 2	X		
M1-b		Improved Port Operations	Consider extended gate hours for trucks and 24/7 port operations while minimizing residential impacts.	Tier 1 & Tier 2	X		
			<i>Limit truck traffic hours and encourage more evening driving.</i>	Tier 1	X		
M1-c		Freight Rail	Encourage full use of the Alameda Rail Corridor.	Tier 1 & Tier 2	X		
			<i>Provide incentives to ship by rail.</i>	Tier 1	X		
M1-d			Support building near dock-rail facilities.	Tier 1 & Tier 2		X	
M1-e			Regulate port- and rail-generated traffic and link to I-710 capacity.	Tier 2	X		
M1-f	Traffic Reduction	Demand Management	Encourage use of mass transit.	Tier 1 & Tier 2	X		
M1-g			Encourage alternative business hours to distribute commuter traffic to non-peak hours.	Tier 1 & Tier 2	X		
M1-h		Logistics Operations	Encourage alternative business hours to accommodate trucks during off-peak commuter hours.	Tier 1 & Tier 2	X		
M2-a	Transit	Mass Transit Improvements	Create links to other forms of public transportation.	Tier 1 & Tier 2	X		
			<i>Create better connections between existing light rail and bus system.</i>	Tier 1	X		
M2-b			Close gaps in bus service	Tier 1 & Tier 2	X		
M2-c			Expand light rail system.	Tier 1 & Tier 2		X	
			<i>Build light rail along the I-710 to relieve auto congestion.</i>	Tier 1		X	
M2-d		Alternative Transportation	Make use of alternative transportation such as maglev for port use and people moving.	Tier 1 & Tier 2	X		
M2-e		Incentives	Provide incentives for use of mass transit, including rideshare and other modes.	Tier 1 & Tier 2	X		
M3-a	Connectivity	Bike and ped trails	Use existing bike and pedestrian trails and provide new ones along the LA River Corridor.	Tier 2	X		
M3-b			Establish east-west connections across the freeway.	Tier 2		X	
M3-c			Provide for bike lanes and sidewalks in all aspects of arterial improvements to I-710 corridor.	Tier 2	X		
M4-a	Construction Mitigation		Examine truck destinations to create alternate routes.	Tier 1 & Tier 2	X		
M4-b			Mitigate all areas that are in proximity to schools.	Tier 1 & Tier 2	X		
M4-c			Restrict construction to off peak hours.	Tier 1 & Tier 2	X		
M4-d			Support legislation to encourage extended gate hours to mitigate truck traffic.	Tier 1 & Tier 2	X		
M5-a	Port Planning	West coast port cooperative planning	Address impacts and develop consistent fee structures and policies with regard to containers.	Tier 1 & Tier 2	X		
M5-b			Expand cooperative port efforts beyond Los Angeles/Long Beach.	Tier 1 & Tier 2	X		
M5-c			Support legislation to develop and maintain a long-range plan for West Coast port planning and general transportation and distribution.	Tier 1 & Tier 2	X		

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					II. MCS Transportation Actions	III. I-710 Design Concepts	
M6-a	Alternative Options	Elevated Roadways	Consider long-term impacts of elevated roadways on the local economy and environment.	Tier 1 & Tier 2	X		
M6-b		Underground Roadways	Study the use of underground truckways to relieve congestion of the surface traffic when surface truckways approach "design capacity".	Tier 1 & Tier 2	X		
M7-a		Redirect Imports	Redirect a portion of imports destined outside Southern California to other West Coast ports.	Tier 1 & Tier 2	X		
COMMUNITY ENHANCEMENTS							
E1-a	Preservation	Parks and Open Space & Natural Areas	Accommodate additional planned park, open space and wetlands projects in corridor.	Tier 1 & Tier 2	X		
E1-b			Use open space-related mitigation funds to implement Los Angeles River and community projects.	Tier 1 & Tier 2	X		
E1-c			There must be no net decrease in the amount of permeable surface as a result of the I-710 corridor project.	Tier 1 & Tier 2	X		
E1-d		Community Open Space	Design ramp abandonment and other corridor-related infrastructure improvements to make maximum use of these areas for community open space and enhancement projects.	Tier 1 & Tier 2	X		
E1-e		Water Quality Protection	Any project should not have any negative impacts to the LA River, Compton Creek or other open channels in the corridor.	Tier 2	X		
E1-f		Native Plants	Encourage the use of native plants as landscaping materials used for this project.	Tier 2	X		
			<i>Provide extensive landscaping along 18-mile corridor to improve community aesthetics and image.</i>	Tier 1	X		
E2-a	Community Enhancement Projects	Agency Coordination	Coordinate with local city redevelopment departments to identify priority enhancement areas.	Tier 2	X		
E2-b		Prioritization	Develop community enhancement priorities using CAC input.	Tier 2	X		
E2-c		Landscaping	Emphasize landscaping and aesthetic improvements to major arterial routes within the corridor.	Tier 1 & Tier 2	X		
E3-a	Mitigation	Construction Staging	Establish construction staging areas in locations with the least amount of impact on local circulation.	Tier 1 & Tier 2	X		
E3-b		Community Consultation	Establish community forum to identify and rectify impacts during construction.	Tier 1 & Tier 2	X		
E4-a		Arterial Streetscapes	Landscape medians.	Tier 1 & Tier 2	X		
E4-b		Signage	Provide signage which identifies communities and connections to local natural areas and landmarks.	Tier 2	X		
E5		Light Mitigation	Mitigate light and glare in surrounding communities.	Tier 1 & Tier 2	X		
DESIGN CONCEPTS							
D1a	Capacity Enhancement	Studies/Assessment	Pursue and finalize the cost benefit and environmental studies required.	Tier 1 & Tier 2	X		X
D1-b			Finance truck related improvements through federal funds and truck and port fees.	Tier 1 & Tier 2	X		
D1-c			Actively pursue and develop creative funding alternatives to finance the design and capacity enhancement improvements for the I-710 corridor.	Tier 1 & Tier 2	X		
D2-a		Separate Trucks From Cars	Add lanes for trucks that are separate from the I-710 freeway lanes	Tier 1 & Tier 2			X
D2-b			Build truck ramps that lead directly from I-710 to the railroad yards to take truck traffic out of neighborhoods and off local streets.	Tier 1 & Tier 2			X
D2-c			Improve the Atlantic Bandidni intersection in the City of Vernon.	Tier 1 & Tier 2		X	

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					II. MCS Transportation Actions	III. I-710 Design Concepts	
D2-d			Improve the Atlantic Bandidni intersection to the south (Garfield to I-5 south).	Tier 1 & Tier 2		X	
D3-a	Minimized Impacts	Right of Way	Utilize the property between the existing freeway and the LA River to minimize taking of residences, local businesses and parks.	Tier 1 & Tier 2	X		
D3-b			Truck lanes should be located in those lanes that are the greatest distance from homes, parks and schools to limit noise and emissions impacts on the community.	Tier 1 & Tier 2	X		
D3-c		Design and Congestion	Keep trucks at or below grade to reduce potential for noise and visual impacts.	Tier 1 & Tier 2	X		
			<i>Make improvements to major arterials in corridor communities to relieve congestion.</i>	Tier 1		X	
D4-a	Improvements	Interchanges and Access	Redesign unsafe and congested interchanges.	Tier 1 & Tier 2			X
D4-b			Maintain and improve local access to the freeway for residents and businesses.		X		
D4-c		Bridges	Widen bridges that cross and parallel the freeway to provide space for cars, bikes and pedestrians.			X	
D5-a		Technology	Preserve options to advanced technologies for moving goods as these are being developed.	Tier 2	X		
D5-b		Right of Way	Use utility right-of-way to minimize community impacts.	Tier 1 & Tier 2	X		
D5-c		Port Planning	Future port planning must take into account roadway and rail capacity, not just terminal capacity.	Tier 1 & Tier 2	X		
D6-a	Capacity Enhancement Improvements	Local Improvements	Ensure sufficient capacity is provided for the general public by making Tier 1 CAC improvements to the existing freeway.	Tier 1 & Tier 2			X
		Carpool Lanes	<i>Dedicate one carpool lane for vehicles with 2 or more persons on the I-710 from the 405-Long Beach.</i>	Tier 1			X
		Management	<i>Include transponders for greater mobility & provide incentives for use.</i>	Tier 1			X
D6-b		Design	Upgrade mainline portion of the I-710 freeway to modern design standards.	Tier 2			X
			<i>Improve on and off ramps along the corridor.</i>	Tier 1		X	
D6-c			Continue work with communities north of the rail yards to finalize design concepts in that area.	Tier 1 & Tier 2	X		
ENVIRONMENTAL JUSTICE							
EJ1	Process	Community Engagement	Involve corridor communities and provide appropriate language translation.	Tier 2	X		
EJ2	Implementation	Community Impacts	Ensure that impacts do not disproportionately fall on low-income people or people of color.	Tier 2	X		
			<i>Impacts should be shared throughout other communities.</i>	Tier 1	X		
EJ3	Project Benefits	Benefit Assessment	Ensure that the project benefits flow to the corridor communities.	Tier 2	X		
			<i>Provide compensation to corridor communities that have been affected by I-710 freeway impacts.</i>	Tier 1	X		
			<i>Provide rebates to residents for use of extra water and power as a result of impacts from freeway.</i>	Tier 1	X		
			<i>Implement local employment requirements for future I-710 improvements.</i>	Tier 1	X		
ORGANIZATION AND PROCESS							
P1		Presentation to OPC	Tier 2 Report will be presented to the OPC by Tier 2 representatives.	Tier 2	X		
P2		Tier 2 Follow-up	Tier 2 CAC will meet following OPC action.	Tier 2	X		

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P3		Develop Collaborative Process	Metro and the Gateway Cities COG will develop collaborative community participation process prior to formal EIR process.	Tier 2	X		
			<i>Create a Task Force to allow for community participation and oversight.</i>	Tier 1	X		
			<i>Create a governing body such as the JPA with membership from community and agencies.</i>	Tier 1	X		

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Appendix B
Tier 1 CAC Community Ideas Matrices

I-710 Major Corridor Study

Tier 1 Community Advisory Committee CAC

August-04

City of Bell	
ID#	Community Ideas
H3-a	Our community needs to support pending legislation to address pollution.
D4-a	Improve the Florence exit and fix the cloverleaf.
D4-c	Widen bridges over the I-710 freeway.
E2-a, b	Improve sidewalk in the City.
E1-f	Implement a beautification program that includes graffiti removal and landscaping from I-91 to the I-60.
N1-a	Provide sound walls.
i	Seek opportunities to underground utilities.
N2-g	Repair potholes along the freeway.
EJ-3	City should be compensated for loss in revenue from construction impacts.
M3-a, c	Include bike trails in any potential projects.
D3-c	Improve intersection at Florence and Atlantic.
S4-d	Use Caltrans marquee to alert drivers when accidents occur.
H2-d	Assess surcharge fees on logistics industry to pay for improvements.
E3-a	Provide construction mitigation measures.
H1-d	Conduct study (funded by the ports) to determine the increased health impacts that port growth will cause.
H4-b	Increase inspection points to monitor and enforce compliance.
D6-a	Add carpool/bus lanes.
M1-b	Support 24/7 port operations.
M7-a	Encourage use of other ports.
ii	Cap port growth and rail yard expansion.

Xx-x - reference to the ID number found in the Strategies Summary Matrix

i - Local city issues to be addressed with the city during the environmental phase

ii - Ideas considered by Tier 1 CACs but not carried forward to Tier 2 CAC

I-710 Major Corridor Study

Tier 1 Community Advisory Committee CAC

August-04

City of Bell Gardens	
ID#	Community Ideas
H4-c	Encourage trucks to use I-710 during off-peak hours. Levy higher fees/charge premium fees on companies who transport during peak hours.
ii	Build an elevated four-lane truck-dedicated express roadway, within the LA River, with minimal off-ramps to access distribution facilities with no off-ramp to Bell Gardens.
H3-a	Provide incentives for use of alternative fuels: Levy higher fees/tolls on trucks using diesel fuel and make allowances for trucks using alternative fuels. Use technology to monitor compliance.
D3-a	Relocate transmission lines between the river and I-710 freeway and use transmission right-of-way for a truck-dedicated expressway.
ii	Build a truck-dedicated roadway over the river channel that runs along the freeway.
ii	Develop additional rail distribution facilities to support out-of-state hauls to help alleviate congestion at rail yards in Commerce and Vernon.
N1-a	Sound walls should be built along the freeway in Bell Gardens to mitigate noise pollution, particularly from heavy trucks.
N1-a	Ivy should be planted on the sound walls to discourage graffiti.
H2-a	Truck inspections should be conducted regularly to ensure trucks on the road comply with safety and emission standards.
N2-d	Alameda Corridor operators should provide quieter operations for the trains.
H4-f	Create a beautification program that provides landscaping and improved aesthetics along the freeway.

Xx-x - reference to the ID number found in the Strategies Summary Matrix

i - Local city issues to be addressed with the city during the environmental phase

ii - Ideas considered by Tier 1 CACs but not carried forward to Tier 2 CAC

I-710 Major Corridor Study

Tier 1 Community Advisory Committee (CAC)

August-04

City of Carson	
ID#	Community Ideas
N3-a	Provide East West Access for trucks and autos for other regional freeways.
D2-a, b	Get trucks onto freeway more directly and quickly.
i	Examine the Terminal Island Freeway extension to 405 and its potential impacts on Carson.
ii	Use LA River for truck access.
D4-a	Provide interchange improvements.
D2-a	Consider dedicated truck lanes with transponders along I-710 next to the river and provide incentives for trucks to adopt use.
M6-b	Underground proposed improvements, if possible.
M1-d	Create a near dock facility.
M1-c	Provide incentives to ship by rail.
H4-e	Regulate truck hours.
i	Consider possibility of building below grade along Alameda Street.
i	The community does not support the Terminal Island Freeway proposal extension to Alameda Street because of the possibility of increasing the amount of truck traffic on Alameda Street traveling through Carson.
H2-b	Reduce air pollution emissions from the Port and the rail systems and support federal legislation for more stringent air quality improvements.
D1-a	Tie improvements to I-710 to air quality improvements.
H3-a	Use new clean burning fuels as soon as possible - trucks and trains.
H1-d	Perform medical studies (cancer, asthma, etc.) for the community residents along the freeway to determine the extent of the air pollution problems to these communities.
H2-d	Provide funding for the air quality impacts the residents have had to suffer from the Port and truck diesel pollution.
H4-2	Provide incentives or other financial assistance to replace older diesel truck engines.
N1-a	Provide decorative sound walls along the freeway

Xx-x - reference to the ID number found in the Strategies Summary Matrix

i - Local city issues to be addressed with the city during the environmental phase

ii - Ideas considered by Tier 1 CACs but not carried forward to Tier 2 CAC

City of Carson

ID#	Community Ideas
N2-d	Alameda Corridor operators should provide quieter operations for the trains
H4-f E1-f E2-c	Create a beautification program that provides landscaping and improved aesthetics along the freeway, including trees.
EJ2	There should be equity of impacts spread among all corridor communities
M5-a	Ports should provide more efficient loading and unloading at the ports
H1-d	Look at other ports (San Diego, San Francisco, etc.) to determine how they are dealing with similar issues such as air quality and transportation
M7-a	Shift as much cargo to other ports as much as possible (Baja, Seattle, Ventura, etc.)
M1-b	24/7 Port operations (extended hours)
i	Reversible lanes
M5-b	Establish a second port in LA
H2-e	Provide a permanent, local air quality monitoring station
D2-a	Use tolls during peak hours
D2-a M6-a	Double deck the freeway starting at Port to avoid bottleneck at the Port and have it drop into a dedicated truck lane
D2-a	Add extra lanes between PCH and Willow
D5-a	Utilize TDM and TSM technologies.
H2a	Provide for truck inspection, including emissions, and increased enforcement.
N3-a	Examine other freeways in the region in addition to the I-710, provide interagency coordination and create truck routes along other freeways.
E1-a	Use the Los Angeles River green belt area.
D4-a	Provide separate truck interchanges to accommodate short-term hauling, where only limited truck access is needed.

Xx-x - reference to the ID number found in the Strategies Summary Matrix

i - Local city issues to be addressed with the city during the environmental phase

ii - Ideas considered by Tier 1 CACs but not carried forward to Tier 2 CAC

I-710 Major Corridor Study

Tier 1 Community Advisory Committee CAC

August-04

City of Commerce	
ID#	Community Ideas
H1-d	Reduce diesel emissions and other pollutants that damage air quality. The impact to our community's children is intolerable. The health of our community must become a priority! In the short-term deploy stronger enforcement; in the long-term, address the cumulative impacts that the growth in the number of trucks will have, and provide increased restrictions, insure to reduce the related increased levels of toxic emissions.
D2-c, d	Support the Bandini Alternative. It shows promise as a viable and community-supported solution. Include truck lanes on Bandini Boulevard and improving the I-5 at the Garfield interchange so trucks may go south on the I-5.
E3-a	Minimize construction impacts as much as possible, especially private property acquisition, and impacts to parks and public spaces.
M1-c	Improve public understanding through education about the purpose of the Alameda Corridor and its long-term potential as an effective and efficient transportation option.
D4-a	Explore solutions to resolve problems on both the I-5 freeway and the I-710 concurrently. It is important to recognize that these systems are dynamic and interrelated.
J3-a	Analyze the impacts on the quality of life in our community, along with possible financial impacts, of potential expanded 24/7 Port operation. Explore the local goods movement and truck route solutions that can help mitigate the impacts to our community. (This item is still subject to more community input)
H1-d	
N1-a	Determine the need and priority for sound walls, particularly in conjunction with other potential transportation and traffic improvements. Possible priority location could be the Bristow area, and both sides of the Washington Boulevard off-ramp.
D3-c	Oppose the proposed Slauson Avenue improvements because of the impacts in our City. The Bandini Alternative would make the Slauson improvements unnecessary.
ii	Explore the riverbed as a potential heavy-rail corridor to alleviate truck traffic related to goods movement from the ports.

Xx-x - reference to the ID number found in the Strategies Summary Matrix

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D2-c, d	Improve the Atlantic Bandini interchange, including truck ramps from the I-710 truck lanes and the southbound I-710 freeway, directly into the rail yards and truck ramps from the I-710 truck lane onto elevated truck lanes on Bandini Blvd. between I-710 and I-5 to Garfield Ave. at the I-5 freeway.
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Xx-x - reference to the ID number found in the Strategies Summary Matrix
i - Local city issues to be addressed with the city during the environmental phase
ii - Ideas considered by Tier 1 CACs but not carried forward to Tier 2 CAC

I-710 Major Corridor Study

Tier 1 Community Advisory Committee (CAC)

August-04

City of Compton	
ID#	Community Ideas
D4-a D6-a D6-a	Ensure that on-and off-ramps and adjacent streets are safe for both cars and pedestrians. Conduct a Pedestrian Analysis to determine the safety measures that may be needed on streets that lead to (or connect to) on-and off-ramps in Compton --particularly near schools..
D4-a	Improve the safety of the I-710 and 91 Interchange near Alondra. The west-bound 91 Freeway must be addressed.
H3-a	Fuel technology should be used to decrease air pollution.
E1-e N1-a	Ensure that Compton Creek will not be harmed from additional run-off resulting from freeway improvements. Provide stringent measures to against any potential pollution. Wildlife and plant life are vulnerable and must be protected. Sound walls should be provided to alleviate sound pollution.
i	Any widening and other improvements should take place on the east side of the I-710 through Compton. There should be no housing takes on the west side.
M4-a D3-c	Provide a by-pass for Compton and improve arterial highways that feed into the I-710.
D3-c D3-c	Ensure that major arterials are not adversely impacted by I-710 improvements. Analyze whether improvements are needed to improve the traffic flow on Atlantic, Alameda, Alondra, and Santa Fe, as all are important arterials in Compton.
M4-a D3-c	Consider placing restrictions for use of arterials that run through Compton. If use of these arterials are linked to I-710 improvements, there should be financial incentives provided to the city of Compton.
EJ2,3	The Port should provide financial incentives to the City of Compton for future proposed I-710 impacts that accommodate their growth.
D3-b	Ensure that truck-dedicated lanes on the freeway are located away from residential neighborhoods to avoid increased air pollution near homes.
D3-b	Keep elevated roadways away from residential neighborhoods.
M6-a	If elevated roadways are used, truck-designated roadways should be located on the lower level (to muffle the sound).

Xx-x - reference to the ID number found in the Strategies Summary Matrix

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ii - Ideas considered by Tier 1 CACs but not carried forward to Tier 2 CAC

M2-c	Provide a light rail system along the I-710 with stops in Compton.
D6-a	Provide carpool lanes that lead more directly to Long Beach as it is a major destination.
ii	Explore the use of the riverbed for I-710 improvements.
E3-a	When construction is underway, provide advance warnings of detours and closures.
H4-b	Locate a truck facility in Compton--if it generates revenue for the City.
S4-d	Designate and identify specific alternate routes through Compton for drivers who must exit the freeway when accidents occur. Encourage use of these routes as much as possible to protect neighborhoods.
H4-f E1-f	Ensure that ramps are "green" Landscaping should be planted and maintained to beautify the area along the freeway. Establish a committee to monitor maintenance and accountability.
EJ3	For I-710 improvements, establish a requirement that Compton youth and adults must be hired on projects.
P3	Establish an ad hoc partnership, such as a Joint Powers Authority, between the City of Compton, and other I-710 Corridor Cities, Caltrans, and other public agencies involved with the I-710 improvements.
D4-a	Improve the safety of the I-710 and 91 Interchange at Alondra. Redesign the interchange to provide safer merging conditions.
D4-a	Provide an exit ramp to Rosecrans Avenue from the I-105 ramps.
H1-a-d	Addressing air quality and its improvement is a top priority for Compton.
EJ3	Explore using Compton residents to work on I-710 construction projects and provide training if needed.

Xx-x - reference to the ID number found in the Strategies Summary Matrix

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ii - Ideas considered by Tier 1 CACs but not carried forward to Tier 2 CAC

I-710 Major Corridor Study

Tier 1 Community Advisory Committee (CAC)

August-04

Note: The East Los Angeles Tier 1 CAC is still evaluating various ideas and options for the I-710 and I-5 freeways and have not yet made any decisions on improvements to those freeways until further studies are completed.

East Los Angeles	
*ID#	Community Ideas
M2-c	Build a light rail system along the I-710 to relieve some of the auto congestion.
H3-f	Provide incentives, such as reduced fees, to encourage increased use of the Alameda Corridor and disincentives, such as increased fees/taxes, for truckers using the I-710.
H4-f	Beautify the I-710. Caltrans should maintain trash pick-ups, at a minimum, and provide landscaping.
D2-a	Double-deck the I-710 with truck-dedicated lanes.
EJ2	Encourage policy-makers to stress that San Gabriel Valley and South Pasadena must accept a more equitable share of the burden of traffic.
EJ2	Finish the I-710 through South Pasadena before making changes in our neighborhoods.
ii	Build a subterranean tunnel dedicated to truck traffic.
H4-c	Provide incentives for businesses to accept delivery during non-peak hours.
EJ1	Implement policies that encourage "land-use" trade-offs" and partnerships to allow shared parking or innovative solutions to eliminate truck parking in neighborhoods.
N1-a	Seek on-going funding for mitigation along the freeway, including soundwalls and concrete median barriers.
S4-a	
ii	Solutions must seek to resolve problems concurrently on both the I-710 and the 60 Interchange, as well as, the I-5 and I-710.
H3-a	Encourage technology that decreases toxic diesel emissions, such as the use of alternative fuels.
S4-b	Improve lighting along the corridor.

Xx-x - reference to the ID number found in the Strategies Summary Matrix
 i - Local city issues to be addressed with the city during the environmental phase
 ii - Ideas considered by Tier 1 CACs but not carried forward to Tier 2 CAC

East Los Angeles

*ID#	Community Ideas
M1-b	Encourage the Ports to implement 24/7 operations, including negotiating with the Teamsters Union.
M1-g M1-h	Limit truck traffic during rush hours and provide incentives to encourage more driving at night.
ii	Leave the Freeway as it is from Telegraph Road to the I-60 Freeway.
E1-a	Loss of open space due to freeways is a major concern.
ii	Tunnel under the freeway to provide truck dedicated lanes. Make it a toll-road to fund it.
ii	Interchange improvements are needed at the I-5 to I-710 southbound. Improve the on-ramp.
ii	Use a double-decker system within an existing right-of-way all the way to the I-210.
M1-f	Incorporate mass transit as alternatives to the freeway.
S2-b S2-c	Increase enforcement of speeding trucks.
S2-c	Trucks should use slow lanes only and second lane for passing only.
D2-a	Allow trucks to travel on dedicated lanes only.
S2-a	Increase enforcement of vehicles that don't meet regulations.
D2-a	Need to improve safety through design on Freeways.
S4-a	Add concrete barriers in the middle of the freeway.
M7-a	Disseminate goods through other ports--not just LA and Long Beach.
M1-c	Alameda corridor must be more widely used.
H3-a	Shift to alternative fuels.
H3-d, e, f	Require the use of alternative fuel for shipping.
H1-a	Conduct a study to evaluate air quality around schools. With a baseline established, change can be monitored.
H3-a	Outlaw use of diesel fuels.
EJ2, 3	Our community needs to have representation such as wealthier communities facing facing similar issues (101 freeway).
E1-a EJ3	Freeway improvements should result in community improvements such as parks, community facilities, local transit improvements.
D2-b	Provide off-ramps at rail yards.

Xx-x - reference to the ID number found in the Strategies Summary Matrix

i - Local city issues to be addressed with the city during the environmental phase

ii - Ideas considered by Tier 1 CACs but not carried forward to Tier 2 CAC

East Los Angeles

*ID#	Community Ideas
N1-a	Provide attractive and tall enough sound walls.
i	Address the area between Third and Sixth and McDonnell. There is dangerous double parking.
D3-a	East Los Angeles does not want any net loss in housing as a result of improvements to the freeway.
M2-a, b, c	Expand public transportation.
D3-c	Local streets that parallel the freeway need to be studied and improved.
H1-a - H2-f	Improvement in air quality is the number one priority for East Los Angeles.
ii	Examine other alternatives along I-5 (eliminate carpool lane or tunnel car pool lanes) to reduce property impacts in East Los Angeles.
ii	Determine impacts in East Los Angeles of proposed closure of I-710 Washington Boulevard interchange and mitigating impacts.

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I-710 Major Corridor Study

Tier 1 Community Advisory Committee (CAC)

Aug-04

City of Long Beach	
ID#	Community Ideas
	Community Approved Recommendations
i	Involve federal elected officials in the Freeway major corridor study.
i	The City of Long Beach should support Congress-member Rohrabacher's legislation to impose a fee on each container that enters the Port.
i	Do not move forward with the 710 Freeway project.
M2-d, e M3-b	Find an alternative to 710 Freeway expansion.
N1-a, b, c	Sound walls need to be included into the final budget for the 710 Freeway improvements, and they must be built at the time of construction of any improvements.
i	MTA and Caltrans should conduct a walk thru the Long Beach segment of the 710 Freeway where proposed improvements might take place.
EJ1	Minutes of all workshops should be translated in Spanish and Khmer.
i	No double decking of the 710 Freeway.
M4-b	School Bus traffic flow should not be impacted by future construction on the 710 Freeway.
S1-a S4-a	Center dividers must be built taller in the future.
	Health and Environment
H1-b	The Long Beach Health Department should conduct air quality studies near the intersection of the 710 Freeway and the 47 Freeway.
H3-a	School buses should use alternative fuels to reduce diesel emissions.
H3-a	The performance of alternative fuels on air pollution should be verified prior to commercial use.
i H1-d	City of Long Beach should review impacts of ICTF terminal to community and local schools. Truck idling levels at the ICTF terminal should be reduced to the level of the Ports.

Xx-x - reference to the ID number found in the Strategies Summary Matrix
 i - Local city issues to be addressed with the city during the environmental phase
 ii - Ideas considered by Tier 1 CACs but not carried forward to Tier 2 CAC

E1-f E2-c E4-a H4-f	Increase tree plantings in Long Beach by threefold.
H1-d	Future health studies must include data about deaths related to pollution.
H1-d	The City of Long Beach should conduct research into the health impacts on the community stemming from local refinery emissions.
H1-d	The City of Long Beach should conduct research into the health impacts of diesel and other vehicle emission to children.
H1-d	The research should include asthma and other health ailments, including respiratory problems, cancer, allergies, etc.
H3-a, e, f	Trains should use cleaner fuels.
i	Signage should be visible to traffic at all times in the design of the 710 freeway.
H1-d	The City of Long Beach should conduct research regarding the impacts of pollution to local residents from Port operations, the 710 Freeway, local petroleum refineries, and the proposed Liquid Natural Gas station.
H4-d H2-c	Give incentive funding to truck operators to use bio-diesel.
N1-a, b, c N2-a - g	Noise pollution should be mitigated for any I-710 Freeway improvements.
H2-b, c	Trucks and ships delivering and hauling cargo from the Port of Long Beach should use particulate matter traps.
H3-a	A pilot project for the use of bio-diesel should be implemented.
	Port Operation and the I-710
H4-e M5-c M7-a	A limit on Port expansion should be discussed.
M5-a	Tariffs should be imposed on businesses that use the port. The funds gathered through the tariffs should be utilized for programs to clean air pollution.
H2-b H2-a H3-d H4-d	Trucks operating at the Port should use bio-diesel or alternative fuels.
i	Shipping companies should hire independent truck drivers as employees and they should treat them fairly.
M1-d	On-dock rail capabilities should be expanded.

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H2-d	The Port should pay for any impacts to the community, including any improvements to the 710 Freeway and impacts to the health of residents in the community.
i	All empty containers should be shipped to the place of origin and they should be allowed to remain empty in the Port.
i	The City of Long Beach should research the impacts of Port expansion to the local tourism industry.
H2-d M5-a D1-b,c	Extra fees should be charged to Port tenants and companies hauling cargo from the Port to cover expenses related to local healthcare costs.
H3-a H2-b	The Port should support the use of green diesel and compressed natural gas for trucks hauling cargo from the Port.
H2-b N3-b	The Port should develop aggressive idling legislation to limit diesel truck idling to a maximum of five minutes.
M7-a	Cargo should be distributed to other regional Ports.
M7-a H4-e, i	The Port of Long Beach should be downsized.
M7-a H4-e, i	The City of Long Beach should define the maximum capacity of the Port of Long Beach.
M1-b, c, d	The Alameda Corridor Transportation Authority's initiatives should be implemented immediately.
H1-d	The Port should not extend to a 24-hour operation until further air quality research is conducted on the potential impacts to Long Beach residents.
H2-b	Governing agencies should make it mandatory for ships to slow down as they prepare to dock at the Port of Long Beach.
H2-b	By 2006, offshore shipping companies should be equipped to use shore power while docked at the Port.
i	Cargo containers should be standardized which would allow multiple companies to use the containers and reduce the number of empty containers at the Port.
i	The Port of Los Angeles should participate at the next workshop related to Port Operations.
H2-b	Local Ports should coordinate the use of alternative fuels strategies.
H1-c	The Port should conduct research on the cost of pollution to local healthcare.
M1-c, d M2-d	Identify alternative methods to haul cargo from the Port- other than diesel trucks.
H2-b	Ships should be made to slow down when entering the Port.
H2-b	Diesel emissions from sea vessels and trains need to be addressed by regulatory agencies.

Xx-x - reference to the ID number found in the Strategies Summary Matrix
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H2-b	Ships should use alternative fuels when docking at the Port of Long Beach.
	Preserving Neighborhoods
i	Residents should have free and competent legal advice provided to them to assist them with the property acquisition process.
EJ-3	Residents whose property is not taken but impacted by 710 Freeway improvements should be compensated by Caltrans.
EJ1	The City of Long Beach and Caltrans should inform residents about any property acquisition plans in advance and a timely manner.
i	The public should be provided an opportunity to view and comment on the new 710 Freeway designs at various public meetings.
M2-d, e	Do not take any businesses or homes until all other alternatives and options for improving the 710 Freeway are exhausted.
i	Caltrans should better maintain the properties they currently own in Long Beach.
EJ3 E3-b	Caltrans should establish a performance bond for any improvements to the 710 Freeway that would allow for residents to recoup any damages during construction.
EJ1	Residents should be encouraged to attend meetings about the 710 Freeway and they should continue applying pressure and giving input on this process.
EJ1	Properties should be referred to as "homes" and not "houses" during discussions about 710 Freeway improvements.
EJ1, 3 E3-b	Caltrans should provide contact information to residents about whom to contact regarding damages done to properties because of construction to the 710 Freeway.
EJ3	An appraisal should be conducted at the time of the final design for the 710 Freeway improvements and a second appraisal should be conducted at the time that Caltrans begins the property acquisition process.
i	Conduct community meetings in the first district to make it easier for residents in that district to attend meetings.
	Truck Congestion and Safety
M5-a D1-b D1-c S1-c	A toll on diesel trucks should be imposed to offset the cost of utilizing the Alameda Corridor.
D3-b	Study the spillover traffic and the 710 Freeway. The spillover traffic may create safety issues for pedestrians.
M1-c	A shuttle trail system should be developed to haul cargo to local distribution centers in Southern California.

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M3-b	Use the Terminal Island Freeway and the Alameda Corridor to haul cargo and divert diesel trucks away from the 710 Freeway.
M4-a	The 103 Freeway should be expanded and should proceed left on Sepulveda and Willow and connect to the Alameda Corridor.
M4-a	Encourage the use of the 110 Freeway to divide truck traffic equally with the 710 Freeway.
M4-a	The City of Long Beach should establish a transportation policy to divert truck traffic to routes other than the 710 Freeway.
M5-a D1-a, d, c	A toll shall be implemented on trucks hauling cargo from the Port and shipping companies should pay a toll.
H2-a	A new truck inspection site should be built on Port of Long Beach Property.
i	Truck drivers should be considered when developing new cargo hauling methods.

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I-710 Major Corridor Study

Tier 1 Community Advisory Committee (CAC)

August-04

City of Lynwood	
*ID#	Community Ideas
ii	Install surveillance cameras at areas known to be unsafe in order to reduce hit-and-run accidents and dangerous, illegal driving behavior.
D2-a	Minimize trucks accidents by separating truck/auto traffic.
S3-b	Improve safety by implementing public education campaigns aimed at increasing awareness of how to share the road safely with trucks, and through greater enforcement and emphasis on adequate truck driver training and licensing.
ii	Explore the possibility of constructing a truck-dedicated elevated roadway above the riverbed that runs parallel to the I-710.
ii	Double-deck the I-710 freeway with truck-dedicated lanes.
M2-c	Support a light rail system that follows the course of the I-710. Provide stations that are easily accessible for Lynwood residents.
E1-f	Provide landscaping along the freeway in Lynwood. Ensure that landscaping creates an aesthetically-pleasing, <u>safe</u> environment.
S4-a	Extend the median barriers along the entire stretch of the freeway.
M1-h	Limit truck traffic hours.
D4-b	Improve access to Lynwood by creating more off-on ramps.
ii	Explore utilizing Alameda and Imperial as the major mobility corridors for through-truck traffic.
M1-h	Limit the hours of operation of trucks and increase fees during peak hours.
ii	Build a truck-designated roadway within the LA River.
M1-e	Lower fees to promote increased use of the Alameda Corridor for goods movement.
N1-b	Build sound walls along the entire I-710 to buffer noise in residential areas. Where necessary, use similar sound mitigation measures that airports employ.
S4-b	Improve existing lighting/add new lighting on the I-710.
i	Study Josephine, Rosecrans, Martin Luther King Boulevard, Abbott, and Carlin to determine traffic flow improvements that are needed (as part of the EIR process.)
H3-a	Provide more stringent air quality standards that address the excessive pollution generated by diesel-using trucks.

Xx-x - reference to the ID number found in the Strategies Summary Matrix

i - Local city issues to be addressed with the city during the environmental phase

ii - Ideas considered by Tier 1 CACs but not carried forward to Tier 2 CAC

City of Lynwood

*ID#

Community Ideas

- E2-b Beautification of areas through landscaping and maintenance of landscaping should take place, particularly beneath the cloverleaf portion of the I-710 (in Lynwood) that may be reconfigured as a future improvement (see Jerry Wood's concept drawings)
- D4-a Provide more on/off ramps from the I-105 to Lynwood at Atlantic Ave. and also Alameda St..
- i Conduct a pavement analysis of city streets before and after construction of arterial and I-710 improvements to assess whether damage has occurred. If streets have been damaged, the responsible agency/entity shall pay for and undertake repair in a timely manner.
- E3-a

Xx-x - reference to the ID number found in the Strategies Summary Matrix

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I-710 Major Corridor Study

Tier 1 Community Advisory Committee (CAC)

August-04

City of South Gate	
*ID#	Community Ideas
M1-a	Synchronize traffic signals along arterials and major streets for better mobility and to less congestion.
D4-a	Reconstruct Imperial/I-710 interchange to establish diamond lanes similar to Firestone/1-710.
N2-e	Mitigate noise and dust during construction.
S4-c	Adequately mark and provide signage for truck routes.
N1-a	Construct decorative sound wall and safety shields along the freeway adjacent to affected residents and businesses.
E2-c	Include landscaping along the (I-710) freeway especially at interchanges and soundwalls.
i	Provide a three dimensional model of the proposed I-710 Freeway improvement in the City of South Gate.
i	Provide a time schedule that includes sequence of construction work in South Gate.
M4-c	Establish ways to minimize inconvenience to residents and businesses during construction.
EJ2	Provide incentives to residents and businesses that have been and will be suffering depreciation and (loss of) income during construction of the freeway.
M1-h	Install ramp metering for trucks at the port of Long Beach.
ii	Establish a (800) number with a bilingual live person responding throughout this project so anyone can call with questions. Consider using television, internet, radio and other media fro keeping the community informed of the project status through completion.
P3	Continue including Tier 2 on the corridor improvements through project completion including but not limited to design, construction staging (especially establishing detour routes during construction).
D3-c	Extend Southern Avenue under or over the freeway and increase Southern Ave. Lane width to four lanes (two lanes each direction) for better mobility and to reduce local traffic from Firestone.

Xx-x - reference to the ID number found in the Strategies Summary Matrix

i - Local city issues to be addressed with the city during the environmental phase

ii - Ideas considered by Tier 1 CACs but not carried forward to Tier 2 CAC

City of South Gate

*ID#	Community Ideas
D4-c	Widen Garfield Avenue Bridge over the Rio Hondo River and associated sidewalk along Garfield.
M2-b	Consider using additional bus transportation on Garfield between Firestone and Imperial.
EJ2	Provide fair and expedient negotiations with property owners that must move due to the proposed project. In the event of partial takes, efforts should be made to replace the property taken with property contiguous with that remaining.
i M4-b	Avoid impacts to local businesses including Security Public Storage South Gate Facility, Scully-Miller and Rockview Farms.
ii	Prior to major freeway construction surface street repairs, upgrades and improvements should be scheduled and completed. This work should be undertaken on all surface streets within the corridor that will be impacted traffic diverted from the I-710 during construction and should include refinement of the traffic control system.
D2-a D4-c	Rockview supports the inclusion of "truck only" lanes as part of the project. Include the installation of a Southern Ave. Bridge over the I-710 thereby connecting east with west South Gate. This bridge would relieve traffic on Firestone Blvd. and provide a second exit on for the Thunderbird Mobile Home Park.
M4-a	Provide advance and continuous public notice of road closures, detours and other changes to traffic flow. Include accommodations for emergency services, truck and business traffic signage directing customer traffic to businesses.
E1-f	Develop a freeway design that includes beautification of the right of way with a separate identity for each city through which the freeway passes.
i	Maintain access to Sully-Miller Construction by providing the same number of driveways.
D3-c	Study parallel arterial highway and determine needed improvements prior to major construction of the freeway.
i	Improve air quality and reduce diesel emissions.
M1-b	Support extended hours of operation at the ports and moving more cargo by rail, potentially the Alameda corridor.

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APPENDIX T

***Recommendations for Consideration in
Adoption of I-710 Locally Preferred
Strategy, I-170 Technical Advisory
Committee, September 2004***

TO: I-710 Oversight Policy Committee

FROM: William C. Pagett, Chair
I-710 Technical Advisory Committee

SUBJECT: Recommendations for Consideration in Adoption of I-710 Locally Preferred Strategy

The I-710 Technical Advisory Committee (TAC) was created to provide advice to the Oversight Policy Committee (OPC) in the conduct of the Major Corridor Study and Development of a Locally Preferred Strategy. The TAC consists of staff professionals from 14 cities, the County of Los Angeles, the Ports of Long Beach and Los Angeles, the South Coast Air Quality Management District (AQMD), the California Highway Patrol, Caltrans, the Federal Highway Administration (FHWA), the Los Angeles Metropolitan Transportation Authority (MTA) and the Southern California Association of Governments (SCAG). The Automobile Club also sits as an ex officio member.

In May, 2003 the OPC charged the TAC with bringing a freeway improvement alternative that incorporates elements of transportation system management, transportation demand management and construction of transportation improvements. The OPC requested that "These elements...be acceptable to each affected city with the purpose of minimizing right-of-way acquisitions and the objective of preserving existing housing stock, yet work together as an integrated strategy consistent with adopted guiding principles."

I am pleased to report that the TAC has completed its review of the design concepts developed through the community based design process the OPC established. The committee has also heard reports from the COG's engineer and comments from TAC members, some of whom worked closely with the Tier 1 Committees in their respective communities and others who reviewed the results of those Committee deliberations. Upon review, the TAC believes that the hybrid design concepts do accomplish the goals the OPC set forth. In particular right-of-way impacts are significantly reduced.

The TAC recommends the following components be included in the OPC's Locally Preferred Strategy:

- The hybrid design concept, which consists of 4 truck lanes, 10 mixed flow lanes, and specified interchange improvements, between Ocean Boulevard and the inter-modal rail yards in Vernon/Commerce.
 - The TAC acknowledges that the portion of the I-710 Corridor from Atlantic-Bandini to SR-60 is still under study and that findings from the mini-study will be integrated with the hybrid design concept prior to initiating environmental studies.

- Issues, such as the proposed truck lane ingress/egress ramps at I-710/ Miller Way, will be revisited during the follow-on environmental studies.
- Alternative A No Build
- Alternative B Transportation System Management/Transportation Demand Management
- Improvement of arterial highways within the I-710 Corridor
- Construction of truck inspection facilities to be integrated with the selected overall design concept

In addition, the TAC wishes to communicate to the OPC its support for the broad concepts in the Tier 2 Final Report *Major Opportunity/Strategy Recommendations and Conditions* while acknowledging that some of the recommendations would require legislative and/or regulatory changes.

Attached for your review are: an illustration of the hybrid design concept, a summary of anticipated right-of-way impacts and a technical report describing the design concepts in greater detail.

The members of the TAC appreciate the opportunity to work on this important project and look forward to continuing to work with you as the project enters the environmental analysis phase.

Attachments:

- Hybrid Design Concept Map
- Hybrid Design Concept Table and
- Hybrid Mainline Alternative of Locally Preferred Strategy Technical Report

I-710 Major Corridor Study Hybrid Design Concept

- 10 General Purpose Lanes
- 4-Lane Truckway
- Interchange Improvements
- Direct Truck Ramps

LEGEND

- Add One Mixed Flow Lane (Each Direction)
- Add Two Mixed Flow Lanes (Each Direction)
- Exclusive Truck Facility
- Interchange Improvement
- New Interchange
- X Eliminate Interchange
- Truck Ramps
- Truck Ingress/Egress

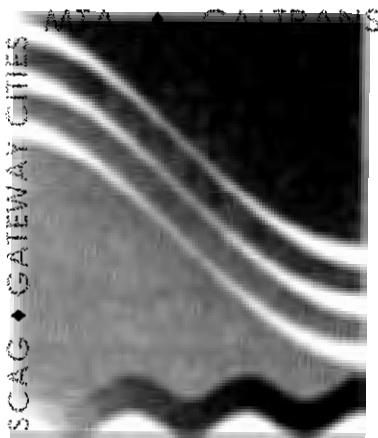
Preliminary Concept Subject to Change



Source: Jerry Wood, Consultant, in association with MMA, Inc. and Nolan Consulting, Inc., April 2004

APPENDIX U

***I-170 Oversight Policy Committee
Adopted Locally Preferred Strategy,
Executive Summary, November 18,
2004, Gateway Cities Council of
Governments, January 2005***



I-710 MAJOR CORRIDOR STUDY

I-710 Oversight Policy Committee Adopted Locally Preferred Strategy November 18, 2004

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

- Page 3 CONSIDERATION OF THE RECOMMENDATIONS FROM THE I-710 TECHNICAL ADVISORY COMMITTEE, TIER 1 COMMUNITY ADVISORY COMMITTEES, AND TIER 2 COMMUNITY ADVISORY COMMITTEE
- Page 5 Locally Preferred Strategy
 Action: Voted unanimously to adopt The Locally Preferred Strategy described in attached report and illustrated in the attachments for purposes of environmental analysis, incorporate the results of the sub-area “mini” study upon its completion, and seek funding to initiate an EIR/EIS.
- Page 9 Tier 2 Report and Recommendations for Health and Air Quality
 Action: Voted unanimously to request the Gateway Cities Council of Governments to return with suggested steps for initiating the development and implementation of a corridor level Air Quality Action Plan to include not only technical, but also funding, institutional structure and legislative strategies as well as an approach to holding public agencies with jurisdiction in the Corridor accountable for progress in meeting air quality and public health objective in the Corridor and Region.
- Page 11 Tier 2 Report and Recommendations for EIR/EIS
 Action: Voted unanimously to forward the Tier 2 report in its entirety to be accepted as pre-scoping guidance to the preparation of the EIR/EIS.
- Page 13 Tier 2 Report and Recommendations for Community Improvements Independent of the EIR/EIS
 Action: Voted unanimously to request the Gateway Cities Council of Governments to identify and pursue appropriate avenues to implement those Tier 2 recommendations that prove to exceed the scope of any I-710 transportation improvement project and report back to the community.
- Page 15 Tier 1 and Tier 2 Community Outreach Process
 Action: Voted unanimously to request MTA and COG staff to suggest a process and structure for continuing community participation throughout the environmental analysis.

November 18, 2004

Consideration of the Recommendations from the I-710 Technical Advisory Committee, Tier 1 Community Advisory Committees, and Tier 2 Community Advisory Committee

As you know, extensive energy and cooperation has occurred in the coming together of this set of recommendations. The participants of the Tier 1, Tier 2, and Technical Advisory Committees are to be applauded for their tremendous time and dedication to this worthwhile exercise. They are truly working in the public interest.

Structure

The I-710 Oversight Policy Committee (OPC) is advised by a Technical Advisory Committee (TAC) and a series of Community Advisory Committees. The TAC was directed by the OPC in May 2003 to develop a hybrid design alternative. The Tier 1 committees were recommended by the OPC and implemented by each interested city. The Tier 2 committee was created by the OPC to include the Tier 1 committees and a broad base of stakeholder interests up to a maximum membership of 46 persons.

Overview

In September 2004, the TAC presented its recommendations on the Hybrid Design to the OPC. The TAC voted to support the Tier 2 recommendations, "in broad concepts."

In September 2004, the Tier 2 Committee presented its recommendations to the OPC. The Tier 2 Corridor Level Community Advisory Committee also considered the design developed by and with the Tier 1 Committees.

The recommendations of the Tier 1 Committees are incorporated in the design, and in large part in the Tier 2 report.

The Tier 2 committee recommendations address a range of subjects relating to the future of the I-710 corridor with emphasis on public health.

Current Status

These various sets of recommendations have been synthesized into a number of subject areas for OPC consideration and action with the goal of directing the recommendations to an appropriate venue for further action. On the following pages you will find these agenda items for your consideration:

- A. The Locally Preferred Strategy
- B. Tier 2 Report and Recommendations for Health and Air Quality
- C. Tier 2 Report and Recommendations for the Environmental Impact Report/Environmental Impact Statement
- D. Tier 2 Report and Recommendations for Community Improvements Independent of the Environmental Impact Report/Environmental Impact Statement
- E. Tier 1 and Tier 2 Community Outreach Process

Locally Preferred Strategy

Background

In May 2003, the OPC adopted the following guiding principles for the I-710 Major Corridor Study.

1. Minimize right-of-way acquisitions with the objective being to preserve existing houses, businesses and open space.
2. Identify and minimize both immediate and cumulative exposure to air toxics and pollution with aggressive advocacy and implementation of diesel emissions reduction programs and use of alternative fuels, as well as in project planning and design.
3. Improve Safety by considering enhanced truck safety inspection facilities and reduced truck/car conflicts and improved roadway design.
4. Relieve congestion and reduce intrusion of traffic into communities and neighborhoods by employing a comprehensive regional systems approach that includes adding needed capacity as well as deploying Transportation Systems Management (TSM) and Transportation Demand Management (TDM) technologies and strategies to make full use of freeway, roadway, rail and transit systems.
5. Improve public participation in the development and consideration of alternatives and provide technical assistance to facilitate effective public participation.

At the same time, the OPC passed the following motion:

“Direct the Technical Advisory Committee (TAC) to start with Alternative B and create a “hybrid” alternative that combines appropriate elements from all 5 alternatives. These elements must be acceptable to each affected city with the purpose of minimizing right-of-way acquisitions and the objective of preserving existing housing stock, yet work together as an integrated strategy consistent with adopted guiding principles.”

Findings

- The OPC finds that the community based hybrid design developed in close cooperation with the Tier 1 committees accomplishes these objectives and is consistent with these guiding principles by minimizing right-of-way, locating truck lanes at the greatest possible distance away from residences, improving safety, separating cars from trucks, and relieving congestion.
- The OPC finds that the TAC recommendations further accomplish these objectives and are consistent with the guiding principles by incorporating Transportation System Management/Transportation Demand Management, improvement of arterial highways and truck inspection facilities.

- The OPC further notes that these elements are reflected in the Tier 2 recommendations on safety, congestion and mobility, and design concepts.

Future Direction

1. The OPC approves the following as the Locally Preferred Strategy for purposes of environmental analysis:
 - The hybrid design concept, which consists of ten (10) mixed flow lanes, specified interchange improvements, and four (4) truck lanes between the inter-modal rail-yards in Vernon/Commerce and Ocean Boulevard in Long Beach (illustration attached.)
 - Alternative B Transportation System Management/Transportation Demand Management
 - Improvement of arterial highways within the I-710 Corridor
 - Construction of truck inspection facilities to be integrated with the selected overall design concept
2. The OPC recognizes that the locally preferred improvements serving general purpose traffic in the sub-area between Atlantic-Bandini and SR-60 remain undefined and require further study. The OPC commits that this "mini" study will be completed and its results incorporated into the Locally Preferred Strategy prior to beginning the environmental analysis. The results of this study will be reviewed by all impacted Tier 1 Committees, the Tier 2 Committee, all impacted City Councils and the Technical Advisory Committee. Recommendations will be made by the advisory committees to the OPC for its determination on any proposed improvements in the northern sub-area of the Corridor before being forwarded to the transportation agencies for inclusion in the Locally Preferred Strategy.
3. The OPC and its members commit themselves to work collaboratively with agencies and other stakeholders to seek funding for an I-710 EIR/EIS. The OPC recognizes that the location of the Ports of Long Beach and Los Angeles in this region contributes to the congestion, health and safety issues we face. The location of these international trade gateways also means that the I-710 is an issue of national significance. The OPC believes that federal funding and funds from the goods movement industry must each have a role in the development of this project.

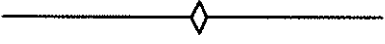
Recommended Action

It is recommended that the OPC adopt the Locally Preferred Strategy described above and illustrated in the attachment for purposes of environmental analysis, incorporate the results of the sub-area "mini" study upon its completion, and seek funding to initiate an EIR/EIS.

ACTION TAKEN

Voted unanimously to adopt The Locally Preferred Strategy described in above report and illustrated in the attachments for purposes of environmental analysis, incorporate the results of the sub-area "mini" study upon its completion, and seek funding to initiate an EIR/EIS.

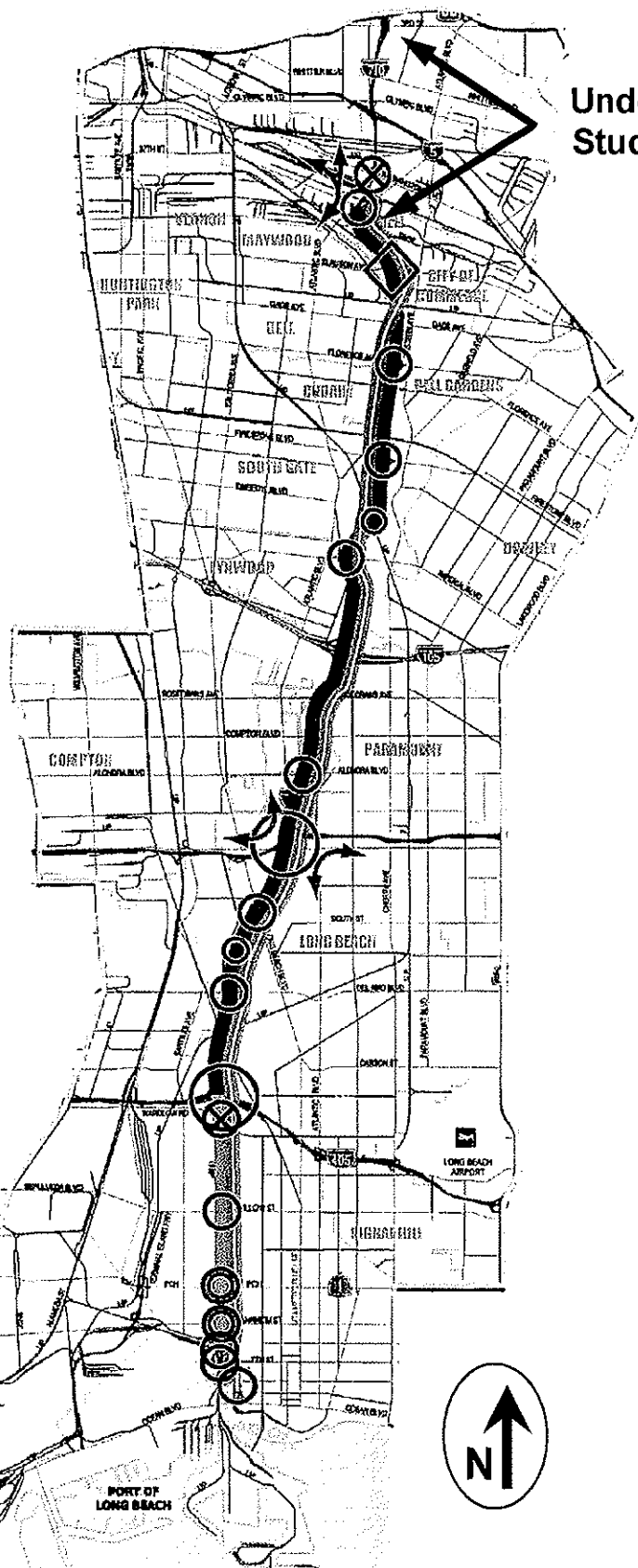
I-710 Major Corridor Study Hybrid Design Concept



- 10 General Purpose Lanes
- 4-Lane Truckway
- Interchange Improvements
- Direct Truck Ramps

LEGEND

- Add One Mixed Flow Lane (Each Direction)
- Add Two Mixed Flow Lanes (Each Direction)
- Exclusive Truck Facility
- Interchange improvement
- New Interchange
- Eliminate Interchange
- Truck Ramps
- Truck Ingress/Egress



Under Study

Preliminary Concept Subject to Change

Source: Jerry Wood, Consultant, in association with MMA, Inc. and Nolan Consulting, Inc., April 2004

November 18, 2004

Tier 2 Report and Recommendations for Health and Air Quality

Background

In May 2003, the OPC adopted five guiding principles including:

Guiding Principle #2

Identify and minimize both immediate and cumulative exposure to air toxics and pollution with aggressive advocacy and implementation of diesel emissions reduction programs and use of alternative fuels, as well as in project planning and design.

The Tier 2 Report prominently states that in the I-710 Corridor "health is the overriding consideration" and that "Air quality is the number one public health issue."

The Tier 2 Report finds that the first strategies in improving air quality, and thereby public health must be:

1. Develop an action plan to improve air quality in the corridor; and
2. Implement a corridor level action plan to improve community air quality.

Findings

The OPC agrees with the Tier 2 Committee that air quality is the number one public health issue in the I-710 Corridor.

The OPC agrees with the Tier 2 Committee that a first step must be the development of an action plan to improve air quality in the Corridor

The OPC finds that the development of such a Plan must begin at once.

Future Direction

Request Gateway Cities COG to provide recommendations for implementing a corridor level Air Quality Action Plan to include the following objectives:

1. Determine and quantify existing air and health quality setting;
2. Determine effectiveness of planned near-term air quality improvements;
3. Analyze and determine possible new (or emerging) air quality improvements or strategies, including estimating costs, time-lines and responsibilities;
4. Develop conceptual plan to implement and measure air quality improvements for the region; and
5. Work with Regional, State and Federal Agencies responsible for air pollution control and enforcement and industry stakeholders along with local communities to develop consensus for this plan.

Recommended Action

It is recommended that the OPC request the Gateway Cities Council of Governments to return with suggested steps for initiating the development and implementation of a corridor level Air Quality Action Plan.

ACTION TAKEN

Voted unanimously to request the Gateway Cities Council of Governments to return with suggested steps for initiating the development and implementation of a corridor level Air Quality Action Plan to include not only technical, but also funding, institutional structure and legislative strategies as well as an approach to holding public agencies with jurisdiction in the Corridor accountable for progress in meeting air quality and public health objective in the Corridor and Region.

November 18, 2004

Tier 2 Report and Recommendations for Environmental Impact Report / Environmental Impact Statement (EIR/EIS)

Background

In May 2003, the OPC adopted five guiding principles including:

Guiding Principle #5

Improve public participation in the development and consideration of alternatives and provide technical assistance to facilitate effective public participation.

To implement this principle, the Tier 1 Community Level Community Advisory Committees and the Tier 2 Corridor Level Community Advisory Committee were established and provided with technical assistance in both highway design and meeting facilitation.

Findings

The OPC finds that the members of the Tier 1 and Tier 2 Committees far exceeded expectations in the strength of their commitment and dedication and the depth of their analysis. The OPC sincerely thanks the Tier 1 and Tier 2 members for their outstanding efforts and contributions to their communities.

Future Direction

1. The OPC requests that the Tier 2 report be forwarded in its entirety to the entity conducting the environmental scoping to be accepted as guidance to the preparation of the Environmental Impact Report/Environmental Impact Statement (EIR/EIS).
2. The OPC recommends that the environmental analysis include at a minimum the following elements called for by Tier 2: detailed review of air quality impacts of the proposed I-710 improvements, their health effects and potential mitigations; detailed review of noise impacts of the I-710 improvements and potential mitigations; detailed review of construction impacts of proposed I-710 improvements and potential mitigations; and analysis of the feasibility of alternative technologies for movement of goods in the corridor, including containerized cargo.
3. The OPC requests particular attention be paid to low-income communities and persons of color to ensure that they do not bear disproportionate impacts of the project and that benefits of the project accrue to Corridor communities.
4. The OPC advises any and all entities involved in conducting the EIR/EIS that it expects a full, objective and open-minded investigation of transportation needs and options and of environmental concerns, solutions and mitigations.

Recommended Action

It is recommended that the OPC forward the Tier 2 report in its entirety to be accepted as pre-scoping guidance to the preparation of the EIR/EIS.

ACTION TAKEN

Voted unanimously to forward the Tier 2 report in its entirety to be accepted as pre-scoping guidance to the preparation of the EIR/EIS.

November 18, 2004

Tier 2 Report and Recommendations for Community Improvements Independent of the Environmental Impact Report/Environmental Impact Statement

Background

In May, 2003, the OPC adopted five guiding principles to focus its efforts to fulfill its mission to complete an I-710 Major Corridor Study in accordance with state and federal rules and regulations governing major transportation investments.

In this process the OPC convened the Tier 1 and Tier 2 Community Advisory Committees.

The Tier 2 Committee in its final report summarized its priorities that:

1. This is a corridor –considerations go beyond infrastructure
2. Health is the overriding concern; and
3. Every action should be viewed as an opportunity for repair and improvement of the current situation

Findings

- The OPC embraces the Tier 2 Committee's broad vision for community improvement and renewal.
- At the same time, the OPC finds that numerous recommendations exceed the scope of the OPC's guiding principles and the scope of any transportation study or project that may result from the I-710 Major Corridor Study.
- In addition to transportation, health and air quality, the Tier 2 Final Report contains recommendations relating to economic development and job training, economic studies, cooperative planning among west coast ports, open space, landscaping and beautification, among others.
- While some aspects of these recommendations can be associated with any I-710 improvement project, the broader application of the recommendations should be incorporated into a separate document entitled "Additional Prospective I-710 Corridor Goals and Objectives"

Future Direction

In order to capitalize on those recommendations that prove to exceed the scope of any I-710 transportation improvement project, and ensure that the community vision they represent is not lost, the OPC urges the Gateway Cities Council of Governments to identify appropriate agencies, partnerships and vehicles to pursue these recommendations through advocacy, program development and other means and to periodically report to the community on these efforts.

Recommended Action

It is recommended that the OPC request the Gateway Cities Council of Governments to identify and pursue appropriate avenues to implement those Tier 2 recommendations that prove to exceed the scope of any I-710 transportation improvement project and report back to the community.

ACTION TAKEN

Voted unanimously to request the Gateway Cities Council of Governments to identify and pursue appropriate avenues to implement those Tier 2 recommendations that prove to exceed the scope of any I-710 transportation improvement project and report back to the community.

November 18, 2004

Tier 1 and Tier 2 Community Outreach Process

Background

In May 2003, the OPC adopted five guiding principles including:

Guiding Principle #5

Improve public participation in the development and consideration of alternatives and provide technical assistance to facilitate effective public participation.

To implement this principle, the Tier 1 Community Level Community Advisory Committees and the Tier 2 Corridor Level Community Advisory Committee were established and provided with technical assistance in both highway design and meeting facilitation.

Findings

- The OPC believes that its Tier 1 and Tier 2 process proved to be an effective method of community participation that recognized the importance of engaging the most impacted communities as well as a broader group of interests and that moved beyond community outreach to meaningful participation.
- The OPC believes that the recommendations of Tier 1 and Tier 2 were of great value to the major corridor Study and provided insights and solutions that could not have been achieved without them.

Future Direction

1. The OPC recommends that a collaborative and participative process for community engagement be developed to continue throughout the environmental analysis
2. The OPC recommends that particular attention be paid to inclusion of low-income communities and persons of color in the process, including appropriate language translation.

Recommended Action

It is recommended that the OPC request MTA and COG staff to suggest a process and structure for continuing community participation throughout the environmental analysis.

ACTION TAKEN

Voted unanimously to request MTA and COG staff to suggest a process and structure for continuing community participation throughout the environmental analysis.

APPENDIX V

***I-710 Corridor Study, Caltrans and FHWA
Report on Locally Preferred Strategy,
Caltrans, September 2004***

DEPARTMENT OF TRANSPORTATION

District 7
120 South Spring Street, Los Angeles, California 90012



September 1, 2004

Gateway Cities Council of Governments
Attn: Richard R. Powers
16401 Paramount Boulevard
Paramount, CA 90723

Dear Mr. Powers,

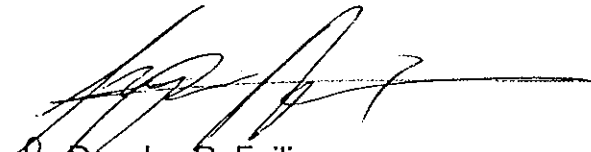
Thank you for giving the State of California, Department of Transportation (Department) the opportunity to review the Locally-preferred Strategy developed by your consultant regarding the I-710 Long Beach Freeway corridor expansion study. The Department is continuing to enjoy the partnership with Gateway Cities Council of Governments, Los Angeles County Metropolitan Transportation Authority (LACMTA) and Southern California Association of Governments (SCAG) in this Major Corridor study.

Attached is the report, which has preliminary comments from both the Department and the Federal Highway Administration (FHWA).

Please be assured that as we continue this study further, you will have full cooperation from the Department in resolving these issues or any other issue that might arise during the course of this study. FHWA has assured the Department that they will work in resolving their concerns regarding the Project as more information flows in.

Should you have any additional questions, please contact Tad Teferi, Deputy District Director, Division of Program/Project Management at (213) 897-0362.

Sincerely,



Douglas R. Failing
District Director, District 7

**I-710 CORRIDOR STUDY
CALTRANS AND FHWA REPORT ON
LOCALLY PREFERRED STRATEGY (LPS)**

The proposed concept (parallel “trucks only” facility with limited access) will add capacity, remove certain conflicts between trucks and PC’s and concentrate these conflicts at certain locations. These concentrated conflict points require special treatments that exceed current geometric standards. For example, the merge and weaving length along the segment of W/B 91 immediately to the west of 710 will necessitate ramp braiding or removal of the local exit ramp. Other locations need case by case analysis.

Local Interchange Configurations: The decision to employ SPI’s requires HQ approval and will be strongly resisted if other configurations are viable. R/W requirements and traffic volumes will be key factors in the decision making process.

Ramps that feature the merge or diverge of truck-only and PC traffic will not operate adequately unless revisions are studied and implemented (in some cases it may not be possible to overcome the operational or safety issues).

A few locations could not be reviewed due to the limitations of the layout plans. Example: proposed improvements in the vicinity of Atlantic are too complex to understand, color coding may be necessary; Preliminary profiles of the existing and proposed facilities are needed (like the segment between Shoemaker bridge and PCH). This would allow to analyze vertical clearance, vertical sight distance and grades of the proposed facilities, and find out about additional non-standard features the need to be addressed. Also, a better assessment of the constructability of the new facilities could be done, especially at the interchange locations.

Shorter weaving distances should be increased to at least 500 meters. The considerable percentage of trucks in this corridor makes weaving movements more complex and constrained. Shorter weaving distances in this type of traffic may compromise safety and operations. Optional lanes instead of mandatory lane should also be looked into as a strategy to minimize and improve weaving movements.

Truck volumes on all freeway entrance ramps should be determined and Ramps with significant truck volumes should be provided with auxiliary lanes.

The project should ensure that adequate acceleration lanes are provided especially in areas where the truck volume is high. Provide at least 50:1 convergence at the merge areas.

Feasibility Study of Northern Terminus Area – Improvements proposed in the hybrid alternative do not extend all the way up to the northern terminus of I-710 Corridor Study, which would include the I-710/I-5 Interchange and other regionally significant infrastructure. As such, we request that the lead agency currently developing a scope of work for the feasibility study coordinate closely with the Department prior to finalizing the scope, as well as throughout the study.

Traffic Modeling Report (Appendix A) Observation: The report indicates that the projected 2025 Level of Service (LOS) is “D” or better south of I-405 reaching LOS “F” north of I-105 (5 MF + 2 TL each direction). The Transportation Concept Report (TCR updated in 1999) indicates that 7 MF + 1 HOV (in each direction) are needed to attain LOS “D” between I-405 and SR-91 in the year 2020. Similarly, 10 MF + 1 HOV (in each direction) are needed for the segment between SR-91 and I-105. This is a major discrepancy between the 2020 TCR data and the I-710 year 2025 Traffic Modeling Report.

The Traffic Modeling report, which underlines the details in sizing the freeway concept improvement is not detailed enough to check the corresponding values provided in the report. We require the full traffic modeling analysis to fully assess the resulting LOS with the proposed 5 MF lanes and 2 dedicated truck lanes. We also anticipate full coordination with the currently on-going SR-47 Truck Expressway Project also being prepared by Meyer Mohaddes Associates.

Constructability Analysis between PCH and Willow Street (Appendix B) – This analysis has additional related issues. It is believed that the depressed section would be placed below the ground water table. Not only would special construction techniques be required, but based on our experience with the I-105 Freeway, there would be very serious maintainability issues as a result of the groundwater impact. One of the construction assumptions

is that the shoulders could be eliminated and then the adjacent land lowered in grade without having an impact to the adjacent lanes, which would not maintain any shoulder width (K-rail on the right and in the median). This assumption is very optimistic, as some sort of shoring, or slope would be needed to support the roadway during construction. In addition, this location might have ground water contamination issues and would have to be addressed. Whenever the depressed section is more than 1000 linear feet, the section should be considered as a tunnel section. Air circulation, fire extinguishing and other tunnel related issues have to be considered.

In addition, Plan Sheet 1, Section F-F, shows a soundwall that is constructed at grade and extended to above the elevated roadway. The wall height shown is far in excess of the maximum wall height of 16 feet. Soundwalls must be able to withstand various horizontal forces such as wind loads and seismic forces, which would limit wall heights to 16 feet. Special design methods have to be adopted for walls taller than 16 feet in height.

The proposal to cut into the levee may have a serious impact on the flood protections by the levee and have a negative impact to the adjacent community and on the river environment. This requires coordination with the Los Angeles County Flood Control District and the Army Corps of Engineers.

Plan Sheets – Lack of station lines, curve data, profile grades, etc. make the review very impractical at certain locations, hence we are not able to make any determination at this time as to any “fatal flaws”. However, as mentioned earlier we are able to offer the following general comments:

- The cantilever section of the elevated truck facility between Rosecrans Avenue and Alondra Boulevard causes safety concerns for the traffic underneath the freeway. At a minimum, a special bridge rail design may be needed.
- Locations of soundwalls as shown adjacent to vacant lands are questionable. On other Caltrans projects, we have faced controversy, where soundwalls were shown on conceptual plans, but actual detailed studies showed that such walls were not justified.
- The use of “Diamond” type interchanges to preserve right-of-way has led to modification of the existing interchanges (removing the existing loop

ramps). This may have negative consequences for the mainline and the local arterial as various turn movements are eliminated. We require the traffic analysis to evaluate the operation at the modified interchanges.

Plan Sheet 1 – As stated above, we have serious concerns on the assumptions made in reconstructing the section of I-710 between PCH and Willow Street.

The concept of having the truck lane beneath the mixed flow lanes between PCH and Willow St. may have potential environmental, safety and operational impacts. Evaluation should be made on how to mitigate potential problems such as truck emissions, traffic diversion and incident management.

PCH SB on-ramp (for autos) connection to the mainline is not clearly laid out.

Anaheim St. divergence from the mainline is not clearly laid out.

The proposed project does not provide any connector between 405 and 710 truck lanes. Considering that Route 405 is also a major corridor for commerce and trade, the need to provide access to and from the truck lanes for this interchange should be considered.

Plan Sheet 2 – There is a strong concern that the various braided ramps, in the vicinity of Del Amo Boulevard, both to and from Del Amo Boulevard along with the truck lane connection, may have grade and constructability issues. For example, the northbound I-710 mainline to northbound I-710 truckway connector must provide adequate vertical clearances at all locations where it crosses above or beneath another roadway. First, the connector must cross above/beneath the truckway, then over the *new* Del Amo Boulevard northbound off ramp, and then over Del Amo Boulevard itself. After crossing Del Amo Boulevard, the connector must then cross over the *new* northbound Del Amo on-ramp and then connect to the I-710 truckway at the truckway's elevation. This connection occurs over a relatively short distance causing a great concern that the longitudinal grade exceeds the maximum allowable grade. In addition, in the same area, the southbound truckway to southbound I-710 mainline connector would intersect the highway at a large skew. This would need various outriggers because of the span lengths potentially

interfering with the already constrained right-of-way width and complex ramp configurations.

Please provide at least 50:1 convergence at merge areas for the following:

NB405 to NB 710 and SB 710 to NB 405 connectors.

Plan Sheet 3 – The traffic study should discuss and analyze reason for not providing a connector from WB 91 to NB 710 truck lane.

Plan Sheet 6 – The adequacy of storage should be evaluated for new Florance Ave. NB on-ramp and SB off-ramp; SB off-ramp to EB Slauson Ave; and NB off-ramp to WB Slauson Ave. Sight distance needs have to be considered.

Plan Sheets 7 and 7A – The environmental document should address the impact of closing the Washington Boulevard/ Interchange and its impact to both the adjacent interchanges, the freeway mainline and the local arterial system.

The southbound I-710 connector merges with the northbound I-710 truckway connector (to the BNSF Rail Yard) on the left. As stated in Section 504.2(1) of the Caltrans Highway Design Manual, all freeway entrances and exits, except for direct HOV connectors, shall connect to the right of through traffic (**mandatory design standard**). Consideration should be given to eliminate this left-hand merge.

There is also a concern about multiple level of ramps, truckway and mainline at the Atlantic/Bandini Interchange. Unfortunately, we are unable to determine if acceptable grades could be maintained for the various ramps and connectors without profiles or spot elevations. This is important because of the number of trucks that would be impacted.

FHWA COMMENTS:

These comments are preliminary, and are made with the understanding that additional work including profiles, design year traffic (including turning movements), etc. need to be developed to determine interchange type, design requirements, and overall ability to build the proposed design concept, etc.

1. Please clarify which of the existing moves in the vicinity of the 9th-10th-Pico-B(8th) will be removed, and those that will remain.
2. Why is the off-ramp from the 9th Street hook on-ramp to NB route 710 needed? Cannot this access be provided by the local street system?
3. The following weaves involving trucks with mixed traffic appear to be problematic at the following interchange off-ramps: NB @ Anaheim St., SB @ Anaheim St., and SB @ PCH.
4. The connector weave of NB 710 to SB 405 with SB 710 to SB 405 at Pacific slip off appears to be problematic; consideration should be given to closing the slip to Pacific, thus eliminating this weave (access provided at Long Beach Blvd).
5. It appears that the outer (5th) lane of NB and SB 710 are separated from the interior lanes by structure columns, is this true? Does this violate design standards or best practices? How can this be avoided?
6. It appears that the NB 405 to NB 710 connector needs to be designed with an auxiliary lane at the connection to 710.
7. The proposed SB Atlantic Ave. on-ramp to SB 710 violates policy (partial interchange) and should be removed. Access provided to 710 via Alondra Blvd. and at SR-91.
8. The connector merges (including truck connector) from both NB and SB 710 to WB 91 are problematic. Suggest standard designs for merges and braiding of WB 91 off-ramp to Long Beach Blvd.
9. The NB off-ramp to Artesia Blvd. from the NB710 to EB 91 branch connector is problematic (violates policy and standards for successive gore spacing) and should be removed. (Adequate assess provided from 710 at Long Beach Blvd. and Alondra Blvd. and from 91 at Long Beach Blvd. and Atlantic Ave.)

10. The SB on-ramp from Artesia Blvd. to SB 710 is problematic (violates policy and standards) and should be removed. (Adequate access provided from 710 at Long Beach Blvd. and Alondra Blvd. and from 91 at Long Beach Blvd. and Atlantic Ave.)
11. The removal of EB 91 off-ramp to Cherry Ave. is problematic (violates policy by creating a partial interchange). Need to evaluate operations and options required to keep this ramp.
12. Need to clearly indicate new ramps and connections being proposed within and near the 710/105 interchange complexes. The proposed slip off-ramp from the i05 to SB 710 branch connector violates policy and should be removed. (Access provided from 105 at Long Beach Blvd. and Cherry Ave.)
13. The ability to achieve vertical clearances between the Rosecrans Ave. loop on-ramp to NB 710 and the NB 710 to 105 branch connector, within standards, should be re-affirmed. Also, the ability to place substructure supports for both the 710 NB off-ramp to Rosecrans Ave. and the Rosecrans Ave. loop on-ramp to 710 should be re-affirmed.
14. The ability to place substructure supports for the Truck way above the NB lanes of the 710 freeway, north of the 105/710 branch connector to near the NB 710 off-ramp to Imperial Highway, should be re-affirmed.
15. A new interchange is being added on 710 at Slauson Ave. Justification must be provided for this interchange, and approval received from FHWA.
16. The remaining portions of the 710 modifications north of Washington Blvd. should be provided for our review as soon as possible.
17. Once traffic volumes are available, it will be necessary to provide analysis of the operations of the freeway and interchanges including the weaving and merging sections and the intersection designs including storage on the ramps and at intersections, including turning movements. Approval of the Truck way and freeway additions and

modifications are dependant on this subsequent analysis, and additional modifications may be required.

18. On SB I710 near the southern end of the project, the weave is too short between the Anaheim Street on ramp and the downstream off ramp.
19. On SB I-710 the wave is too short between Alondra Blvd on ramp and WB 91 off ramp.
20. A non standard ramp entrance is noted on the plan to at EB 91 to SB I710. Will they at least get AASHTO minimum distance between two successive on ramps?
21. Non-standard lane widths and shoulder widths are noted throughout the Route 91 interchange. How non-standard are they? They should show a typical section for this area. Same comment for through I-105 interchange.
22. The Rosecrans off ramp has been connected to the I-105 direct connector, just after a merge. The connection to the direct connector is undesirable, especially since it creates a weave section only 882 feet long.
23. Other weave areas, and the project in general will have to be checked for acceptability once the traffic volumes are available.